# Specifications




**Photo is representative**



## Eaton 276344

Eaton Moeller® series DILA Contactor relay, 24 V DC, 4 N/O, Screw terminals, DC operation

| General specifications | |
|---|---|
| **PRODUCT NAME** | Eaton Moeller® series DILA Control relay |
| **CATALOG NUMBER** | 276344 |
| **MODEL CODE** | DILA-40(24VDC) |
| **EAN** | 4015082763442 |
| **PRODUCT LENGTH/DEPTH** | 75 mm |
| **PRODUCT HEIGHT** | 68 mm |
| **PRODUCT WIDTH** | 45 mm |
| **PRODUCT WEIGHT** | 0.296 kg |
| **CERTIFICATIONS** | UL Category Control No.: NKCR<br>VDE 0660<br>UL 508<br>CSA Class No.: 3211-03<br>UL File No.: E29184<br>CSA<br>UL<br>CSA-C22.2 No. 14-05<br>EN 60947-5-1<br>CE<br>IEC/EN 60947<br>IEC/EN 60947-4-1<br>CSA File No.: 012528 |
| **GLOBAL CATALOG** | 276344 |
| **PRODUCT TYPE** | Control relay |

## Product specifications

| | |
|---|---|
| **FEATURES** | Positive operating contacts to EN 60947-5-1 appendix L, including auxiliary contact module |
| **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. |
| **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. |
| **10.7 INTERNAL ELECTRICAL CIRCUITS** | Is the panel builder's responsibility. |

## Resources

| | |
|---|---|
| **CATALOGS** | eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf |
| **CHARACTERISTIC CURVE** | eaton-contactors-component-dila-relay-characteristic-curve.eps<br><br>eaton-contactors-dila-relay-characteristic-curve.eps |
| **DECLARATIONS OF CONFORMITY** | eaton-control-relay-declaration-of-conformity-eu250722en.pdf<br><br>eaton-control-relay-declaration-of-conformity-uk251205en.pdf |
| **DRAWINGS** | eaton-contactors-frame-dilm-dimensions.eps<br><br>eaton-contactors-module-dilm-dimensions.eps<br><br>eaton-contactors-mounting-dilm-dimensions-002.eps<br><br>eaton-contactors-mounting-dilm-dimensions.eps<br><br>eaton-contactors-dilm-3d-drawing-007.eps |
| **ECAD MODEL** | ETN.276344.edz |
| **INSTALLATION INSTRUCTIONS** | eaton-contactors-dila-dilm7-15-dilmp20-il03407013z.pdf |
| **INSTALLATION VIDEOS** | WIN-WIN with push-in technology |
| **MCAD MODEL** | eaton-iec-contactors-mcad-drawings-dil-m7-15.dwg<br><br>DA-CS-dil_m7_15 |
| **PEP ECO-PASSPORT** | eaton-iec-contactors-pep-eato-00024-v0101-en.pdf |
| **SYSTEM OVERVIEW** | eaton-contactors-dila-system-overview.eps |
| **WIRING DIAGRAMS** | eaton-contactors-contact-diler-relay-wiring-diagram-004.eps |

| | |
|---|---|
| **AND CONNECTIONS** | |
| **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. |
| **FITTED WITH:** | Suppressor circuit<br>Positive operation contacts<br>Built-in suppressor circuit |
| **OPERATING FREQUENCY** | 9000 Operations/h |
| **POLLUTION DEGREE** | 3 |
| **CLIMATIC PROOFING** | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78 |
| **AMBIENT OPERATING TEMPERATURE - MAX** | 60 °C |
| **AMBIENT OPERATING TEMPERATURE - MIN** | -25 °C |
| **AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX** | 40 °C |
| **AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN** | -25 °C |
| **AMBIENT STORAGE TEMPERATURE - MAX** | 80 °C |
| **AMBIENT STORAGE TEMPERATURE - MIN** | -40 °C |
| **EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID** | 0 W |
| **HEAT DISSIPATION CAPACITY PDISS** | 0 W |
| **HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID** | 1 W |
| **NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)** | 0 |
| **NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)** | 0 |
| **NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS, DELAYED SWITCHING)** | 0 |
| **NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)** | 4 |
| **NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS,** | 0 |

| | |
|---|---|
| **LEADING)** | |
| **NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)** | 0 |
| **NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)** | 4 |
| **POWER CONSUMPTION (PICK-UP) AT DC** | 2.6 W |
| **POWER CONSUMPTION (SEALING) AT DC** | 2.6 W |
| **CONNECTION TO SMARTWIRE-DT** | In conjunction with DIL-SWD SmartWire DT contactor module<br>Yes |
| **RATED IMPULSE WITHSTAND VOLTAGE (UIMP)** | 6000 V AC |
| **CONNECTION** | Screw terminals |
| **SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX** | 12 ms |
| **APPLICATION** | Contactor relays |
| **PRODUCT CATEGORY** | DILA relays |
| **PROTECTION** | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| **CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)** | 16 A |
| **VOLTAGE TYPE OF OPERATING VOLTAGE** | AC/DC |
| **RATED SWITCH CURRENT** | 16 A |
| **OPERATING VOLTAGE AT AC, 50 HZ - MIN** | 17 V |
| **OPERATING VOLTAGE AT AC, 50 HZ - MAX** | 500 V |
| **OPERATING VOLTAGE AT AC, 60 HZ - MIN** | 17 V |
| **OPERATING VOLTAGE AT AC, 60 HZ - MAX** | 500 V |
| **OPERATING VOLTAGE AT DC - MIN** | 24 VDC |
| **OPERATING VOLTAGE AT DC - MAX** | 220 VDC |
| **SCREWDRIVER SIZE** | 2, Terminal screw, Pozidriv screwdriver<br>0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver |
| **VOLTAGE TYPE** | DC |
| **CODE NUMBER** | 40E |
| **DEGREE OF PROTECTION** | IP20 |
| **OVERVOLTAGE CATEGORY** | III |

| | |
|---|---|
| **CONTROL CIRCUIT RELIABILITY** | λ < 5 x 10-7 (1 failure at 2,000,000 operations for $U_e$ = 24 V DC, Umin = 17 V, Imin = 5.4 mA)<br>λ < 5 x $1/10^7$ (1 failure at 2,000,000 operations for $U_e$ = 24 V DC, Umin = 17 V, Imin = 5.4 mA) |
| **CONNECTION TYPE (AUXILIARY CIRCUIT)** | Screw connection |
| **DUTY FACTOR** | 100 % |
| **LIFESPAN, MECHANICAL** | 20,000,000 Operations (DC operated) |
| **MOUNTING METHOD** | DIN-rail/screw |
| **PICK-UP VOLTAGE** | 0.7 - 1.3 V DC x Uc (at 24 V: without auxiliary contact module and at ambient air temperature + 40 °C)<br>0.8 - 1.1 V DC x Uc |
| **VOLTAGE TOLERANCE** | Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification |
| **SAFE ISOLATION** | 400 V AC, Between coil and auxiliary contacts, According to EN 61140<br>400 V AC, Between auxiliary contacts, According to EN 61140 |
| **SCREW SIZE** | M3.5, Terminal screw |
| **RATED OPERATIONAL CURRENT (IE)** | 10 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series)<br>6 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series)<br>4 A at 24 V, DC L/R ≤ 50 ms (with 3 contacts in series)<br>3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series)<br>5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series)<br>4 A at 60 V, DC L/R ≤ 50 ms (with 3 contacts in series)<br>6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)<br>1 A at 220 V, DC L/R ≤ 50 ms (with 3 contacts in series)<br>10 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series)<br>1 A at 220 V, DC L/R ≤ 15 ms (with 1 contact in series) |

| | |
|---|---|
| | 2 A at 110 V, DC L/R ≤ 50 ms (with 3 contacts in series)<br>16 A |
| **SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)** | 15 A, 600 V AC, (UL/CSA)<br>1 A, 250 V DC, (UL/CSA) |
| **SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)** | A600, AC operated (UL/CSA)<br>P300, DC operated (UL/CSA) |
| **RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX** | 24 V |
| **RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN** | 24 V |
| **RATED INSULATION VOLTAGE (UI)** | 690 V |
| **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 FOR SPECIFIED HEAT DISSIPATION (IN)** | 15.5 A |
| **RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX** | 690 V |
| **STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS** | 3 W |
| **STRIPPING LENGTH (MAIN CABLE)** | 10 mm |
| **SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX** | 31 ms |
| **TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)** | 2 x (0.75 - 2.5) mm², Screw terminals<br>1 x (0.75 - 2.5) mm², Screw terminals |
| **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<br>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 |
| **TERMINAL CAPACITY (SOLID/STRANDED AWG)** | 18 - 14, Screw terminals |

| | |
|---|---|
| **SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING** | 10 A gG/gL, 500 V, Max. Fuse, Contacts |
| **TERMINAL CAPACITY (SOLID)** | 2 x (0.75 - 2.5) mm², Screw terminals<br>1 x (0.75 - 4) mm², Screw terminals |
| **TIGHTENING TORQUE** | 1.2 Nm, Screw terminals |
| **ACTUATING VOLTAGE** | 24 V DC |

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

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

© 2026 Eaton. All Rights Reserved.

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