

# Specifications

Photo is representative

## Eaton 231661

Eaton Moeller® series DILEM Contactor, 380 V 50 Hz, 440 V 60 Hz, 3 pole, 380 V 400 V, 4 kW, Contacts N/O = Normally open= 1 N/O, Spring-loaded terminals, AC operation

### General specifications

|                                 |                                                                                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller® series<br>DILEM Mini contactor                                                                                                                                                                 |
| <b>CATALOG NUMBER</b>           | 231661                                                                                                                                                                                                        |
| <b>MODEL CODE</b>               | DILEM-10-<br>C(380V50HZ,440V60HZ)                                                                                                                                                                             |
| <b>EAN</b>                      | 4015082316617                                                                                                                                                                                                 |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 52 mm                                                                                                                                                                                                         |
| <b>PRODUCT HEIGHT</b>           | 58 mm                                                                                                                                                                                                         |
| <b>PRODUCT WIDTH</b>            | 45 mm                                                                                                                                                                                                         |
| <b>PRODUCT WEIGHT</b>           | 0.17 kg                                                                                                                                                                                                       |
| <b>CERTIFICATIONS</b>           | CSA-C22.2 No. 14-05<br>UL 508<br>IEC/EN 60947-4-1<br>UL File No.: E29096<br>CE<br>IEC/EN 60947<br>CSA<br>CSA File No.: 012528<br>VDE 0660<br>CSA Class No.: 3211-04<br>UL<br>UL Category Control No.:<br>NLDX |
| <b>CATALOG NOTES</b>            | Also tested according to<br>AC-3e.                                                                                                                                                                            |
| <b>GLOBAL CATALOG</b>           | 231661                                                                                                                                                                                                        |

## Product specifications

|                                                                                         |                                                                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>NUMBER OF POLES</b>                                                                  | Three-pole                                                                                                                       |
| <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.                                                               |

## Resources

### CATALOGS

[Product Range Catalog Switching and protecting motors](#)

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

### CHARACTERISTIC CURVE

[eaton-contactors-component-dilm-characteristic-curve-003.eps](#)

[eaton-contactors-switch-dilm-characteristic-curve.eps](#)

[eaton-contactors-short-time-loading-dilm-characteristic-curve.eps](#)

### DECLARATIONS OF CONFORMITY

[DA-DC-00004812.pdf](#)

[DA-DC-00004788.pdf](#)

### DRAWINGS

[eaton-contactors-dimensions-004.eps](#)

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

[eaton-tripping-devices-mounting-diler-contactor-relay-symbol.eps](#)

### ECAD MODEL

[ETN.231661.edz](#)

### INSTALLATION INSTRUCTIONS

[IL03407009Z](#)

### MCAD MODEL

[DA-CD-dil\\_em\\_c](#)

[DA-CS-dil\\_em\\_c](#)

### SYSTEM OVERVIEW

[eaton-contactors-accessory-diler-relay-explosion-drawing.eps](#)

### WIRING DIAGRAMS

[eaton-contactors-contact-dilm-wiring-diagram.eps](#)

|                                                                 |                                                                                                                                                                                                                           |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>FITTED WITH:</b>                                             | Auxiliary contact                                                                                                                                                                                                         |
| <b>OPERATING FREQUENCY</b>                                      | 9000 mechanical 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>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                   | 6000 V AC                                                                                                                                                                                                                 |
| <b>UTILIZATION CATEGORY</b>                                     | AC-1: Non-inductive or slightly inductive loads, resistance furnaces<br>AC-4: Normal AC induction motors: starting, plugging, reversing, inching<br>AC-3: Normal AC induction motors: starting, switch off during running |
| <b>CONNECTION</b>                                               | Spring-loaded terminals                                                                                                                                                                                                   |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 50 °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>ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE</b>                     | 0.5 HP |
| <b>ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE</b>                     | 2 HP   |
| <b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE</b>                     | 1.5 HP |
| <b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE</b>                     | 3 HP   |
| <b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>                     | 5 HP   |
| <b>ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE</b>                     | 5 HP   |
| <b>CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)</b>                   | 40 A   |
| <b>CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)</b>                   | 16 A   |
| <b>CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)</b>               | 19 A   |
| <b>CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)</b> | 10 A   |
| <b>CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)</b>      | 50 A   |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>                    | 1.2 W  |

|                                                                                        |                                                                                                      |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                                                 | 0 W                                                                                                  |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>                               | 0.4 W                                                                                                |
| <b>SWITCHING TIME (AC OPERATED, N/O, WITH AUXILIARY CONTACT MODULE, CLOSING DELAY)</b> | 45 ms                                                                                                |
| <b>APPLICATION</b>                                                                     | Mini Contactors for Motors and Resistive Loads                                                       |
| <b>PRODUCT CATEGORY</b>                                                                | Contactors                                                                                           |
| <b>PROTECTION</b>                                                                      | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| <b>ARCING TIME</b>                                                                     | 12 ms at 690 V AC                                                                                    |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>                                      | Spring clamp connection                                                                              |
| <b>SCREWDRIVER SIZE</b>                                                                | 0.6 x 3.5 mm, Spring-loaded terminals                                                                |
| <b>VOLTAGE TYPE</b>                                                                    | AC                                                                                                   |
| <b>DEGREE OF PROTECTION</b>                                                            | IP20                                                                                                 |
| <b>MOUNTING POSITION</b>                                                               | As required (except vertical with terminals A1/A2 at the bottom)                                     |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>                         | 0                                                                                                    |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>                           | 1                                                                                                    |
| <b>NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT</b>                            | 0                                                                                                    |
| <b>NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)</b>                                 | 3                                                                                                    |
| <b>RATED BREAKING CAPACITY AT 220/230 V</b>                                            | 90 A                                                                                                 |
| <b>RATED BREAKING CAPACITY AT 380/400 V</b>                                            | 90 A                                                                                                 |
| <b>RATED BREAKING CAPACITY AT 500 V</b>                                                | 64 A                                                                                                 |
| <b>RATED BREAKING</b>                                                                  | 42 A                                                                                                 |

|                                                             |                                                                                                                                                                                     |
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| <b>CAPACITY AT 660/690 V</b>                                |                                                                                                                                                                                     |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b> | 380 V                                                                                                                                                                               |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b> | 380 V                                                                                                                                                                               |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b> | 440 V                                                                                                                                                                               |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b> | 440 V                                                                                                                                                                               |
| <b>OVERVOLTAGE CATEGORY</b>                                 | III                                                                                                                                                                                 |
| <b>CONTROL CIRCUIT RELIABILITY</b>                          | < 2 $\lambda$ , < 1 failure at 100,000,000 Operations (at $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA)                                                                    |
| <b>DUTY FACTOR</b>                                          | 100 %                                                                                                                                                                               |
| <b>CHANGEOVER TIME</b>                                      | 16 - 21 ms                                                                                                                                                                          |
| <b>LIFESPAN, MECHANICAL</b>                                 | 200,000 Operations (at 240 V, AC-15)<br>10,000,000 Operations<br>150,000 Operations (at 240 V, DC, L/R = 50 ms: 2 contacts in series 0.5 A)<br>7,000,000 Operations (Coil 50/60 Hz) |
| <b>PICK-UP VOLTAGE</b>                                      | 1.1 V AC x $U_c$ (voltage tolerance - dual frequency coil 50/60 Hz)<br>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>                    | 22 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz<br>25 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz                                   |
| <b>SAFE ISOLATION</b>                                       | 300 V AC, Between the contacts, According to EN 61140<br>300 V AC, Between coil and contacts, According to EN 61140<br>300 V AC, Between auxiliary contacts, According to EN 61140  |

|                                                             |                                                                                                                                                                                                                                                                       |
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|                                                             | 300 V AC, Between coil and auxiliary contacts, According to EN 61140                                                                                                                                                                                                  |
| <b>POWER CONSUMPTION, PICK-UP, 60 HZ</b>                    | 22 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz<br>25 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz                                                                                                                     |
| <b>POWER CONSUMPTION, SEALING, 50 HZ</b>                    | 4.6 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz<br>1.8 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz                                                                                                                   |
| <b>POWER CONSUMPTION, SEALING, 60 HZ</b>                    | 1.8 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz                                                                                                                                                                                               |
| <b>RATED OPERATIONAL CURRENT (IE)</b>                       | 2.5 A at 24 V, DC L/R $\leq$ 15 ms (with 1 contact in series)<br>2.5 A at 60 V, DC L/R $\leq$ 15 ms (with 2 contacts in series)<br>0.5 A at 220 V, DC L/R $\leq$ 15 ms (with 3 contacts in series)<br>1.5 A at 100 V, DC L/R $\leq$ 15 ms (with 3 contacts in series) |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b> | 0.5 A, 250 V DC, (UL/CSA)<br>10 A, 600 V AC, (UL/CSA)                                                                                                                                                                                                                 |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>  | P300, DC operated (UL/CSA)<br>A600, AC operated (UL/CSA)                                                                                                                                                                                                              |
| <b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>            | 2 x (1 - 2.5) mm <sup>2</sup><br>1 x (1 - 2.5) mm <sup>2</sup>                                                                                                                                                                                                        |
| <b>SHOCK RESISTANCE</b>                                     | 10 g, N/O main contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms<br>8 g, N/O auxiliary contact, Basic unit without auxiliary contact module,                                                 |

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                     | <p>Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Basic unit without auxiliary contact module,</p> <p>Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 20 g, N/O auxiliary contact, Basic unit with auxiliary contact module,</p> <p>Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 20 g, N/C auxiliary contact, Basic unit with auxiliary contact module,</p> <p>Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms</p> |
| <b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>                       | 16 - 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)</b>              | 15 A, Maximum motor rating (UL/CSA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>                | 0 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>                | 0 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                | 690 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RATED MAKING CAPACITY UP TO 440 V (COS PHI TO IEC/EN 60947)</b>  | 110 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V</b>  | 22 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <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> | 3 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V</b>               | 1.5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3,</b>                      | 9 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                                                      |        |
|----------------------------------------------------------------------|--------|
| <b>220 V, 230 V, 240 V</b>                                           |        |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>   | 9 A    |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V</b>                 | 9 A    |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V</b>                 | 6.4 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V</b>          | 4.8 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V</b>   | 6.6 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V</b>                 | 6.6 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V</b>                 | 6.6 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V</b>                 | 5 A    |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V</b>          | 3.4 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V</b>                 | 20 A   |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 12 V</b>                  | 20 A   |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V</b>                 | 20 A   |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 24 V</b>                  | 20 A   |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V</b>                  | 20 A   |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 9 A    |
| <b>RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ</b>                 | 2.5 kW |
| <b>RATED OPERATIONAL</b>                                             | 4 kW   |

|                                                                         |         |
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| <b>POWER AT AC-3, 380/400 V, 50 HZ</b>                                  |         |
| <b>RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ</b>                    | 4.3 kW  |
| <b>RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ</b>                | 1.5 kW  |
| <b>RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ</b>                    | 1.8 kW  |
| <b>RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ</b>                | 3 kW    |
| <b>RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ</b>                    | 3.1 kW  |
| <b>RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ</b>                    | 3.3 kW  |
| <b>RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ</b>                    | 3 kW    |
| <b>RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ</b>                | 3 kW    |
| <b>RATED OPERATIONAL POWER (NEMA)</b>                                   | 3.7 kW  |
| <b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>                       | 690 V   |
| <b>RESISTANCE PER POLE</b>                                              | 9.18 mΩ |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>               | 1.8 W   |
| <b>STRIPPING LENGTH (MAIN CABLE)</b>                                    | 10 mm   |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX</b> | 21 ms   |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN</b> | 14 ms   |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX</b> | 18 ms   |

|                                                                           |                                                                                                                                                                                                                                                                                                                       |
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| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN</b>   | 8 ms                                                                                                                                                                                                                                                                                                                  |
| <b>SHORT-CIRCUIT CURRENT RATING (BASIC RATING)</b>                        | 5 kA, SCCR (UL/CSA)<br>45 A, max. Fuse, SCCR (UL/CSA)                                                                                                                                                                                                                                                                 |
| <b>SHORT-CIRCUIT PROTECTION</b>                                           | 10 A fast, Max. Fuse 500V, Auxiliary contacts, Short-circuit rating without welding<br>6 A gG/gL, Max. Fuse 500V, Auxiliary contacts, Short-circuit rating without welding<br>PKZM0-4, Maximum overcurrent protective device, Short-circuit protection only, Auxiliary contacts, Short-circuit rating without welding |
| <b>SUITABLE FOR</b>                                                       | Also motors with efficiency class IE3                                                                                                                                                                                                                                                                                 |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 500 V</b>     | 20 A gG/gL                                                                                                                                                                                                                                                                                                            |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 500 V</b>     | 10 A gG/gL                                                                                                                                                                                                                                                                                                            |
| <b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> AT 40°C (3-POLE, OPEN)</b> | 22 A                                                                                                                                                                                                                                                                                                                  |
| <b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> AT 50°C (3-POLE, OPEN)</b> | 20 A                                                                                                                                                                                                                                                                                                                  |
| <b>RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ</b>                      | 4.6 kW                                                                                                                                                                                                                                                                                                                |
| <b>RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ</b>                      | 4 kW                                                                                                                                                                                                                                                                                                                  |
| <b>RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ</b>                      | 4 kW                                                                                                                                                                                                                                                                                                                  |
| <b>ACTUATING VOLTAGE</b>                                                  | 380 V 50 Hz, 440 V 60 Hz                                                                                                                                                                                                                                                                                              |
| <b>ALTITUDE</b>                                                           | Max. 2000 m                                                                                                                                                                                                                                                                                                           |
| <b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b>                               | 24 V                                                                                                                                                                                                                                                                                                                  |
| <b>OPERATING VOLTAGE AT</b>                                               | 690 V                                                                                                                                                                                                                                                                                                                 |

|                                                 |       |
|-------------------------------------------------|-------|
| <b>AC, 50 HZ - MAX</b>                          |       |
| <b>OPERATING VOLTAGE AT<br/>AC, 60 HZ - MIN</b> | 24 V  |
| <b>OPERATING VOLTAGE AT<br/>AC, 60 HZ - MAX</b> | 690 V |

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



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