



Wall enclosure with mounting plate, HxWxD=400x600x250mm

Part no. **CS-46/250**  
Catalog No. **111686**

EL-Nummer  
(Norway) **2466110**

## 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                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Dimensions</b>                    |               |    |                                                                                                                                                                                                                                                                                                                                                                             |
| Width                                |               | mm | 600                                                                                                                                                                                                                                                                                                                                                                         |
| Height                               |               | mm | 400                                                                                                                                                                                                                                                                                                                                                                         |
| Depth                                |               | mm | 250                                                                                                                                                                                                                                                                                                                                                                         |
| Locks                                | Number        |    | 1                                                                                                                                                                                                                                                                                                                                                                           |
| Hinges                               | Number        |    | 2                                                                                                                                                                                                                                                                                                                                                                           |
| Door profile molding                 | Number        |    | 2                                                                                                                                                                                                                                                                                                                                                                           |
| Flange plates                        | Width x Depth | mm | 172 x 532                                                                                                                                                                                                                                                                                                                                                                   |
| Max. F3A flanges                     | Number        |    | 2                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Mounting plates</b>               |               |    |                                                                                                                                                                                                                                                                                                                                                                             |
| Height                               |               | mm | 370                                                                                                                                                                                                                                                                                                                                                                         |
| Width                                |               | mm | 550                                                                                                                                                                                                                                                                                                                                                                         |
| Weight                               |               | kg | 14.3                                                                                                                                                                                                                                                                                                                                                                        |
| 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 62208                                                                                                                                                                                                           |
| RoHS                                                                                  |       |    | in accordance with Directive 2015/863/EU 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 | -25 - +40                                                                                                                                                                                                              |
| Degree of Protection                                                                  |       |    | IP66<br>IP23 (with ventilating plates)                                                                                                                                                                                 |
| Installation conditions                                                               |       |    | Indoor 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                                                | $P_v$ | W  | 44                                                                                                                                                                                                                     |
| Starting enclosure for wall mounting                                                  | $P_v$ | W  | 42                                                                                                                                                                                                                     |
| Middle enclosure for wall mounting                                                    | $P_v$ | W  | 39                                                                                                                                                                                                                     |

### 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 | 2                     |

## 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-... 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                                                                                                                                                                                                 |
|                                      |        |  | <b>If electrical apparatus is to be installed in the door, a continuous, permanent protective ground contactor connection must be established with a protective ground cable. The threaded welded studs on the door and on the cabinet side wall must be used as connecting points for the ground leads.</b> |
| Door hinges                          |        |  | On the right, can be converted by user                                                                                                                                                                                                                                                                       |
| Type Door                            |        |  | Door hinges right<br>can be converted by user                                                                                                                                                                                                                                                                |
| door opening angle                   |        |  | 120°                                                                                                                                                                                                                                                                                                         |
| Door interlock                       |        |  | Standard closure 3 mm double-ward key                                                                                                                                                                                                                                                                        |
| Locks                                | Number |  | 1                                                                                                                                                                                                                                                                                                            |

## Design verification as per IEC/EN 61439

|                                                                                                                               |                |   |                                            |
|-------------------------------------------------------------------------------------------------------------------------------|----------------|---|--------------------------------------------|
| Technical data for design verification                                                                                        |                |   |                                            |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 20 degrees in top of the enclosure, calculated as per IEC 60890 |                |   |                                            |
| Individual enclosure for wall mounting                                                                                        | P <sub>V</sub> | W | 44                                         |
| Starting enclosure for wall mounting                                                                                          | P <sub>V</sub> | W | 42                                         |
| Middle enclosure for wall mounting                                                                                            | P <sub>V</sub> | W | 39                                         |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top of the enclosure, calculated as per IEC 60890 |                |   |                                            |
| Individual enclosure for wall mounting                                                                                        | P <sub>V</sub> | W | 97                                         |
| Starting enclosure for wall mounting                                                                                          | P <sub>V</sub> | W | 93                                         |
| Middle enclosure for wall mounting                                                                                            | P <sub>V</sub> | W | 88                                         |
| IEC/EN 61439 design verification                                                                                              |                |   |                                            |
| 10.2 Strength of materials and parts                                                                                          |                |   |                                            |
| 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. |
| 10.2.3.2 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                                                                                                                             |
| 10.4 Clearances and creepage distances                   |  | Is the panel builder's responsibility.                                                                                           |
| 10.5 Protection against electric shock                   |  | < 0.1 Ω; 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)                                                                                                            |    |                |  |
| Electric engineering, automation, process control engineering / Electrical cabinet, housing, rack / Electrical cabinet (empty) / Electrical cabinet (ecl@ss10.0.1-27-18-01-01 [AGZ056016]) |    |                |  |
| Width                                                                                                                                                                                      | mm | 600            |  |
| Height                                                                                                                                                                                     | mm | 400            |  |
| Depth                                                                                                                                                                                      | mm | 250            |  |
| Material                                                                                                                                                                                   |    | Steel          |  |
| Material quality                                                                                                                                                                           |    | Other          |  |
| Surface finishing                                                                                                                                                                          |    | Powder coating |  |
| Colour                                                                                                                                                                                     |    | Grey           |  |
| RAL-number                                                                                                                                                                                 |    | 7035           |  |
| With mounting plate                                                                                                                                                                        |    | Yes            |  |
| Mounting plate depth-adjustable                                                                                                                                                            |    | No             |  |
| Number of locks                                                                                                                                                                            |    | 1              |  |
| Floor installation possible                                                                                                                                                                |    | Yes            |  |
| Wall fastening possible                                                                                                                                                                    |    | Yes            |  |
| Wall build in                                                                                                                                                                              |    | Yes            |  |
| Pole fastening                                                                                                                                                                             |    | Yes            |  |
| Tackable                                                                                                                                                                                   |    | No             |  |
| Number of doors                                                                                                                                                                            |    | 1              |  |
| Suitable for metrical mounting                                                                                                                                                             |    | Yes            |  |
| Suitable for outdoor set-up                                                                                                                                                                |    | No             |  |
| Pitched roof                                                                                                                                                                               |    | No             |  |
| EMC-version                                                                                                                                                                                |    | No             |  |
| 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

|                         |  |                                                    |
|-------------------------|--|----------------------------------------------------|
| Product Standards       |  | UL 508A; CSA-C22.2 No.14; IEC/EN 62208; CE marking |
| UL File No.             |  | E336299                                            |
| UL Category Control No. |  | NITW                                               |
| CSA File No.            |  | —                                                  |

|                                      |  |                                                                                                                                             |
|--------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------|
| CSA Class No.                        |  | -                                                                                                                                           |
| 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; UL/CSA Types 1, 12, indoor only.                                                                                         |

Dimensions

