



□□□□

Eaton EP-401305

Eaton Moeller® series DILM Contactor, 3 pole, 380 V 400 V 3 kW, 1 N/C, 60 V DC, DC operation, Push in terminals

□□□□

| | |
|-----------------------------|---|
| PRODUCT NAME | Eaton Moeller® series DILM contactor |
| CATALOG NUMBER | EP-401305 |
| PRODUCT LENGTH/DEPTH | 75 mm |
| PRODUCT HEIGHT | 68 mm |
| PRODUCT WIDTH | 45 mm |
| PRODUCT WEIGHT | 0.285 kg |
| COMPLIANCES | CE RoHS conform |



Powering Business Worldwide

| | |
|---|--|
| NUMBER OF POLES | Three-pole |
| 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. |

DECLARATIONS OF CONFORMITY

[eaton-contactor-declaration-of-conformity-uk251209en.pdf](#)

| | |
|---|--|
| 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 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. |
| FITTED WITH: | Mirror contact Built-in suppressor circuit |
| OPERATING FREQUENCY | 9000 mechanical Operations/h (DC operated) |
| POLLUTION DEGREE | 3 |
| CLIMATIC PROOFING | Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30 |
| CONNECTION TO SMARTWIRE-DT | No |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) | 6000 V AC |
| CONNECTION | Push in terminals |
| FRAME SIZE | FS1 |
| 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 |
| ASSIGNED MOTOR | 0.25 HP |

| | |
|---|--|
| POWER AT 115/120 V, 60 HZ, 1-PHASE | |
| ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE | 1.5 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE | 1 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE | 2 HP |
| ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE | 3 HP |
| ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE | 5 HP |
| CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED) | 45 A |
| CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED) | 18 A |
| CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN) | 21 A |
| CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN) | 50 A |
| SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX | 12 ms |
| APPLICATION | Contactors for Motors |
| PRODUCT CATEGORY | Contactors |
| PROTECTION | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| ARCING TIME | 10 ms |
| ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT | Push-in connection Spring clamp connection |
| SCREWDRIVER SIZE | 3.0 x 0.5 mm, Terminal screw |
| VOLTAGE TYPE | DC |
| DEGREE OF PROTECTION | IP20 |
| NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS) | 1 |

| | |
|--|---|
| NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS) | 0 |
| NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS) | 1 |
| NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT | 0 |
| NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS) | 0 |
| NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT) | 3 |
| POWER CONSUMPTION (PICK-UP) AT DC | 3 W |
| POWER CONSUMPTION (SEALING) AT DC | 3 W |
| RATED BREAKING CAPACITY AT 220/230 V | 70 A |
| RATED BREAKING CAPACITY AT 380/400 V | 70 A |
| RATED BREAKING CAPACITY AT 500 V | 50 A |
| RATED BREAKING CAPACITY AT 660/690 V | 40 A |
| OVERVOLTAGE CATEGORY | III |
| DUTY FACTOR | 100 % |
| EMITTED INTERFERENCE | According to EN 60947-1 |
| INTERFERENCE IMMUNITY | According to EN 60947-1 |
| LIFESPAN, MECHANICAL | 10,000,000 Operations (DC operated) |
| PICK-UP VOLTAGE | 0.8 - 1.1 V DC x U_c 0.85 - 1.1 V DC x U_c (only with auxiliary contact module with 3 or more N/C contacts) |
| SAFE ISOLATION | 400 V AC, Between coil and contacts, According to EN 61140 400 V AC, Between the contacts, According to EN 61140 |
| TERMINAL CAPACITY (FLEXIBLE WITH UNISOLATED FERRULE) | 1 x (0.5 - 2.5) mm ² 2 x (0.5 - 2.5) mm ² |
| TERMINAL CAPACITY (FLEXIBLE WITH ULTRASONIC WELDED) | 1 x (0.5 - 2.5) mm ² 2 x (0.5 - 2.5) mm ² |

| | |
|---|---|
| CABLE END) | |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE) | 1 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA) |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY) | P300, DC operated (UL/CSA) A600, AC operated (UL/CSA) |
| TERMINAL CAPACITY (FLEXIBLE WITH FERRULE) | 1 x (0.5 - 2.5) mm ² 2 x (0.5 - 1.5) mm ² |
| SHOCK RESISTANCE | 5.7 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 3.4 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 3.4 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |
| TERMINAL CAPACITY (SOLID) | 1 x (0.5 - 2.5) mm ² 2 x (0.5 - 2.5) mm ² |
| TERMINAL CAPACITY (SOLID/STRANDED AWG) | 20 - 14 |
| SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE) | 20 A, Maximum motor rating (UL/CSA) |
| TERMINAL CAPACITY (FLEXIBLE) | 1 x (0.5 - 2.5) mm ² 2 x (0.5 - 2.5) mm ² |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX | 60 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN | 60 V |

| | |
|--|--------|
| RATED INSULATION VOLTAGE (UI) | 690 V |
| RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947) | 112 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V | 22 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V | 7 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V | 7 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V | 7 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V | 5 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V | 4 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V | 5 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V | 5 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V | 5 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V | 4.5 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V | 4 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V | 20 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V | 15 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V | 20 A |
| RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ | 2.2 kW |
| RATED OPERATIONAL POWER AT AC-3, 380/400 | 3 kW |

| | |
|--|---|
| V, 50 HZ | |
| RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ | 4 kW |
| RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ | 1 kW |
| RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ | 1.5 kW |
| RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ | 2.2 kW |
| RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ | 2.3 kW |
| RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ | 2.4 kW |
| RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ | 2.5 kW |
| RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ | 2.9 kW |
| RATED OPERATIONAL POWER (NEMA) | 2.2 kW |
| RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX | 690 V |
| RESISTANCE PER POLE | 4.6 mΩ |
| STRIPPING LENGTH (CONTROL CIRCUIT CABLE) | 10 mm |
| STRIPPING LENGTH (MAIN CABLE) | 10 mm |
| SHORT-CIRCUIT CURRENT RATING (BASIC RATING) | 5 kA, 25 A max. fuse, SCCR (UL/CSA) 5 kA, 25 A max. CB, SCCR (UL/CSA) |
| SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V) | 100 kA, 20 A CLASS J max. fuse, SCCR (UL/CSA) 30 kA, 25 A CLASS RK5 max. fuse, SCCR (UL/CSA) 65 kA, 16 A max. CB, SCCR (UL/CSA) |
| SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V) | 100 kA, 20 A CLASS J max. fuse, SCCR (UL/CSA) 30 kA, 25 A CLASS RK5 max. fuse, SCCR (UL/CSA) |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) | 35 A gG/gL |

| | |
|---|---|
| AT 400 V | |
| SUITABLE FOR | Also motors with efficiency class IE3 |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V | 20 A gG/gL |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V | 20 A gG/gL |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V | 16 A gG/gL |
| SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS | 12 A (480V 60Hz 3phase, 277V 60Hz 1phase) 12 A (600V 60Hz 3phase, 347V 60Hz 1phase) |
| SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING | 42 A, LRA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA) 7 A, FLA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA) |
| SPECIAL PURPOSE RATING OF ELEVATOR CONTROL | 0.75 HP, 200 V 60 Hz 3-ph, (UL/CSA) 1.5 HP, 240 V 60 Hz 3-ph, (UL/CSA) 2 HP, 480 V 60 Hz 3-ph, (UL/CSA) 3.9 A, 600 V 60 Hz 3-ph, (UL/CSA) 6 A, 240 V 60 Hz 3-ph, (UL/CSA) 3.4 A, 480 V 60 Hz 3-ph, (UL/CSA) 3.7 A, 200 V 60 Hz 3-ph, (UL/CSA) 3 HP, 600 V 60 Hz 3-ph, (UL/CSA) |
| SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY) | 10 A, FLA 480 V 60 Hz 3phase; (CSA) 10 A, FLA 600 V 60 Hz 3phase; (CSA) 60 A, LRA 480 V 60 Hz 3phase; (CSA) 60 A, LRA 600 V 60 Hz 3phase; (CSA) |
| SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING | 12 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 12 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) |
| SPECIAL PURPOSE | 14 A, 480 V 60 Hz 3phase, |

