

## Eaton 276361

Eaton Moeller® series DILA Contactor relay,  
110 V 50 Hz, 120 V 60 Hz, 3 N/O, 1 NC, Screw  
terminals, AC operation

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| <b>PRODUCT NAME</b>             | Eaton Moeller® series<br>DILA Control relay                                                                                                                                                                                   |
| <b>CATALOG NUMBER</b>           | 276361                                                                                                                                                                                                                        |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 75 mm                                                                                                                                                                                                                         |
| <b>PRODUCT HEIGHT</b>           | 68 mm                                                                                                                                                                                                                         |
| <b>PRODUCT WIDTH</b>            | 45 mm                                                                                                                                                                                                                         |
| <b>PRODUCT WEIGHT</b>           | 0.24 kg                                                                                                                                                                                                                       |
| <b>CERTIFICATIONS</b>           | EN 60947-5-1<br>VDE 0660<br>UL Category Control No.:<br>NKCR<br>CE<br>UL<br>CSA<br>CSA Class No.: 3211-03<br>CSA File No.: 012528<br>CSA-C22.2 No. 14-05<br>IEC/EN 60947<br>UL 508<br>IEC/EN 60947-4-1<br>UL File No.: E29184 |

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| <b>FEATURES</b>                                                                         | Positive operating contacts to EN 60947-5-1 appendix L, including auxiliary contact module                                       |
| <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 be evaluated.                                                               |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product standard's requirements.                                                                                       |

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| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-control-relay-declaration-of-conformity-uk251205en.pdf</a> |
|                                   | <a href="#">eaton-contactors-dila-dilm7-15-dilmp20-il03407013z.pdf</a>       |
|                                   | <a href="#">eaton-contactors-frame-dilm-dimensions.eps</a>                   |
|                                   | <a href="#">eaton-contactors-module-dilm-dimensions.eps</a>                  |
|                                   | <a href="#">eaton-contactors-dilm-3d-drawing-007.eps</a>                     |

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| <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>FITTED WITH:</b>                                             | Positive operation contacts                                                    |
| <b>OPERATING FREQUENCY</b>                                      | 9000 Operations/h                                                              |
| <b>POLLUTION DEGREE</b>                                         | 3                                                                              |
| <b>CLIMATIC PROOFING</b>                                        | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| <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>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>       | 0 W                                                                            |

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| <b>HEAT DISSIPATION CAPACITY PDISS</b>                                            | 0 W                                                                                                  |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>                          | 0.5 W                                                                                                |
| <b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>                        | 0                                                                                                    |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>                    | 1                                                                                                    |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS, DELAYED SWITCHING)</b> | 0                                                                                                    |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>                      | 3                                                                                                    |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS, LEADING)</b>             | 0                                                                                                    |
| <b>NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)</b>                              | 1                                                                                                    |
| <b>NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)</b>                                | 3                                                                                                    |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>                       | 110 V                                                                                                |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>                       | 110 V                                                                                                |
| <b>CONNECTION TO SMARTWIRE-DT</b>                                                 | No                                                                                                   |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                                     | 8000 V AC                                                                                            |
| <b>CONNECTION</b>                                                                 | Screw terminals                                                                                      |
| <b>APPLICATION</b>                                                                | Contactor relays                                                                                     |
| <b>PRODUCT CATEGORY</b>                                                           | DILA relays                                                                                          |
| <b>PROTECTION</b>                                                                 | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| <b>CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)</b>                    | 16 A                                                                                                 |

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| <b>VOLTAGE TYPE OF OPERATING VOLTAGE</b>    | AC/DC                                                                                                                                                 |
| <b>RATED SWITCH CURRENT</b>                 | 16 A                                                                                                                                                  |
| <b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b> | 17 V                                                                                                                                                  |
| <b>OPERATING VOLTAGE AT AC, 50 HZ - MAX</b> | 500 V                                                                                                                                                 |
| <b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b> | 17 V                                                                                                                                                  |
| <b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b> | 500 V                                                                                                                                                 |
| <b>OPERATING VOLTAGE AT DC - MIN</b>        | 24 VDC                                                                                                                                                |
| <b>OPERATING VOLTAGE AT DC - MAX</b>        | 220 VDC                                                                                                                                               |
| <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>VOLTAGE TYPE</b>                         | AC                                                                                                                                                    |
| <b>CODE NUMBER</b>                          | 31E                                                                                                                                                   |
| <b>DEGREE OF PROTECTION</b>                 | IP20                                                                                                                                                  |
| <b>OVERVOLTAGE CATEGORY</b>                 | III                                                                                                                                                   |
| <b>CONTROL CIRCUIT RELIABILITY</b>          | $\lambda < 5 \times 10^{-7}$ (1 failure at 2,000,000 operations for $U_e = 24 \text{ V DC}$ , $U_{min} = 17 \text{ V}$ , $I_{min} = 5.4 \text{ mA}$ ) |
| <b>CONNECTION TYPE (AUXILIARY CIRCUIT)</b>  | Screw connection                                                                                                                                      |
| <b>DUTY FACTOR</b>                          | 100 %                                                                                                                                                 |
| <b>LIFESPAN, MECHANICAL</b>                 | 20,000,000 Operations (AC operated)                                                                                                                   |
| <b>MOUNTING METHOD</b>                      | DIN-rail/screw                                                                                                                                        |
| <b>PICK-UP VOLTAGE</b>                      | 0.8 - 1.1 V AC x $U_c$ (voltage tolerance - single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz)                                             |
| <b>POWER CONSUMPTION, PICK-UP, 50 HZ</b>    | 24 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz                                                                               |
| <b>SAFE ISOLATION</b>                       | 400 V AC, Between auxiliary contacts,<br>According to EN 61140<br>400 V AC, Between coil and auxiliary contacts,                                      |

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|                                                                     | According to EN 61140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>POWER CONSUMPTION,<br/>PICK-UP, 60 HZ</b>                        | 24 VA, AC, Single-<br>frequency coil 50 Hz and<br>Dual-frequency coil 50/60<br>Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>SCREW SIZE</b>                                                   | M3.5, Terminal screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>POWER CONSUMPTION,<br/>SEALING, 60 HZ</b>                        | 1.4 W, AC, Single-<br>frequency coil 50 Hz and<br>Dual-frequency coil 50/60<br>Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RATED OPERATIONAL<br/>CURRENT (IE)</b>                           | 1 A at 220 V, DC L/R $\leq$ 50<br>ms (with 3 contacts in<br>series)<br>1 A at 220 V, DC L/R $\leq$ 15<br>ms (with 1 contact in<br>series)<br>10 A at 60 V, DC L/R $\leq$ 15<br>ms (with 2 contacts in<br>series)<br>4 A at 24 V, DC L/R $\leq$ 50 ms<br>(with 3 contacts in series)<br>3 A at 110 V, DC L/R $\leq$ 15<br>ms (with 1 contact in<br>series)<br>4 A at 60 V, DC L/R $\leq$ 50 ms<br>(with 3 contacts in series)<br>10 A at 24 V, DC L/R $\leq$ 15<br>ms (with 1 contact in<br>series)<br>2 A at 110 V, DC L/R $\leq$ 50<br>ms (with 3 contacts in<br>series)<br>6 A at 60 V, DC L/R $\leq$ 15 ms<br>(with 1 contact in series)<br>5 A at 220 V, DC L/R $\leq$ 15<br>ms (with 3 contacts in<br>series)<br>6 A at 110 V, DC L/R $\leq$ 15<br>ms (with 3 contacts in<br>series)<br>16 A |
| <b>POWER CONSUMPTION,<br/>SEALING, 50 HZ</b>                        | 1.4 W, AC, Single-<br>frequency coil 50 Hz and<br>Dual-frequency coil 50/60<br>Hz<br>3.4 VA, AC, Single-<br>frequency coil 50 Hz and<br>Dual-frequency coil 50/60<br>Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>SWITCHING CAPACITY<br/>(AUXILIARY CONTACTS,<br/>GENERAL USE)</b> | 1 A, 250 V DC, (UL/CSA)<br>15 A, 600 V AC, (UL/CSA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>SWITCHING CAPACITY<br/>(AUXILIARY CONTACTS,</b>                  | P300, DC operated<br>(UL/CSA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| <b>PILOT DUTY)</b>                                                                  | A600, AC operated<br>(UL/CSA) |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 60<br/>HZ - MAX</b>                 | 120 V                         |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 60<br/>HZ - MIN</b>                 | 120 V                         |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT DC -<br/>MAX</b>                        | 0 V                           |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT DC -<br/>MIN</b>                        | 0 V                           |
| <b>RATED INSULATION<br/>VOLTAGE (UI)</b>                                            | 690 V                         |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>220 V, 230 V, 240 V</b>         | 4 A                           |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>380 V, 400 V, 415 V</b>         | 4 A                           |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>500 V</b>                       | 1.5 A                         |
| <b>RATED OPERATIONAL<br/>CURRENT FOR SPECIFIED<br/>HEAT DISSIPATION (IN)</b>        | 15.5 A                        |
| <b>RATED OPERATIONAL<br/>VOLTAGE (UE) AT AC -<br/>MAX</b>                           | 690 V                         |
| <b>STATIC HEAT<br/>DISSIPATION, NON-<br/>CURRENT-DEPENDENT<br/>PVS</b>              | 1.4 W                         |
| <b>STRIPPING LENGTH<br/>(MAIN CABLE)</b>                                            | 10 mm                         |
| <b>SWITCHING TIME (AC<br/>OPERATED, MAKE<br/>CONTACTS, CLOSING<br/>DELAY) - MAX</b> | 21 ms                         |
| <b>SWITCHING TIME (AC<br/>OPERATED, MAKE<br/>CONTACTS, CLOSING<br/>DELAY) - MIN</b> | 15 ms                         |
| <b>SWITCHING TIME (AC<br/>OPERATED, MAKE<br/>CONTACTS, OPENING<br/>DELAY) - MAX</b> | 18 ms                         |
| <b>SWITCHING TIME (AC</b>                                                           | 9 ms                          |

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| <b>OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN</b>   |                                                                                                                                                                                                                                                                                                |
| <b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>       | 1 x (0.75 - 2.5) mm <sup>2</sup> , Screw terminals<br>2 x (0.75 - 2.5) mm <sup>2</sup> , Screw terminals                                                                                                                                                                                       |
| <b>SHOCK RESISTANCE</b>                                | 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 |
| <b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>          | 18 - 14, Screw terminals                                                                                                                                                                                                                                                                       |
| <b>SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING</b> | 10 A gG/gL, 500 V, Max. Fuse, Contacts                                                                                                                                                                                                                                                         |
| <b>TERMINAL CAPACITY (SOLID)</b>                       | 1 x (0.75 - 4) mm <sup>2</sup> , Screw terminals<br>2 x (0.75 - 2.5) mm <sup>2</sup> , Screw terminals                                                                                                                                                                                         |
| <b>ACTUATING VOLTAGE</b>                               | 110 V 50 Hz, 120 V 60 Hz                                                                                                                                                                                                                                                                       |

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