



Insulated enclosure, top+bottom open, HxWxD=296x234x175mm, NA type

**Part no.** **CI23-150-NA**  
**Article no.** **002237**

## Delivery program

|                           |  |    |                                                                                                                  |
|---------------------------|--|----|------------------------------------------------------------------------------------------------------------------|
| Product range             |  |    | Insulated enclosures Ci for North America                                                                        |
| Basic function            |  |    | Basic enclosures                                                                                                 |
| Product function          |  |    | Distribution board enclosures for North America<br>Panel enclosures with cover and flanges                       |
| Single unit/Complete unit |  |    | Single unit                                                                                                      |
| Degree of Protection      |  |    | IP65                                                                                                             |
| Description               |  |    | Fitted with removable smooth flanges on all 4 sides<br>Fixing straps for wall fixing<br>Sealable cover fasteners |
| Type cover                |  |    | Transparent                                                                                                      |
| Surface finish            |  |    | RAL 7032 (base)                                                                                                  |
| <b>Dimensions</b>         |  |    |                                                                                                                  |
| Width                     |  | mm | 234                                                                                                              |
| Height                    |  | mm | 296                                                                                                              |
| Depth                     |  | mm | 175                                                                                                              |
| Mounting depth:           |  | mm | 150                                                                                                              |
| Model base                |  |    | Enclosure side plates with flanges                                                                               |
| Model base                |  |    | Enclosure side plates with removable smooth flanges                                                              |

## Technical data

### General

|                                                       |  |    |                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------|--|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             |  |    | IEC/EN 60529<br>EN 50262<br>DIN 43656<br>DIN 43660<br>EN 60439-4 for CI...X individual enclosures with combined distribution boards from Ci enclosures up to 680 A.<br>Can thus be used for socket combinations and as component for construction site distribution boards. |
| Climatic proofing                                     |  |    | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30                                                                                                                                                                                              |
| Ambient temperature                                   |  | °C | -40 - +80                                                                                                                                                                                                                                                                   |
| Degree of Protection                                  |  |    | IP65                                                                                                                                                                                                                                                                        |
| Operating and ambient conditions to VDE 0660 Part 500 |  |    |                                                                                                                                                                                                                                                                             |
| Colour                                                |  |    |                                                                                                                                                                                                                                                                             |
| Base                                                  |  |    | RAL 7032, pebble grey                                                                                                                                                                                                                                                       |
| Housing body                                          |  |    | Transparent, colorless                                                                                                                                                                                                                                                      |
| Surface finish                                        |  |    | RAL 7032 (base)                                                                                                                                                                                                                                                             |

### Material characteristics

|                |  |  |                        |
|----------------|--|--|------------------------|
| Surface finish |  |  | RAL 7032 (base)        |
| Colour         |  |  |                        |
| Base           |  |  | RAL 7032, pebble grey  |
| Housing body   |  |  | Transparent, colorless |

### Material properties

|                                    |  |                         |                                                                         |
|------------------------------------|--|-------------------------|-------------------------------------------------------------------------|
| Electrical                         |  |                         |                                                                         |
| Track resistance                   |  |                         | KB160, KC175 (base, to IEC 60112)<br>KB100, KC200 (cover, to IEC 60112) |
| Surface resistance to IEC 60093    |  | $\Omega \times 10^{13}$ | 1                                                                       |
| Dielectric strength to IEC 60243-1 |  | kV/mm                   | 30                                                                      |
| Mechanical                         |  |                         |                                                                         |
| Impact resistance                  |  |                         | please require                                                          |
| Atmospheric                        |  |                         |                                                                         |
| Saline spray                       |  |                         | IEC 60068-2-11                                                          |

|                                    |   |                           |
|------------------------------------|---|---------------------------|
| UV resistance                      |   | Beneath protective shield |
| Water consumption to DIN EN ISO 62 | % | 0.29                      |

### 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, calculated as per IEC 60890                  |                |    |                                                                                                                                    |
| Individual enclosure for wall mounting                                                                                 | P <sub>V</sub> | CO | 13                                                                                                                                 |
| Starting enclosure for wall mounting                                                                                   | P <sub>V</sub> | CO | 12                                                                                                                                 |
| Middle enclosure for wall mounting                                                                                     | P <sub>V</sub> | CO | 11                                                                                                                                 |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees, calculated as per IEC 60890                  |                |    |                                                                                                                                    |
| Individual enclosure for wall mounting                                                                                 | P <sub>V</sub> | CO | 26                                                                                                                                 |
| Starting enclosure for wall mounting                                                                                   | P <sub>V</sub> | CO | 24                                                                                                                                 |
| Middle enclosure for wall mounting                                                                                     | P <sub>V</sub> | CO | 22                                                                                                                                 |
| 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 |                |    | Lower part: 960 °C / cover: 850 °C; meets the product standard's requirements.                                                     |
| 10.2.4 Resistance to ultra-violet (UV) radiation                                                                       |                |    | Not relevant to indoor installations.                                                                                              |
| 10.2.5 Lifting                                                                                                         |                |    | 5 kg per enclosure with support frame and lifting aid met; assembled and secured as per the latest applicable instruction leaflet. |
| 10.2.6 Mechanical impact                                                                                               |                |    | IK10                                                                                                                               |
| 10.2.7 Inscriptions                                                                                                    |                |    | Meets the product standard's requirements.                                                                                         |
| 10.3 Degree of protection of ASSEMBLIES                                                                                |                |    | IP65                                                                                                                               |
| 10.4 Clearances and creepage distances                                                                                 |                |    | Is the panel builder's responsibility.                                                                                             |
| 10.5 Protection against electric shock                                                                                 |                |    | Protection class 2, therefore not applicable.                                                                                      |
| 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                                                                                       |                |    | 8 kV                                                                                                                               |
| 10.9.4 Testing of enclosures made of insulating material                                                               |                |    | Meets the product standard's requirements.                                                                                         |
| 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.                                                                                         |

### Approvals

|                                      |  |                                                    |
|--------------------------------------|--|----------------------------------------------------|
| Product Standards                    |  | UL 508A; CSA-C22.2 No.94; IEC/EN60529; CE marking  |
| UL File No.                          |  | E54120, E337418                                    |
| UL Category Control No.              |  | NITW                                               |
| CSA File No.                         |  | 27130                                              |
| CSA Class No.                        |  | 3211-07                                            |
| North America Certification          |  | UL listed, CSA certified                           |
| Specially designed for North America |  | Yes                                                |
| Suitable for                         |  | Industrial Control Panels                          |
| Current Limiting Circuit-Breaker     |  | No                                                 |
| Degree of Protection                 |  | IEC: IP65; UL/CSA Types 1, 12, 13, 4X, indoor only |

### Additional product information (links)

|                                    |                                                                |
|------------------------------------|----------------------------------------------------------------|
| Manufacturer's Declaration CI-RoHS | ftp://ftp.moeller.net/DOCUMENTATION/PDF/2013-01-31_Ci_RoHS.pdf |
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