

Technical Data

Original Instructions

PowerFlex 750-Series AC Drives

Catalog Numbers 20G, 20J

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Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes. Translated versions are not always available for each revision.

Topic	Page
PowerFlex 753 Product Selection tables added.	8...21
PowerFlex 755 Product Selection tables added.	22...50
Added Integrated Safety Functions option 20-750-S4 to the Functional Safety section of Certifications table.	51
Added drives manufactured before date of 6/28/2016) in Lloyds Registry section of Certifications table.	51
Updated Altitude section of Environmental Specifications table to clarify grounding requirements and to include IEC Standard reference.	52
Added IEC to the Atmospheric protection section of the Environmental Specifications table.	52
Changed Bus Overvoltage trip for 600V to 1013V DC (from 1167V DC) and Bus Overvoltage trip for 690V to 1172V DC (from 1167V DC) in the Technical Specifications table.	54
Added 20-750-S4, Integrated Safety Functions option module and description to the Safety Options section.	196...198
Added Door shielding kit information.	199
Added PowerFlex 750-Series Service Cart Conversion Kit information.	200
Updated Additional Resources table.	215

Product Overview

The PowerFlex 750-Series is a robust family of AC drives that provide ease of use, flexibility, and performance for various industrial applications. PowerFlex 753 drives provide general-purpose control for applications up to 400 Hp and 270 kW. PowerFlex 755 drives provide maximum flexibility and performance up to 2000 Hp and 1500 kW.

Maximize your productivity by taking advantage of these key features that are offered in the PowerFlex 750-Series drives:

- **DeviceLogix™** – Embedded control technology that supports the manipulation of discrete outputs and drive control functions, while using discrete inputs and drive status information onboard the drive.
- **Predictive Diagnostics** – Tracks information that affects the life of the drive cooling fans and relay outputs. The drive can also be programmed to monitor the runtime hours for machine or motor bearings.
- **Option Cards** – Each drive has a slot-based architecture. Supported hardware control options are available for both products, to help reduce your inventory and spare parts requirements.
- **Safe Torque Off, Safe Speed Monitor, Integrated Safety - Safe Torque Off, and Integrated Safety Functions Option** – Provides a choice for safety levels depending on your application requirements.
- **Communication** – The PowerFlex 755 drives come with a built-in Ethernet port. Ethernet can easily be added to the PowerFlex 753 drives with a communication module.
- **I/O** – Option cards are available for additional analog and digital I/O. The PowerFlex 753 drives come with built-in I/O that can also be expanded with option cards.
- **Packaging** – Factory and field-installable enclosure options are available to meet most environmental requirements. Options include Open Type and flange mount to support cabinet mount requirements, extra protection wall-mount for harsh environments, and debris hoods and conduit plate kits.
- **Standard Power Structure** – A common power structure is shared to provide the same physical size and power range.



PowerFlex 750-Series Drive Family

This section provides a brief introduction to the different PowerFlex 750-Series drives.



Wall Mount Frames 1...7

IP00/IP20, NEMA/UL Type Open Drive

Includes a DC link choke on all Frames and internal brake transistor, standard on Frames 1...5, and optional on Frames 6 and 7.



Floor Mount Frames 8...10

IP20, NEMA/UL Type 1 Drive (2500 MCC style cabinet)

Includes a DC link choke, integrated AC line fuses, and roll-out design. Hood that is shown on top of cabinets is optional. To order the hood, see [page 199](#) for information.



Floor Mount Frames 8...10

IP20, NEMA/UL Type 1 Drive with Options (2500 MCC style cabinet)

Includes a DC link choke, integrated AC line fuses, roll-out design, and option bay for control/protection devices.



Roll-out Design

(Frame 8 shown)

A roll-out cart is required for Frames 8...10 drives and Frame 9...10 option bay chassis. The roll-out cart has an adjustable curb height of 0...182 mm (0...7.2 in.) and curb offset/reach of 0...114 mm (0...4.5 in.).

See [page 200](#) for information to order the roll-out cart.

Catalog Number Explanation

1...3	4	5	6	7	8...10	11	12	13	14	15	16	17	18	
20G	1	A	N	D	248	A	A	O	N	N	N	N	N	LD - P3 - P11...
a	b	c	d	e	f1...f6	g	h	i						

Positions 14...18 are not used.

Drive		
Code	Type	Frames
20F	PowerFlex® 753	1...7
20G	PowerFlex 755	1...10
21G	PowerFlex 755 Drive with Options	8...10

Future Use		
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Input Type		
Code	Description	Frames
1	AC Input with Precharge, includes DC Terminals	1...5 8...10
4	DC Input with Precharge	5...10
A	AC Input with Precharge, no DC Terminals	6...8 ⁽¹⁾

- (1) The DC Bus Bar kit (20-750-DCBB1-Fx) is available for Frames 6...7 AC input drives that require DC bus terminals.

Enclosure		
Code	Description	Frames
R	IP20, NEMA/UL Type Open, Frame 1	1
F ⁽¹⁾	Flange (NEMA/UL Type 4X/12 back)	2...5
G	IP54, NEMA/UL Type 12	2...7
N ⁽²⁾	IP20/IP00, NEMA/UL Type Open	2...7
B ⁽³⁾	IP20, NEMA/UL Type 1, 600 mm (23.6 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
J ⁽³⁾	IP54, UL Type 12, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
K ⁽³⁾	IP54, NEMA 12, 2500 MCC Style Cabinet and Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
L ⁽³⁾	IP20, NEMA/UL Type 1, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
P ⁽³⁾	IP20, NEMA/UL Type 1, 2500 MCC Style Cabinet and Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
W ⁽³⁾	IP20, NEMA/UL Type 1, 2500 MCC Style Cabinet and Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, CenterLine 2100 Gray (ASA49)	8...10
Y ⁽³⁾	IP54, NEMA 12, 2500 MCC Style Cabinet and Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, CenterLine 2100 Gray (ASA49)	8...10
T	IP00, UL Open Type without Control POD	8...10

- (1) For Frames 6...7, a user installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.
 (2) Frames 2...5 are IP20, Frames 6...7 are IP00.
 (3) Available as a drive with options (21G).

Voltage Rating	
Code	Voltage
B	240V AC (208V AC) ⁽¹⁾ /325V DC (281V DC) ⁽¹⁾
C	400V AC/540V DC
D	480V AC/650V DC
E	600V AC/810V DC
F	690V AC/932V DC (not UL Listed)

- (1) Drive must be programmed to obtain low (208V AC) voltage rating.

ND Rating							
208V ⁽¹⁾ , 60 Hz Input							
Code	Amps	kW	Frame				
			Enclosure Code				
			B, J, L, T	F	G	N	K, P, W, Y, R
2P2	2.5	0.37					
4P2	4.8	0.75					
6P8	7.8	1.5					
9P6	11	2.2					
015	15.3	4					
2P2	2.5	0.37					
4P2	4.8	0.75					
6P8	7.8	1.5					
9P6	11	2.2					
015	17.5	4					
022	22	5.5					
028	32.2	7.5					
042	43	11					
054	60	15					
070	78.2	18.2					
080	92	22					
104	120	30					
130	150	37					
154	177	45					
192	221	55					
260	260	66					
312	359	90					
360	414	110					
477	477	132					

- (1) Drive must be programmed to obtain low (208VAC) voltage rating.
 (2) For Frames 6 and 7, a user-installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

ND Rating							
240V, 60 Hz Input							
Code	Amps	Hp	Frame				
			Enclosure Code				
			B, J, L, T	F	G	N	K, P, W, Y, R
2P2	2.2	0.5					
4P2	4.2	1					
6P8	6.8	2					
9P6	9.6	3					
015	15.3	5					
2P2	2.2	0.5					
4P2	4.2	1					
6P8	6.8	2					
9P6	9.6	3					
015	15.3	5					
022	22	7.5					
028	28	10					
042	42	15					
054	54	20					
070	70	25					
080	80	30					
104	104	40					
130	130	50					
154	154	60					
192	192	75					
260	260	100					
312	312	125					
360	360	150					
477	477	200					

- (1) For Frames 6 and 7, a user-installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

1...3	4	5	6	7	8...10	11	12	13	14	15	16	17	18	
20G	1	A	N	D	248	A	A	O	N	N	N	N	N	LD - P3 - P11...
a	b	c	d	e	f1...f6	g	h	i						

Positions 14...18 are not used.

f3

ND Rating								
400V, 50 Hz Input								
Code	Amps	kW	Frame					
			Enclosure Code					
			B, J, L, T	F	G	N	K, P, W, Y	R
2P1	2.1	0.75	-	2	2	2	-	1
3P5	3.5	1.5						
5P0	5.0	2.2						
8P7	8.7	4						
011	11.5	5.5						
015	15.4	7.5						
022	22	11						
030	30	15						
037	37	18.5						
043	43	22						
060	60	30						
072	72	37						
085	85	45						
104	104	55						
140	140	75						
170	170	90						
205	205	110						
260	260	132						
302	302	160						
367	367	200						
456	456	250						
460	460	250	8	-	-	-	8 ⁽²⁾	-
477	477	270	-	(1)	-	7	-	
540	540	315	8				8 ⁽²⁾	
567	567	315						
650	650	355						
750	750	400						
770	770	400						
910	910	500						
1K0	1040	560						
1K1	1090	630						
1K2	1175	710						
1K4	1465	800						
1K5	1480	850	9	-	-	-	9 ⁽²⁾	
1K6	1590	900						
2K1	2150	1250						

(1) For Frames 6...7, a user installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

(2) Available as a drive with options (21G).

f4

ND Rating								
480V, 60 Hz Input								
Code	Amps	Hp	Frame					
			Enclosure Code					
			B, J, L, T	F	G	N	K, P, W, Y	R
2P1	2.1	1	-	2	2	2	-	1
3P4	3.4	2						
5P0	5.0	3						
8P0	8.0	5						
011	11	7.5		3	3	3		
014	14	10						
022	22	15						
027	27	20						
034	34	25		4	4	4		
040	40	30						
052	52	40						
065	65	50						
077	77	60	5	5	5			
096	96	75						
125	125	100	(1)	6	6			
156	156	125						
186	186	150						
248	248	200		7	7			
302	302	250						
361	361	300						
415	415	350	8	-	-	8 ⁽²⁾		
430	430	350						
477	477	400						
485	485	400						
545	545	450	8	-	-	-	8 ⁽²⁾	
617	617	500						
710	710	600						
740	740	650						
800	800	700	9	-	-	-	9 ⁽²⁾	
960	960	800						
1K0	1045	900						
1K2	1135	1000						
1K3	1365	1100						
1K4	1420	1250						
1K5	1525	1350	10				10 ⁽²⁾	
2K0	2070	1750						

(1) For Frames 6...7, a user installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

(2) Available as a drive with options (21G).

f5

ND Rating									
600V, 60 Hz Input									
Code	Amps	Hp	Frame						
			Enclosure Code						
			B, J, L, T	F	G	N	K, P, W, Y	R	
1P7	1.7	1	-	3	3	3	-	-	
2P7	2.7	2							
3P9	3.9	3							
6P1	6.1	5							
9P0	9	7.5							
011	11	10							
012 ⁽¹⁾	12	10							
017	17	15							
018 ⁽¹⁾	18	15							
022	22	20							
023 ⁽¹⁾	23	20							
024 ⁽¹⁾	24	20							
027	27	25							
028 ⁽¹⁾	28	25							
032	32	30							
033 ⁽¹⁾	33	30							
041	41	40							
042 ⁽¹⁾	42	40							
052	52	50							
053 ⁽¹⁾	53	50							
063	63	60	(2)	6	6	-			
077	77	75							
099	99	100							
125	125	125							
144	144	150							
192	192	200							
242	242	250							
289	289	300							
295	295	300							
355	355	350							
395	395	400							
435	435	450							
460	460	500							
510	510	500							
595	595	600							
630	630	700							
760	760	800							
825	825	900							
900	900	950							
980	980	1000							
1K1	1110	1100	10				8 ⁽³⁾		
1K4	1430	1400					10 ⁽³⁾		

(1) Required for uncontrolled common DC bus applications. Optional for all AC applications.

(2) For Frames 6...7, a user installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

(3) Available as a drive with options (21G).

1...3	4	5	6	7	8...10	11	12	13	14	15	16	17	18	
20G	1	A	N	D	248	A	A	O	N	N	N	N	N	LD - P3 - P11...
a	b	c	d	e	f1...f6	g	h	i	Positions 14...18 are not used.					

f6									
ND Rating									
690V, 50 Hz Input (not UL Listed)									
Code	Amps	kW	Frame						
			Enclosure Code						
			B, J, L, T	F	G	N	K, P, W, Y	R	
012	12	7.5	(1)		6	6			
015	15	11							
020	20	15							
023	23	18.5							
030	30	22							
034	34	30							
046	46	37							
050	50	45							
061	61	55							
082	82	75							
098	98	90							
119	119	110							
142	142	132							
171	171	160							
212	212	200			7	7			
263	263	250	8				8 ⁽²⁾		
265	265	250							
330	330	315							
370	370	355							
415	415	400							
460	460	450							
500	500	500	9				9 ⁽²⁾		
590	590	560							
650	650	630							
710	710	710							
765	765	750							
795	795	800							
960	960	900	10				10 ⁽²⁾		
1K0	1040	1000							
1K4	1400	1400							

- (1) For Frames 6...7, a user installed flange kit (20-750-FLNG4-Fx) is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.
- (2) Available as a drive with options (21G).

g		
Filtering and CM Cap Configuration		
Code	Filtering	Default CM Cap Connection
A	Yes	Jumper Removed
J	Yes	Jumper Installed

h		
Dynamic Braking ⁽¹⁾		
Code	Internal Resistor ⁽²⁾	Internal Transistor ⁽³⁾
A	No	Yes
N	No	No

- (1) Not available on Frames 8...10, specify Code 'N'.
- (2) Frames 1...2 only. Internal Resistor kits (20-750-DB1-Dx) sold separately.
- (3) Standard on Frames 1...5, optional on 6...7.

i	
Door Mounted HIM (Frames 8...10)	
Code	Operator Interface
0	No Door Mounted HIM
2	Enhanced LCD, Full Numeric, IP20
4	Enhanced LCD, Full Numeric, IP66 NEMA Type 4X/12

PowerFlex 755 w/Options (21G)

Required Selections

Code	Option	Frames	Type
LD	Light Duty	8...10	System Overload Duty Cycle ⁽¹⁾
ND	Normal Duty		
HD	Heavy Duty		
P3	Input Thermal-magnetic Circuit Breaker	8...10	Power Disconnect ⁽¹⁾
P5	Input Non-Fused Molded Case Disconnect Switch	8 Only	
P14	Wiring Only Bay	8...10	Wiring Only Bay

- (1) Only one option of this type can be selected.

PowerFlex 755 w/Options (21G)

Additional Selections

Code	Option	Frames	Type
P11	Input Contactor	8 Only	Contactors ⁽¹⁾⁽²⁾
P12	Output Contactor		
L1	3% Input Reactor	8...9	Reactors ⁽¹⁾
L2	3% Output Reactor		
L3	5% Input Reactor		
L4	5% Output Reactor	8 Only	
P20	1200 A Bus	8...10	MCC Power Bus Capacity ⁽¹⁾
P22	2000 A Bus		
P24	3000 A Bus		
P30	UPS Control Bus, DC Input w/Precharge only	8...10	UPS Control Bus
X1	Auxiliary Transformer (500VA available), IP20 Cabinet Only	8 Only ⁽³⁾	Auxiliary Power

- (1) Only one option of this type can be selected.
- (2) Contactor options are not available for systems with MCC power bus.
- (3) Standard on all other cabinet configurations.

Product Selection—PowerFlex 753

200...240V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty					Heavy Duty					Cat. No. ^{(3) (4)}	Frame Size
Output Amps: 240V (208V) ⁽²⁾			HP	kW	Output Amps: 240V (208V) ⁽²⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	2.4 (2.7)	3.3 (3.7)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20F11RB2P2JA0NNNNN	1
4.2 (4.8)	4.6 (5.2)	6.3 (7.2)	1	0.75	2.2(2.5)	4.6 (5.2)	6.3 (7.2)	0.5	0.37	20F11RB4P2JA0NNNNN	
6.8 (7.8)	7.4 (8.5)	10.2 (11.7)	2	1.5	4.2 (4.8)	7.4 (8.5)	10.2 (11.7)	1	0.75	20F11RB6P8JA0NNNNN	
9.6 (11)	10.5 (12.1)	14.4 (16.5)	3	2.2	6.8 (7.8)	10.5 (12.1)	14.4 (16.5)	2	1.5	20F11RB9P6JA0NNNNN	
15.3 (15.3)	16.8 (16.8)	22.9 (22.9)	5	4	9.6 (11)	16.8 (16.8)	22.9 (22.9)	3	2.2	20F11RB015JA0NNNNN	
2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20F11NB2P2JA0NNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20F11NB4P2JA0NNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20F11NB6P8JA0NNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20F11NB9P6JA0NNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20F11NB015JA0NNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20F11NB022JA0NNNNN	3
28 (32.2)	30.8 (35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20F11NB028JA0NNNNN	
42 (43)	46.2(47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20F11NB042JA0NNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20F11NB054JA0NNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20F11NB070JA0NNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20F11NB080JA0NNNNN	
104 (120)	114 (132)	156 (180)	40	30	80 (92)	120 (138)	156 (180)	30	22	20F1ANB104JNONNNNN ⁽⁵⁾	6
130 (150)	143 (165)	195 (225)	50	37	104 (120)	156 (180)	195 (225)	40	30	20F1ANB130JNONNNNN ⁽⁵⁾	
154 (177)	169 (194)	231 (265)	60	45	130 (150)	195 (225)	234 (270)	50	37	20F1ANB154JNONNNNN ⁽⁵⁾	
192 (221)	211 (243)	288 (331)	75	55	154 (177)	231 (265)	288 (331)	60	45	20F1ANB192JNONNNNN ⁽⁵⁾	
260 (260)	286 (286)	390 (390)	100	66	192 (221)	288 (331)	390 (390)	75	55	20F1ANB260JNONNNNN ⁽⁵⁾	
312 (359)	343 (394)	468 (538)	125	90	260 (260)	390 (394)	468 (538)	100	66	20F1ANB312JNONNNNN ⁽⁵⁾	7
360 (414)	396 (455)	540 (621)	150	110	312 (359)	468 (538)	561 (646)	125	90	20F1ANB360JNONNNNN ⁽⁵⁾	
477 (477)	524 (524)	715 (715)	200	132	312 (359)	468 (538)	561 (646)	125	90	20F1ANB477JNONNNNN ⁽⁵⁾	

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

200...240V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Normal Duty					Heavy Duty					Cat. No. ^{(2) (3)}	Frame Size
Output Amps: 240V (208V) ⁽¹⁾			HP	kW	Output Amps: 240V (208V) ⁽¹⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	3.3 (3.8)	4 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20F11GB2P2JA0NNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20F11GB4P2JA0NNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20F11GB6P8JA0NNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20F11GB9P6JA0NNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20F11GB015JA0NNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20F11GB022JA0NNNNN	
28 (32.2)	30.8(35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20F11GB028JA0NNNNN	3
42 (43)	46.2 (47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20F11GB042JA0NNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20F11GB054JA0NNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20F11GB070JA0NNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20F1AGB080JN0NNNNN ⁽⁴⁾	6
104 (120)	114 (132)	156 (180)	40	30	80 (92)	120 (138)	156 (180)	30	22	20F1AGB104JN0NNNNN ⁽⁴⁾	
130 (150)	143 (165)	195 (225)	50	37	104 (120)	156 (180)	195 (225)	40	30	20F1AGB130JN0NNNNN ⁽⁴⁾	
154 (177)	169 (194)	231 (265)	60	45	130 (150)	195 (225)	234 (270)	50	37	20F1AGB154JN0NNNNN ⁽⁴⁾	
192 (221)	211 (243)	288 (331)	75	55	154 (177)	231 (265)	288 (331)	60	45	20F1AGB192JN0NNNNN ⁽⁴⁾	
260 (260)	286 (286)	390 (390)	100	66	192 (221)	288 (331)	390 (390)	75	55	20F1AGB260JN0NNNNN ⁽⁴⁾	
312 (359)	343 (394)	468 (538)	125	90	260 (260)	390 (394)	468 (538)	100	66	20F1AGB312JN0NNNNN ⁽⁴⁾	7
360 (414)	396 (455)	540 (621)	150	110	312 (359)	468 (538)	561 (646)	125	90	20F1AGB360JN0NNNNN ⁽⁴⁾	

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

200...240V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 8 for 200...240V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty					Heavy Duty					Cat. No. ^{(2) (3)}	Frame Size
Output Amps: 240V (208V) ⁽¹⁾			HP	kW	Output Amps: 240V (208V) ⁽¹⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20F11FB2P2JA0NNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20F11FB4P2JA0NNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20F11FB6P8JA0NNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20F11FB9P6JA0NNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20F11FB015JA0NNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20F11FB022JA0NNNNN	
28 (32.2)	30.8 (35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20F11FB028JA0NNNNN	3
42 (43)	46.2 (47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20F11FB042JA0NNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20F11FB054JA0NNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20F11FB070JA0NNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20F11FB080JA0NNNNN	

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

380...400V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	2.3	3.2	0.75	1.3	2.3	3.2	0.37	20F11RC2P1JA0NNNNNN	1
3.5	3.9	5.3	1.5	2.1	3.9	5.3	0.75	20F11RC3P5JA0NNNNNN	
5	5.5	7.5	2.2	3.5	5.5	7.5	1.5	20F11RC5P0JA0NNNNNN	
8.7	9.6	13.1	4	5	9.6	13.1	2.2	20F11RC8P7JA0NNNNNN	
11.5	13.1	17.3	5.5	8.7	13.1	17.3	4	20F11RC011JA0NNNNNN	
15.4	16.9	23.1	7.5	11.5	17.2	23.1	5.5	20F11RC015JA0NNNNNN	
2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20F11NC2P1JA0NNNNNN	2
3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20F11NC3P5JA0NNNNNN	
5	7.5	9	2.2	5	7.5	9	2.2	20F11NC5P0JA0NNNNNN	
8.7	13	15.6	4	8.7	13.0	15.6	4	20F11NC8P7JA0NNNNNN	
11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20F11NC011JA0NNNNNN	
15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20F11NC015JA0NNNNNN	
22	24.2	33	11	15.4	24.2	33	7.5	20F11NC022JA0NNNNNN	3
30	33	45	15	22	33	45	11	20F11NC030JA0NNNNNN	
37	40.7	55.5	18.5	30	45	55.5	15	20F11NC037JA0NNNNNN	
43	47.3	64.5	22	37	55.5	66.6	18.5	20F11NC043JA0NNNNNN	
60	66	90	30	43	66	90	22	20F11NC060JA0NNNNNN	4
72	79.2	108	37	60	90	108	30	20F11NC072JA0NNNNNN	
85	93.5	128	45	72	108	130	37	20F11NC085JA0NNNNNN	5
104	114	156	55	85	128	156	45	20F11NC104JA0NNNNNN	
140	154	210	75	104	156	210	55	20F1ANC140JNONNNNNN ⁽⁴⁾	6
170	187	255	90	140	210	255	75	20F1ANC170JNONNNNNN ⁽⁴⁾	
205	226	308	110	170	255	308	90	20F1ANC205JNONNNNNN ⁽⁴⁾	
260	286	390	132	205	308	390	110	20F1ANC260JNONNNNNN ⁽⁴⁾	
302	332	453	160	260	390	468	132	20F1ANC302JNONNNNNN ⁽⁴⁾	7
367	404	551	200	302	453	551	160	20F1ANC367JNONNNNNN ⁽⁴⁾	
456	502	684	250	367	551	684	200	20F1ANC456JNONNNNNN ⁽⁴⁾	
477	525	716	270	367	551	684	200	20F1ANC477JNONNNNNN ⁽⁴⁾	

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

380...400V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20F11GC2P1JA0NNNNN	2
3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20F11GC3P5JA0NNNNN	
5	7.5	9	2.2	5	7.5	9	2.2	20F11GC5P0JA0NNNNN	
8.7	13	15.6	4	8.7	13	15.6	4	20F11GC8P7JA0NNNNN	
11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20F11GC011JA0NNNNN	
15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20F11GC015JA0NNNNN	
22	24.2	33	11	15.4	24.2	33	7.5	20F11GC022JA0NNNNN	
30	33	45	15	22	33	45	11	20F11GC030JA0NNNNN	3
37	40.7	55.5	18.5	30	45	55.5	15	20F11GC037JA0NNNNN	
43	47.3	64.5	22	37	55.5	66.6	18.5	20F11GC043JA0NNNNN	
60	66	90	30	43	66	90	22	20F11GC060JA0NNNNN	4
72	79.2	108	37	60	90	108	30	20F11GC072JA0NNNNN	5
85	93.5	128	45	72	108	130	37	20F11GC085JA0NNNNN	
104	114	156	55	85	128	156	45	20F1AGC104JN0NNNNN ⁽³⁾	6
140	154	210	75	104	156	210	55	20F1AGC140JN0NNNNN ⁽³⁾	
170	187	255	90	140	210	255	75	20F1AGC170JN0NNNNN ⁽³⁾	
205	226	308	110	170	255	308	90	20F1AGC205JN0NNNNN ⁽³⁾	
260	286	390	132	205	308	390	110	20F1AGC260JN0NNNNN ⁽³⁾	7
302	332	453	160	260	390	468	132	20F1AGC302JN0NNNNN ⁽³⁾	
367	404	551	200	302	453	551	160	20F1AGC367JN0NNNNN ⁽³⁾	
456	502	684	250	367	551	684	200	20F1AGC456JN0NNNNN ⁽³⁾	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

380...400V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page [11](#) for 380...400V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty			Heavy Duty					Cat. No. ^{(1) (2)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20F11FC2P1JA0NNNNN	2
3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20F11FC3P5JA0NNNNN	
5	7.5	9	2.2	5	7.5	9	2.2	20F11FC5P0JA0NNNNN	
8.7	13	15.6	4	8.7	13	15.6	4	20F11FC8P7JA0NNNNN	
11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20F11FC011JA0NNNNN	
15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20F11FC015JA0NNNNN	
22	24.2	33	11	15.4	24.2	33	7.5	20F11FC022JA0NNNNN	
30	33	45	15	22	33	45	11	20F11FC030JA0NNNNN	3
37	40.7	55.5	18.5	30	45	55.5	15	20F11FC037JA0NNNNN	
43	47.3	64.5	22	37	55.5	66.6	18.5	20F11FC043JA0NNNNN	
60	66	90	30	43	66	90	22	20F11FC060JA0NNNNN	4
72	79.2	108	37	60	90	108	30	20F11FC072JA0NNNNN	
85	93.5	128	45	72	108	130	37	20F11FC085JA0NNNNN	5
104	114	156	55	85	128	156	45	20F11FC104JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

460...480V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	2.3	3.2	1	1.1	2.3	3.2	0.5	20F11RD2P1JA0NNNNNN	1
3.4	3.7	5.1	2	2.8	4.2	5.1	1	20F11RD3P4JA0NNNNNN	
5	5.5	7.5	3	3.4	5.5	7.5	2	20F11RD5P0JA0NNNNNN	
8	8.8	12	5	5	8.8	12	3	20F11RD8P0JA0NNNNNN	
11	12.1	16.5	7.5	8	12.1	16.5	5	20F11RD011JA0NNNNNN	
14	15.4	21	10	11	16.5	21	7.5	20F11RD014JA0NNNNNN	
2.1	3.1	3.7	1	2.1	3.1	3.7	1	20F11ND2P1JA0NNNNNN	2
3.4	5.1	6.1	2	3.4	5.1	6.1	2	20F11ND3P4JA0NNNNNN	
5	7.5	9	3	5	7.5	9	3	20F11ND5P0JA0NNNNNN	
8	12	14.4	5	8	12	14.4	5	20F11ND8P0JA0NNNNNN	
11	16.5	19.8	7.5	11	16.5	19.8	7.5	20F11ND011JA0NNNNNN	
14	15.4	21	10	11	16.5	21	7.5	20F11ND014JA0NNNNNN	
22	24.2	33	15	14	24.2	33	10	20F11ND022JA0NNNNNN	3
27	29.7	40.5	20	22	33	40.5	15	20F11ND027JA0NNNNNN	
34	37.4	51	25	27	40.5	51	20	20F11ND034JA0NNNNNN	
40	44	60	30	34	51	61.2	25	20F11ND040JA0NNNNNN	4
52	57.2	78	40	40	60	78	30	20F11ND052JA0NNNNNN	
65	71.5	97.5	50	52	78	97.5	40	20F11ND065JA0NNNNNN	5
77	84.7	116	60	65	97.5	116	50	20F11ND077JA0NNNNNN	
96	106	144	75	77	116	144	60	20F11ND096JA0NNNNNN	
125	138	188	100	96	144	188	75	20F1AND125JNONNNNN ⁽⁴⁾	6
156	172	234	125	125	188	234	100	20F1AND156JNONNNNN ⁽⁴⁾	
186	205	279	150	156	234	281	125	20F1AND186JNONNNNN ⁽⁴⁾	
248	273	372	200	186	279	372	150	20F1AND248JNONNNNN ⁽⁴⁾	
302	332	453	250	248	372	453	200	20F1AND302JNONNNNN ⁽⁴⁾	7
361	397	542	300	302	453	535	250	20F1AND361JNONNNNN ⁽⁴⁾	
415	457	623	350	361	542	650	300	20F1AND415JNONNNNN ⁽⁴⁾	
477	525	716	400	361	542	650	300	20F1AND477JNONNNNN ⁽⁴⁾	

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

460...480V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	1	2.1	3.1	3.7	1	20F11GD2P1JA0NNNNN	2
3.4	5.1	6.1	2	3.4	5.1	6.1	2	20F11GD3P4JA0NNNNN	
5	7.5	9	3	5	7.5	9	3	20F11GD5P0JA0NNNNN	
8	12	14.4	5	8	12	14.4	5	20F11GD8P0JA0NNNNN	
11	16.5	19.8	7.5	11	16.5	19.8	7.5	20F11GD011JA0NNNNN	
14	15.4	21	10	11	16.5	21	7.5	20F11GD014JA0NNNNN	
22	24.2	33	15	14	24.2	33	10	20F11GD022JA0NNNNN	
27	29.7	40.5	20	22	33	40.5	15	20F11GD027JA0NNNNN	3
34	37.4	51	25	27	40.5	51	20	20F11GD034JA0NNNNN	
40	44	60	30	34	51	61.2	25	20F11GD040JA0NNNNN	
52	57.2	78	40	40	60	78	30	20F11GD052JA0NNNNN	4
65	71.5	97.5	50	52	78	97.5	40	20F11GD065JA0NNNNN	5
77	84.7	116	60	65	97.5	116	50	20F11GD077JA0NNNNN	
96	106	144	75	77	116	144	60	20F1AGD096JNONNNNN ⁽³⁾	6
125	138	188	100	96	144	188	75	20F1AGD125JNONNNNN ⁽³⁾	
156	172	234	125	125	188	234	100	20F1AGD156JNONNNNN ⁽³⁾	
186	205	279	150	156	234	281	125	20F1AGD186JNONNNNN ⁽³⁾	
248	273	372	200	186	279	372	150	20F1AGD248JNONNNNN ⁽³⁾	7
302	332	453	250	248	372	453	200	20F1AGD302JNONNNNN ⁽³⁾	
361	397	542	300	302	453	535	250	20F1AGD361JNONNNNN ⁽³⁾	
415	457	623	350	361	542	650	300	20F1AGD415JNONNNNN ⁽³⁾	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

460...480V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 14 for 480V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty			Heavy Duty					Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	1	2.1	3.1	3.7	1	20F11FD2P1JA0NNNNN	2
3.4	5.1	6.1	2	3.4	5.1	6.1	2	20F11FD3P4JA0NNNNN	
5	7.5	9	3	5	7.5	9.0	3	20F11FD5P0JA0NNNNN	
8	12	14.4	5	8	12	14.4	5	20F11FD8P0JA0NNNNN	
11	16.5	19.8	7.5	11	16.5	19.8	7.5	20F11FD011JA0NNNNN	
14	15.4	21	10	11	16.5	21	7.5	20F11FD014JA0NNNNN	
22	24.2	33	15	14	24.2	33	10	20F11FD022JA0NNNNN	
27	29.7	40.5	20	22	33	40.5	15	20F11FD027JA0NNNNN	3
34	37.4	51	25	27	40.5	51	20	20F11FD034JA0NNNNN	
40	44	60	30	34	51	61.2	25	20F11FD040JA0NNNNN	
52	57.2	78	40	40	60	78	30	20F11FD052JA0NNNNN	4
65	71.5	97.5	50	52	78	97.5	40	20F11FD065JA0NNNNN	
77	84.7	116	60	65	97.5	116	50	20F11FD077JA0NNNNN	5
96	106	144	75	77	116	144	60	20F11FD096JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

575...600V AC, Three-phase Drives

Frames 3, 4, and 5 are only 575...600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 575...600V or 660...690V AC.

Important: Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
1.7	1.9	2.6	1	1.7	1.4	2.6	1	20F11NE1P7JA0NNNNN	3
2.7	3	4.1	2	1.7	2.6	4.1	1	20F11NE2P7JA0NNNNN	
3.9	4.29	5.85	3	2.7	4.1	5.9	2	20F11NE3P9JA0NNNNN	
6.1	6.7	9.2	5	3.9	5.9	9.2	3	20F11NE6P1JA0NNNNN	
9	9.9	13.5	7.5	6.1	9.2	13.5	5	20F11NE9P0JA0NNNNN	
11	12.1	16.5	10	9	13.5	16.5	7.5	20F11NE011JA0NNNNN	
17	18.7	25.5	15	11	16.5	25.5	10	20F11NE017JA0NNNNN	
22	24.2	33	20	17	25.5	33	15	20F11NE022JA0NNNNN	
27	29.7	40.5	25	22	33	40.5	20	20F11NE027JA0NNNNN	4
32	35.2	48	30	27	40.5	48.6	25	20F11NE032JA0NNNNN	
41	45.1	61.5	40	32	48	61.5	30	20F11NE041JA0NNNNN	5
52	57.2	78	50	41	61.5	78	40	20F11NE052JA0NNNNN	
12	13.2	18	10	9.1	13.7	18	7.5	20F1ANE012JN0NNNNN ⁽⁴⁾	6
18	19.8	27	15	12	18	27	10	20F1ANE018JN0NNNNN ⁽⁴⁾	
23	25.3	34.5	20	18	27	34.5	15	20F1ANE023JN0NNNNN ⁽⁴⁾	
24	26.4	36	20	22	33	39.6	20	20F1ANE024JN0NNNNN ⁽⁴⁾	
28	30.8	42	25	23	34.5	42	20	20F1ANE028JN0NNNNN ⁽⁴⁾	
33	36.3	49.5	30	28	42	50.4	25	20F1ANE033JN0NNNNN ⁽⁴⁾	
42	46.2	63	40	33	49.5	63	30	20F1ANE042JN0NNNNN ⁽⁴⁾	
53	58	80	50	42	63	80	40	20F1ANE053JN0NNNNN ⁽⁴⁾	
63	69	95	60	52	78	95	50	20F1ANE063JN0NNNNN ⁽⁴⁾	
77	85	116	75	63	95	116	60	20F1ANE077JN0NNNNN ⁽⁴⁾	
99	109	149	100	77	116	149	75	20F1ANE099JN0NNNNN ⁽⁴⁾	
125	138	188	125	99	149	188	100	20F1ANE125JN0NNNNN ⁽⁴⁾	
144	158	216	150	125	188	225	125	20F1ANE144JN0NNNNN ⁽⁴⁾	
192	211	288	200	144	216	288	150	20F1ANE192JN0NNNNN ⁽⁴⁾	7
242	266	363	250	192	288	363	200	20F1ANE242JN0NNNNN ⁽⁴⁾	
289	318	434	300	242	363	436	250	20F1ANE289JN0NNNNN ⁽⁴⁾	

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

575...600V AC, Three-phase Drives (Continued)

Frames 3, 4, and 5 are only 575...600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 575...600 V or 660...690V AC.

IP54, NEMA/UL Type 12

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
1.7	1.9	2.6	1	1.7	1.4	2.6	1	20F11GE1P7JA0NNNNN	3
2.7	3	4.1	2	1.7	2.6	4.1	1	20F11GE2P7JA0NNNNN	
3.9	4.29	5.85	3	2.7	4.1	5.9	2	20F11GE3P9JA0NNNNN	
6.1	6.7	9.2	5	3.9	5.9	9.2	3	20F11GE6P1JA0NNNNN	
9	9.9	13.5	7.5	6.1	9.2	13.5	5	20F11GE9P0JA0NNNNN	
11	12.1	16.5	10	9	13.5	16.5	7.5	20F11GE011JA0NNNNN	
17	18.7	25.5	15	11	16.5	25.5	10	20F11GE017JA0NNNNN	
22	24.2	33	20	17	25.5	33	15	20F11GE022JA0NNNNN	
27	29.7	40.5	25	22	33	40.5	20	20F11GE027JA0NNNNN	4
32	35.2	48	30	27	40.5	48.6	25	20F11GE032JA0NNNNN	
41	45.1	61.5	40	32	48	61.5	30	20F11GE041JA0NNNNN	5
12	13.2	18	10	9.1	13.7	18	7.5	20F1AGE012JN0NNNNN ⁽³⁾	6
18	19.8	27	15	12	18	27	10	20F1AGE018JN0NNNNN ⁽³⁾	
23	25.3	34.5	20	18	27	34.5	15	20F1AGE023JN0NNNNN ⁽³⁾	
24	26.4	36	20	22	33	39.6	20	20F1AGE024JN0NNNNN ⁽³⁾	
28	30.8	42	25	23	34.5	42	20	20F1AGE028JN0NNNNN ⁽³⁾	
33	36.3	49.5	30	28	42	50.4	25	20F1AGE033JN0NNNNN ⁽³⁾	
42	46.2	63	40	33	49.5	63	30	20F1AGE042JN0NNNNN ⁽³⁾	
53	58	80	50	42	63	80	40	20F1AGE053JN0NNNNN ⁽³⁾	
63	69	95	60	52	78	95	50	20F1AGE063JN0NNNNN ⁽³⁾	
77	85	116	75	63	95	116	60	20F1AGE077JN0NNNNN ⁽³⁾	
99	109	149	100	77	116	149	75	20F1AGE099JN0NNNNN ⁽³⁾	
125	138	188	125	99	149	188	100	20F1AGE125JN0NNNNN ⁽³⁾	
144	158	216	150	125	188	225	125	20F1AGE144JN0NNNNN ⁽³⁾	
192	211	288	200	144	216	288	150	20F1AGE192JN0NNNNN ⁽³⁾	7
242	266	363	250	192	288	363	200	20F1AGE242JN0NNNNN ⁽³⁾	
289	318	434	300	242	363	436	250	20F1AGE289JN0NNNNN ⁽³⁾	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

600V AC, Three-phase Drives

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

Important: Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 17 for 600V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
1.7	1.9	2.6	1	1.7	1.4	2.6	1	20F11FE1P7JA0NNNNN	3
2.7	3	4.1	2	1.7	2.6	4.1	1	20F11FE2P7JA0NNNNN	
3.9	4.29	5.85	3	2.7	4.1	5.9	2	20F11FE3P9JA0NNNNN	
6.1	6.7	9.2	5	3.9	5.9	9.2	3	20F11FE6P1JA0NNNNN	
9	9.9	13.5	7.5	6.1	9.2	13.5	5	20F11FE9P0JA0NNNNN	
11	12.1	16.5	10	9	13.5	16.5	7.5	20F11FE011JA0NNNNN	
17	18.7	25.5	15	11	16.5	25.5	10	20F11FE017JA0NNNNN	
22	24.2	33	20	17	25.5	33	15	20F11FE022JA0NNNNN	
27	29.7	40.5	25	22	33	40.5	20	20F11FE027JA0NNNNN	4
32	35.2	48	30	27	40.5	48.6	25	20F11FE032JA0NNNNN	
41	45.1	61.5	40	32	48	61.5	30	20F11FE041JA0NNNNN	5
52	57.2	78.0	50	41	61.5	78	40	20F11FE052JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

690V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
12	13.2	18	7.5	9	13.5	18	5.5	20F1ANF012JNONNNNN ⁽⁴⁾	6
15	16.5	22.5	11	12	18	22.5	7.5	20F1ANF015JNONNNNN ⁽⁴⁾	
20	22	30	15	15	22.5	30	11	20F1ANF020JNONNNNN ⁽⁴⁾	
23	25.3	34.5	18.5	20	30	36	15	20F1ANF023JNONNNNN ⁽⁴⁾	
30	33	45	22	23	34.5	45	18.5	20F1ANF030JNONNNNN ⁽⁴⁾	
34	37.4	51	30	30	45	54	22	20F1ANF034JNONNNNN ⁽⁴⁾	
46	50.6	69	37	34	51	69	30	20F1ANF046JNONNNNN ⁽⁴⁾	
50	55	75	45	46	69	83	37	20F1ANF050JNONNNNN ⁽⁴⁾	
61	67	92	55	50	75	92	45	20F1ANF061JNONNNNN ⁽⁴⁾	
82	90	123	75	61	92	123	55	20F1ANF082JNONNNNN ⁽⁴⁾	
98	108	147	90	82	123	148	75	20F1ANF098JNONNNNN ⁽⁴⁾	
119	131	179	110	98	147	179	90	20F1ANF119JNONNNNN ⁽⁴⁾	
142	156	213	132	119	179	214	110	20F1ANF142JNONNNNN ⁽⁴⁾	
171	188	257	160	142	213	257	132	20F1ANF171JNONNNNN ⁽⁴⁾	7
212	233	318	200	171	257	318	160	20F1ANF212JNONNNNN ⁽⁴⁾	
263	289	395	250	212	318	395	200	20F1ANF263JNONNNNN ⁽⁴⁾	

(1) Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

690V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Normal Duty			Heavy Duty					Cat. No. ^{(1) (2)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
12	13.2	18	7.5	9	13.5	18	5.5	20F1AGF012JNONNNNN ⁽³⁾	6
15	16.5	22.5	11	12	18	22.5	7.5	20F1AGF015JNONNNNN ⁽³⁾	
20	22	30	15	15	22.5	30	11	20F1AGF020JNONNNNN ⁽³⁾	
23	25.3	34.5	18.5	20	30	36	15	20F1AGF023JNONNNNN ⁽³⁾	
30	33	45	22	23	34.5	45	18.5	20F1AGF030JNONNNNN ⁽³⁾	
34	37.4	51	30	30	45	54	22	20F1AGF034JNONNNNN ⁽³⁾	
46	50.6	69	37	34	51	69	30	20F1AGF046JNONNNNN ⁽³⁾	
50	55	75	45	46	69	83	37	20F1AGF050JNONNNNN ⁽³⁾	
61	67	92	55	50	75	92	45	20F1AGF061JNONNNNN ⁽³⁾	
82	90	123	75	61	92	123	55	20F1AGF082JNONNNNN ⁽³⁾	
98	108	147	90	82	123	148	75	20F1AGF098JNONNNNN ⁽³⁾	
119	131	179	110	98	147	179	90	20F1AGF119JNONNNNN ⁽³⁾	
142	156	213	132	119	179	214	110	20F1AGF142JNONNNNN ⁽³⁾	
171	188	257	160	142	213	257	132	20F1AGF171JNONNNNN ⁽³⁾	7
212	233	318	200	171	257	318	160	20F1AGF212JNONNNNN ⁽³⁾	
263	289	395	250	212	318	395	200	20F1AGF263JNONNNNN ⁽³⁾	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7). See page [20](#) for 690V, Frame 6...7 IP00, NEMA Type Open drives.

Product Selection—PowerFlex 755

200...240V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Normal Duty					Heavy Duty					Cat. No. ^{(3) (4)}	Frame Size
Output Amps: 240V (208V) ⁽²⁾			HP	kW	Output Amps: 240V (208V) ⁽²⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	2.4 (2.7)	3.3 (3.7)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20G11RB2P2JA0NNNNN	1
4.2 (4.8)	4.6 (5.2)	6.3 (7.2)	1	0.75	2.2(2.5)	4.6 (5.2)	6.3 (7.2)	0.5	0.37	20G11RB4P2JA0NNNNN	
6.8 (7.8)	7.4 (8.5)	10.2 (11.7)	2	1.5	4.2 (4.8)	7.4 (8.5)	10.2 (11.7)	1	0.75	20G11RB6P8JA0NNNNN	
9.6 (11)	10.5 (12.1)	14.4 (16.5)	3	2.2	6.8 (7.8)	10.5 (12.1)	14.4 (16.5)	2	1.5	20G11RB9P6JA0NNNNN	
15.3 (15.3)	16.8 (16.8)	22.9 (22.9)	5	4	9.6 (11)	16.8 (16.8)	22.9 (22.9)	3	2.2	20G11RB015JA0NNNNN	
2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20G11NB2P2JA0NNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20G11NB4P2JA0NNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20G11NB6P8JA0NNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20G11NB9P6JA0NNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20G11NB015JA0NNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20G11NB022JA0NNNNN	3
28 (32.2)	30.8 (35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20G11NB028JA0NNNNN	
42 (43)	46.2(47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20G11NB042JA0NNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20G11NB054JA0NNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20G11NB070JA0NNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20G11NB080JA0NNNNN	
104 (120)	114 (132)	156 (180)	40	30	80 (92)	120 (138)	156 (180)	30	22	20G1ANB104JNONNNNN ⁽⁵⁾	6
130 (150)	143 (165)	195 (225)	50	37	104 (120)	156 (180)	195 (225)	40	30	20G1ANB130JNONNNNN ⁽⁵⁾	
154 (177)	169 (194)	231 (265)	60	45	130 (150)	195 (225)	234 (270)	50	37	20G1ANB154JNONNNNN ⁽⁵⁾	
192 (221)	211 (243)	288 (331)	75	55	154 (177)	231 (265)	288 (331)	60	45	20G1ANB192JNONNNNN ⁽⁵⁾	
260 (260)	286 (286)	390 (390)	100	66	192 (221)	288 (331)	390 (390)	75	55	20G1ANB260JNONNNNN ⁽⁵⁾	
312 (359)	343 (394)	468 (538)	125	90	260 (260)	390 (394)	468 (538)	100	66	20G1ANB312JNONNNNN ⁽⁵⁾	7
360 (414)	396 (455)	540 (621)	150	110	312 (359)	468 (538)	561 (646)	125	90	20G1ANB360JNONNNNN ⁽⁵⁾	
477 (477)	524 (524)	715 (715)	200	132	312 (359)	468 (538)	561 (646)	125	90	20G1ANB477JNONNNNN ⁽⁵⁾	

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

200...240V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Normal Duty					Heavy Duty					Cat. No. ^{(2) (3)}	Frame Size
Output Amps: 240V (208V) ⁽¹⁾			HP	kW	Output Amps: 240V (208V) ⁽¹⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	3.3 (3.8)	4 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20G11GB2P2JA0NNNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20G11GB4P2JA0NNNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20G11GB6P8JA0NNNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20G11GB9P6JA0NNNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20G11GB015JA0NNNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20G11GB022JA0NNNNNN	
28 (32.2)	30.8(35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20G11GB028JA0NNNNNN	3
42 (43)	46.2 (47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20G11GB042JA0NNNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20G11GB054JA0NNNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20G11GB070JA0NNNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20G1AGB080JN0NNNNNN ⁽⁴⁾	6
104 (120)	114 (132)	156 (180)	40	30	80 (92)	120 (138)	156 (180)	30	22	20G1AGB104JN0NNNNNN ⁽⁴⁾	
130 (150)	143 (165)	195 (225)	50	37	104 (120)	156 (180)	195 (225)	40	30	20G1AGB130JN0NNNNNN ⁽⁴⁾	
154 (177)	169 (194)	231 (265)	60	45	130 (150)	195 (225)	234 (270)	50	37	20G1AGB154JN0NNNNNN ⁽⁴⁾	
192 (221)	211 (243)	288 (331)	75	55	154 (177)	231 (265)	288 (331)	60	45	20G1AGB192JN0NNNNNN ⁽⁴⁾	
260 (260)	286 (286)	390 (390)	100	66	192 (221)	288 (331)	390 (390)	75	55	20G1AGB260JN0NNNNNN ⁽⁴⁾	
312 (359)	343 (394)	468 (538)	125	90	260 (260)	390 (394)	468 (538)	100	66	20G1AGB312JN0NNNNNN ⁽⁴⁾	7
360 (414)	396 (455)	540 (621)	150	110	312 (359)	468 (538)	561 (646)	125	90	20G1AGB360JN0NNNNNN ⁽⁴⁾	

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

200...240V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page [22](#) for 200...240V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty					Heavy Duty					Cat. No. ^{(2) (3)}	Frame Size
Output Amps: 240V (208V) ⁽¹⁾			HP	kW	Output Amps: 240V (208V) ⁽¹⁾			HP	kW		
Cont.	1 min	3 s			Cont.	1 min	3 s				
2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	2.2 (2.5)	3.3 (3.7)	3.9 (4.5)	0.5	0.37	20G11FB2P2JA0NNNNN	2
4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	4.2 (4.8)	6.3 (7.2)	7.5 (8.6)	1	0.75	20G11FB4P2JA0NNNNN	
6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	6.8 (7.8)	10.2 (11.7)	12.2 (14)	2	1.5	20G11FB6P8JA0NNNNN	
9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	9.6 (11)	14.4 (16.5)	17.2 (19.8)	3	2.2	20G11FB9P6JA0NNNNN	
15.3 (17.5)	16.8 (19.2)	22.9 (26.2)	5	4	9.6 (11)	16.8 (19.2)	22.9 (26.2)	3	2.2	20G11FB015JA0NNNNN	
22 (22)	24.2 (24.2)	33 (33)	7.5	5.5	15.3 (17.5)	24.2 (24.2)	33 (33)	5	4	20G11FB022JA0NNNNN	
28 (32.2)	30.8 (35.4)	42 (48.3)	10	7.5	22 (22)	33 (35.4)	42 (48.3)	7.5	5.5	20G11FB028JA0NNNNN	3
42 (43)	46.2 (47.3)	63 (64.5)	15	11	28 (32.2)	46.2 (48.3)	63 (64.5)	10	7.5	20G11FB042JA0NNNNN	
54 (60)	59.4 (66)	81 (90)	20	15	42 (43)	63 (64.5)	81 (90)	15	11	20G11FB054JA0NNNNN	4
70 (78.2)	77 (86)	105 (117)	25	18.5	54 (60)	81 (90)	105 (117)	20	15	20G11FB070JA0NNNNN	5
80 (92)	88 (101)	120 (138)	30	22	70 (78.2)	105 (117)	126 (140)	25	18.5	20G11FB080JA0NNNNN	

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

380...400V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		kW	Output Amps			kW	Output Amps			kW		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	2.1	2.3	3.2	0.75	1.3	2.3	3.2	0.37	20G11RC2P1JA0NNNNN	1
			3.5	3.9	5.3	1.5	2.1	3.9	5.3	0.75	20G11RC3P5JA0NNNNN	
			5	5.5	7.5	2.2	3.5	5.5	7.5	1.5	20G11RC5P0JA0NNNNN	
			8.7	9.6	13.1	4	5	9.6	13.1	2.2	20G11RC8P7JA0NNNNN	
			11.5	13.1	17.3	5.5	8.7	13.1	17.3	4	20G11RC011JA0NNNNN	
			15.4	16.9	23.1	7.5	11.5	17.2	23.1	5.5	20G11RC015JA0NNNNN	
			2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20G11NC2P1JA0NNNNN	2
			3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20G11NC3P5JA0NNNNN	
			5	7.5	9	2.2	5	7.5	9	2.2	20G11NC5P0JA0NNNNN	
			8.7	13	15.6	4	8.7	13.0	15.6	4	20G11NC8P7JA0NNNNN	
			11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20G11NC011JA0NNNNN	
			15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20G11NC015JA0NNNNN	
			22	24.2	33	11	15.4	24.2	33	7.5	20G11NC022JA0NNNNN	3
			30	33	45	15	22	33	45	11	20G11NC030JA0NNNNN	
			37	40.7	55.5	18.5	30	45	55.5	15	20G11NC037JA0NNNNN	
			43	47.3	64.5	22	37	55.5	66.6	18.5	20G11NC043JA0NNNNN	
			60	66	90	30	43	66	90	22	20G11NC060JA0NNNNN	
			72	79.2	108	37	60	90	108	30	20G11NC072JA0NNNNN	
			85	93.5	128	45	72	108	130	37	20G11NC085JA0NNNNN	4
			104	114	156	55	85	128	156	45	20G11NC104JA0NNNNN	
			140	154	210	75	104	156	210	55	20G1ANC140JNONNNNN ⁽⁵⁾	5
			170	187	255	90	140	210	255	75	20G1ANC170JNONNNNN ⁽⁵⁾	
			205	226	308	110	170	255	308	90	20G1ANC205JNONNNNN ⁽⁵⁾	
			260	286	390	132	205	308	390	110	20G1ANC260JNONNNNN ⁽⁵⁾	
			302	332	453	160	260	390	468	132	20G1ANC302JNONNNNN ⁽⁵⁾	6
			367	404	551	200	302	453	551	160	20G1ANC367JNONNNNN ⁽⁵⁾	
			456	502	684	250	367	551	684	200	20G1ANC456JNONNNNN ⁽⁵⁾	
			477	525	716	270	367	551	684	200	20G1ANC477JNONNNNN ⁽⁵⁾	
			540	594	810	315	456	684	821	250	20G1A*540JNONNNNN ⁽⁶⁾	
540	594	315	460	506	690	250	385	578	693	200	20G1A*C460JNONNNNN ⁽⁶⁾	7
585	644	315	540	594	810	315	456	684	821	250	20G1A*C540JNONNNNN ⁽⁶⁾	
612	673	355	567	624	851	315	472	708	850	250	20G1A*C567JNONNNNN ⁽⁶⁾	
750	825	400	650	715	975	355	540	810	972	315	20G1A*C650JNONNNNN ⁽⁶⁾	
796	876	450	750	825	1125	400	585	878	1053	315	20G1A*C750JNONNNNN ⁽⁶⁾	
832	915	450	770	847	1155	400	642	963	1156	355	20G1A*C770JNONNNNN ⁽⁶⁾	
540	594	315	460	506	690	250	385	578	693	200	20G1A*C460JNONNNNN ⁽⁶⁾	8 ⁽⁷⁾
585	644	315	540	594	810	315	456	684	821	250	20G1A*C540JNONNNNN ⁽⁶⁾	
612	673	355	567	624	851	315	472	708	850	250	20G1A*C567JNONNNNN ⁽⁶⁾	
750	825	400	650	715	975	355	540	810	972	315	20G1A*C650JNONNNNN ⁽⁶⁾	
796	876	450	750	825	1125	400	585	878	1053	315	20G1A*C750JNONNNNN ⁽⁶⁾	
832	915	450	770	847	1155	400	642	963	1156	355	20G1A*C770JNONNNNN ⁽⁶⁾	

IP00/IP20, NEMA/UL Type Open (Continued) ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		kW	Output Amps			kW	Output Amps			kW		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
1040	1144	560	910	1001	1365	500	750	1125	1350	400	20G11*C910JNONNNNN ⁽⁶⁾	9 ⁽⁷⁾
1090	1199	630	1040	1144	1560	560	880	1320	1584	500	20G11*C1K0JNONNNNN ⁽⁶⁾	
1175	1293	710	1090	1199	1635	630	910	1365	1638	500	20G11*C1K1JNONNNNN ⁽⁶⁾	
1465	1612	800	1175	1293	1763	710	1040	1560	1872	560	20G11*C1K2JNONNNNN ⁽⁶⁾	
1480	1628	850	1465	1612	2198	800	1090	1635	1962	630	20G11*C1K4JNONNNNN ⁽⁶⁾	
1600	1760	900	1480	1628	2220	850	1175	1763	2115	710	20G11*C1K5JNONNNNN ⁽⁶⁾	
1715	1887	1000	1590	1749	2385	900	1325	1988	2385	710	20G11*C1K6JNONNNNN ⁽⁶⁾	10 ⁽⁷⁾
2330	2563	1400	2150	2365	3225	1250	1800	2700	3240	1000	20G11*C2K1JNONNNNN ⁽⁶⁾	

- (1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.
- (2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.
- (3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.
- (6) The 6th character (designated by an * in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).
- (7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

380...400V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Light Duty ⁽¹⁾			Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps		kW	Output Amps			kW	Output Amps			kW		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20G11GC2P1JA0NNNNN	2
			3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20G11GC3P5JA0NNNNN	
			5	7.5	9	2.2	5	7.5	9	2.2	20G11GC5P0JA0NNNNN	
			8.7	13	15.6	4	8.7	13	15.6	4	20G11GC8P7JA0NNNNN	
			11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20G11GC011JA0NNNNN	
			15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20G11GC015JA0NNNNN	
			22	24.2	33	11	15.4	24.2	33	7.5	20G11GC022JA0NNNNN	3
			30	33	45	15	22	33	45	11	20G11GC030JA0NNNNN	
			37	40.7	55.5	18.5	30	45	55.5	15	20G11GC037JA0NNNNN	
			43	47.3	64.5	22	37	55.5	66.6	18.5	20G11GC043JA0NNNNN	4
			60	66	90	30	43	66	90	22	20G11GC060JA0NNNNN	
			72	79.2	108	37	60	90	108	30	20G11GC072JA0NNNNN	5
			85	93.5	128	45	72	108	130	37	20G11GC085JA0NNNNN	
			104	114	156	55	85	128	156	45	20G1AGC104JN0NNNNN ⁽⁴⁾	6
			140	154	210	75	104	156	210	55	20G1AGC140JN0NNNNN ⁽⁴⁾	
			170	187	255	90	140	210	255	75	20G1AGC170JN0NNNNN ⁽⁴⁾	
			205	226	308	110	170	255	308	90	20G1AGC205JN0NNNNN ⁽⁴⁾	7
			260	286	390	132	205	308	390	110	20G1AGC260JN0NNNNN ⁽⁴⁾	
			302	332	453	160	260	390	468	132	20G1AGC302JN0NNNNN ⁽⁴⁾	
			367	404	551	200	302	453	551	160	20G1AGC367JN0NNNNN ⁽⁴⁾	
			456	502	684	250	367	551	684	200	20G1AGC456JN0NNNNN ⁽⁴⁾	
540	594	315	460	506	690	250	385	578	693	200	20G1AJC460JN0NNNNN	8 ⁽⁵⁾
585	644	315	540	594	810	315	456	684	821	250	20G1AJC540JN0NNNNN	
612	673	355	567	624	851	315	472	708	850	250	20G1AJC567JN0NNNNN	
750	825	400	650	715	975	355	540	810	972	315	20G1AJC650JN0NNNNN	
796	876	450	750	825	1125	400	585	878	1053	315	20G1AJC750JN0NNNNN	
832	915	450	770	847	1155	400	642	963	1156	355	20G1AJC770JN0NNNNN	
1040	1144	560	910	1001	1365	500	750	1125	1350	400	20G11JC910JN0NNNNN	9 ⁽⁵⁾
1090	1199	630	1040	1144	1560	560	880	1320	1584	500	20G11JC1K0JN0NNNNN	
1175	1293	710	1090	1199	1635	630	910	1365	1638	500	20G11JC1K1JN0NNNNN	
1465	1612	800	1175	1293	1763	710	1040	1560	1872	560	20G11JC1K2JN0NNNNN	
1480	1628	850	1465	1612	2198	800	1090	1635	1962	630	20G11JC1K4JN0NNNNN	
1600	1760	900	1480	1628	2220	850	1175	1763	2115	710	20G11JC1K5JN0NNNNN	
1715	1887	1000	1590	1749	2385	900	1325	1988	2385	710	20G11JC1K6JN0NNNNN	10 ⁽⁵⁾
2330	2563	1400	2150	2365	3225	1250	1800	2700	3240	1000	20G11JC2K1JN0NNNNN	

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "I" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) Also available with internal Brake IGBT (20G1xxxxxxAN0NNNNN).

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

380...400V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 25 for 380...400V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			kW	Output Amps			kW		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	0.75	2.1	3.1	3.7	0.75	20G11FC2P1JA0NNNNN	2
3.5	5.2	6.3	1.5	3.5	5.2	6.3	1.5	20G11FC3P5JA0NNNNN	
5	7.5	9	2.2	5	7.5	9	2.2	20G11FC5P0JA0NNNNN	
8.7	13	15.6	4	8.7	13	15.6	4	20G11FC8P7JA0NNNNN	
11.5	17.2	20.7	5.5	11.5	17.2	20.7	5.5	20G11FC011JA0NNNNN	
15.4	16.9	23.1	7.5	11.5	17.2	20.7	5.5	20G11FC015JA0NNNNN	
22	24.2	33	11	15.4	24.2	33	7.5	20G11FC022JA0NNNNN	
30	33	45	15	22	33	45	11	20G11FC030JA0NNNNN	3
37	40.7	55.5	18.5	30	45	55.5	15	20G11FC037JA0NNNNN	
43	47.3	64.5	22	37	55.5	66.6	18.5	20G11FC043JA0NNNNN	
60	66	90	30	43	66	90	22	20G11FC060JA0NNNNN	4
72	79.2	108	37	60	90	108	30	20G11FC072JA0NNNNN	
85	93.5	128	45	72	108	130	37	20G11FC085JA0NNNNN	5
104	114	156	55	85	128	156	45	20G11FC104JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

480V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	2.1	2.3	3.2	1	1.1	2.3	3.2	0.5	20G11RD2P1JA0NNNNN	1
			3.4	3.7	5.1	2	2.8	4.2	5.1	1	20G11RD3P4JA0NNNNN	
			5	5.5	7.5	3	3.4	5.5	7.5	2	20G11RD5P0JA0NNNNN	
			8	8.8	12	5	5	8.8	12	3	20G11RD8P0JA0NNNNN	
			11	12.1	16.5	7.5	8	12.1	16.5	5	20G11RD011JA0NNNNN	
			14	15.4	21	10	11	16.5	21	7.5	20G11RD014JA0NNNNN	
			2.1	3.1	3.7	1	2.1	3.1	3.7	1	20G11ND2P1JA0NNNNN	2
			3.4	5.1	6.1	2	3.4	5.1	6.1	2	20G11ND3P4JA0NNNNN	
			5	7.5	9	3	5	7.5	9	3	20G11ND5P0JA0NNNNN	
			8	12	14.4	5	8	12	14.4	5	20G11ND8P0JA0NNNNN	
			11	16.5	19.8	7.5	11	16.5	19.8	7.5	20G11ND011JA0NNNNN	
			14	15.4	21	10	11	16.5	21	7.5	20G11ND014JA0NNNNN	
			22	24.2	33	15	14	24.2	33	10	20G11ND022JA0NNNNN	3
			27	29.7	40.5	20	22	33	40.5	15	20G11ND027JA0NNNNN	
			34	37.4	51	25	27	40.5	51	20	20G11ND034JA0NNNNN	
			40	44	60	30	34	51	61.2	25	20G11ND040JA0NNNNN	
			52	57.2	78	40	40	60	78	30	20G11ND052JA0NNNNN	4
			65	71.5	97.5	50	52	78	97.5	40	20G11ND065JA0NNNNN	
			77	84.7	116	60	65	97.5	116	50	20G11ND077JA0NNNNN	5
			96	106	144	75	77	116	144	60	20G11ND096JA0NNNNN	
			125	138	188	100	96	144	188	75	20G1AND125JNONNNNN ⁽⁵⁾	6
			156	172	234	125	125	188	234	100	20G1AND156JNONNNNN ⁽⁵⁾	
			186	205	279	150	156	234	281	125	20G1AND186JNONNNNN ⁽⁵⁾	
			248	273	372	200	186	279	372	150	20G1AND248JNONNNNN ⁽⁵⁾	
			302	332	453	250	248	372	453	200	20G1AND302JNONNNNN ⁽⁵⁾	7
			361	397	542	300	302	453	535	250	20G1AND361JNONNNNN ⁽⁵⁾	
			415	457	623	350	361	542	650	300	20G1AND415JNONNNNN ⁽⁵⁾	
			477	525	716	400	361	542	650	300	20G1AND477JNONNNNN ⁽⁵⁾	
485	534	400	430	473	645	350	370	555	666	300	20G1A*D430JNONNNNN ⁽⁶⁾	8 ⁽⁷⁾
545	600	450	485	534	728	400	414	621	745	350	20G1A*D485JNONNNNN ⁽⁶⁾	
590	649	500	545	600	818	450	454	681	817	350	20G1A*D545JNONNNNN ⁽⁶⁾	
710	781	600	617	679	926	500	485	728	873	400	20G1A*D617JNONNNNN ⁽⁶⁾	
765	842	650	710	781	1065	600	545	818	981	450	20G1A*D710JNONNNNN ⁽⁶⁾	
800	880	700	740	814	1110	650	617	926	1111	500	20G1A*D740JNONNNNN ⁽⁶⁾	

IP00/IP20, NEMA/UL Type Open (Continued) ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
960	1056	800	800	880	1200	700	710	1065	1278	600	20G11*D800JNONNNNN ⁽⁶⁾	9 ⁽⁷⁾
1045	1150	900	960	1056	1440	800	795	1193	1431	700	20G11*D960JNONNNNN ⁽⁶⁾	
1135	1249	1000	1045	1150	1568	900	800	1200	1440	750	20G11*D1K0JNONNNNN ⁽⁶⁾	
1365	1502	1100	1135	1249	1703	1000	960	1440	1728	800	20G11*D1K2JNONNNNN ⁽⁶⁾	
1420	1562	1250	1365	1502	2048	1100	1045	1568	1881	900	20G11*D1K3JNONNNNN ⁽⁶⁾	
1540	1694	1350	1420	1562	2130	1250	1135	1703	2043	1000	20G11*D1K4JNONNNNN ⁽⁶⁾	
1655	1821	1500	1525	1678	2288	1350	1270	1905	2286	1100	20G11*D1K5JNONNNNN ⁽⁶⁾	10 ⁽⁷⁾
2240	2464	2000	2070	2277	3105	1750	1730	2595	3114	1650	20G11*D2K0JNONNNNN ⁽⁶⁾	

- (1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.
- (2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.
- (3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.
- (6) The 6th character (designated by an * in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).
- (7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

480V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Light Duty ⁽¹⁾			Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps		Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	2.1	3.1	3.7	1	2.1	3.1	3.7	1	20G11GD2P1JA0NNNNN	2
			3.4	5.1	6.1	2	3.4	5.1	6.1	2	20G11GD3P4JA0NNNNN	
			5	7.5	9	3	5	7.5	9	3	20G11GD5P0JA0NNNNN	
			8	12	14.4	5	8	12	14.4	5	20G11GD8P0JA0NNNNN	
			11	16.5	19.8	7.5	11	16.5	19.8	7.5	20G11GD011JA0NNNNN	
			14	15.4	21	10	11	16.5	21	7.5	20G11GD014JA0NNNNN	
			22	24.2	33	15	14	24.2	33	10	20G11GD022JA0NNNNN	
			27	29.7	40.5	20	22	33	40.5	15	20G11GD027JA0NNNNN	3
			34	37.4	51	25	27	40.5	51	20	20G11GD034JA0NNNNN	
			40	44	60	30	34	51	61.2	25	20G11GD040JA0NNNNN	
			52	57.2	78	40	40	60	78	30	20G11GD052JA0NNNNN	4
			65	71.5	97.5	50	52	78	97.5	40	20G11GD065JA0NNNNN	5
			77	84.7	116	60	65	97.5	116	50	20G11GD077JA0NNNNN	
			96	106	144	75	77	116	144	60	20G1AGD096JN0NNNNN ⁽⁴⁾	6
			125	138	188	100	96	144	188	75	20G1AGD125JN0NNNNN ⁽⁴⁾	
			156	172	234	125	125	188	234	100	20G1AGD156JN0NNNNN ⁽⁴⁾	
			186	205	279	150	156	234	281	125	20G1AGD186JN0NNNNN ⁽⁴⁾	
			248	273	372	200	186	279	372	150	20G1AGD248JN0NNNNN ⁽⁴⁾	7
			302	332	453	250	248	372	453	200	20G1AGD302JN0NNNNN ⁽⁴⁾	
			361	397	542	300	302	453	535	250	20G1AGD361JN0NNNNN ⁽⁴⁾	
415	457	623	350	361	542	650	300	20G1AGD415JN0NNNNN ⁽⁴⁾				
485	534	400	430	473	645	350	370	555	666	300	20G1AJD430JN0NNNNN	8 ⁽⁵⁾
545	600	450	485	534	728	400	414	621	745	350	20G1AJD485JN0NNNNN	
590	649	500	545	600	818	450	454	681	817	350	20G1AJD545JN0NNNNN	
710	781	600	617	679	926	500	485	728	873	400	20G1AJD617JN0NNNNN	
765	842	650	710	781	1065	600	545	818	981	450	20G1AJD710JN0NNNNN	
800	880	700	740	814	1110	650	617	926	1111	500	20G1AJD740JN0NNNNN	
960	1056	800	800	880	1200	700	710	1065	1278	600	20G11JD800JN0NNNNN	
1045	1150	900	960	1056	1440	800	795	1193	1431	700	20G11JD960JN0NNNNN	
1135	1249	1000	1045	1150	1568	900	800	1200	1440	750	20G11JD1K0JN0NNNNN	
1365	1502	1100	1135	1249	1703	1000	960	1440	1728	800	20G11JD1K2JN0NNNNN	
1420	1562	1250	1365	1502	2048	1100	1045	1568	1881	900	20G11JD1K3JN0NNNNN	
1540	1694	1350	1420	1562	2130	1250	1135	1703	2043	1000	20G11JD1K4JN0NNNNN	
1655	1821	1500	1525	1678	2288	1350	1270	1905	2286	1100	20G11JD1K5JN0NNNNN	10 ⁽⁵⁾
2240	2464	2000	2070	2277	3105	1750	1730	2595	3114	1650	20G11JD2K0JN0NNNNN	

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

480V AC, Three-phase Drives (Continued)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 29 for 480V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty				Heavy Duty				Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
2.1	3.1	3.7	1	2.1	3.1	3.7	1	20G11FD2P1JA0NNNNN	2
3.4	5.1	6.1	2	3.4	5.1	6.1	2	20G11FD3P4JA0NNNNN	
5	7.5	9	3	5	7.5	9.0	3	20G11FD5P0JA0NNNNN	
8	12	14.4	5	8	12	14.4	5	20G11FD8P0JA0NNNNN	
11	16.5	19.8	7.5	11	16.5	19.8	7.5	20G11FD011JA0NNNNN	
14	15.4	21	10	11	16.5	21	7.5	20G11FD014JA0NNNNN	
22	24.2	33	15	14	24.2	33	10	20G11FD022JA0NNNNN	
27	29.7	40.5	20	22	33	40.5	15	20G11FD027JA0NNNNN	3
34	37.4	51	25	27	40.5	51	20	20G11FD034JA0NNNNN	
40	44	60	30	34	51	61.2	25	20G11FD040JA0NNNNN	
52	57.2	78	40	40	60	78	30	20G11FD052JA0NNNNN	4
65	71.5	97.5	50	52	78	97.5	40	20G11FD065JA0NNNNN	
77	84.7	116	60	65	97.5	116	50	20G11FD077JA0NNNNN	5
96	106	144	75	77	116	144	60	20G11FD096JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

600V AC, Three-phase Drives

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600V or 690V AC.

Important: Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Light Duty ⁽²⁾		Hp	Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps			Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	1.7	1.9	2.6	1	1.7	1.4	2.6	1	20G11NE1P7JA0NNNNN	3
			2.7	3	4.1	2	1.7	2.6	4.1	1	20G11NE2P7JA0NNNNN	
			3.9	4.29	5.85	3	2.7	4.1	5.9	2	20G11NE3P9JA0NNNNN	
			6.1	6.7	9.2	5	3.9	5.9	9.2	3	20G11NE6P1JA0NNNNN	
			9	9.9	13.5	7.5	6.1	9.2	13.5	5	20G11NE9P0JA0NNNNN	
			11	12.1	16.5	10	9	13.5	16.5	7.5	20G11NE011JA0NNNNN	
			17	18.7	25.5	15	11	16.5	25.5	10	20G11NE017JA0NNNNN	
			22	24.2	33	20	17	25.5	33	15	20G11NE022JA0NNNNN	
			27	29.7	40.5	25	22	33	40.5	20	20G11NE027JA0NNNNN	4
			32	35.2	48	30	27	40.5	48.6	25	20G11NE032JA0NNNNN	
			41	45.1	61.5	40	32	48	61.5	30	20G11NE041JA0NNNNN	
			52	57.2	78	50	41	61.5	78	40	20G11NE052JA0NNNNN	5
			12	13.2	18	10	9.1	13.7	18	7.5	20G1ANE012JNONNNNN ⁽⁵⁾	
			18	19.8	27	15	12	18	27	10	20G1ANE018JNONNNNN ⁽⁵⁾	6
			23	25.3	34.5	20	18	27	34.5	15	20G1ANE023JNONNNNN ⁽⁵⁾	
			24	26.4	36	20	22	33	39.6	20	20G1ANE024JNONNNNN ⁽⁵⁾	
			28	30.8	42	25	23	34.5	42	20	20G1ANE028JNONNNNN ⁽⁵⁾	
			33	36.3	49.5	30	28	42	50.4	25	20G1ANE033JNONNNNN ⁽⁵⁾	
			42	46.2	63	40	33	49.5	63	30	20G1ANE042JNONNNNN ⁽⁵⁾	
			53	58	80	50	42	63	80	40	20G1ANE053JNONNNNN ⁽⁵⁾	
			63	69	95	60	52	78	95	50	20G1ANE063JNONNNNN ⁽⁵⁾	
			77	85	116	75	63	95	116	60	20G1ANE077JNONNNNN ⁽⁵⁾	
			99	109	149	100	77	116	149	75	20G1ANE099JNONNNNN ⁽⁵⁾	
			125	138	188	125	99	149	188	100	20G1ANE125JNONNNNN ⁽⁵⁾	
			144	158	216	150	125	188	225	125	20G1ANE144JNONNNNN ⁽⁵⁾	
			192	211	288	200	144	216	288	150	20G1ANE192JNONNNNN ⁽⁵⁾	
			242	266	363	250	192	288	363	200	20G1ANE242JNONNNNN ⁽⁵⁾	
			289	318	434	300	242	363	436	250	20G1ANE289JNONNNNN ⁽⁵⁾	

IP00/IP20, NEMA/UL Type Open (Continued) ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
355	391	350	295	325	443	300	272	408	490	250	20G1A*E295JNONNNNN ⁽⁶⁾	8 ⁽⁷⁾
395	435	400	355	391	533	350	295	443	531	300	20G1A*E355JNONNNNN ⁽⁶⁾	
435	479	450	395	435	593	400	329	494	592	350	20G1A*E395JNONNNNN ⁽⁶⁾	
460	506	500	435	479	653	450	355	533	639	350	20G1A*E435JNONNNNN ⁽⁶⁾	
510	561	500	460	506	690	500	395	593	711	400	20G1A*E460JNONNNNN ⁽⁶⁾	
545	600	550	510	561	765	500	425	638	765	450	20G1A*E510JNONNNNN ⁽⁶⁾	
690	759	700	595	655	893	600	510	765	918	500	20G11*E595JNONNNNN ⁽⁶⁾	9 ⁽⁷⁾
760	836	800	630	693	945	700	595	893	1071	600	20G11*E630JNONNNNN ⁽⁶⁾	
835	919	900	760	836	1140	800	630	945	1134	700	20G11*E760JNONNNNN ⁽⁶⁾	
900	990	950	825	908	1238	900	700	1050	1260	750	20G11*E825JNONNNNN ⁽⁶⁾	
980	1078	1000	900	990	1350	950	760	1140	1368	800	20G11*E900JNONNNNN ⁽⁶⁾	
1045	1150	1100	980	1078	1470	1000	815	1223	1467	900	20G11*E980JNONNNNN ⁽⁶⁾	
1220	1342	1200	1110	1221	1665	1100	920	1380	1656	1000	20G11*E1K1JNONNNNN ⁽⁶⁾	10 ⁽⁷⁾
1530	1683	1500	1430	1573	2145	1400	1190	1785	2142	1250	20G11*E1K4JNONNNNN ⁽⁶⁾	

(1) Frames 3...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 3...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an * in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

600V AC, Three-phase Drives (Continued)

Frames 3, 4, and 5 are only 575...600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 575...600 V or 660...690V AC.

Important: Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

IP54, NEMA/UL Type 12

Light Duty ⁽¹⁾		Hp	Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps			Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	1.7	1.9	2.6	1	1.7	1.4	2.6	1	20G11GE1P7JA0NNNNN	3
			2.7	3	4.1	2	1.7	2.6	4.1	1	20G11GE2P7JA0NNNNN	
			3.9	4.29	5.85	3	2.7	4.1	5.9	2	20G11GE3P9JA0NNNNN	
			6.1	6.7	9.2	5	3.9	5.9	9.2	3	20G11GE6P1JA0NNNNN	
			9	9.9	13.5	7.5	6.1	9.2	13.5	5	20G11GE9P0JA0NNNNN	
			11	12.1	16.5	10	9	13.5	16.5	7.5	20G11GE011JA0NNNNN	
			17	18.7	25.5	15	11	16.5	25.5	10	20G11GE017JA0NNNNN	
			22	24.2	33	20	17	25.5	33	15	20G11GE022JA0NNNNN	
			27	29.7	40.5	25	22	33	40.5	20	20G11GE027JA0NNNNN	4
			32	35.2	48	30	27	40.5	48.6	25	20G11GE032JA0NNNNN	
			41	45.1	61.5	40	32	48	61.5	30	20G11GE041JA0NNNNN	5
			12	13.2	18	10	9.1	13.7	18	7.5	20G1AGE012JNONNNNN ⁽⁴⁾	6
			18	19.8	27	15	12	18	27	10	20G1AGE018JNONNNNN ⁽⁴⁾	
			23	25.3	34.5	20	18	27	34.5	15	20G1AGE023JNONNNNN ⁽⁴⁾	
			24	26.4	36	20	22	33	39.6	20	20G1AGE024JNONNNNN ⁽⁴⁾	
			28	30.8	42	25	23	34.5	42	20	20G1AGE028JNONNNNN ⁽⁴⁾	
			33	36.3	49.5	30	28	42	50.4	25	20G1AGE033JNONNNNN ⁽⁴⁾	
			42	46.2	63	40	33	49.5	63	30	20G1AGE042JNONNNNN ⁽⁴⁾	
			53	58	80	50	42	63	80	40	20G1AGE053JNONNNNN ⁽⁴⁾	
			63	69	95	60	52	78	95	50	20G1AGE063JNONNNNN ⁽⁴⁾	
			77	85	116	75	63	95	116	60	20G1AGE077JNONNNNN ⁽⁴⁾	
			99	109	149	100	77	116	149	75	20G1AGE099JNONNNNN ⁽⁴⁾	
			125	138	188	125	99	149	188	100	20G1AGE125JNONNNNN ⁽⁴⁾	
			144	158	216	150	125	188	225	125	20G1AGE144JNONNNNN ⁽⁴⁾	7
			192	211	288	200	144	216	288	150	20G1AGE192JNONNNNN ⁽⁴⁾	
			242	266	363	250	192	288	363	200	20G1AGE242JNONNNNN ⁽⁴⁾	
			289	318	434	300	242	363	436	250	20G1AGE289JNONNNNN ⁽⁴⁾	

IP54, NEMA/UL Type 12 (Continued)

Light Duty ⁽¹⁾			Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps		Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
355	391	350	295	325	443	300	272	408	490	250	20G1AJE295JNONNNNN	8 ⁽⁵⁾
395	435	400	355	391	533	350	295	443	531	300	20G1AJE355JNONNNNN	
435	479	450	395	435	593	400	329	494	592	350	20G1AJE395JNONNNNN	
460	506	500	435	479	653	450	355	533	639	350	20G1AJE435JNONNNNN	
510	561	500	460	506	690	500	395	593	711	400	20G1AJE460JNONNNNN	
545	600	550	510	561	765	500	425	638	765	450	20G1AJE510JNONNNNN	
690	759	700	595	655	893	600	510	765	918	500	20G11JE595JNONNNNN	9 ⁽⁵⁾
760	836	800	630	693	945	700	595	893	1071	600	20G11JE630JNONNNNN	
835	919	900	760	836	1140	800	630	945	1134	700	20G11JE760JNONNNNN	
900	990	950	825	908	1238	900	700	1050	1260	750	20G11JE825JNONNNNN	
980	1078	1000	900	990	1350	950	760	1140	1368	800	20G11JE900JNONNNNN	
1045	1150	1100	980	1078	1470	1000	815	1223	1467	900	20G11JE980JNONNNNN	
1220	1342	1200	1110	1221	1665	1100	920	1380	1656	1000	20G11JE1K1JNONNNNN	10 ⁽⁵⁾
1530	1683	1500	1430	1573	2145	1400	1190	1785	2142	1250	20G11JE1K4JNONNNNN	

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

600V AC, Three-phase Drives (Continued)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600V or 690V AC.

Important: Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 33 for 600V, Frame 6...7 IP00, NEMA Type Open drives.

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Normal Duty			Heavy Duty					Cat. No. ^{(1) (2)}	Frame Size
Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s			
1.7	1.9	2.6	1	1.7	1.4	2.6	1	20G11FE1P7JA0NNNNN	3
2.7	3	4.1	2	1.7	2.6	4.1	1	20G11FE2P7JA0NNNNN	
3.9	4.29	5.85	3	2.7	4.1	5.9	2	20G11FE3P9JA0NNNNN	
6.1	6.7	9.2	5	3.9	5.9	9.2	3	20G11FE6P1JA0NNNNN	
9	9.9	13.5	7.5	6.1	9.2	13.5	5	20G11FE9P0JA0NNNNN	
11	12.1	16.5	10	9	13.5	16.5	7.5	20G11FE011JA0NNNNN	
17	18.7	25.5	15	11	16.5	25.5	10	20G11FE017JA0NNNNN	
22	24.2	33	20	17	25.5	33	15	20G11FE022JA0NNNNN	
27	29.7	40.5	25	22	33	40.5	20	20G11FE027JA0NNNNN	4
32	35.2	48	30	27	40.5	48.6	25	20G11FE032JA0NNNNN	
41	45.1	61.5	40	32	48	61.5	30	20G11FE041JA0NNNNN	5
52	57.2	78.0	50	41	61.5	78	40	20G11FE052JA0NNNNN	

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

690V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open ⁽¹⁾

Light Duty ⁽²⁾			Normal Duty				Heavy Duty				Cat. No. ^{(3) (4)}	Frame Size
Output Amps		kW	Output Amps			kW	Output Amps			kW		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	12	13.2	18	7.5	9	13.5	18	5.5	20F1ANF012JNONNNNN ⁽⁵⁾	6
			15	16.5	22.5	11	12	18	22.5	7.5	20F1ANF015JNONNNNN ⁽⁵⁾	
			20	22	30	15	15	22.5	30	11	20F1ANF020JNONNNNN ⁽⁵⁾	
			23	25.3	34.5	18.5	20	30	36	15	20F1ANF023JNONNNNN ⁽⁵⁾	
			30	33	45	22	23	34.5	45	18.5	20F1ANF030JNONNNNN ⁽⁵⁾	
			34	37.4	51	30	30	45	54	22	20F1ANF034JNONNNNN ⁽⁵⁾	
			46	50.6	69	37	34	51	69	30	20F1ANF046JNONNNNN ⁽⁵⁾	
			50	55	75	45	46	69	83	37	20F1ANF050JNONNNNN ⁽⁵⁾	
			61	67	92	55	50	75	92	45	20F1ANF061JNONNNNN ⁽⁵⁾	
			82	90	123	75	61	92	123	55	20F1ANF082JNONNNNN ⁽⁵⁾	
			98	108	147	90	82	123	148	75	20F1ANF098JNONNNNN ⁽⁵⁾	
			119	131	179	110	98	147	179	90	20F1ANF119JNONNNNN ⁽⁵⁾	
			142	156	213	132	119	179	214	110	20F1ANF142JNONNNNN ⁽⁵⁾	
			171	188	257	160	142	213	257	132	20F1ANF171JNONNNNN ⁽⁵⁾	
			212	233	318	200	171	257	318	160	20F1ANF212JNONNNNN ⁽⁵⁾	
			263	289	395	250	212	318	395	200	20F1ANF263JNONNNNN ⁽⁵⁾	
330	363	315	265	292	398	250	215	323	387	200	20G1A*F265JNONNNNN ⁽⁶⁾	8 ⁽⁷⁾
370	407	355	330	363	495	315	265	398	477	250	20G1A*F330JNONNNNN ⁽⁶⁾	
410	451	400	370	407	555	355	308	462	554	300	20G1A*F370JNONNNNN ⁽⁶⁾	
460	506	450	415	457	623	400	370	555	666	355	20G1A*F415JNONNNNN ⁽⁶⁾	
500	550	500	460	506	690	450	375	563	675	375	20G1A*F460JNONNNNN ⁽⁶⁾	
530	583	530	500	550	750	500	413	620	743	400	20G1A*F500JNONNNNN ⁽⁶⁾	
650	715	630	590	649	885	560	460	690	828	450	20G11*F590JNONNNNN ⁽⁶⁾	
710	781	710	650	715	975	630	500	750	900	500	20G11*F650JNONNNNN ⁽⁶⁾	9 ⁽⁷⁾
790	869	800	710	781	1065	710	590	885	1062	560	20G11*F710JNONNNNN ⁽⁶⁾	
860	946	850	765	842	1148	750	650	975	1170	630	20G11*F765JNONNNNN ⁽⁶⁾	
960	1056	900	795	875	1193	800	750	1125	1350	710	20G11*F795JNONNNNN ⁽⁶⁾	
1020	1122	1000	960	1056	1440	900	795	1193	1431	800	20G11*F960JNONNNNN ⁽⁶⁾	
1150	1265	1100	1040	1144	1560	1000	865	1298	1557	900	20G11*F1K0JNONNNNN ⁽⁶⁾	
1485	1634	1500	1400	1540	2100	1400	1160	1740	2088	1120	20G11*F1K4JNONNNNN ⁽⁶⁾	10 ⁽⁷⁾

(1) Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 6...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an * in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

690V AC, Three-phase Drives (Continued)

IP54, NEMA/UL Type 12

Light Duty ⁽¹⁾			Normal Duty				Heavy Duty				Cat. No. ^{(2) (3)}	Frame Size
Output Amps		kW	Output Amps			kW	Output Amps			kW		
Cont.	1 min		Cont.	1 min	3 s		Cont.	1 min	3 s			
—	—	—	12	13.2	18	7.5	9	13.5	18	5.5	20F1AGF012JNONNNNN ⁽⁴⁾	6
			15	16.5	22.5	11	12	18	22.5	7.5	20F1AGF015JNONNNNN ⁽⁴⁾	
			20	22	30	15	15	22.5	30	11	20F1AGF020JNONNNNN ⁽⁴⁾	
			23	25.3	34.5	18.5	20	30	36	15	20F1AGF023JNONNNNN ⁽⁴⁾	
			30	33	45	22	23	34.5	45	18.5	20F1AGF030JNONNNNN ⁽⁴⁾	
			34	37.4	51	30	30	45	54	22	20F1AGF034JNONNNNN ⁽⁴⁾	
			46	50.6	69	37	34	51	69	30	20F1AGF046JNONNNNN ⁽⁴⁾	
			50	55	75	45	46	69	83	37	20F1AGF050JNONNNNN ⁽⁴⁾	
			61	67	92	55	50	75	92	45	20F1AGF061JNONNNNN ⁽⁴⁾	
			82	90	123	75	61	92	123	55	20F1AGF082JNONNNNN ⁽⁴⁾	
			98	108	147	90	82	123	148	75	20F1AGF098JNONNNNN ⁽⁴⁾	
			119	131	179	110	98	147	179	90	20F1AGF119JNONNNNN ⁽⁴⁾	
			142	156	213	132	119	179	214	110	20F1AGF142JNONNNNN ⁽⁴⁾	
			171	188	257	160	142	213	257	132	20F1AGF171JNONNNNN ⁽⁴⁾	
			212	233	318	200	171	257	318	160	20F1AGF212JNONNNNN ⁽⁴⁾	7
			263	289	395	250	212	318	395	200	20F1AGF263JNONNNNN ⁽⁴⁾	
330	363	315	265	292	398	250	215	323	387	200	20G1AJF265JNONNNNN	8 ⁽⁵⁾
370	407	355	330	363	495	315	265	398	477	250	20G1AJF330JNONNNNN	
410	451	400	370	407	555	355	308	462	554	300	20G1AJF370JNONNNNN	
460	506	450	415	457	623	400	370	555	666	355	20G1AJF415JNONNNNN	
500	550	500	460	506	690	450	375	563	675	375	20G1AJF460JNONNNNN	
530	583	530	500	550	750	500	413	620	743	400	20G1AJF500JNONNNNN	
650	715	630	590	649	885	560	460	690	828	450	20G11JF590JNONNNNN	9 ⁽⁵⁾
710	781	710	650	715	975	630	500	750	900	500	20G11JF650JNONNNNN	
790	869	800	710	781	1065	710	590	885	1062	560	20G11JF710JNONNNNN	
860	946	850	765	842	1148	750	650	975	1170	630	20G11JF765JNONNNNN	
960	1056	900	795	875	1193	800	750	1125	1350	710	20G11JF795JNONNNNN	
1020	1122	1000	960	1056	1440	900	795	1193	1431	800	20G11JF960JNONNNNN	
1150	1265	1100	1040	1144	1560	1000	865	1298	1557	900	20G11JF1K0JNONNNNN	10 ⁽⁵⁾
1485	1634	1500	1400	1540	2100	1400	1160	1740	2088	1120	20G11JF1K4JNONNNNN	

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Note: Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7). See page 38 for 690V, Frame 6...7 IP00, NEMA Type Open drives.

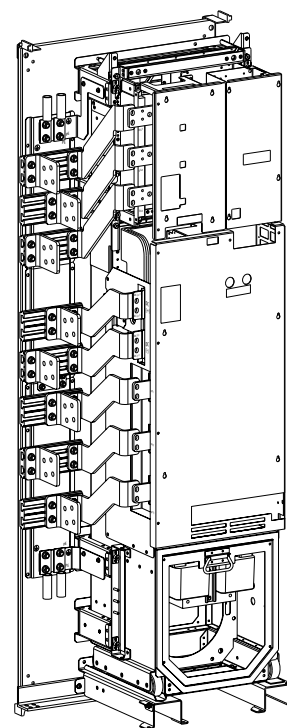
PowerFlex 755 Floor Mount Drives for Open Frame Designs

Floor mount, open frame drives are for applications that require power ranges from 215 kW to 1500kW (250 Hp...2000 Hp) and are contained within an enclosure of your choosing. These drives use the same drive unit(s) as standard IP20 and IP54 product. Open Frame applications can accommodate either AC input or Common Bus DC input systems.

Floor mount, open frame drives can also be horizontally mounted, with derating. See publication [750-IN020](#) for details.

To order an IP00 drive:

1. Using the tables that follow, locate your desired drive output values.
2. Select the Base Drive Catalog Number for your desired output values.
3. Note the Quantity Required.
4. Order the specified quantity (1, 2, or 3) of the Base Drive Catalog Number.
5. See page 130 for option kits and the PowerFlex 755 IP00 NEMA/UL Open Type Drive Installation Instructions, publication [750-IN020](#) for installation details.



380...400V AC, Three-phase and 540V DC Input Drives ⁽¹⁾

Light Duty		Normal Duty		Heavy Duty		Base Drive Cat. No. ⁽²⁾	Quantity Required	Equivalent Frame Size
Output Amps	kW	Output Amps	kW	Output Amps	kW			
Cont.		Cont.		Cont.				
540	315	460	250	385	200	20G11TC460JN0NNNNN	1	8
585	315	540	315	456	250	20G11TC540JN0NNNNN		
612	355	567	315	472	250	20G11TC567JN0NNNNN		
750	400	650	355	540	315	20G11TC650JN0NNNNN		
796	450	750	400	585	315	20G11TC750JN0NNNNN		
832	450	770	400	642	355	20G11TC770JN0NNNNN		
1040	560	910	500	750	400	20G11TC460JN0NNNNN	2	9
1090	630	1040	560	880	500	20G11TC540JN0NNNNN		
1175	710	1090	630	910	500	20G11TC567JN0NNNNN		
1465	800	1175	710	1040	560	20G11TC650JN0NNNNN		
1480	850	1465	800	1090	630	20G11TC750JN0NNNNN		
1600	900	1480	850	1175	710	20G11TC770JN0NNNNN		
1715	1000	1590	900	1325	710	20G11TC567JN0NNNNN	3	10
2330	1400	2150	1250	1800	1000	20G11TC770JN0NNNNN		

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page 200.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

480V AC, Three-phase and 650V DC Input Drives ⁽¹⁾

Light Duty		Normal Duty		Heavy Duty		Base Drive Cat. No.	Quantity Required	Equivalent Frame Size
Output Amps	Hp	Output Amps	Hp	Output Amps	Hp			
Cont.		Cont.		Cont.				
485	400	430	350	370	300	20G11TD430JNONNNNN	1	8
545	450	485	400	414	350	20G11TD485JNONNNNN		
590	500	545	450	454	350	20G11TD545JNONNNNN		
710	600	617	500	485	400	20G11TD617JNONNNNN		
765	650	710	600	545	450	20G11TD710JNONNNNN		
800	700	740	650	617	500	20G11TD740JNONNNNN		
960	800	800	700	710	600	20G11TD430JNONNNNN	2	9
1045	900	960	800	795	700	20G11TD485JNONNNNN		
1135	1000	1045	900	800	750	20G11TD545JNONNNNN		
1365	1100	1135	1000	960	800	20G11TD617JNONNNNN		
1420	1250	1365	1100	1045	900	20G11TD710JNONNNNN		
1540	1350	1420	1250	1135	1000	20G11TD740JNONNNNN		
1655	1500	1525	1350	1270	1100	20G11TD545JNONNNNN	3	10
2240	2000	2070	1750	1730	1650	20G11TD740JNONNNNN		

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

600V AC, Three-phase and 810V DC Input Drives ⁽¹⁾

Light Duty		Normal Duty		Heavy Duty		Base Drive Cat. No.	Quantity Required	Equivalent Frame Size
Output Amps	Hp	Output Amps	Hp	Output Amps	Hp			
Cont.		Cont.		Cont.				
355	350	295	300	272	250	20G11TE295JNONNNNN	1	8
395	400	355	350	295	300	20G11TE355JNONNNNN		
435	450	395	400	329	350	20G11TE395JNONNNNN		
460	500	435	450	355	350	20G11TE435JNONNNNN		
510	500	460	500	395	400	20G11TE460JNONNNNN		
545	550	510	500	425	450	20G11TE510JNONNNNN		
690	700	595	600	510	500	20G11TE295JNONNNNN	2	9
760	800	630	700	595	600	20G11TE355JNONNNNN		
835	900	760	800	630	700	20G11TE395JNONNNNN		
900	950	825	900	700	750	20G11TE435JNONNNNN		
980	1000	900	950	760	800	20G11TE460JNONNNNN		
1045	1100	980	1000	815	900	20G11TE510JNONNNNN		
1220	1200	1110	1100	920	1000	20G11TE395JNONNNNN	3	10
1530	1500	1430	1400	1190	1250	20G11TE510JNONNNNN		

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

690V AC, Three-phase and 932V DC Input Drives ⁽¹⁾

Light Duty (-LD)		Normal Duty (-ND)		Heavy Duty (-HD)		Base Drive Cat. No. ⁽²⁾	Quantity Required	Equivalent Frame Size
Output Amps	kW	Output Amps	kW	Output Amps	kW			
Cont.		Cont.		Cont.				
330	315	265	250	215	200	20G11TF265JNONNNNN	1	8
370	355	330	315	265	250	20G11TF330JNONNNNN		
410	400	370	355	308	300	20G11TF370JNONNNNN		
460	450	415	400	370	355	20G11TF415JNONNNNN		
500	500	460	450	375	375	20G11TF460JNONNNNN		
530	530	500	500	413	400	20G11TF500JNONNNNN		
650	630	590	560	460	450	20G11TF265JNONNNNN	2	9
710	710	650	630	500	500	20G11TF330JNONNNNN		
790	800	710	710	590	560	20G11TF370JNONNNNN		
860	850	765	750	650	630	20G11TF415JNONNNNN		
960	900	795	800	750	710	20G11TF460JNONNNNN		
1020	1000	960	900	795	800	20G11TF500JNONNNNN		
1150	1100	1040	1000	865	900	20G11TF370JNONNNNN	3	10
1485	1500	1400	1400	1160	1120	20G11TF500JNONNNNN		

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

Kits listed here provide electrical connection, mounting and ventilation provisions along with the control pod and its corresponding cables for PowerFlex 755 Floor Mount Open Frame designs. Other accessories shown include the rollout cart and EMC cores. See publication [750-IN020](#) for details.

690V AC, Three-phase and 932V DC Input Drives

Description	Required?	Frame 8		Frame 9		Frame 10	
		Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.
Termination, Converter, AC Input ⁽¹⁾	Recommended	20-750-BUS2-F8	1	20-750-BUS2-F9	1	20-750-BUS2-F10	1
Field Termination, Inverter, AC Output ⁽¹⁾		20-750-BUS3-F8		20-750-BUS3-F9		20-750-BUS3-F10	
Field Termination, Inverter, DC Bus		20-750-BUS4-F8		20-750-BUS4-F9		20-750-BUS4-F10	
Field Termination, DC Input, Common Bus Precharge ^{(1) (2) (3)}		20-750-BUS5-F8		20-750-BUS5-F9		20-750-BUS5-F10	
Pod, Bucket Assembly	Required (4)	20-750-POD1-F8	⁽⁶⁾	20-750-POD1-F8		20-750-POD1-F8	
Pod, Cable, 24 Volt Supply ⁽⁴⁾		20-750-PH1-F8		20-750-PH2-F9		20-750-PH3-F10	
Cable, Fiber Optic, 560 mm (22 in.) ⁽⁴⁾		20-750-FCBL1-F8		—		—	
Cable, Fiber Optic, 2.8 m (110 in.) ⁽⁴⁾		—		20-750-FCBL1-F10		20-750-FCBL1-F10	
Transceiver, Fiber Optic	Optional		1	SK-R1-FTR1-F8	1	SK-R1-FTR1-F8	2
POD, Remote Mounting Kit				20-750-RPD1-F8	2	20-750-RPD1-F8	3
Mounting Kit, Back Panel				20-750-MNT2-F9	1	20-750-MNT2-F10	1
Mounting Kit, Floor				20-750-MNT3-F9		20-750-MNT3-F10	1
Duct, Top Outlet		20-750-DUCT2-F8		20-750-DUCT2-F8	2	20-750-DUCT2-F8	3
Duct, Bottom Inlet ⁽⁵⁾		20-750-DUCT4-F8		20-750-DUCT4-F8		20-750-DUCT4-F8	
Roll-Out Cart		20-750-CART1-F8		20-750-CART1-F8	1	20-750-CART1-F8	1
Control Power Circuit Breaker ⁽²⁾		1489-A2D130		1489-A2D130		1489-A2D130	
Control Power Circuit Breaker Lock ⁽²⁾	Optional	1489-AAL0A		1489-AAL0A	2	1489-AAL0A	3
EMC Core, Converter Input, AC Input		20-750-EMCBUS1-F8		20-750-EMCBUS1-F8		20-750-EMCBUS1-F8	
EMC Core, Inverter Output		20-750-EMCCM1-F8		20-750-EMCCM1-F8		20-750-EMCCM1-F8	

(1) Input and Output Field Termination kits required to meet UL certification

(2) Common DC input drives only.

(3) EMC input cores are included with the 20-750-BUS5-Fx kits.

(4) 20-750-PH1-Fx and 20-750-FCBL1-Fx kits are used if the Control Pod is mounted in the drive. If the Control Pod is to be remote mounted (up to 23 m or 75 ft away), order a 20-750-RPD1-Fx kit instead.

(5) Only required when air inlet from bottom of cabinet is required

(6) 24 volt supply cable is included with each Frame 8 drive unit.

Power Options for PowerFlex 755 Floor Mount, AC Input Drives

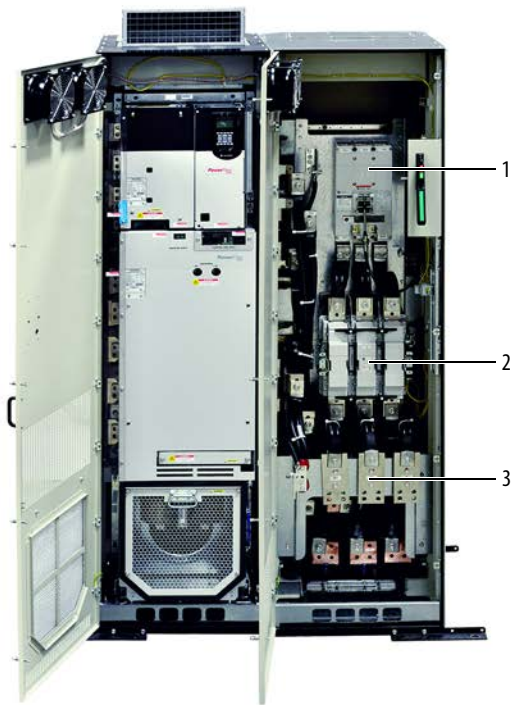
Pre-engineered, factory installed options are available with the PowerFlex 755 floor mount drives, which includes disconnects, reactors, contactors, MCC bus and wiring only bays.

To configure a catalog number for a floor-mount drive with options, perform the following steps:

1. Select the base drive catalog number from the tables on pages 108...111. Drive selection is based on the output amps and corresponding system overload(s) required by the application.
2. Select the duty rating. See the Required Options table on page 107 for duty rating details. For example: 21G1ALC460JN0NNNNN-**LD**.
3. Select the desired enclosure type as described on pages 108...111. For example: 21G1ALC460JN0NNNNN-LD.
4. Select Power Disconnect and/or Wire Only Bay option from the Required Options table on page 107. Add the desired option codes to the end of the base drive catalog number, separating each option code with a dash. For example: 21G1ALC460JN0NNNNN-LD-**P3**.
5. If options listed in the Additional Options table on page 107 are required, add the option code(s) to the end of the drive catalog number, separating each code with a dash. For example: 21G1ALC460JN0NNNNN-LD-P3-**P11**.

Note: A 600 mm wide cabinet bay is added to the right of the drive cabinet(s) to house the power options. The Wiring Only Bay option (-P14) also adds a 600 mm wide cabinet bay to the right of the drive cabinet(s).

Frame 8 with Power Option Bay



Input power landed on line-side of power disconnect.

Frame 9 with Power Option Bay



Input power landed behind circuit breaker, which is accessed by extracting rollout chassis.

Item	Description	
1	Power Disconnect: Options -P3 or -P5	See Additional Options on page 45 .
2	Contactor: Options -P11 or -P12	
3	Reactor: Options -L1, -L2, -L3, or -L4	

Required Options

Type	Option		Frame Size	Description
System Overload Duty Cycle ^{(1) (2)}	LD	Light Duty	8...10	100% continuous current, 110% current for 1 minute.
	ND	Normal Duty		100% continuous current, 110% current for 1 minute, 150% for 3 seconds.
	HD	Heavy Duty		100% continuous current, 150% current for 1 minute, 180% for 3 seconds.
Power Disconnect ⁽¹⁾	P3	Input Thermal Magnetic Circuit Breaker	8...10 ⁽³⁾	This option is for disconnecting drive power. An Allen-Bradley 140G Molded Case Circuit Breaker is provided. Frame 8 drives include flange style handle operators that are door interlocking and padlockable. Frame 9 drive circuit breakers are pushbutton actuated with door interlocks and are padlockable.
	P5	Input Non-Fused Molded Case Disconnect Switch	8 Only	This option is for disconnecting drive power. An Allen-Bradley 140G Molded Case Switch is provided. All switches include flange style handle operators that are door interlocking and padlockable. Note: PowerFlex 755 Frame 8 converter modules input fuses installed as standard equipment do not provide branch protection.
Wiring Only Bay	P14	Wiring Only Bay	8...10	This option identifies that an extra bay is provided for wiring the drive. This option extends the drive power bus from the drive bay into the option bay, making field connection options more flexible. No drive input protection is supplied with this option selection. If desired, a power option bay with a disconnect option can be added to the wiring bay. Documentation to reflect input disconnection and protection is customer supplied. See page 130 for more information on power cable entry/exit locations.

(1) Only one option of this type can be selected.

(2) See following selection tables for specific rating information.

(3) Frame 10 ordered via Engineered-To-Order (ETO) process.

Additional Options

Type	Option		Applicable Frame Size	Description
Contactors ^{(1) (2)}	P11	Input Contactor	8 Only	A contactor is provided between the AC line and the drive. The contactor is controlled by customer supplied 120V AC (480V input) or 230V AC (400V input) remote contact closure logic. A terminal block for control is provided for customer use, and is wired to 1 N.O. and 1 N.C. auxiliary contact on the contactor. Important: The P11 option 'Alternate Contact Circuit' is not intended to be used as a Start/Stop circuit.
	P12	Output Contactor		A contactor is provided between the drive output and the motor. The contactor is controlled by customer supplied 120V AC (480V input) or 230V AC (400V input) remote contact closure logic. A terminal block for control is provided for customer use and is wired to 1 N.O. and 1 N.C. auxiliary contact on the contactor. Note: As an alternative to an output contactor, certain safety applications can be satisfied using the PowerFlex 750-Series Safe Torque Off Option Card (Cat. No. 20-750-S). Safe Torque Off is ideal for safety related applications requiring removal of rotational power to the motor without removing power from the drive. Safe Torque Off functionality offers the benefit of quick start-up after a demand on the safety system and helps reduce wear from repetitive start-up. It also provides safety ratings up to and including SIL3, PL e, and CAT 3.
Reactors ^{(1) (3)}	L1	3% Input Reactor	8...9	Provides an open core drive input line reactor that mounts inside the power bay option enclosure. Typical impedance is 3%.
	L2	3% Output Reactor		Provides an open core drive output load reactor, which mounts inside the power bay option enclosure. Typical impedance is 3%.
	L3	5% Input Reactor	8 Only	Provides an open core drive input line reactor that mounts inside the power bay option enclosure. Typical impedance is 5%.
	L4	5% Output Reactor		Provides an open core drive output load reactor, which mounts inside the power bay option enclosure. Typical impedance is 5%.
MCC Power Bus ^{(1) (4)}	P20	1250 Amp Bus	8...10	Provides a 1250 Amp MCC Bus.
	P22	2000 Amp Bus		Provides a 2000 Amp MCC Bus.
	P24	3000 Amp Bus		Provides a 3000 Amp MCC Bus.
Auxiliary Power	X1	Auxiliary Transformer	8 Only	Auxiliary transformer providing 500VA. Available as an option on frame 8, IP20 units. This option is standard on all other cabinet configurations.

(1) Only one option of this type can be selected.

(2) Contactor options are not available for systems with MCC power bus.

(3) To accommodate a larger reactor, an 800 mm deep cabinet must be selected for the following Frame 8 drives; C750, C770, D710, D740 at light duty (LD), and C770 at normal-duty (ND).

(4) MCC bus is connected to the line side of the disconnect, as delivered from the factory.

Enclosure Type Selections

Code	Description
B	600 mm deep, IP20/NEMA 1, standard color (RAL 7032)
L	800 mm deep, IP20/NEMA 1, standard color (RAL 7032)
P	800 mm deep, IP20/NEMA 1, with Motor Control Center (MCC) power bus option, standard color (RAL 7032)
W	800 mm deep, IP20/NEMA 1, with MCC power bus option, CENTERLINE 2100 gray (ASA49)
J	800 mm deep, IP54/NEMA 12, standard color (RAL 7032)
K	800 mm deep, IP54/NEMA 12, with MCC power bus option, standard color (RAL 7032)
Y	800 mm deep, IP54/NEMA 12, with MCC power bus option, CENTERLINE 2100 gray (ASA49)

380...400V AC, Three-phase Input Drives ^{(1) (2)}

Light Duty			Normal Duty					Heavy Duty				Base Drive Cat. No. ^{(3) (4) (5)}	Frame Size
Output Amps			Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s		Cont.	1 min	3 s			
485	534	—	400	430	473	666	350	370	555	666	300	21G1A*D430JNONNNNN	8
545	600		450	485	534	745	400	414	621	745	350	21G1A*D485JNONNNNN	
590	649		500	545	600	818	450	454	681	818	350	21G1A*D545JNONNNNN	
710	781		600	617	679	926	500	485	728	926	400	21G1A*D617JNONNNNN	
765	842		650	710	781	1065	600	545	818	1065	450	21G1A*D710JNONNNNN	
800	880		700	740	817	1110	650	617	926	1110	500	21G1A*D740JNONNNNN	
960	1056		800	800	880	1278	700	710	1065	1278	600	21G11*D800JNONNNNN	9
1045	1150	900	960	1056	1440	800	795	1193	1440	700	21G11*D960JNONNNNN		
1135	1249	1000	1045	1150	1568	900	800	1200	1568	750	21G11*D1K0JNONNNNN		
1365	1502	1100	1135	1249	1728	1000	960	1440	1728	800	21G11*D1K2JNONNNNN		
1420	1562	1250	1365	1502	2048	1100	1045	1568	2048	900	21G11*D1K3JNONNNNN		
1540	1694	1350	1420	1562	2130	1250	1135	1703	2130	1000	21G11*D1K4JNONNNNN		
1655	1821	1500	1525	1678	2288	1350	1270	1905	2288	1100	21G11*D1K5JNONNNNN	10	
2240	2464	2000	2070	2277	3105	1750	1730	2595	3105	1650	21G11*D2K0JNONNNNN		

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page 200.

(3) The 5th character determines Input Type. "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see DRIVES-SG001, the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 6th character (designated by an * in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

600V AC, Three-phase Input Drives^{(1) (2)}

Light Duty				Normal Duty					Heavy Duty			Base Drive Cat. No. ^{(3) (4) (5)}	Frame Size
Output Amps			Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s		Cont.	1 min	3 s			
355	391	—	350	295	325	490	300	272	408	490	250	21G1A*E295JNONNNNN	8
395	435		400	355	391	533	350	295	443	533	300	21G1A*E355JNONNNNN	
435	479		450	395	435	593	400	329	494	593	350	21G1A*E395JNONNNNN	
460	506		500	435	479	639	450	355	533	639	350	21G1A*E435JNONNNNN	
510	561		500	460	506	711	500	395	593	711	400	21G1A*E460JNONNNNN	
545	600		550	510	561	765	500	425	638	765	450	21G1A*E510JNONNNNN	
690	759	—	700	595	655	918	600	510	765	918	500	21G11*E595JNONNNNN	9
760	836		800	630	693	1071	700	595	893	1071	600	21G11*E630JNONNNNN	
835	919		900	760	836	1140	800	630	945	1140	700	21G11*E760JNONNNNN	
900	990		950	825	908	1260	900	700	1050	1260	750	21G11*E825JNONNNNN	
980	1078		1000	900	990	1368	950	760	1140	1368	800	21G11*E900JNONNNNN	10
1045	1150		1100	980	1078	1470	1000	815	1223	1470	900	21G11*E980JNONNNNN	
1220	1342		1200	1110	1221	1665	1100	920	1380	1665	1000	21G11*E1K1JNONNNNN	
1530	1683		1500	1430	1573	2145	1400	1190	1785	2145	1250	21G11*E1K4JNONNNNN	

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page [200](#).

(3) The 5th character determines Input Type. "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see DRIVES-SG001, the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 6th character (designated by an * in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

690V AC, Three-phase Input Drives^{(1) (2)}

Light Duty			Normal Duty					Heavy Duty				Base Drive Cat. No. ^{(3) (4) (5)}	Frame Size
Output Amps			Hp	Output Amps			Hp	Output Amps			Hp		
Cont.	1 min	3 s		Cont.	1 min	3 s		Cont.	1 min	3 s			
330	363	—	315	265	292	375	250	215	323	375	200	21G1A*F265JNONNNNN	8
370	407		355	330	363	473	315	265	398	473	250	21G1A*F330JNONNNNN	
410	451		400	370	407	555	355	308	462	555	300	21G1A*F370JNONNNNN	
460	506		450	415	457	639	400	370	555	639	355	21G1A*F415JNONNNNN	
500	550		500	460	506	675	450	375	563	675	375	21G1A*F460JNONNNNN	
530	583		530	500	550	750	500	413	620	750	400	21G1A*F500JNONNNNN	
650	715		630	590	649	885	560	460	690	885	450	21G11*F590JNONNNNN	9
710	781		710	650	715	975	630	500	750	975	500	21G11*F650JNONNNNN	
790	869		800	710	781	1065	710	590	885	1065	560	21G11*F710JNONNNNN	
860	946		850	765	842	1170	750	650	975	1170	630	21G11*F765JNONNNNN	
960	1056	900	795	875	1350	800	750	1125	1350	710	21G11*F795JNONNNNN		
1020	1122	1000	960	1056	1440	900	795	1193	1440	800	21G11*F960JNONNNNN	10	
1150	1265	1100	1040	1144	1560	1000	865	1298	1560	900	21G11*F1K0JNONNNNN		
1485	1634	1500	1400	1540	2100	1400	1160	1740	2100	1120	21G11*F1K4JNONNNNN		

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. See page 200.

(3) The 5th character determines Input Type. "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see DRIVES-SG001, the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 6th character (designated by an * in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

Connect to a CENTERLINE Motor Control Center (MCC)

To select the splice kit best suited for your application, determine the following.

1. Are you connecting to a CENTERLINE® 2100 or CENTERLINE 2500 MCC?
2. While facing the front of the PowerFlex 755 drive, decide to which drive side that you want to connect.
3. Are you connecting PowerFlex 755 floor mount drives together, or are you connecting a PowerFlex 755 floor mount drive to a CENTERLINE MCC?

If you are connecting PowerFlex 755 floor mount drives together or if you are connecting a PowerFlex 755 floor mount drive to a CENTERLINE 2500 MCC, then use PowerFlex 755 CENTERLINE 2500 Splice Kits.

Otherwise, use PowerFlex 755 CENTERLINE 2100 Splice Kits.

NOTE: A splice kit contains three splice plates.

PowerFlex 755 CENTERLINE 2100 Splice Kits

A complete installation requires one transition section and one bus bar splicing kit. Splicing kits include all necessary hardware to complete connection of all three-phases.

PowerFlex 755 CENTERLINE 2100 Splice Kits

Mounting Channel	Busbar Position ⁽¹⁾	Amp Rating	Left-side Kit Cat. No.	Right-side Kit Cat. No.	Frame Sizes
N/A	Transition section ⁽²⁾	N/A	20-750-XSEC-LH-20G	20-750-XSEC-RH-20G	8...10
For use with MCCs that have 1.5 in. mounting channels	Standard	1200	20-750-XBUS-LHNB-1200	20-750-XBUS-RHNB-1200	8...10
		2000	20-750-XBUS-LHNB-2000	20-750-XBUS-RHNB-2000	
		3000	20-750-XBUS-LHNB-3000	20-750-XBUS-RHNB-3000	
	Bumped back	1200	20-750-XBUS-LHBB-1200	20-750-XBUS-RHBB-1200	
		2000	20-750-XBUS-LHBB-2000	20-750-XBUS-RHBB-2000	
		3000	20-750-XBUS-LHBB-3000	20-750-XBUS-RHBB-3000	
For use with MCCs that do not have mounting channels	Standard	1200	20-750-XBUS-LLNB-1200	20-750-XBUS-RLNB-1200	8...10
		2000	20-750-XBUS-LLNB-2000	20-750-XBUS-RLNB-2000	
		3000	20-750-XBUS-LLNB-3000	20-750-XBUS-RLNB-3000	
	Bumped back	1200	20-750-XBUS-LLBB-1200	20-750-XBUS-RLBB-1200	
		2000	20-750-XBUS-LLBB-2000	20-750-XBUS-RLBB-2000	
		3000	20-750-XBUS-LLBB-3000	20-750-XBUS-RLBB-3000	

(1) All busbar positions are 20 in. deep.

(2) Hardware is included to install the optional 1.5 in. mounting channel.

PowerFlex 755 CENTERLINE 2500 Splice Kits

Splicing kits include all necessary hardware to complete connection of all three-phases.

PowerFlex 755 CENTERLINE 2500 Splice Kits

Description	Cat. No.	Frame Sizes
1200A Splice Kit to connect right side of drive to a CENTERLINE® 2500 cabinet	20-750-MBUSR1-1200	8...10
2000A Splice Kit to connect right side of drive to a CENTERLINE 2500 cabinet	20-750-MBUSR1-2000	
3000A Splice Kit to connect right side of drive to a CENTERLINE 2500 cabinet	20-750-MBUSR1-3200	
1200A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet	20-750-MBUSL1-1200	
2000A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet	20-750-MBUSL1-2000	
3000A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet	20-750-MBUSL1-3200	

PowerFlex 755 Empty Option Bay

This section is for applications with a PowerFlex 755 floor mount drive that need additional cabinet space. These added cabinets provide an elegant packaging option when expanding a PowerFlex 755, frame 8, 9, or 10 lineup. All Empty Option Bay cabinets match the standard color (RAL 7032) of the PowerFlex 755 Floor Mount Drive. Each Empty Option Bay includes a sub-panel. Reference publication For installation details, see publication 750-IN031.

The Right Mount Bus Bar kits listed below can only be installed to the right of a PowerFlex 755 Floor Mount Drive, when facing the front of the drive. If the application requires mounting the Empty Option Bay to the left of the PowerFlex 755 Floor Mount Drive, then the Rear Drive Bus Bar can be installed behind the drive unit(s). Power cabling is landed on the Rear Drive Bus Bars and passed through the cabinet side wall to the Empty Option Bay.

The Option Bay Hardware Kit listed below contains the door handle, an air barrier (for use between cabinets) and a door overlay label. One is required for each option bay.

PowerFlex 755 Empty Option Bay ⁽¹⁾

Description	Cat. No.	Frame Sizes
Option Bay, 600 mm wide by 600 mm deep, Beige ⁽²⁾	20-750-PBAY-66 8...10	8...10
Option Bay, 800 mm wide by 600 mm deep, Beige ⁽²⁾	20-750-PBAY-86	
Option Bay, 1200 mm wide by 600 mm deep, Beige ⁽²⁾	20-750-PBAY-126	
Option Bay, 600 mm wide by 800 mm deep, Beige ⁽³⁾	20-750-PBAY-68	
Option Bay, 800 mm wide by 800 mm deep, Beige ⁽³⁾	20-750-PBAY-88	
Option Bay, 1200 mm wide by 800 mm deep, Beige ⁽³⁾	20-750-PBAY-128	
Option Bay Hardware Kit (one kit is required for each cabinet selected) ⁽⁴⁾	20-750-PBAY-HWD-1	
Option Bay Seal Kit, IP54	20-750-PBAY-IP54	
Empty Bay, RH Bus Bar, 975 A, continuous ⁽⁵⁾	20-750-PBAY-RHBB-975	
Empty Bay, RH Bus Bar, 1235 A, continuous ⁽⁵⁾	20-750-PBAY-RHBB-1235	
Empty Bay, RH Bus Bar, 1625 A, continuous ⁽⁵⁾	20-750-PBAY-RHBB-1625	
Empty Bay, RH Bus Bar, 2437 A, continuous ⁽⁵⁾	20-750-PBAY-RHBB-2437	
Right Mount Bus Bar, Cable Connection, 2-Hole	20-750-PBAY-LBRK-2	
Right Mount Bus Bar, Cable Connection, 4-Hole	20-750-PBAY-LBRK-4	
Right Mount Bus Bar, Installation Kit, 3-Phase Connection ⁽⁵⁾	20-750-PBAY-INS-3	
Right Mount Bus Bar, Installation Kit, DC Connection ⁽⁵⁾	20-750-PBAY-INS-2	
Rear Drive Bus Bar, Cable Connection ⁽³⁾	20-750-PBAY-RBRK-2	

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) Only use with 600mm deep cabinet (drive enclosure code B).

(3) Only use with a 800 mm deep cabinet (drive enclosure code J, K, L, P, W or Y).

(4) Hardware kit includes door handle, door overlay label and Formex air barrier (installed between cabinets).

(5) Installed to the right of any PowerFlex 755 floor mount drive except a Frame 8 with disconnect (-P3 or -P5 option).

Certifications and Specifications

This section provides information for certifications and specifications.

Certifications

Certification	Description
ABS	American Bureau of Shipping Certificate 11-HS743429
c-UL-us	Listed to UL508C and CSA22.2 No. 14 (does not apply to 21G drives with enclosure code P or W).
CE	In conformity with these European Directives EMC Directive EN 61800-3 Low Voltage Directive EN 61800-5-1 ATEX Directive (94/9/EC and 2014/34/EU) EC-Type-Examination Certificate Number TÜV 12 ATEX 7328 X EN 50495
SEMI F47	Certified compliant with the following standards SEMI F47 IEC 61000-4-34
EAC	Low Voltage TP TC 004/2011 EMC TP TC 020/2011
Functional Safety	TÜV Rheinland – Certification applies to 20-750-S, 20-750-S1, 20-750-S3, and 20-750-S4 Safety Options when installed in drive. Standards applied EN 61800-3, EN 61508 PARTS 1-7 EN 61800-5-1, EN 62061 EN 61800-5-2, EN 60204-1 EN ISO 13849-1
KCC	KCC-REM-RAA-20F-A, KCC-REM-RAA-20G-A, MSIP-REM-RAA-20F-C KCC-REM-RAA-20F-B, KCC-REM-RAA-20G-B, MSIP-REM-RAA-20F-D KCC-REM-RAA-20G-C, MSIP-REM-RAA-20G-D MSIP-REM-RAA-20F-E, MSIP-REM-RAA-20G-E See the certificate of registration for specific drive catalog numbers that have this certification. ⁽¹⁾
Lloyd's Register	Lloyd's Register Type Approval Certificate 11/60008 (For drives manufactured before 6/28/2016)
RCM	Australian Communications and Media Authority In conformity with the following items Radiocommunications Act: 1992 Radiocommunications Standard: 2008 Radiocommunications Labeling Notice: 2008 Standards applied EN 61800-3
RINA	RINA Certificate ELE349811CS

(1) See the product certifications website, <http://www.rockwellautomation.com/global/certification/overview.page>, for declarations of conformity, certificates, and other certification details.

Environmental Specifications

Category	Specification																																	
Altitude	Based on load. See derating guidelines on pages 70 . . . 91 .																																	
	Based on voltage. See this table and the footnotes that are based on EN61800-5-1 (Electro-thermal Safety Standard for drives).																																	
	<table><tr><th rowspan="2">System and Ground Configuration</th><th rowspan="2">Overvoltage Category⁽³⁾</th><th colspan="4">Altitude Limit Above Sea Level, mm (ft)⁽⁴⁾⁽⁵⁾</th></tr><tr><th>208/240V AC</th><th>400/480V AC</th><th>600V AC</th><th>690V AC</th></tr><tr><td rowspan="2">Center grounded (Y neutral) (TT or TN-S)⁽¹⁾</td><td>II (2)</td><td>9000 (29,527.5)⁽⁶⁾</td><td>9000 (29,527.5)⁽⁶⁾</td><td>7500 (24,606.3)⁽⁶⁾</td><td>7500 (24,606.3)⁽⁶⁾</td></tr><tr><td>III (3)</td><td>9000 (29,527.5)⁽⁶⁾</td><td>4800 (15,748.0)</td><td>4800 (15,748.0)</td><td>4800 (15,748.0)</td></tr><tr><td>Ungrounded, impedance⁽²⁾ (IT)⁽¹⁾</td><td>II (2)</td><td>9000 (29,527.5)⁽⁶⁾</td><td>4800 (15,748.0)</td><td>7500 (24,606.3)⁽⁶⁾</td><td>4800 (15,748.0)</td></tr><tr><td>Grounded, or corner grounded⁽²⁾</td><td>III (3)</td><td>4800 (15,748.0)</td><td>2000 (6,561.7)</td><td>4800 (15,748.0)</td><td>2000 (6,561.7)</td></tr></table>	System and Ground Configuration	Overvoltage Category ⁽³⁾	Altitude Limit Above Sea Level, mm (ft) ⁽⁴⁾⁽⁵⁾				208/240V AC	400/480V AC	600V AC	690V AC	Center grounded (Y neutral) (TT or TN-S) ⁽¹⁾	II (2)	9000 (29,527.5) ⁽⁶⁾	9000 (29,527.5) ⁽⁶⁾	7500 (24,606.3) ⁽⁶⁾	7500 (24,606.3) ⁽⁶⁾	III (3)	9000 (29,527.5) ⁽⁶⁾	4800 (15,748.0)	4800 (15,748.0)	4800 (15,748.0)	Ungrounded, impedance ⁽²⁾ (IT) ⁽¹⁾	II (2)	9000 (29,527.5) ⁽⁶⁾	4800 (15,748.0)	7500 (24,606.3) ⁽⁶⁾	4800 (15,748.0)	Grounded, or corner grounded ⁽²⁾	III (3)	4800 (15,748.0)	2000 (6,561.7)	4800 (15,748.0)	2000 (6,561.7)
	System and Ground Configuration			Overvoltage Category ⁽³⁾	Altitude Limit Above Sea Level, mm (ft) ⁽⁴⁾⁽⁵⁾																													
		208/240V AC	400/480V AC		600V AC	690V AC																												
	Center grounded (Y neutral) (TT or TN-S) ⁽¹⁾	II (2)	9000 (29,527.5) ⁽⁶⁾	9000 (29,527.5) ⁽⁶⁾	7500 (24,606.3) ⁽⁶⁾	7500 (24,606.3) ⁽⁶⁾																												
		III (3)	9000 (29,527.5) ⁽⁶⁾	4800 (15,748.0)	4800 (15,748.0)	4800 (15,748.0)																												
	Ungrounded, impedance ⁽²⁾ (IT) ⁽¹⁾	II (2)	9000 (29,527.5) ⁽⁶⁾	4800 (15,748.0)	7500 (24,606.3) ⁽⁶⁾	4800 (15,748.0)																												
	Grounded, or corner grounded ⁽²⁾	III (3)	4800 (15,748.0)	2000 (6,561.7)	4800 (15,748.0)	2000 (6,561.7)																												
	(1) IEC Standard 60364																																	
	(2) In CE installations, Frame 1 drives do not support ungrounded or corner grounded configurations.																																	
	(3) Category II (Isolation Transformer Level) - Typically two levels of isolation or protection from outdoor power lines. Category III (most common) Distribution Level Inside a Building - Typically one level of isolation or protection from outdoor power lines.																																	
(4) Excluding failure from cosmic radiation. Cosmic radiation increases rate of IGBT malfunction at altitudes greater than 3000 m (9842.6) above sea level. Concrete walls and ceilings or concrete walls and large bottles of water overhead are examples of ways to shield against cosmic radiation.																																		
(5) Frame 1 drives are limited to a maximum of 2000 m (6,561.7 ft) thermally. See Derating Guidelines on page 62 .																																		
(6) Drive is limited to a maximum of 4800 m (15,748.0 ft) thermally. See Derating Guidelines on page 62 .																																		
Maximum surrounding air temperature																																		
	IP20, NEMA/UL Open Type	0 . . . 50 °C (32 . . . 122 °F)	Frames 1 . . . 5, all ratings																															
	IP00, NEMA/UL Open Type	0 . . . 50 °C (32 . . . 122 °F) 0 . . . 40 °C (32 . . . 104 °F)	Frames 6 and 7, 12 . . . 456 A ratings Frame 7, 477 A rating																															
	IP20, NEMA/UL Type 1 (with hood)	0 . . . 40 °C (32 . . . 104 °F)	Frames 1 . . . 5, all ratings																															
	IP20, NEMA/UL Type 1 (with label)	0 . . . 40 °C (32 . . . 104 °F)	Frames 6 and 7, all ratings																															
	IP00, NEMA/UL Open Type	0 . . . 40 °C (32 . . . 104 °F) ⁽¹⁾	Frames 8 . . . 10, all ratings																															
	IP20, NEMA/UL Type 1	0 . . . 40 °C (32 . . . 104 °F) ⁽¹⁾	Frames 8 . . . 10, all ratings																															
	IP54, NEMA 12	0 . . . 40 °C (32 . . . 104 °F) ⁽¹⁾	Frames 8 . . . 10, all ratings																															
	Flange mount – front																																	
	IP20, NEMA/UL Open Type	0 . . . 50 °C (32 . . . 122 °F)	Frames 2 . . . 5, all ratings																															
	IP00, NEMA/UL Open Type	0 . . . 50 °C (32 . . . 122 °F) 0 . . . 40 °C (32 . . . 104 °F)	Frames 6 and 7, 12 . . . 456 A ratings Frame 7, 477 A rating																															
	Back/Heat sink																																	
IP66, NEMA/UL Type 4X	0 . . . 40 °C (32 . . . 104 °F)	Frames 2 . . . 7, all ratings																																
Stand-alone/Wall-mount																																		
IP54, NEMA/UL Type 12	0 . . . 40 °C (32 . . . 104 °F)	Frames 2 . . . 7, all ratings																																
Storage temperature (all constructions)	-40 . . . 70 °C (-40 . . . 158 °F)																																	
Atmospheric protection	IMPORTANT: Do not install the drive in an area where the ambient atmosphere contains volatile or corrosive gas, vapors, or dust. If the drive is not going to be installed right away, store the drive in an area where it is not exposed to a corrosive atmosphere.																																	
IEC	Conformity with IEC 60721-3-3, 3C3 and 3S2, for components manufactured by Rockwell Automation. A suitable IP54, UL Type 12 Cabinet is required to meet the 3S2 requirement.																																	
UV radiation	The HIM and IP54, NEMA/UL Type 12 drive plastics are not UV rated.																																	
Relative humidity	5 . . . 95% noncondensing																																	

Environmental Specifications (Continued)

Category	Specification			
Shock – operating	Frames 1...6 Frame 7 Frames 8...10	15 g peak for 11 ms duration (±1.0 ms) 10 g peak for 11 ms duration (±1.0 ms) Power core – 10 g peak for 11 ms duration (±1.0 ms) in cabinet with option bay – 5 g peak for 11 ms duration (±1.0 ms)		
Shock – packaged for shipment	Frames 1 and 2 Frames 3 and 4 Frame 5 Frames 6...10	381 mm (15 in.) drop height 330 mm (13 in.) drop height 305 mm (12 in.) drop height Meets International Safe Transit Association (ISTA) test procedure 2B		
Vibration – operating	Frames 1 and 2 Frames 3...5 Frames 6 and 7 Frames 8...10	1.000 mm (0.040 in.) displacement, 2 g peak 1.000 mm (0.040 in.) displacement, 1.5 g peak 1.000 mm (0.040 in.) displacement, 1 g peak Power core, drive in cabinet with option bay – 1.000 mm (0.040 in.) displacement, 1 g peak		
Vibration – packaged for shipment, sinusoidal loose load	Frames 1...5 Frames 6...10	20.0 mm (0.8 in.) peak to peak, 2...5.186 Hz; 1.1 g peak from 5.186...20 Hz Meets ISTA 2B packaging standards		
Vibration – packaged for shipment, random secured	Frames 1...5 Frames 6...10	Frequency (Hz) 1 4 16 40 80 200	PSD (g ² /Hz) 0.00005 0.01 0.01 0.001 0.001 0.00001 Meets International Safe Transit Association (ISTA) test procedure 2B.	
Required airflow	Frame 1 and 2 3 4 5 6	Total fan airflow 84.95 m ³ /h (50 CFM) 135.92 m ³ /h (80 CFM) 543.68 m ³ /h (320 CFM) 883.49 m ³ /h (520 CFM) 856.30 m ³ /h (504CFM)	Frame 7 8 9 10	Total fan airflow 1284.45 m ³ /h (756 CFM) 2293.67 m ³ /h (1350 CFM) 4587.33 m ³ /h (2700 CFM) 6880.99 m ³ /h (4050 CFM)
Sound IMPORTANT: Sound pressure level is measured at 2 m (6.7 ft).	Frame 1 and 2 3 4 5 6	Sound level 63 dB 64 dB 72 dB 77 dB 73 dB	Frame 7 8 9 10	Sound level 74 dB 79 dB 79 dB 83 dB
Surrounding environment pollution degree Pollution Degree 1 and 2 Pollution Degree 3 and 4	See page 131 for descriptions of each pollution degree rating. All enclosures acceptable. Enclosure that meets or exceeds IP54, NEMA/UL Type 12 required.			

(1) Maximum surrounding air temperature of 50 °C (122 °F) with derating. See [Derating Guidelines on page 62](#).

Technical Specifications

Category	Specification						
Protection		Motor Voltage					
		200/208V	240V	380/400V	480V	600V	690V
	AC input overvoltage trip	288V AC	288V AC	576V AC	576V AC	825V AC	825V AC
	AC input undervoltage trip	125V AC	150V AC	250V AC	300V AC	360V AC	430V AC
	Bus overvoltage trip	408V DC	408V DC	815V DC	815V DC	1172V DC	1172V DC
	Bus undervoltage shutoff Frames 1...7 Frames 8...10	150V DC —	150V DC —	200V DC 400V DC	200V DC 400V DC	200V DC (Frames 3...7) 400V DC	200V DC (Frames 6 and 7) 400V DC
	Nominal bus voltage (full load)	281V DC	324V DC	540V DC	648V DC	810V DC	932V DC
	Drive overcurrent trip Software overcurrent trip Instantaneous current limit Hardware overcurrent trip	200% of drive rated 100% of 3 s rating (158...210%) 143% of 3 s rating (215...287%)					
	Line transients	Up to 6000V peak per IEEE C62.41-1991					
	Control logic noise immunity	Showering arc transients up to 1500V peak					
	Power ride-through	15 ms at full load					
	Logic control ride-through	0.5 s min, 2 s typical					
	Ground fault trip	Phase-to-ground on drive output					
	Short circuit trip	Phase-to-phase on drive output					

Technical Specifications (Continued)

Category	Specification			
Electrical	AC input voltage tolerance	See Input Voltage Tolerance on page 57 for full power and operating range.		
	Frequency tolerance	47...63 Hz		
	Input phases	Three-phase input provides full rating for all drives. For Frames 1...7 (output current up to 456 A), single-phase operation provides up to 50% of rated current at 25 °C (77 °F) surrounding temperature. Single-phase operation is not recommended for Frames 8 and larger.		
	DC input voltage tolerance	±10% of nominal bus voltage (see Nominal bus voltage (full load) on page 54)		
	Displacement power factor	0.98 across entire speed range		
	DC link impedance	≤ 4%		
	Efficiency	97.5% at rated amps, nominal line volts		
	Maximum short circuit rating	200,000 A RMS symmetrical (20F and 20G drives only)		
	Actual short circuit rating	Determined by AIC rating of installed fuse/circuit breaker. See page 116 for 21G drives.		
	Drive to motor power ratio			
	Min	Recommended not less than 1:2 ratio		
	Max	Recommended not greater than 2:1 ratio		
	Brake IGBT rating	100% of motor-rated torque		
	Control POD current draw	5 A		
Digital inputs	DC	AC		
Nominal	24V DC	120V AC		
Maximum	30V DC	132V AC		
High state	20...24V DC	100...132V AC		
Low state	0...5V DC	0...30V AC		
PTC inputs	PowerFlex 753 MCB	22-Series I/O option module	ATEX option module for 11-Series I/O option module	
Standard	N/A ⁽¹⁾	DIN 44082	IEC 6094-8	
Trip resistance	3.1 kΩ	3.1 kΩ	3.2 kΩ	
Nominal resistance	1.8 kΩ	1.8 kΩ	1.6 kΩ	
Reset resistance	2.2 kΩ	2.2 kΩ	N/A ⁽³⁾	
Short circuit trip resistance	N/A ⁽²⁾	80 Ω	100 Ω	
	(1) Not designed to a standard.			
	(2) No short circuit fault.			
	(3) No hysteresis, fault is latched.			
Battery	User-installed CR1220 lithium coin cell battery provides power to the real-time clock (optional, not supplied). Preserves the clock setting in the event power to the drive is lost or cycled. Approximate life is 4.5 years with drive unpowered, or lifetime if drive is powered.			

Technical Specifications (Continued)

Category	Specification	
Control	Method	Sine coded PWM with programmable carrier frequency. Ratings apply to all drives.
	Carrier frequency	Default settings Frames 1...3 4 kHz Frames 4...10 2 kHz Settings Frames 1...6 2, 4, 8, 12 kHz ^{(1) (2)} Frame 7 2, 4, 8 kHz ⁽¹⁾ Frames 8...10 2, 4 kHz
	Output voltage range	0 to rated motor voltage
	Output frequency range	0...325 Hz at 2 kHz carrier 0...590 Hz at 4 kHz carrier
	Frequency accuracy Digital input Analog input	Within $\pm 0.01\%$ of set output frequency Within $\pm 0.4\%$ of maximum output frequency
	Frequency control	Speed regulation – with slip compensation (V/Hz and Sensorless Vector modes) 0.5% of base speed across 40:1 speed range, 40:1 operating range
	Speed control	Without feedback (Flux Vector mode), 0.1% of base speed across 100:1 speed range, 120:1 operating range, 50 rad/s bandwidth
		With feedback (Flux Vector mode), 0.001% of base speed across 100:1 speed range, 1000:1 operating range, 190 rad/s bandwidth
	Torque regulation	Without feedback (Flux Vector mode), $\pm 5\%$, 600 rad/s bandwidth
		With feedback (Flux Vector mode), $\pm 2\%$, 2500 rad/s bandwidth
	Selectable motor control	- Standard V/Hz with full custom capability - Sensorless Vector mode with full tuning - Flux Vector mode with and without a feedback device - Induction motor control - Surface-mount permanent magnet motor control with encoder feedback (Frames 1...10) ⁽³⁾ - Surface-mount permanent magnet motor control without encoder feedback (Frames 1...7) ⁽³⁾ - Internal permanent-magnet motor control with encoder feedback (Frames 1...10) - Internal permanent-magnet motor control without encoder feedback (Frames 1...7)
	Stop modes	Multiple programmable stop modes including - Ramp, Coast, DC-Brake, Ramp-to-Hold, Fast Braking, and Current Limit Stop.
	Accel/Decel	Two independently programmable accel and decel times. Each time can be programmed from 0...3600 seconds in 0.1 second increments (0 to motor nameplate speed).
	S-curve time	Adjustable from 0...100% of ramp time (normal duty rating)
	Intermittent overload	
	Light duty (only Frames 8...10)	110% overload capability for up to 1 min out of 10 mins
	Normal duty	110% overload capability for up to 1 min out of 10 mins 150% overload capability for up to 3 s out of 60 s
	Heavy duty	150% overload capability for up to 1 min out of 10 mins 180% overload capability for up to 3 s out of 60 s
	Current limit capability	Proactive current limit programmable from 20...160% of rated output current. Independently programmable proportional and integral gain.
	Electronic motor overload protection	Class 10 motor overload protection according to NEC article 430 and motor over-temperature protection according to NEC article 430.126 (A)(2). UL 508C File E59272.

(1) Frames 6 and 7 600/690V AC input drives can be set to 2 kHz or 4 kHz.

(2) Frames 3...5 600/690V AC input drives can be set to 2, 4, or 8 kHz.

(3) Only PowerFlex 755 drives.

Design Considerations

This section provides information for design considerations.

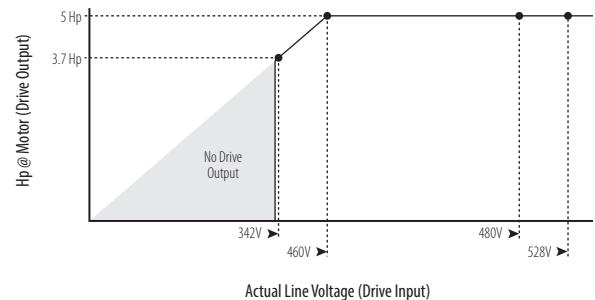
Input Voltage Tolerance

Drive Rating	Nominal Line Voltage	Nominal Motor Voltage	Drive Full Power Range	Drive Operating Range		
200...240	200	200	200...264	180...264	Hp @ Motor (Drive Output) No Drive Output Derated Power Range Full Power Range Drive Operating Range Nominal Motor Voltage - 10% Nominal Motor Voltage Drive Rated Voltage Drive Rated Voltage + 10% Actual Line Voltage (Drive Input)	
	208	208	208...264			
	240	230	230...264			
380...480	380	380	380...528	342...528		
	400	400	400...528			
	480	460	460...528			
600...690	600	575	575...759	517...759		
	690	660	660...759			
Drive full power range =	Nominal motor voltage to drive-rated voltage + 10%. Rated current is available across the entire drive full-power range.					
Drive operating range =	Lowest nominal motor voltage - 10% to drive-rated voltage + 10%. Drive output is linearly derated when actual line voltage is less than the nominal motor voltage					

EXAMPLE Calculate the maximum power of a 5.0 Hp, 460V motor connected to a 480V-rated drive supplied with 342V actual line voltage input.

- Actual line voltage/nominal motor voltage = 74.3%
- 74.3% x 5.0 Hp = 3.7 Hp
- 74.3% x 60 Hz = 44.6 Hz

At 342V actual line voltage, the maximum power the 5.0 Hp, 460V motor can produce is 3.7 Hp at 44.6 Hz.



IMPORTANT For maximum protection of the drive and its internal components, we recommend the use of semiconductor fuses to other methods of circuit protection. Semiconductor fuses reduce the risk of drive damage from power quality events and improves machine and process utilization.

Approximate Watts Loss

The following table lists watts loss data for PowerFlex 750-Series drives running at full load, full speed, and default carrier frequency.

Internal watts are the watts that the control structure of the drive dissipates into the cabinet, regardless of mounting style. External watts are the watts that are dissipated directly through the heatsink and are outside the cabinet for flange mount, and inside the cabinet for other mounting types.

Watts Loss for 208/240V Drives

Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts ⁽³⁾	Internal Watts ⁽³⁾	Total Watts ⁽³⁾	Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts ⁽³⁾	Internal Watts ⁽³⁾	Total Watts ⁽³⁾
	kW	Continuous Output Amps ⁽³⁾					Hp	Continuous Output Amps			
208 Volt						240 Volt					
20x...B2P2	0.37	2.5	34 (23)	57 (57)	91 (80)	20x...B2P2	0.5	2.2	29 (20)	61 (56)	90 (76)
20x...B4P2	0.75	4.8	63 (46)	60 (62)	124 (108)	20x...B4P2	1	4.2	52 (40)	63 (60)	115 (100)
20x...B6P8	1.5	7.8	80 (72)	64 (75)	144 (147)	20x...B6P8	2	6.8	67 (61)	66 (71)	133 (132)
20x...B9P6	2.2	11	110 (99)	70 (82)	180 (181)	20x...B9P6	3	9.6	92 (84)	71 (76)	163 (160)
20x...B015	4	17.5 (15.3)	169 (157)	76 (79)	245 (236)	20x...B015	5	15.3	141 (158)	76 (80)	217 (238)
20x...B022	5.5	22	237	87	324	20x...B022	7.5	22	240	92	331
20x...B028	7.5	32.2	328	104	432	20x...B028	10	28	272	98	370
20x...B042	11	43	459	122	581	20x...B042	15	42	458	125	583
20x...B054	15	60	505	132	637	20x...B054	20	54	439	128	567
20x...B070	18.5	78.2	643	152	796	20x...B070	25	70	557	146	703
20x...B080	22	92	788	181	969	20x...B080	30	80	653	163	816
20x...B104	30	120	1054	274	1327	20x...B104	40	104	874	252	1126
20x...B130	37	150	1184	266	1449	20x...B130	50	130	997	248	1245
20x...B154	45	177	1492	317	1808	20x...B154	60	154	1250	288	1538
20x...B192	55	221	1921	403	2324	20x...B192	75	192	1597	355	1952
20x...B260	66	260	2418	499	2917	20x...B260	100	260	2426	513	2939
20x...B312	90	359	3120	561	3681	20x...B312	125	312	2602	491	3094
20x...B360	110	414	3384	646	4029	20x...B360	150	360	2817	557	3373
20x...B477	132	477	4135	789	4924	20x...B477	200	477	4156	810	4966

(1) Select the watts loss based on the catalog number.

(2) Frames 8...10, enclosure codes B, J, L, P, and W.

(3) Frame 1 watts loss in parentheses.

Watts Loss for 400/480V Drives

Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts ⁽³⁾	Internal Watts ⁽³⁾	Total Watts ⁽³⁾	Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts ⁽³⁾	Internal Watts ⁽³⁾	Total Watts ⁽³⁾
	kW	Continuous Output Amps					Hp	Continuous Output Amps			
400 Volt						480 Volt					
20x...C2P1	0.75	2.1	16 (16)	55 (56)	71 (72)	20x...D2P1	1.0	2.1	17 (21)	60 (61)	77 (82)
20x...C3P5	1.5	3.5	26 (33)	57 (60)	83 (93)	20x...D3P4	2.0	3.4	27 (39)	61 (64)	88 (103)
20x...C5P0	2.2	5	39 (44)	58 (62)	97 (106)	20x...D5P0	3.0	5	41 (54)	63 (67)	104 (121)
20x...C8P7	4.0	8.7	75 (79)	64 (80)	139 (159)	20x...D8P0	5.0	8	71 (91)	68 (82)	139 (173)
20x...C011	5.5	11.5	108 (107)	70 (85)	178 (192)	20x...D011	7.5	11	108 (118)	74 (88)	182 (206)
20x...C015	7.5	15.4	161 (166)	80 (80)	241 (246)	20x...D014	10	14	149 (152)	81 (81)	230 (233)
20x...C022	11	22	225	86	311	20x...D022	15	22	237	91	328
20x...C030	15	30	300	103	403	20x...D027	20	27	273	101	374
20x...C037	18.5	37	362	115	477	20x...D034	25	34	368	115	483
20x...C043	22	43	505	126	631	20x...D040	30	40	503	126	629
20x...C060	30	60	487	130	617	20x...D052	40	52	422	125	547
20x...C072	37	72	615	147	762	20x...D065	50	65	559	144	703
20x...C085	45	85	705	162	867	20x...D077	60	77	646	158	804
20x...C104	55	104	928	201	1129	20x...D096	75	96	855	189	1044
20x...C140	75	140	1239	319	1558	20x...D125	100	125	1109	299	1408
20x...C170	90	170	1381	300	1681	20x...D156	125	156	1299	294	1593
20x...C205	110	205	1893	381	2274	20x...D186	150	186	1718	358	2076
20x...C260	132	260	2449	502	2951	20x...D248	200	248	2384	492	2876
20x...C302	160	302	2566	461	3027	20x...D302	250	302	2704	491	3195
20x...C367	200	367	3322	586	3908	20x...D361	300	361	3409	606	4015
20x...C456	250	456	3922	743	4665	20x...D415	350	415	3604	683	4287
2xG...C460	250	460	4779	1090	5869	2xG...D430	350	430	4385	971	5356
20x...C477	270	477	4199	793	4992	20x...D477	400	477	4392	828	5220
2xG...C540	315	540	5316	1216	6532	2xG...D485	400	485	5091	1126	6217
2xG...C567	315	567	5652	1298	6950	2xG...D545	450	545	5649	1253	6902
2xG...C650	355	650	7011	1577	8588	2xG...D617	500	617	6942	1489	8431
2xG...C750	400	750	7577	1726	9303	2xG...D710	600	710	7631	1659	9290
2xG...C770	400	770	8086	1848	9934	2xG...D740	650	740	8133	1776	9909
2xG...C910	500	910	9155	2251	11406	2xG...D800	700	800	8710	2216	10926
2xG...C1K0	560	1040	9732	2357	12089	2xG...D960	800	960	9696	2391	12087
2xG...C1K1	630	1090	10745	2548	13293	2xG...D1K0	900	1045	10784	2589	13373
2xG...C1K2	710	1175	13778	2978	16756	2xG...D1K2	1000	1135	13378	2899	16277
2xG...C1K4	800	1465	13959	3013	16973	2xG...D1K3	1100	1365	14055	3025	17080
2xG...C1K5	850	1480	15441	3308	18749	2xG...D1K4	1250	1420	15573	3314	18887
2xG...C1K6	900	1590	15569	3717	19286	2xG...D1K5	1350	1525	15619	3779	19398
2xG...C2K1	1250	2150	22320	4790	27110	2xG...D2K0	1750	2070	22495	4802	27297

(1) Select the watts loss based on the catalog number.

(2) Frames 8...10, enclosure codes B, J, L, P, and W.

(3) Frame 1 watts loss in parentheses.

Watts Loss for 600/690V Drives

Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts	Internal Watts	Total Watts	Drive Cat. No. ⁽¹⁾⁽²⁾	Normal Duty		External Watts	Internal Watts	Total Watts
	kW	Continuous Output Amps					Hp	Continuous Output Amps			
690 Volt						600 Volt					
						20x...E1P7	1.0	1.7	23	15	38
						20x...E2P7	2.0	2.7	40	17	57
						20x...E3P9	3.0	3.9	51	18	69
						20x...E6P1	5.0	6.1	80	22	103
						20x...E9P0	7.5	9	122	29	150
						20x...E011	10	11	152	34	186
20x...F012	7.5	12	169	50	219	20x...E012	10	12	168	50	217
						20x...E017	15	17	249	54	302
20x...F015	11	15	226	56	282	20x...E018	15	18	269	61	331
						20x...E022	20	22	329	74	403
20x...F020	15	20	296	65	361	20x...E023	20	23	332	70	403
20x...F023	18.5	23	327	70	397	20x...E024	20	24	326	71	397
						20x...E027	25	27	411	84	494
20x...F030	22	30	428	85	513	20x...E028	25	28	375	79	453
						20x...E032	30	32	503	105	608
20x...F034	30	34	478	94	573	20x...E033	30	33	439	90	528
						20x...E041	40	41	590	128	718
20x...F046	37	46	649	126	775	20x...E042	40	42	555	112	667
						20x...E052	50	52	784	176	959
20x...F050	45	50	699	138	836	20x...E053	50	53	711	144	855
20x...F061	55	61	760	130	891	20x...E063	60	63	757	132	889
20x...F082	75	82	1044	182	1226	20x...E077	75	77	935	166	1101
20x...F098	90	98	1310	231	1541	20x...E099	100	99	1269	229	1499
20x...F119	110	119	1658	302	1961	20x...E125	125	125	1678	318	1996
20x...F142	132	142	2003	387	2391	20x...E144	150	144	1960	389	2349
20x...F171	160	171	2655	389	3044	20x...E192	200	192	2801	433	3234
20x...F212	200	212	3375	513	3889	20x...E242	250	242	3642	593	4235
20x...F263	250	263	4286	690	4976	20x...E289	300	289	4437	762	5200
2xG...F265	250	265	4314	996	5310	2xG...E295	300	295	4592	1030	5622
2xG...F330	315	330	5160	1127	6287	2xG...E355	350	355	5191	1131	6321
2xG...F370	355	370	5803	1233	7036	2xG...E395	400	395	5812	1240	7052
2xG...F415	400	415	5865	1211	7076	2xG...E435	450	435	5590	1163	6753
2xG...F460	450	460	6638	1337	7975	2xG...E460	500	460	6407	1301	7708
2xG...F500	500	500	7117	1417	8534	2xG...E510	500	510	6946	1396	8342
2xG...F590	560	590	8941	2077	11019	2xG...E595	600	595	8903	2053	10956
2xG...F650	630	650	9865	2220	12085	2xG...E630	700	630	9942	2225	12167
2xG...F710	710	710	11136	2425	13561	2xG...E760	800	760	11093	2424	13517
2xG...F765	750	765	11139	2368	13507	2xG...E825	900	825	11046	2342	13389
2xG...F795	800	795	12663	2611	15275	2xG...E900	950	900	12225	2539	14764
2xG...F960	900	860	13608	2767	16375	2xG...E980	1000	980	13211	2709	15920
2xG...F1K0	1000	1040	16147	3545	19692	2xG...E1K1	1100	1110	16169	3552	19720
2xG...F1K4	1400	1400	19716	4034	23750	2xG...E1K4	1400	1430	19256	3966	23222

(1) Select the watts loss based on the catalog number.

(2) Frames 8...10, enclosure codes B, L, P, and W.

Additional Watts Loss for Cabinet Options Bay

Drive Cat. No. ⁽¹⁾	Normal Duty		Cabinet Options Bay		Drive Cat. No. ⁽¹⁾	Normal Duty		Cabinet Options Bay	
	kW	Continuous Output Amps	Without Input or Output Line Reactor (Watts) ⁽²⁾	With Input or Output Line Reactor (Watts) ⁽²⁾		Hp	Continuous Output Amps	Without Input or Output Line Reactor (Watts) ⁽²⁾	With Input or Output Line Reactor (Watts) ⁽²⁾
400V					480V				
21G...C460	250	460	219	626	21G...D430	350	430	177	652
21G...C540	315	540	256	735	21G...D485	400	485	204	652
21G...C567	315	567	280	792	21G...D545	450	545	239	725
21G...C650	355	650	359	1123	21G...D617	500	617	295	983
21G...C750	400	750	404	1549	21G...D710	600	710	355	1410
21G...C770	400	770	441	1692	21G...D740	650	740	388	1542
21G...C910	500	910	327	2425	21G...D800	700	800	246	1867
21G...C1K0	560	1040	350	2651	21G...D960	800	960	364	2325
21G...C1K1	630	1090	384	2912	21G...D1K0	900	1045	353	2677
21G...C1K2	710	1175	446	3384	21G...D1K2	1000	1135	416	3158
21G...C1K4	800	1465	662	3520	21G...D1K3	1100	1365	574	3056
21G...C1K5	850	1480	675	3593	21G...D1K4	1250	1420	622	3307
690V					600V				
21G...F265	250	265	266	1090	21G...E295	300	295	233	838
21G...F330	315	330	304	1067	21G...E355	350	355	289	902
21G...F370	355	370	343	1288	21G...E395	400	395	328	759
21G...F415	400	415	379	1547	21G...E435	450	435	354	1208
21G...F460	450	460	240	1195	21G...E460	500	460	379	1327
21G...F500	500	500	251	1315	21G...E510	500	510	410	1450
21G...F590	560	590	134	2617	21G...E595	600	595	136	1659
21G...F650	630	650	162	3175	21G...E630	700	630	153	1860
21G...F710	710	710	194	2362	21G...E760	800	760	222	2706
21G...F765	750	765	225	2742	21G...E825	900	825	269	3196
21G...F795	800	795	243	2961	21G...E900	950	900	320	2372
21G...F960	900	960	364	2699	21G...E980	1000	980	310	2744

(1) Select the watts loss based on the catalog number.

(2) For MCC power bus options, add the following watts: 1250 A power bus = 188 watts; 2000 A power bus = 261 watts; 3200 A power bus = 421 watts.

Derating Guidelines

If a catalog number is not shown, you can operate that drive without derating as long as the limits specified on [page 52](#) and [page 53](#) are followed.

Ambient Temperature/Load and Altitude/Load – 208V AC (Frames 1...7)

Cat. No. (see page 5)	208V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps	2 kHz 4 kHz 8 kHz 12 kHz	2 kHz 4 kHz 8 kHz 12 kHz 2 kHz w/Cabinet Option (21G) 4 kHz w/Cabinet Option (21G)
20x...B6P8 (Frame 1)	—	—	1.5	7.8	0.75	4.8		
20x...B9P6 (Frame 1)	—	—	2.2	11	1.5	7.8		
20x...B015 (Frame 1)	—	—	4	15.3	2.2	11		
20x...B015 (Frame 2)	—	—	4	17.5	2.2	11		

Ambient Temperature/Load and Altitude/Load – 208V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	208V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...B022	—	—	5.5	22	4	17.5		
20x...B028	—	—	7.5	32.2	5.5	22		
20x...B042	—	—	11	43	7.5	32.2		
20x...B054	—	—	15	60	11	43		
20x...B070	—	—	18.5	78.2	15	60		

Ambient Temperature/Load and Altitude/Load – 208V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	208V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...B080	—	—	22	92	18.5	78.2		
20x...B104	—	—	30	120	22	92		
20x...B130	—	—	37	1550	30	120		
20x...B154	—	—	45	177	37	150		
20x...B192	—	—	55	221	45	177		

Ambient Temperature/Load and Altitude/Load – 208V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	208V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...B260	—	—	66	260	55	221		
20x...B312	—	—	90	359	66	260		
20x...B360	—	—	110	414	90	359		
20x...B477	—	—	132	477	90	359		

(1) Other enclosure types follow the same derating, while not exceeding, the maximum surrounding air temperature listed in [Environmental Specifications on page 52](#).

Ambient Temperature/Load and Altitude/Load – 240V AC (Frames 1...7)

Cat. No. (see page 5)	240V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	2 kHz 4 kHz 8 kHz 12 kHz	2 kHz 4 kHz 8 kHz 12 kHz 2 kHz w/Cabinet Option (21G) 4 kHz w/Cabinet Option (21G)

Ambient Temperature/Load and Altitude/Load – 240V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	240V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...B028	—	—	10	28	7.5	22		
20x...B042	—	—	15	42	10	28		
20x...B054	—	—	20	54	15	42		
20x...B070	—	—	25	70	20	54		
20x...B080	—	—	30	80	25	75		

Ambient Temperature/Load and Altitude/Load – 240V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	240V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...B104	—	—	40	104	30	80		
20x...B130	—	—	50	130	40	104		
20x...B154	—	—	60	154	50	130		
20x...B192	—	—	75	192	60	154		
20x...B260	—	—	100	260	75	192		

Ambient Temperature/Load and Altitude/Load – 240V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	240V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...B312	—	—	125	312	100	260		
20x...B360	—	—	150	360	125	312		
20x...B477	—	—	200	477	125	312		

(1) Other enclosure types follow the same derating, while not exceeding, the maximum surrounding air temperature listed in [Environmental Specifications on page 52](#).

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 1...7)

Cat. No. (see page 5)	400V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...C8P7 (Frame 1)	—	—	4.0	8.7	2.2	5.0		
20x...C011 (Frame 1)	—	—	5.5	11.5	4.0	8.7		
20x...C015 (Frame 1)	—	—	7.5	15.4	5.5	11.5		
20x...C015 (Frame 2)	—	—	7.5	15.4	5.5	11.5		
20x...C022	—	—	11	22	7.5	15.4		

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	400V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...C030	–	–	15	30	11	22		
20x...C037	–	–	18.5	37	15	30		
20x...C043	–	–	22	43	18.5	37		
20x...C060	–	–	30	60	22	43		
20x...C072	–	–	37	72	30	60		

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	400V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...C085	—	—	45	85	37	72		
20x...C104	—	—	55	104	45	85		
20x...C140	—	—	75	140	55	104		
20x...C170	—	—	90	170	75	140		
20x...C205	—	—	110	205	90	170		

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	400V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
20x...C260	—	—	132	260	110	205		
20x...C302	—	—	160	302	132	260		
20x...C367	—	—	200	367	160	302		
20x...C456	—	—	250	456	200	367		
20x...C477	—	—	270	477	200	367		

(1) Other enclosure types follow the same derating, while not exceeding, the maximum surrounding air temperature listed in [Environmental Specifications on page 52](#).

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 8...10)

Cat. No. (see page 5)	400V AC, Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
2xG...C460	315 (200)	540 (421)	250 (186)	460 (359)	200 (160)	385 (300)		
2xG...C540	315 (250)	585 (456)	315 (224)	540 (421)	250 (186)	456 (356)		
2xG...C567	355 (250)	612 (477)	315 (250)	567 (442)	250 (200)	472 (368)		
2xG...C650	400 (315)	750 (585)	355 (300)	650 (507)	315 (224)	540 (421)		
2xG...C750	450 (315)	796 (621)	400 (315)	750 (585)	315 (250)	585 (456)		

Ambient Temperature/Load and Altitude/Load – 400V AC (Frames 8...10) (Continued)

Cat. No. (see page 5)	400V AC, Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
2xG...C770	450 (355)	832 (649)	400 (355)	770 (601)	355 (300)	642 (501)		
2xG...C910	560 (425)	1040 (811)	500 (375)	910 (710)	400 (315)	750 (585)	See 2xG...C460	See 2xG...C460
2xG...C1K0	630 (475)	1090 (850)	560 (425)	1040 (811)	500 (355)	880 (686)	See 2xG...C540	See 2xG...C540
2xG...C1K1	710 (500)	1175 (917)	630 (475)	1090 (850)	500 (375)	910 (710)	See 2xG...C567	See 2xG...C567
2xG...C1K2	800 (630)	1465 (1143)	710 (500)	1175 (917)	560 (425)	1040 (811)	See 2xG...C650	See 2xG...C650
2xG...C1K4	850 (670)	1480 (1154)	800 (630)	1465 (1143)	630 (450)	1090 (850)	See 2xG...C750	See 2xG...C750
2xG...C1K5	900 (750)	1600 (1248)	850 (670)	1480 (1154)	710 (500)	1175 (917)	See 2xG...C770	See 2xG...C770
2xG...C1K6	1000 (710)	1715 (1338)	900 (750)	1590 (1240)	710 (600)	1325 (1034)	See 2xG...C567	See 2xG...C567
2xG...C2K1	1400 (1000)	2330 (1817)	1250 (950)	2150 (1677)	1000 (750)	1800 (1404)	See 2xG...C770	See 2xG...C770

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 1...7)

Cat. No. (see page 5)	480V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	— 2 kHz — 4 kHz — 8 kHz — 12 kHz	— 2 kHz — 4 kHz — 8 kHz — 12 kHz — 2 kHz w/Cabinet Option (21G) — 4 kHz w/Cabinet Option (21G)
20x...D8P0 (Frame 1)	—	—	5.0	8.0	3.0	5.0		
20x...D011 (Frame 1)	—	—	7.5	11	5.0	8.0		
20x...D014 (Frame 1)	—	—	10	14	7.5	11		
20x...D014 (Frame 2)	—	—	10	14	7.5	11		
20x...D022	—	—	15	22	10	14		

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	480V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...D027	—	—	20	27	15	22		
20x...D034	—	—	25	34	20	27		
20x...D040	—	—	30	40	25	34		
20x...D052	—	—	40	52	30	40		
20x...D065	—	—	50	65	40	52		

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 1...7) (Continued)

Cat. No. (see page 5)	480V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	2 kHz 4 kHz 8 kHz 12 kHz	2 kHz 4 kHz 8 kHz 12 kHz 2 kHz w/Cabinet Option (21G) 4 kHz w/Cabinet Option (21G)
20x...D077	—	—	60	77	50	65		
20x...D096	—	—	75	96	60	77		
20x...D125	—	—	100	125	75	96		
20x...D156	—	—	125	156	100	125		
20x...D186	—	—	150	186	125	156		

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 1...7) (Continued)

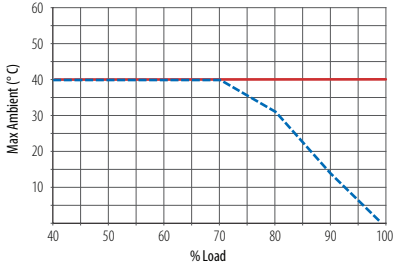
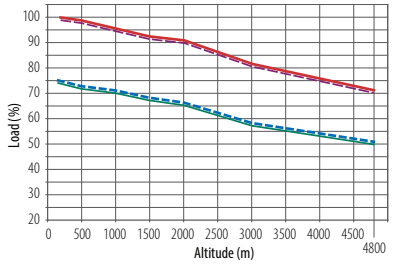
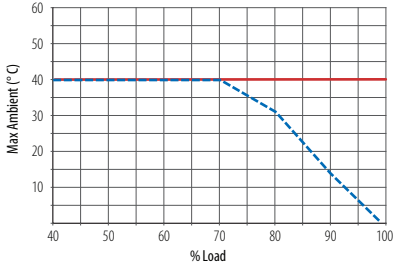
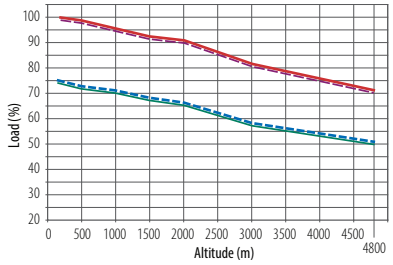
Cat. No. (see page 5)	480V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 1...5) and IP00 NEMA/UL Type Open (Frames 6 and 7) ⁽¹⁾	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...D248	—	—	200	248	150	186		
20x...D302	—	—	250	302	200	248		
20x...D361	—	—	300	361	250	302		
20x...D415	—	—	350	415	300	361		
20x...D477	—	—	400	477	300	361		

(1) Other enclosure types follow the same derating, while not exceeding, the maximum surrounding air temperature listed in [Environmental Specifications on page 52](#).

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 8...10)

Cat. No. (see page 5)	480V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	— 2 kHz — 4 kHz — 8 kHz — 12 kHz	— 2 kHz — 4 kHz — 8 kHz — 12 kHz — 2 kHz w/Cabinet Option (21G) — 4 kHz w/Cabinet Option (21G)
2xG...D430	400 (300)	485 (378)	350 (250)	430 (335)	300 (250)	370 (289)		
2xG...D485	450 (350)	545 (425)	400 (300)	485 (378)	350 (250)	414 (323)		
2xG...D545	500 (400)	590 (460)	450 (350)	545 (425)	350 (300)	454 (354)		
2xG...D617	600 (450)	710 (554)	500 (400)	617 (481)	400 (300)	485 (378)		
2xG...D710	650 (500)	765 (597)	600 (450)	710 (554)	450 (350)	545 (425)		

Ambient Temperature/Load and Altitude/Load – 480V AC (Frames 8...10) (Continued)

Cat. No. (see page 5)	480V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
2xG...D740	700 (500)	800 (624)	650 (450)	740 (577)	500 (400)	617 (481)		
2xG...D800	800 (650)	960 (749)	700 (500)	800 (624)	600 (450)	710 (554)	See 2xG...D430	See 2xG...D430
2xG...D960	900 (750)	1045 (815)	800 (650)	960 (749)	700 (500)	795 (620)	See 2xG...D485	See 2xG...D485
2xG...D1K0	1000 (850)	1135 (885)	900 (700)	1045 (815)	750 (500)	800 (624)	See 2xG...D545	See 2xG...D545
2xG...D1K2	1100 (900)	1365 (1065)	1000 (800)	1135 (885)	800 (600)	960 (749)	See 2xG...D617	See 2xG...D617
2xG...D1K3	1250 (950)	1420 (1108)	1100 (900)	1365 (1065)	900 (700)	1045 (815)	See 2xG...D710	See 2xG...D710
2xG...D1K4	1350 (1000)	1540 (1201)	1250 (950)	1420 (1108)	1000 (750)	1135 (885)	See 2xG...D740	See 2xG...D740
2xG...D1K5	1500 (1100)	1655 (1291)	1350 (1000)	1525 (1190)	1100 (900)	1270 (991)	See 2xG...D545	See 2xG...D545
2xG...D2K0	2000 (1650)	2240 (1747)	1750 (1350)	2070 (1615)	1650 (1100)	1730 (1349)	See 2xG...D740	See 2xG...D740

Ambient Temperature/Load and Altitude/Load – 600V AC (Frames 3...7)

Cat. No. (see page 5)	600V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 3...5), and IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...E017	—	—	15	17	10	11		
20x...E022	—	—	20	22	15	17		
20x...E027	—	—	25	27	20	22		
20x...E032	—	—	30	32	25	27		
20x...E041	—	—	40	41	30	32		

Ambient Temperature/Load and Altitude/Load – 600V AC (Frames 3...7) (Continued)

Cat. No. (see page 5)	600V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 3...5), and IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty			
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	Ambient Temperature/Load	Altitude/Load
20x...E052	—	—	50	52	40	41	 Max Ambient (°C) 40 50 60 40 50 60 70 80 90 100 % Load	 Load (%) 20 30 40 50 60 70 80 90 100 0 500 1000 1500 2000 2500 3000 3500 4000 4500 4800 Altitude (m)
20x...E099	—	—	100	99	75	77	 Max Ambient (°C) 40 50 60 40 50 60 70 80 90 100 % Load	 Load (%) 20 30 40 50 60 70 80 90 100 0 500 1000 1500 2000 2500 3000 3500 4000 4500 4800 Altitude (m)
20x...E125	—	—	125	125	100	99	 Max Ambient (°C) 40 50 60 40 50 60 70 80 90 100 % Load	 Load (%) 20 30 40 50 60 70 80 90 100 0 500 1000 1500 2000 2500 3000 3500 4000 4500 4800 Altitude (m)
20x...E144	—	—	150	144	125	125	 Max Ambient (°C) 40 50 60 40 50 60 70 80 90 100 % Load	 Load (%) 20 30 40 50 60 70 80 90 100 0 500 1000 1500 2000 2500 3000 3500 4000 4500 4800 Altitude (m)
20x...E192	—	—	200	192	150	144	 Max Ambient (°C) 40 50 60 40 50 60 70 80 90 100 % Load	 Load (%) 20 30 40 50 60 70 80 90 100 0 500 1000 1500 2000 2500 3000 3500 4000 4500 4800 Altitude (m)

Ambient Temperature/Load and Altitude/Load – 600V AC (Frames 3...7) (Continued)

Cat. No. (see page 5)	600V AC Power Rating						Derating for IP20 NEMA/UL Type Open (Frames 3...5), and IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
20x...E242	—	—	250	242	200	192		
20x...E289	—	—	300	289	250	242		

Ambient Temperature/Load and Altitude/Load – 600V AC (Frames 8...10)

Cat. No. (see page 5)	600V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps	— 2 kHz — 4 kHz — 8 kHz — 12 kHz	— 2 kHz — 4 kHz — 8 kHz — 12 kHz — 2 kHz w/Cabinet Option (21G) — 4 kHz w/Cabinet Option (21G)
2xG...E295	350 (250)	355 (277)	300 (200)	295 (230)	250 (200)	272 (212)		
2xG...E355	400 (300)	395 (308)	350 (250)	355 (277)	300 (200)	295 (230)		
2xG...E395	450 (300)	435 (339)	400 (300)	395 (308)	350 (250)	329 (257)		
2xG...E435	500 (350)	460 (359)	450 (300)	435 (339)	350 (250)	355 (277)		
2xG...E460	500 (400)	510 (398)	500 (350)	460 (359)	400 (300)	395 (308)		

Ambient Temperature/Load and Altitude/Load – 600V AC (Frames 8...10) (Continued)

Cat. No. (see page 5)	600V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	Hp	Cont. Amps	Hp	Cont. Amps	Hp	Cont. Amps		
2xG...E510	550 (400)	545 (425)	500 (400)	510 (398)	450 (300)	425 (332)		
2xG...E595	700 (500)	690 (538)	600 (450)	595 (464)	500 (400)	510 (398)	See 2xG...E295	See 2xG...E295
2xG...E630	800 (550)	760 (593)	700 (500)	630 (491)	600 (450)	595 (464)	See 2xG...E395	See 2xG...E355
2xG...E760	900 (650)	835 (651)	800 (550)	760 (593)	700 (500)	630 (491)	See 2xG...E395	See 2xG...E395
2xG...E825	950 (700)	900 (702)	900 (600)	825 (644)	750 (550)	700 (546)	See 2xG...E435	See 2xG...E435
2xG...E900	1000 (750)	980 (764)	950 (700)	900 (702)	800 (600)	760 (593)	See 2xG...E460	See 2xG...E460
2xG...E980	1100 (800)	1045 (815)	1000 (750)	980 (764)	900 (625)	815 (636)	See 2xG...E510	See 2xG...E510
2xG...E1K1	1200 (950)	1220 (952)	1100 (850)	1110 (866)	1000 (700)	920 (718)	See 2xG...E395	See 2xG...E395
2xG...E1K4	1500 (1100)	1530 (1193)	1400 (1000)	1430 (1115)	1250 (900)	1190 (928)	See 2xG...E510	See 2xG...E510

Ambient Temperature/Load and Altitude/Load – 690V AC (Frames 6 and 7)

Cat. No. (see page 5)	690V AC Power Rating						Derating for IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps	— 2 kHz — 4 kHz — 8 kHz — 12 kHz	— 2 kHz w/Cabinet Option (21G) — 4 kHz w/Cabinet Option (21G)
2xG...F030	—	—	22	30	18.5	23		
2xG...F034	—	—	30	34	22	30		
2xG...F046	—	—	37	46	30	34		
2xG...F050	—	—	45	50	37	46		
2xG...F061	—	—	55	61	45	50		

Ambient Temperature/Load and Altitude/Load – 690V AC (Frames 6 and 7) (Continued)

Cat. No. (see page 5)	690V AC Power Rating						Derating for IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
							2 kHz 4 kHz 8 kHz 12 kHz 	2 kHz 4 kHz 8 kHz 12 kHz 2 kHz w/Cabinet Option (21G) 4 kHz w/Cabinet Option (21G)
2xG...F082	—	—	75	82	55	61		
2xG...F098	—	—	90	98	75	82		
2xG...F119	—	—	110	119	90	98		
2xG...F142	—	—	132	142	110	119		
2xG...F171	—	—	160	171	132	142		

Ambient Temperature/Load and Altitude/Load – 690V AC (Frames 6 and 7) (Continued)

Cat. No. (see page 5)	690V AC Power Rating						Derating for IP00 NEMA/UL Type Open (Frames 6 and 7)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
2xG...F212	—	—	200	212	160	171		
2xG...F263	—	—	250	263	200	212		

Ambient Temperature/Load and Altitude/Load – 690V AC (Frames 8...10)

Cat. No. (see page 5)	690V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
2xG...F265	315 (250)	330 (257)	250 (200)	265 (207)	200 (160)	215 (168)		
2xG...F330	355 (250)	370 (289)	315 (224)	330 (257)	250 (200)	265 (207)		
2xG...F370	400 (315)	410 (320)	355 (250)	370 (289)	300 (224)	308 (240)		
2xG...F415	450 (355)	460 (359)	400 (315)	415 (324)	355 (250)	370 (289)		
2xG...F460	500 (375)	500 (390)	450 (350)	460 (359)	375 (300)	375 (293)		

Ambient Temperature/Load and Altitude/Load – 690V AC (Frames 8...10) (Continued)

Cat. No. (see page 5)	690V AC Power Rating at 40 °C (104 °F) (Power Rating at 50 °C [122 °F])						Derating for IP20 NEMA/UL Type 1 (Frames 8...10), IP00 NEMA/UL Type 0 (Frames 8...10), and IP54 NEMA/UL Type 12 (Frames 8...10)	
	Light Duty		Normal Duty		Heavy Duty		Ambient Temperature/Load	Altitude/Load
	kW	Cont. Amps	kW	Cont. Amps	kW	Cont. Amps		
2xG...F500	530 (400)	530 (413)	500 (400)	500 (390)	400 (315)	413 (322)		
2xG...F590	630 (500)	650 (507)	560 (450)	590 (460)	450 (355)	460 (359)	See 2xG...F265	See 2xG...F265
2xG...F650	710 (530)	710 (554)	630 (500)	650 (507)	500 (375)	500 (390)	See 2xG...F330	See 2xG...F330
2xG...F710	800 (560)	790 (616)	710 (530)	710 (554)	560 (450)	590 (460)	See 2xG...F370	See 2xG...F370
2xG...F765	850 (630)	860 (671)	750 (600)	765 (597)	630 (500)	650 (507)	See 2xG...F415	See 2xG...F415
2xG...F795	900 (710)	960 (749)	800 (630)	795 (620)	710 (600)	750 (585)	See 2xG...F460	See 2xG...F460
2xG...F960	1000 (800)	1020 (796)	900 (750)	960 (749)	800 (600)	795 (620)	See 2xG...F500	See 2xG...F500
2xG...F1K0	1100 (900)	1150 (897)	1000 (750)	1040 (811)	900 (670)	865 (675)	See 2xG...F370	See 2xG...F370
2xG...F1K4	1500 (1120)	1485 (1158)	1400 (1000)	1400 (1092)	1120 (900)	1160 (905)	See 2xG...F500	See 2xG...F500

Minimum Dynamic Brake Resistance

The tables in this section show the minimum dynamic brake resistance when you use the internal dynamic braking transistor.

Brake Resistance for 208/240V Drives

Frame	240V				208V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current	ND kW	Catalog Code	Min Resistance	Max DB Current
1	0.5	B2P2	39.5	10	0.37	B2P2	39.5	10
	1.0	B4P2	39.5	10	0.75	B4P2	39.5	10
	2.0	B6P8	26.3	15	1.5	B6P8	26.3	15
	3.0	B9P6	15.8	25	2.2	B9P6	15.8	25
	5.0	B015	15.8	25	4	B015	15.8	25

Brake Resistance for 208/240V Drives (Continued)

Frame	240V				208V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current	ND kW	Catalog Code	Min Resistance	Max DB Current
2	0.5	B2P2	15.8	25	0.37	B2P2	15.8	25
	1.0	B4P2	15.8	25	0.75	B4P2	15.8	25
	2.0	B6P8	15.8	25	1.5	B6P8	15.8	25
	3.0	B9P6	15.8	25	2.2	B9P6	15.8	25
	5.0	B015	11.29	35	4	B015	11.29	35
	7.5	B022	11.29	35	5.5	B022	11.29	35
3	10	B028	15.8	25	7.5	B028	15.8	25
	15	B042	8.3	47.6	11	B042	8.3	47.6
4	20	B054	7.9	50	15	B054	7.9	50
5	25	B070	3.95	100	18.5	B070	3.95	100
	30	B080	3.95	100	22	B080	3.95	100
6	30 ⁽¹⁾	B080 ⁽¹⁾	1.65	239.4	22 ⁽¹⁾	B080 ⁽¹⁾	1.65	239.4
	40	B104	1.65	239.4	30	B104	1.65	239.4
	50	B130	1.65	239.4	37	B130	1.65	239.4
	60	B154	1.65	239.4	45	B154	1.65	239.4
	75	B192	1.65	239.4	55	B192	1.65	239.4
	100	B260	1.65	239.4	66	B260	1.65	239.4
7	100 ⁽¹⁾	B260 ⁽¹⁾	1.2	329	66 ⁽¹⁾	B260 ⁽¹⁾	1.2	329
	125	B312	1.2	329	90	B312	1.2	329
	150	B360	0.82	478.8	110	B360	0.82	478.8
	200	B477	0.82	478.8	132	B477	0.82	478.8

(1) IP54, NEMA/UL Type 12 (enclosure code G).

Brake Resistance for 400/480V Drives

Frame	480V				400V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current	ND kW	Catalog Code	Min Resistance	Max DB Current
1	1.0	D2P1	79.0	10	0.75	C2P1	79.0	10
	2.0	D3P4	79.0	10	1.5	C3P5	79.0	10
	3.0	D5P0	79.0	10	2.2	C5P0	79.0	10
	5.0	D8P0	52.7	15	4	C8P7	52.7	15
	7.5	D011	31.6	25	5.5	C011	31.6	25
	10	D014	31.6	25	7.5	C015	31.6	25

Brake Resistance for 400/480V Drives (Continued)

Frame	480V				400V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current	ND kW	Catalog Code	Min Resistance	Max DB Current
2	1.0	D2P1	31.6	25	0.75	C2P1	31.6	25
	2.0	D3P4	31.6	25	1.5	C3P5	31.6	25
	3.0	D5P0	31.6	25	2.2	C5P0	31.6	25
	5.0	D8P0	31.6	25	4	C8P0	31.6	25
	7.5	D011	31.6	25	5.5	C011	31.6	25
	10	D014	31.6	25	7.5	C015	31.6	25
	15	D022	22.6	34.9	11	C022	22.6	34.9
3	20	D027	31.6	25	15	C030	31.6	25
	25	D034	31.6	25	18.5	C037	31.6	25
	30	D040	16.6	47.6	22	C043	16.6	47.6
4	40	D052	15.8	50	30	C060	15.8	50
	50	D065	15.8	50	37	C072	15.8	50
5	50 ⁽¹⁾	D065 ⁽¹⁾	7.9	100	37 ⁽¹⁾	C075 ⁽¹⁾	7.9	100
	60	D077	7.9	100	45	C085	7.9	100
	75	D096	7.9	100	55	C104	7.9	100
6	75 ⁽¹⁾	D096 ⁽¹⁾	3.3	239.4	55 ⁽¹⁾	C104 ⁽¹⁾	3.3	239.4
	100	D125	3.3	239.4	75	C140	3.3	239.4
	125	D156	3.3	239.4	90	C170	3.3	239.4
	150	D186	3.3	239.4	110	C205	3.3	239.4
	200	D248	3.3	239.4	132	C260	3.3	239.4
7	200 ⁽¹⁾	D248 ⁽¹⁾	2.4	329	132 ⁽¹⁾	C260 ⁽¹⁾	2.4	329
	250	D302	2.4	329	160	C302	2.4	329
	300	D361	2.4	329	200	C367	2.4	329
	350	D415	1.65	478.8	250	C456	1.65	478.8
	400	D477	1.65	478.8	270	C477	1.65	478.8

(1) IP54, NEMA/UL Type 12 (enclosure code G).

Brake Resistance for 600V Drives (Frames 3...5)

Frame	600V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current
3	1.0	E1P7	92	11
	2.0	E2P7	92	11
	3.0	E3P9	92	11
	5.0	E6P1	32	30
	7.5	E9P0	32	30
	10	E011	32	30
	15	E017	32	30
	20	E022	32	30

Brake Resistance for 600V Drives (Frames 3...5)

Frame	600V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current
4	25	E027	32	30
	30	E032	32	30
5	40	E041	13.5	71
	50	E052	13.5	71

Brake Resistance for 600/690V Drives (Frames 6 and 7)

Frame	600V				690V			
	ND Hp	Catalog Code	Min Resistance	Max DB Current	ND kW	Catalog Code	Min Resistance	Max DB Current
6	10	E012	14.4	76.4	7.5	F012	14.4	76.4
	15	E018	14.4	76.4	11	F015	14.4	76.4
	20	E023	14.4	76.4	15	F020	14.4	76.4
	20	E024	14.4	76.4	18.5	F023	14.4	76.4
	25	E028	14.4	76.4	22	F030	14.4	76.4
	30	E033	14.4	76.4	30	F034	14.4	76.4
	40	E042	14.4	76.4	37	F046	14.4	76.4
	50	E053	14.4	76.4	45	F050	14.4	76.4
	60	E063	5.5	200	55	F061	5.5	200
	75	E077	5.5	200	75	F082	5.5	200
	100	E099	5.5	200	90	F098	5.5	200
	125	E125	5.5	200	110	F119	5.5	200
	150	E144	5.5	200	132	F142	5.5	200
7	200	E192	3.8	289	160	F171	3.8	289
	250	E242	3.8	289	200	F212	3.8	289
	300	E289	3.2	344	250	F263	3.2	344

Fuse and Circuit Breaker Ratings

The tables in this section provide recommended AC line input fuse and circuit breaker information. See [Fusing on page 96](#) and [Circuit Breakers on page 96](#) for UL and IEC requirements. The size recommendations are based on 40 °C (104 °F) and the U.S. NEC. Other country, state, or local codes can require different ratings. DC link fuse recommendations for DC input drives are also provided. In addition, Frame 8 and larger drives include AC line fuses (with blown fuse indicators) to provide drive short circuit protection.

Input Device Requirements

Frames	Enclosure Catalog Code	Enclosure Type	Installation Type	UL Certification Required	UL Certification Not Required
1	R	IP20 NEMA/UL Open Type	Installed in a ventilated or non-ventilated cabinet.	All devices that are listed on pages 97 , 99 , 101 and 105 are acceptable. When installed in a ventilated cabinet, time delay fuses, circuit breakers, and 140M combination motor controllers must meet or exceed the listed minimum enclosure volume on pages 101 and 105 .	All devices that are listed on pages 97 through 113 are acceptable.
			Installed outside of cabinet by using NEMA Type 1 kit or in a ventilated cabinet.	Only non-time delay fuses that are listed on pages 97 , 99 , 101 and 105 , excluding maximum value, are acceptable.	
2...5	N	IP20 NEMA/UL Open Type	Installed in a ventilated or non-ventilated cabinet. Heat sink is inside or outside of cabinet.	All devices that are listed on pages 97 , 99 , 101 , 105 , and 109 are acceptable. When installed in a ventilated cabinet, time delay fuses, circuit breakers, and 140M combination motor controllers must meet or exceed the listed minimum enclosure volume on pages 97 , 99 , 101 , 105 , and 109 .	
	F	Flange			
	N	IP20 NEMA/UL Open Type	Installed outside of cabinet by using NEMA Type 1 kit or in a ventilated cabinet.	208V AC/281V DC or 240V AC/324V DC drives. Only non-time delay fuses that are listed on pages 97 and 99 , excluding maximum value, are acceptable. 400V AC/540V DC or 480V AC/650V DC drives. Only non-time delay fuses that are listed on pages 101 and 105 , excluding maximum value, are acceptable. 600V AC/810V DC drives. Only non-time delay fuses that are listed on page 109 are acceptable, with maximum value of 40 A (Frame 3), 60 A (Frame 4), and 100 A (Frame 5).	
	F	Flange			
	G	IP54 NEMA/UL Type 12	Installed inside or outside of any cabinet.	All devices that are listed on pages 97 , 99 , 101 , 105 , and 109 are acceptable.	
6 and 7	N	IP00 NEMA/UL Open Type	Installed in any cabinet. Heat sink is inside or outside of cabinet.	208V AC/281V DC or 240V AC/324V DC drives. Only non-time delay fuses that are listed on pages 97 and 99 , excluding maximum value, are acceptable. 400V AC/540V DC or 480V AC/650V DC drives. All devices that are listed on pages 101 and 105 are acceptable. 600V AC/810V DC drives. Only time delay and non-time delay fuses that are listed on page 109 are acceptable.	
			Installed outside of cabinet by using NEMA Type 1 kit.		
	G	IP54 NEMA/UL Type 12	Installed inside or outside of any cabinet.	All devices that are listed on pages 97 , 99 , 101 , 105 , and 109 are acceptable.	
8...10	B, L, P, W	IP20 NEMA/UL Type 1	Installed inside of any cabinet.	All devices that are listed on pages 103 , 107 , and 111 are acceptable.	
	J, K, Y	IP54 NEMA 12	Installed inside or outside of any cabinet.	All devices that are listed on pages 103 , 107 , and 111 are acceptable.	

IMPORTANT For maximum protection of the drive and its internal components, we recommend the use of semiconductor fuses to other methods of circuit protection. Semiconductor fuses reduce the risk of drive damage from power quality events and improves machine and process utilization.

Fusing

The recommended fuse types are listed here. If available current ratings do not match the ratings that are listed in these tables, choose the next higher fuse rating.

- IEC – BS88 (British Standard) Parts 1 & 2, EN60269-1, Parts 1 & 2⁽¹⁾, type gG or equivalent must be used.
- UL – UL Class CC, T, RK1, J, or L must be used.

Circuit Breakers

The non-fuse listings in the following tables include inverse time circuit breakers, instantaneous trip circuit breakers (motor circuit protectors), and 140M self-protected combination motor controllers. If one of these methods are chosen for protection, the following requirements apply:

- IEC – Both types of circuit breakers and 140M self-protected combination motor controllers are acceptable for IEC installations.
- UL - Only inverse time circuit breakers and the specified 140M self-protected combination motor controllers are acceptable for UL installations.

(1) Typical designations include, but is not limited to the following; Parts 1 & 2: AC, AD, BC, BD, CD, DD, ED, EFS, EF, FF, FG, GF, GG, GH.

208 Volt AC and 281 Volt DC Input Protection Devices – Wall Mount Frames 1...7

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized for Normal Duty				Drive Sized for Heavy Duty				Input Quantities		AC Input Protection Devices						Input Quantities		DC Input Protection ⁽¹⁴⁾
		Cat. No. (x = F or G)	Output Overload Amps		Cat. No. (x = F or G)	Output Overload Amps		Continuous AC Input	Dual Element Time Delay Fuse	Non-time Delay Fuse		Circuit Breaker Max Size ⁽⁶⁾	Circuit Breaker, Dual Element Time Delay Fuse	Motor Circuit Protector ⁽⁸⁾	140M Type E Combination Motor Controller with Adjustable Current Range ⁽⁹⁾⁽¹⁰⁾	Continuous DC Input	Non-time Delay Fuse			
			1 min	3 s		1 min	3 s			Min ⁽⁴⁾	Max ⁽⁵⁾							Min ⁽⁴⁾	Max ⁽⁵⁾	Min Enclosure Volume (in. ³) ⁽⁷⁾
Frame ⁽²⁾																				
208 Volt AC Input																				
0.37 kW	1	2.5	20x...B2P2	2.75	3.75	20x...B4P2	5.28	7.2	0.73	2.0	3	6	3	10	15	3840	7269	M-xxx-B25 ⁽¹¹⁾	JKS-6	
0.75 kW	1	4.8	20x...B4P2	5.28	7.2	20x...B6P8	8.58	11.7	1.4	3.9	6	10	6	15	20	3840	7269	M-xxx-B63 ⁽¹¹⁾	JKS-10	
1.5 kW	1	7.8	20x...B6P8	8.58	11.7	20x...B9P6	12.1	16.5	2.5	7.0	10	15	10	25	30	3840	7269	M-xxx-C10 ⁽¹¹⁾	HSJ-15	
2.2 kW	1	11	20x...B9P6	12.1	16.5	20x...B015	16.83	22.95	3.6	9.9	15	20	15	35	40	3840	7269	M-xxx-C16 ⁽¹¹⁾	HSJ-20	
4 kW	1	15.3	20x...B015	16.83	22.95	20x...B022 ⁽³⁾	24.2	33	5.2	14.3	20	30	20	50	60	3840	7269	M-xxx-C20 ⁽¹¹⁾	HSJ-30	
0.37 kW	2	2.5	20x...B2P2	3.75	4.5	20x...B2P2	3.75	4.5	0.7	2.0	3	6	3	10	15	3840	9086	M-xxx-B25 ⁽¹¹⁾	JKS-6	
0.75 kW	2	4.8	20x...B4P2	7.2	8.64	20x...B4P2	7.2	8.64	1.4	3.9	6	10	6	15	20	3840	9086	M-xxx-B63 ⁽¹¹⁾	JKS-10	
1.5 kW	2	7.8	20x...B6P8	11.7	14.04	20x...B6P8	11.7	14.04	2.5	7.0	10	15	10	25	30	3840	9086	M-xxx-C10 ⁽¹¹⁾	HSJ-15	
2.2 kW	2	11	20x...B9P6	16.5	19.8	20x...B9P6	16.5	19.8	3.6	9.9	15	20	15	35	40	3840	9086	M-xxx-C16 ⁽¹¹⁾	HSJ-20	
4 kW	2	17.5	20x...B015	19.25	26.25	20x...B022	24.2	33	5.9	16.4	20	35	20	60	70	3840	9086	M-xxx-C20 ⁽¹¹⁾	HSJ-30	
5.5 kW	2	22	20x...B022	24.2	33	20x...B028 ⁽³⁾	35.42	48.3	7.5	20.8	30	45	30	70	80	3840	9086	M-xxx-C25 ⁽¹²⁾	HSJ-45	
7.5 kW	3	32.2	20x...B028	35.42	48.3	20x...B042	48.3	64.5	11.1	30.8	40	60	40	100	125	4800	9086	M-F8E-C32	HSJ-60	
11 kW	3	43	20x...B042	47.3	64.5	20x...B054 ⁽³⁾	64.5	90	14.8	41.2	60	80	60	150	150	4800	9086	M-F8E-C45	HSJ-90	
15 kW	4	60	20x...B054	66	90	20x...B070 ⁽³⁾	90	117.3	20.7	57.4	80	125	80	200	225	4800	9086		HSJ-100	
18.5 kW	5	78.2	20x...B070	86.02	117.3	20x...B080	117.3	140.8	27.0	74.9	90	150	90	250	300	7200	9086		HSJ-150	
22 kW	5	92	20x...B080	101.2	138	20x...B104 ⁽³⁾	138	180	31.7	88.1	110	175	110	300	350	7200	9086		HSJ-200	
30 kW	6	120	20x...B104	132	180	20x...B130	180	225	42.4	117.6	150	250	150	400	450	7200	9086		HSJ-225	
37 kW	6	150	20x...B130	165	225	20x...B154	225	270	52.9	147.0	200	300	200	500	500	7200	9086		HSJ-300	
45 kW	6	177	20x...B154	194.7	265.5	20x...B192	265.5	331.5	62.5	173.4	225	350	225	600	500	7200	9086		HSJ-350	
55 kW	6	221	20x...B192	243.1	331.5	20x...B260	331.5	390	78.0	216.5	300	400	300	650	600	7200	9086		HSJ-400	
66 kW	6	260	20x...B260	286	390	20x...B312 ⁽³⁾	394.9	538.5	91.87	254.7	350	500	350	750	700	7200	9086		HSJ-400	
90 kW	7	359	20x...B312	394.9	538.5	20x...B360	538.5	646.2	126.7	351.7	500	700	500	1000	1000	7200	9086		Busman 470MM612	
110 kW	7	414	20x...B360	455.4	621			7.2	146.1	405.6	600	800	600	1200	1200	7200	9086		Busman 470MM613	
132 kW	7	477	20x...B477	524.7	715.5			11.7	168.4	467.3	600	900	600	1400	1200	7200	9086		Busman 470MM613	
281 Volt DC Input																				

- (1) 'Applied Rating' refers to the motor that will be connected to the drive. For example, a 'C022' drive can be used in Normal Duty mode on an 11 kW motor, or in Heavy-duty mode on a 7.5 kW motor. A 'C015' drive can be used in Heavy-duty mode on a 5.5 kW motor with the same ratings as a 'C011'. The drive can be programmed for either mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current regarding Heavy-duty mode. See parameter 306 [Duty Rating].
- (2) Endorse codes F, N, and R only. See Frame/Rating Cross-reference in PowerFlex 750-Series AC Drives Technical Data, publication [750-TD001](#), for frame sizes of other enclosure types.
- (3) This drive is the next larger frame size.
- (4) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.
- (5) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.
- (6) Circuit Breaker – inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.
- (7) When using a circuit breaker or time-delay fuse with a drive installed in a ventilated enclosure, the enclosure volume must be greater than or equal to the minimum volume specified in this column. Application-specific thermal considerations can require a larger enclosure.
- (8) Recommended Motor circuit protector – Instantaneous trip circuit breaker. Set the trip setting to the input current of the drive and size for the continuous current of the system.
- (9) For Bulletin 140M with adjustable current range, set the current trip to the minimum range that the device will not trip.
- (10) Manual Self-Protected (Type E) Combination Motor Controller, UL Listed for 208 Wye or Delta, 480Y/277V, and 600Y/347V AC Input. Not UL Listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.
- (11) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).
- (12) Bulletin 140M must be Frame D (D8E) or Frame F (F8E).
- (13) When using a Manual Self-Protected (Type E) Combination Motor Controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume that is specified in this column. Application-specific thermal considerations may require a larger enclosure.
- (14) See Fuse Certification and Test Data in PowerFlex AC Drives in Common Bus Configurations Application Guidelines, publication [DRIVES-A1002](#), for fuse self-certification and test data for Bussmann 170M and JKS fuses recommended for the DC bus fusing.

240 Volt AC and 324 Volt DC Input Protection Devices – Wall Mount Frames 1...7

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized for Normal Duty				Drive Sized for Heavy Duty				Input Quantities		AC Input Protection Devices							Input Quantities	DC Input Protection ⁽¹⁴⁾
		Cat. No.		Output Overload Amps	Cat. No.	Output Overload Amps	Continuous AC Input		Circuit Breaker, Dual Element Time Delay Fuse	Motor Circuit Protector ⁽⁸⁾	140M Type E Combination Motor Controller with Adjustable Current Range ⁽⁹⁾⁽¹⁰⁾	Continuous DC Input	Non-time Delay Fuse	Amps						
		(x = F or G)	1 min				3 s	(x = F or G)							1 min	3 s	kVA	Amps		
Frame ⁽²⁾																				
240 Volt AC Input																				
0.5 Hp	1	2.2	20x...B2P2	2.42	3.3	20x...B4P2	4.62	6.3	0.71	1.7	3	6	3	10	15	3840	3	M-xxx-B25 ⁽¹¹⁾	7269	JKS-6
1 Hp	1	4.2	20x...B4P2	4.62	6.3	20x...B6P8	7.48	10.2	1.36	3.3	6	10	6	15	20	3840	7	M-xxx-B63 ⁽¹¹⁾	7269	JKS-10
2 Hp	1	6.8	20x...B6P8	7.48	10.2	20x...B9P6	10.56	14.4	2.44	5.9	10	15	10	25	30	3840	15	M-xxx-C10 ⁽¹¹⁾	7269	HSJ-15
3 Hp	1	9.6	20x...B9P6	10.56	14.4	20x...B015	16.83	22.95	3.45	8.3	15	20	15	35	40	3840	15	M-xxx-C16 ⁽¹¹⁾	7269	HSJ-20
5 Hp	1	15.3	20x...B015	16.83	22.95	20x...B022 ⁽³⁾	24.2	33	5.70	13.7	20	30	20	50	60	3840	20	M-xxx-C20 ⁽¹¹⁾	7269	HSJ-30
0.5 Hp	2	2.2	20x...B2P2	3.3	3.96	20x...B2P2	3.3	3.96	0.71	1.7	3	6	3	10	15	3840	3	M-xxx-B25 ⁽¹¹⁾	9086	JKS-6
1 Hp	2	4.2	20x...B4P2	6.3	7.56	20x...B4P2	6.3	7.56	1.36	3.3	6	10	6	15	20	3840	7	M-xxx-B63 ⁽¹¹⁾	9086	JKS-10
2 Hp	2	6.8	20x...B6P8	10.2	12.24	20x...B6P8	10.2	12.24	2.44	5.9	10	15	10	25	30	3840	15	M-xxx-C10 ⁽¹¹⁾	9086	HSJ-15
3 Hp	2	9.6	20x...B9P6	14.4	17.28	20x...B9P6	14.4	17.28	3.45	8.3	15	20	15	35	40	3840	15	M-xxx-C16 ⁽¹¹⁾	9086	HSJ-20
5 Hp	2	15.3	20x...B015	16.83	22.95	20x...B022	24.2	33	5.70	13.7	20	30	20	50	70	3840	20	M-xxx-C20 ⁽¹¹⁾	9086	HSJ-30
7.5 Hp	2	22	20x...B022	24.2	33	20x...B028 ⁽³⁾	33	42	8.29	19.9	30	45	30	70	80	3840	30	M-xxx-C25 ⁽¹²⁾	9086	HSJ-45
10 Hp	3	28	20x...B028	30.8	42	20x...B042	46.2	63	10.68	25.7	40	60	40	100	125	4800	50	M-F8E-C32	9086	HSJ-60
15 Hp	3	42	20x...B042	46.2	63	20x...B054 ⁽³⁾	63	81	16.02	38.5	60	80	60	150	150	4800	60	M-F8E-C45	9086	HSJ-90
20 Hp	4	54	20x...B054	59.4	81	20x...B070 ⁽³⁾	81	105	20.59	49.5	80	100	80	175	225	4800	100			HSJ-100
25 Hp	5	70	20x...B070	77	105	20x...B080	105	126	26.69	64.2	90	150	90	225	300	7200	100			HSJ-150
30 Hp	5	80	20x...B080	88	120	20x...B104 ⁽³⁾	120	156	30.50	73.4	100	175	100	300	350	7200	150			HSJ-200
40 Hp	6	104	20x...B104	114.4	156	20x...B130	156	195	40.59	97.6	150	200	150	350	350		150			HSJ-225
50 Hp	6	130	20x...B130	143	195	20x...B154	195	234	50.74	122.1	175	250	200	450	450		250			HSJ-300
60 Hp	6	154	20x...B154	169.4	231	20x...B192	231	288	60.10	144.6	225	300	225	500	500		250			HSJ-350
75 Hp	6	192	20x...B192	211.2	288	20x...B260	288	390	74.93	180.3	250	350	250	600	600		400			HSJ-400
100 Hp	6	260	20x...B260	286	390	20x...B312 ⁽³⁾	390	468	101.47	244.11	350	500	350	750	700		400			HSJ-400
125 Hp	7	312	20x...B312	343.2	468	20x...B360	468	561.6	121.77	292.9	400	600	400	900	1000		600			Bussman 470MMG08
150 Hp	7	360	20x...B360	396	540				140.50	338.0	500	700	500	1000	1200		600			Bussman 470MMG12
200 Hp	7	477	20x...B477	524.7	715.5				186.17	447.8	600	900	600	1400	1200		600			Bussman 470MMG13

- (1) 'Applied Rating' refers to the motor that will be connected to the drive. For example, a 'C022' drive can be used in Normal Duty mode on a 11 kW motor, or in Heavy-duty mode on a 7.5 kW motor. A 'C015' drive can be used in Heavy-duty mode on a 5.5 kW motor with the same ratings as a 'C011'. The drive can be programmed for either mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current regarding Heavy-duty mode. See parameter 306 [Duty Rating].
- (2) Enclosure codes F, N, and R only. See Frame/Rating Cross-reference in PowerFlex 750-Series AC Drives Technical Data, publication [750-TD001](#), for frame sizes of other enclosure types.
- (3) This drive is the next larger frame size.
- (4) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.
- (5) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.
- (6) Circuit Breaker – inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.
- (7) When using a circuit breaker or time-delay fuse with a drive installed in a ventilated enclosure, the enclosure volume must be greater than or equal to the minimum volume specified in this column. Application-specific thermal considerations can require a larger enclosure.
- (8) Recommended Motor circuit protector – Instantaneous trip circuit breaker. Set the trip setting to the input current of the drive and size for the continuous current of the system.
- (9) For Bulletin 140M with adjustable current range, set the current trip to the minimum range that the device will not trip.
- (10) Manual Self-Protected (Type E) Combination Motor Controller, UL Listed for 208 Wye or Delta, 480Y/277V, and 600Y/347V AC Input. Not UL Listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.
- (11) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).
- (12) Bulletin 140M must be Frame D (D8E) or Frame F (F8E).
- (13) When using a Manual Self-Protected (Type E) Combination Motor Controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume that is specified in this column. Application-specific thermal considerations may require a larger enclosure.
- (14) See Fuse Certification and Test Data in PowerFlex AC Drives in Common Bus Configurations Application Guidelines, publication [DRIVES-A1002](#), for fuse self-certification and test data for Bussmann 170M and JKS fuses recommended for the DC bus fusing.

400 Volt AC and 540 Volt DC Input Protection Devices – Wall Mount Frames 1...7

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty				Drive Sized For Heavy Duty				Input Quantities		AC Input Protection Devices								Input Quantities	DC Input Protection ⁽¹⁴⁾																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Cat. No.		Output Overload Amps		Cat. No.		Output Overload Amps		Continuous AC Input		Dual-element Time-delay Fuse		Non Time-delay Fuse		Circuit Breaker Max Size ⁽⁵⁾		Circuit Breaker, Dual-element Time-delay Fuse				Motor Circuit Protector ⁽⁷⁾		140M Type E Combination Motor Controller with Adjustable Current Range ⁽⁸⁾⁽⁹⁾																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		(x = F or G)	1 Min	3 s		(x = F or G)	1 Min	3 s		kVA	Amps	Min ⁽³⁾	Max ⁽⁴⁾	Min ⁽³⁾	Max ⁽⁴⁾			Min Enclosure Volume (in. ³) ⁽⁶⁾				Cat. No.	Min Enclosure Volume (in. ³) ⁽¹³⁾																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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400 Volt AC and 540 Volt DC Input Protection Devices – Wall Mount Frames 1...7 (Continued)

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty				Drive Sized For Heavy Duty				Input Quantities		AC Input Protection Devices						Input Quantities	DC Input Protection ⁽¹⁴⁾			
		Cat. No.		Output Overload Amps		Cat. No.		Output Overload Amps		Continuous AC Input	kVA	Amps	Dual-element Time-delay Fuse		Non Time-delay Fuse		Circuit Breaker Max Size ⁽⁵⁾			Circuit Breaker, Dual-element Time-delay Fuse	Motor Circuit Protector ⁽⁷⁾	140M Type E Combination Motor Controller with Adjustable Current Range ⁽⁸⁾⁽⁹⁾
		(x = F or G)	1 Min	3 s	(x = F or G)	1 Min	3 s	Min ⁽³⁾	Max ⁽⁴⁾				Min ⁽³⁾	Max ⁽⁴⁾								
															Frame ⁽²⁾							
400 Volt AC Input																					540 Volt DC Input	
200 kW	7	367	20x...C367	403.7	550.5	20x...C456	550.5	684.0	249.1	359.5	475	800	475	1000	1100		600		420.2	Bussman 170M6612		
																				420.2	Bussman 170M6612	
250 kW	7	456	20x...C456	501.6	684.0				309.5	446.7	600	1000	600	1800	1300		600		522.0	Bussman 170M6612		
																				522.0	Bussman 170M6613	
270 kW	7	477	20x...C477	524	715.5				323.8	467.3	600	1000	600	1400	1400		600		546.0	Bussman 170M6613		

(1) Applied rating refers to the motor that is connected to the drive. For example, a C022 drive can be used in Normal Duty mode on an 11 kW motor, or in Heavy Duty mode on a 7.5 kW motor. A C015 drive can be used in Heavy Duty mode on a 5.5 kW motor with the same ratings as a C011. The drive can be programmed for either mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) Only enclosure codes F, N, and R. See Drive Rating Cross-reference in PowerFlex 750-Series AC Drives Installation Instructions, publication [750-IN001](#), for frame sizes of other enclosure types.

(3) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(4) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor F.L.A. Ratings that are shown are maximum.

(5) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor F.L.A. Ratings that are shown are maximum.

(6) When using a circuit breaker or time-delay fuse with a drive that is installed in a ventilated enclosure, the enclosure volume must be greater than or equal to the minimum volume specified in this column. Application-specific thermal considerations can require a larger enclosure.

(7) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(8) Bulletin 140M with adjustable current range must have the current trip set to the minimum range so that the device does not trip.

(9) manual self-protected (Type E) combination motor controller, UL Listed for 480V/277V and 600V/347V AC Input. Not UL Listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.

(10) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).

(11) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).

(12) Bulletin 140M must be Frame D (D8E) or Frame F (F8E).

(13) When using a manual self-protected (Type E) combination motor controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume that is specified in this column. Application-specific thermal considerations can require a larger enclosure.

(14) See Fuse Certification and Test Data in PowerFlex AC Drives in Common Bus Configurations Application Guidelines, publication [DRIVES-A1002](#), for fuse self-certification and test data for Bussmann 170M and JKS fuses recommended for the DC bus fusing.

400 Volt AC and 540 Volt DC Input Protection Devices – Floor Mount Frames 8...10

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor Fuse Size (170M)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M) ⁽⁸⁾	
					1 Min	3 s				Dual-element Time-delay Fuse		Non Time-delay Fuse		Circuit Breaker Max Size ⁽⁶⁾	Motor Circuit Protector ⁽⁷⁾			
										1/Phase Min ⁽⁴⁾	2/Phase Min ⁽⁴⁾	Max ⁽⁵⁾	1/Phase Min ⁽⁴⁾					2/Phase Min ⁽⁴⁾
400V AC Input																		
200 kW	8	385	Heavy	20G...C460	578	693	380	1100	—	500	—	850	500	—	1100	1100	500	
250 kW	8	460	Normal	20G...C460	506	693	455	1100	—	600	—	1000	600	—	1300	1300	600	
		456	Heavy	20G...C540	684	821	450	1100	—	600	—	1000	600	—	1300	1300	600	
		472	Heavy	20G...C567	708	851	466	1100	—	600	—	1000	600	—	1400	1400	600	
	315 kW	8	540	Light	20G...C460	594	—	534	1100	—	700	350	1200	700	350	1600	1600	700
315 kW		540	Normal	20G...C540	594	821	533	1100	—	700	350	1200	700	350	1600	1600	700	
		540	Heavy	20G...C650	810	975	533	1100	—	700	—	1200	700	—	1600	1600	700	
	315 kW	8	585	Light	20G...C540	644	—	578	1100	—	750	375	1300	750	375	1700	1700	800
		567	Normal	20G...C567	624	851	560	1100	—	750	375	1200	750	375	1700	1700	700	
355 kW		585	Heavy	20G...C750	878	1125	577	1100	—	750	375	1300	750	375	1700	1700	800	
	8	612	Light	20G...C567	673	—	604	1100	—	800	400	1300	800	400	1800	1800	800	
		650	Normal	20G...C650	715	975	640	1100	—	850	425	1400	850	425	1900	1900	800	
		642	Heavy	20G...C770	963	1155	634	1100	—	800	400	1400	800	400	1900	1900	800	
400 kW		750	Light	20G...C650	825	—	739	1100	—	1000	500	1600	1000	500	2200	2200	1000	
	8	750	Normal	20G...C750	825	1125	739	1100	—	1000	500	1600	1000	500	2200	2200	1000	
		770	Normal	20G...C770	847	1155	758	1100	—	1000	500	1700	1000	500	2300	2300	1000	
		796	Light	20G...C750	876	—	784	1100	—	1000	500	1700	1000	500	2300	2300	1000	
450 kW		832	Light	20G...C770	915	—	819	1100	—	1100	550	1800	1100	550	2400	2400	1200	
	9	750	Heavy	20G...C910	1125	1365	739	1100	1400 ⁽³⁾	900	450	1700	900	450	2200	2200	900	
	9	880	Heavy	20G...C1K0	1320	1584	867	1100	1400 ⁽³⁾	1100	550	2000	1100	550	2600	2600	1100	
		910	Heavy	20G...C1K1	1365	1638	896	1100	1400 ⁽³⁾	1100	550	2000	1100	550	2700	2700	1100	
560 kW		910	Normal	20G...C910	1001	1365	896	1100	1400 ⁽³⁾	1100	550	2000	1100	550	2700	2700	1100	
	9	1040	Light	20G...C910	1144	—	1024	1100	1400 ⁽³⁾	1300	650	2300	1300	650	3100	3100	1300	
		1040	Normal	20G...C1K0	1144	1584	1024	1100	1400 ⁽³⁾	1300	650	2300	1300	650	3100	3100	1300	
		1040	Heavy	20G...C1K2	1560	1872	1024	1100	1400 ⁽³⁾	1300	650	2300	1300	650	3100	3100	1300	
630 kW	9	1090	Light	20G...C1K0	1199	—	1073	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350	
		1090	Normal	20G...C1K1	1199	1638	1073	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350	
		1090	Heavy	20G...C1K4	1635	2198	1073	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350	
		1254																

400 Volt AC and 540 Volt DC Input Protection Devices – Floor Mount Frames 8...10 (Continued)

Applied Rating ⁽¹⁾	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor Fuse Size (170M)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M) ⁽⁸⁾	
									Dual-element Time-delay Fuse		Non Time-delay Fuse		Circuit Breaker Max Size ⁽⁶⁾	Motor Circuit Protector ⁽⁷⁾			
																	1/Phase Min ⁽⁴⁾
400V AC Input																	
710 kW	9	1175	Light	20G...C1K1	1293	—	1157	1100	1400 ⁽³⁾	1450	725	2600	1450	725	3500	3500	1600 ⁽³⁾
		1175	Normal	20G...C1K2	1293	1872	1157	1100	1400 ⁽³⁾	1450	725	2600	1450	725	3500	3500	1600 ⁽³⁾
		1175	Heavy	20G...C1K5	1763	2220	1157	1100	1400 ⁽³⁾	1450	725	2600	1450	725	3500	3500	1600 ⁽³⁾
10	1325	Heavy	20G...C1K6	1988	2385	1305	1100	1400 ⁽³⁾	1650	825	2900	1650	825	3900	3900	1600 ⁽³⁾	
800 kW	9	1465	Light	20G...C1K2	1612	—	1443	1100	1400 ⁽³⁾	1800	900	3200	1800	900	4300	4300	1600 ⁽³⁾
		1465	Normal	20G...C1K4	1612	2198	1443	1100	1400 ⁽³⁾	1800	900	3200	1800	900	4300	4300	1600 ⁽³⁾
850 kW	9	1480	Light	20G...C1K4	1628	—	1457	1100	1400 ⁽³⁾	1800	900	3300	1800	900	4400	4400	1600 ⁽³⁾
		1480	Normal	20G...C1K5	1628	2220	1457	1100	1400 ⁽³⁾	1800	900	3300	1800	900	4400	4400	1600 ⁽³⁾
900 kW	9	1600	Light	20G...C1K5	1760	—	1576	1100	1400 ⁽³⁾	1950	975	3500	1950	975	4700	4700	1600 ⁽³⁾
		10	1590	Normal	20G...C1K6	1749	2385	1566	1100	1400 ⁽³⁾	1950	975	3500	1950	975	4700	4700
1000 kW	10	1715	Light	20G...C1K6	1887	2058	1689	1100	1400 ⁽³⁾	2100	1050	3800	2100	1050	5100	5100	1600 ⁽³⁾
		1800	Heavy	20G...C2K1	2700	3240	1773	1100	1400 ⁽³⁾	2200	1100	4000	2200	1100	5300	5300	1600 ⁽³⁾
1250 kW	10	2150	Normal	20G...C2K1	2365	3240	2117	1100	1400 ⁽³⁾	2650	1325	4800	2650	1325	6400	6400	1600 ⁽³⁾
1400 kW	10	2330	Light	20G...C2K1	2563	2796	2294	1100	1400 ⁽³⁾	2850	1425	5200	2850	1425	6900	6900	1600 ⁽³⁾

(1) Applied rating refers to the motor that is connected to the drive. For example, a C460 drive can be used in Normal Duty mode on a 250 kW motor, in Heavy Duty mode on a 200 kW motor or in Light Duty mode on a 315 kW motor. The drive can be programmed for each mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) These AC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection. AC input protection devices for branch circuit protection based on US NEC are listed in the table. Each drive bay has one fuse per phase.

(3) Each drive bay has one fuse per DC line.

(4) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(5) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(7) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(8) These DC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection.

480 Volt AC and 650 Volt DC Input Protection Devices – Wall Mount Frames 1...7

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty				Drive Sized For Heavy Duty				Input Quantities		AC Input Protection Devices						Input Quantities	DC Input Protection ⁽¹⁴⁾						
		Cat. No.		Output Overload Amps		Cat. No.		Output Overload Amps		Continuous AC Input	kVA	Amps	Dual-element Time-delay Fuse	Non-Time Delay Fuse	Circuit Breaker Max Size ⁽⁵⁾	Circuit Breaker, Dual-element Time-delay Fuse	Motor Circuit Protector ⁽⁷⁾			140M Type E Combination Motor Controller with Adjustable Current Range ^{(8) (9)}					
		(x = F or G)	1 Min	3 s	(x = F or G)	1 Min	3 s	Min ⁽³⁾	Max ⁽⁴⁾												Min ⁽³⁾	Max ⁽⁴⁾	Min Enclosure Volume (in. ³) ⁽⁶⁾	Cat. No.	Min Enclosure Volume (in. ³) ⁽¹³⁾
480 Volt AC Input																									
0.5 Hp	1	1.1						2.3	3.2	0.7	0.9	2	3	2	3	15	3840	3	M-xxx-B25 ⁽¹⁰⁾	7269	JKS-6				
1.0 Hp	1	2.1	20x...D2P1	2.3	3.2	3.2	3.7	5.1	5.1	1.3	1.6	2	3	2	3	15	3840	3	M-xxx-B25 ⁽¹¹⁾	7269	JKS-6				
2.0 Hp	1	3.4	20x...D3P4	3.7	5.1	5.1	5.5	7.5	7.5	2.2	2.6	6	6	6	6	15	3840	7	M-xxx-B40 ⁽¹¹⁾	7269	JKS-6				
3.0 Hp	1	5	20x...D5P0	5.5	7.5	7.5	8.8	12.0	8.8	3.2	3.9	6	6	6	6	20	3840	7	M-xxx-B63 ⁽¹¹⁾	7269	JKS-10				
5.0 Hp	1	8	20x...D8P0	8.8	12.0	12.0	12.1	16.5	12.1	5.7	6.9	10	15	10	15	30	3840	15	M-xxx-C10 ⁽¹¹⁾	7269	HSJ15				
7.5 Hp	1	11	20x...D011	12.1	16.5	20x...D014	16.5	21.0	16.5	7.9	9.5	15	20	15	20	40	3840	15	M-xxx-C16 ⁽¹¹⁾	7269	HSJ20				
10 Hp	1	14	20x...D014	15.4	21.0					10.4	12.5	20	25	20	25	50	3840	20	M-xxx-C16 ⁽¹¹⁾	7269	HSJ30				
1.0 Hp	2	2.1	20x...D2P1	3.1	3.7	20x...D2P1	3.1	3.7	3.1	1.3	1.6	2	6	2	8	15	3840	3	M-xxx-B25 ⁽¹¹⁾	9086	JKS-6				
2.0 Hp	2	3.4	20x...D3P4	5.1	6.1	20x...D3P4	5.1	6.1	6.1	2.2	2.6	4	7	4	12	15	3840	7	M-xxx-B40 ⁽¹¹⁾	9086	JKS-6				
3.0 Hp	2	5	20x...D5P0	7.5	9.0	20x...D5P0	7.5	9.0	7.5	3.2	3.9	6	10	6	20	20	3840	7	M-xxx-B63 ⁽¹¹⁾	9086	JKS-10				
5.0 Hp	2	8	20x...D8P0	12.0	14.4	20x...D8P0	12.0	14.4	12.0	5.7	6.9	10	17.5	10	30	30	3840	15	M-xxx-C10 ⁽¹¹⁾	9086	HSJ15				
7.5 Hp	2	11	20x...D011	16.5	19.8	20x...D011	16.5	19.8	19.8	7.9	9.5	12	20	12	40	40	3840	15	M-xxx-C16 ⁽¹¹⁾	9086	HSJ20				
		11								7.9	9.5	12	20	12	40	40	3840	15	M-xxx-C16 ⁽¹¹⁾	9086	HSJ20				
10 Hp	2	14	20x...D014	15.4	21.0	20x...D022	21.0	33.0	33.0	10.4	12.5	20	30	20	55	50	3840	20	M-xxx-C16 ⁽¹¹⁾	9086	HSJ30				
15 Hp	2	22	20x...D022	24.2	33.0	20x...D027 ⁽³⁾	33.0	40.5	40.5	16.6	19.9	30	50	30	80	80	3840	30	M-xxx-C25 ⁽¹²⁾	9086	HSJ40				
20 Hp	3	27	20x...D027	29.7	40.5	20x...D034	40.5	51.0	51.0	20.6	24.8	35	60	35	100	100	4800	50	M-F8E-C32	9086	HSJ50				
25 Hp	3	34	20x...D034	37.4	51.0	20x...D040	51.0	61.2	61.2	25.9	31.2	45	75	45	125	100	4800	50	M-F8E-C45	9086	HSJ60				
30 Hp	3	40	20x...D040	44.0	60.0	20x...D052 ⁽³⁾	60.0	78.0	78.0	30.5	36.7	50	90	50	150	120	4800	50	M-F8E-C45	9086	HSJ80				
40 Hp	4	52	20x...D052	57.2	78.0	20x...D065	78.0	97.5	97.5	39.7	47.7	65	110	65	200	150	4800	70			HSJ90				
50 Hp	4	65	20x...D065	71.5	97.5	20x...D077 ⁽³⁾	97.5	117.0	117.0	49.6	59.6	90	125	90	250	175	4800	100			HSJ100				
60 Hp	5	77	20x...D077	84.7	115.5	20x...D096	115.5	144.0	144.0	60.1	72.3	100	170	100	300	225	7200	100			HSJ150				
75 Hp	5	96	20x...D096	105.6	144.0	20x...D125 ⁽³⁾	144.0	187.5	187.5	74.9	90.1	125	200	125	375	275	7200	125			HSJ175				
100 Hp	6	125	20x...D125	137.5	187.5	20x...D156	187.5	234.0	234.0	97.6	117.4	175	275	175	500	375		250			HSJ200				
125 Hp	6	156	20x...D156	171.6	234.0	20x...D186	234.0	280.8	280.8	121.8	146.5	200	350	200	600	450		250			HSJ300				
150 Hp	6	186	20x...D186	204.6	279.0	20x...D248	279.0	372.0	372.0	145.2	174.6	250	400	250	600	550		250			HSJ400				
200 Hp	6	248	20x...D248	272.8	372.0	20x...D302 ⁽³⁾	372.0	453.0	453.0	193.6	232.8	325	550	325	700	700		400			HSJ400				
250 Hp	7	302	20x...D302	332.2	453.0	20x...D361	453.0	543.6	543.6	235.7	283.5	400	675	400	900	900		600			Busman 170M6608				

480 Volt AC and 650 Volt DC Input Protection Devices – Wall Mount Frames 1...7 (Continued)

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty				Drive Sized For Heavy Duty				Input Quantities		AC Input Protection Devices						Input Quantities	DC Input Protection ⁽¹⁴⁾
		Cat. No.	Output Overload Amps		Cat. No.	Output Overload Amps	Cat. No.	Non-Time Delay Fuse	Circuit Breaker, Dual-element Time-delay Fuse	Circuit Breaker Max Size ⁽⁵⁾	Circuit Breaker, Dual-element Time-delay Fuse	Motor Circuit Protector ⁽⁷⁾	140M Type E Combination Motor Controller with Adjustable Current Range ^{(8) (9)}						
			1 Min	3 s										1 Min	3 s	kVA	Amps		
Frame ⁽²⁾																			
480 Volt AC Input																			
300 Hp	7	361	20x...D361	397.1	541.5	541.5	649.8	281.8	338.9	475	800	475	1000		600		396.1		
						541.5	649.8	281.8	338.9	475	800	475	1000		600		396.1		
350 Hp	7	415	20x...D415	456.5	622.5			323.9	389.6	525	900	525	1200		600		455.3		
400 Hp	7	477	20x...D477	524.7	715.5			372.3	447.8	600	1000	600	1400		600		523.3		
650 Volt DC Input																			
																	Bussman 170M6612		
																	Bussman 170M6612		
																	Bussman 170M6612		
																	Bussman 170M6613		

(1) Applied rating refers to the motor that is connected to the drive. For example, a D022 drive can be used in Normal Duty mode on a 15 Hp motor, or in Heavy Duty mode on a 10 Hp motor. A D014 drive can be used in Heavy Duty mode on a 7.5 Hp motor with the same ratings as a D011. The drive can be programmed for either mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) Only enclosure codes F, N, and R. See Drive Rating Cross-reference in PowerFlex 750-Series AC Drives Installation Instructions, publication [750-IN001](#), for frame sizes of other enclosure types.

(3) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(4) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(5) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) When using a circuit breaker or time-delay fuse with a drive that is installed in a ventilated enclosure, the enclosure volume must be greater than or equal to the minimum volume specified in this column. Application specific thermal considerations can require a larger enclosure.

(7) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(8) Bulletin 140M with adjustable current range must have the current trip set to the minimum range so that the device does not trip.

(9) manual self-protected (Type E) combination motor controller, UL Listed for 480V/277V and 600V/347V AC Input. Not UL Listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.

(10) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).

(11) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).

(12) Bulletin 140M must be Frame D (D8E) or Frame F (F8E).

(13) When using a manual self-protected (Type E) combination motor controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume that is specified in this column. Application specific thermal considerations can require a larger enclosure.

(14) See Fuse Certification and Test Data in PowerFlex AC Drives in Common Bus Configurations Application Guidelines, publication [DRIVES-AT002](#), for fuse self-certification and test data for Bussmann 170M and JKS fuses recommended for the DC bus fusing.

480 Volt AC and 650 Volt DC Input Protection Devices – Floor Mount Frames 8...10

Applied Rating ⁽¹⁾	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor Fuse Size (170M)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M) ⁽⁸⁾		
				1 Min	3 s				Amps	Dual-element Time-delay Fuse		Non Time-delay Fuse					Circuit Breaker Max Size ⁽⁶⁾	Motor Circuit Protector ⁽⁷⁾
										1/Phase Min ⁽⁴⁾	2/Phase Min ⁽⁴⁾	Max ⁽⁵⁾	1/Phase Min ⁽⁴⁾	2/Phase Min ⁽⁴⁾				
Frame																		
480V AC Input																		
300 Hp	8	370	Heavy	20G...D430	555	666	349	1100	—	450	—	800	450	—	1100	1100	450	
	350 Hp	8	430	Normal	20G...D430	473	666	406	1100	—	550	—	900	550	—	1200	1200	550
		414	Heavy	20G...D485	621	745	391	1100	—	500	—	900	500	—	1200	1200	500	
400 Hp	454	Heavy	20G...D545	681	818	428	1100	—	550	—	1000	550	—	1300	1300	550		
	8	485	Light	20G...D430	534	—	458	1100	—	600	—	1000	600	—	1400	1400	600	
	485	Normal	20G...D485	534	745	458	1100	—	600	—	1000	600	—	1400	1400	600		
450 Hp	485	Heavy	20G...D617	728	926	458	1100	—	600	—	1000	600	—	1400	1400	600		
	545	Light	20G...D485	600	—	514	1100	—	650	—	1200	650	—	1600	1600	650		
	545	Normal	20G...D545	600	818	514	1100	—	650	—	1200	650	—	1600	1600	650		
500 Hp	545	Heavy	20G...D710	818	1065	514	1100	—	650	325	1200	650	325	1600	1600	650		
	8	590	Light	20G...D545	649	—	557	1100	—	700	—	1300	700	—	1700	1700	700	
	617	Normal	20G...D617	679	926	582	1100	—	750	325	1300	750	325	1800	1800	800		
600 Hp	617	Heavy	20G...D740	926	1110	582	1100	—	750	375	1300	750	375	2400	1800	800		
	710	Light	20G...D617	781	—	670	1100	—	850	425	1500	850	425	2100	2100	900		
	710	Normal	20G...D710	781	1065	670	1100	—	850	425	1500	850	425	2100	2100	900		
650 Hp	765	Light	20G...D710	842	—	722	1100	—	1000	500	1700	1000	500	2200	2200	1000		
	8	740	Normal	20G...D740	814	1110	698	1100	—	900	450	1600	900	450	2200	2200	900	
	700 Hp	8	800	Light	20G...D740	880	—	755	1100	—	1000	500	1800	1000	500	2400	1000	
600 Hp	800	Heavy	20G...D800	1065	1278	670	1100	1400 ⁽³⁾	850	425	1500	850	425	2000	2000	850		
	9	710	Heavy	20G...D800	1065	1278	670	1100	1400 ⁽³⁾	950	475	1700	950	475	2300	2300	950	
	700 Hp	9	795	Heavy	20G...D960	1193	1440	750	1100	1400 ⁽³⁾	950	475	1700	950	475	2300	2300	950
750 Hp	800	Normal	20G...D800	880	1278	755	1100	1400 ⁽³⁾	950	475	1700	950	475	2300	2300	950		
	9	800	Heavy	20G...D1K0	1200	1568	755	1100	1400 ⁽³⁾	950	475	1700	950	475	2300	2300	950	
	800 Hp	9	960	Light	20G...D800	1056	—	906	1100	1400 ⁽³⁾	1150	575	2000	1150	575	2700	2700	1150
900 Hp	960	Normal	20G...D960	1056	1440	906	1100	1400 ⁽³⁾	1150	575	2000	1150	575	2700	2700	1150		
	960	Heavy	20G...D1K2	1440	1728	906	1100	1400 ⁽³⁾	1150	575	2000	1150	575	2700	2700	1150		
	1045	Light	20G...D960	1150	—	986	1100	1400 ⁽³⁾	1250	625	2200	1250	625	3000	3000	1250		
1000 Hp	1045	Normal	20G...D1K0	1150	1568	986	1100	1400 ⁽³⁾	1250	625	2200	1250	625	3000	3000	1250		
	1045	Heavy	20G...D1K3	1568	2048	986	1100	1400 ⁽³⁾	1250	625	2200	1250	625	3000	3000	1250		
	1135	Light	20G...D1K0	1249	—	1071	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350		
1248	1135	Normal	20G...D1K2	1249	1728	1071	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350		
	1248	Heavy	20G...D1K4	1703	2130	1071	1100	1400 ⁽³⁾	1350	675	2400	1350	675	3200	3200	1350		

480 Volt AC and 650 Volt DC Input Protection Devices – Floor Mount Frames 8...10 (Continued)

Applied Rating ⁽¹⁾	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽¹²⁾	DC Bay to Bay Integral Semiconductor Fuse Size (170M)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M) ⁽⁸⁾	
				1 Min	3 s				Amps	Amps	Dual-element Time-delay Fuse		Non Time-delay Fuse				Circuit Breaker Max Size ⁽⁶⁾
Frame						Amps	Amps	Amps	1/Phase Min ⁽⁴⁾	2/Phase Min ⁽⁴⁾	Max ⁽⁵⁾	1/Phase Min ⁽⁴⁾	2/Phase Min ⁽⁴⁾	Max ⁽⁵⁾	Continuous DC Input	Amps	
480V AC Input																	
1100 Hp	9	1365	Light	1502	—	1288	1100	1100	1400 ⁽³⁾	1600	800	2900	1600	800	3900	1501	1600 ⁽³⁾
		1365	Normal	1502	2048	1288	1100	1100	1400 ⁽³⁾	1600	800	2900	1600	800	3900	1501	1600 ⁽³⁾
10	1270	Heavy	206...D1K5	1905	2288	1199	1100	1100	1400 ⁽³⁾	1500	750	2700	1500	750	3600	1396	1600 ⁽³⁾
	9	1420	Light	1562	—	1340	1100	1100	1400 ⁽³⁾	1700	850	3000	1700	850	4000	1561	1600 ⁽³⁾
1250Hp		1420	Normal	1562	2130	1340	1100	1100	1400 ⁽³⁾	1700	850	3000	1700	850	4000	1561	1600 ⁽³⁾
	9	1540	Light	1694	—	1453	1100	1100	1400 ⁽³⁾	1800	900	3300	1800	900	4400	1693	1600 ⁽³⁾
1350Hp	10	1525	Normal	1678	2288	1439	1100	1100	1400 ⁽³⁾	1800	900	3200	1800	900	4300	1677	1600 ⁽³⁾
	10	1655	Light	1821	1986	1562	1100	1100	1400 ⁽³⁾	1950	975	3500	1950	975	4700	1819	1600 ⁽³⁾
1500Hp	10	1730	Heavy	2595	3114	1633	1100	1100	1400 ⁽³⁾	2050	1025	3700	2050	1025	4900	1902	1600 ⁽³⁾
	10	2070	Normal	2277	3114	1953	1100	1100	1400 ⁽³⁾	2450	1225	4400	2450	1225	5900	2276	1600 ⁽³⁾
1750Hp	10	2070	Normal	2277	3114	1953	1100	1100	1400 ⁽³⁾	2450	1225	4400	2450	1225	5900	2276	1600 ⁽³⁾
	10	2240	Light	2464	2688	2114	1100	1100	1400 ⁽³⁾	2650	1325	4800	2650	1325	6300	2463	1600 ⁽³⁾

(1) Applied rating refers to the motor that is connected to the drive. For example, a D430 drive can be used in Normal Duty mode on a 350 Hp motor, in Heavy Duty mode on a 300 Hp motor or in Light Duty mode on a 400 Hp motor. The drive can be programmed for each mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) These AC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection. AC input protection devices for branch circuit protection based on US NEC are listed in the table. Each drive bay has one fuse per phase.

(3) Each drive bay has one fuse per DC line.

(4) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(5) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(7) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(8) These DC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection.

600 Volt AC and 810V DC Input Protection Devices – Wall Mount Frames 3...7

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty		Drive Sized For Heavy Duty		Continuous AC Input	AC Input Protection Devices						Input Quantities	DC Input Protection ⁽¹⁴⁾					
		Output Overload Amps		Cat. No.	Output Overload Amps		Dual-element Time-delay Fuse		Non Time-delay Fuse	Circuit Breaker Max Size ⁽⁶⁾	Circuit Breaker, Dual-element Time-delay Fuse	Motor Circuit Protector ⁽⁸⁾			140M Type E Combination Motor Controller with Adjustable Current Range ^{(9) (10)}				
		1 Min	3 s		1 Min		3 s	Amps								Min ⁽²⁾	Max ⁽³⁾	Min ⁽²⁾	Max ⁽³⁾
Frame		(x = F or G)	1 Min	3 s	(x = F or G)	1 Min	3 s	Amps	Min ⁽²⁾	Max ⁽³⁾	Min ⁽²⁾	Max ⁽³⁾	Min Enclosure Volume (in. ³) ⁽⁷⁾	Cat. No.	Min Enclosure Volume (in. ³) ⁽¹³⁾				
600 Volt AC Input																			
0.5 Hp	3 0.9							0.8	1	2	1	3	3	4800	1	M-xxx-B16 ⁽¹¹⁾	9086	JKS-2	1.0
1 Hp	3 1.7	20x...E1P7	1.9	2.6	20x...E2P7	2.6	4.1	1.6	2	4	2	5	5	4800	2	M-xxx-B25 ⁽¹¹⁾	9086	JKS-4	1.9
2 Hp	3 2.7	20x...E2P7	3.0	4.1	20x...E3P9	4.1	5.9	2.5	3	6	3	8	8	4800	3	M-xxx-B40 ⁽¹¹⁾	9086	JKS-5	3.0
3 Hp	3 3.9	20x...E3P9	4.3	5.9	20x...E6P1	5.9	9.2	3.7	5	8	5	11 ⁽⁴⁾ 10 ⁽⁵⁾	11 ⁽⁴⁾ 20 ⁽⁵⁾	4800	5	M-D8E-B63	9086	JKS-8	4.3
5 Hp	3 6.1	20x...E6P1	6.7	9.2	20x...E9P0	9.2	13.5	5.7	7	13	7	15	20	4800	10	M-D8E-B63	9086	HSJ10	6.7
7.5 Hp	3 9	20x...E9P0	9.9	13.5	20x...E011	13.5	16.5	8.4	11	19	11	25	30	4800	15	M-xxx-C10 ⁽¹²⁾	9086	HSJ15	9.9
10 Hp	3 11	20x...E011	12.1	16.5	20x...E017	16.5	25.5	10.3	13	23	13	30	40	4800	15	M-xxx-C16 ⁽¹²⁾	9086	HSJ20	12.0
15 Hp	3 17	20x...E017	18.7	25.5	20x...E022	25.5	33.0	16.0	20	36	20	50	50	4800	20	M-F8E-C20	9086	HSJ30	18.6
20 Hp	3 22	20x...E022	24.2	33.0				20.7	26	46	26	60	70	4800	30	M-F8E-C25	9086	HSJ40	24.1
	4 22				20x...E027	33.0	40.5	20.7	26	46	26	60	70	4800	30	M-F8E-C25	9086	HSJ40	24.1
25 Hp	4 27	20x...E027	29.7	40.5	20x...E032	40.5	48.6	25.3	32	57	32	75	80	4800	35	M-F8E-C32	9086	HSJ50	29.6
30 Hp	4 32	20x...E032	35.2	48.0				30.0	38	68	38	90	100	4800	40	M-F8E-C32	9086	HSJ60	35.0
	5 32				20x...E041	48.0	61.5	30.0	38	68	38	90	100	7200	40	M-F8E-C32	13630	HSJ60	35.0
40 Hp	5 41	20x...E041	45.1	61.5	20x...E052	61.5	78.0	38.5	48	87	48	115	120	7200	50			HSJ70	44.9
50 Hp	5 52	20x...E052	57.2	78.0				48.8	61	110	61	145	150	7200	65			HSJ90	56.9
7.5 Hp	6 9.1				20x...E012	13.7	18.0	8.5	11	19	11	25	30		15	M-xxx-C10 ⁽¹²⁾	14400	HSJ15	10.0
10 Hp	6 12	20x...E012	13.2	18.0	20x...E018	18.0	27.0	11.3	14	25	14	35	40		15	M-xxx-C16 ⁽¹²⁾	14400	HSJ20	13.1
15 Hp	6 18	20x...E018	19.8	27.0	20x...E023	27.0	34.5	16.9	21	38	21	50	60		25	M-F8E-C20	14400	HSJ30	19.7
20 Hp	6 23	20x...E023	25.3	34.5	20x...E028	34.5	42.0	21.6	27 ⁽⁴⁾ 25 ⁽⁵⁾	49 ⁽⁴⁾ 50 ⁽⁵⁾	27 ⁽⁴⁾ 25 ⁽⁵⁾	65	70		30	M-F8E-C25	14400	HSJ40	25.2
	6 24	20x...E024	26.4	36.0				22.5	28	51	28	70	70		30	M-F8E-C25	14400	HSJ40	26.3
	6 22				20x...E024	33.0	39.6	20.7	26	46	26	60	70		30	M-F8E-C25	14400	HSJ40	24.1
25 Hp	6 28	20x...E028	30.8	42.0	20x...E033	42.0	50.4	26.3	35	60	35	80	80		35	M-F8E-C32	14400	HSJ50	30.7
30 Hp	6 33	20x...E033	36.3	49.5	20x...E042	49.5	63.0	31.0	40	70	40	95	100		40	M-F8E-C32	14400	HSJ60	36.1
40 Hp	6 42	20x...E042	46.2	63.0	20x...E053	63.0	79.5	39.4	50	90	50	120	120		50			HSJ70	46.0
50 Hp	6 53 ⁽⁴⁾ 52 ⁽⁵⁾	20x...E053	58.3	79.5	20x...E063	78.0	94.5	49.8 ⁽⁴⁾ 48.8 ⁽⁵⁾	60	110	60	150 ⁽⁴⁾ 145 ⁽⁵⁾	150		65			HSJ90	58.0 ⁽⁴⁾ 56.9 ⁽⁵⁾
60 Hp	6 63	20x...E063	69.3	94.5	20x...E077	94.5	115.5	59.1	75	135	75	175	180		75			HSJ110	69.0
75 Hp	6 77	20x...E077	84.7	115.5	20x...E099	115.5	148.5	72.3	90	165	90	215	220		95			HSJ150	84.3
100 Hp	6 99	20x...E099	108.9	148.5	20x...E125	148.5	187.5	92.9	115	210	115	280	280		120			HSJ175	108.4

600 Volt AC and 810V DC Input Protection Devices – Wall Mount Frames 3...7 (Continued)

Applied Rating ⁽¹⁾	Cont. Output Amps	Drive Sized For Normal Duty		Drive Sized For Heavy Duty		Continuous AC Input	AC Input Protection Devices							Input Quantities	DC Input Protection ⁽¹⁴⁾	
		Cat. No.	Output Overload Amps	Cat. No.	Output Overload Amps		Dual-element Time-delay Fuse	Non Time-delay Fuse	Circuit Breaker Max Size ⁽⁶⁾	Circuit Breaker, Dual-element Time-delay Fuse	Motor Circuit Protector ⁽⁸⁾	140M Type E Combination Motor Controller with Adjustable Current Range ⁽⁹⁾ (10)				
		(x = F or G)	1 Min	3 s	(x = F or G)	1 Min	3 s	Min ⁽²⁾	Max ⁽³⁾	Min ⁽²⁾	Max ⁽³⁾	Min Enclosure Volume (in. ³) ⁽⁷⁾	Cat. No.	Min Enclosure Volume (in. ³) ⁽¹³⁾	Amps	
600 Volt AC Input																
125 Hp	6	125	20x...E125	137.5	187.5	137.5	187.5	145	265	145	350	360	150		136.8	HSJ225
150 Hp	6	144	20x...E144	158.4	216.0			170	300	170	400	400	170		157.6	HSJ250
	7	144						170	305	170	405	410	170		157.6	HSJ250
200 Hp	7	192	20x...E192	211.2	288.0	211.2	288.0	225	405	225	540	550	230		210.2	HSJ350
250 Hp	7	242	20x...E242	266.2	363.0	266.2	363.0	285	510	285	680	690	285		264.9	HSJ400
300 Hp	7	289	20x...E289	317.9	433.5			340	600	340	800	800	340		316.4	HSJ500

(1) Applied rating refers to the motor that is connected to the drive. For example, a E063 drive can be used in Normal Duty mode on a 60 Hp motor, in Heavy Duty mode on a 50 Hp motor. The drive can be programmed for each mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(3) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(4) Normal duty.

(5) Heavy duty.

(6) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(7) When using a circuit breaker or time-delay fuse with a drive that is installed in a ventilated enclosure, the enclosure volume must be greater than or equal to the minimum volume specified in this column. Application specific thermal considerations can require a larger enclosure.

(8) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(9) Bulletin 140M with adjustable current range must have the current trip set to the minimum range so that the device does not trip.

(10) manual self-protected (Type E) combination motor controller, UL Listed for 480V/277V and 600V/347V AC Input. Not UL Listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.

(11) Bulletin 140M must be Frame C (C2E), Frame D (D8E), or Frame F (F8E).

(12) Bulletin 140M must be Frame D (D8E) or Frame F (F8E).

(13) When using a manual self-protected (Type E) combination motor controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume that is specified in this column. Application specific thermal considerations can require a larger enclosure.

(14) See Fuse Certification and Test Data in PowerFlex AC Drives in Common Bus Configurations Application Guidelines, publication [DRIVES-AT002](#), for fuse self-certification and test data for Bussmann 170M and JKS fuses recommended for the DC bus fusing.

600 Volt AC and 810V DC Input Protection Devices – Floor Mount Frames 8...10

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuo us AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor or Fuse Size (170M6648)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M6253) ⁽⁷⁾		
					1 Min	3 s				Dual-element Time-delay Fuse			Non Time-delay Fuse					Circuit Breaker Max Size ⁽⁵⁾	Motor Circuit Protector ⁽⁶⁾
										1/ Phase Min ⁽³⁾	2/ Phase Min ⁽³⁾	Max ⁽⁴⁾	1/ Phase Min ⁽³⁾	2/ Phase Min ⁽³⁾	Max ⁽⁴⁾				
600V AC Input																			
250 Hp	8	272	Heavy	20G...E295	408	490	257	900	—	350	175	600	350	175	800	300	1000		
300 Hp	8	295	Heavy	20G...E355	443	533	278	900	—	350	175	700	350	175	900	325	1000		
		295	Normal	20G...E295	325	490	278	900	—	400	200	700	400	200	1000	325	1000		
350 Hp	8	355	Light	20G...E295	391	—	335	900	—	450	225	800	450	225	1100	391	1000		
		355	Normal	20G...E355	391	533	335	900	—	450	225	800	450	225	1100	391	1000		
		329	Heavy	20G...E395	494	593	310	900	—	400	200	700	400	200	1000	363	1000		
		355	Heavy	20G...E435	533	639	335	900	—	450	225	800	450	225	1100	391	1000		
400 Hp	8	395	Light	20G...E355	435	—	373	900	—	500	250	900	500	250	1200	436	1000		
		395	Normal	20G...E395	435	593	373	900	—	500	250	900	500	250	1200	436	1000		
		395	Heavy	20G...E460	593	711	373	900	—	500	250	900	500	250	1200	436	1000		
450 Hp	8	435	Light	20G...E395	479	—	411	900	—	550	275	1000	550	275	1300	480	1000		
		435	Normal	20G...E435	479	639	411	900	—	500	250	900	500	250	1200	480	1000		
		425	Heavy	20G...E510	638	765	401	900	—	550	275	1000	550	275	1300	469	1000		
		460	Light	20G...E435	506	—	434	900	—	550	275	1000	550	275	1300	507	1000		
500 Hp	8	510	Light	20G...E460	561	—	481	900	—	650	325	1100	650	325	1500	562	1000		
		460	Normal	20G...E460	506	711	434	900	—	550	275	1000	550	275	1300	507	1000		
		510	Normal	20G...E510	561	765	481	900	—	650	325	1100	650	325	1500	562	1000		
		545	Light	20G...E510	600	—	514	900	—	650	325	1200	650	325	1600	601	1000		
500 Hp	9	510	Heavy	20G...E595	765	918	481	900	1000	600	300	1100	600	300	1400	562	1000		
600 Hp	9	595	Heavy	20G...E630	893	1071	562	900	1000	700	350	1300	700	350	1700	656	1000		
		595	Normal	20G...E595	655	918	562	900	1000	700	350	1300	700	350	1700	656	1000		
700 Hp	9	630	Heavy	20G...E760	945	1149	595	900	1000	750	375	1300	750	375	1800	695	1000		
		630	Normal	20G...E630	693	1071	595	900	1000	750	375	1300	750	375	1800	695	1000		
		595	Light	20G...E595	693	—	651	900	1000	800	400	1500	800	400	2000	761	1000		
750 Hp	9	700	Heavy	20G...E825	1050	1260	661	900	1000	850	425	1500	850	425	2000	772	1000		

600 Volt AC and 810V DC Input Protection Devices – Floor Mount Frames 8...10 (Continued)

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor or Fuse Size (170M6648)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)							Input Quantities	DC Input Integral Semiconductor Fuse Size (170M6253) ⁽⁷⁾		
					1 Min	3 s				Dual-element Time-delay Fuse			Non Time-delay Fuse						Circuit Breaker Max Size ⁽⁵⁾	Motor Circuit Protector ⁽⁶⁾
										1/ Phase Min ⁽³⁾	2/ Phase Min ⁽³⁾	Max ⁽⁴⁾	1/ Phase Min ⁽³⁾	2/ Phase Min ⁽³⁾	Max ⁽⁴⁾					
																Amps				
600V AC Input																				
800 Hp	9	760	Heavy	20G...E900	1140	1368	717	900	1000	900	450	1600	900	450	2200	2200	900	838	1000	
		760	Normal	20G...E760	836	1140	717	900	1000	900	450	1600	900	450	2200	2200	900	838	1000	
		760	Light	20G...E630	836	—	717	900	1000	900	450	1600	900	450	2200	2200	900	838	1000	
900 Hp	9	815	Heavy	20G...E980	1223	1470	769	900	1000	950	475	1700	950	475	2300	2300	950	899	1000	
		825	Normal	20G...E825	908	1260	779	900	1000	950	475	1800	950	475	2300	2300	950	910	1000	
		835	Light	20G...E760	919	—	788	900	1000	1000	500	1800	1000	500	2400	2400	1000	921	1000	
950 Hp	9	900	Normal	20G...E900	990	1368	849	900	1000	1050	525	1900	1050	525	2500	2500	1050	993	1000	
		900	Light	20G...E825	990	—	849	900	1000	1050	525	1900	1050	525	2500	2500	1050	993	1000	
		980	Normal	20G...E980	1078	1470	925	900	1000	1150	575	2100	1150	575	2800	2800	1150	1081	1000	
1000 Hp	9	980	Light	20G...E900	1078	—	925	900	1000	1150	575	2100	1150	575	2800	2800	1150	1081	1000	
		920	Heavy	20G...E1K1	1380	1665	868	900	1000	1100	550	2000	1100	550	2600	2600	1100	1015	1000	
		1045	Light	20G...E980	1150	—	986	900	1000	1250	625	2200	1250	625	3000	3000	1250	1152	1000	
1100 Hp	9	1110	Normal	20G...E1K1	1221	1665	1048	900	1000	1300	650	2400	1300	650	3100	3100	1300	1224	1000	
		1220	Light	20G...E1K1	1342	1464	1151	900	1000	1450	725	2600	1450	725	3500	3500	1450	1345	1000	
		1190	Heavy	20G...E1K4	1785	2145	1123	900	1000	1400	700	2500	1400	700	3400	3400	1400	1312	1000	
1200 Hp	10	1430	Normal	20G...E1K4	1573	2145	1350	900	1000	1700	850	3000	1700	850	4100	4100	1700	1577	1000	
		1530	Light	20G...E1K4	1683	1836	1444	900	1000	1800	900	3200	1800	900	4300	4300	1800	1687	1000	

(1) Applied rating refers to the motor that is connected to the drive. For example, a E420 drive can be used in Normal Duty mode on a 450 Hp motor, in Heavy Duty mode on a 350 Hp motor or in Light Duty mode on a 500 Hp motor. The drive can be programmed for each mode.

(2) These AC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection. AC input protection devices for branch circuit protection based on US NEC are listed in the table. Each drive bay has one fuse per phase.

(3) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(4) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(5) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(7) These DC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection.

690 Volt AC and 932V DC Input Protection Devices - Wall Mount Frames 6 and 7

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Drive Sized For Normal Duty			Drive Sized For Heavy Duty			Continuous AC Input	AC Input Protection Devices					Input Quantities	DC Input Protection	
			Cat. No.	Output Overload Amps	Cat. No.	Output Overload Amps	AC Input			Dual Element Time Delay Fuse	Non-Time Delay Fuse	Circuit Breaker Max Size ⁽⁶⁾	Motor Circuit Protector ⁽⁷⁾				
							(x = For G)	1 Min						3 s			(x = F or G)
690 Volt AC Input																	
5.5 kW	6	9								8.4	11	19	11	25	30	15	HSJ15
7.5 kW	6	12	20x...F011	13.2	18.0	20x...F015	18.0	22.5	11.2	14	25	14	14	35	40	15	HSJ20
11 kW	6	15	20x...F015	16.5	22.5	20x...F020	22.5	30.0	14.1	18	32	18	18	40	50	20	HSJ25
15 kW	6	20	20x...F020	22.0	30.0	20x...F023	30.0	36.0	18.7	23	42	23	23	55	60	25	HSJ35
18.5 kW	6	23	20x...F023	25.3	34.5	20x...F030	34.5	45.0	21.6	27 ⁽³⁾ , 25 ⁽⁴⁾	48 ⁽³⁾ , 50 ⁽⁴⁾	27 ⁽³⁾ , 25 ⁽⁴⁾	27 ⁽³⁾ , 25 ⁽⁴⁾	65	70	30	HSJ40
22 kW	6	30	20x...F030	33.0	45.0	20x...F034	45.0	54.0	28.1	35	65	35	35	85	90	40	HSJ50
30 kW	6	34	20x...F034	37.4	51.0	20x...F046	51.0	69.0	31.9	40	70	40	40	95	100	40	HSJ60
37 kW	6	46	20x...F046	50.6	69.0	20x...F050	69.0	82.8	43.1	55	95	55	55	130	130	55	HSJ80
45 kW	6	50	20x...F050	55.0	75.0	20x...F061	75.0	91.5	46.9	60	105	60	60	140	150	60	HSJ90
55 kW	6	61	20x...F061	67.1	91.5	20x...F082	91.5	123.0	57.2	70	130	70	70	170	180	75	HSJ100
75 kW	6	82	20x...F082	90.2	123.0	20x...F098	123.0	147.6	76.8	95	175	95	95	230	240	100	HSJ150
90 kW	6	98	20x...F098	107.8	147.0	20x...F119	147.0	178.5	91.8	115	205	115	115	275	280	115	HSJ175
110 kW	6	119	20x...F119	130.9	178.5	20x...F142	178.5	214.2	111.5	140	250	140	140	335	340	140	HSJ200
132 kW	6	142	20x...F142	156.2	213.0				133.1	165	300	165	165	400	400	170	HSJ250
	7	142				20x...F171	213.0	256.5	133.1	165	300	165	165	400	400	170	HSJ250
160 kW	7	171	20x...F171	188.1	256.5	20x...F212	256.5	318.0	160.2	200	360	200	200	480	490	205	HSJ300
200 kW	7	212	20x...F212	233.2	318.0	20x...F263	318.0	394.5	198.7	250	445	250	250	595	600	250	HSJ350
250 kW	7	263	20x...F263	289.3	394.5				246.5	310	555	310	310	740	740	310	HSJ500

(1) Applied rating refers to the motor that is connected to the drive. For example, a F061 drive can be used in Normal Duty mode on a 55 kW motor, in Heavy Duty mode on a 45 kW motor. The drive can be programmed for each mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 (Duty Rating).

(2) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(3) Normal duty.

(4) Heavy duty.

(5) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(7) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

690 Volt AC and 932V DC Input Protection Devices – Floor Mount Frames 8...10

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor or Fuse Size (170M) ⁽²⁾	DC Bay to Bay Integral Semiconductor Fuse Size (170M6648)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)							Input Quantities	DC Input Integral Semiconductor Fuse Size (170M6253) ⁽⁷⁾				
					1 Min	3 s				Amps	Amps	Dual-element Time-delay Fuse			Non Time-delay Fuse				Circuit Breaker Max Size ⁽⁵⁾	Motor Circuit Protector ⁽⁶⁾		
												1/Phase Min ⁽³⁾	2/Phase Min ⁽³⁾	Max ⁽⁴⁾	1/Phase Min ⁽³⁾	2/Phase Min ⁽³⁾					Max ⁽⁴⁾	
690V AC Input																						
200 kW	8	215	Heavy	20G...F265	323	375	203	900	—	250	125	500	250	125	600	600	250	932V DC Input				
250 kW	8	265	Normal	20G...F265	292	375	250	900	—	300	150	600	300	150	800	800	300	1000				
		265	Heavy	20G...F330	398	473	250	900	—	300	150	600	300	150	800	800	300	1000				
300 kW	8	308	Heavy	20G...F370	462	555	290	900	—	400	200	700	400	200	900	900	400	1000				
315 kW	8	330	Light	20G...F265	363	—	311	900	—	400	200	700	400	200	900	900	400	1000				
		330	Normal	20G...F330	363	473	311	900	—	400	200	700	400	200	900	900	400	1000				
355 kW	8	370	Light	20G...F330	407	—	349	900	—	450	225	800	450	225	1100	1100	450	1000				
		370	Normal	20G...F370	407	555	349	900	—	450	225	800	450	225	1100	1100	450	1000				
		370	Heavy	20G...F415	555	639	349	900	—	450	225	800	450	225	1100	1100	450	1000				
375 kW	8	375	Heavy	20G...F460	563	675	353	900	—	450	225	800	450	225	1100	1100	450	1000				
400 kW	8	410	Light	20G...F370	451	—	386	900	—	500	250	900	500	250	1200	1200	500	1000				
		415	Normal	20G...F415	457	639	391	900	—	500	250	900	500	250	1200	1200	500	1000				
		413	Heavy	20G...F500	620	750	389	900	—	500	250	900	500	250	1200	1200	500	1000				
450 kW	8	460	Light	20G...F415	506	—	433	900	—	550	275	1000	550	275	1300	1300	550	1000				
		460	Normal	20G...F460	506	675	433	900	—	550	275	1000	550	275	1300	1300	550	1000				
500 kW	8	500	Light	20G...F460	550	—	471	900	—	600	300	1100	600	300	1500	1500	600	1000				
		500	Normal	20G...F500	550	750	471	900	—	600	300	1100	600	300	1500	1500	600	1000				
530 kW	8	530	Light	20G...F500	583	—	499	900	—	650	325	1200	650	325	1500	1500	650	1000				
450 kW	9	460	Heavy	20G...F590	690	885	433	900	1000	550	275	1000	550	275	1300	1300	550	1000				
500 kW	9	500	Heavy	20G...F650	750	975	471	900	1000	600	300	1100	600	300	1400	1400	600	1000				
560 kW	9	590	Heavy	20G...F710	885	1065	556	900	1000	700	350	1300	700	350	1700	1700	700	1000				
		590	Normal	20G...F590	649	885	556	900	1000	700	350	1300	700	350	1700	1700	700	1000				
630 kW	9	650	Heavy	20G...F765	975	1170	612	900	1000	750	375	1400	750	375	1800	1800	750	1000				
		650	Normal	20G...F650	715	975	612	900	1000	750	375	1400	750	375	1800	1800	750	1000				
		650	Light	20G...F590	715	—	612	900	1000	750	375	1400	750	375	1800	1800	750	1000				
710 kW	9	750	Heavy	20G...F795	1125	1350	706	900	1000	900	450	1600	900	450	2100	2100	900	1000				
		710	Normal	20G...F710	781	1065	669	900	1000	900	450	1600	900	450	2100	2100	900	1000				
		710	Light	20G...F650	781	—	669	900	1000	900	450	1600	900	450	2100	2100	900	1000				
750 kW	9	765	Normal	20G...F765	842	1170	721	900	1000	900	450	1600	900	450	2200	2200	900	1000				

932V DC Input																	
237																	1000
292																	1000
292																	1000
339																	1000
363																	1000
363																	1000
407																	1000
407																	1000
407																	1000
413																	1000
451																	1000
457																	1000
454																	1000
506																	1000
506																	1000
550																	1000
550																	1000
583																	1000
506																	1000
550																	1000
649																	1000
649																	1000
715																	1000
715																	1000
715																	1000
825																	1000
781																	1000
781																	1000
842																	1000

690 Volt AC and 932V DC Input Protection Devices – Floor Mount Frames 8...10 (Continued)

Applied Rating ⁽¹⁾	Frame	Cont. Output Amps	Duty	Cat. No.	Output Overload Amps		Continuous AC Input	AC Input Integral Semiconductor or Fuse Size (170M) ⁽²⁾		DC Bay to Bay Integral Semiconductor Fuse Size (170M6648)	AC Input Protection Devices Recommended for Branch Circuit Protection (Does not apply to 21G Drives with Options)						Input Quantities	DC Input Integral Semiconductor Fuse Size (170M6253) ⁽⁷⁾		
					1 Min	3 s		Dual-element Time-delay Fuse				Non Time-delay Fuse				Circuit Breaker Max Size ⁽⁵⁾			Motor Circuit Protector ⁽⁶⁾	
								1/Phase Min ⁽³⁾	2/Phase Min ⁽³⁾		Max ⁽⁴⁾	1/Phase Min	2/Phase Min ⁽³⁾	Max ⁽⁴⁾						
690V AC Input																				
800 kW	9	795	Heavy	20G...F960	1193	1440	749	900	1000		950	475	1700	950	475	2200	2200	950	875	1000
		795	Normal	20G...F795	875	1350	749	900	1000		950	475	1700	950	475	2200	2200	950	875	1000
		790	Light	20G...F710	869	—	744	900	1000		950	475	1700	950	475	2200	2200	950	869	1000
850 kW	9	860	Light	20G...F765	946	—	810	900	1000		1000	500	1800	1000	500	2400	2400	1000	946	1000
900 kW	9	960	Normal	20G...F960	1056	1440	904	900	1000		1150	575	2000	1150	575	2700	2700	1150	1056	1000
		960	Light	20G...F795	1056	—	904	900	1000		1150	575	2000	1150	575	2700	2700	1150	1056	1000
		865	Heavy	20G...F1K0	1298	1560	815	900	1000		1000	500	1800	1000	500	2400	2400	1000	952	1000
1000 kW	9	1020	Light	20G...F795	1122	—	904	900	1000		1200	600	2200	1200	600	2900	2900	1200	1056	1000
		1040	Normal	20G...F1K0	1144	1560	980	900	1000		1250	625	2200	1250	625	2900	2900	1250	1144	1000
1100 kW	10	1150	Light	20G...F1K0	1265	1380	1083	900	1000		1350	675	2400	1350	675	3200	3200	1350	1265	1000
1120 kW	10	1160	Heavy	20G...F1K4	1740	2100	1093	900	1000		1350	675	2500	1350	675	3300	3300	1350	1276	1000
1400 kW	10	1400	Normal	20G...F1K4	1540	2100	1319	900	1000		1650	825	3000	1650	825	4000	4000	1650	1540	1000
1500 kW	10	1485	Light	20G...F1K4	1634	1782	1399	900	1000		1750	875	3100	1750	875	4200	4200	1750	1634	1000

(1) Applied rating refers to the motor that is connected to the drive. For example, a F400 drive can be used in Normal Duty mode on a 400 kW motor, in Heavy Duty mode on a 355 kW motor or in Light Duty mode on a 450 kW motor. The drive can be programmed for each mode. Wiring and fuses can be sized based on the programmed mode. For any given drive catalog number, Normal Duty mode provides higher continuous current but smaller overload current when compared to Heavy Duty mode. See parameter 306 [Duty Rating].

(2) These AC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection. AC input protection devices for branch circuit protection based on US NEC are listed in the table. Each drive bay has one fuse per phase.

(3) Minimum protection device size is the lowest rated device that supplies maximum protection without nuisance tripping.

(4) Maximum protection device size is the highest rated device that supplies drive protection. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(5) Circuit breaker - inverse time breaker. For US NEC, minimum size is 125% of motor FLA. Ratings that are shown are maximum.

(6) Recommended motor circuit protector - instantaneous trip circuit breaker. The trip setting must be set to the input current of the drive and must be sized for the continuous current of the system.

(7) These DC line fuses (with blown fuse indicators) are included in the drive to provide drive short circuit protection.

Short Circuit Current Ratings for Drives with Options

Default ratings (no added protection) shown. A ‘•’ indicates ratings that can be achieved with additional protection.

400V AC Input

Drive Cat. No.	Frame	Duty Cycle	kW	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...C460	8	LD	315	100	30	65 or • 100 with 700...800 A Class L fuse	5 or • 30 with 700...1200 A Class L fuse • 30 with 700...1200 A CB
		ND	250	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
		HD	200	100	5 or • 100 with 500...600 A Class J fuse • 18 with 600...800 A Class L fuse • 18 with 500 A CB	65	5 or • 100 with 500...600 A Class J fuse • 18 with 600...800 A Class L fuse • 18 with 500 A CB
21G...C540	8	LD	315	100	30	65 or • 100 with 750...800 A Class L fuse	5 or • 30 with 750...1300 A Class L fuse • 30 with 800...1200 A CB
		ND	315	100	30	65 or • 100 with 700...800 A Class L fuse	5 or • 30 with 700...1200 A Class L fuse • 30 with 700...1200 A CB
		HD	250	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
21G...C567	8	LD	355	100	30	65 or • 100 with 800 A Class L fuse	5 or • 30 with 800...1300 A Class L fuse • 30 with 800...1200 A CB
		ND	315	100	30	65 or • 100 with 750...800 A Class L fuse	5 or • 30 with 750...1200 A Class L fuse • 30 with 800...1200 A CB
		HD	250	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
21G...C650	8	LD	400	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1600 A Class L fuse • 42 with 1000...1200 A CB
		ND	355	100	42	65 or • 100 with 850...1200 A Class L fuse	5 or • 42 with 850...1400 A Class L fuse • 42 with 900...1200 A CB
		HD	315	100	30	65 or • 100 with 700...800 A Class L fuse	5 or • 30 with 700...1200 A Class L fuse • 30 with 700...1200 A CB
21G...C750	8	LD	450	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1700 A Class L fuse • 42 with 1000...1200 A CB
		ND	400	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1600 A Class L fuse • 42 with 1000...1200 A CB
		HD	315	100	30	65 or • 100 with 700...800 A Class L fuse	5 or • 30 with 750...1300 A Class L fuse • 30 with 800...1200 A CB
21G...C770	8	LD	450	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1100...1800 A Class L fuse • 42 with 1100...1200 A CB
		ND	400	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1700 A Class L fuse • 42 with 1000...1200 A CB
		HD	355	100	42	65 or • 100 with 700...800 A Class L fuse	5 or • 42 with 800...1400 A Class L fuse • 42 with 800...1200 A CB

400V AC Input (Continued)

Drive Cat. No.	Frame	Duty Cycle	kW	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...C910	9	LD	560	100			
		ND	500	100			
		HD	400	100			
21G...C1K0	9	LD	630	100			
		ND	560	100			
		HD	500	100			
21G...C1K1	9	LD	710	100			
		ND	630	100			
		HD	500	100			
21G...C1K2	9	LD	800	100			
		ND	710	100			
		HD	560	100			
21G...C1K4	9	LD	850	100			
		ND	800	100			
		HD	630	100			
21G...C1K5	9	LD	900	100			
		ND	850	100			
		HD	710	100			
21G...C1K6	10	LD	1000	—			
		ND	900	—			
		HD	710	—			
21G...C2K1	10	LD	1400	—			
		ND	1250	—			
		HD	1000	—			

(1) These circuit breakers are considered branch circuit protection for the unit.

(2) No additional protection is provided with the P5 molded case switch option. Branch circuit protection is required based on NEC guidelines.

480V AC Input

Drive Cat. No.	Frame	Duty Cycle	Hp	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...D430	8	LD	400	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
		ND	350	100	30 or • 65 with 550...600 A Class J fuse	65	30 or • 65 with 550...600 A Class J fuse
		HD	300	100	5 or • 100 with 450...600 A Class J fuse • 18 with 600...800 A Class L fuse • 18 with 500 A CB	65	5 or • 100 with 500...600 A Class J fuse • 18 with 600...800 A Class L fuse • 18 with 500 A CB
21G...D485	8	LD	450	100	30	65 or • 100 with 800 A Class L fuse	5 or • 30 with 650...1200 A Class L fuse • 30 with 700...1200 A CB
		ND	400	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
		HD	350	100	5 or • 100 with 500...600 A Class J fuse • 18 with 600...900 A Class L fuse	65	5 or • 100 with 500...600 A Class J fuse • 18 with 600...900 A Class L fuse
21G...D545	8	LD	500	100	30	65 or • 100 with 800 A Class L fuse	5 or • 30 with 700...1300 A Class L fuse • 30 with 700...1200 A CB
		ND	450	100	30	65 or • 100 with 650...800 A Class L fuse	5 or • 30 with 650...1200 A Class L fuse • 30 with 700...1200 A CB
		HD	350	100	30 or • 65 with 550...600 A Class J fuse	65	5 or • 65 with 550...600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
21G...D617	8	LD	600	100	42	65 or • 100 with 850...1200 A Class L fuse	5 or • 42 with 850...1500 A Class L fuse • 42 with 900...1200 A CB
		ND	500	100	30	65 or • 100 with 750...800 A Class L fuse	5 or • 30 with 750...1300 A Class L fuse • 30 with 800...1200 A CB
		HD	400	100	30 or • 65 with 600 A Class J fuse	65	5 or • 65 with 600 A Class J fuse • 30 with 600...1000 A Class L fuse • 30 with 600...1200 A CB
21G...D710	8	LD	650	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1700 A Class L fuse • 42 with 1000...2000 A CB
		ND	600	100	42	65 or • 100 with 850...1200 A Class L fuse	5 or • 42 with 850...1500 A Class L fuse • 42 with 900...1200 A CB
		HD	450	100	30	65 or • 100 with 650...800 A Class L fuse	5 or • 30 with 650...1200 A Class L fuse • 30 with 700...1200 A CB
21G...D740	8	LD	700	100	42	65 or • 100 with 1000...1200 A Class L fuse	5 or • 42 with 1000...1700 A Class L fuse • 42 with 1000...2000 A CB
		ND	650	100	42	65 or • 100 with 900...1200 A Class L fuse	5 or • 42 with 900...1600 A Class L fuse • 42 with 900...2000 A CB
		HD	500	100	30	65 or • 100 with 750...800 A Class L fuse	5 or • 30 with 750...1300 A Class L fuse • 30 with 800...1200 A CB

480V AC Input (Continued)

Drive Cat. No.	Frame	Duty Cycle	Hp	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...D800	9	LD	800	100			
		ND	700	100			
		HD	600	100			
21G...D960	9	LD	900	100			
		ND	800	100			
		HD	700	100			
21G...D1K0	9	LD	1000	100			
		ND	900	100			
		HD	750	100			
21G...D1K2	9	LD	1100	100			
		ND	1000	100			
		HD	800	100			
21G...D1K3	9	LD	1250	100			
		ND	1100	100			
		HD	900	100			
21G...D1K4	9	LD	1350	100			
		ND	1250	100			
		HD	1000	100			
21G...D1K5	10	LD	1500	—			
		ND	1350	—			
		HD	1100	—			
21G...D2K0	10	LD	2000	—			
		ND	1750	—			
		HD	1650	—			

(1) These circuit breakers are considered branch circuit protection for the unit.

(2) No additional protection is provided with the P5 molded case switch option. Branch circuit protection is required based on NEC guidelines.

600V AC Input

Drive Cat. No.	Frame	Duty Cycle	Hp	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...E295	8	LD	350	50	• 18 with 601...700 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
		ND	300	50	• 18 with 600 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
		HD	250	50	• 18 with 600 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
21G...E355	8	LD	400	50	• 18 with 601...800 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
		ND	350	50	• 18 with 601...700 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
		HD	300	50	• 18 with 600 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
21G...E395	8	LD	450	50	• 30 with 601...900 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		ND	400	50	• 18 with 601...800 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
		HD	350	50	• 18 with 601...700 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
21G...E435	8	LD	500	50	• 30 with 601...1000 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		ND	450	50	• 30 with 601...900 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		HD	350	50	• 18 with 601...700 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
21G...E460	8	LD	500	35	• 30 with 601...1000 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		ND	500	50	• 30 with 601...1000 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		HD	400	50	• 18 with 601...800 A Class L fuse • 18 with 500 A CB • 100 with 600 A Class J fuse	25	• 25 with 600 A Class J fuse
21G...E510	8	LD	550	35	• 30 with 601...1100 A Class L fuse • 30 with 1100 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		ND	500	35	• 30 with 601...1000 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
		HD	450	50	• 30 with 601...900 A Class L fuse • 30 with 1000 A CB	• 100 with 800 A max Class L fuse	• 30 with 800 A Class L fuse
21G...E595	9	LD	700	50			
		ND	600	50			
		HD	500	50			

600V AC Input (Continued)

Drive Cat. No.	Frame	Duty Cycle	Hp	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...E630	9	LD	800	50			
		ND	700	50			
		HD	600	50			
21G...E760	9	LD	900	50			
		ND	800	50			
		HD	700	50			
21G...E825	9	LD	950	50			
		ND	900	50			
		HD	750	50			
21G...E900	9	LD	1000	65			
		ND	950	50			
		HD	800	50			
21G...E980	9	LD	1100	65			
		ND	1000	65			
		HD	900	50			
21G...E1K1	10	LD	1220	—			
		ND	1100	—			
		HD	1000	—			
21G...E1K4	10	LD	1500	—			
		ND	1400	—			
		HD	1250	—			

(1) These circuit breakers are considered branch circuit protection for the unit if the tap is within 10 ft of the breaker input.

(2) These switches are 21G, SCCR ratings, with no additional protection provided. Branch circuit protection (fuse) is required based on NEC guidelines for options with P5.

690V AC Input

Drive Cat. No.	Frame	Duty Cycle	kW	Short Circuit Current Rating (kA)			
				Circuit Breaker Only (P3) ⁽¹⁾	Circuit Breaker with Input Contactor (P3 with P11) ⁽¹⁾	Molded Case Switch Only (P5) ⁽²⁾	Molded Case Switch with Input Contactor (P5 with P11) ⁽²⁾
21G...F265	8	LD	315	30	SCCR rating for 690V input contactor not available at time of publication.	25	SCCR rating for 690V input contactor not available at time of publication.
		ND	250	30		25	
		HD	200	30		25	
21G...F330	8	LD	355	30		25	
		ND	315	30		25	
		HD	250	30		25	
21G...F370	8	LD	400	30		25	
		ND	355	30		25	
		HD	300	30		25	
21G...F415	8	LD	450	30		25	
		ND	400	30		25	
		HD	355	30		25	
21G...F460	8	LD	500	25		25	
		ND	450	30		25	
		HD	375	30		25	
21G...F500	8	LD	530	25		25	
		ND	500	25		25	
		HD	400	30		25	
21G...F590	9	LD	630	35			
		ND	560	35			
		HD	450	35			
21G...F650	9	LD	710	35			
		ND	630	35			
		HD	500	35			
21G...F710	9	LD	800	35			
		ND	710	35			
		HD	560	35			
21G...F765	9	LD	850	35			
		ND	750	35			
		HD	630	35			
21G...F795	9	LD	900	35			
		ND	800	35			
		HD	710	35			
21G...F960	9	LD	1000	35			
		ND	900	35			
		HD	800	35			
21G...F1K0	10	LD	1100	—			
		ND	1000	—			
		HD	900	—			
21G...F1K4	10	LD	1500	—			
		ND	1400	—			
		HD	1120	—			

(1) These circuit breakers are considered branch circuit protection for the unit if the tap is within 10 ft of the breaker input.

(2) These switches are 21G, SCCR ratings, with no additional protection provided. Branch circuit protection (fuse) is required based on NEC guidelines for options with P5.

Cable Considerations

This section provides information for cable types and routing.

Power Cable Types Acceptable for 200...600 Volt Installations

Various cable types are acceptable for drive installations. For an in-depth discussion of cable types, including a table of maximum motor cable lengths, see the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

Recommended Cable Design

Rating/Type	Description
600V 75 °C (167 °F)	- Four tinned copper conductors with XLPE insulation. - Copper braid/aluminum foil combination shield and tinned copper drain wire. - PVC jacket.

Wiring Considerations

This section provides information for power, signal, and I/O wiring.

Type		Wire Types	Description	Min Insulation Rating
Power (1) (2)	Standard	—	- Four tinned copper conductors with XLPE insulation. - Copper braid/aluminum foil combination shield and tinned copper drain wire. - PVC jacket.	600V, 75 °C (167 °F)
Signal (1) (3) (4)	Standard analog I/O	—	0.750 mm ² (18 AWG), twisted pair, 100% shield with drain.	300V, 75...90 °C (167...194 °F)
	Remote pot	—	0.750 mm ² (18 AWG), 3 conductor, shielded.	
	Encoder/ Pulse I/O < 30 m (100 ft)	Combined	0.196 mm ² (24 AWG) individually shielded pairs.	
	Encoder/ Pulse I/O 30...152 m (100...500 ft)	Signal	0.196 mm ² (24 AWG) individually shielded pairs.	
		Power	0.750 mm ² (18 AWG) individually shielded pairs	
		Combined	0.330 mm ² (22 AWG), power is 0.500 mm ² (20 AWG) individually shielded pairs.	
	Encoder/ Pulse I/O 152...259 m (500...850 ft)	Signal	0.196 mm ² (24 AWG) individually shielded pairs.	
		Power	0.750 mm ² (18 AWG) individually shielded pairs.	
		Combined	0.750 mm ² (18 AWG) individually shielded pairs.	
Digital I/O Safety inputs Homing inputs (1) (3) (4)	Unshielded	—	Per US NEC or applicable national or local code.	300V, 60 °C (140 °F)
	Shielded	Multi-conductor shielded cable	0.750 mm ² (18 AWG), 3 conductor, shielded.	

(1) Separate control and signal wires from power wires by at least 0.3 m (1 ft).

(2) The use of shielded wire for AC input power is not always necessary, but is recommended.

(3) If the wires are short and contained within a cabinet that has no sensitive circuits, the use of shielded wire is not always necessary, but is recommended.

(4) I/O terminals that are labeled (—) or common are not referenced to earth ground and are designed to reduce common mode interference. Grounding these terminals can cause signal noise. For CE installations, 115V I/O must use shielded cable or have a cable length less than 30 m (98 ft).

Power Wiring Options

This section describes the cabling options available for each Frame 8...10 drive enclosure. See pages [146...175](#) for conduit plate dimensions.



Adequate Spacing
Available conduit plates provide adequate spacing for typical cabling.

0

Possible – Evaluation is Required
Available conduit plates must be evaluated to determine if cabling fits.

X

Not Possible – Insufficient Spacing
Conduit plates are not available for the specified configuration.

Cable Entry and Exit Routes

Frame	Enclosure Rating	Enclosure Code	Cabinet Layout	Top Entry/ Top Exit	Top Entry/ Bottom Exit	Bottom Entry/ Top Exit	Bottom Entry/ Bottom Exit
8	IP20, NEMA/UL Type 1	B	600 mm drive cabinet	X		X	0
		L, P, W	800 mm drive cabinet	0		0	
		B	600 mm drive with power option bay			X	0
		L, P, W	800 mm drive with power option bay			0	
		B	600 mm drive with wiring bay				
		L, P, W	800 mm drive with wiring bay				
		B	600 mm drive with power option and wiring bays				
		L, P, W	800 mm drive with power option bay and wiring bays				
	IP54, NEMA 12	J, K, Y	800 mm drive cabinet	X	X	X	
		J, K, Y	800 mm drive with power option bay	X		0	0
		J, K, Y	800 mm drive with wiring bay				
		J, K, Y	800 mm drive with power option bay and wiring bays				
9	IP20, NEMA/UL Type 1	B	600 mm drive cabinet	0		0	0
		L, P, W	800 mm drive cabinet				
		B	600 mm drive with power option bay			X	
		L, P, W	800 mm drive with power option bay			0	
		B	600 mm drive with wiring bay				
		L, P, W	800 mm drive with wiring bay				
		B	600 mm drive with power option and wiring bays				
		L, P, W	800 mm drive with power option bay and wiring bays				
	IP54, NEMA 12	J, K, Y	800 mm drive cabinet	X	X	X	
		J, K, Y	800 mm drive with power option bay	0		0	
		J, K, Y	800 mm drive with wiring bay				
		J, K, Y	800 mm drive with power option bay and wiring bays				

Cable Entry and Exit Routes

Frame	Enclosure Rating	Enclosure Code	Cabinet Layout	Top Entry/ Top Exit	Top Entry/ Bottom Exit	Bottom Entry/ Top Exit	Bottom Entry/ Bottom Exit
10	IP20, NEMA/UL Type 1	B	600 mm drive cabinet	0		0	0
		L, P, W	800 mm drive cabinet			0	
		B	600 mm drive with power option bay	X		X	
		L, P, W	800 mm drive with power option bay	0		0	
		B	600 mm drive with wiring bay				
		L, P, W	800 mm drive with wiring bay				
		B	600 mm drive with power option and wiring bays				
		L, P, W	800 mm drive with power option bay and wiring bays			X	
	IP54, NEMA 12	J, K, Y	800 mm drive cabinet	X	X	X	
		J, K, Y	800 mm drive with power option bay	X	0	0	
		J, K, Y	800 mm drive with wiring bay	0			
		J, K, Y	800 mm drive with power option bay and wiring bays				

Motor Considerations

Due to the operational characteristics of AC variable frequency drives, we recommend motors with inverter grade insulation systems that are designed to meet or exceed NEMA MG1 Part 31.40.4.2 standards for resistance to spikes of 1600 volts.

Guidelines must be followed when using non-inverter grade motors to avoid premature motor failures. See Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#) for recommendations.

Allen-Bradley Permanent Magnet Servo Motors

When using a PowerFlex 755 drive to control a permanent magnet motor, the motor feedback device must have a resolution such that the number of pulses per revolution (PPR) is an exponent of 2 (for example: 512, 1024, 2048, 4096, 8192, and so on).

The following table contains a list of specifications for Allen-Bradley® servo motors compatible with PowerFlex 750-Series drives. This information is provided to help configure a PowerFlex 750-Series drive with the appropriate servo motor data. For information about compatibility and configuration of Allen-Bradley servo motors (including Bulletin RDB or RDD-Series™ Direct Drive™ motors) and third-party PM motors, contact Rockwell Automation technical support.

Allen-Bradley Servo Motors Compatible with PowerFlex 750-Series Drives

Cat. No.	Motor NP Volts (line-line V rms)	Motor NP Amps (A rms)	Motor NP Hertz (Hz)	Motor NP RPM (oper. rpm)	Motor NP Power (kW)	Motor Poles	Current peak (A rms)	System Cont. Stall Torque (N·m)	Motor Max RPM
MPL-B4530K	460	7.8	200.7	3010	2.6	8	19.1	8.25	4000
MPL-B4560F	460	8.3	144.7	2170	3.2	8	25.5	14.1	3000
MPL-B520K	460	8.1	208	3120	3.5	8	23.3	10.7	4000
MPL-B540K	460	14.5	177.3	2660	5.4	8	42.4	19.4	4000
MPL-B560F	460	14.5	130.7	1960	5.5	8	42.4	26.8	3000
MPL-B580F	460	18.4	132.7	1990	7.1	8	66.5	34	3000
MPL-B580J	460	22.6	148	2220	7.9	8	66.5	34	3800
MPL-B640F	460	22.7	106	1590	6.11	8	46	36.7	3000
MPL-B660F	460	27.2	81.3	1220	6.15	8	67.9	48	3000
MPL-B680D	460	24	94	1410	9.3	8	66.5	62.8	2000
MPL-B680F	460	33.9	79.3	1190	7.5	8	67.9	60	3000
MPL-B860D	460	33.6	96	1440	12.5	8	67.5	83.1	2000
MPL-B880C	460	33.6	72.7	1090	12.6	8	69	110	1500
MPL-B880D	460	40.3	86.7	1300	15	8	113.2	110	2000
MPL-B960B	460	29.7	62	930	12.7	8	63.6	130	1200
MPL-B960C	460	38.9	76	1140	14.8	8	88.4	124.3	1500
MPL-B960D	460	50.2	76.7	1150	15	8	102.5	124.3	2000
MPL-B980B	460	31.8	59.3	890	15.02	8	70.7	162.7	1000
MPL-B980C	460	48.2	67.3	1010	16.8	8	99	158.2	1500
MPL-B980D	460	63.6	74.7	1120	18.6	8	141.4	158.2	2000
MPM-B1151F	480	1.5	266.7	4000	0.75	8	7	2.18	5000
MPM-B1151T	480	3.1	333.3	5000	0.9	8	14.5	2.18	7000
MPM-B1152C	480	2.3	166.7	2500	1.2	8	8.8	2.18	3000
MPM-B1152F	480	2.9	266.7	4000	1.4	8	15.5	4.74	5200
MPM-B1152T	480	5.2	266.7	4000	1.4	8	26.8	4.74	7000
MPM-B1153E	480	2.7	200	3000	1.4	8	15.3	6.55	3500
MPM-B1153F	480	3.2	266.7	4000	1.45	8	22.6	6.55	5500
MPM-B1153T	480	5.5	266.7	4000	1.45	8	39.2	6.55	7000
MPM-B1302F	480	3.4	266.7	4000	1.65	8	15.6	5.99	4500
MPM-B1302M	480	4.9	266.7	4000	1.65	8	22.6	5.99	6000
MPM-B1302T	480	6.6	266.7	4000	1.65	8	30.7	5.99	7000
MPM-B1304C	480	3.4	183.3	2750	2	8	15.8	10.2	2750
MPM-B1304E	480	4.1	166.7	2500	2.2	8	24.2	10.2	4000
MPM-B1304M	480	7.3	233.3	3500	2.2	8	42.9	10.2	6000
MPM-B1651C	480	4.7	200	3000	2.5	8	20.6	10.7	3500
MPM-B1651F	480	8.2	200	3000	2.5	8	36	10.7	5000
MPM-B1651M	480	10.9	200	3000	2.5	8	40.2	10.7	5000
MPM-B1652C	480	7	166.7	2500	3.8	8	23.8	16	2500

Allen-Bradley Servo Motors Compatible with PowerFlex 750-Series Drives (Continued)

Cat. No.	Motor NP Volts (line-line V rms)	Motor NP Amps (A rms)	Motor NP Hertz (Hz)	Motor NP RPM (oper. rpm)	Motor NP Power (kW)	Motor Poles	Current peak (A rms)	System Cont. Stall Torque (N•m)	Motor Max RPM
MPM-B1652E	480	8	233.3	3500	4.3	8	42.8	19.4	3500
MPM-B1652F	480	11	233.3	3500	4.3	8	59.5	19.4	4500
MPM-B1653C	480	10.5	133.3	2000	4.6	8	41.9	26.8	2500
MPM-B1653E	480	10.2	200	3000	5.1	8	51.6	26.8	3500
MPM-B1653F	480	13.2	200	3000	5.1	8	66.7	26.8	4000
MPM-B2152C	480	12.3	133.3	2000	5.6	8	39.2	36.7	2500
MPM-B2152F	480	18.7	166.7	2500	5.9	8	69.3	33	4500
MPM-B2152M	480	21	166.7	2500	5.9	8	54	30	5000
MPM-B2153B	480	12.7	116.7	1750	6.8	8	42.4	48	2000
MPM-B2153E	480	19.3	133.3	2000	7.2	8	69.7	48	3000
MPM-B2153F	480	22.1	133.3	2000	7.2	8	69.6	45	3800
MPM-B2154B	480	13.9	116.7	1750	6.9	8	69.3	62.8	2000
MPM-B2154e	480	18.3	133.3	2000	7.5	8	69.5	56	3000
MPM-B2154F	480	19.8	133.3	2000	7.5	8	59.3	56	3300

For motor power and feedback cable information, see the Kinetix® Motion Control Selection Guide, (publication [GMC-SG001](#)).

Dimensions and Weights

This section provides Frame and rating cross-references.

208V AC and 240V AC

Cat. No.	Light Duty kW Output	Normal Duty kW Output	Heavy Duty kW Output	Cat. No.	Light Duty Hp Output	Normal Duty Hp Output	Heavy Duty Hp Output	Enclosure Code/Frame Size			
								F	G	N	R
208 Volt				240 Volt							
20x...B2P2		0.37 (0.37) ⁽¹⁾	0.37 (0.37) ⁽¹⁾	20x...B2P2	—	0.5(0.5) ⁽¹⁾	0.5(0.5) ⁽¹⁾	2	2	2	1
20x...B4P2	—	0.75(0.75) ⁽¹⁾	0.75(0.37) ⁽¹⁾	20x...B4P2	—	1(1) ⁽¹⁾	1(0.5) ⁽¹⁾				
20x...B6P8	—	1.5(1.5) ⁽¹⁾	1.5(0.75) ⁽¹⁾	20x...B6P8	—	2(2) ⁽¹⁾	2(1) ⁽¹⁾				
20x...B9P6	—	2.2(2.2) ⁽¹⁾	2.2(1.5) ⁽¹⁾	20x...B9P6	—	3(3) ⁽¹⁾	3(2) ⁽¹⁾				
20x...B015	—	4(4) ⁽¹⁾	2.2(2.2) ⁽¹⁾	20x...B015	—	5(5) ⁽¹⁾	3(3) ⁽¹⁾				
20x...B022	—	5.5	4	20x...B022	—	7.5	5	3	3	3	—
20x...B028	—	7.5	5.5	20x...B028	—	10	7.5				
20x...B042	—	11	7.5	20x...B042	—	15	10				
20x...B054	—	15	11	20x...B054	—	20	15	4	4	4	
20x...B070	—	18.5	15	20x...B070	—	25	20	5	5	5	
20x...B080	—	22	18.5	20x...B080	—	30	25		6		
20x...B104	—	30	22	20x...B104	—	40	30	6 ⁽²⁾		6	
20x...B130	—	37	30	20x...B130	—	50	40				
20x...B154	—	45	37	20x...B154	—	60	50				
20x...B192	—	55	45	20x...B192	—	75	60				
20x...B260	—	66	55	20x...B260	—	100	75	7 ⁽²⁾	7	7	
20x...B312	—	90	66	20x...B312	—	125	100				
20x...B360	—	110	90	20x...B360	—	150	125				
20x...B477	—	132	90	20x...B477	—	200	125		—		

(1) Ratings in parenthesis are only applicable for Frame 1.

(2) For Frames 6 and 7, a user-installed flange kit (catalog number 20-750-FLNG4-Fx) is available to convert a code N drive that provides a NEMA/UL Type 4X/12 back.

400V AC and 480V AC

Cat. No.	Light Duty kW Output	Normal Duty kW Output	Heavy Duty kW Output	Cat. No.	Light Duty Hp Output	Normal Duty Hp Output	Heavy Duty Hp Output	Enclosure Code/Frame Size											
								B, J, L, T	F	G	N	K, P, W, Y	R						
400 Volt				480 Volt															
20x...C2P1	—	0.75 (0.75) ⁽¹⁾	0.75 (0.37) ⁽¹⁾	20x...D2P1	—	1 (1) ⁽¹⁾	1 (0.5) ⁽¹⁾	—	2	2	2	—	1						
20x...C3P5	—	1.5 (1.5) ⁽¹⁾	1.5 (0.75) ⁽¹⁾	20x...D3P4	—	2 (2) ⁽¹⁾	2 (1.5) ⁽¹⁾												
20x...C5P0	—	2.2 (2.2) ⁽¹⁾	2.2 (1.5) ⁽¹⁾	20x...D5P0	—	3 (3) ⁽¹⁾	3 (2) ⁽¹⁾												
20x...C8P7	—	4 (4) ⁽¹⁾	4 (2.2) ⁽¹⁾	20x...D8P0	—	5 (5) ⁽¹⁾	5 (3) ⁽¹⁾												
20x...C011	—	5.5 (5.5) ⁽¹⁾	5.5 (4) ⁽¹⁾	20x...D011	—	7.5 (7.5) ⁽¹⁾	7.5 (5) ⁽¹⁾												
20x...C015	—	7.5 (7.5) ⁽¹⁾	5.5 (5.5) ⁽¹⁾	20x...D014	—	10 (10) ⁽¹⁾	7.5 (7.5) ⁽¹⁾												
20x...C022	—	11	7.5	20x...D022	—	15	10												
20x...C030	—	15	11	20x...D027	—	20	15												
20x...C037	—	18.5	15	20x...D034	—	25	20												
20x...C043	—	22	18.5	20x...D040	—	30	25												
20x...C060	—	30	22	20x...D052	—	40	30												
20x...C072	—	37	30	20x...D065	—	50	40												
20x...C085	—	45	37	20x...D077	—	60	50												
20x...C104	—	55	45	20x...D096	—	75	60												
20x...C140	—	75	55	20x...D125	—	100	75												
20x...C170	—	90	75	20x...D156	—	125	100												
20x...C205	—	110	90	20x...D186	—	150	125												
20x...C260	—	132	110	20x...D248	—	200	150												
20x...C302	—	160	132	20x...D302	—	250	200												
20x...C367	—	200	160	20x...D361	—	300	250												
20x...C456	—	250	200	20x...D415	—	350	300												
2xG...C460	315	250	200	20x...D430	400	350	300	8	—	—	—	8	—						
2xG...C477	—	270	200	20x...D477	—	400	300	—	7 ⁽²⁾	—	7	—							
2xG...C540	315	315	250	20x...D485	450	400	350	8	—	—	—	8							
2xG...C567	355	315	250	20x...D545	500	450	350												
2xG...C650	400	355	315	20x...D617	600	500	400												
2xG...C750	450	400	355	20x...D710	650	600	450												
2xG...C770	450	400	355	20x...D740	700	650	500												
2xG...C910	560	500	400	20x...D800	800	700	600	9						—	—	—	9		
2xG...C1K0	630	560	500	20x...D960	900	800	700												
2xG...C1K1	710	630	500	20x...D1K0	1000	900	750												
2xG...C1K2	800	710	560	20x...D1K2	1100	1000	800												
2xG...C1K4	850	800	630	20x...D1K3	1250	1100	900												
2xG...C1K5	900	850	710	20x...D1K4	1350	1250	1000												
2xG...C1K6	1000	900	710	20x...D1K5	1500	1350	1100					10					—	—	—
2xG...C2K1	1400	1250	1000	20x...D2K0	2000	1750	1650												

(1) Ratings in parenthesis are only applicable for Frame 1.

(2) For Frames 6 and 7, a user-installed flange kit (catalog number 20-750-FLNG4-Fx) is available to convert a code N drive that provides a NEMA/UL Type 4X/12 back.

600V AC and 690V AC

Cat. No.	Light Duty kW Output	Normal Duty kW Output	Heavy Duty kW Output	Cat. No.	Light Duty Hp Output	Normal Duty Hp Output	Heavy Duty Hp Output	Enclosure Code/Frame Size									
								B, J, L, T	F		G, N		K, P, W, Y	R			
									690V	600V	690V	600V					
690 Volt				600 Volt													
				20x...E1P7	—	1	0.5	—	—	3	—	3	—	—			
				20x...E2P7	—	2	1										
				20x...E3P9	—	3	2										
				20x...E6P1	—	5	3										
				20x...E9P0	—	7.5	5										
				20x...E011	—	10	7.5										
20x...F012	—	7.5	5.5	20x...E012	—	10	7.5					—	6	6			
				20x...E017	—	15	10					3	—	3			
20x...F015	—	11	7.5	20x...E018	—	15	10					—	6	6			
				20x...E022	—	20	15					3	—	3			
20x...F020	—	15	11	20x...E023	—	20	15					—	6	6			
20x...F023	—	18.5	15	20x...E024	—	20	20					—	6	6			
				20x...E027	—	25	20					4	—	4			
20x...F030	—	22	18.5	20x...E028	—	25	20					—	6	6			
				20x...E032	—	30	25					4	—	4			
20x...F034	—	30	22	20x...E033	—	30	25					—	6	6			
				20x...E041	—	40	30					5	—	5			
20x...F046	—	37	30	20x...E042	—	40	30					—	6	6			
				20x...E052	—	50	40					5	—	5			
20x...F050	—	45	37	20x...E053	—	50	40					—	6	6			
20x...F061	—	55	45	20x...E063	—	60	50										
20x...F082	—	75	55	20x...E077	—	75	60										
20x...F098	—	90	75	20x...E099	—	100	75										
20x...F119	—	110	90	20x...E125	—	125	100										
20x...F142	—	132	110	20x...E144	—	150	125										
20x...F171	—	160	132	20x...E192	—	200	150										
20x...F212	—	200	160	20x...E242	—	250	200										
20x...F263	—	250	200	20x...E289	—	300	250										
2xG...F265	315	250	200	20x...E295	350	300	250	8							—	—	8
2xG...F330	355	315	250	20x...E355	400	350	300										
2xG...F370	400	355	300	20x...E395	450	400	350										
2xG...F415	450	400	355	20x...E435	500	450	350										
2xG...F460	500	450	375	20x...E460	500	500	400										
2xG...F500	530	500	400	20x...E510	550	500	450										
2xG...F590	630	560	450	20x...E595	700	600	500	9									9
2xG...F650	710	630	500	20x...E630	800	700	600										
2xG...F710	800	710	560	20x...E760	900	800	700										
2xG...F765	850	750	630	20x...E825	950	900	750										
2xG...F795	900	800	710	20x...E900	1000	950	800										
2xG...F960	1000	900	800	20x...E980	1100	1000	900										
2xG...F1K0	1100	1000	900	20x...E1K1	1200	1100	1000	10									10
2xG...F1K4	1500	1400	1120	20x...E1K4	1500	1400	1250										

Enclosure Options

IMPORTANT IP00, IP20, and NEMA/UL Open Type PowerFlex 750-Series drives must be mounted in a clean, dry location. Contaminants such as oils, corrosive vapors, and abrasive debris must be kept out of the enclosure. These enclosures are intended for indoor use primarily to provide a degree of protection against contact with enclosed equipment. These enclosures offer no protection against airborne contaminants. See the following tables for an explanation of enclosure options and the environmental specifications that are found on [page 52](#).

Pollution Degree Ratings According to EN 61800-5-1

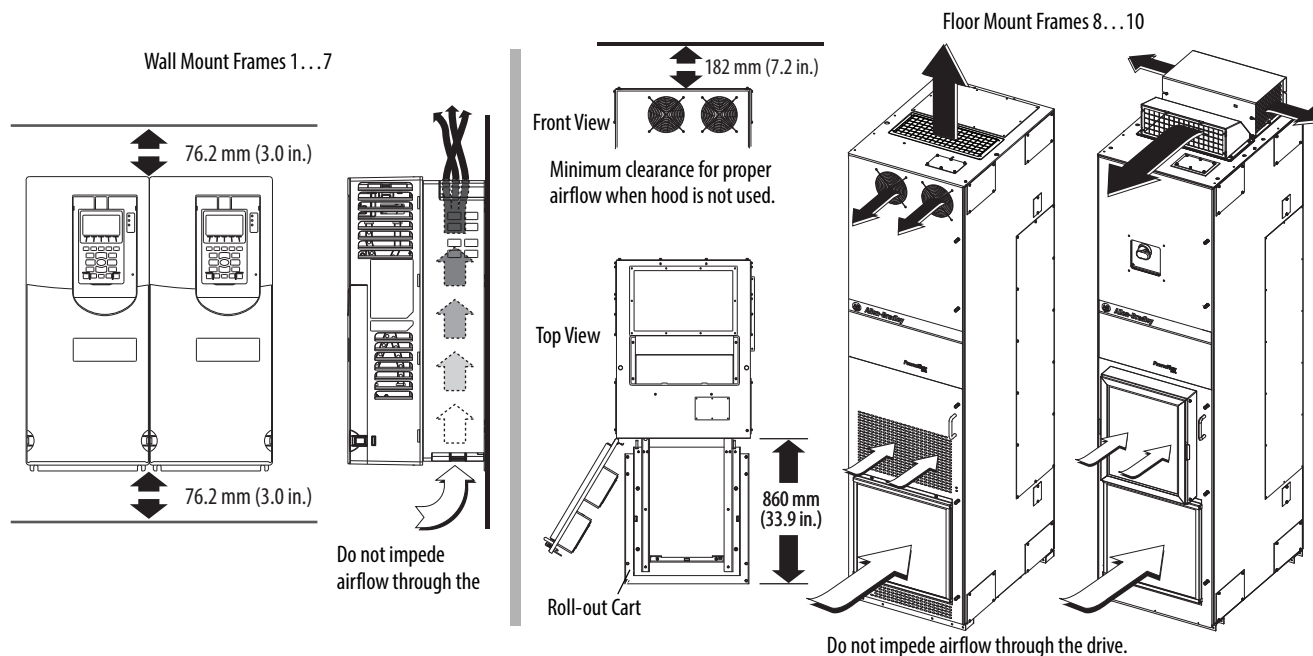
Pollution Degree	Description
1	No pollution or only dry, non-conductive pollution occurs. The pollution has no influence.
2	Normally, only non-conductive pollution occurs. Occasionally, a temporary conductivity that is caused by condensation is to be expected, when the drive is out of operation.
3	Conductive pollution or dry non-conductive pollution occurs, which becomes conductive due to condensation, which is to be expected.
4	The pollution generates persistent conductivity that is caused, for example, by conductive dust or rain or snow.

Drive Enclosure Ratings

Frames	Enclosure Type (Cat. No. Position 6)	Installed Accessory Kit	Front Side Rating		Back Side/Heat Sink Rating	
			Enclosure Type	Pollution Degree	Enclosure Type	Pollution Degree
1	R	None	IP20, NEMA/UL Open Type	1, 2	IP20, NEMA/UL Open Type	1, 2
		NEMA Type 1	IP20, NEMA/UL Type 1	1, 2	IP20, NEMA/UL Type 1	1, 2
2...5	N	None	IP20, NEMA/UL Open Type	1, 2	IP20, NEMA/UL Open Type	1, 2
		NEMA Type 1	IP20, NEMA/UL Type 1	1, 2	IP20, NEMA/UL Type 1	1, 2
		Flange	IP20, NEMA/UL Type 1	1, 2	IP20, NEMA/UL Type 1	1, 2
	F	None	IP20, NEMA/UL Open Type	1, 2	IP66, NEMA/UL Type 4X	1, 2, 3, 4
	G	None	IP54, NEMA/UL Type 12	1, 2, 3, 4	IP54, NEMA/UL Type 12	1, 2, 3, 4
6 and 7	N	None	IP00, NEMA/UL Open Type	1, 2	IP00, NEMA/UL Open Type Kit	1, 2
		NEMA Type 1	IP20, NEMA/UL Type 1	1, 2	IP20, NEMA/UL Type 1	1, 2
		NEMA Type 4X flange	IP00, NEMA/UL Open Type	1, 2	IP66, NEMA/UL Type 4X	1, 2, 3, 4
	G	None	IP54, NEMA/UL Type 12	1, 2, 3, 4	IP54, NEMA/UL Type 12	1, 2, 3, 4
8...10	B, L, P, W	None	IP20, NEMA/UL Type 1, MCC	1, 2	IP20, NEMA/UL Type 1	1, 2
	J, K, Y	None	IP54, NEMA 12	1, 2, 3, 4	IP54, NEMA 12	1, 2, 3, 4

Minimum Mounting Clearances

Specified vertical clearance requirements are intended to be from the drive to the closest object that can restrict airflow through the drive heat sink and chassis. The drive must be mounted in a vertical orientation as shown and must make full contact with the mounting surface. Do not use standoffs or spacers. In addition, inlet air temperature must not exceed the product specification.



Approximate Weights

Drive		Frame Size	Drive Rating		Enclosure Code/Weight, kg (lb)			
			kW (208V ⁽¹⁾ , 400V, 690V)	Hp (240V ⁽¹⁾ , 480V, 600V)	F	G	N	R
Standard (20F, 20G)	AC input and common DC input	1	0.37...7.5	0.5...10				7 (15)
		2	0.37...11	0.5...15	9 (20)	10 (22)	8 (18)	
		3	7.5...22	0.5...30	13 (29)	14 (31)	11 (25)	
		4	15...37	20...50	17 (37)	18 (39)	16 (35)	
		5	18.5...55	25...70	24 (54)	26 (57)	24 (52)	
		6	5.5...75	7.5...100	37 (82)	89 (197)	37 (82)	
			45...132	50...200	38 (84)	116 (256)	39 (85)	
		7	132...200	150...300	69 (152)	135 (297)	79 (174)	
			200...270	300...400	96 (212)	162 (357)	106 (234)	
					B, L	P, W	J	K, Y
Standard (20G)	AC input	8	250...400	350...650	623 (1374)	1145 (2525)	644 (1419)	1166 (2570)
		9	500...850	700...1250	1246 (2748)	2290 (5051)	1287 (2838)	2332 (5141)
		10	900...1250	1350...1750	1869 (4122)	3435 (7576)	1931 (4257)	3498 (7711)
	Common DC input	8	250...400	350...650	566 (1248)	1088 (2400)	586 (1293)	1109 (2445)
		9	500...850	700...1250	1132 (2497)	2176 (4799)	1173 (2587)	2218 (4889)
		10	900...1250	1350...1750	1698 (3745)	3264 (7199)	1760 (3880)	3327 (7334)
With options (21G)	AC input	8	250...400	350...650	1145 (2525)	1675 (3694)	1166 (2570)	1696 (3739)
		9	500...850	700...1250	1730 (3815)	2820 (6219)	1771 (3905)	2862 (6309)
		10	900...1250	1350...1750	2315 (5106)	3965 (8745)	2377 (5241)	4028 (8880)

(1) Only Frame 1...7 available for 208V, 240V input drives.

Maximum Component Weights - Frames 8...10

Component	AC Input, kg (lb)	Common DC Input, kg (lb)
Converter/DC input with precharge	64 (140)	64 (140)
Inverter	222 (490)	165 (363)
Drive assembly (Open, IP00)	329 (725)	229 (504)

Approximate Dimensions

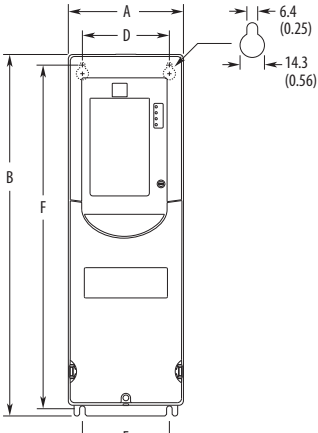
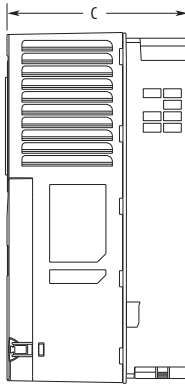
This section provides the approximate dimensions for the drives.

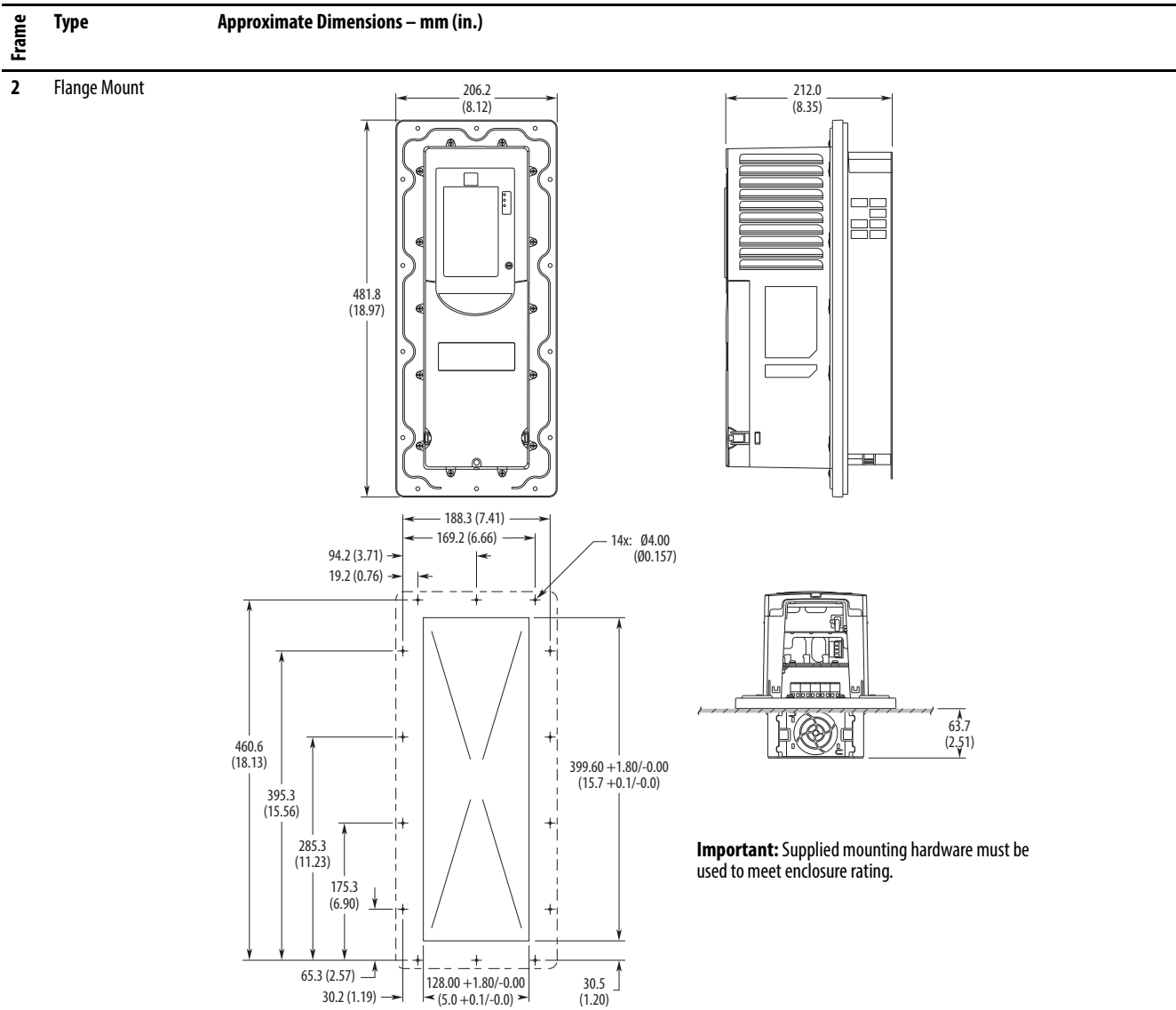
Dimension Drawing Index

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	MCC Style Cabinet, 800 mm (31.5 in.) Deep - IP20	154
	MCC Style Cabinet with Wiring Bay, 800 mm (31.5 in.) Deep - IP20	155
	MCC Style Cabinet with Cabinet Option Bay, 800 mm (31.5 in.) Deep - IP20	156
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	MCC Style Cabinet, 800 mm (31.5 in.) Deep - IP54	158
	MCC Style Cabinet with Wiring Bay, 800 mm (31.5 in.) Deep - IP54	159
	MCC Style Cabinet with Cabinet Option Bay, 800 mm (31.5 in.) Deep - IP54	160
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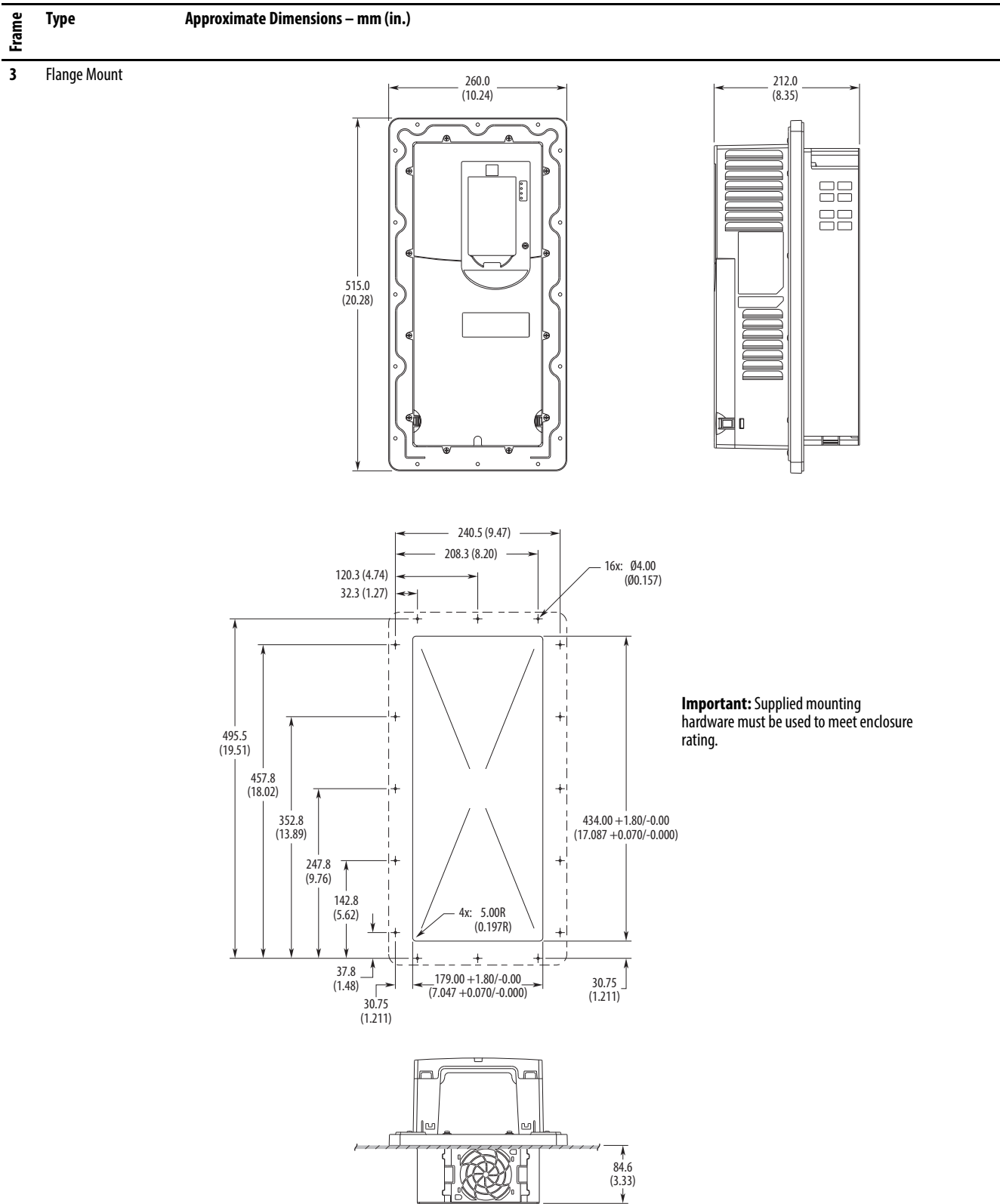
Dimension Drawing Index (Continued)

Frame	Description	Page
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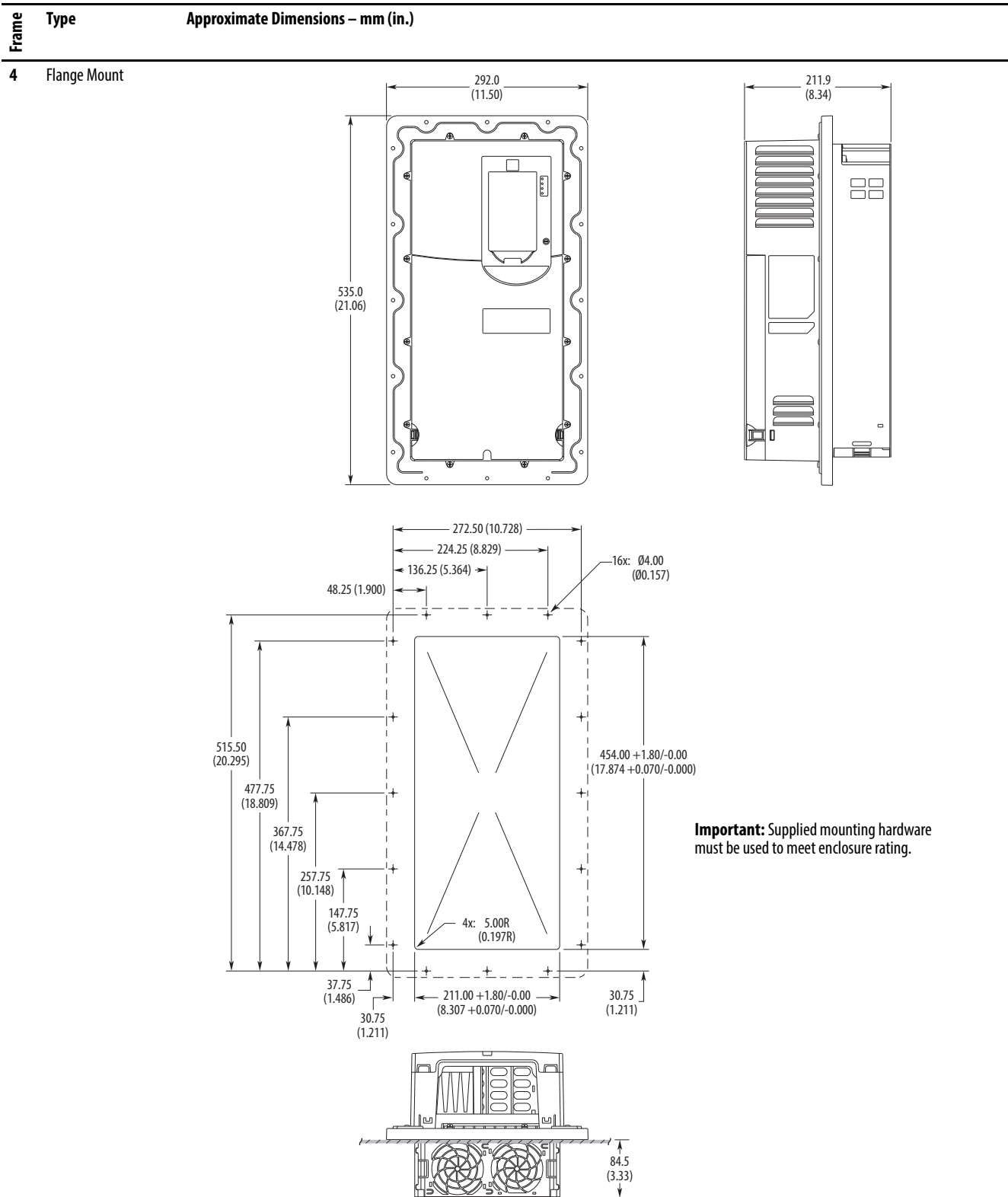
Frame	Type	Approximate Dimensions – mm (in.)					
1, 2	IP20, NEMA/UL Type Open			Frame 2 Shown			
Frame	A	B	C	D	E	F	Weight kg (lb)
1	110.0 (4.33)	400.5 (15.77)	211.0 (8.31)	68.0 (2.68)	82.0 (3.23)	390.4 (15.37)	6.0 (12.75)
2	134.5 (5.30)	424.2 (16.70)	212.0 (8.35)	100.0 (3.94)	100.0 (3.94)	404.2 (15.91)	7.8 (17.2)



Frame	Type	Approximate Dimensions – mm (in.)
2	IP54, NEMA/UL Type 12	Technical drawing of Frame 2 AC drive showing front, side, and top views with dimensions in mm (in.): - Front View: Overall width 215.3 (8.48), mounting hole spacing 100.0 (3.94), terminal spacing 6.4 (0.25), terminal hole diameter 14.3 (0.56). Overall height 528.2 (20.80), mounting flange height 543.2 (21.39). - Side View: Overall depth 222.2 (8.75). - Top View: Mounting hole pattern dimensions: 88.1 (3.47), 85.7 (3.37), 65.1 (2.56), 44.5 (1.75), 42.1 (1.66). Mounting hole diameter 2x: Ø22.0 (Ø0.87). Terminal hole diameter 3x: Ø29.0 (Ø1.14). Overall width 190.0 (7.48), mounting flange width 158.0 (6.22). Overall height 179.4 (7.06), mounting flange height 146.4 (5.76), terminal block height 109.4 (4.31).
3	IP20, NEMA/UL Open Type	Technical drawing of Frame 3 AC drive showing front and side views with dimensions in mm (in.): - Front View: Overall width 190.0 (7.48), mounting hole spacing 158.0 (6.22), terminal spacing 6.4 (0.25), terminal hole diameter 14.3 (0.56). Overall height 435.0 (17.13), mounting flange height 454.0 (17.87). - Side View: Overall depth 212.0 (8.35).



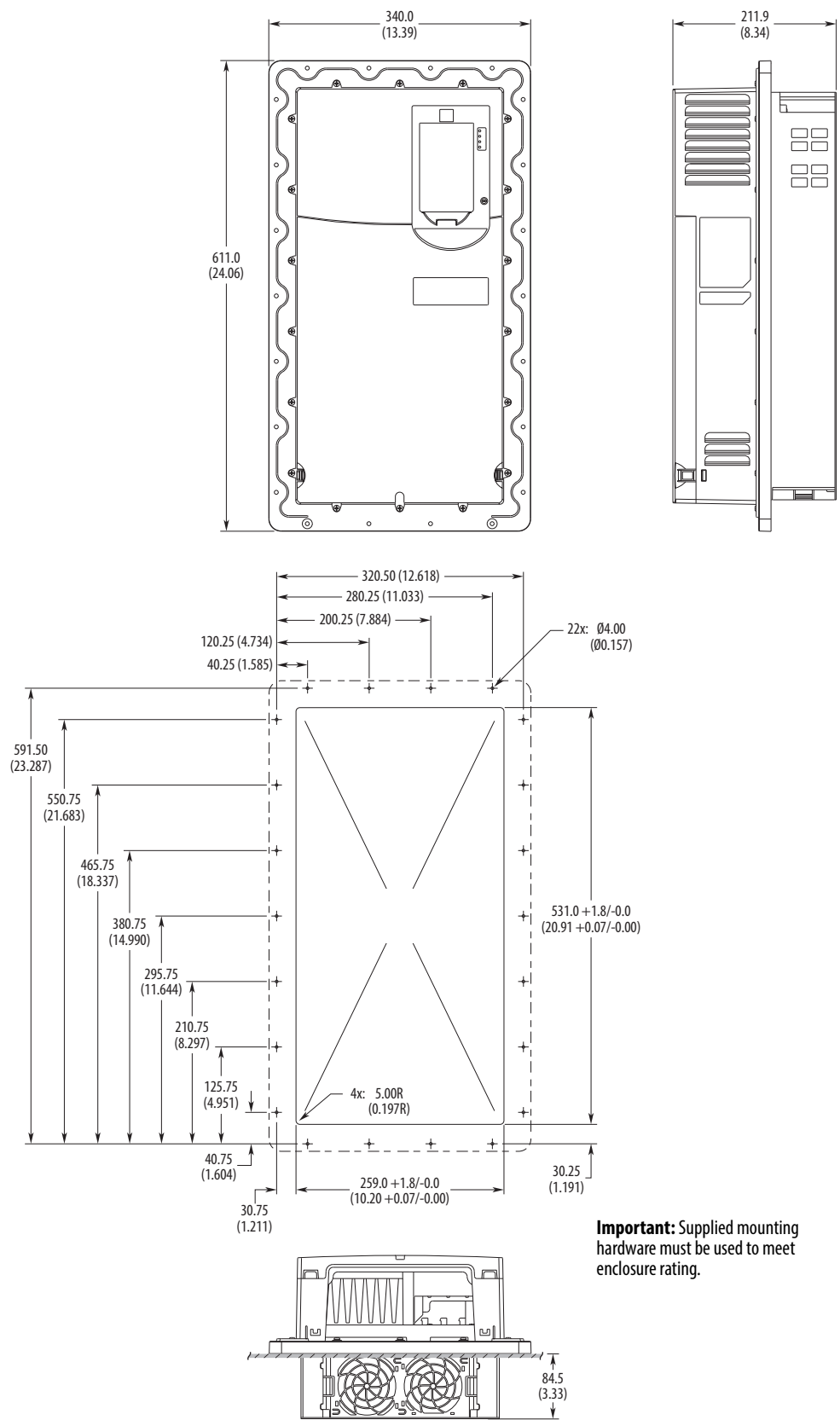
Frame	Type	Approximate Dimensions – mm (in.)
3	IP54, NEMA/UL Type 12	Technical drawing of Frame 3 AC drive showing front, side, and top views with dimensions. Front View Dimensions: - Top width: 268.0 (10.55) - Top width (inner): 185.5 (7.30) - Top width (lower): 158.0 (6.22) - Height: 533.0 (20.98) - Height (lower): 551.0 (21.69) Side View Dimensions: - Depth: 220.1 (8.67) Top View Dimensions: - Width: 135.8 (5.35) - Width (inner): 123.3 (4.85) - Height: 92.8 (3.65) - Height (inner): 62.3 (2.45) - Height (lower): 49.8 (1.96) - Mounting holes: 3x: Ø22.2 (Ø0.87), 2x: Ø43.7 (Ø1.72) - Height (lower): 183.5 (7.22) - Height (lower): 136.5 (5.37) Mounting hole dimensions: 6.4 (0.25) and 14.3 (0.56).
4	IP20, NEMA/UL Open Type	Technical drawing of Frame 4 AC drive showing front, side, and top views with dimensions. Front View Dimensions: - Top width: 222.0 (8.74) - Top width (inner): 194.0 (7.64) - Height: 455.0 (17.91) - Height (lower): 474.0 (18.66) Side View Dimensions: - Depth: 212.0 (8.35) Top View Dimensions: - Width: 202.0 (7.95) Mounting hole dimensions: 6.4 (0.25) and 14.3 (0.56).



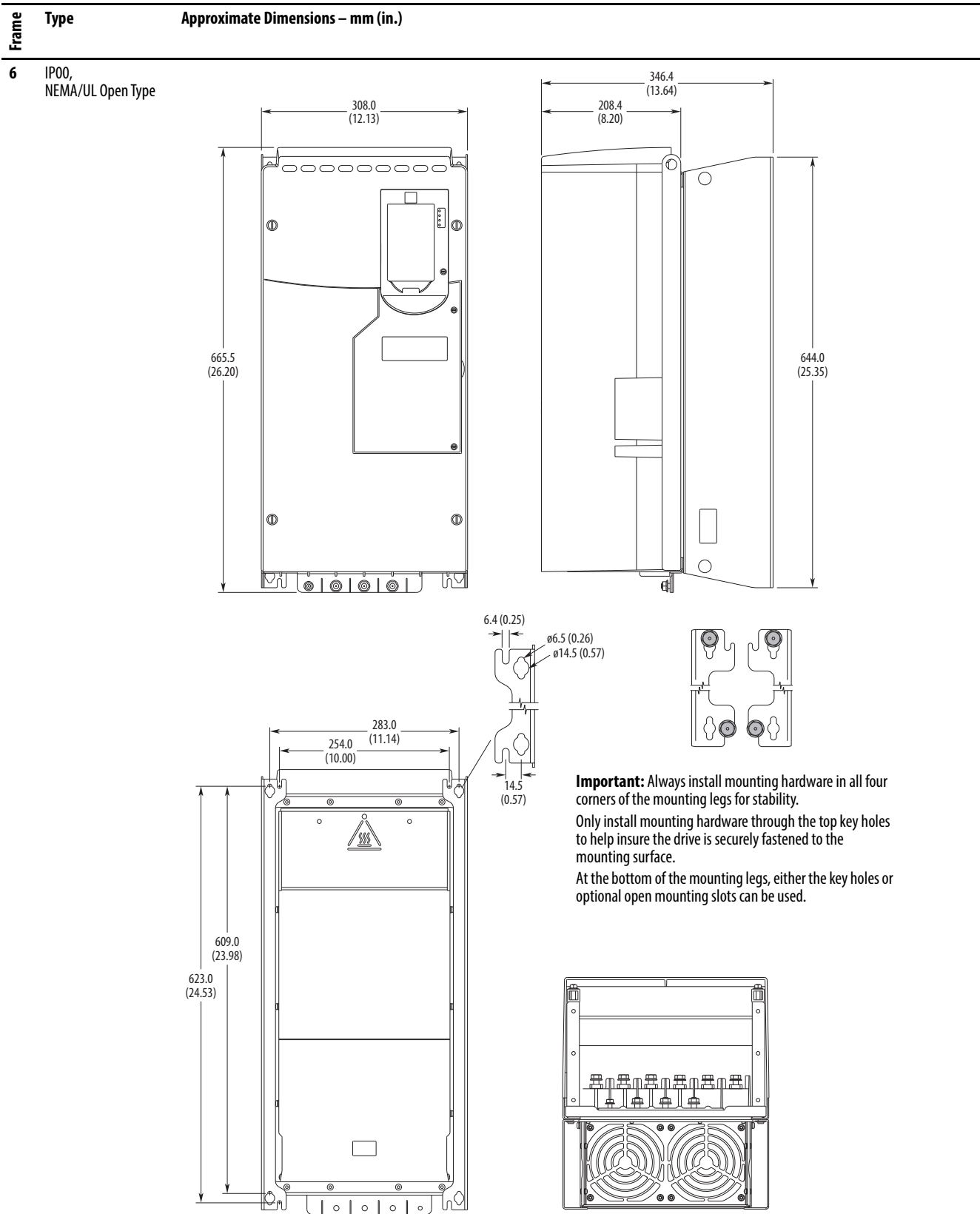
Frame	Type	Approximate Dimensions – mm (in.)
4	IP54, NEMA/UL Type 12	
5	IP20, NEMA/UL Open Type	

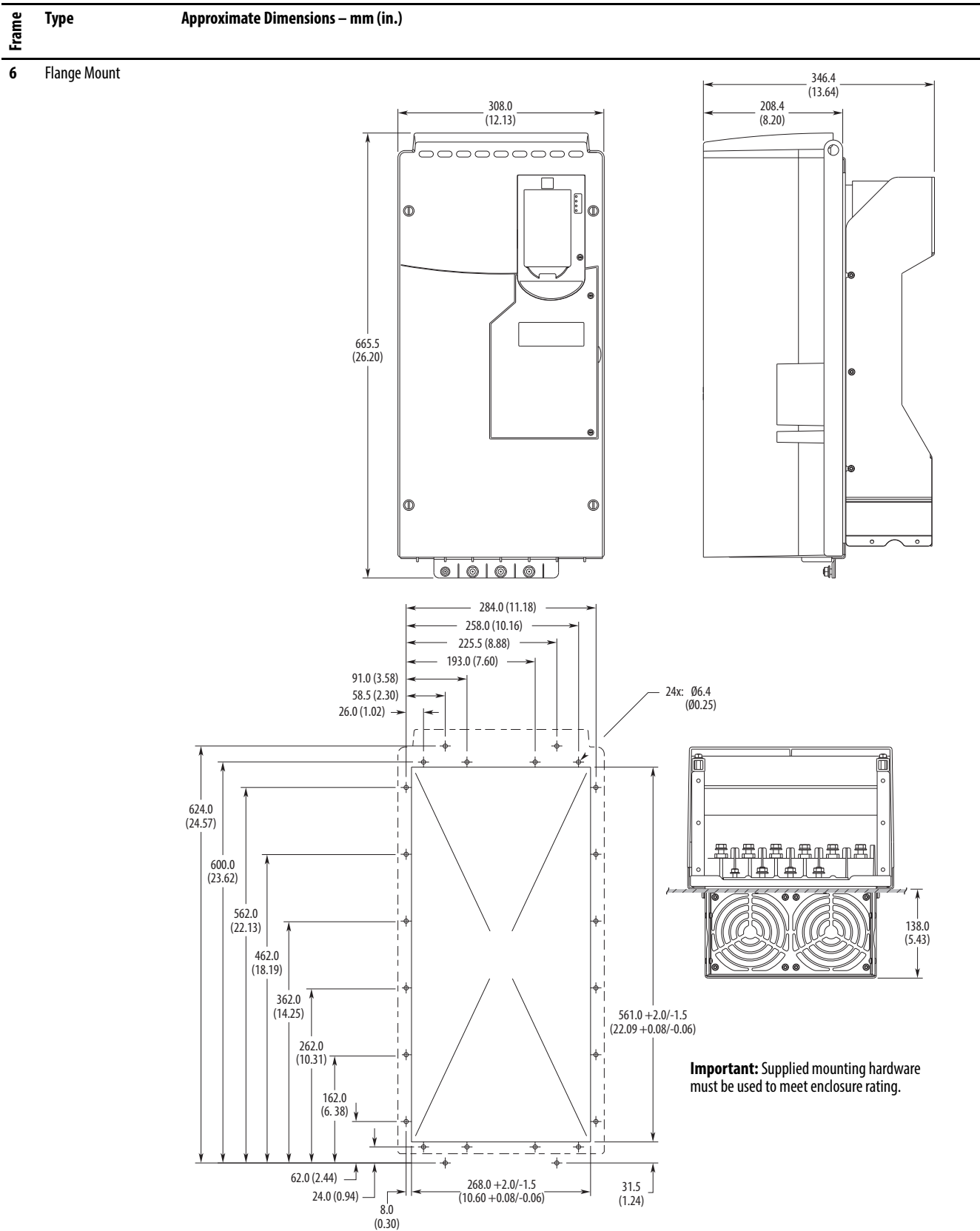
Frame	Type	Approximate Dimensions – mm (in.)
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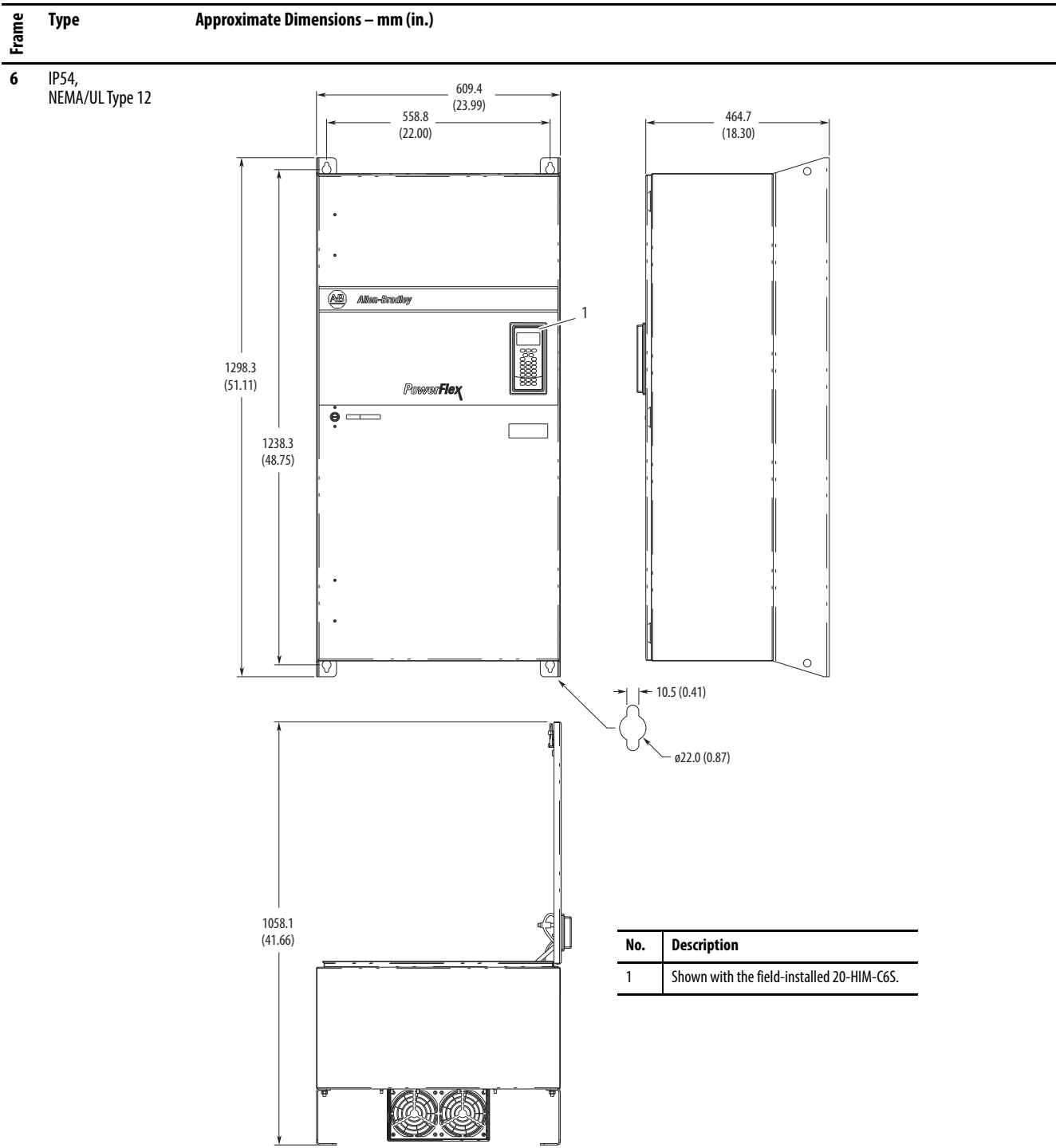
5	Flange Mount	
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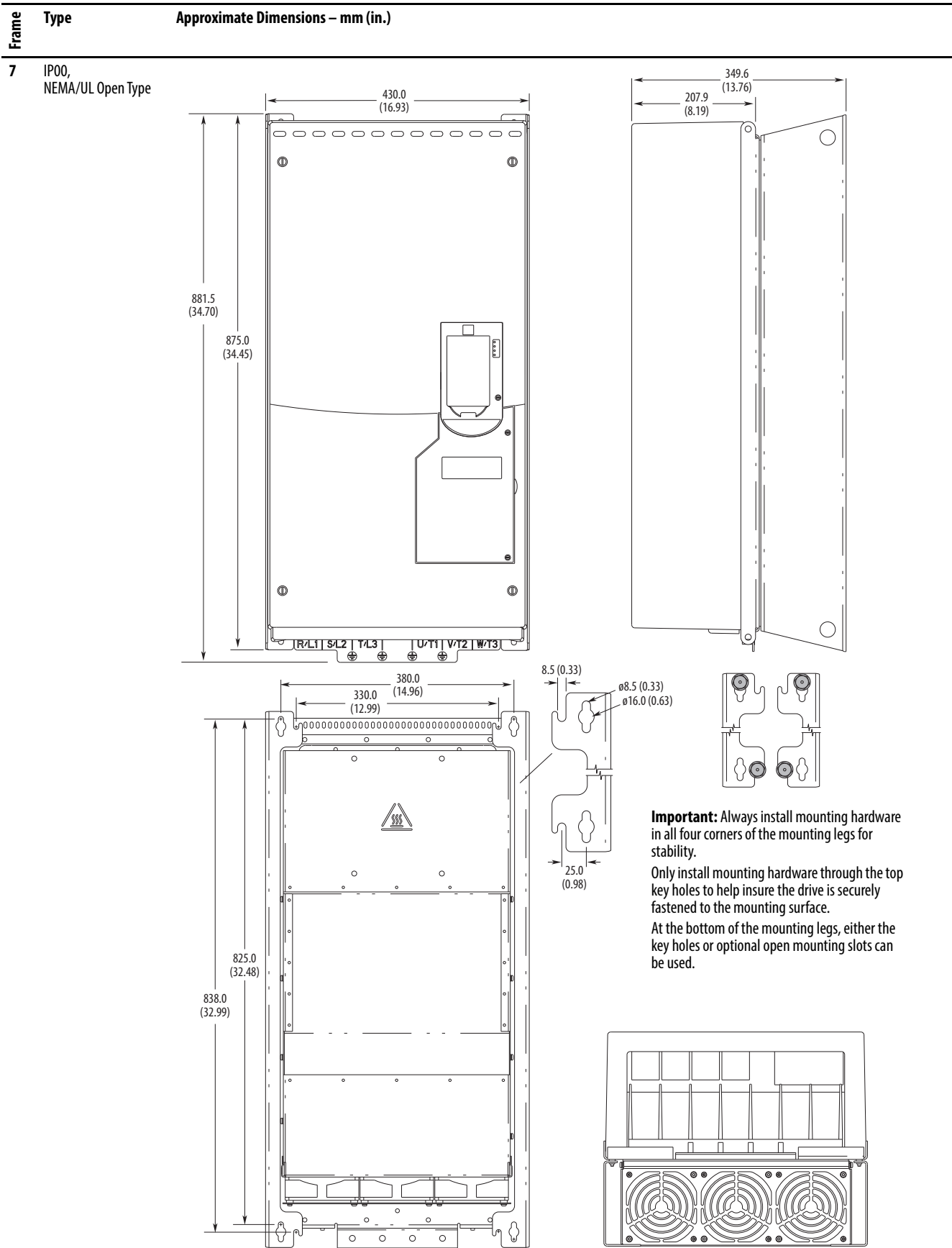


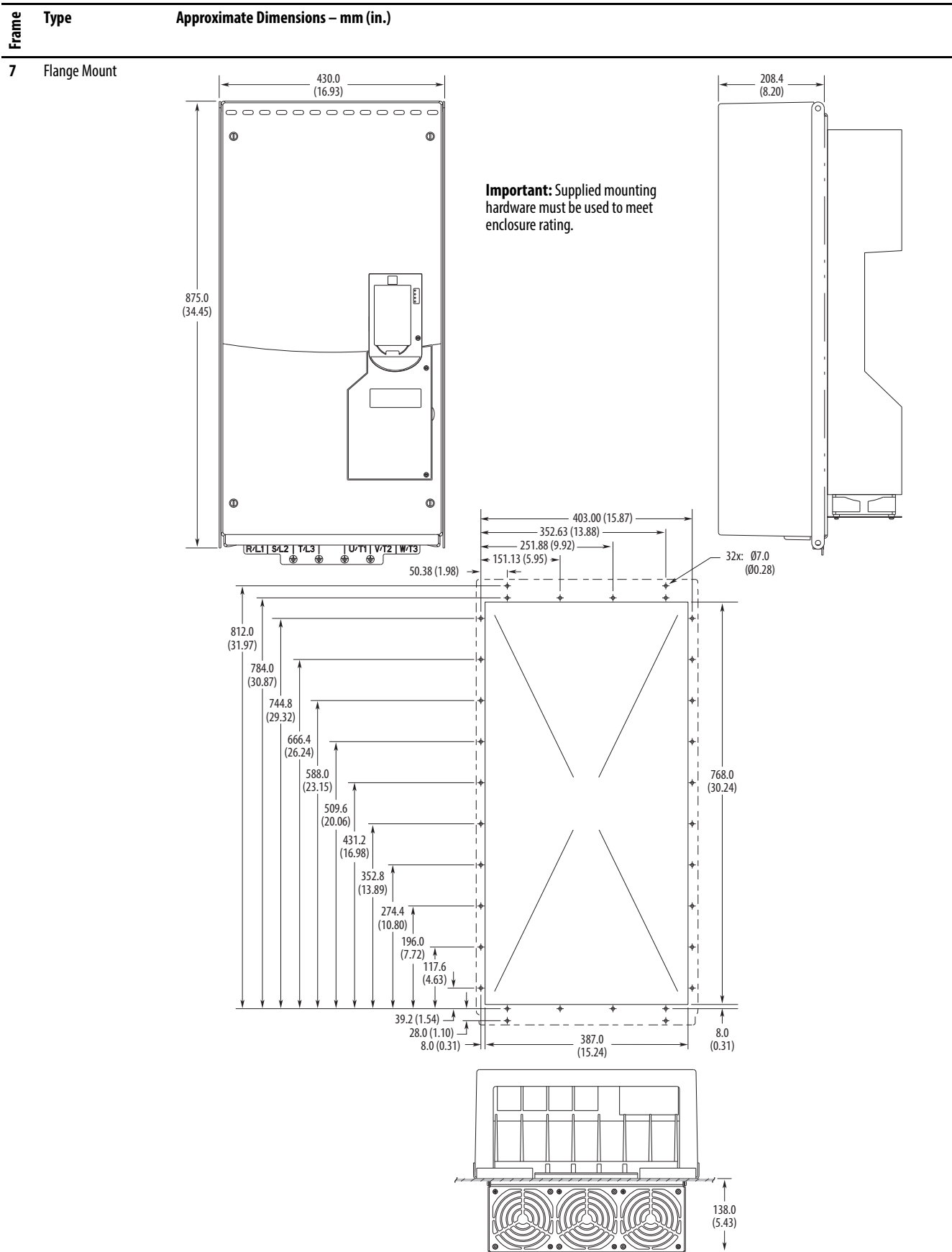
Frame	Type	Approximate Dimensions – mm (in.)
5	IP54, NEMA/UL Type 12	The technical drawing illustrates the dimensions of a PowerFlex 750-Series AC Drive, Frame 5, in three views: front, side, and top. Front View Dimensions: - Overall width: 348.0 mm (13.70 in.) - Width to center of terminal block: 265.5 mm (10.45 in.) - Width to center of door latch: 238.0 mm (9.37 in.) - Overall height: 629.0 mm (24.76 in.) - Height to top of terminal block: 647.0 mm (25.47 in.) - Bottom flange width: 6.4 mm (0.25 in.) Side View Dimensions: - Overall depth: 220.1 mm (8.67 in.) Top View Dimensions: - Overall width: 212.8 mm (8.38 in.) - Width to center of terminal block: 172.8 mm (6.80 in.) - Width to center of door latch: 132.8 mm (5.23 in.) - Width to center of terminal block (from left edge): 92.8 mm (3.65 in.) - Width to center of door latch (from left edge): 52.8 mm (2.08 in.) - Terminal block hole diameter: 3x: Ø22.2 (Ø0.87 in.) - Door latch hole diameter: 2x: Ø50.0 (Ø1.97 in.) - Height to top of terminal block: 181.9 mm (7.16 in.) - Height to top of door latch: 141.9 mm (5.59 in.)

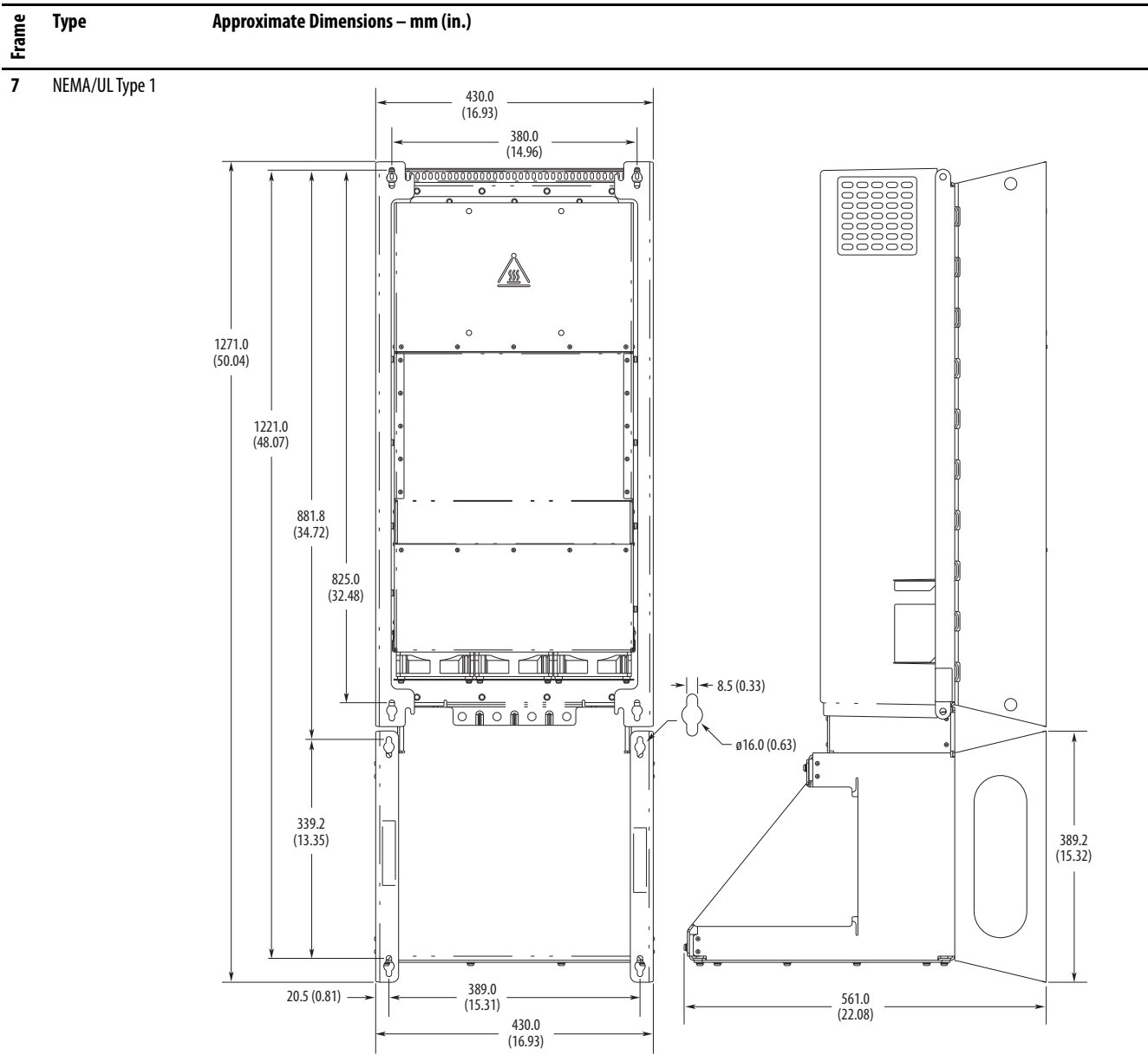




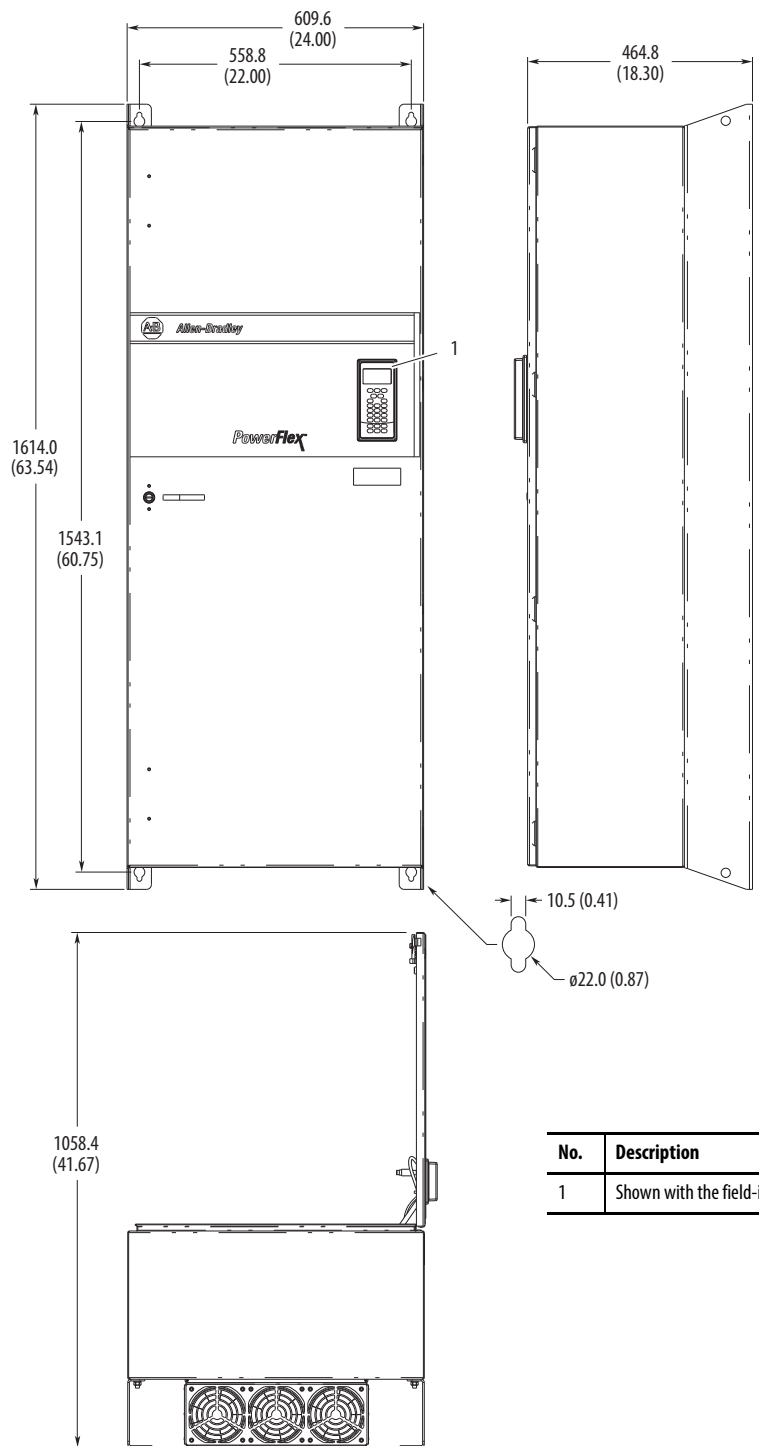








Frame	Type	Approximate Dimensions – mm (in.)
7	IP54, NEMA/UL Type 12	



No.	Description
1	Shown with the field-installed 20-HIM-C6S.

Frame

Type

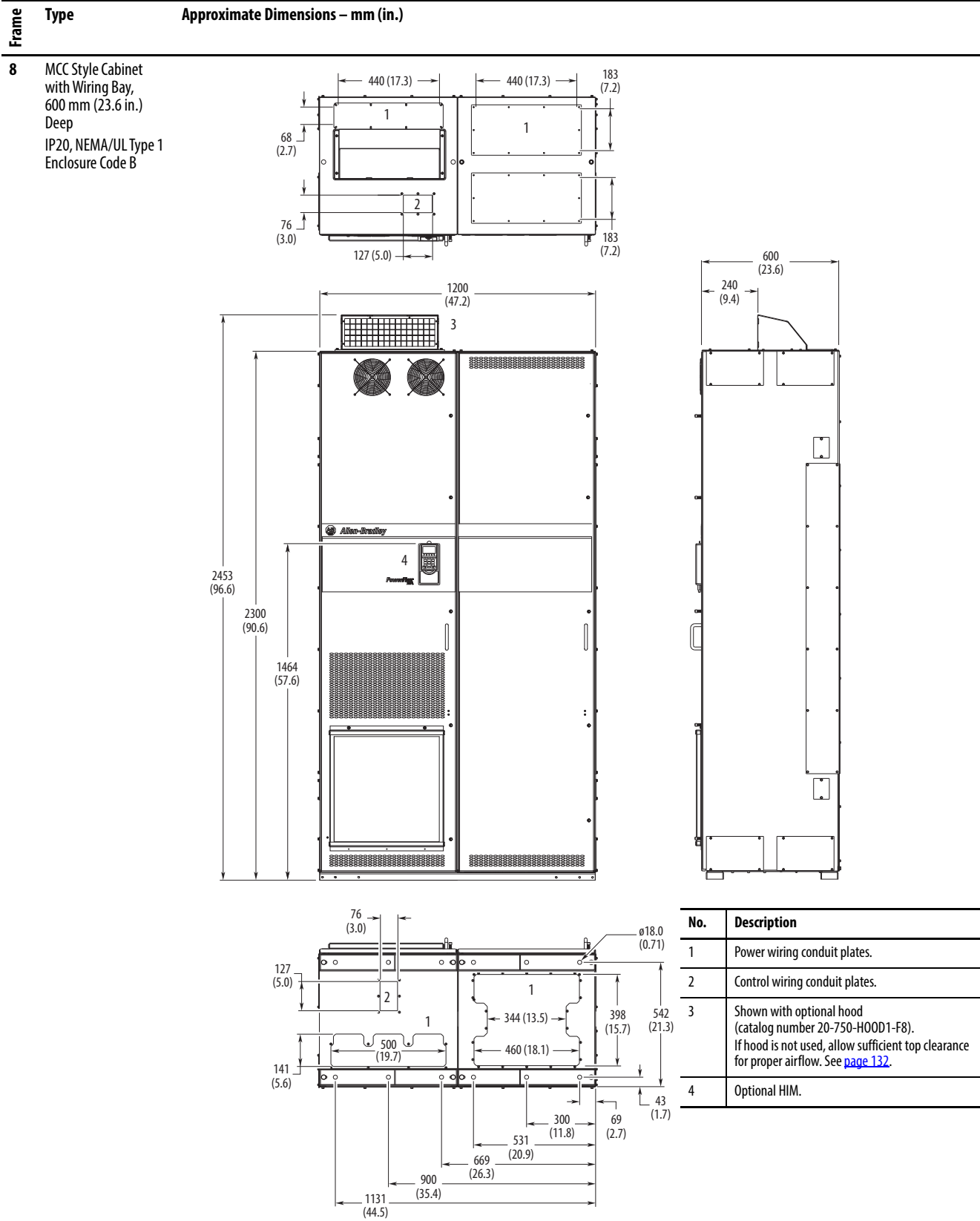
Approximate Dimensions – mm (in.)

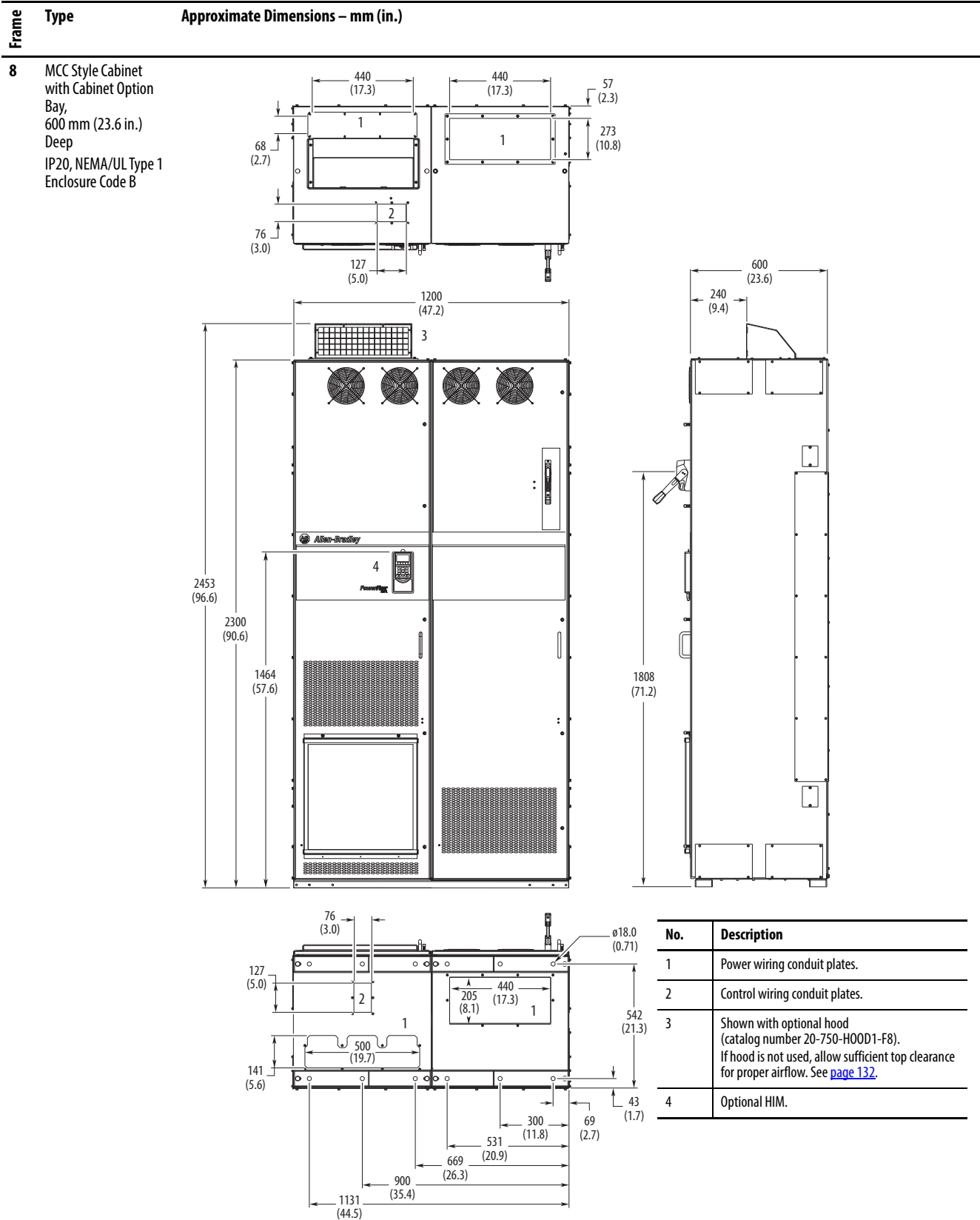
8

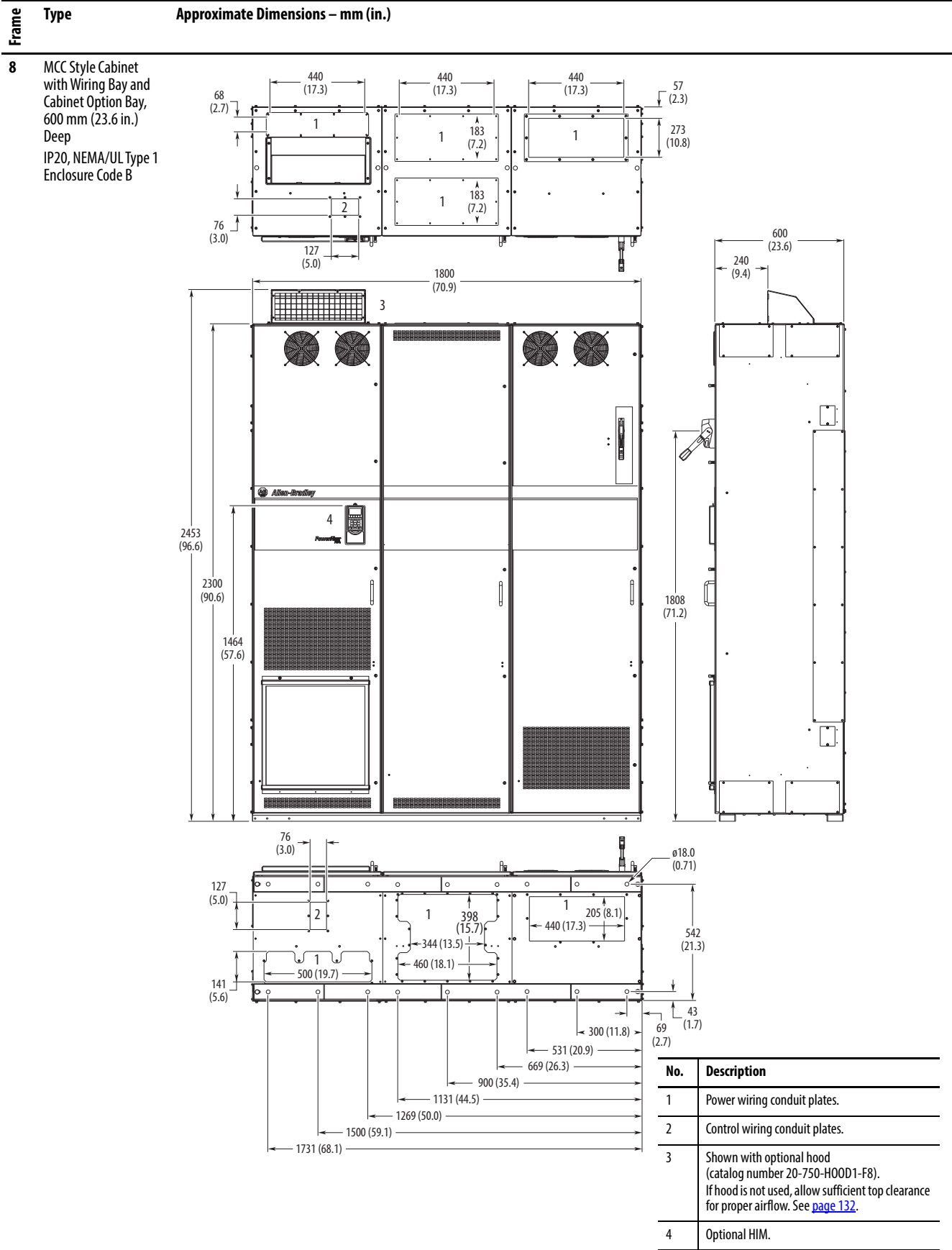
MCC Style Cabinet,
600 mm (23.6 in.)
Deep
IP20, NEMA/UL Type 1
Enclosure Code B

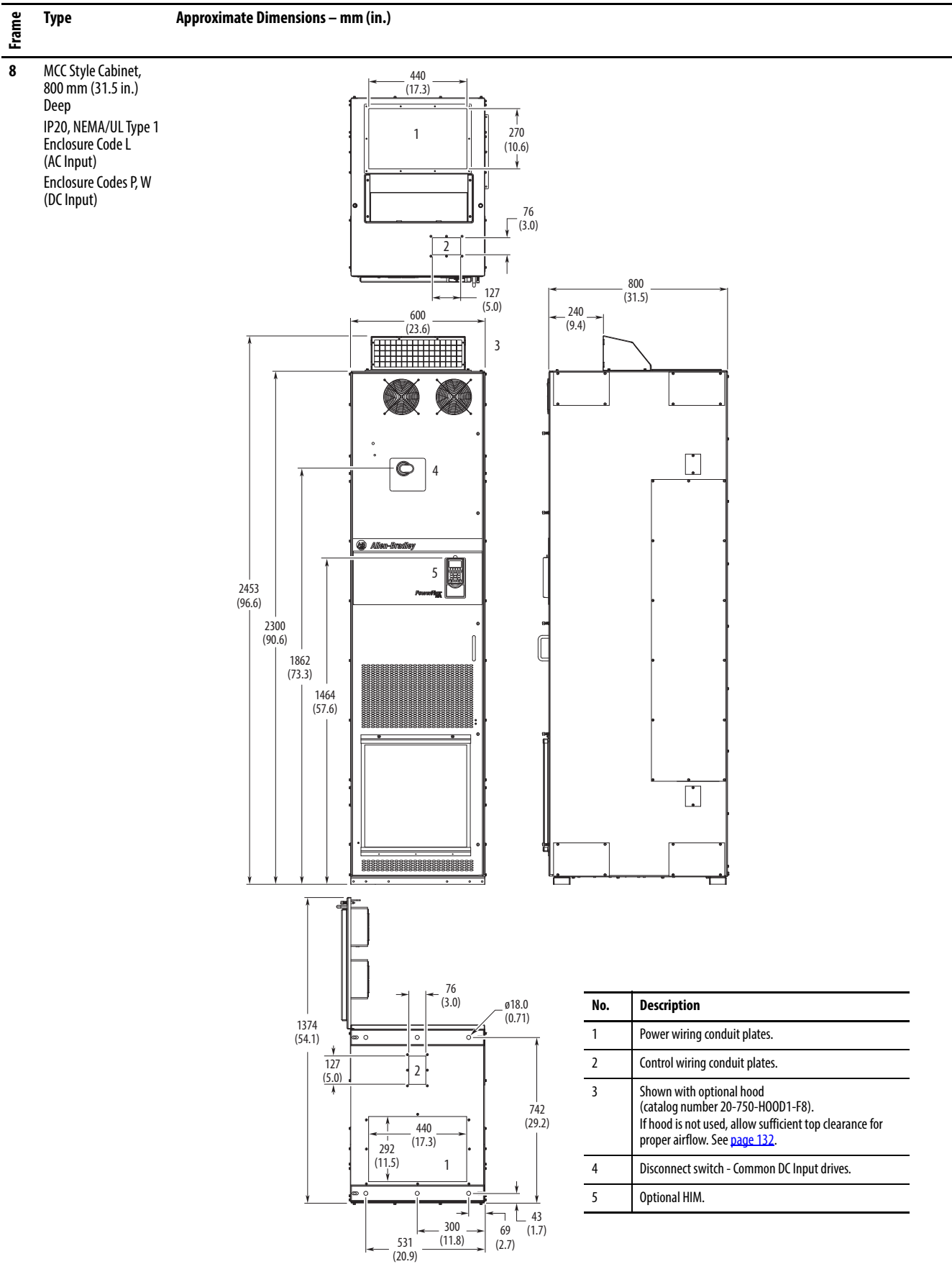
The diagram illustrates the dimensions of an MCC Style Cabinet. The front view shows a cabinet with a total height of 2453 mm (96.6 in.) and a depth of 600 mm (23.6 in.). The top section has a width of 440 mm (17.3 in.) and a height of 68 mm (2.7 in.). The main body has a height of 2300 mm (90.6 in.) and a width of 600 mm (23.6 in.). The bottom section has a height of 1464 mm (57.6 in.) and a width of 500 mm (19.7 in.). The side view shows a cabinet with a total height of 2453 mm (96.6 in.) and a depth of 600 mm (23.6 in.). The top section has a width of 240 mm (9.4 in.) and a height of 68 mm (2.7 in.). The main body has a height of 2300 mm (90.6 in.) and a width of 600 mm (23.6 in.). The bottom section has a height of 1464 mm (57.6 in.) and a width of 500 mm (19.7 in.). The top view shows a cabinet with a total width of 600 mm (23.6 in.) and a depth of 600 mm (23.6 in.). The top section has a width of 440 mm (17.3 in.) and a depth of 68 mm (2.7 in.). The main body has a width of 600 mm (23.6 in.) and a depth of 600 mm (23.6 in.). The bottom section has a width of 500 mm (19.7 in.) and a depth of 600 mm (23.6 in.).

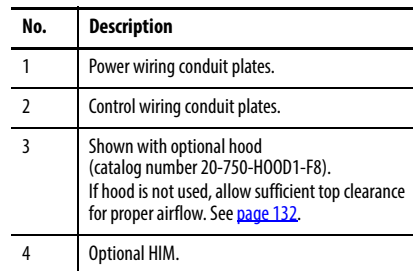
No.	Description
1	Power wiring conduit plates.
2	Control wiring conduit plates.
3	Shown with optional hood (catalog number 20-750-HOOD1-F8). If hood is not used, allow sufficient top clearance for proper airflow. See page 132 .
4	Optional HIM.

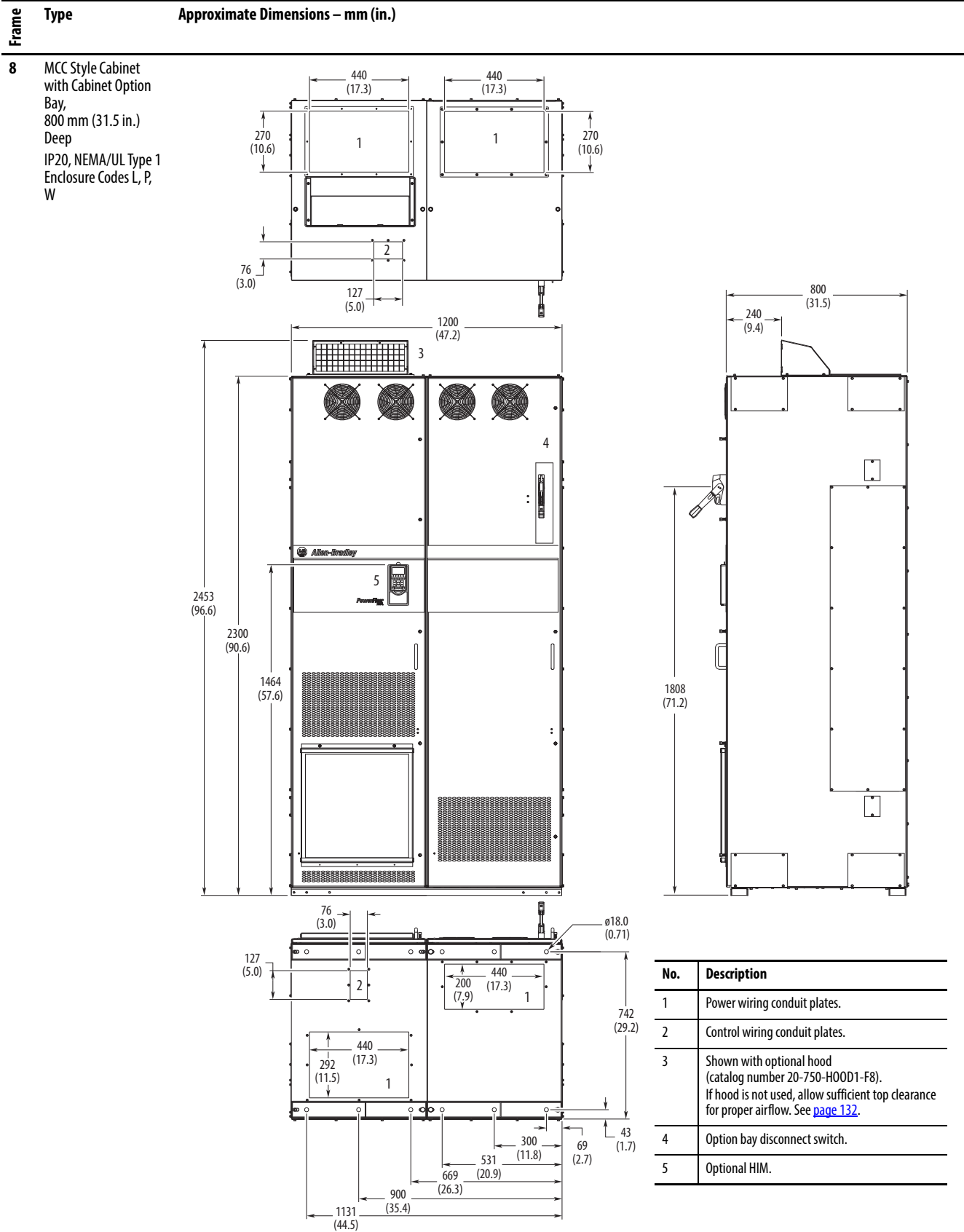


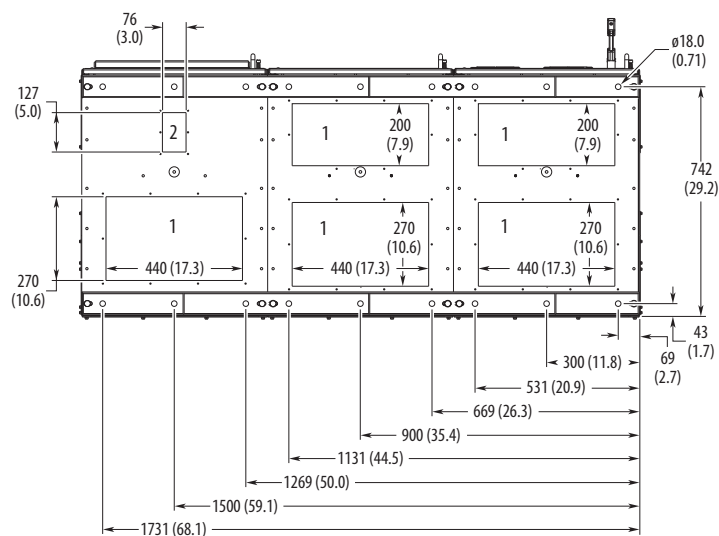
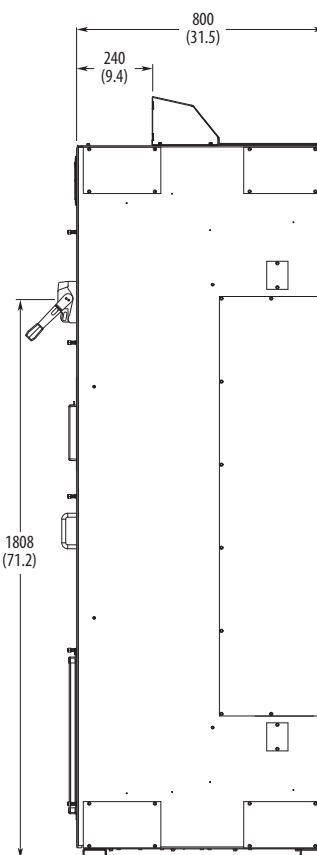
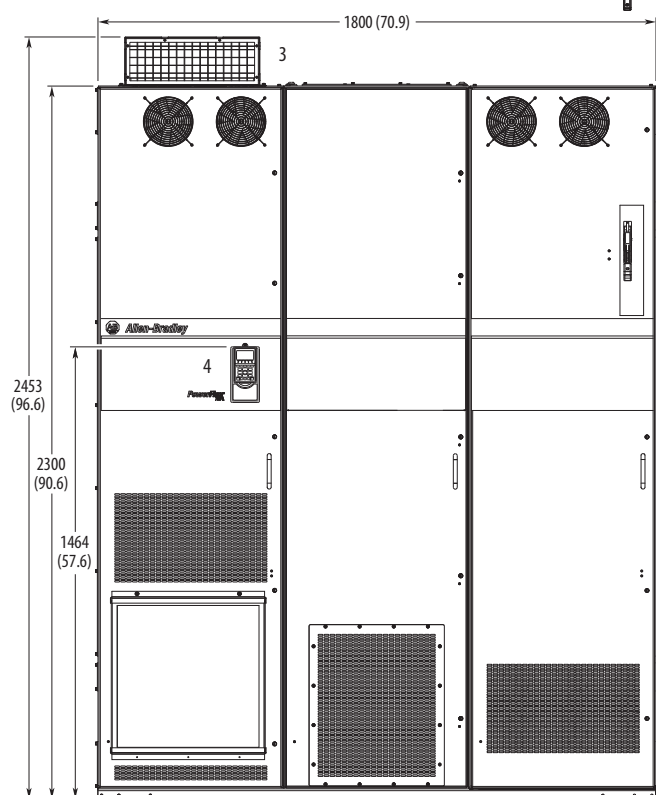




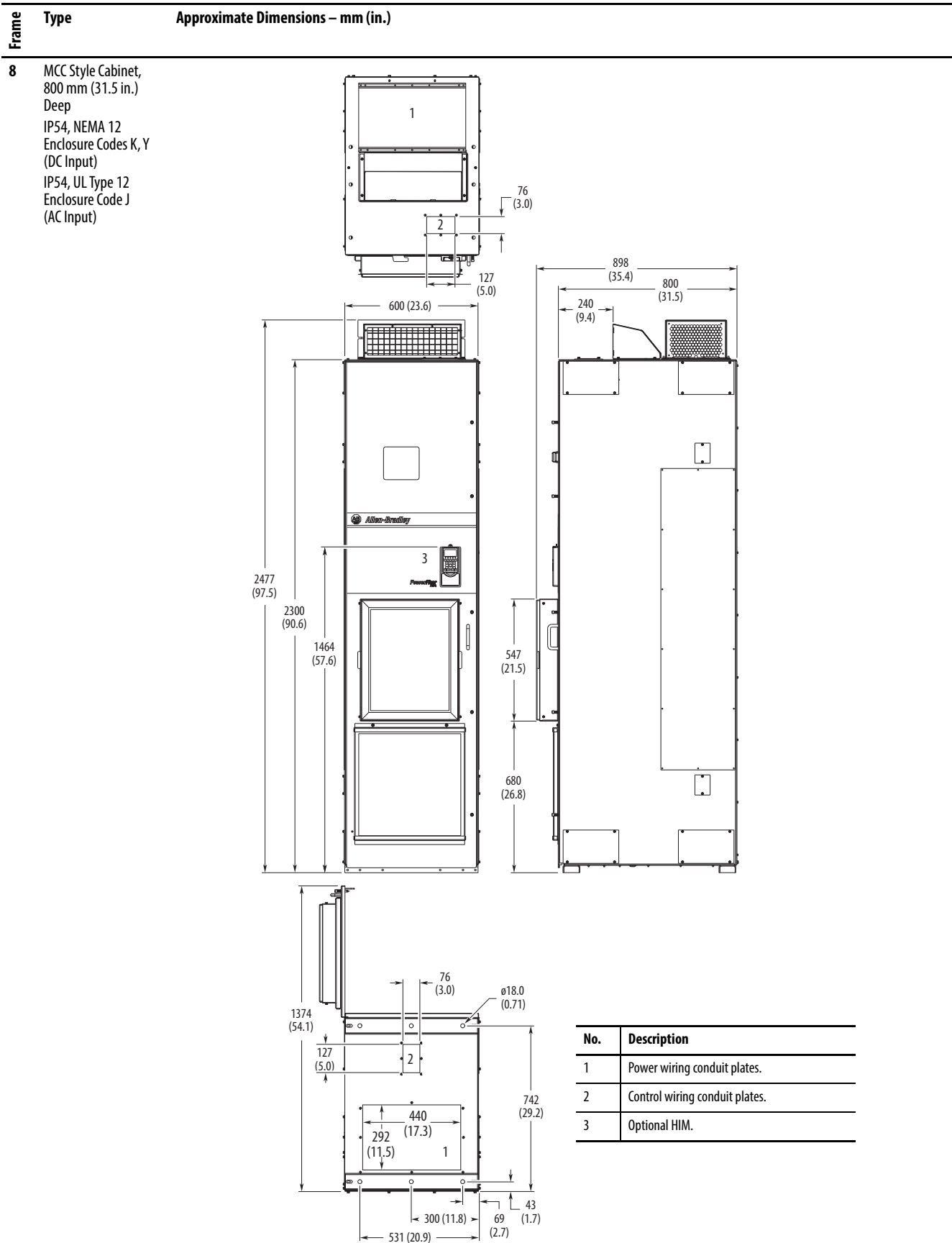


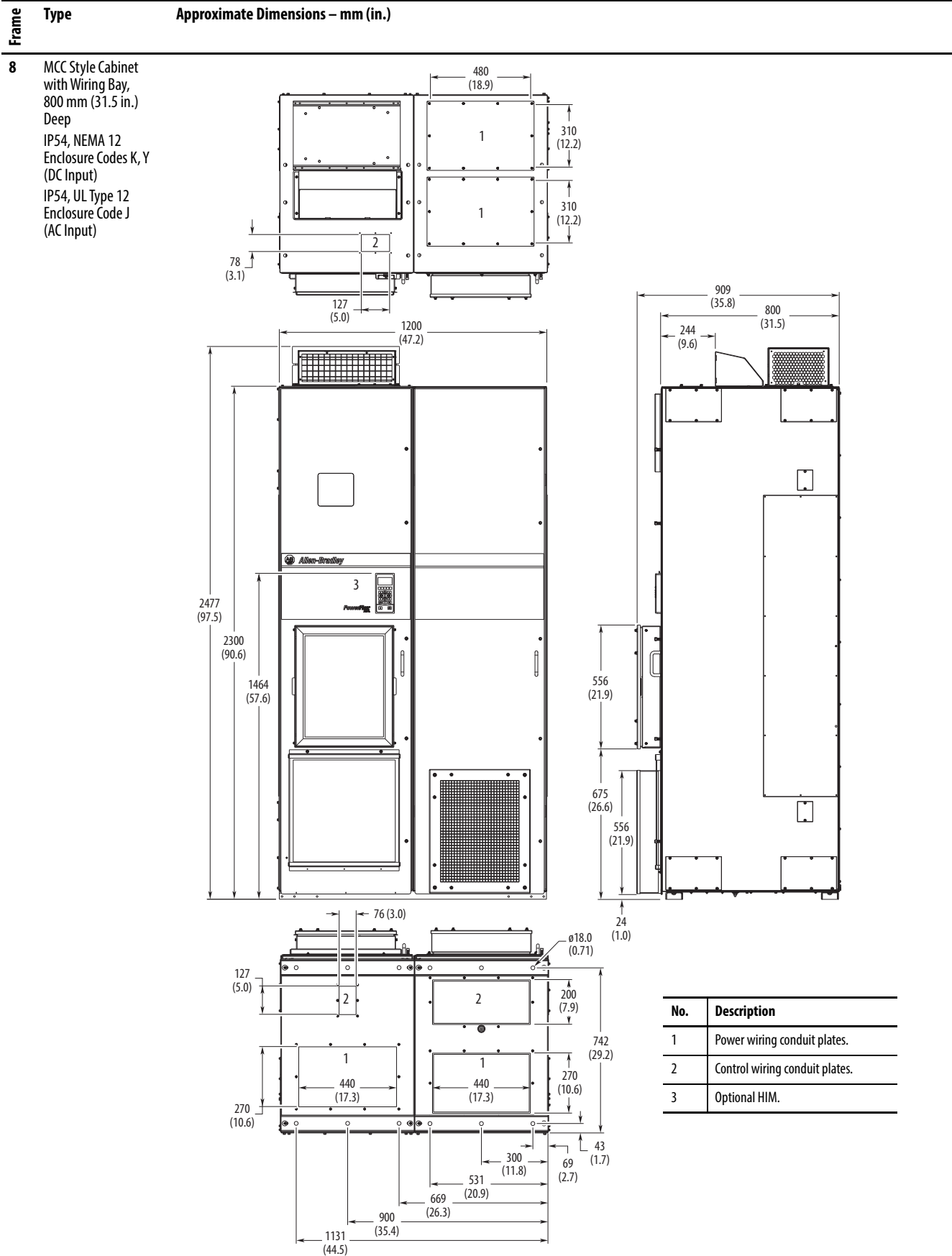


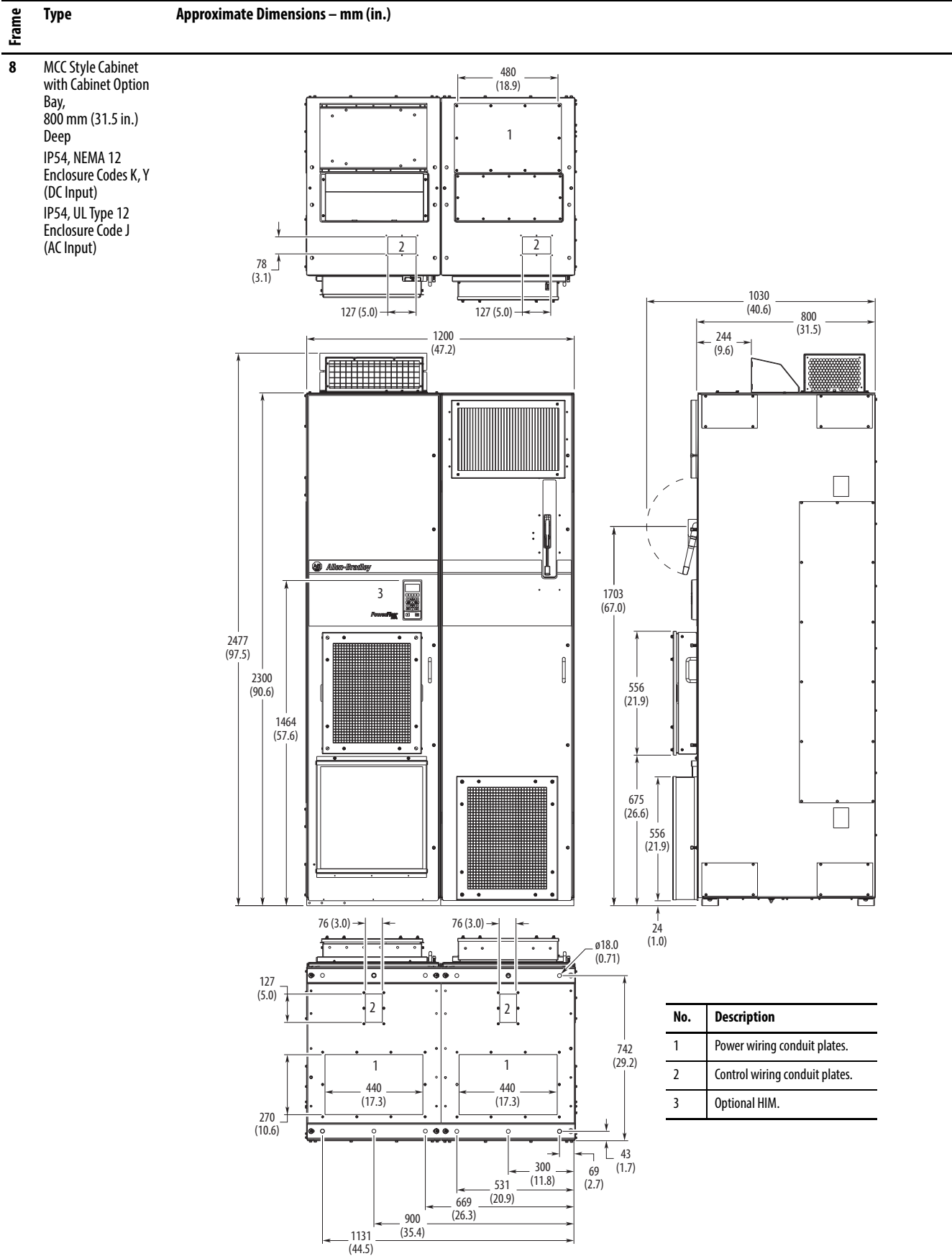


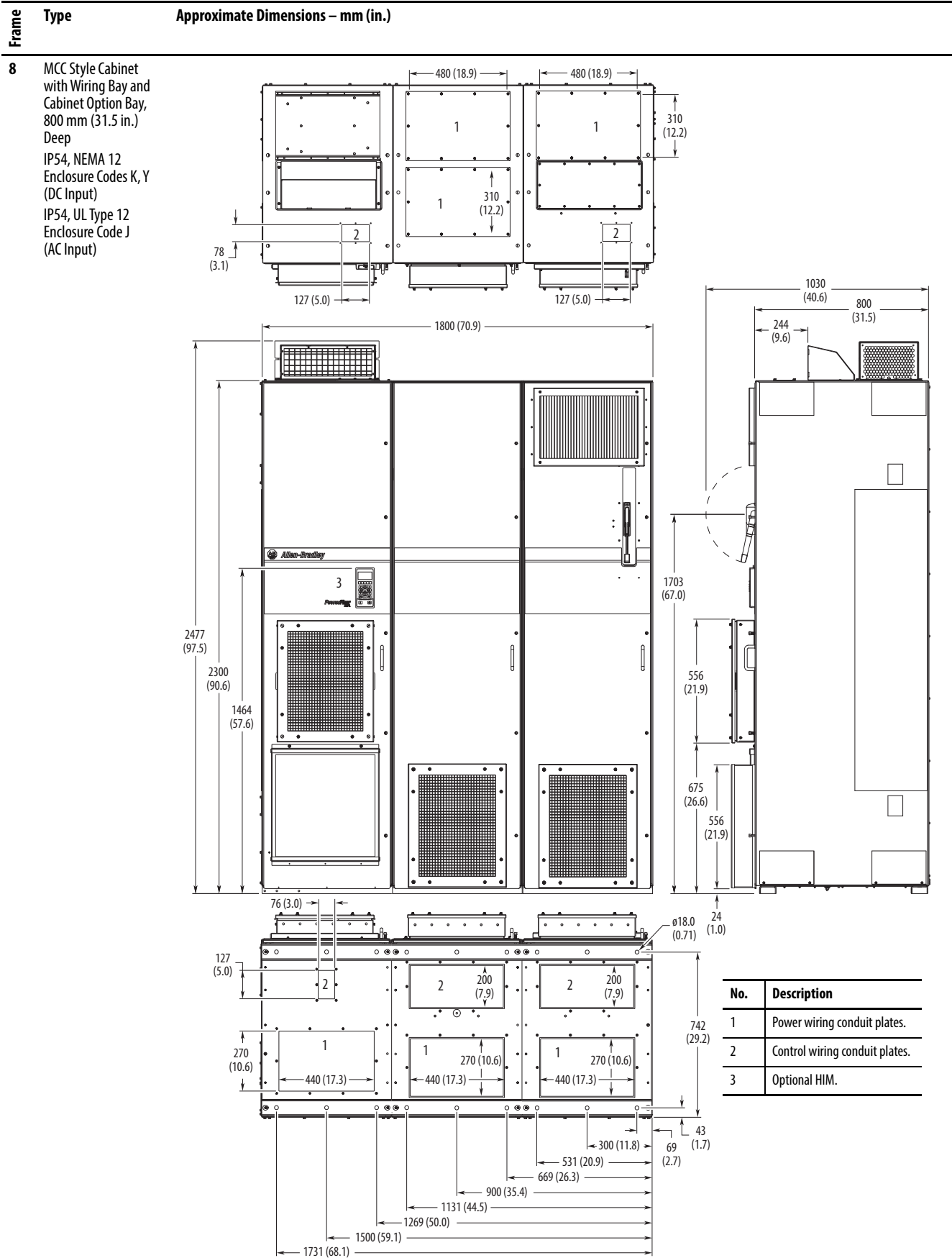


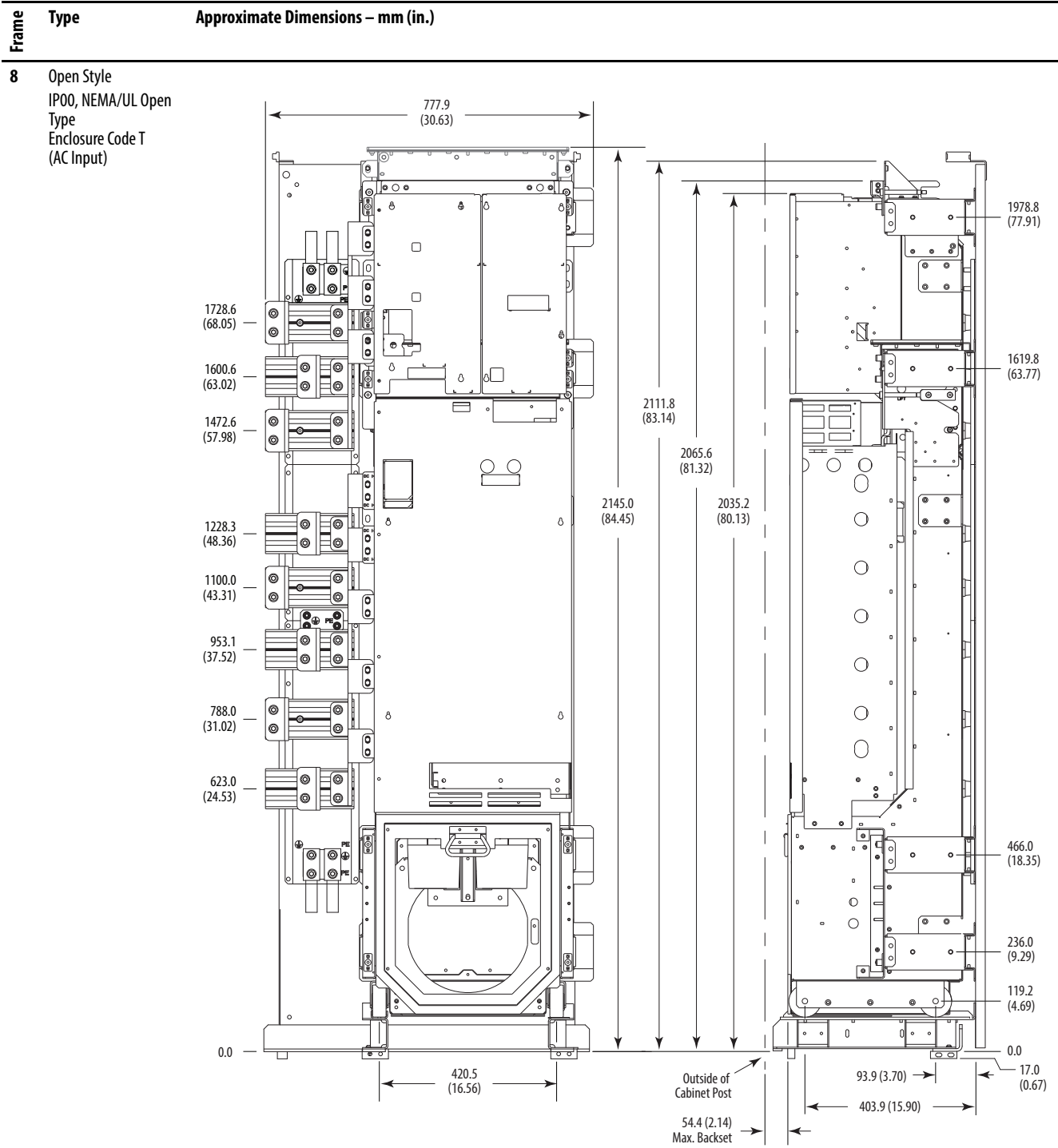
No.	Description
1	Power wiring conduit plates.
2	Control wiring conduit plates.
3	Shown with optional hood (catalog number 20-750-HOOD1-F8). If hood is not used, allow sufficient top clearance for proper airflow. See page 132 .
4	Optional HIM.

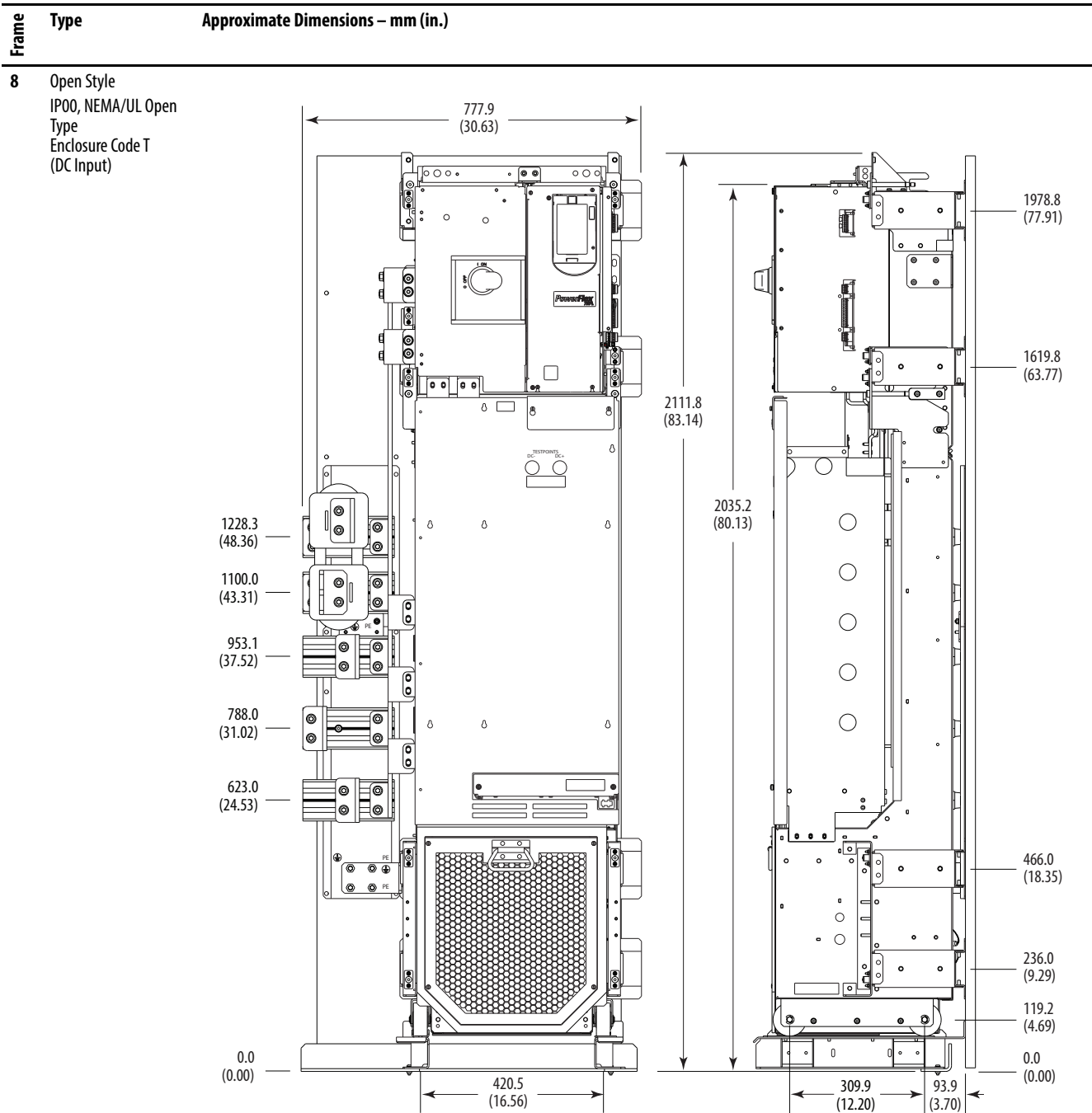


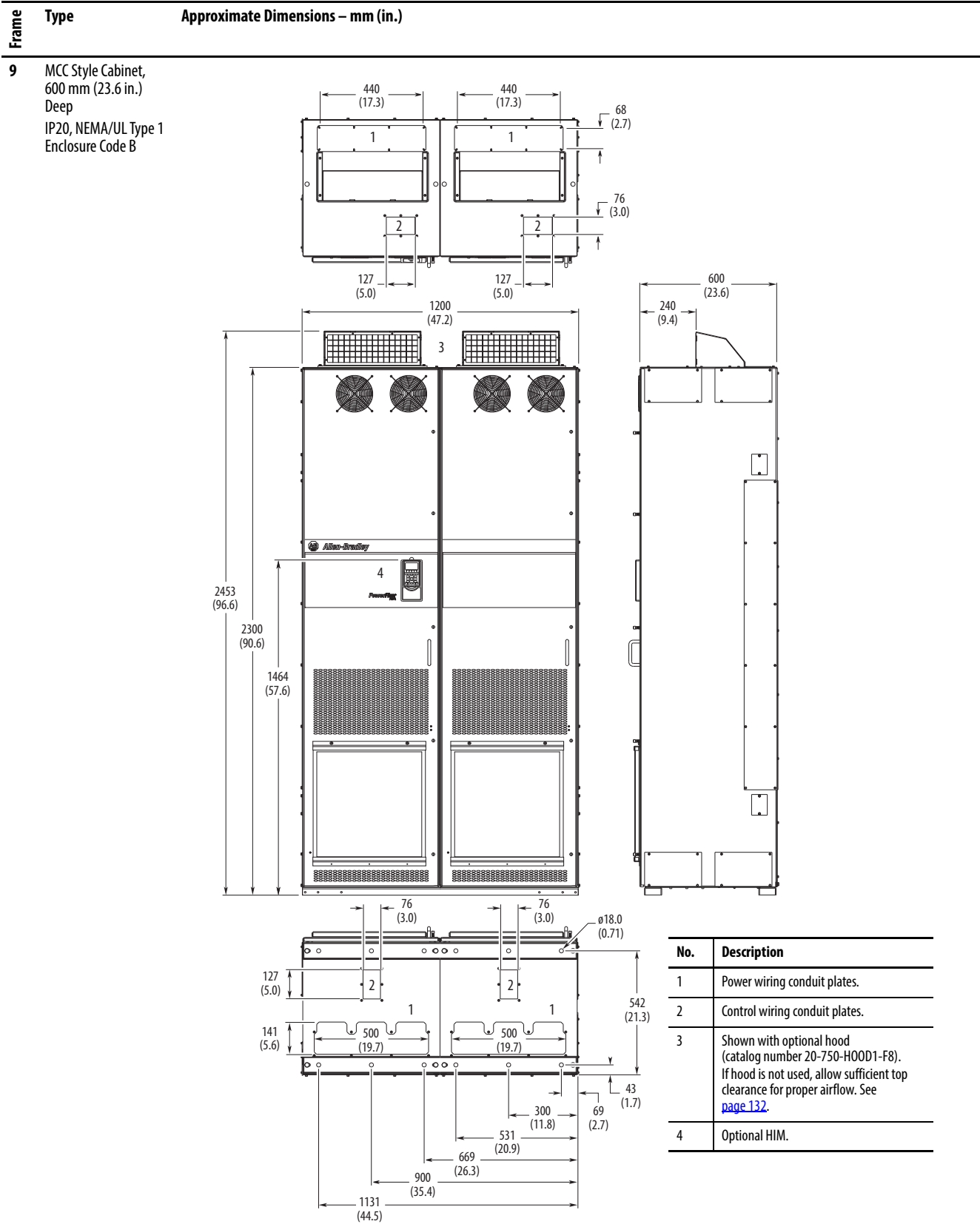


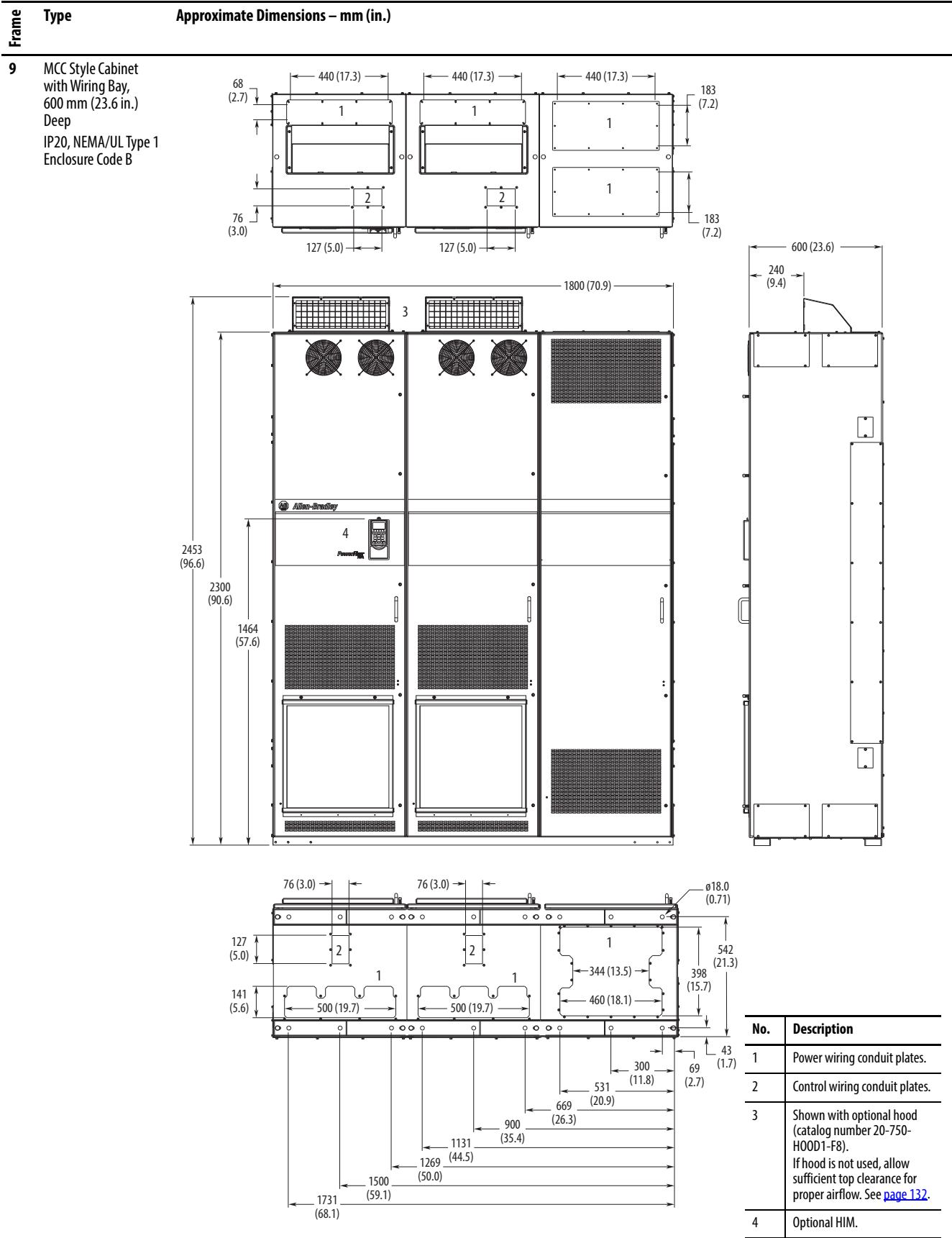


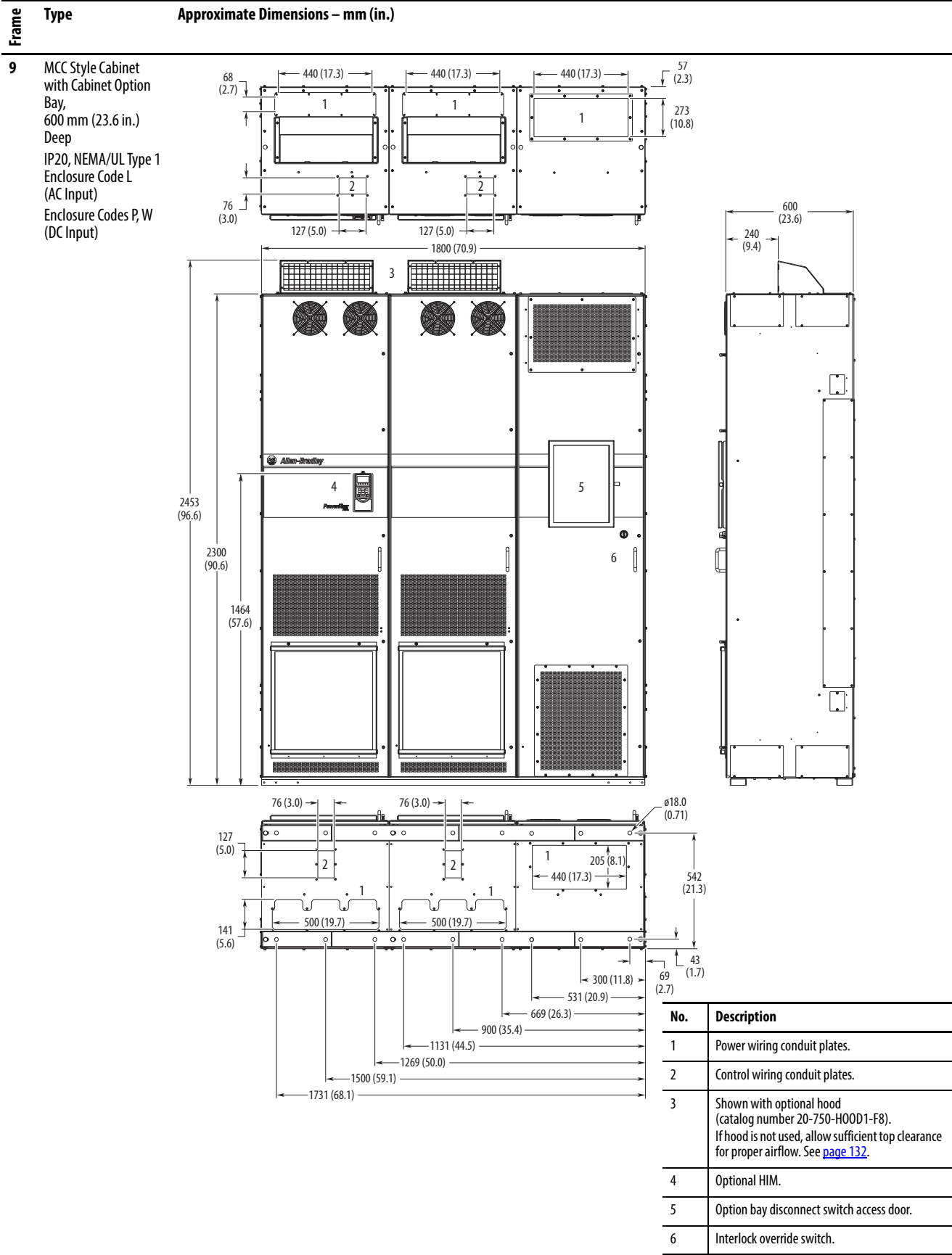






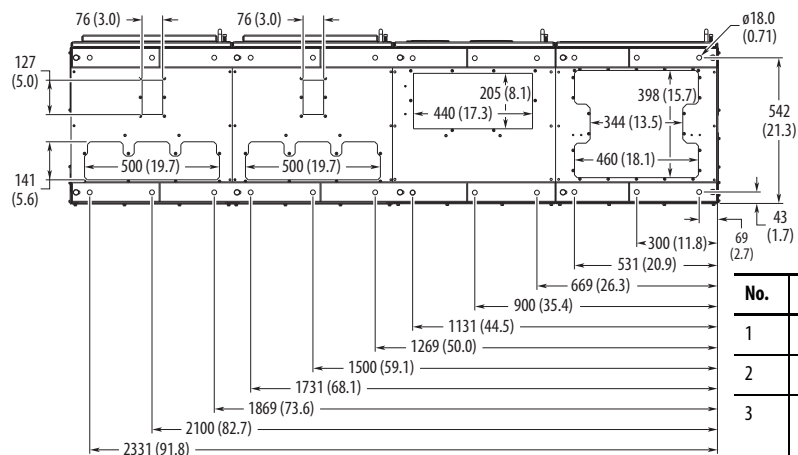
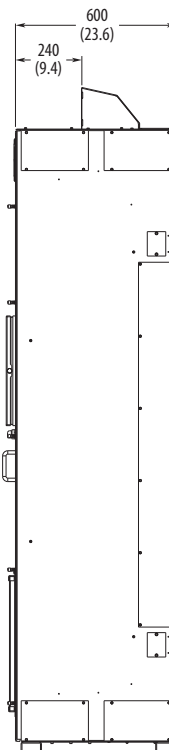
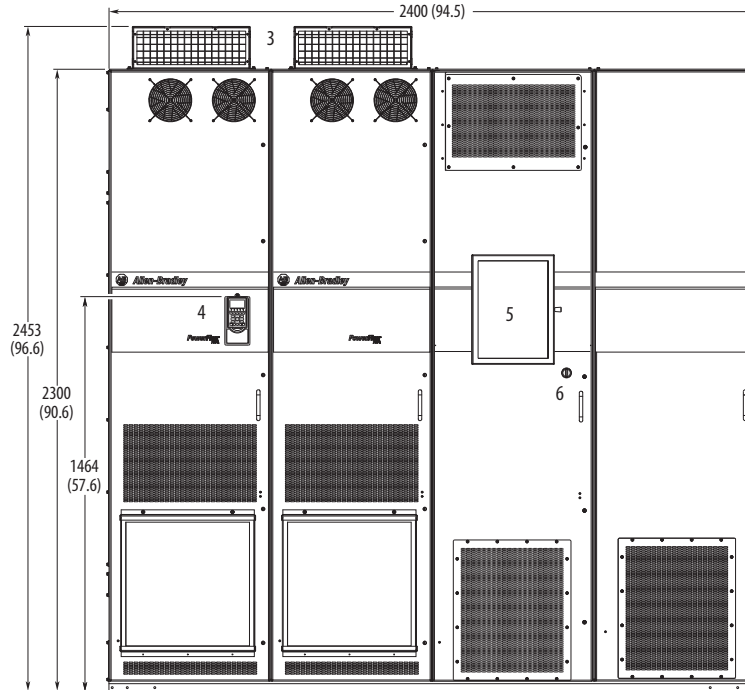


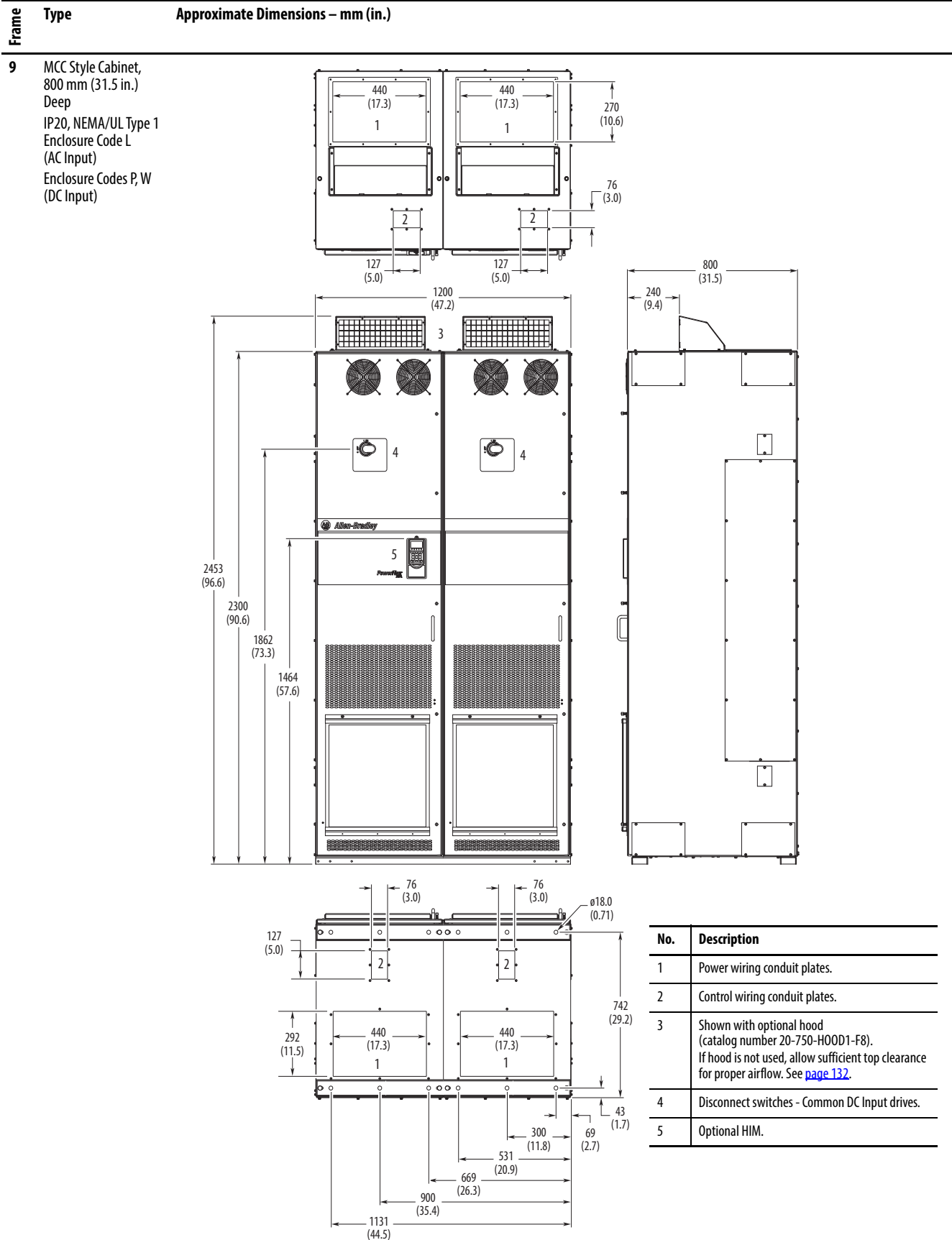


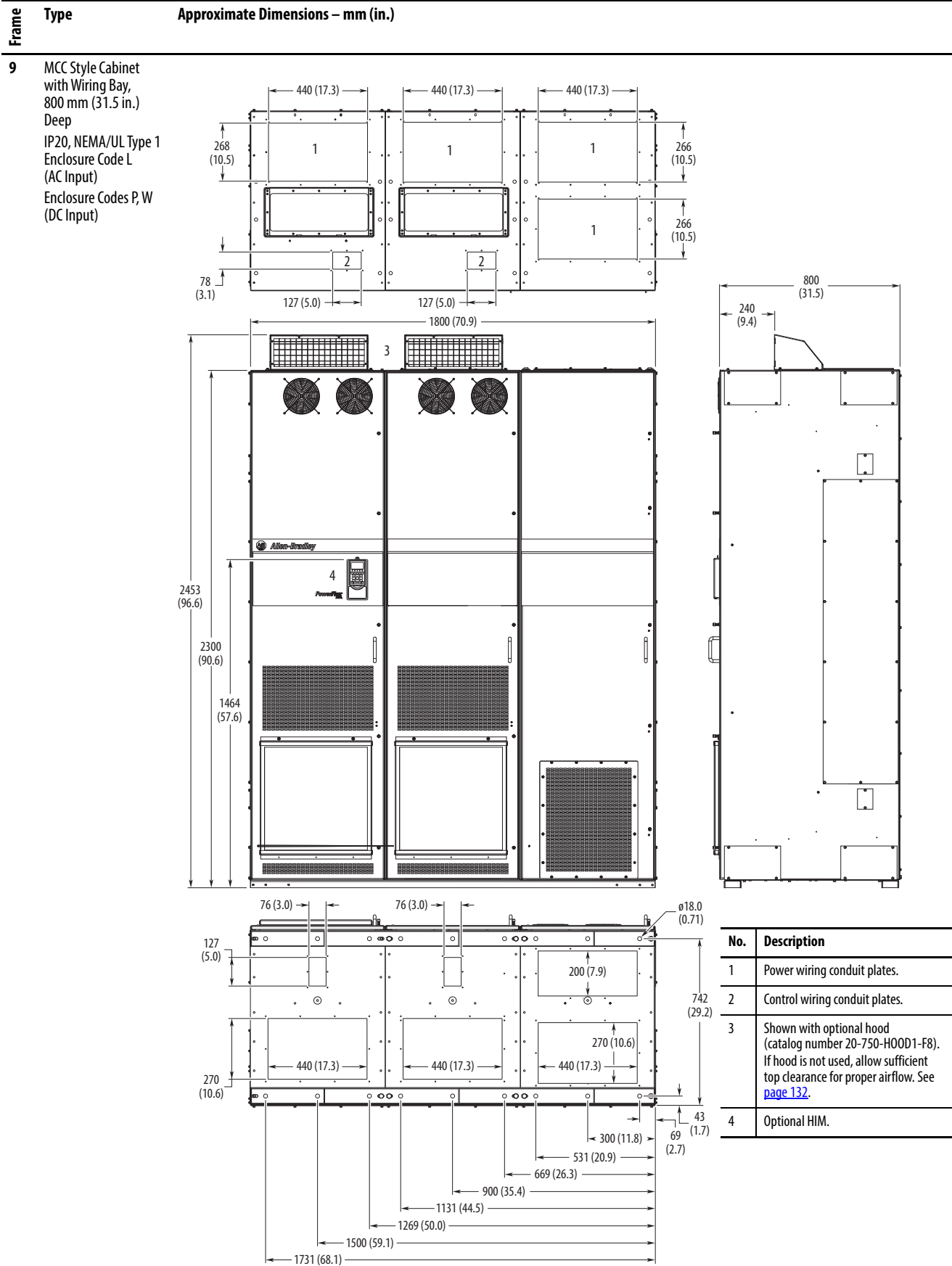


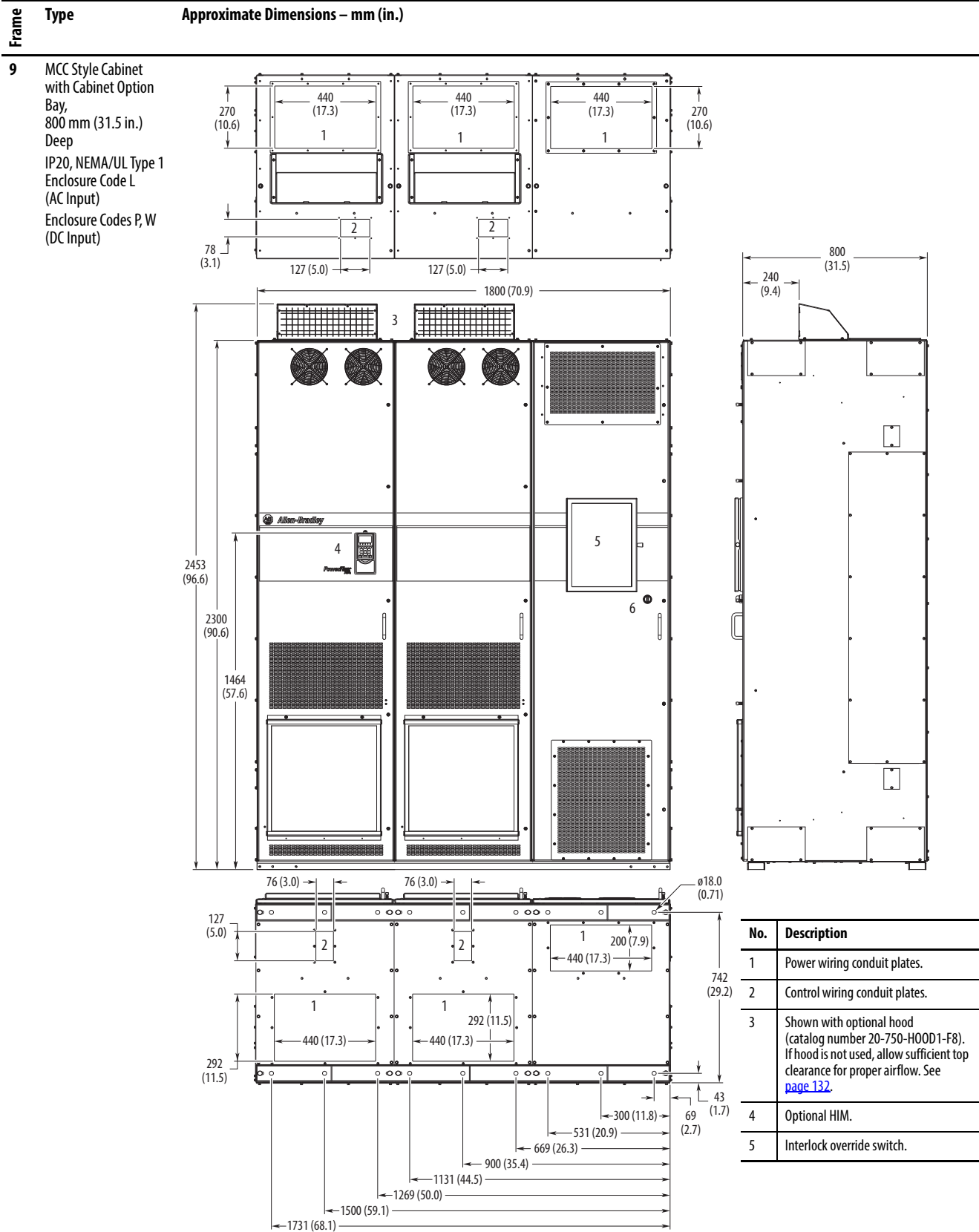
Approximate Dimensions – mm (in.)

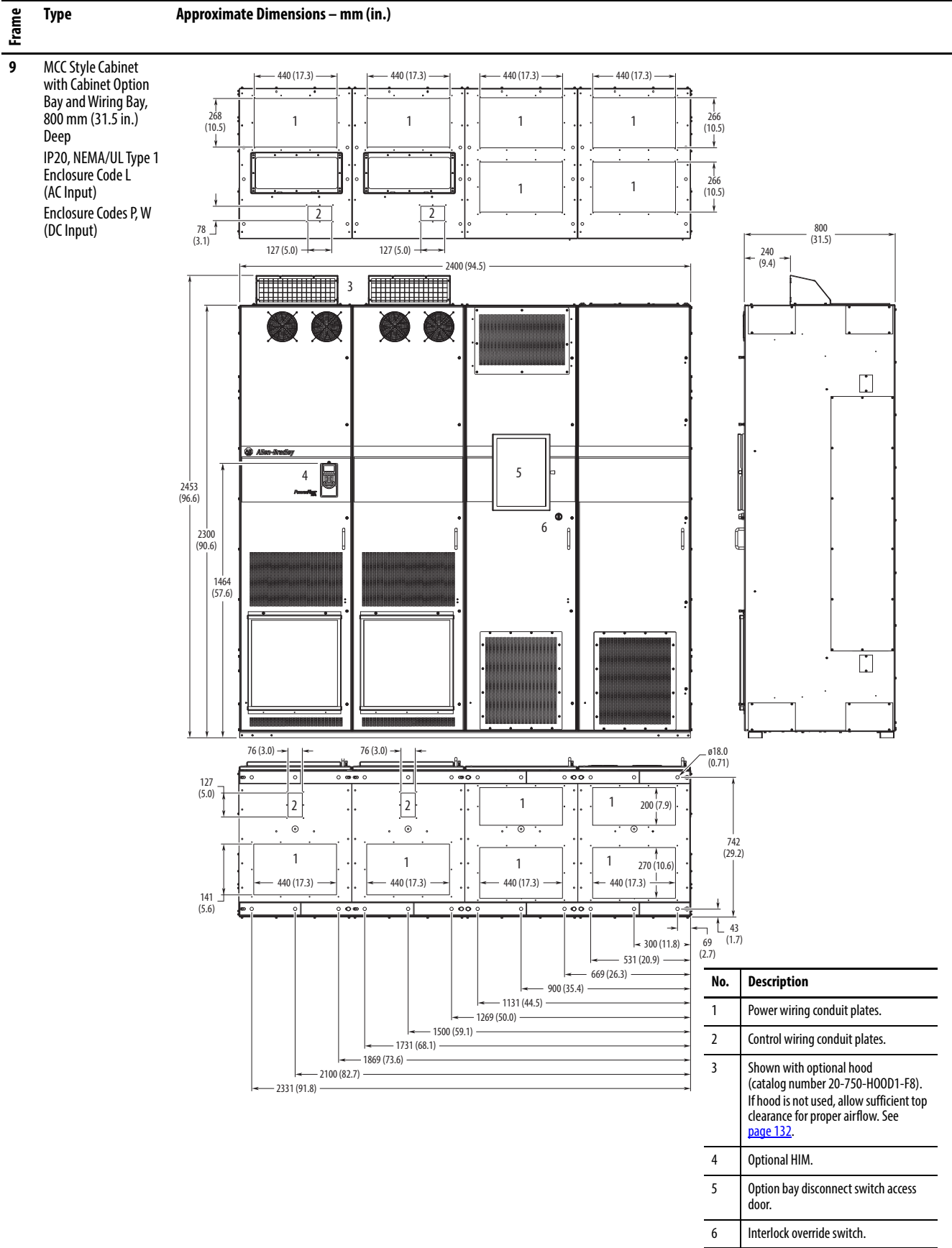
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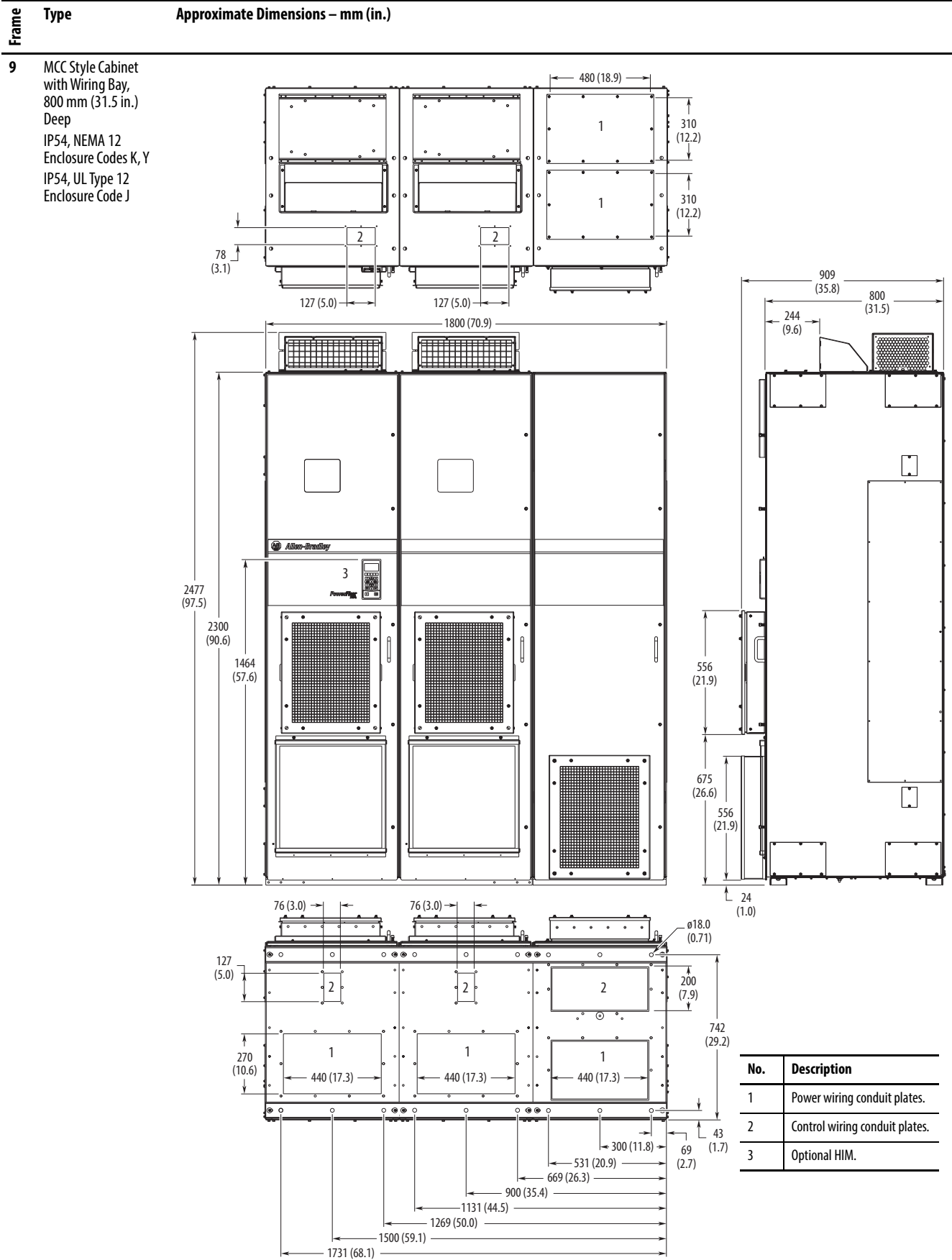


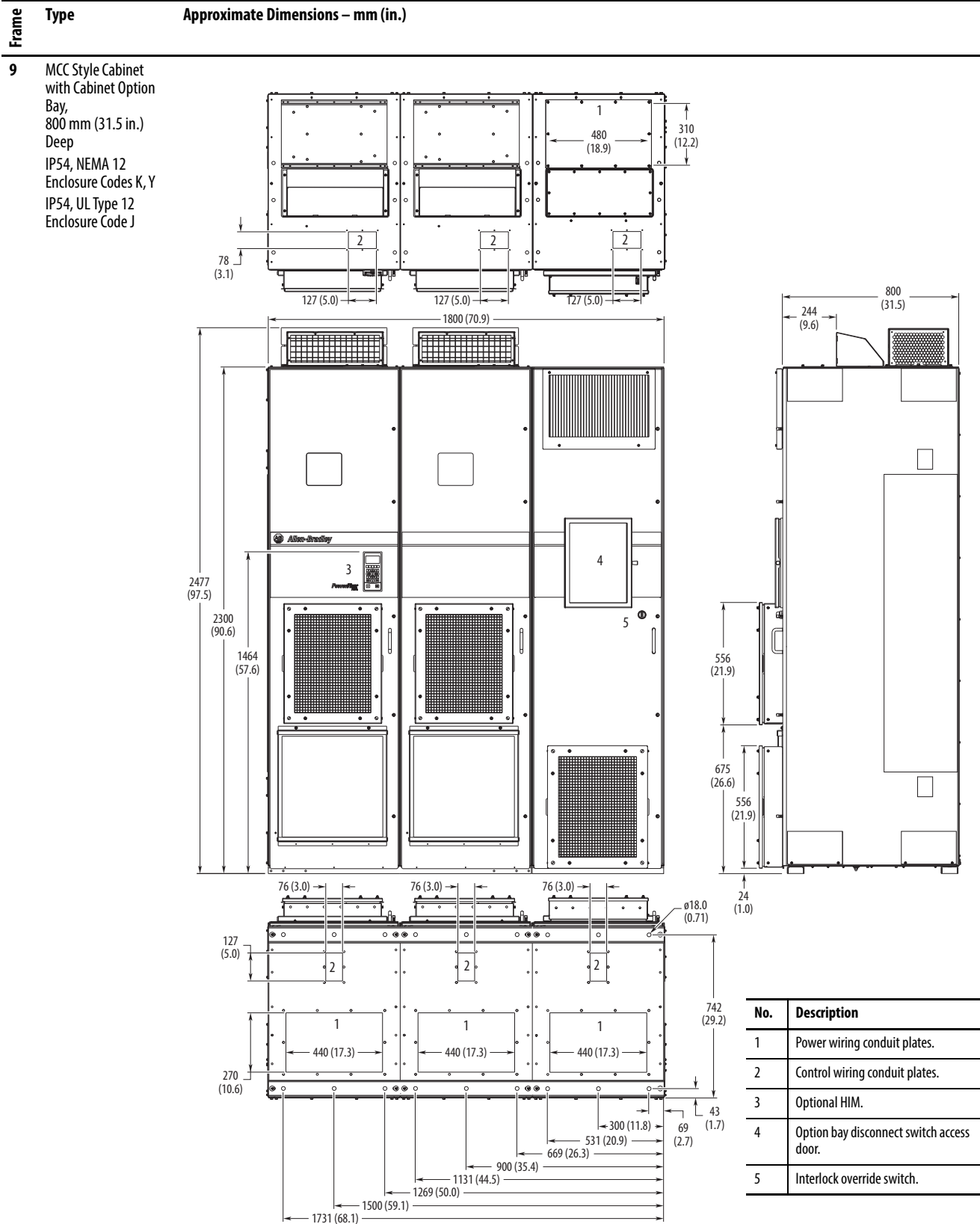


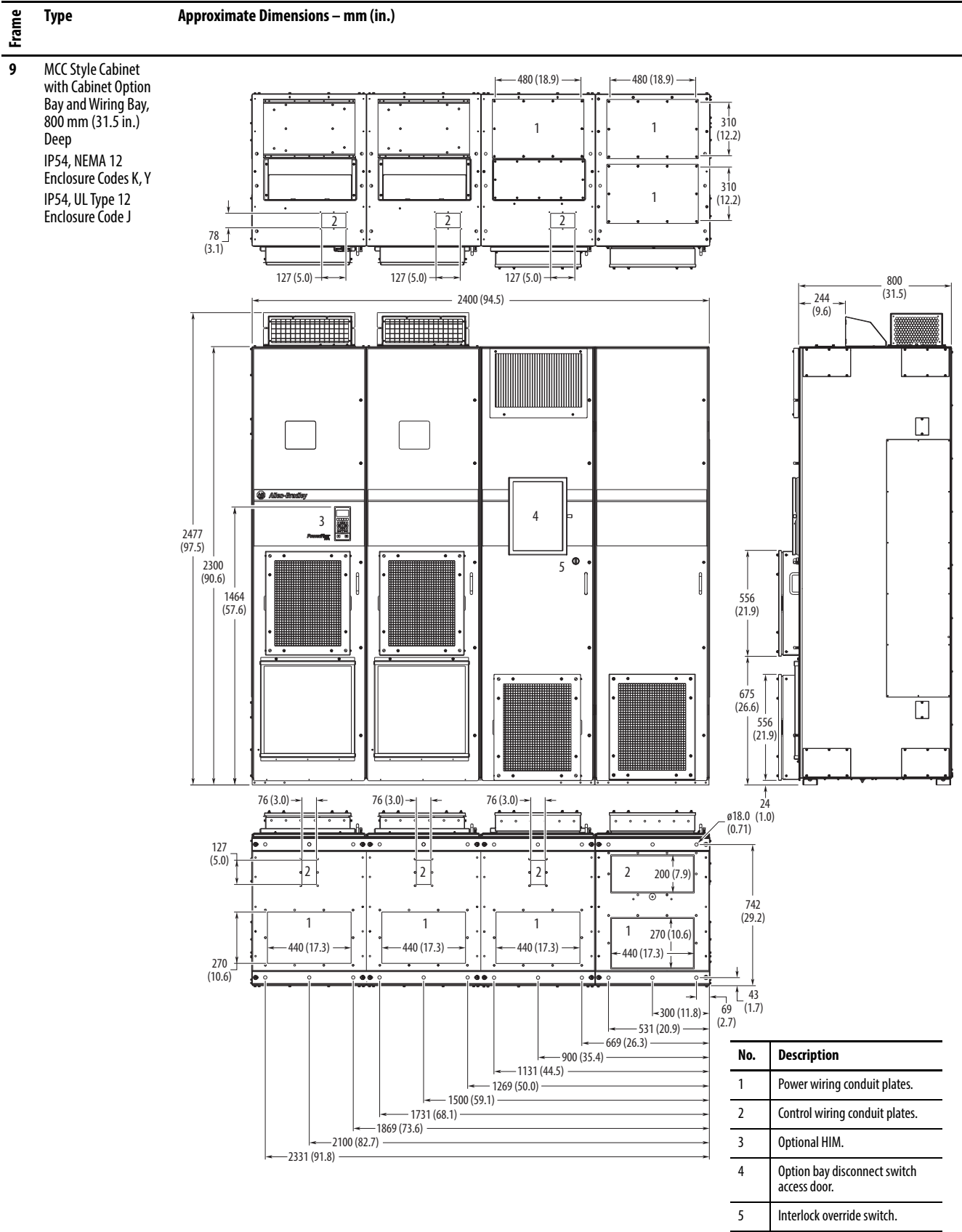


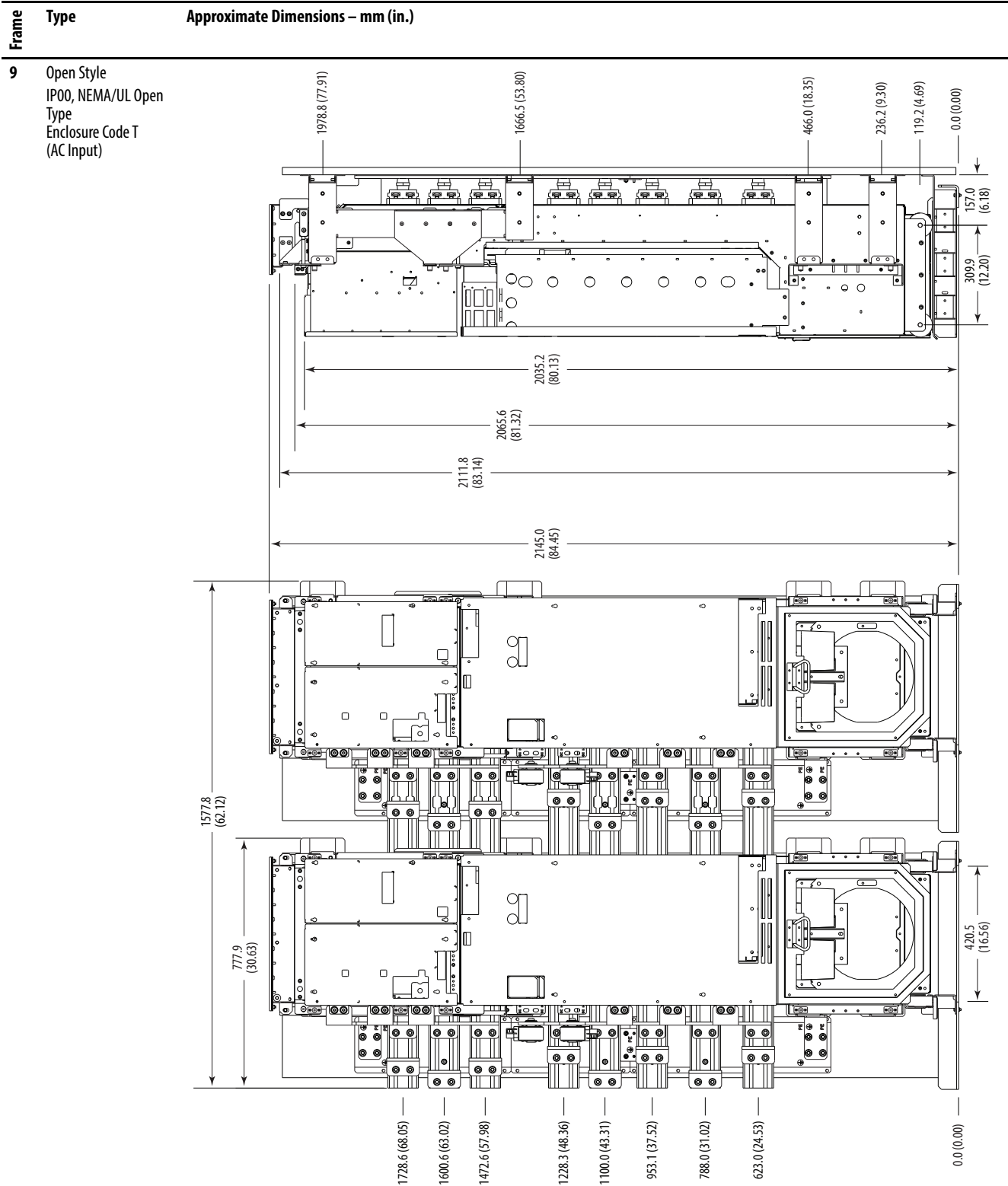


No.	Description
1	Power wiring conduit plates.
2	Control wiring conduit plates.
3	Optional HIM.

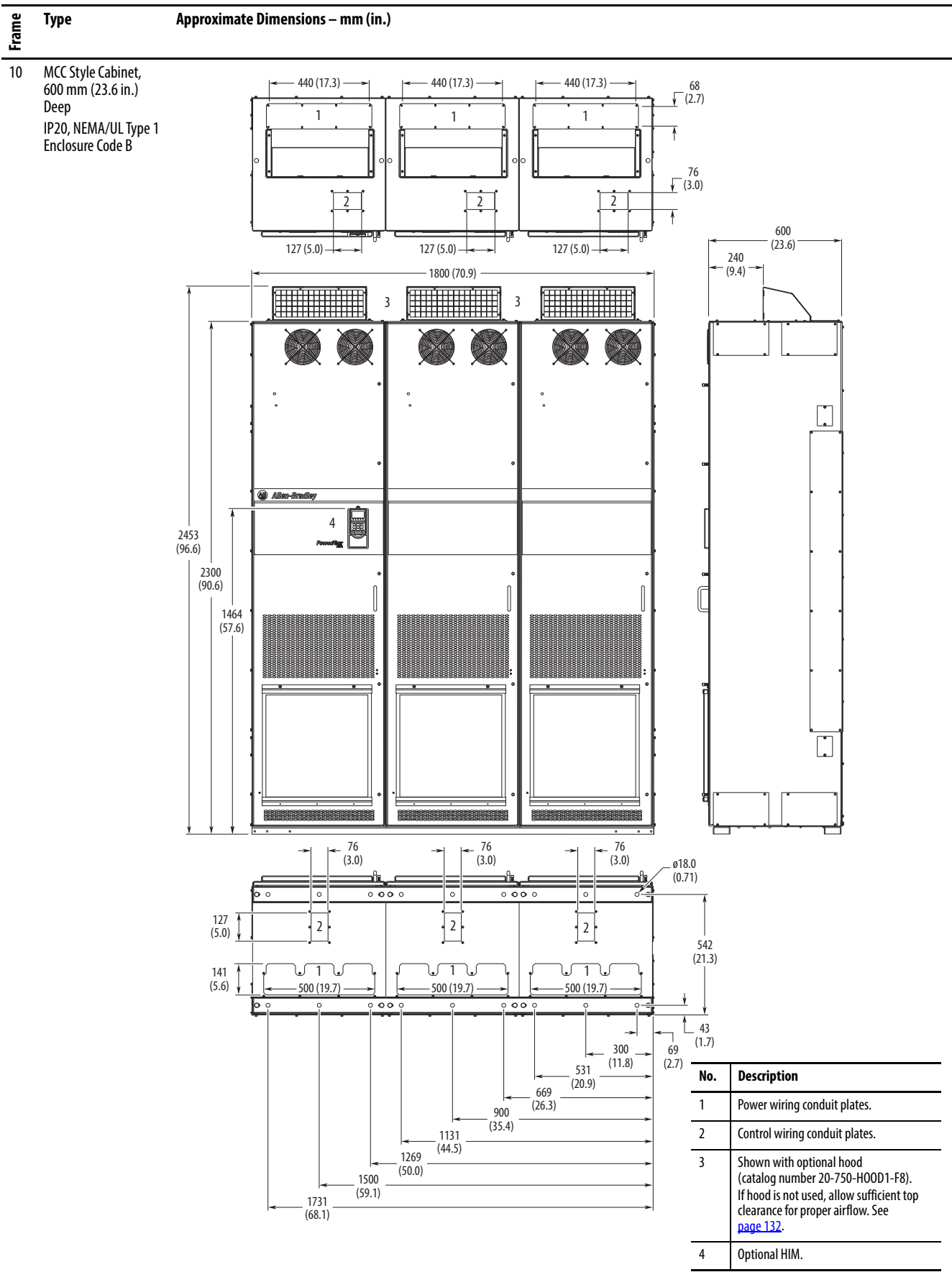


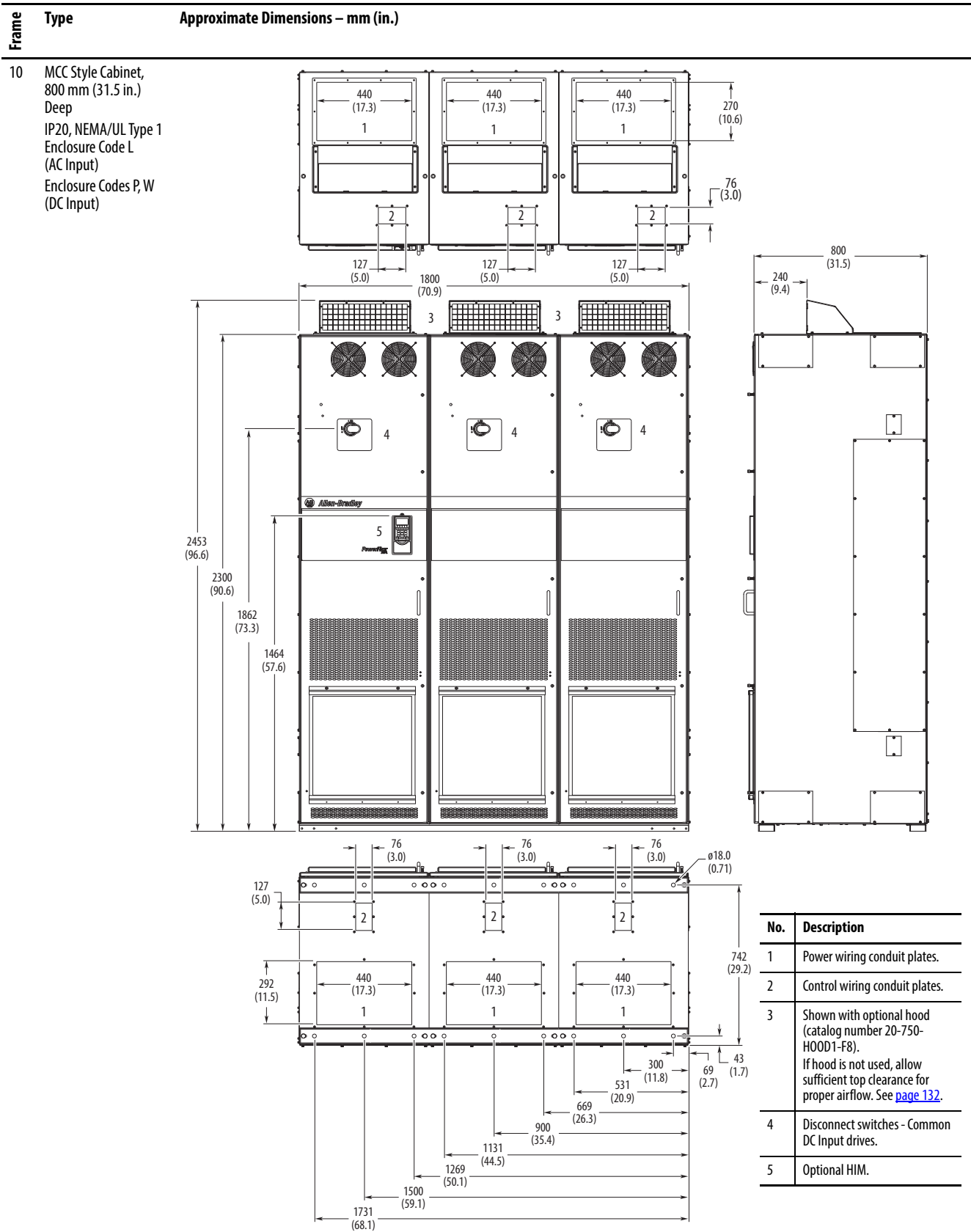


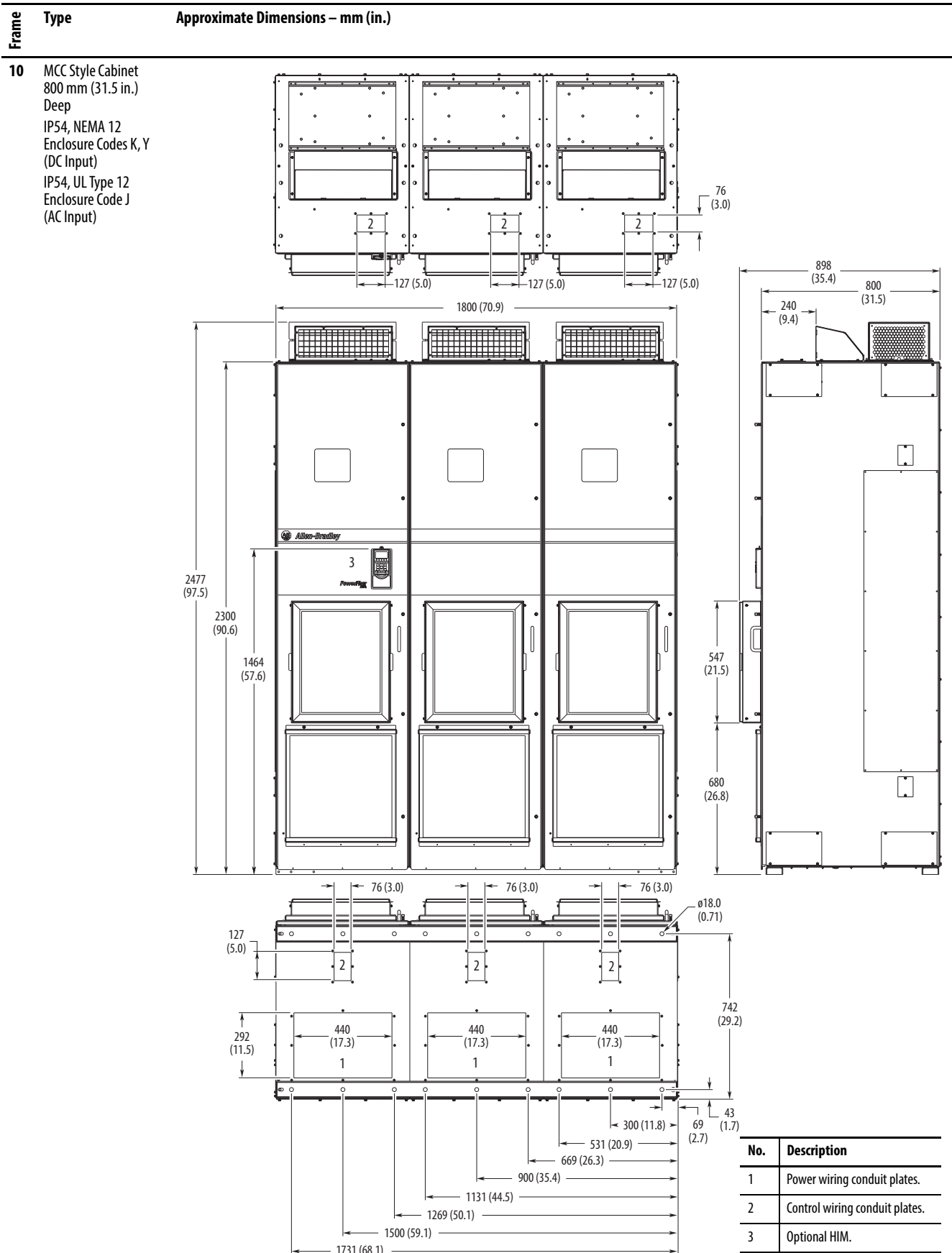


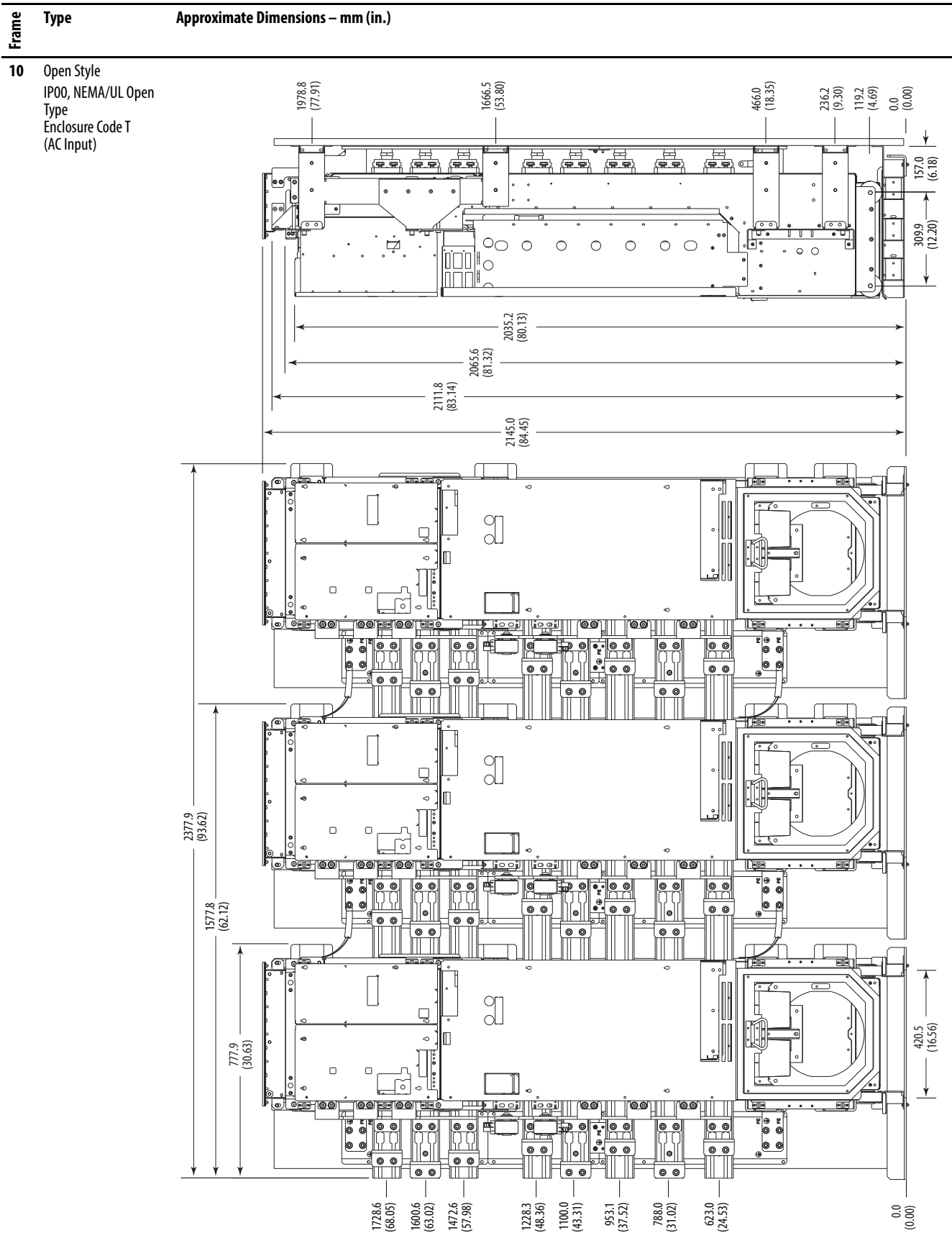


Frame	Type	Approximate Dimensions – mm (in.)	
9	Open Style IP00, NEMA/UL Open Type Enclosure Code T (DC Input)	The technical drawing shows the front and side views of a PowerFlex 750-Series AC Drive, Frame 9. The front view (top) shows a long, rectangular enclosure with a central cooling fan and two side panels. The side view (bottom) shows the depth of the enclosure. Dimensions are provided in millimeters (mm) and inches (in.). Dimensions (mm (in.)): - Top view (Front): - Overall width: 2145.0 (84.45) - Internal width: 2111.8 (83.14) - Internal width (excluding fan): 2035.2 (80.13) - Left side panel width: 1978.8 (77.91) - Internal width (excluding side panels): 1666.5 (53.80) - Right side panel width: 466.0 (18.35) - Right side panel width (excluding fan): 236.2 (9.30) - Right side panel width (excluding fan and side panel): 119.2 (4.69) - Right side panel width (excluding fan, side panel, and mounting flange): 0.0 (0.00) - Mounting flange width: 157.0 (6.18) - Mounting flange width (excluding fan): 309.9 (12.20) - Side view (Bottom): - Overall depth: 1577.8 (62.12) - Internal depth: 777.9 (30.63) - Internal depth (excluding fan): 1228.3 (48.36) - Internal depth (excluding fan and side panel): 1100.0 (43.31) - Internal depth (excluding fan, side panel, and mounting flange): 953.1 (37.52) - Internal depth (excluding fan, side panel, and mounting flange): 788.0 (31.02) - Internal depth (excluding fan, side panel, and mounting flange): 623.0 (24.53) - Internal depth (excluding fan, side panel, and mounting flange): 0.0 (0.00) - Mounting flange width: 420.5 (16.56)	









Frame

Type

Approximate Dimensions – mm (in.)

10

Open Style

IP00, NEMA/UL Open

Type

Enclosure Code T

(DC Input)

Technical drawing of an open style enclosure (Type T) showing front, top, and side views. The drawing includes dimensions in millimeters (mm) and inches (in.).

Front View Dimensions:

- Overall Width: 2145.0 (84.45)
- Overall Height: 2377.9 (93.62)
- Internal Width: 2111.8 (83.14)
- Internal Height: 1577.8 (62.12)
- Top Flange Width: 1978.8 (77.91)
- Top Flange Height: 1666.5 (53.80)
- Top Flange Thickness: 466.0 (18.35)
- Top Flange Spacing: 236.2 (9.30)
- Top Flange Offset: 119.2 (4.69)
- Top Flange Radius: 0.0 (0.00)
- Top Flange Mounting Hole Diameter: 157.0 (6.18)
- Top Flange Mounting Hole Spacing: 309.9 (12.20)

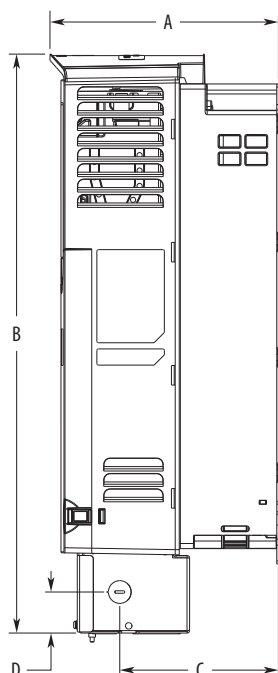
Top View Dimensions:

- Overall Width: 2145.0 (84.45)
- Overall Height: 2377.9 (93.62)
- Internal Width: 2111.8 (83.14)
- Internal Height: 1577.8 (62.12)
- Top Flange Width: 1978.8 (77.91)
- Top Flange Height: 1666.5 (53.80)
- Top Flange Thickness: 466.0 (18.35)
- Top Flange Spacing: 236.2 (9.30)
- Top Flange Offset: 119.2 (4.69)
- Top Flange Radius: 0.0 (0.00)
- Top Flange Mounting Hole Diameter: 157.0 (6.18)
- Top Flange Mounting Hole Spacing: 309.9 (12.20)

Side View Dimensions:

- Overall Width: 2145.0 (84.45)
- Overall Height: 2377.9 (93.62)
- Internal Width: 2111.8 (83.14)
- Internal Height: 1577.8 (62.12)
- Top Flange Width: 1978.8 (77.91)
- Top Flange Height: 1666.5 (53.80)
- Top Flange Thickness: 466.0 (18.35)
- Top Flange Spacing: 236.2 (9.30)
- Top Flange Offset: 119.2 (4.69)
- Top Flange Radius: 0.0 (0.00)
- Top Flange Mounting Hole Diameter: 157.0 (6.18)
- Top Flange Mounting Hole Spacing: 309.9 (12.20)

Frame	Type	Approximate Dimensions – mm (in.)
1...5	NEMA/UL Type 1 Kit	

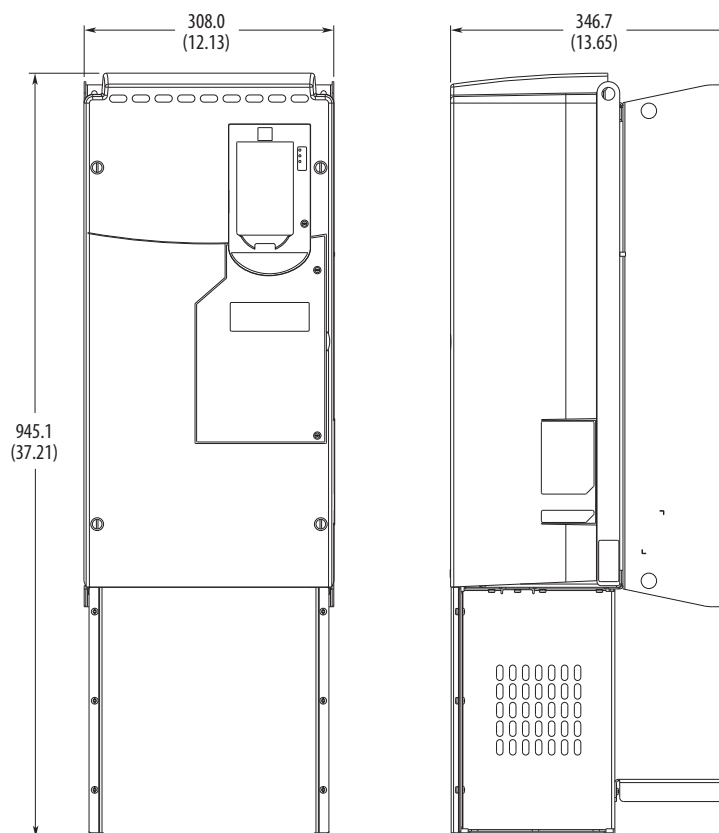


Frame 4 Shown

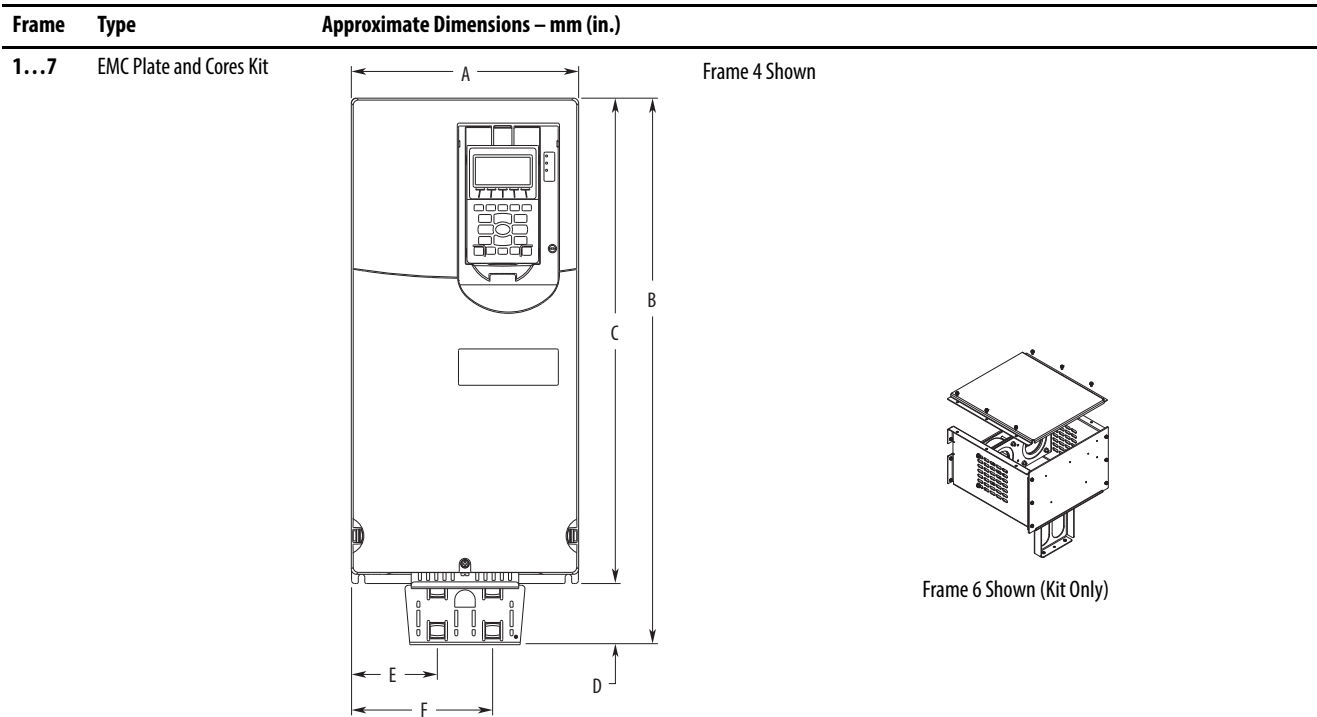
Frame	A	B	C	D
1	215.4 (8.48)	458.8 (18.06)	—	—
2	222.2 (8.75)	497.1 (19.57)	117.7 (4.63)	38.0 (1.50)
3	223.1 (8.78)	530.1 (20.87)	154.7 (6.09)	38.0 (1.50)
4	222.7 (8.77)	564.4 (22.22)	154.7 (6.09)	40.0 (1.57)
5	222.7 (8.77)	665.4 (26.20)	155.0 (6.10)	55.0 (2.17)

IMPORTANT: NEMA Type 1 Kits (20-750-NEMA-Fx) do not change the mounting dimensions.

6 NEMA/UL Type 1 Kit



Frame	Type	Approximate Dimensions – mm (in.)
1...5	NEMA/UL Type 1 Bottom View	Technical drawing of the bottom view of a NEMA/UL Type 1 motor frame. The drawing shows a central fan and four mounting feet. Dimensions are provided in millimeters and inches. Dimensions (mm/in): - Top horizontal dimensions: 72.1 (2.84), 71.9 (2.83), 41.4 (1.63), 39.7 (1.56) - Right side dimensions: 2x: Ø22.2 (Ø0.87), 2x: Ø29.0 (Ø1.14) - Left side vertical dimensions: 171.6 (6.76), 171.6 (6.76), 137.6 (5.42), 94.6 (3.72) Frame 1
		Technical drawing of the bottom view of a NEMA/UL Type 1 motor frame. The drawing shows a central fan and four mounting feet. Dimensions are provided in millimeters and inches. Dimensions (mm/in): - Top horizontal dimensions: 89.7 (3.53), 87.0 (3.43), 67.5 (2.66), 48.0 (1.89), 45.3 (1.78) - Right side dimensions: 5x: Ø22.0 (Ø0.87), 2x: Ø29.0 (Ø1.14) - Left side vertical dimensions: 171.6 (6.76), 137.6 (5.42), 94.6 (3.72) Frame 2
		Technical drawing of the bottom view of a NEMA/UL Type 1 motor frame. The drawing shows a central fan and four mounting feet. Dimensions are provided in millimeters and inches. Dimensions (mm/in): - Top horizontal dimensions: 130.0 (5.12), 125.0 (4.92), 95.0 (3.74), 65.0 (2.56), 60.0 (2.36) - Right side dimensions: 5x: Ø22.2 (Ø0.87), 2x: Ø43.7 (Ø1.72) - Left side vertical dimensions: 168.7 (6.64), 156.7 (6.17), 118.7 (4.67) Frame 3
		Technical drawing of the bottom view of a NEMA/UL Type 1 motor frame. The drawing shows a central fan and four mounting feet. Dimensions are provided in millimeters and inches. Dimensions (mm/in): - Top horizontal dimensions: 158.8 (6.25), 144.8 (5.70), 110.8 (4.36), 76.8 (3.02), 62.8 (2.47) - Right side dimensions: 5x: Ø22.2 (Ø0.87), 2x: Ø43.7 (Ø1.72) - Left side vertical dimensions: 187.0 (7.36), 168.7 (6.64), 118.7 (4.67) Frame 4
		Technical drawing of the bottom view of a NEMA/UL Type 1 motor frame. The drawing shows a central fan and four mounting feet. Dimensions are provided in millimeters and inches. Dimensions (mm/in): - Top horizontal dimensions: 201.0 (7.91), 180.0 (7.09), 135.0 (5.31), 90.0 (3.54), 69.0 (2.72) - Right side dimensions: 5x: Ø22.2 (Ø0.87), 2x: Ø50.0 (Ø1.97) - Left side vertical dimensions: 187.0 (7.36), 173.0 (6.81), 123.0 (4.84) Frame 5

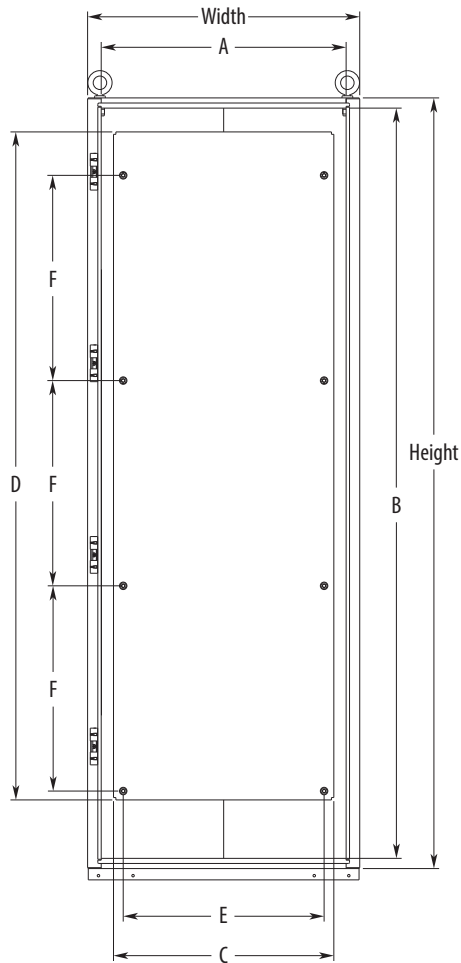


Enclosures are shown without venting. Supplied enclosures have proper venting.

Frame	A	B	C	D	E	F
1	110.0 (4.33)	478.8 (18.85)	400.5 (15.77)	78.3 (3.08)	37.4 (1.47)	73.4 (2.89)
2	134.5 (5.30)	485.9 (19.13)	424.2 (16.70)	61.7 (2.43)	43.5 (1.71)	79.5 (3.13)
3	190.0 (7.48)	514.0 (20.24)	454.0 (17.87)	60.0 (2.36)	74.0 (2.91)	116.0 (4.57)
4	222.0 (8.74)	533.7 (21.01)	474.0 (18.66)	59.7 (2.35)	84.0 (3.31)	138.0 (5.43)
5	270.0 (10.63)	609.7 (24.00)	550.0 (21.65)	59.7 (2.35)	77.8 (3.06)	191.8 (7.55)

IMPORTANT: EMC Kits (20-750-EMCx-Fx) do not change the mounting dimensions. See the PowerFlex 750-Series EMC Plate and Cores Installation Instructions, publication [750-IN006](#), for detailed information on kit installation.

Frame	Type	Approximate Dimensions – mm (in.)
–	Power Option Cabinet 600 mm and 800 mm Wide	

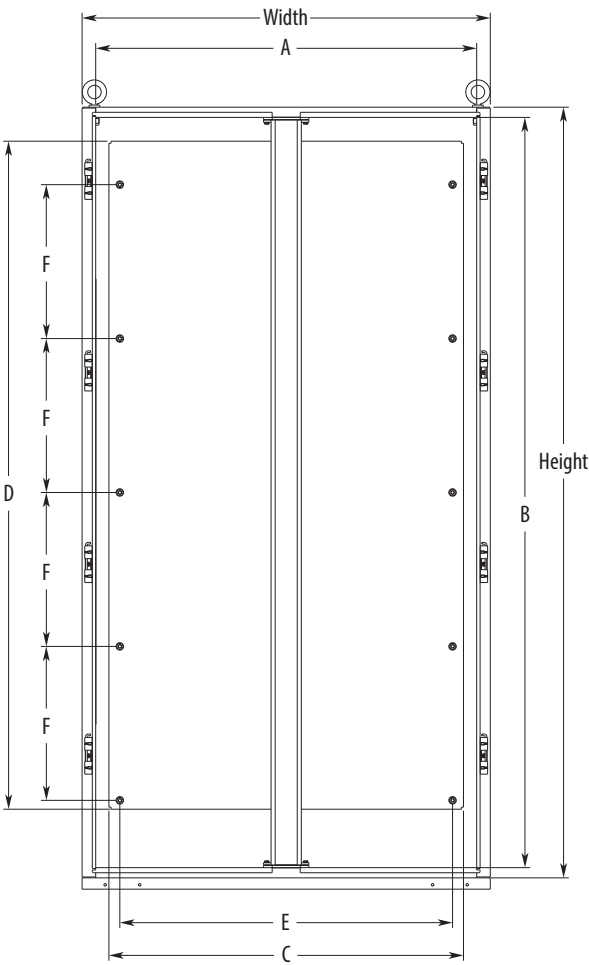


Cat. No.	Height	Width	Depth	A	B	C	D	E	F
20-750-PBAY-66	2265.5 (89.2)	600 (23.6)	600 (23.6)	520 (20.5)	2205.5 (86.8)	447.7 (17.6)	1963.7 (77.3)	390.5 (15.4)	603.3 (23.8)
20-750-PBAY-68	2265.5 (89.2)	600 (23.6)	800 (31.5)	520 (20.5)	2205.5 (86.8)	447.7 (17.6)	1963.7 (77.3)	390.5 (15.4)	603.3 (23.8)
20-750-PBAY-86	2265.5 (89.2)	800 (31.5)	600 (23.6)	720 (28.3)	2205.5 (86.8)	647.7 (25.5)	1963.7 (77.3)	590.5 (23.2)	603.3 (23.8)
20-750-PBAY-88	2265.5 (89.2)	800 (31.5)	800 (31.5)	720 (28.3)	2205.5 (86.8)	647.7 (25.5)	1963.7 (77.3)	590.5 (23.2)	603.3 (23.8)

See the PowerFlex 750-Series Power Option Cabinets Installation Instructions, publication [750-IN030](#), for details.

Frame	Type	Approximate Dimensions – mm (in.)
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– Power Option Cabinet
1200 mm Wide



Cat. No.	Height	Width	Depth	A	B	C	D	E	F
20-750-PBAY-126	2265.5 (89.2)	1200 (47.2)	600 (23.6)	1120 (44.1)	2205.5 (86.8)	1042.3 (41.0)	1963.7 (77.3)	978.1 (38.5)	452.5 (17.8)
20-750-PBAY-128	2265.5 (89.2)	1200 (47.2)	800 (31.5)	1120 (44.1)	2205.5 (86.8)	1042.3 (41.0)	1963.7 (77.3)	978.1 (38.5)	452.5 (17.8)

See the PowerFlex 750-Series Power Option Cabinets Installation Instructions, publication [750-IN030](#), for details.

Drive Options

This section provides information for the drive options.

Human Interface Modules

This section provides information for the human interface modules.



Blank Plate



20-HIM-A6



20-HIM-C6S

Cat. No.	Description
20-HIM-A0	No HIM (blank plate)
20-HIM-A6	Enhanced, LCD, full numeric, handheld/local, NEMA Type 1
20-HIM-C6S	Enhanced, LCD, full numeric, IP66 NEMA Type 4X/12 (for indoor use only) ⁽¹⁾

(1) Includes a 3 m (9.8 ft) catalog number 1202-C30 interface cable for connection to drive.

Human Interface Modules Specifications

Attribute	20-HIM-A6 ⁽¹⁾	20-HIM-C6S ⁽¹⁾
Drive		
Protocol	Drive Peripheral Interface (DPI™)	
Data rates	125 Kbps or 500 Kbps	
Consumption		
Drive (DPI)	140 mA at 12V DC supplied by the host drive	
Dimensions, H x W x D		
20-HIM-A6	116 x 70 x 16 mm (4.57 x 2.75 x 0.63 in.)	
20-HIM-C6S	180 x 93 x 25 mm (7.08 x 3.66 x 0.98 in.)	
Weight	91 g (3.2 oz)	173 g (5.7 oz)
Temperature		
Operating	0...50 °C (32...122 °F)	
Storage	-40...+85 °C (-40...+185 °F)	
Relative humidity	5...95% noncondensing	
Atmosphere	IMPORTANT: Do not install the module in an area where the ambient atmosphere contains volatile or corrosive gas, vapors, or dust. If the module is not going to be installed right away, store the module in an area where it is not exposed to a corrosive atmosphere.	
UV radiation	The HIM is not UV rated.	
Vibration		
Operating	2.5 G at 5...2000 Hz	
Nonoperating	5 G at 5...2000 Hz	
Shock		
Operating	30 G peak acceleration, 11 (±1) ms pulse width	
Nonoperating	50 G peak acceleration, 11 (±1) ms pulse width	
UL	UL508C	
c-UL	CAN / CSA C22.2 No. 14	
CE	EN61800-3	
C-Tick	EN61800-3	
FCC ID	—	
IC	—	

(1) **IMPORTANT:** These HIMs are a product of category C2 according to IEC 61800-3. In a domestic environment, this product can cause radio interference in which case supplementary mitigation measures can be required.

Human Interface Module Accessories

Cat. No.	Description
20-HIM-B1	Bezel kit for LCD HIMs, NEMA Type 1 ⁽¹⁾
20-HIM-H10	PowerFlex HIM interface cable, 1 m (39 in.) ⁽²⁾
1202-C03 1202-C10 1202-C30 1202-C90	Comm option cable kit (male-male) 0.33 m (1.1 ft) 1 m (3.3 ft) 3 m (9.8 ft) 9 m (29.5 ft)
1202-H03 1202-H10 1202-H30 1202-H90	Cable kit (male-female) ⁽³⁾ 0.33 m (1.1 ft) 1 m (3.3 ft) 3 m (9.8 ft) 9 m (29.5 ft)
1202-CBL-KIT-100M	DPI cable kit with connectors, tools, and 100 m (328 ft) cable
1202-TB-KIT-SET	DPI cable connector kit
1203-S03	DPI/SCANport™ one-to-two-port splitter cable

(1) Includes a 3 m (9.8 ft) catalog number 1202-C30 interface cable for connection to drive.

(2) Required only when HIM is used as hand-held or remote.

(3) Required with catalog number 20-HIM-H10 for distances up to a total maximum of 10 m (32.8 ft).

Communication Option Kits and Accessories

This section provides information for communication option kits and accessories.

Communication Option Kits and Accessories

Cat. No.	Description (see page 192 for specifications)
20-750-BNETIP	BACnet/IP option module
20-750-CNETC	Coaxial ControlNet option module
20-COMM-C ⁽¹⁾	ControlNet communication adapter (coax)
20-750-DNET	DeviceNet option module
20-COMM-D ⁽¹⁾	DeviceNet communication adapter
20-750-ENETR	Dual-port EtherNet/IP option module
20-COMM-E ⁽¹⁾	EtherNet/IP communication adapter
20-COMM-H ⁽¹⁾	HVAC communication adapter (only Modbus RTU can be used)
20-COMM-K ⁽¹⁾	CANopen communication adapter
20-COMM-L ⁽¹⁾	LonWorks communication adapter
20-COMM-M ⁽¹⁾	Modbus/TCP communication adapter
20-750-PBUS	PROFIBUS DPV1 option module
20-750-PNET	Single-port Profinet I/O option module
20-750-PNET2P	Dual-port Profinet I/O option module
20-COMM-P ⁽¹⁾	PROFIBUS DP communication adapter
20-COMM-Q ⁽¹⁾	ControlNet communication adapter (fiber)
20-COMM-R ^{(1) (2)}	Remote I/O communication adapter
20-COMM-S ⁽¹⁾	RS-485 DF1 communication adapter
20-XCOMM-AC-PS1	External communication kit power supply

Communication Option Kits and Accessories (Continued)

Cat. No.	Description (see page 192 for specifications)
20-XCOMM-DC-BASE	DPI external communication kit ⁽³⁾
20-XCOMM-IO-OPT1	External DPI I/O option board ⁽⁴⁾
1769-SM1	Compact I/O™ module (3-channel)
1203-SNM	Serial null modem adapter
1203-SSS	Smart Self-powered serial converter (RS-232) includes 1203-SFC and 1202-C10 cables
1203-USB	Universal serial bus (USB) converter includes 2 m (6.6 ft) USB, 20-HIM-H10, and 22-HIM-H10 cables
1786-TPS	ControlNet T-tap straight
20-750-20COMM-F1	Communication carrier card for PowerFlex 750-Series Frame 1 drives
20-750-20COMM	Communication carrier card for PowerFlex 750-Series Frame 2 or higher drives

(1) Requires a communication carrier card (catalog number 20-750-20COMM or 20-750-COMM-F1). See [page 190](#) for compatibility details.

(2) This product is [discontinued](#).

(3) Only compatible with the following communication options: catalog number 20-COMM-E EtherNet/IP; 20-COMM-C ControlNet (coax); 20-COMM-Q ControlNet (fiber); 20-COMM-D DeviceNet (Series B or later); and 20-COMM-M Modbus/TCP.

(4) For use only with DPI external communications kit, catalog number 20-XCOMM-DC-BASE.

PowerFlex 755 System Resource Allocation

Some drive configurations that use certain communication options can exceed the available resources of the processor on the main control board. This issue is a consideration for PowerFlex 755 drives with firmware revision 2.000 (or later). See the PowerFlex 750-Series Programming Manual, publication [750-PM001](#), for details.

PowerFlex 750-Series Legacy Communication Options

Most legacy communication adapters (20-COMM) can be used with the PowerFlex 755 drives (with these restrictions):

- **Frame 1** - We recommend that you install catalog number 20-750-20COMM-F1 communication carrier card in port 4. Port 5 is not accessible when this module is installed.
- **Frames 2 and larger** - We recommend that you install catalog number 20-750-20COMM communication carrier card in port 6. If you use port 4 or 5, the adjacent left port is inaccessible to other option modules and can interfere with network cable connections. For details, contact Rockwell Automation technical support.

Adapter		Accesses Ports 0 . . . 6 for I/O Connections (implicit and Explicit Messaging)	Accesses Ports 7 and Higher (I/O, Explicit Messaging)	Supports Drive Add-on Profiles	Supports Asian Languages ⁽⁶⁾
Cat. No.	Type				
20-COMM-B	BACnet MS/TP	Not compatible			
20-COMM-C	ControlNet (Coax)	Revision 3.001 ⁽⁴⁾	Revision 3.001 ⁽⁴⁾	See footnote ⁽⁵⁾	Revision 3.001 ⁽⁴⁾
20-COMM-D	DeviceNet	See footnote ⁽²⁾	Not compatible		
20-COMM-E	EtherNet/IP	Revision 4.001 ⁽⁴⁾	Revision 4.001 ⁽⁴⁾	See footnote ⁽⁵⁾	Revision 4.001 ⁽⁴⁾
20-COMM-H	RS-485 HVAC	Revision 2.009 ⁽³⁾⁽⁴⁾	Not compatible		
20-COMM-K	CANopen	Revision 1.001 ⁽⁴⁾			
20-COMM-L	LonWorks	Revision 1.007 ⁽⁴⁾			
20-COMM-M	Modbus/TCP	Revision 2.001 ⁽⁴⁾	Revision 2.001 ⁽⁴⁾	Not compatible	Revision 2.001 ⁽⁴⁾
20-COMM-P	PROFIBUS DP	Revision 1.006 ⁽⁴⁾	Revision 1.006 ⁽⁴⁾		Not compatible
20-COMM-Q	ControlNet (Fiber)	Revision 3.001 ⁽⁴⁾	Revision 3.001 ⁽⁴⁾	See footnote ⁽⁵⁾	Revision 3.001 ⁽⁴⁾
20-COMM-R ⁽¹⁾	Remote I/O	See footnote	Not compatible		
20-COMM-S	RS-485 DF1	See footnote			

(1) This product is [discontinued](#).

(2) Controller must be able to read/write 32-bit floating point (REAL) values.

(3) Supports all three modes of operation (RTU, P1, and N2).

(4) Requires this adapter firmware revision or higher.

(5) Requires firmware revision 1.05 or later of the drive Add-on Profiles for Studio 5000 Logix Designer application.

(6) Chinese, Japanese, and Korean languages are supported at the time of publication.

Environmental Specifications – Communication Modules

Attribute	Description
Temperature Operating Storage	-10...+50 °C (14...122 °F) -40...+85 °C (-40...+185 °F)
Relative humidity	5...95% noncondensing
Atmosphere	IMPORTANT: Do not install the module in an area where the ambient atmosphere contains volatile or corrosive gas, vapors, or dust. If the module is not going to be installed right away, store the module in an area where it is not exposed to a corrosive atmosphere.

Communication Options and Accessories Specifications

Attribute	20-750-BNETIP	20-750-CNETC	20-COMM-C	20-750-DNET	20-COMM-D	20-750-ENETR	20-COMM-E
Network Protocol Data rate	BACnet/IP 10/100 Mbps	ControlNet 5 Mbps (fixed)	ControlNet 5 Mbps	DeviceNet 125 Kbps, 250 Kbps, and 500 Kbps	DeviceNet 125 Kbps, 250 Kbps, and 500 Kbps	EtherNet/IP 10/100 Mbps, Half/Full Duplex	EtherNet/IP 10/100 Mbps, Half/Full Duplex
Drive Protocol Data rates	DPI 500 Kbps	DPI 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 500 Kbps	DPI 125 Kbps or 500 Kbps
Consumption Drive (DPI) Network	250 mA at 14V DC None	250 mA at 14V DC None	275 mA at 5V DC None	50 mA at 14V DC 60 mA at 24V DC	150 mA at 5V DC 60 mA at 24V DC	250 mA at 14V DC None	370 mA at 5V DC —
Dimensions H x L x W mm (in)	16.0 x 130.0 x 83.0 (0.63 x 5.12 x 3.27)	68.0 x 150.0 x 26.0 (2.70 x 5.90 x 1.00)	16.0 x 103.0 x 80.0 (0.63 x 4.00 x 3.13)	68.0 x 150.0 x 26.0 (2.70 x 5.90 x 1.00)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	68.0 x 150.0 x 26.0 (2.70 x 5.90x 1.00)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)
Weight g (oz)	60 (2.0)	62 (2.1)	85 (3.0)	62 (2.1)	85 (3.0)	62 (2.1)	85 (3.0)
Compliance UL c-UL CE C-Tick	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3
Consumption Drive (DPI) Network	250 mA at 14V DC None	250 mA at 14V DC None	275 mA at 5V DC None	50 mA at 14V DC 60 mA at 24V DC	150 mA at 5V DC 60 mA at 24V DC	250 mA at 14V DC None	370 mA at 5V DC —
Dimensions H x L x W mm (in)	16.0 x 130.0 x 83.0 (0.63 x 5.12 x 3.27)	68.0 x 150.0 x 26.0 (2.70 x 5.90 x 1.00)	16.0 x 103.0 x 80.0 (0.63 x 4.00 x 3.13)	68.0 x 150.0 x 26.0 (2.70 x 5.90 x 1.00)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	68.0 x 150.0 x 26.0 (2.70 x 5.90x 1.00)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)
Weight g (oz)	60 (2.0)	62 (2.1)	85 (3.0)	62 (2.1)	85 (3.0)	62 (2.1)	85 (3.0)
Compliance UL c-UL CE C-Tick	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3

Communication Options and Accessories Specifications (continued)

Attribute	20-COMM-H	20-COMM-K	20-COMM-L	20-COMM-M	20-750-PBUS	20-750-PNET 20-750-PNET2P	20-COMM-P
Network Protocol Data rate	Modbus RTU, Metasys N2, or Siemens P1 FLN RTU: 4800...38400 bps N2: 9600 bps P1: 4800 bps or 9600 bps	CANopen 10 Kbps...1 Mbps	LonWorks 78 Kbps	Modbus/TCP 10/100 Mbps, Half/Full Duplex	PROFIBUS 9600 bps...12 Mbps (autobauds)	Profinet 10/100 Mbps	PROFIBUS 10 Kbps...12 Mbps
Drive Protocol Data rates	DPI 125 Kbps or 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 500 Kbps	DPI 500 Kbps	DPI 125 Kbps or 500 Kbps
Consumption Drive (DPI) Network	150 mA at 5V DC —	500 mA at 5V DC None	200 mA on DPI —	350 mA at 5V DC —	250 mA at 14V DC None	250 mA at 14V DC None	370 mA at 5V DC —
Dimensions H x L x W mm (in)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	20.0 x 86.0 x 78.5 (0.79 x 3.39 x 3.09)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	16.0 x 130.0 x 83.0 (0.63 x 5.12 x 3.27)	16.0 x 130.0 x 83.0 (0.63 x 5.12 x 3.27)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)
Weight g (oz)	85 (3.0)	85 (3.0)	85 (3.0)	85 (3.0)	57 (2.0)	60 (2.0)	57 (2.0)
Compliance UL c-UL CE C-Tick	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 — —	UL508C — — —	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 IEC61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 — —

Communication Options and Accessories Specifications (continued)

Attribute	20-COMM-Q	20-COMM-R ⁽¹⁾	20-COMM-S	1203-SSS	1203-USB	1769-SM1
Network Protocol Data rate	ControlNet 5 Mbps	Remote I/O 57.6 Kbps, 115.2 Kbps, or 230.4 Kbps	DF1 1200...38400 bps	DF1 9600...38400 bps	Universal Serial Bus (USB) 115.2 Kbps	—
Drive Protocol Data rates	DPI 125 Kbps or 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI 125 Kbps or 500 Kbps	DPI or SCANport™ 125 Kbps or 500 Kbps (only DPI)	SCANport, DPI, or DSI 125, 125/500, 19.2 Kbps	DPI or SCANport 125 Kbps or 500 Kbps (only DPI)
Consumption Drive (DPI) Network	275 mA at 5V DC —	250 mA at 5V DC —	150 mA at 5V DC —	130 mA at 12V DC —	130 mA at 12V DC 170 mA at +5V DC (DSI)	Module: 280 mA at 5V DC Channel: 60 mA at 12V DC
Dimensions H x L x W mm (in)	16.0 x 103.0 x 80.0 (0.63 x 4.00 x 3.13)	19.0 x 86.0 x 78.5 (0.75 x 3.39 x 3.09)	16.0 x 86.0 x 81.0 (0.63 x 3.34 x 3.16)	103.5 x 73.4 x 23.6 (4.08 x 2.89 x 0.93)	103.5 x 73.4 x 23.6 (4.08 x 2.89 x 0.93)	103.5 x 73.4 x 23.6 (4.08 x 2.89 x 0.93)
Weight g (oz)	85 (3.0)	85 (3.0)	60 (2.0)	71 (2.5)	71 (2.5)	71 (2.5)
Compliance UL c-UL CE C-Tick	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-5-1, EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 — —	UL508C CAN/CSA C22.2 No. 14 — —

(1) This product is [discontinued](#).

Communication Options and Accessories Specifications (continued)

Attribute	20-XCOMM-DC-BASE	20-XCOMM-IO-OPT1	20-XCOMM-AC-PS1
Network Protocol Data rate	Dependent on installed adapter Dependent on installed adapter	—	—
Drive Protocol Data rates	DPI 125/500 Kbps	—	—
Number of inputs	—	6 (single common)	—
Input voltage type	—	24V DC source load	—
Maximum input voltage	—	27V DC	—
Rated input voltage	—	—	100...240V AC
Operating input voltage	—	—	90...264V AC
AC input frequency	—	—	47...63 Hz
Maximum input current	—	8 mA (each input)	—
Guaranteed ON-state voltage	—	10...27V DC (3 mA minimum)	—
Guaranteed OFF-state voltage	—	0...5V DC (2 mA maximum)	—
Reverse polarity protected	—	-30V DC	—
Input response time	—	25 ms + network update time ⁽²⁾	—
Number of outputs	—	Two relay outputs (individually isolated) - One form C contact - One form A (NO) contact	—
Maximum output contact voltage	—	27V DC/125V AC	—
Maximum output contact current	—	2 A	—
Output voltage	—	—	24V DC
Output current	—	—	830 mA
Expected contact life	—	1,000,000 cycles resistive at < 0.5 A 500,000 cycles inductive at < 0.5 A 500,000 cycles resistive at 1 A 300,000 cycles inductive at 1 A 300,000 cycles resistive at 2 A 150,000 cycles inductive at 2 A	—
Output response time	—	25 ms + network update time ⁽³⁾	—
Consumption Module Network	60 mA at 12V DC supplied from drive via DPI cable Ethernet: None ControlNet: None DeviceNet: 60 mA at 24V DC	—	—
DC power supply requirement	20-COMM-C: 105 mA at 24V DC ⁽¹⁾ 20-COMM-D: 60 mA at 24V DC ⁽¹⁾ 20-COMM-E: 140 mA at 24V DC ⁽¹⁾ 20-COMM-Q: 135 mA at 24V DC ⁽¹⁾ 20-COMM-M: 140 mA at 24V DC ⁽¹⁾	—	—
Dimensions (H x W x D)	108 x 108 x 75 (4.25 x 4.25 x 2.95) With I/O terminal block attached	—	—
Weight	340 g (12.0 oz)	—	—
Certifications UL c-UL CE C-Tick	UL508C CAN/CSA C22.2 No. 14 — —	—	—

- (1) The communication kit is powered by a nominal 24V DC. The current consumption that is listed in this table differs from the value that is shown on the label of the communication adapter. The label of the communication adapter is based on the adapter being powered by 5V DC from the drive.
- (2) The I/O board is not designed for fast I/O response times. Do not use with input devices that transition (OFF-ON-OFF) faster than the response time. Potential inputs include auxiliary contact inputs from relays or overload, push buttons, and so on.
- (3) The I/O board is not designed for fast I/O response times. Do not use with output devices that must transition (OFF-ON-OFF) faster than the response time. Potential output devices include pilot lights or a contact closure reset to another hardware device.

Feedback Options

This section provides information for the feedback options.

Cat. No.	Description
20-750-ENC-1 ⁽¹⁾	Incremental encoder
20-750-DENC-1 ⁽¹⁾	Dual incremental encoder
20-750-UFB-1 ⁽²⁾	Universal feedback board (includes Stegmann, Heidenhain, SSI, Biss, 5V incremental)

(1) Homing and registration functions are not supported when using this device with Studio 5000 Logix Designer® embedded motion instructions. To use the homing and registration functions, you must use the Universal Feedback Board (catalog number 20-750-UFB-1).

(2) Only PowerFlex 755 drives.

This table specifies which encoder type combinations work on a universal feedback board (UFB).

Encoder Combinations Compatible with Universal Feedback Board

Encoder on Channel 1	Encoder on Channel 0																					
		None	EnDat SC	Hiperface SC	BiSS SC	SSI SC	EnDat FD ChX	EnDat FD ChY	BiSS FD ChX	BiSS FD ChY	SSI FD ChX	SSI FD ChY	SinCos only	Incmtl A B Z	Incmtl SC	LinTempo ChX	LinTempo ChY	LinStahlN ChX	LinStahl ChY	Lin SSI ChX	Lin SSI ChY	
	None	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	EnDat SC	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	Hiperface SC	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	BiSS SC	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	SSI SC	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	EnDat FD ChX	C	C	C	C	C	N	N	N	C	N	C	C	C	C	C	N	C	N	C	N	C
	EnDat FD ChY	C	C	C	C	C	N	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N
	BiSS FD ChX	C	C	C	C	C	N	C	N	N	N	C	C	C	C	C	N	C	N	C	N	C
	BiSS FD ChY	C	C	C	C	C	C	N	N	N	C	N	C	C	C	C	C	N	C	N	C	N
	SSI FD ChX	C	C	C	C	C	N	C	N	N	N	C	C	C	C	C	N	C	N	C	N	C
	SSI FD ChY	C	C	C	C	C	C	N	C	C	N	N	C	C	C	C	C	N	C	N	C	N
	SinCos only	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	Incmtl A B Z	C	C	C	C	C	C	C	C	C	C	C	C	C	N	C	C	C	C	C	C	C
	Incmtl SC	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	LinTempo ChX	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N	C
	LinTempo ChY	C	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N
	LinStahl ChX	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N	C
	LinStahl ChY	C	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N
	Lin SSI ChX	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N	C
Lin SSI ChY	C	C	C	C	C	C	N	C	N	C	N	C	C	C	C	C	N	C	N	C	N	

C	Compatible
N	Not compatible

I/O Option Kits

This section provides information for the I/O option kits.

Cat. No.	Description ⁽¹⁾
20-750-ATEX	ATEX option module with 1 thermosensor input connection (requires 11-Series I/O module)
20-750-1132C-2R	24V DC 11-Series I/O module with 1 analog in, 1 analog out, 3 digital in and 2 relay outputs
20-750-1133C-1R2T	24V DC 11-Series I/O module with 1 analog In, 1 analog out, 3 digital in, 1 relay and 2 transistor outputs
20-750-1132D-2R	115V AC 11-Series I/O module with 1 analog In, 1 analog out, 3 digital in and 2 relay outputs
20-750-2262C-2R	24V DC 22-Series I/O module with 2 analog In, 2 analog out, 6 digital in and 2 relay outputs
20-750-2262D-2R	115V AC 22-Series I/O module with 2 analog In, 2 analog out, 6 digital in and 2 relay outputs
20-750-2263C-1R2T	24V DC 22-Series I/O module with 2 analog In, 2 analog out, 6 digital in, 3 digital out, 1 relay, and 2 transistor outputs

(1) I/O option kits are not allowed in Integrated Motion on the EtherNet/IP Network mode.

Safety Options

Four safety options are available for the PowerFlex 750-Series drives:

- Safe Torque Off
- Safe Speed Monitor
- Integrated Safety - Safe Torque Off
- Integrated Safety Functions

Safe Torque Off is ideal for safety-related applications that require the removal of rotational power to the motor without shutting down the drive. Safe Torque Off functionality offers the benefit of quick start-up after a demand on the safety system. Safe Torque Off helps reduce wear from repetitive start-up, and provides safety ratings up to and including SIL CL3, PLe, and category 3.

Safe Speed Monitor is ideal for applications where the speed is controlled and monitored. The Safe Speed Monitor option combines Safe Torque Off capability with integrated safety relay functionality and the Safe Speed control technology in one hardware option. The Safe Speed Monitor option provides safety ratings up to and including SIL CL3, PLe, and category 4.

With the Safe Speed Monitor option, you can safely monitor and control the speed of your application, which allows operators to perform process or maintenance work without stopping the machine.

The Integrated Safety - Safe Torque Off (STO) option module provides either a hardwired or a networked STO function via an Ethernet/IP network.

With Networked Safe Torque Off, a GuardLogix safety controller issues the Safe Torque Off command over the Ethernet /IP network, and the PowerFlex drive executes the command.

Description	Cat. No.	Publication
Safe Torque Off ⁽¹⁾	20-750-S	PowerFlex 750-Series Safe Torque Off Option Module User Manual, publication 750-UM002
Safe Speed Monitor ^{(1)(2) (3)}	20-750-S1	PowerFlex 750-Series Safe Speed Monitor Option Module Safety Reference Manual, publication 750-RM001
Integrated Safety - Safe Torque Off ⁽¹⁾	20-750-S3	PowerFlex 755 Integrated Safety - Safe Torque Off Option Module User Manual, publication 750-UM004
Integrated Safety Functions ⁽¹⁾	20-750-S4	PowerFlex 755/755T Integrated Safety Functions Option Module User Manual, publication 750-UM005

(1) Drive can accommodate only one option.

(2) Requires the dual incremental encoder or universal feedback option.

(3) Requires catalog number 20-750-EMCSSM1-F8 EMC Option Kit with Frame 8...9 drives.

The Integrated Safety Functions option module (20-750-S4) provides a networked STO (Safe Torque Off) function through an Ethernet/IP network. It is also equipped for Integrated (drive-based) Timed SS1, Monitored SS1, and Safe Brake Control, which operate in the drive and are activated through the network safety connection.

The Integrated Safety Functions option module also supports select controller-based IEC 61800-5-2 safety functions operating in GuardLogix 5580 or Compact GuardLogix 5380 controllers that use the Ethernet/IP network to communicate with the safety I/O. This support includes the new safety function instructions that are provided on the Drive Safety tab in the Logix Designer application.

Safe Torque Off and Safe Speed Monitor Specifications

Attribute	20-750-S Safe Torque Off	20-750-S1 Safe Speed Monitor
Standards	IEC/EN60204-1, ISO13489-1, IEC 61508, IEC 61800-5-2	IEC/EN60204-1, ISO12100, IEC 61508, IEC 61800-5-2
Safety category	Cat. 3 and PLe per EN ISO 13849-1; SIL CL3 per IEC 61508 and EN 62061	Cat. 4 and PLe per EN ISO 13849-1; SIL CL3 per IEC 61508 and EN 62061
Power supply (user I/O)	24V DC $\pm 10\%$, 0.8...1.1 x rated voltage ⁽³⁾ protected extra low voltage (PELV) or safety extra low voltage (SELV)	
Power consumption	4.4 W	36 W
Safety enable (SE+, SE-)	24V DC, 22 mA, short-circuit protected	–
Safety power (SP+, SP-)	24V DC, 35 mA, short-circuit protected	–
SLS outputs (68, 78)	–	24V DC, 50 mA, short-circuit protected
SS outputs (34, 44)	–	24V DC, 50 mA, short-circuit protected
Door control outputs (51, 52)	–	24V DC, short-circuit protected, 0.75 A bipolar (power to release/power to lock) configuration. 20 mA, cascading (2 CH Source) configuration.
Pulse outputs (S11, S21)	–	24V DC, 50 mA, short-circuit protected
Pulse inputs (S12, S22, S32, S42, S52, S62, S72, S82, X32, X42)	–	5 mA per input, max
Input ON voltage, min	24V DC $\pm 10\%$, 21.6...26.4V DC	15V
Input OFF voltage, max	5V	5V
Input OFF current, max	2.5 mA at 5V DC	2 mA
Input-to-output response time (SS_In, SLS_In, DM_In, ESM_In, LM_In)	–	20 ms
Overspeed response time	–	User-configurable
Inputs (S34)	–	5 mA per input, max
Conductor size ⁽¹⁾	0.3...0.8 mm ² (28...18 AWG)	0.25...2.5 mm ² (24...14 AWG)
Strip length	10 mm (0.39 in.)	6 mm (0.25 in.)
Terminal screw torque	–	0.2...0.25 N·m (1.8...2.2 lb·in)
Certification ⁽²⁾		
c-UL-us	UL Listed, certified for US and Canada.	

Safe Torque Off and Safe Speed Monitor Specifications

Attribute	20-750-S Safe Torque Off	20-750-S1 Safe Speed Monitor
CE	European Union 2004/108/EC EMC Directive, and EU 2006/42/EC Machinery Directive EN 61800-3; categories C2 and C3 EN 62061; EM Immunity EN ISO 13849-1 EN 61800-5-1 EN 61800-5-2 EN 61508 Parts 1-7	
C-Tick	Australian Radiocommunications Act, compliant with EN 61800-3; categories C2 and C3	
TÜV	TÜV Certified for Functional Safety up to SIL CL3, according to EN 61800-5-2, EN 61508, and EN 62061. Up to Performance Level PLe and Category 3, according to EN ISO 13849-1.	TÜV Certified for Functional Safety up to SIL CL3, according to EN 61800-5-2, EN 61508, and EN 62061. Up to Performance Level PLe and Category 4, according to EN ISO 13849-1.

- (1) See Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).
 (2) The certification applies if the product is marked.
 (3) Safety outputs need additional fuse for reverse voltage protection of the control circuit. Install a 6 A slow-blow or 10 A fast-acting fuse.

Specifications - Integrated Safety Options

Attribute	Integrated Safe Torque Off, 20-750-S3	Integrated Safety Functions, 20-750-S4
Standards	EN 60204-1, IEC 61508, EN 61800-3, EN 61800-5-1, EN 61800-5-2, EN 62061, EN ISO 13489	EN 60204-1, IEC 61508, EN 61800-3, EN 61800-5-1, EN 61800-5-2, EN 62061, EN ISO 13849-1
Safety category	Cat. 3 and PLe per ISO 13849-1; SIL CL3 per IEC 61508 and EN 62061	Cat. 4 and PLe per EN ISO 13849-1; SIL 3 per IEC 61508 and SIL CL3 per EN IEC 62061
Power supply (user I/O)	24V DC $\pm 10\%$, 0.8...1.1 x rated voltage ⁽²⁾ PELV or SELV	24V DC $\pm 10\%$, 0.8...1.1 x rated voltage ⁽²⁾ PELV or SELV
Input type	Current sinking	Current sinking
Voltage, on-state input	11...30V, 3.5 mA DC	11...30V DC
Voltage, off-state input, max	5V, 3.5 mA DC	-3...5V DC
Current, on-state input, min	3.3 mA	2 mA
Current, off-state, max	1.3 mA	1.5 mA
IEC 61131-2 (input type)	Type 3	Type 3
Conductor type	Multi-conductor shielded cable	Multi-conductor shielded cable
Conductor size ⁽¹⁾	0.3...0.8 mm ² (28...18 AWG)	0.3...0.8 mm ² (28...18 AWG)
Strip length	10 mm (0.39 in.)	10 mm (0.39 in.)

- (1) See the Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).
 (2) Safety outputs need additional fuse for reverse voltage protection of the control circuit. Install a 6 A slow-blow or 10 A fast-acting fuse.

PowerFlex 750-Series Drives Option Kits

This section provides information for PowerFlex 750-Series drives option kits.

PowerFlex 750-Series Drives Option Kits

Cat. No.	Description		Frame Size
20-750-APS	Auxiliary power supply	24V auxiliary power supply	1...7 ⁽³⁾
20-750-DCBB1-F6	DC bus bar option kit	DC bus bars for 200...240 and 380...480V AC drives	6
20-750-DCBB1-F7			7
20-750-DCBB2-F6		DC bus bars for 600...690V AC drives	6
20-750-DCBB2-F7			7
20-750-BUS1A-F8	DC bus connection kit	Allows connection of the drive DC bus terminals to the bus rails at the back of the cabinet. ⁽¹⁾	8
20-750-EMC1-F1	EMC option kit	EMC plate with core for 200...240 and 380...480V AC drives	1
20-750-EMC1-F2			2
20-750-EMC1-F3			3
20-750-EMC3-F3		EMC plate with core for 600V AC drives	3
20-750-EMC1-F4		EMC plate with Cores for 200...240 and 380...480V AC drives	4
20-750-EMC1-F5			5
20-750-EMC3-F4		EMC plate with cores for 600V AC drives	4
20-750-EMC3-F5			5
20-750-EMC2-F1		EMC core for 200...240 and 380...480V AC drives	1
20-750-EMC2-F2			2
20-750-EMC2-F3			3
20-750-EMC4-F3		EMC core for 600V AC drives	3
20-750-EMC2-F45		EMC cores for 200...240 and 380...480V AC drives	4...5
20-750-EMC4-F4		EMC cores for 600V AC drives	4
20-750-EMC4-F5			5
20-750-EMC3-F6		EMC plate with cores for 600...690V AC drives	6
20-750-EMC3-F7			7
20-750-EMC5-F6		EMC plate with cores for 600...690V AC drives (only IP54)	6
20-750-EMC5-F7			7
20-750-EMCCM1-F8		EMC core – inverter-mounted output, for 380...690V AC Input and DC Input drives. ⁽²⁾	8...10
20-750-EMCSSM1-F8		EMC cores – required when using the Safe Speed Monitor option, catalog number 20-750-S1, with 380...690V drives.	8...10
20-750-EMCDK1-F10		Door shielding kit	10
20-750-HOOD1-F8	Exhaust hood	Exhaust Hood – IP20, NEMA/UL Type 1 drives	8
20-750-FLNG1-F2	Flange adapter kit	Converts Open Type drive to external heatsink (flange) with NEMA/UL Type 1 integrity backside. This kit is for use with IP20, NEMA/UL Type 0 drives and does not provide an airtight or watertight seal. Where an airtight or watertight seal is required (for example, contaminated, dirty, or wet environments), use a drive with an “F” enclosure option.	2
20-750-FLNG1-F3			3
20-750-FLNG1-F4			4
20-750-FLNG1-F5			5
20-750-FLNG4-F6		Converts Open Type drive to external heatsink (flange) with NEMA/UL Type 4X/12 integrity backside.	6
20-750-FLNG4-F7			7
20-750-LBRKT1	L bus bar kit	Includes three L-brackets	8...10

PowerFlex 750-Series Drives Option Kits (Continued)

Cat. No.	Description		Frame Size
20-750-NEMA1-F1	NEMA/UL Type 1 Option Kit	NEMA/UL Type 1 Kit	1
20-750-NEMA1-F2			2
20-750-NEMA1-F3			3
20-750-NEMA1-F4			4
20-750-NEMA1-F5			5
20-750-NEMA1-F6			6
20-750-NEMA1-F7			7
20-750-ACTE1-F6	Power terminal extension	Allows connection of two parallel leads to the AC power terminals.	6
20-750-PTG1-F6	Power terminal guard	Provides additional protection against contact with the power terminals.	6
20-750-PTG1-F7			7
20-750-RPD1-F8	Remote control POD mounting kit	Fiber-optic and power supply cables that are used to mount the control POD up to 23 m (75 ft) from the drive.	8...10
20-750-CART1-F8	Roll-out cart	A wheeled roll-out cart that facilitates drive installation and removal. Required for Frame 8 and larger drives.	8...10
20-750-MPLT755T	PowerFlex 750-Series Service Cart Conversion Kit	This kit attaches to the 20-750-MCART1. It enables the removal of power cores from PowerFlex 755 floor mount drives using the PowerFlex 755T drive service cart.	8...10

(1) DC bus access is included with Frames 9 and 10.

(2) Frame 8 requires one EMC output core, Frame 9 requires two EMC output cores, and Frame 10 requires three EMC output cores.

(3) Frame 8 and up drives can be powered from an external 24V DC source, option kit catalog number 20-750-APS is not required.

PowerFlex 755 IP00, NEMA/UL Open Type Drive Options

This section provides information for PowerFlex 755 IP00, NEMA/UL Open Type drive options.

PowerFlex 755 IP00, NEMA/UL Open Type Drive Options

Description	Required?	Frame 8		Frame 9		Frame 10	
		Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.
Field termination, converter, AC input	Recommended	20-750-BUS2-F8	1	20-750-BUS2-F9	1	20-750-BUS2-F10	1
Field termination, inverter, AC output	Recommended	20-750-BUS3-F8	1	20-750-BUS3-F9	1	20-750-BUS3-F10	1
Field termination, DC bus, 400/480V	Recommended	20-750-BUS4-F8	1	20-750-BUS4-F9	1	20-750-BUS4-F10	1
Field termination, DC bus, 600/690V	Recommended	20-750-BUS4-F8	1	20-750-BUS6-F9	1	20-750-BUS6-F10	1
Field termination, DC input, common bus precharge ⁽¹⁾⁽²⁾	Recommended	20-750-BUS5-F8	1	20-750-BUS5-F9	1	20-750-BUS5-F10	1
Pod bucket assembly	Required	20-750-POD1-F8	1	20-750-POD1-F8	1	20-750-POD1-F8	1
Pod, cable, 24V supply ⁽³⁾	Required	20-750-PH1-F8	⁽⁴⁾	20-750-PH2-F9	1	20-750-PH3-F10	1
Cable, fiber-optic, 560 mm (22 in.) ⁽³⁾	Required	20-750-FCBL1-F8	1	—	—	—	—
Cable, fiber-optic, 2.8 m (110 in.) ⁽³⁾	Required	—	—	20-750-FCBL1-F10	2	20-750-FCBL1-F10	3
Transceiver, fiber-optic	Required	—	—	SK-R1-FTR1-F8	1	SK-R1-FTR1-F8	2
Pod, remote mounting kit	Optional	20-750-RPD1-F8	1	—	—	—	—
Mounting kit, back panel	Recommended	20-750-MNT2-F8	1	20-750-MNT2-F9	1	20-750-MNT2-F10	1
Mounting kit, floor	Recommended	20-750-MNT3-F8	1	20-750-MNT3-F9	1	20-750-MNT3-F10	1
Duct, top outlet	Recommended	20-750-DUCT2-F8	1	20-750-DUCT2-F8	2	20-750-DUCT2-F8	3
Duct, bottom inlet	Recommended	20-750-DUCT4-F8	1	20-750-DUCT4-F8	2	20-750-DUCT4-F8	3
Roll-out cart	Recommended	20-750-CART1-F8	1	20-750-CART1-F8	1	20-750-CART1-F8	1

PowerFlex 755 IP00, NEMA/UL Open Type Drive Options (Continued)

Description	Required?	Frame 8		Frame 9		Frame 10	
		Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.
Control power circuit breaker ⁽²⁾	Recommended	1489-A2D130	1	1489-A2D130	2	1489-A2D130	3
Control power circuit breaker lock ⁽²⁾	Recommended	1489-AAL0A	1	1489-AAL0A	2	1489-AAL0A	3
EMC core, converter input, AC input	Optional	20-750-EMCBUS1-F8	1	20-750-EMCBUS1-F8	2	20-750-EMCBUS1-F8	3
EMC core, inverter output	Optional	20-750-EMCCM1-F8	1	20-750-EMCCM1-F8	2	20-750-EMCCM1-F8	3

(1) EMC cores are included with the catalog number 20-750-BUS5-Fx kits.

(2) Common DC input drives only.

(3) If the control pod is mounted in the drive, use catalog number 20-750-PH1-Fx and catalog number 20-750-FBCL1-Fx kits. If the control pod is remote-mounted (up to 23 m [75 ft] away), order catalog number 20-750-RPD1-Fx kit.

(4) A 24V supply cable is included with each Frame 8 drive unit.

Internal Dynamic Brake Resistor Kits

These resistors have a limited duty cycle. To determine whether an internal resistor is sufficient for your application, see the PowerFlex Dynamic Braking Resistor Calculator Application Technique, publication [PFLEX-AT001](#). An external resistor can be required.

Cat. No.	Drive Input Voltage	Frame	Rating (ND kW)	Rating (ND Hp)	Brake Resistance
20-750-DB1-D1	200...240V AC	1	0.37...0.75	0.5...1	62 Ω
20-750-DB1-B1			1.5...4	2...5	22 Ω
20-750-DB1-B2		2	0.37...5.5	0.5...7.5	22 Ω
20-750-DB1-D1A	380...480V AC	1	0.75...2.2	1...3	115 Ω
20-750-DB1-D1			4...7.5	5...10	62 Ω
20-750-DB1-D2		2	0.75...11	1...15	62 Ω

Terminators

This table provided information for terminators.

Cat. No.	Description ⁽¹⁾
1204-TFA1	For use with 3.7 kW (5 Hp) and lower drives.
1204-TFB2	For use with 1.5 kW (2 Hp) and higher drives.

(1) For selection information, see Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

Reflected Wave Reduction Modules with Common Mode Choke

This table provided information for reflected wave reduction modules with common mode choke.

Cat. No.	Description ⁽¹⁾
1204-RWC-17-A	17 A with common mode choke

(1) For selection information, see Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

Reflected Wave Reduction Modules

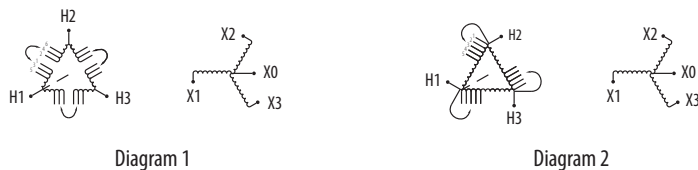
This table provides information for reflected wave reduction modules.

ND kW	ND Hp	Cat. No.	
		380...480V AC	600V AC
4	5	1321-RWR8-DP	1321-RWR8-EP
5.5	7.5	1321-RWR12-DP	1321-RWR12-EP
7.5	10	1321-RWR18-DP	1321-RWR18-EP
11	15	1321-RWR25-DP	1321-RWR25-EP
15	20	1321-RWR35-DP	1321-RWR35-EP
18.5	25	1321-RWR35-DP	1321-RWR35-EP
22	30	1321-RWR45-DP	1321-RWR45-EP
30	40	1321-RWR55-DP	1321-RWR55-EP
37	50	1321-RWR80-DP	1321-RWR80-EP
45	60	1321-RWR80-DP	1321-RWR80-EP
55	75	1321-RWR100-DP	1321-RWR100-EP
75	100	1321-RWR130-DP	1321-RWR130-EP
90	125	1321-RWR160-DP	1321-RWR160-EP
110	150	1321-RWR200-DP	1321-RWR200-EP
149	200	1321-RWR250-DP	1321-RWR250-EP
187	250	1321-RWR320-DP	1321-RWR320-EP

Isolation Transformers

This section provides information for isolation transformers.

Figure 1 - IP32, NEMA/UL Type 3R Standalone, 4...6% Nominal Impedance



230V, 60 Hz, Three-phase, 230V Primary and 230V Secondary

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
0.37	0.5	1	1321-3TW005-AA
0.75	1	1	1321-3TW005-AA
1.5	2	1	1321-3TW005-AA
2.2	3	1	1321-3TW005-AA
4	5	2	1321-3TW040-AA
5.5	7.5	2	1321-3TH040-AA
7.5	10	2	1321-3TH040-AA
11	15	2	1321-3TH040-AA
15	20	2	1321-3TH040-AA
18.5	25	2	1321-3TH040-AA

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
22	30	2	1321-3TH040-AA
30	40	2	1321-3TH051-AA
37	50	2	1321-3TH063-AA
45	60	2	1321-3TH063-AA
55	75	2	1321-3TH093-AA
66	100	2	1321-3TH093-AA
90	125	2	1321-3TH145-AA
110	150	2	1321-3TH145-AA
132	200	1	1321-3TH175-BB

460V, 60 Hz, Three-phase, 460V Primary and 460V Secondary

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
0.75	1	1	1321-3TW005-BB
1.5	2	1	1321-3TW005-BB
2.2	3	1	1321-3TW005-BB
22	30	2	1321-3TW040-BB
30	40	2	1321-3TW051-BB
37	50	2	1321-3TH063-BB
45	60	2	1321-3TH075-BB
55	75	2	1321-3TH093-BB
75	100	2	1321-3TH118-BB
90	125	2	1321-3TH145-BB

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
110	150	2	1321-3TH175-BB
149	200	2	1321-3TH220-BB
187	250	2	1321-3TH275-BB
224	300	2	1321-3TH330-BB
261	350	1	1321-3TH440-BB
298	400	1	1321-3TH440-BB
336	450	1	1321-3TH550-BB
373	500	1	1321-3TH550-BB
448	600	1	1321-3TH660-BB
485	650	1	—

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
522	700	1	1321-3TH770-BB
560	750	1	1321-3TH770-BB
597	800	1	1321-3TH880-BB
671	900	900 kVA	A 1321 isolation transformer solution is not available. Approximate drive kVA is shown at left.
746	1000	1000 kVA	
821	1100	1200 kVA	
933	1250	1200 kVA	
1007	1350	1300 kVA	
1119	1500	1500 kVA	
1492	2000	2000 kVA	

575V, 60 Hz, Three-phase, 575V Primary, and 575V Secondary

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
0.75	1	1	1321-3TW005-CC
1.5	2	1	1321-3TW005-CC
2.2	3	1	1321-3TW005-CC
22	30	2	1321-3TW040-CC
30	40	2	1321-3TW051-CC
37	50	2	1321-3TH063-CC
45	60	2	1321-3TH075-CC
55	75	2	1321-3TH093-CC
75	100	1	1321-3TH118-CC

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
90	125	1	1321-3TH145-CC
110	150	1	1321-3TH175-CC
149	200	1	1321-3TH220-CC
187	250	1	1321-3TH275-CC
224	300	1	1321-3TH330-CC
261	350	1	1321-3TH440-CC
298	400	1	1321-3TH550-CC
336	450	1	1321-3TH550-CC
373	500	1	1321-3TH660-CC

Motor Rating		Wiring Diagram	Cat. No.
kW	Hp		
410	550	1	1321-3TH660-CC
448	600	1	1321-3TH770-CC
522	700	1	1321-3TH770-CC
597	800	1	1321-3TH880-CC
671	900	950 kVA	A 1321 isolation transformer solution is not available. Approximate drive kVA is shown at left.
709	950	1000 kVA	
746	1000	1100 kVA	
895	1200	1200 kVA	
1119	1500	1500 kVA	

Input and Output Reactors

This section provides information for input and output reactors.

200...240V, 60 Hz, Three-phase, 3% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
0.37	0.5	Normal	1321-3R2-D	1321-3RA2-D	1321-3R2-D	1321-3RA2-D
		Heavy	1321-3R2-D	1321-3RA2-D	1321-3R4-A	1321-3RA4-A
0.75	1	Normal	1321-3R4-A	1321-3RA4-A	1321-3R4-A	1321-3RA4-B
		Heavy	1321-3R4-A	1321-3RA4-A	1321-3R8-A	1321-3RA8-A
1.5	2	Normal	1321-3R8-A	1321-3RA8-A	1321-3R8-A	1321-3RA8-A
		Heavy	1321-3R8-A	1321-3RA8-A	1321-3R12-A	1321-3RA12-A
2.2	3	Normal	1321-3R12-A	1321-3RA12-A	1321-3R12-A	1321-3RA12-A
		Heavy	1321-3R12-A	1321-3RA12-A	1321-3R18-A	1321-3RA18-A
4	5	Normal	1321-3R18-A	1321-3RA18-A	1321-3R18-A	1321-3RA18-A
		Heavy	1321-3R18-A	1321-3RA18-A	1321-3R25-A	1321-3RA25-A
5.5	7.5	Normal	1321-3R25-A	1321-3RA25-A	1321-3R25-A	1321-3RA25-A
		Heavy	1321-3R25-A	1321-3RA25-A	1321-3R35-A	1321-3RA35-A
7.5	10	Normal	1321-3R35-A	1321-3RA35-A	1321-3R35-A	1321-3RA35-A
		Heavy	1321-3R35-A	1321-3RA35-A	1321-3R45-A	1321-3RA45-A
11	15	Normal	1321-3R45-A	1321-3RA45-A	1321-3R45-A	1321-3RA45-A
		Heavy	1321-3R45-A	1321-3RA45-A	1321-3R55-A	1321-3RA55-A
15	20	Normal	1321-3R55-A	1321-3RA55-A	1321-3R55-A	1321-3RA55-A
		Heavy	1321-3R55-A	1321-3RA55-A	1321-3R80-A	1321-3RA80-A
18.5	25	Normal	1321-3R80-A	1321-3RA80-A	1321-3R80-A	1321-3RA80-A
		Heavy	1321-3R80-A	1321-3RA80-A	1321-3R80-A	1321-3RA80-A
22	30	Normal	1321-3R80-A	1321-3RA80-A	1321-3R80-A	1321-3RA80-A
		Heavy	1321-3R80-A	1321-3RA80-A	1321-3R100-A	1321-3RA100-A
30	40	Normal	1321-3R100-A	1321-3RA100-A	1321-3R100-A	1321-3RA100-A
		Heavy	1321-3R100-A	1321-3RA100-A	1321-3R130-A	1321-3RA130-A
37	50	Normal	1321-3R130-A	1321-3RA130-A	1321-3R130-A	1321-3RA130-A
		Heavy	1321-3R130-A	1321-3RA130-A	1321-3R160-A	1321-3RA160-A
45	60	Normal	1321-3R160-A	1321-3RA160-A	1321-3R160-A	1321-3RA160-A
		Heavy	1321-3R160-A	1321-3RA160-A	1321-3R200-A	1321-3RA200-A
55	75	Normal	1321-3R200-A	1321-3RA200-A	1321-3R200-A	1321-3RA200-A
		Heavy	1321-3R200-A	1321-3RA200-A	1321-3RB320-A	1321-3RAB320-A
66	100	Normal	1321-3RB320-A	1321-3RAB320-A	1321-3RB320-A	1321-3RAB320-A
		Heavy	1321-3RB320-A	1321-3RAB320-A	1321-3RB320-A	1321-3RAB320-A
90	125	Normal	1321-3RB320-A	1321-3RAB320-A	1321-3RB320-A	1321-3RAB320-A
		Heavy	1321-3RB320-A	1321-3RAB320-A	1321-3RB400-A	1321-3RAB400-A
110	150	Normal	1321-3RB400-A	1321-3RAB400-A	1321-3RB400-A	1321-3RAB400-A
132	200	Normal	1321-3R500-A	1321-3RA500-A	1321-3R500-A	1321-3RA500-B

200...240V, 60 Hz, Three-phase, 5% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
0.37	0.5	Normal	1321-3R2-A	1321-3RA2-A	1321-3R2-A	1321-3RA2-A
		Heavy	1321-3R2-A	1321-3RA2-A	1321-3R4-A	1321-3RA4-A
0.75	1	Normal	1321-3R4-B	1321-3RA4-B	1321-3R4-B	1321-3RA4-B
		Heavy	1321-3R4-B	1321-3RA4-B	1321-3R8-B	1321-3RA8-B
1.5	2	Normal	1321-3R8-B	1321-3RA8-B	1321-3R8-B	1321-3RA8-B
		Heavy	1321-3R8-B	1321-3RA8-B	1321-3R12-B	1321-3RA12-B
2.2	3	Normal	1321-3R12-B	1321-3RA12-B	1321-3R12-B	1321-3RA12-B
		Heavy	1321-3R12-B	1321-3RA12-B	1321-3R18-B	1321-3RA18-B
4	5	Normal	1321-3R18-B	1321-3RA18-B	1321-3R18-B	1321-3RA18-B
		Heavy	1321-3R18-B	1321-3RA18-B	1321-3R25-B	1321-3RA25-B
5.5	7.5	Normal	1321-3R25-B	1321-3RA25-B	1321-3R25-B	1321-3RA25-B
		Heavy	1321-3R25-B	1321-3RA25-B	1321-3R35-B	1321-3RA35-B
7.5	10	Normal	1321-3R35-B	1321-3RA35-B	1321-3R35-B	1321-3RA35-B
		Heavy	1321-3R35-B	1321-3RA35-B	1321-3R45-B	1321-3RA45-B
11	15	Normal	1321-3R45-B	1321-3RA45-B	1321-3R45-B	1321-3RA45-B
		Heavy	1321-3R45-B	1321-3RA45-B	1321-3R55-B	1321-3RA55-B
15	20	Normal	1321-3R55-B	1321-3RA55-B	1321-3R55-B	1321-3RA55-B
		Heavy	1321-3R55-B	1321-3RA55-B	1321-3R80-B	1321-3RA80-B
18.5	25	Normal	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
		Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
22	30	Normal	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
		Heavy	1321-3R80-B	1321-3RA80-B	1321-3R100-B	1321-3RA100-B
30	40	Normal	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
		Heavy	1321-3R100-B	1321-3RA100-B	1321-3R130-B	1321-3RA130-B
37	50	Normal	1321-3R130-B	1321-3RA130-B	1321-3R130-B	1321-3RA130-B
		Heavy	1321-3R130-B	1321-3RA130-B	1321-3R160-B	1321-3RA160-B
45	60	Normal	1321-3R160-B	1321-3RA160-B	1321-3R160-B	1321-3RA160-B
		Heavy	1321-3R160-B	1321-3RA160-B	1321-3R200-B	1321-3RA200-B
55	75	Normal	1321-3R200-B	1321-3RA200-B	1321-3R200-B	1321-3RA200-B
		Heavy	1321-3R200-B	1321-3RA200-B	1321-3RB320-B	1321-3RAB320-B
66	100	Normal	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
		Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
90	125	Normal	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
		Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB400-B	1321-3RAB400-B
110	150	Normal	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-B	1321-3RAB400-B
132	200	Normal	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B

380...480V, 50/60 Hz, Three-phase, 3% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
0.75	1	Normal	1321-3R2-A	1321-3RA2-A	1321-3R2-A	1321-3RA2-A
1.1	1.5	Heavy	1321-3R4-C	1321-3RA4-C	1321-3R4-B	1321-3RA4-B
1.5	2	Normal	1321-3R4-B	1321-3RA4-B	1321-3R4-B	1321-3RA4-B
		Heavy	1321-3R4-B	1321-3RA4-B	1321-3R8-C	1321-3RA8-C
2.2	3	Normal	1321-3R8-C	1321-3RA8-C	1321-3R8-C	1321-3RA8-C
		Heavy	1321-3R8-C	1321-3RA8-C	1321-3R8-B	1321-3RA8-B
4	5	Normal	1321-3R8-B	1321-3RA8-B	1321-3R8-B	1321-3RA8-B
		Heavy	1321-3R8-B	1321-3RA8-B	1321-3R12-B	1321-3RA12-B
5.5	7.5	Normal	1321-3R12-B	1321-3RA12-B	1321-3R12-B	1321-3RA12-B
		Heavy	1321-3R12-B	1321-3RA12-B	1321-3R18-B	1321-3RA18-B
7.5	10	Normal	1321-3R18-B	1321-3RA18-B	1321-3R18-B	1321-3RA18-B
		Heavy	1321-3R18-B	1321-3RA18-B	1321-3R25-B	1321-3RA25-B
11	15	Normal	1321-3R25-B	1321-3RA25-B	1321-3R25-B	1321-3RA25-B
		Heavy	1321-3R25-B	1321-3RA25-B	1321-3R25-B	1321-3RA25-B
15	20	Normal	1321-3R35-B	1321-3RA35-B	1321-3R25-B	1321-3RA25-B
		Heavy	1321-3R35-B	1321-3RA35-B	1321-3R35-B	1321-3RA35-B
18.5	25	Normal	1321-3R35-B	1321-3RA35-B	1321-3R35-B	1321-3RA35-B
		Heavy	1321-3R35-B	1321-3RA35-B	1321-3R45-B	1321-3RA45-B
22	30	Normal	1321-3R45-B	1321-3RA45-B	1321-3R45-B	1321-3RA45-B
		Heavy	1321-3R45-B	1321-3RA45-B	1321-3R55-B	1321-3RA55-B
30	40	Normal	1321-3R55-B	1321-3RA55-B	1321-3R55-B	1321-3RA55-B
		Heavy	1321-3R55-B	1321-3RA55-B	1321-3R80-B	1321-3RA80-B
37	50	Normal	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
		Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
45	60	Normal	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
		Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
55	75	Normal	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
		Heavy	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
75	100	Normal	1321-3R130-B	1321-3RA130-B	1321-3R130-B	1321-3RA130-B
		Heavy	1321-3R130-B	1321-3RA130-B	1321-3R130-B	1321-3RA130-B
90	125	Normal	1321-3R160-B	1321-3RA160-B	1321-3R160-B	1321-3RA160-B
		Heavy	1321-3R160-B	1321-3RA160-B	1321-3R160-B	1321-3RA160-B
110	150	Normal	1321-3R200-B	1321-3RA200-B	1321-3R200-C	1321-3RA200-C
		Heavy	1321-3R200-B	1321-3RA200-B	1321-3R200-C	1321-3RA200-C
—	200	Normal/Heavy	1321-3RB250-B	1321-3RAB250-B	1321-3RB250-B	1321-3RAB250-B
132	—	Normal/Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
160	250	Normal/Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
—	300	Normal/Heavy	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-B	1321-3RAB400-B
200	—	Normal/Heavy	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-B	1321-3RAB400-B
—	350	Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
250	—	Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
270	—	Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
—	400	Light/Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B

380...480V, 50/60 Hz, Three-phase, 3% Impedance (Continued)

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
315	—	Light/Normal/Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
—	450	Light/Normal/Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
355	—	Light/Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
—	500	Light	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
		Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
400	—	Light/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
		Normal	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
—	600	Light/Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
450	—	Light	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
—	650	Light	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
		Normal	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
—	700	Light/Normal/Heavy	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
—	750	Heavy	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
500	—	Normal/Heavy	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
—	800	Light/Normal/Heavy	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
560	—	Light/Normal/Heavy	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
—	900	Light/Normal/Heavy	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
630	—	Light/Normal/Heavy	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
—	1000	Light/Normal/Heavy	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
710	—	Light/Normal/Heavy	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
—	1100	Light/Normal	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾
800	—	Light/Normal	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾
—	1250	Light/Normal	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾
850	—	Light/Normal	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾	1321-3R750-B ⁽¹⁾	1321-3RA750-B ⁽¹⁾
—	1350	Light	1321-3R850-B ⁽¹⁾	1321-3RA850-B ⁽¹⁾	1321-3R850-B ⁽¹⁾	1321-3RA850-B ⁽¹⁾
900	—	Light	1321-3R850-B ⁽¹⁾	1321-3RA850-B ⁽¹⁾	1321-3R850-B ⁽¹⁾	1321-3RA850-B ⁽¹⁾
—	1500	Light	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾
1000	—	Light	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾
—	2000	Light	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾
1400	—	Light	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾	1321-3R850-B ⁽²⁾	1321-3RA850-B ⁽²⁾

(1) Requires two reactors that are wired in parallel.

(2) Requires three reactors that are wired in parallel.

380...480V, 50/60 Hz, Three-phase, 5% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
0.75	1	Normal	1321-3R2-B	1321-3RA2-B	1321-3R2-B	1321-3RA2-B
1.1	1.5	Heavy	1321-3R4-D	1321-3RA4-D	1321-3R4-D	1321-3RA4-D
1.5	2	Normal	1321-3R4-D	1321-3RA4-D	1321-3R4-D	1321-3RA4-D
		Heavy	1321-3R4-D	1321-3RA4-D	1321-3R8-D	1321-3RA8-D
2.2	3	Normal	1321-3R8-D	1321-3RA8-D	1321-3R8-D	1321-3RA8-D
		Heavy	1321-3R8-D	1321-3RA8-D	1321-3R8-C	1321-3RA8-C
4	5	Normal	1321-3R8-C	1321-3RA8-C	1321-3R8-C	1321-3RA8-C
		Heavy	1321-3R8-C	1321-3RA8-C	1321-3R12-C	1321-3RA12-C
5.5	7.5	Normal	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
		Heavy	1321-3R12-C	1321-3RA12-C	1321-3R18-C	1321-3RA18-C
7.5	10	Normal	1321-3R18-C	1321-3RA18-C	1321-3R18-C	1321-3RA18-C
		Heavy	1321-3R18-C	1321-3RA18-C	1321-3R25-C	1321-3RA25-C
11	15	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
15	20	Normal	1321-3R35-C	1321-3RA35-C	1321-3R25-C	1321-3RA25-C
		Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
18.5	25	Normal	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
		Heavy	1321-3R35-C	1321-3RA35-C	1321-3R45-C	1321-3RA45-C
22	30	Normal	1321-3R45-C	1321-3RA45-C	1321-3R45-C	1321-3RA45-C
		Heavy	1321-3R45-C	1321-3RA45-C	1321-3R55-C	1321-3RA55-C
30	40	Normal	1321-3R55-C	1321-3RA55-C	1321-3R55-C	1321-3RA55-C
		Heavy	1321-3R55-C	1321-3RA55-C	1321-3R80-C	1321-3RA80-C
37	50	Normal	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
		Heavy	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
45	60	Normal/Heavy	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
55	75	Normal/Heavy	1321-3R100-C	1321-3RA100-C	1321-3R100-C	1321-3RA100-C
75	100	Normal/Heavy	1321-3R130-C	1321-3RA130-C	1321-3R130-C	1321-3RA130-C
90	125	Normal/Heavy	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
110	150	Normal	1321-3R200-C	1321-3RA200-C	1321-3R200-C	1321-3RA200-C
		Heavy	1321-3R200-C	1321-3RA200-C	1321-3R200-C	1321-3RA200-C
—	200	Normal/Heavy	1321-3RB250-C	1321-3RAB250-C	1321-3RB250-C	1321-3RAB250-C
132	—	Normal/Heavy	1321-3RB320-C	1321-3RAB320-C	1321-3RB320-C	1321-3RAB320-C
160	250	Normal/Heavy	1321-3RB320-C	1321-3RAB320-C	1321-3RB320-C	1321-3RAB320-C
—	300	Normal/Heavy	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
200	—	Normal/Heavy	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
—	350	Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
250	—	Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
270	—	Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
—	400	Light/Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
315	—	Light/Normal/Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
336	450	Normal/Heavy	1321-3RA600-C	1321-3RA600-C	1321-3R500-C	1321-3RA500-C
—	450	Light/Normal/Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
355	—	Light/Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
—	500	Light	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C

380...480V, 50/60 Hz, Three-phase, 5% Impedance (Continued)

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
		Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
400	—	Light/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
		Normal	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
—	600	Light/Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
450	—	Light	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
500	—	Normal/Heavy	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
—	650	Light	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
		Normal	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
—	700	Light/Normal/Heavy	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
—	750	Heavy	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
—	800	Light/Normal/Heavy	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
560	—	Light/Normal/Heavy	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
630	—	Light/Normal/Heavy	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
—	900	Light/Normal/Heavy	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
710	—	Light/Normal/Heavy	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
—	1000	Light/Normal/Heavy	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
—	1100	Light/Normal	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾
800	—	Light/Normal	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾
850	—	Light/Normal	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾
—	1250	Light/Normal	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾	1321-3R750-C ⁽¹⁾	1321-3RA750-C ⁽¹⁾
900	—	Light	1321-3R850-C ⁽¹⁾	1321-3RA850-C ⁽¹⁾	1321-3R850-C ⁽¹⁾	1321-3RA850-C ⁽¹⁾
—	1350	Light	1321-3R850-C ⁽¹⁾	1321-3RA850-C ⁽¹⁾	1321-3R850-C ⁽¹⁾	1321-3RA850-C ⁽¹⁾
—	1500	Light	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾
1000	—	Light	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾
—	2000	Light	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾
1400	—	Light	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾	1321-3R850-C ⁽²⁾	1321-3RA850-C ⁽²⁾

(1) Requires two reactors that are wired in parallel.

(2) Requires three reactors that are wired in parallel.

600...690V, 50/60 Hz, Three-phase, 3% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
—	0.5	Heavy	1321-3R1-C	1321-3RA1-C	1321-3R1-C	1321-3RA1-C
—	1	Normal	1321-3R2-B	1321-3RA2-B	1321-3R2-A	1321-3RA2-B
		Heavy	1321-3R2-B	1321-3RA2-B	1321-3R4-A	1321-3RA4-A
—	2	Normal	1321-3R4-D	1321-3RA4-D	1321-3R4-C	1321-3RA4-C
		Heavy	1321-3R4-C	1321-3RA4-C	1321-3R4-C	1321-3RA4-C
—	3	Normal/Heavy	1321-3R4-B	1321-3RA4-B	1321-3R4-B	1321-3RA4-B
—	5	Normal/Heavy	1321-3R8-C	1321-3RA8-C	1321-3R8-C	1321-3RA8-C
5.5	—	Heavy	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
—	7.5	Normal/Heavy	1321-3R12-B	1321-3RA12-B	1321-3R12-B	1321-3RA12-B

600...690V, 50/60 Hz, Three-phase, 3% Impedance (Continued)

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
7.5	—	Normal	1321-3R12-B	1321-3RA12-B	1321-3R12-B	1321-3RA12-B
		Heavy	1321-3R12-C	1321-3RA12-C	1321-3R18-C	1321-3RA18-C
—	10	Normal	1321-3R12-B	1321-3RA12-B	1321-3R12-B	1321-3RA12-B
		Heavy	1321-3R12-B	1321-3RA12-B	1321-3R18-C	1321-3RA18-C
11	—	Normal/Heavy	1321-3R18-C	1321-3RA18-C	1321-3R18-C	1321-3RA18-C
—	15	Normal	1321-3R18-B	1321-3RA18-B	1321-3R18-B	1321-3RA18-B
		Heavy	1321-3R25-B	1321-3RA25-B	1321-3R25-B	1321-3RA25-B
15	—	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
—	20	Normal	1321-3R25-B	1321-3RA25-B	1321-3R25-B	1321-3RA25-B
		Heavy	1321-3R35-B	1321-3RA35-B	1321-3R35-B	1321-3RA35-B
18.5	—	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
—	25	Normal	1321-3R25-B	1321-3RA25-B	1321-3R35-B	1321-3RA35-B
22	—	Normal/Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
—	30	Normal/Heavy	1321-3R35-B	1321-3RA35-B	1321-3R35-B	1321-3RA35-B
30	—	Normal/Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
—	40	Normal/Heavy	1321-3R45-B	1321-3RA45-B	1321-3R45-B	1321-3RA45-B
37	—	Normal/Heavy	1321-3R45-B	1321-3RA45-B	1321-3R55-C	1321-3RA55-C
—	50	Normal/Heavy	1321-3R55-B	1321-3RA55-B	1321-3R55-B	1321-3RA55-B
45	—	Normal/Heavy	1321-3R55-B	1321-3RA55-B	1321-3R55-B	1321-3RA55-B
—	60	Normal/Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
55	—	Normal	1321-3R80-C	1321-3RA80-C	1321-3R80-B	1321-3RA80-B
		Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
—	75	Normal/Heavy	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
75	—	Normal/Heavy	1321-3R80-B	1321-3RA80-B	1321-3R80-B	1321-3RA80-B
—	100	Normal	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
		Heavy	1321-3R100-B	1321-3RA100-B	1321-3R130-B	1321-3RA130-B
90	—	Normal/Heavy	1321-3R100-B	1321-3RA100-B	1321-3R100-B	1321-3RA100-B
—	125	Normal/Heavy	1321-3R130-B	1321-3RA130-B	1321-3R130-B	1321-3RA130-B
110	—	Normal/Heavy	1321-3R130-C	1321-3RA130-C	1321-3R130-C	1321-3RA130-C
—	150	Normal	1321-3R160-B	1321-3RA160-B	1321-3R160-B	1321-3RA160-B
		Heavy	1321-3R200-B	1321-3RA200-B	1321-3R200-B	1321-3RA200-B
132	—	Normal/Heavy	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
—	200	Normal/Heavy	1321-3R200-B	1321-3RA200-B	1321-3R200-B	1321-3RA200-B
160	—	Normal	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
		Heavy	1321-3R200-C	1321-3RAB200-C	1321-3R200-C	1321-3RAB200-C
—	250	Normal/Heavy	1321-3R250-B	1321-3RA250-B	1321-3R250-B	1321-3RA250-B
—	300	Normal/Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B
200	—	Normal	1321-3RB200-C	1321-3RAB200-C	1321-3RB200-C	1321-3RAB200-C
		Heavy	1321-3R200-C	1321-3RAB200-C	1321-3RB250-C	1321-3RAB250-C
		Heavy	1321-3R250-B	1321-3RA250-B	1321-3R250-B	1321-3RA250-B
—	350	Light/Normal/Heavy	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-B	1321-3RAB400-B
250	—	Normal	1321-3RB250-C	1321-3RAB250-C	1321-3RB250-C	1321-3RAB250-C
		Normal/Heavy	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-B	1321-3RAB320-B

600...690V, 50/60 Hz, Three-phase, 3% Impedance (Continued)

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
—	400	Light/Normal/Heavy	1321-3RB400-B	1321-3RA600-B	1321-3RB400-B	1321-3RA600-B
300	—	Heavy	1321-3RB400-B	1321-3RA600-B	1321-3RB400-B	1321-3RA600-B
—	450	Light/Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
315	—	Light/Normal	1321-3RB400-B	1321-3RA600-B	1321-3RB400-B	1321-3RA600-B
—	500	Light/Normal	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
355	—	Light/Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
375	—	Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
400	—	Light/Normal/Heavy	1321-3R500-B	1321-3RA500-B	1321-3R500-B	1321-3RA500-B
450	—	Light/Normal	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
450	—	Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
500	—	Light/Normal	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
500	—	Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
530	—	Light	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
—	500	Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
—	550	Light	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
—	600	Normal/Heavy	1321-3R600-B	1321-3RA600-B	1321-3R600-B	1321-3RA600-B
—	700	Light/Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
560	—	Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
—	750	Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
630	—	Light/Normal/Heavy	1321-3R750-B	1321-3RA750-B	1321-3R750-B	1321-3RA750-B
—	800	Light/Normal/Heavy	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
710	—	Light/Normal/Heavy	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
—	900	Light/Normal/Heavy	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
750	—	Normal	1321-3R850-B	1321-3RA850-B	1321-3R850-B	1321-3RA850-B
—	950	Light/Normal	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
800	—	Light/Normal/Heavy	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
—	1000	Light/Normal	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
850	—	Light	1321-3R1000-B	1321-3RA1000-B	1321-3R1000-B	1321-3RA1000-B
—	1100	Light	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
900	—	Light/Normal	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
1000	—	Light	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾	1321-3R600-B ⁽¹⁾	1321-3RA600-B ⁽¹⁾
1100	—	Light/Normal	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾
—	1200	Light	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾
1500	—	Light/Normal	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾
—	1500	Light	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾	1321-3R600-B ⁽²⁾	1321-3RA600-B ⁽²⁾

(1) Requires two reactors that are wired in parallel.

(2) Requires three reactors that are wired in parallel.

600...690V, 50/60 Hz, Three-phase, 5% Impedance

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
–	0.5	Heavy	1321-3R1-C	1321-3RA1-C	1321-3R1-C	1321-3RA1-C
–	1	Normal	1321-3R2-C	1321-3RA2-C	1321-3R2-C	1321-3RA2-C
		Heavy	1321-3R4-D	1321-3RA4-D	1321-3R2-D	1321-3RA4-D
–	2	Normal/Heavy	1321-3R4-D	1321-3RA4-D	1321-3R4-D	1321-3RA4-D
–	3	Normal/Heavy	1321-3R4-D	1321-3RA4-D	1321-3R4-D	1321-3RA4-D
–	5	Normal/Heavy	1321-3R8-D	1321-3RA8-D	1321-3R8-D	1321-3RA8-D
5.5	–	Heavy	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
–	7.5	Normal/Heavy	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
7.5	–	Normal/Heavy	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
–	10	Normal/Heavy	1321-3R12-C	1321-3RA12-C	1321-3R12-C	1321-3RA12-C
11	–	Normal/Heavy	1321-3R18-C	1321-3RA18-C	1321-3R18-C	1321-3RA18-C
–	15	Normal/Heavy	1321-3R18-C	1321-3RA18-C	1321-3R18-C	1321-3RA18-C
15	–	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
–	20	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
18.5	–	Normal/Heavy	1321-3R25-C	1321-3RA25-C	1321-3R25-C	1321-3RA25-C
–	25	Normal/Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
22	–	Normal/Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
–	30	Normal	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
		Heavy	1321-3R45-C	1321-3RA45-C	1321-3R45-C	1321-3RA45-C
30	–	Normal/Heavy	1321-3R35-C	1321-3RA35-C	1321-3R35-C	1321-3RA35-C
–	40	Normal/Heavy	1321-3R45-C	1321-3RA45-C	1321-3R45-C	1321-3RA45-C
37	–	Normal/Heavy	1321-3R45-C	1321-3RA45-C	1321-3R45-C	1321-3RA45-C
–	50	Normal/Heavy	1321-3R55-C	1321-3RA55-C	1321-3R55-C	1321-3RA55-C
45	–	Normal/Heavy	1321-3R55-C	1321-3RA55-C	1321-3R55-C	1321-3RA55-C
–	60	Normal/Heavy	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
55	–	Normal/Heavy	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
–	75	Normal/Heavy	1321-3R100-C	1321-3RA100-C	1321-3R100-C	1321-3RA100-C
75	–	Normal	1321-3R80-C	1321-3RA80-C	1321-3R80-C	1321-3RA80-C
		Heavy	1321-3R80-C	1321-3RA80-C	1321-3R100-C	1321-3RA100-C
–	100	Normal/Heavy	1321-3R100-C	1321-3RA100-C	1321-3R100-C	1321-3RA100-C
90	–	Normal/Heavy	1321-3R100-C	1321-3RA100-C	1321-3R100-C	1321-3RA100-C
–	125	Normal/Heavy	1321-3R130-C	1321-3RA130-C	1321-3R130-C	1321-3RA130-C
110	–	Normal/Heavy	1321-3R130-C	1321-3RA130-C	1321-3R130-C	1321-3RA130-C
132	–	Normal/Heavy	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
–	150	Normal/Heavy	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
160	–	Normal	1321-3R160-C	1321-3RA160-C	1321-3R160-C	1321-3RA160-C
		Heavy	1321-3RB200-C	1321-3RAB200-C	1321-3RB200-C	1321-3RAB200-C
–	200	Normal/Heavy	1321-3R200-C	1321-3RA200-C	1321-3R200-C	1321-3RA200-C
200	–	Normal	1321-3RB200-C	1321-3RAB200-C	1321-3RB200-C	1321-3RAB200-C
		Heavy	1321-3RB200-C	1321-3RAB200-C	1321-3RB250-C	1321-3RAB250-C
		Heavy	1321-3R250-C	1321-3RA250-C	1321-3R250-C	1321-3RA250-C
–	250	Normal/Heavy	1321-3RB250-C	1321-3RAB250-C	1321-3RB250-C	1321-3RAB250-C
–	300	Normal/Heavy	1321-3RB320-C	1321-3RAB320-C	1321-3RB320-C	1321-3RAB320-C

600...690V, 50/60 Hz, Three-phase, 5% Impedance (Continued)

kW	Hp	Duty	Input Line Reactor		Output Load Reactor	
			IP00 (Open Style)	IP11 (NEMA/UL Type 1)	IP00 (Open Style)	IP11 (NEMA/UL Type 1)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
250	—	Normal/Heavy	1321-3RB320-C	1321-3RAB320-C	1321-3RB320-C	1321-3RAB320-C
—	350	Light/Normal/Heavy	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
—	400	Light/Normal/Heavy	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
300	—	Heavy	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
—	450	Light/Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
315	—	Light/Normal	1321-3RB400-C	1321-3RAB400-C	1321-3RB400-C	1321-3RAB400-C
—	500	Light/Normal/Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
355	—	Light/Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
—	550	Light	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
375	—	Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
400	—	Light/Normal/Heavy	1321-3R500-C	1321-3RA500-C	1321-3R500-C	1321-3RA500-C
450	—	Light/Normal/Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
500	—	Light/Normal	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
500	—	Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
530	—	Light	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
—	600	Normal/Heavy	1321-3R600-C	1321-3RA600-C	1321-3R600-C	1321-3RA600-C
—	700	Light/Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
560	—	Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
—	750	Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
630	—	Light/Normal/Heavy	1321-3R750-C	1321-3RA750-C	1321-3R750-C	1321-3RA750-C
—	800	Light/Normal/Heavy	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
710	—	Light/Normal/Heavy	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
—	900	Light/Normal/Heavy	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
750	—	Normal	1321-3R850-C	1321-3RA850-C	1321-3R850-C	1321-3RA850-C
—	950	Light/Normal	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
800	—	Light/Normal/Heavy	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
—	1000	Light/Normal	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
850	—	Light	1321-3R1000-C	1321-3RA1000-C	1321-3R1000-C	1321-3RA1000-C
—	1100	Light	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
900	—	Light/Normal	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
1000	—	Light	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾	1321-3R600-C ⁽¹⁾	1321-3RA600-C ⁽¹⁾
1100	—	Light/Normal	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾
—	1200	Light	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾
1500	—	Light/Normal	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾
—	1500	Light	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾	1321-3R600-C ⁽²⁾	1321-3RA600-C ⁽²⁾

(1) Requires two reactors that are wired in parallel.

(2) Requires three reactors that are wired in parallel.

Notes:

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
PowerFlex 750-Series Drive Installation Instructions, publication 750-IN001	Provides detailed information on how to install PowerFlex® 750-Series AC drives.
PowerFlex 750-Series Programming Manual, publication 750-PM001	Provides detailed information on I/O, control, and feedback options; parameters and programming; faults, alarms, and troubleshooting.
PowerFlex 20-HIM-A6 and 20-HIM-C6S HIM (Human Interface Module) User Manual, publication 20HIM-UM001	Provides detailed information on HIM components, operation, and features.
PowerFlex 755 Integrated Safety - Safe Torque Off Option Module User Manual, publication 750-UM004	Provides detailed information on how to install and use the Integrated Safety - Safe Torque Off option module.
PowerFlex 750-Series Safe Torque Off User Manual, publication 750-UM002	Provides detailed information on how to install and use the Safe Torque Off option module.
Safe Speed Monitor Option Module for PowerFlex 750-Series AC Drives Safety Reference Manual, publication 750-RM001	Provides detailed information on how to install and use the Safe Speed Monitor option module.
PowerFlex 7-Class Network Communication Adapter User Manuals, publication 750COM-UM	These publications provide detailed information on to configure, use, and troubleshoot PowerFlex 750-Series communication option modules and adapters. To display a list of the available adapters, enter 750com-um in the search field.
PowerFlex Dynamic Braking Resistor Calculator Application Technique, publication PFLEX-AT001	Provides information to help you understand dynamic braking and how to apply dynamic braking to drive systems.
Wiring and Grounding Guidelines for PWM AC Drives, publication DRIVES-IN001	Provides basic information to properly wire and ground PWM AC drives.
Preventive Maintenance of Industrial Control and Drive System Equipment Service Bulletin, publication DRIVES-TD001	Provides information for preventative maintenance and periodic inspection of drive systems.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-State Control, publication SGI-1.1	Provides general guidelines for the application, installation, and maintenance of solid-state control.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
PowerFlex 750-Series Service Cart Frames 8...10 Conversion Kit, publication 750-IN017	Provides information on installing the frames 8...10 conversion kit to the PowerFlex 750-Series Service Cart.
PowerFlex 750-Series Service Cart and DCPC Lift Renewal Parts, publication 750-PC106	Provides additional information to acquire spare parts for the PowerFlex 750-Series.
PowerFlex 750-Series Service Cart and DCPC Module Lift Installation Instructions, publication 750-IN105	Provides instructions to setup and use the PowerFlex 750-Series Service Cart and DCPC Lift. Includes spare parts for the service cart and for the high power conversion kit.
PowerFlex 750-Series Spare Parts Installation Instructions, publication 750-IN013	Provides additional information to acquire spare parts for the PowerFlex 750-Series.
Product Certifications website rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.
EtherNet/IP Network Devices User Manual, ENET-UM006	Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, ENET-RM002	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, SECURE-RM001	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-State Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications .	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at [rok.auto/literature](#).

Rockwell Automation Support

Use these resources to access support information.

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Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	rok.auto/pcdc

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Rockwell Otomasyon Ticaret A.Ş. Kar Plaza İş Merkezi E Blok Kat:6 34752, İçerenköy, İstanbul, Tel: +90 (216) 5698400 EEE Yönetmeliğine Uygundur

Connect with us.    

rockwellautomation.com ————— expanding **human possibility™**

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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