



## ECO Compact distribution board, surface mounted, 2-rows, 12 MU, IP40

**Part no.** BC-O-2/24-ECO  
**Catalog No.** 280349

### Delivery program

|                                                  |                                      |                 |                                                                                |
|--------------------------------------------------|--------------------------------------|-----------------|--------------------------------------------------------------------------------|
| Basic function                                   |                                      |                 | Basic device                                                                   |
| Product function                                 |                                      |                 | Installation distribution boards                                               |
| Product range                                    |                                      |                 | ECO DBO                                                                        |
| Design                                           |                                      |                 | Surface mounted                                                                |
| Installation site                                |                                      |                 | Indoor                                                                         |
| Type of installation                             |                                      |                 | Surface mounting                                                               |
| Door/Flap                                        |                                      |                 | Transparent                                                                    |
| Degree of Protection                             |                                      |                 | IP40                                                                           |
| Colour                                           |                                      |                 | White                                                                          |
| Module rack                                      |                                      |                 | Single-rail                                                                    |
| Shroud for protection against accidental contact |                                      |                 | Plastic                                                                        |
| Rows                                             | Count                                |                 | 2                                                                              |
| Module units per row                             |                                      |                 | 12                                                                             |
| Description                                      |                                      |                 | IP40<br>Protection Class II<br>Plastic housing white (RAL 9003)                |
| Cable entries                                    |                                      |                 | Metric cable entries on top and bottom                                         |
| PE and N terminals design                        |                                      |                 | Screw terminals                                                                |
| PE and N terminals                               | Number<br>x cross-<br>sectional area | mm <sup>2</sup> | PE: 2 x (12 x 10)<br>N: 2 x (12 x 10)                                          |
| Equipment supplied                               |                                      |                 | Basic device<br>Device support rails<br>Neutral-/protective conductor terminal |

### Technical data

#### General

|                                                                                       |                |      |                        |
|---------------------------------------------------------------------------------------|----------------|------|------------------------|
| Standards                                                                             |                |      | EN 62208_x             |
| RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council) |                |      | conform                |
| Ambient temperature                                                                   |                | °C   | -20 - +70              |
| Degree of Protection                                                                  |                |      | IP40                   |
| Protection class                                                                      |                |      | II (totally insulated) |
| Rated operational voltage                                                             | U <sub>e</sub> | V AC | 400                    |
| Rated frequency                                                                       | f              | Hz   | 50                     |

#### Material characteristics

|          |  |  |                  |
|----------|--|--|------------------|
| Material |  |  | ABS (plastic)    |
| Colour   |  |  | white (RAL 9003) |

#### Material properties

|                   |  |  |      |
|-------------------|--|--|------|
| Mechanical        |  |  |      |
| Impact resistance |  |  | IK05 |

### Design verification as per IEC/EN 61439

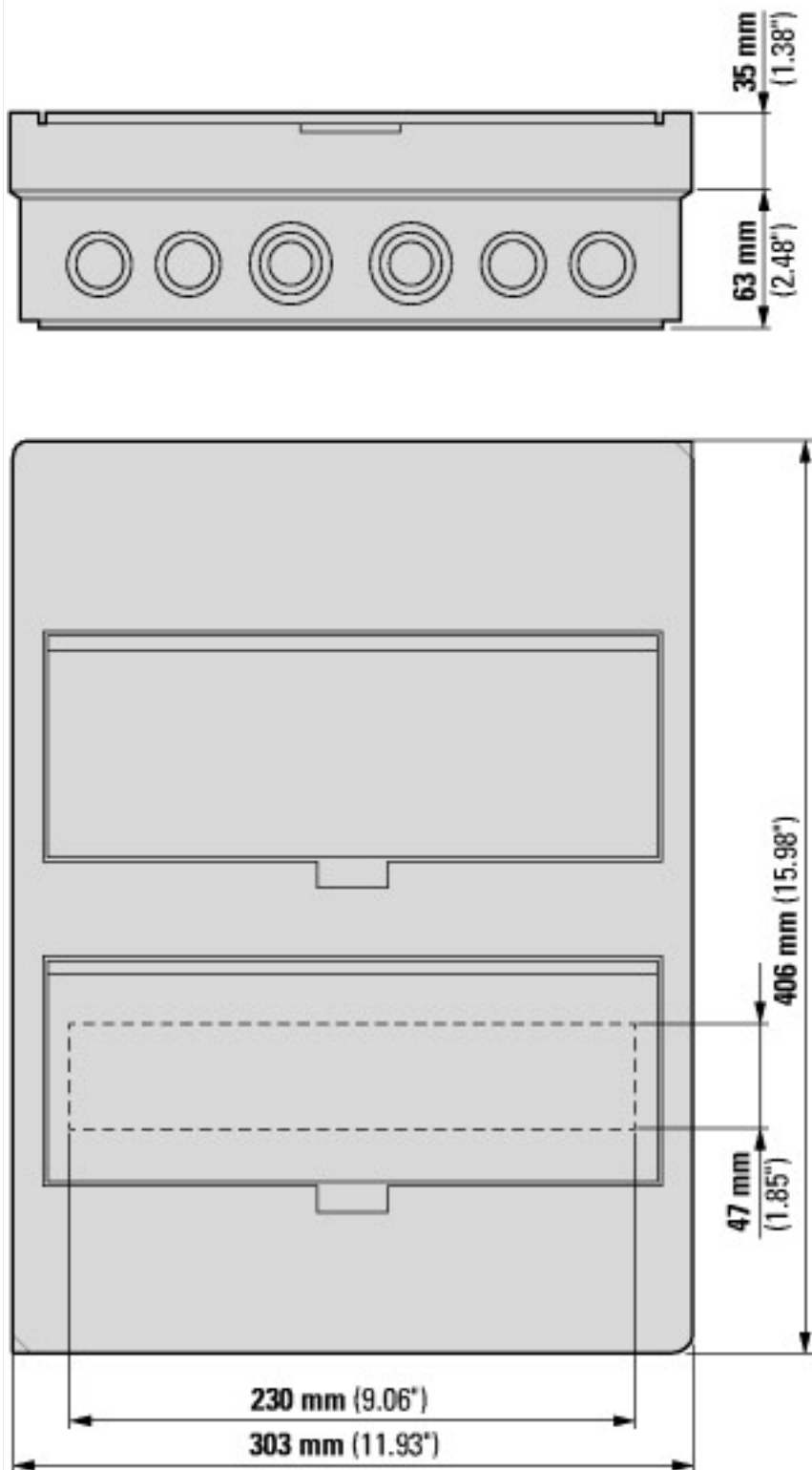
|                                                                                                       |                |    |    |
|-------------------------------------------------------------------------------------------------------|----------------|----|----|
| Technical data for design verification                                                                |                |    |    |
| 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 | 19 |
| 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 | 38 |
| 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 |  |  | 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                                                                                                         |  |  | Does not apply to enclosures without lifting aids.                                                                               |
| 10.2.6 Mechanical impact                                                                                               |  |  | IK05                                                                                                                             |
| 10.2.7 Inscriptions                                                                                                    |  |  | Meets the product standard's requirements.                                                                                       |
| 10.3 Degree of protection of ASSEMBLIES                                                                                |  |  | IP40                                                                                                                             |
| 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                                                                               |  |  | $U_1 = 400 \text{ V AC}$                                                                                                         |
| 10.9.3 Impulse withstand voltage                                                                                       |  |  | 3.75 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.                                                                                       |

## Technical data ETIM 6.0

|                                                                                                                                                                                                                                  |  |    |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------------------|
| Distribution boards (EG000023) / Small distribution board (EC000214)                                                                                                                                                             |  |    |                  |
| Electric engineering, automation, process control engineering / Electrical installation, device / Electrical distribution system (incl. small distribution board) / Small distribution board (ecl@ss8.1-27-14-24-09 [ACN387008]) |  |    |                  |
| Mounting method                                                                                                                                                                                                                  |  |    | Surface mounting |
| Number of rows                                                                                                                                                                                                                   |  |    | 2                |
| Width in number of modular spacings                                                                                                                                                                                              |  |    | 12               |
| Type of cover                                                                                                                                                                                                                    |  |    | Door             |
| Cover model                                                                                                                                                                                                                      |  |    | Closed           |
| Transparent cover/door                                                                                                                                                                                                           |  |    | Yes              |
| Material housing                                                                                                                                                                                                                 |  |    | Plastic          |
| Height                                                                                                                                                                                                                           |  | mm | 406              |
| Width                                                                                                                                                                                                                            |  | mm | 303              |
| Depth                                                                                                                                                                                                                            |  | mm | 98               |
| Built-in depth                                                                                                                                                                                                                   |  | mm | 70               |
| Internal depth                                                                                                                                                                                                                   |  | mm | 90               |
| DIN-rail                                                                                                                                                                                                                         |  |    | Yes              |
| With mounting plate                                                                                                                                                                                                              |  |    | No               |
| Extension possible                                                                                                                                                                                                               |  |    | No               |
| EMC-version                                                                                                                                                                                                                      |  |    | No               |
| Colour                                                                                                                                                                                                                           |  |    | White            |
| RAL-number                                                                                                                                                                                                                       |  |    | 9003             |
| Degree of protection (IP)                                                                                                                                                                                                        |  |    | IP40             |
| With lock                                                                                                                                                                                                                        |  |    | No               |

## Dimensions



## Additional product information (links)

IL014002Z ECO compact distribution board

IL014002Z ECO compact distribution board

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL014002ZU2014\\_02.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL014002ZU2014_02.pdf)

Product overview (Web)

<http://www.eaton.eu/DE/Europe/Electrical/ProductsServices/Residential/index.htm>