## DATASHEET - CS-54/150



Wall enclosure, +mounting plate, HxWxD=500x400x150mm

0002466112

CS-54/150 Catalog No. 111688

**EL-Nummer** (Norway)

Part no.



## **Delivery program**

| Product range                        |               |    | Wall-mounting housing CS  |
|--------------------------------------|---------------|----|---|
| Product function                     |               |    | Wall-mounting housing with mounting plate   |
| Degree of Protection                 |               |    | IP66<br>IP23 (with ventilating plates)  |
| Description                          |               |    | Foamed polyurethane sealing throughout.<br>Impact resistance category IK09 to EN 62262.<br>Sheet steel mounting plate<br>Bottom plate with foamed gasket.<br>Single door, door stop on the right, door opening angle 120°<br>Door hinge pins with quick change technology.<br>Standardized locking system with sash fastener.<br>Powder coating RAL 7035 inside and outside |
| Material                             |               |    | Steel plate   |
| Dimensions                           |               |    |   |
| Width                                |               | mm | 400   |
| Height                               |               | mm | 500   |
| Depth                                |               | mm | 150   |
| Locks                                | Number        |    | 2   |
| Hinges                               | Number        |    | 2   |
| Door profile molding                 | Number        |    | 2   |
| Flange plates                        | Width x Depth | mm | 112 x 332   |
| Max. F3A flanges                     | Number        |    |   |
| Mounting plates                      |               |    |   |
| Height                               |               | mm | 470   |
| Width                                |               | mm | 350   |
| Weight                               |               | kg | 10.1  |
| Information about equipment supplied |               |    | Lock, 3 mm double ward key<br>Including M6 threaded welded studs for earth conductor connections in the door  |

#### **Technical data**

| General   |                |    |  |
|---|----------------|----|--|
| Standards   |                |    | IEC/EN 60529, IEC 62262, IEC/EN 62208  |
| RoHS  |                |    | In accordance with Directive 2002/95/EC of the European Parliament and Council   |
| RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council) |                |    | yes  |
| Climatic proofing   |                |    | Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclical, to IEC 60068-2-30   |
| Ambient temperature   |                | °C | -40 - +70  |
| Degree of Protection  |                |    | IP66<br>IP23 (with ventilating plates)   |
| Installation conditions   |                |    | Indoor-/outdoor installation   |
| Power loss  |                |    |  |
|   |                |    | Power loss $P_v$ [W] for fully enclosed sheet steel enclosure CS without internal partitions for wall mounting.<br>Example: max. ambient temperature 35°C; Overtemperature $\Delta T$ = 20 K; Relative humidity = 75%. |
| Max. heat dissipation   |                |    |  |
| Individual enclosure for wall mounting  | P <sub>V</sub> | W  | 30   |
| Starting enclosure for wall mounting  | P <sub>V</sub> | W  | 28   |
| Middle enclosure for wall mounting  | P <sub>V</sub> | W  | 27   |
| Material characteristics  |                |    |  |
| Material  |                |    | Steel plate  |
| Surface treatment   |                |    | Structured powder spray polyester based paint finish   |

| Surface finish                       |    | Semi-textured   |
|--------------------------------------|----|---|
| Colour                               |    |   |
|                                      |    | light gray (RAL 7035)   |
| Finish                               |    | Gloss   |
| Material thickness                   | mm |   |
| Body                                 | mm | 1.2   |
| Mounting plate                       | mm | 2   |
| Door                                 | mm | 1.2   |
| Bottom plate                         | mm | 1.5   |
| Material properties                  |    |   |
| Mechanical                           |    |   |
| Impact resistance                    |    | IK09 according to EN 62262  |
| max. assembly weights                |    |   |
| Total of Weight of fitted components | kg | 225   |
| Mounting plate                       | kg | 200   |
| Door                                 | kg | 25  |
|                                      |    | 500 kg payload, when brackets fitted in all four enclosure corners (vertically or horizontally) and the weights are symmetrically distributed within the enclosure.   |
| Description/standard features        |    |   |
| Construction                         |    | Canted and seam welded, including two M6 threaded bolts for earth conductor connections inside the enclosure.   |
| Back plate                           |    | 9 mm drilling dimensions for wall mounting  |
| Side plates                          |    | Without apertures   |
| Top plate                            |    | Without apertures   |
| Bottom plate                         |    | Enclosed, foamed gasket, can be unscrewed for F3A- $\ldots$ flanges or for assembly by user   |
| Mounting plate, material             |    | Sheet steel, hot-galvanized   |
| Door, Engineering                    |    | Including M6 threaded welded studs for earth conductor connections in the door:   |
| Information about equipment supplied |    | Lock, 3 mm double ward key<br>Including M6 threaded welded studs for earth conductor connections in the door  |
|                                      |    | If electrical apparatus is to be installed in the door, a continuous, permanent<br>protective ground contactor connection must be established with a protective<br>ground cable. The threaded welded studs on the door and on the cabinet side wal<br>must be used as connecting points for the ground leads. |
| Door hinges                          |    | On the right, can be converted by user  |
| Type Door                            |    | Door hinges right<br>can be converted by user   |
|                                      |    | 120°  |
| door opening angle                   |    |   |
| door opening angle Door interlock    |    | Protection insulated turn-buckle<br>Standard closure 3 mm double-ward key   |

# Design verification as per IEC/EN 61439

| Technical data for design verification       Image: Comparison of the enclosure, calculated as per IEC 60890         Individual enclosure for wall mounting       Pv       W       32         Starting enclosure for wall mounting       Pv       W       30         Middle enclosure for wall mounting       Pv       W       30         Individual enclosure for wall mounting       Pv       W       30         Middle enclosure for wall mounting       Pv       W       30         Individual enclosure for wall mounting       Pv       W       63         Starting enclosure for wall mounting       Pv       W       60         Middle enclosure for wall mounting       Pv       W       56   |  |                |   |  |
|---|--|----------------|---|--|
| of the enclosure, calculated as per IEC 60890PvWaIndividual enclosure for wall mountingPvWa32Starting enclosure for wall mountingPvWa30Middle enclosure for wall mountingPvWa28Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top<br>of the enclosure, calculated as per IEC 60890PvWaIndividual enclosure for wall mountingPvWa63Starting enclosure for wall mountingPvWa60Middle enclosure for wall mountingPvWa <td< td=""><td>Fechnical data for design verification</td><td></td><td></td><td></td></td<> | Fechnical data for design verification                                     |                |   |  |
| Starting enclosure for wall mounting     Pv     W       Middle enclosure for wall mounting     Pv     W       Pv     W     28       Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top of the enclosure, calculated as per IEC 60890     V     V       Individual enclosure for wall mounting     Pv     W     63       Starting enclosure for wall mounting     Pv     W     60       Middle enclosure for wall mounting     Pv     W     60  |  |                |   |  |
| Middle enclosure for wall mountingPvW28Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top<br>of the enclosure, calculated as per IEC 60890PvW63Individual enclosure for wall mountingPvW60Middle enclosure for wall mountingPvW56  | Individual enclosure for wall mounting                                     | P <sub>V</sub> | W | 32   |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top of the enclosure, calculated as per IEC 60890     Image: Color of the enclosure for wall mounting       Individual enclosure for wall mounting     Pv     W     63       Starting enclosure for wall mounting     Pv     W     60       Middle enclosure for wall mounting     Pv     W     56  | Starting enclosure for wall mounting                                       | P <sub>V</sub> | W | 30   |
| of the enclosure, calculated as per IEC 60890     Pv     W     63       Individual enclosure for wall mounting     Pv     W     60       Middle enclosure for wall mounting     Pv     W     56   | Middle enclosure for wall mounting   | P <sub>V</sub> | W | 28   |
| Starting enclosure for wall mounting     Pv     W     60       Middle enclosure for wall mounting     Pv     W     56   |  |                |   |  |
| Middle enclosure for wall mounting     Pv     W     56  | Individual enclosure for wall mounting                                     | P <sub>V</sub> | W | 63   |
|   | Starting enclosure for wall mounting                                       | P <sub>V</sub> | W | 60   |
| IEC/EN 61439 design verification  | Middle enclosure for wall mounting   | P <sub>V</sub> | W | 56   |
|   | IEC/EN 61439 design verification   |                |   |  |
| 10.2 Strength of materials and parts  | 10.2 Strength of materials and parts                                       |                |   |  |
| 10.2.2 Corrosion resistance Meets the product standard's requirements.  | 10.2.2 Corrosion resistance  |                |   | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures Meets the product standard's requirements.   | 10.2.3.1 Verification of thermal stability of enclosures                   |                |   | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat Meets the product standard's requirements.   | 10.2.3.2 Verification of resistance of insulating materials to normal heat |                |   | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects  |  |                |   | Meets the product standard's requirements. |

| 10.2.4 Resistance to ultra-violet (UV) radiation         | Meets the product standard's requirements.   |
|--|--|
| 10.2.5 Lifting   | Does not apply to enclosures without lifting aids.   |
| 10.2.6 Mechanical impact                                 | IK09   |
| 10.2.7 Inscriptions                                      | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES                  | IP66_x   |
| 10.4 Clearances and creepage distances                   | Is the panel builder's responsibility.   |
| 10.5 Protection against electric shock                   | $< 0.1 \Omega$ ; meets the product standard's requirements.  |
| 10.6 Incorporation of switching devices and components   | Is the panel builder's responsibility.   |
| 10.7 Internal electrical circuits and connections        | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors                 | Is the panel builder's responsibility.   |
| 10.9 Insulation properties                               |  |
| 10.9.2 Power-frequency electric strength                 | U <sub>i</sub> = 1000 V AC   |
| 10.9.3 Impulse withstand voltage                         | Does not apply to basic enclosures as defined in EN 62208.   |
| 10.9.4 Testing of enclosures made of insulating material | Does not apply to metal enclosures.  |
| 10.10 Temperature rise                                   | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                               | Is the panel builder's responsibility.   |
| 10.12 Electromagnetic compatibility                      | Is the panel builder's responsibility.   |
| 10.13 Mechanical function                                | Meets the product standard's requirements.   |

#### **Technical data ETIM 7.0**

Cabinet enclosures (EG000011) / Enclosure/switchgear cabinet (empty) (EC000261)

| cabinet enclosures (EGOOODTT) / Enclosure/switchgear cabinet (empty)     | (2000201)                            |   |
|--|--------------------------------------|---|
| Electric engineering, automation, process control engineering / Electric | cal cabinet, housing, rack / Electri | cal cabinet (empty) / Electrical cabinet (ecl@ss10.0.1-27-18-01-01 [AGZ056016]) |
| Width  | mm                                   | 400   |
| Height   | mm                                   | 500   |
| Depth  | mm                                   | 150   |
| Material   |                                      | Steel   |
| Material quality   |                                      | Other   |
| Surface finishing  |                                      | Powder coating  |
| Colour   |                                      | Grey  |
| RAL-number   |                                      | 7035  |
| With mounting plate  |                                      | Yes   |
| Mounting plate depth-adjustable  |                                      | Yes   |
| Number of locks  |                                      | 2   |
| Floor installation possible  |                                      | Yes   |
| Wall fastening possible  |                                      | Yes   |
| Wall build in  |                                      | Yes   |
| Pole fastening   |                                      | Yes   |
| Tackable   |                                      | Yes   |
| Number of doors  |                                      | 1   |
| Suitable for metrical mounting   |                                      | Yes   |
| Suitable for outdoor set-up  |                                      | No  |
| Pitched roof   |                                      | No  |
| EMC-version  |                                      | Yes   |
| With glazed door   |                                      | No  |
| With ventilation door  |                                      | No  |
| With backside door   |                                      | No  |
| Impact strength  |                                      | IK09  |
| Degree of protection (IP)  |                                      | IP66  |
| Degree of protection (NEMA)  |                                      | 12  |

#### **Approvals**

| , ppi o taio            |  |
|-------------------------|--|
| Product Standards       | UL 508A; CSA-C22.2 No.14; IEC/EN 60529; CE marking |
| UL File No.             | E336299  |
| UL Category Control No. | NITW   |

| CSA Class No. North America Certification | -   |
|---|---|
| North America Certification               |   |
|   | Request filed for CSA   |
| Conditions of Acceptability               | Series CS may be provided with metal sub-panel. No back mounted components are allowed between sub-panel and the back sheet metal enclosure |
| Specially designed for North America      | No  |
| Suitable for                              | Industrial Control Panels   |
| Degree of Protection                      | IEC: IP66, indoor and outdoor; UL/CSA Types 1, 12, indoor only.   |

## Dimensions

Dimensions

## Additional product information (links)

| AWA4300-2521 CS wall-mounted sheet steel e                              | enclosures with mounting plate  |  |  |  |
|---|---|--|--|--|
| AWA4300-2521 CS wall-mounted sheet steel enclosures with mounting plate | https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/25210414.pdf                                     |  |  |  |
| Declaration of conformity   | http://intranet.moeller.net/technik_daten/file/produkt_deklarationen/file/konformitaeten/00002/00002259.pdf |  |  |  |