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## Eaton 102964

Eaton Moeller® series MSC-D DOL starter,  
380 V 400 V 415 V: 0.06 kW, Ir= 0.16 - 0.25 A,  
24 V DC, DC voltage

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|                                 |                                                                                                                                                                                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller® series<br>MSC-D DOL starter                                                                                                                                                                                                          |
| <b>CATALOG NUMBER</b>           | 102964                                                                                                                                                                                                                                              |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 154 mm                                                                                                                                                                                                                                              |
| <b>PRODUCT HEIGHT</b>           | 200 mm                                                                                                                                                                                                                                              |
| <b>PRODUCT WIDTH</b>            | 45 mm                                                                                                                                                                                                                                               |
| <b>PRODUCT WEIGHT</b>           | 0.885 kg                                                                                                                                                                                                                                            |
| <b>CERTIFICATIONS</b>           | CSA Class No.: 3211-04<br>CSA-C22.2 No. 14 (on<br>request)<br>UL File No.: E123500<br>UL<br>CSA-C22.2 No. 14-10<br>CSA<br>CSA File No.: 012528<br>IEC/EN 60947-4-1<br>UL60947-4-1A<br>CE<br>UL 508 (on request)<br>UL Category Control No.:<br>NKJH |

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| <b>TYPE</b>                                                                             | Starter with Bi-Metal release                                                                                                    |
| <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.                                                                                       |
| <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</b>                                                              | Meets the product                                                                                                                |

|                            |                                                                                         |
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| DECLARATIONS OF CONFORMITY | <a href="#">eaton-dol-starter-declaration-of-conformity-uk251156en.pdf</a>              |
| □□□□□                      | <a href="#">IL034014ZU IL034038ZU</a><br><a href="#">IL03402015Z</a>                    |
| □□□                        | <a href="#">eaton-manual-motor-starters-device-msc-d-dol-starter-wiring-diagram.eps</a> |
| □□□□                       | <a href="#">eaton-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf</a>    |
| □□                         | <a href="#">eaton-manual-motor-starters-adapter-msc-d-dol-starter-dimensions.eps</a>    |

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| <b>CREEPAGE DISTANCES</b>                                          | 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>                                                | Short-circuit release                                              |
| <b>POLLUTION DEGREE</b>                                            | 3                                                                  |
| <b>CLASS</b>                                                       | CLASS 10 A                                                         |
| <b>CONNECTION TO SMARTWIRE-DT</b>                                  | No                                                                 |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                      | 6000 V AC                                                          |
| <b>MODEL</b>                                                       | IEC/UL starter                                                     |
| <b>ALTITUDE</b>                                                    | Max. 2000 m                                                        |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>                  | Screw connection                                                   |
| <b>VOLTAGE TYPE</b>                                                | DC                                                                 |
| <b>MOUNTING METHOD</b>                                             | Mounting on Busbar 60 mm                                           |
| <b>OVERVOLTAGE CATEGORY</b>                                        | III                                                                |
| <b>CONNECTION</b>                                                  | Screw terminals                                                    |
| <b>FUNCTIONS</b>                                                   | Temperature compensated overload protection                        |
| <b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>                      | 0.16 A                                                             |
| <b>POWER CONSUMPTION (SEALING) AT DC</b>                           | 3 W                                                                |
| <b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V</b> | 50000 A                                                            |
| <b>RATED CONDITIONAL</b>                                           | 50000 A                                                            |

|                                                                      |                                                          |
|----------------------------------------------------------------------|----------------------------------------------------------|
| <b>SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V</b>       |                                                          |
| <b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 480 Y/277 V</b>  | 0 A                                                      |
| <b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 600 Y/347 V</b>  | 0 A                                                      |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>          | 0 V                                                      |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>          | 0 V                                                      |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>          | 0 V                                                      |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>          | 0 V                                                      |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>                 | 24 V                                                     |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>                 | 24 V                                                     |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>   | 0.25 A                                                   |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b>          | 1 A, 250 V DC, (UL/CSA)<br>15 A, 600 V AC, (UL/CSA)      |
| <b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>           | A600, AC operated (UL/CSA)<br>P300, DC operated (UL/CSA) |
| <b>RATED OPERATIONAL CURRENT (IE)</b>                                | 0.21 A                                                   |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 0.25 A                                                   |
| <b>RATED OPERATIONAL VOLTAGE</b>                                     | 230 - 415 V AC                                           |
| <b>SUITABLE FOR</b>                                                  | Also motors with efficiency class IE3                    |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                           | 55 °C                                                    |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                           | -25 °C                                                   |

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| <b>COORDINATION TYPE</b>                                                     | 2                  |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>                    | 5.7 W              |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                                       | 0 W                |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>                     | 1.9 W              |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>               | 0                  |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>                 | 1                  |
| <b>NUMBER OF COMMAND POSITIONS</b>                                           | 0                  |
| <b>NUMBER OF PILOT LIGHTS</b>                                                | 0                  |
| <b>OVERLOAD RELEASE CURRENT SETTING - MAX</b>                                | 0.25 A             |
| <b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>                     | 0.04 kW            |
| <b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>                     | 0.06 kW            |
| <b>RATED POWER AT 460 V, 60 HZ, 3-PHASE</b>                                  | 0 kW               |
| <b>RATED POWER AT 575 V, 60 HZ, 3-PHASE</b>                                  | 0 kW               |
| <b>SHORT-CIRCUIT RELEASE (IRM) - MAX</b>                                     | 3.9 A              |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>                    | 2.6 W              |
| <b>COORDINATION CLASS (IEC 60947-4-3)</b>                                    | Class 2            |
| <b>DEGREE OF PROTECTION</b>                                                  | IP20<br>NEMA Other |
| <b>ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT</b> | Screw connection   |
| <b>ACTUATING VOLTAGE</b>                                                     | 24 V DC            |
| <b>POWER CONSUMPTION</b>                                                     | 2.6 W              |

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



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