

Specifications



Eaton 276421

Eaton Moeller® series DILA Auxiliary contact module, 2 pole, Ith= 16 A, 1 N/O, 1 NC, Front fixing, Screw terminals, DILA, DILM7 - DILM38

General specifications

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| PRODUCT NAME | Eaton Moeller® series DILA Accessory Auxiliary contact module |
| CATALOG NUMBER | 276421 |
| MODEL CODE | DILA-XHI11 |
| EAN | 4015082764210 |
| UPC | 782116354566 |
| PRODUCT LENGTH/DEPTH | 45 mm |
| PRODUCT HEIGHT | 38 mm |
| PRODUCT WIDTH | 36 mm |
| PRODUCT WEIGHT | 0.039 kg |
| CERTIFICATIONS | CE UL Category Control No.: NKCR CSA-C22.2 No. 14-05 IEC/EN 60947 CSA UL UL 508 UL File No.: E29184 CSA File No.: 012528 IEC/EN 60947-4-1 VDE 0660 CSA Class No.: 3211-03 |

Features & Functions

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| FEATURES | Interlocked opposing contacts within an auxiliary contact module (according to IEC 60947-5-1 Annex L) |
| FUNCTIONS | For standard applications |
| FITTED WITH: | Switching elements according to EN 50005 Interlocked opposing contacts |
| NUMBER OF POLES | Two-pole |
| ELECTRIC CONNECTION TYPE | Screw connection |

General

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| DEGREE OF PROTECTION | IP20 |
| SHOCK RESISTANCE | 5 g, N/C auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |
| LIFESPAN, ELECTRICAL | 1,300,000 Operations (at 230 V, AC-15, 3 A) |
| LIFESPAN, MECHANICAL | 10,000,000 Operations (AC operated) 10,000,000 Operations (DC operated) |
| MODEL | Top mounting |
| MOUNTING METHOD | Front fastening |
| CONNECTION | Screw terminals |
| OPERATING FREQUENCY | 9000 Operations/h |
| OVERVOLTAGE CATEGORY | III |
| POLLUTION DEGREE | 3 |
| PROTECTION | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) | 6000 V AC |
| TYPE | Front mounting auxiliary contact |

Climatic environmental conditions

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| AMBIENT OPERATING TEMPERATURE - MIN | -25 °C |
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| AMBIENT OPERATING TEMPERATURE - MAX | 60 °C |
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| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN | -25 °C |
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| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX | 40 °C |
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| AMBIENT STORAGE TEMPERATURE - MIN | -40 °C |
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| AMBIENT STORAGE TEMPERATURE - MAX | 80 °C |
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| CLIMATIC PROOFING | Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
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Terminal capacities

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| TERMINAL CAPACITY (FLEXIBLE WITH FERRULE) | 2 x (0.75 - 2.5) mm ² , Screw terminals 1 x (0.75 - 2.5) mm ² , Screw terminals |
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| TERMINAL CAPACITY (SOLID) | 1 x (0.75 - 2.5) mm ² , Screw terminals 2 x (0.75 - 2.5) mm ² , Screw terminals |
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| TERMINAL CAPACITY (SOLID/STRANDED AWG) | 18 - 14 |
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| SCREW SIZE | M3.5, Terminal screw |
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| SCREWDRIVER SIZE | 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver |
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| TIGHTENING TORQUE | 1.2 Nm, Screw terminals |
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Electrical rating

**CONVENTIONAL
THERMAL CURRENT ITH
AT 60°C (3-POLE, OPEN)** 16 A

**RATED OPERATIONAL
CURRENT (IE)**

6 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series)
 1 A at 60 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 10 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series)
 0.5 A at 110 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series)
 5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series)
 6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)
 1 A at 220 V, DC L/R ≤ 15 ms (with 1 contact in series)
 2.5 A at 24 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 10 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series)
 0.25 A at 220 V, DC L/R ≤ 50 ms (with 3 contacts in series)

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
220 V, 230 V, 240 V** 4 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
380 V, 400 V, 415 V** 4 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
500 V** 1.5 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
24 V** 2.5 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
60 V** 1 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
110 V** 0.5 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
220 V, 230 V** 0.25 A

Contacts

CODE NUMBER

42 in combination with DILA(C)-31
 33 in combination with DILA(C)-22
 51E in combination with DILA(C)-40

**CONTROL CIRCUIT
RELIABILITY**

$\lambda < 5 \times 1/10^7$ (1 failure at 2,000,000 operations for $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA)

**NUMBER OF CONTACTS
(CHANGE-OVER
CONTACTS)** 0

**NUMBER OF CONTACTS
(NORMALLY CLOSED
CONTACTS)** 1

**NUMBER OF CONTACTS
(NORMALLY OPEN
CONTACTS)** 1

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| RATED INSULATION VOLTAGE (UI) | 690 V |
| RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX | 500 V |
| SHORT-CIRCUIT PROTECTION RATING | Max. 10 A gG/gL, Fuse, Without welding, Auxiliary contacts |
| SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING | 10 A gG/gL, 500 V, Max. Fuse, Contacts |
| SAFE ISOLATION | 400 V AC, Between auxiliary contacts, According to EN 61140 400 V AC, Between coil and auxiliary contacts, According to EN 61140 |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE) | 10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA) |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY) | A600, AC operated (UL/CSA) P300, DC operated (UL/CSA) |

Design verification

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| EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID | 0 W |
| HEAT DISSIPATION CAPACITY PDISS | 0 W |
| HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID | 0.16 W |
| RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) | 4 A |
| STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS | 0 W |
| 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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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, since the entire switchgear needs to be evaluated. |
| 10.2.6 MECHANICAL IMPACT | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 INSCRIPTIONS | Meets the product standard's requirements. |
| 10.3 DEGREE OF PROTECTION OF ASSEMBLIES | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 CLEARANCES AND CREEPAGE DISTANCES | Meets the product standard's requirements. |
| 10.5 PROTECTION AGAINST ELECTRIC SHOCK | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS | Does not apply, since the entire switchgear needs to be evaluated. |

Resources

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| CATALOGUES | Product Range Catalog Switching and protecting motors |
| | eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf |
| DECLARATIONS OF CONFORMITY | eaton-accessory-declaration-of-conformity-eu250793en.pdf |
| | eaton-accessory-declaration-of-conformity-uk251276en.pdf |
| DRAWINGS | eaton-contactors-frame-dilm-dimensions.eps |
| | eaton-contactors-module-dilm-dimensions.eps |
| | eaton-contactors-mounting-dilm-dimensions.eps |
| | eaton-contactors-mounting-dilm-dimensions-002.eps |
| | eaton-contactors-contact-dilm-accessory-3d-drawing.eps |
| ECAD MODEL | ETN.276421.edz |
| INSTALLATION INSTRUCTIONS | eaton-contactors-dila-dilm7-15-dilmp20-il03407013z.pdf |
| INSTALLATION VIDEOS | WIN-WIN with push-in technology |
| MCAD MODEL | dil_a_xhi_2.stp dil_a_xhi_2 |
| WIRING DIAGRAMS | 2100SWI-113 |

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| 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. |
| 10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH | Is the panel builder's responsibility. |
| 10.9.3 IMPULSE WITHSTAND VOLTAGE | Is the panel builder's responsibility. |
| 10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL | Is the panel builder's responsibility. |
| 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. The specifications for the switchgear must be observed. |
| 10.12 ELECTROMAGNETIC COMPATIBILITY | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 MECHANICAL FUNCTION | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

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| PROJECT NAME: |
| PROJECT NUMBER: |
| PREPARED BY: |
| DATE: |



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

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