

# Specifications



## Eaton 277949

Eaton Moeller® series DILM Auxiliary contact module, 4 pole, Ith= 16 A, 3 N/O, 1 NC, Front fixing, Screw terminals, DILM40 - DILM170

### General specifications

|                                 |                                                                                                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller® series<br>DILM auxiliary contact<br>module                                                                                                                                                    |
| <b>CATALOG NUMBER</b>           | 277949                                                                                                                                                                                                       |
| <b>MODEL CODE</b>               | DILM150-XHI31                                                                                                                                                                                                |
| <b>EAN</b>                      | 4015082779498                                                                                                                                                                                                |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 39 mm                                                                                                                                                                                                        |
| <b>PRODUCT HEIGHT</b>           | 46 mm                                                                                                                                                                                                        |
| <b>PRODUCT WIDTH</b>            | 45 mm                                                                                                                                                                                                        |
| <b>PRODUCT WEIGHT</b>           | 0.055 kg                                                                                                                                                                                                     |
| <b>CERTIFICATIONS</b>           | UL 508<br>IEC/EN 60947-4-1<br>VDE 0660<br>IEC/EN 60947<br>CSA<br>CSA File No.: 012528<br>CE<br>CSA Class No.: 3211-03<br>CSA-C22.2 No. 14-05<br>UL File No.: E29184<br>UL<br>UL Category Control No.:<br>NKR |
| <b>GLOBAL CATALOG</b>           | 277949                                                                                                                                                                                                       |

## Product specifications

|                                                                                         |                                                                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>TYPE</b>                                                                             | Front mounting auxiliary contact                                                                                                 |
| <b>FEATURES</b>                                                                         | Interlocked opposing contacts within an auxiliary contact module (according to IEC 60947-5-1 Annex L)                            |
| <b>10.10 TEMPERATURE RISE</b>                                                           | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| <b>10.11 SHORT-CIRCUIT RATING</b>                                                       | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>                                              | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.13 MECHANICAL FUNCTION</b>                                                        | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                                                                                       |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | Meets the product standard's requirements.                                                                                       |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to                                                                             |

## Resources

|                                   |                                                                                                                                                                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CATALOGS</b>                   | <a href="#">SmartWire-DT Catalog</a><br><a href="#">Product Range Catalog</a><br><a href="#">Switching and protecting motors</a><br><a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>       |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">DA-DC-00004775.pdf</a><br><a href="#">DA-DC-00004782.pdf</a><br><a href="#">DA-DC-00004818.pdf</a><br><a href="#">DA-DC-00004774.pdf</a><br><a href="#">DA-DC-00004817.pdf</a><br><a href="#">DA-DC-00004781.pdf</a> |
| <b>DRAWINGS</b>                   | <a href="#">eaton-contactors-contact-dilm-accessory-3d-drawing-004.eps</a>                                                                                                                                                       |
| <b>ECAD MODEL</b>                 | <a href="#">ETN.277949.edz</a>                                                                                                                                                                                                   |
| <b>INSTALLATION INSTRUCTIONS</b>  | <a href="#">IL03407034Z</a>                                                                                                                                                                                                      |
| <b>INSTALLATION VIDEOS</b>        | <a href="#">WIN-WIN with push-in technology</a>                                                                                                                                                                                  |
| <b>MCAD MODEL</b>                 | <a href="#">dil_m150_xhi_4.stp</a><br><a href="#">dil_m150_xhi_4</a>                                                                                                                                                             |
| <b>PEP ECO-PASSPORT</b>           | <a href="#">eaton-accessory-declaration-of-conformity-eu250793en.pdf</a>                                                                                                                                                         |
| <b>WIRING DIAGRAMS</b>            | <a href="#">2100SWI-134</a>                                                                                                                                                                                                      |

|                                                                 |                                                                                |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                                                 | be evaluated.                                                                  |
| <b>10.2.7 INSCRIPTIONS</b>                                      | Meets the product standard's requirements.                                     |
| <b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>                  | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                   | Meets the product standard's requirements.                                     |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>        | Is the panel builder's responsibility.                                         |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                         | Is the panel builder's responsibility.                                         |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b> | Is the panel builder's responsibility.                                         |
| <b>ELECTRIC CONNECTION TYPE</b>                                 | Screw connection                                                               |
| <b>FITTED WITH:</b>                                             | Interlocked opposing contacts                                                  |
| <b>POLLUTION DEGREE</b>                                         | 3                                                                              |
| <b>CLIMATIC PROOFING</b>                                        | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78 |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 60 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                      | -25 °C                                                                         |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>           | 40 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>           | -25 °C                                                                         |
| <b>AMBIENT STORAGE TEMPERATURE - MAX</b>                        | 80 °C                                                                          |

|                                                                |                                                                                                                           |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>AMBIENT STORAGE TEMPERATURE - MIN</b>                       | -40 °C                                                                                                                    |
| <b>CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)</b> | 16 A                                                                                                                      |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>      | 0 W                                                                                                                       |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                         | 0 W                                                                                                                       |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>       | 0.23 W                                                                                                                    |
| <b>NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)</b>               | 0                                                                                                                         |
| <b>NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)</b>           | 1                                                                                                                         |
| <b>NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)</b>             | 3                                                                                                                         |
| <b>NUMBER OF SWITCHES (FAULT SIGNAL)</b>                       | 0                                                                                                                         |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                  | 6000 V AC                                                                                                                 |
| <b>SCREWDRIVER SIZE</b>                                        | 2, Terminal screw, Pozidriv screwdriver<br>0.8 x 5.5/1 x 6 mm,<br>Terminal screw, Standard screwdriver                    |
| <b>MOUNTING METHOD</b>                                         | Front fastening                                                                                                           |
| <b>CONNECTION</b>                                              | Screw terminals                                                                                                           |
| <b>OVERVOLTAGE CATEGORY</b>                                    | III                                                                                                                       |
| <b>CONTROL CIRCUIT RELIABILITY</b>                             | $\lambda < 5 \times 1/10^7$ (1 failure at 2,000,000 operations for $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA) |
| <b>DEGREE OF PROTECTION</b>                                    | IP20                                                                                                                      |
| <b>MODEL</b>                                                   | Top mounting                                                                                                              |
| <b>LAMP HOLDER</b>                                             | None                                                                                                                      |
| <b>FUNCTIONS</b>                                               | For standard applications                                                                                                 |
| <b>SAFE ISOLATION</b>                                          | 440 V AC, Between coil and auxiliary contacts,<br>According to EN 61140<br>440 V AC, Between auxiliary contacts,          |

|                                                                      |                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                      | According to EN 61140                                                                                                                                                                                                                                                   |
| <b>RATED OPERATIONAL CURRENT (IE)</b>                                | 6 A at 60 V, DC L/R $\leq$ 15 ms<br>(with 1 contact in series)<br>10 A at 24 V, DC L/R $\leq$ 15 ms<br>(with 1 contact in series)<br>3 A at 110 V, DC L/R $\leq$ 15 ms<br>(with 1 contact in series)<br>1 A at 220 V, DC L/R $\leq$ 15 ms<br>(with 1 contact in series) |
| <b>LIFESPAN, ELECTRICAL</b>                                          | 1,300,000 Operations (at 230 V, AC-15, 3 A)                                                                                                                                                                                                                             |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b>          | 1 A, 250 V DC, (UL/CSA)<br>15 A, 600 V AC, (UL/CSA)                                                                                                                                                                                                                     |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>           | A600, AC operated (UL/CSA)<br>P300, DC operated (UL/CSA)                                                                                                                                                                                                                |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>            | 0 W                                                                                                                                                                                                                                                                     |
| <b>PROTECTION</b>                                                    | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)                                                                                                                                                                    |
| <b>NUMBER OF POLES</b>                                               | Four-pole                                                                                                                                                                                                                                                               |
| <b>SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING</b>               | 16 A gG/gL, 500 V, Max. Fuse, Contacts                                                                                                                                                                                                                                  |
| <b>SHORT-CIRCUIT PROTECTION RATING</b>                               | Max. 16 A gG/gL, Fuse, Without welding, Auxiliary contacts                                                                                                                                                                                                              |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                 | 690 V                                                                                                                                                                                                                                                                   |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V</b>  | 6 A                                                                                                                                                                                                                                                                     |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V</b>  | 4 A                                                                                                                                                                                                                                                                     |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V</b>                | 1.5 A                                                                                                                                                                                                                                                                   |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 4 A                                                                                                                                                                                                                                                                     |

|                                                   |                                                                                                                                                                                                            |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b> | 500 V                                                                                                                                                                                                      |
| <b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>  | 2 x (0.75 - 2.5) mm <sup>2</sup><br>1 x (0.75 - 2.5) mm <sup>2</sup>                                                                                                                                       |
| <b>TERMINAL CAPACITY (SOLID)</b>                  | 2 x (0.75 - 2.5) mm <sup>2</sup><br>1 x (0.75 - 2.5) mm <sup>2</sup>                                                                                                                                       |
| <b>TIGHTENING TORQUE</b>                          | 1.2 Nm, Screw terminals                                                                                                                                                                                    |
| <b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>     | 18 - 14                                                                                                                                                                                                    |
| <b>SHOCK RESISTANCE</b>                           | 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms<br>7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |

|                        |
|------------------------|
| <b>PROJECT NAME:</b>   |
| <b>PROJECT NUMBER:</b> |
| <b>PREPARED BY:</b>    |
| <b>DATE:</b>           |



**Eaton Corporation plc**  
Eaton House  
30 Pembroke Road  
Dublin 4, Ireland  
Eaton.com

© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

