

# Specifications



## Eaton 283151

Eaton Moeller® series MSC-D DOL starter,  
380 V 400 V 415 V: 11 kW, I<sub>r</sub>= 20 - 25 A, 230 V  
50 Hz, 240 V 60 Hz.

### General specifications

|                                 |                                                                                                                                                                                                                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>             | Eaton Moeller® series<br>MSC-D DOL starter                                                                                                                                                                     |
| <b>CATALOG NUMBER</b>           | 283151                                                                                                                                                                                                         |
| <b>MODEL CODE</b>               | MSC-D-25-M25(230V50HZ)                                                                                                                                                                                         |
| <b>EAN</b>                      | 4015082831516                                                                                                                                                                                                  |
| <b>PRODUCT<br/>LENGTH/DEPTH</b> | 123.4 mm                                                                                                                                                                                                       |
| <b>PRODUCT HEIGHT</b>           | 228 mm                                                                                                                                                                                                         |
| <b>PRODUCT WIDTH</b>            | 45 mm                                                                                                                                                                                                          |
| <b>PRODUCT WEIGHT</b>           | 0.87 kg                                                                                                                                                                                                        |
| <b>CERTIFICATIONS</b>           | UL File No.: E36332<br>CE<br>CSA Class No.: 3211-24<br>CSA File No.: 012528<br>VDE 0660<br>UL<br>CSA<br>UL 60947-4-1<br>UL Category Control No.:<br>NLRV<br>IEC/EN 60947-4-1<br>CSA-C22.2 No. 60947-4-1-<br>14 |
| <b>GLOBAL CATALOG</b>           | 283151                                                                                                                                                                                                         |

## Product specifications

|                                                                                         |                                                                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <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</b>                                                                   | Does not apply, since the                                                                                                        |

## Resources

|                                   |                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BROCHURES</b>                  | <a href="#">eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf</a><br><a href="#">eaton-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf</a>                                                                                                                                                           |
| <b>CATALOGS</b>                   | <a href="#">Product Range Catalog Switching and protecting motors</a><br><a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>                                                                                                                                                                      |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-dol-starter-declaration-of-conformity-eu250673en.pdf</a>                                                                                                                                                                                                                                                           |
| <b>DRAWINGS</b>                   | <a href="#">eaton-manual-motor-starters-starter-msc-d-dol-starter-dimensions.eps</a><br><a href="#">eaton-manual-motor-starters-mounting-msc-d-dol-starter-3d-drawing.eps</a><br><a href="#">eaton-general-ie-ready-dilm-contactor-standards.eps</a><br><a href="#">eaton-manual-motor-starters-dol-starter-msc-d-3d-drawing.eps</a> |
| <b>ECAD MODEL</b>                 | <a href="#">ETN.283151.edz</a>                                                                                                                                                                                                                                                                                                       |
| <b>INSTALLATION INSTRUCTIONS</b>  | <a href="#">IL03402010Z</a>                                                                                                                                                                                                                                                                                                          |
| <b>INSTALLATION VIDEOS</b>        | <a href="#">WIN-WIN with push-in technology</a>                                                                                                                                                                                                                                                                                      |
| <b>MCAD MODEL</b>                 | <a href="#">DA-CS-msc_d_bg2</a><br><a href="#">DA-CD-msc_d_bg2</a>                                                                                                                                                                                                                                                                   |
| <b>SALES NOTES</b>                | <a href="#">eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf</a>                                                                                                                                                                                                                                                  |
| <b>WIRING DIAGRAMS</b>            | <a href="#">eaton-manual-motor-starters-device-msc-d-dol-starter-wiring-diagram.eps</a>                                                                                                                                                                                                                                              |

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|--------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>PROTECTION OF ASSEMBLIES</b>                                    | 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>                                                | 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 starter                                                        |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>                  | Screw connection                                                   |
| <b>VOLTAGE TYPE</b>                                                | AC                                                                 |
| <b>MOUNTING METHOD</b>                                             | DIN rail                                                           |
| <b>OVERVOLTAGE CATEGORY</b>                                        | III                                                                |
| <b>CONNECTION</b>                                                  | Screw terminals                                                    |
| <b>FUNCTIONS</b>                                                   | Temperature compensated overload protection                        |
| <b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>                      | 20 A                                                               |
| <b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V</b> | 50000 A                                                            |

|                                                                                              |                                                                         |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>RATED CONDITIONAL<br/>SHORT-CIRCUIT CURRENT<br/>(IQ), TYPE 2, 380 V, 400 V,<br/>415 V</b> | 50000 A                                                                 |
| <b>RATED CONDITIONAL<br/>SHORT-CIRCUIT<br/>CURRENT, TYPE 1, 480<br/>Y/277 V</b>              | 0 A                                                                     |
| <b>RATED CONDITIONAL<br/>SHORT-CIRCUIT<br/>CURRENT, TYPE 1, 600<br/>Y/347 V</b>              | 0 A                                                                     |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 50<br/>HZ - MAX</b>                          | 230 V                                                                   |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 50<br/>HZ - MIN</b>                          | 230 V                                                                   |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 60<br/>HZ - MAX</b>                          | 0 V                                                                     |
| <b>RATED CONTROL SUPPLY<br/>VOLTAGE (US) AT AC, 60<br/>HZ - MIN</b>                          | 0 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 OPERATIONAL<br/>CURRENT (IE) AT AC-3,<br/>380 V, 400 V, 415 V</b>                   | 25 A                                                                    |
| <b>POWER CONSUMPTION,<br/>SEALING, 50 HZ</b>                                                 | 2.1 W, Dual-frequency coil<br>in a cold state and 1.0 x<br>Us, at 50 Hz |
| <b>SWITCHING CAPACITY<br/>(AUXILIARY CONTACTS,<br/>GENERAL USE)</b>                          | 15 A, 600 V AC, (UL/CSA)<br>1 A, 250 V DC, (UL/CSA)                     |
| <b>SWITCHING CAPACITY<br/>(AUXILIARY CONTACTS,<br/>PILOT DUTY)</b>                           | P300, DC operated<br>(UL/CSA)<br>A600, AC operated<br>(UL/CSA)          |
| <b>RATED OPERATIONAL<br/>CURRENT (IE)</b>                                                    | 21.7 A                                                                  |
| <b>RATED OPERATIONAL<br/>CURRENT FOR SPECIFIED<br/>HEAT DISSIPATION (IN)</b>                 | 25 A                                                                    |
| <b>RATED OPERATIONAL<br/>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                                |
| <b>COORDINATION TYPE</b>                                       | 2                                     |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>      | 13.2 W                                |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                         | 0 W                                   |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>       | 4.4 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>                  | 25 A                                  |
| <b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>       | 5.5 kW                                |
| <b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>       | 11 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>                       | 388 A                                 |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>      | 2.1 W                                 |
| <b>COORDINATION CLASS (IEC 60947-4-3)</b>                      | Class 2                               |
| <b>DEGREE OF PROTECTION</b>                                    | IP00<br>NEMA Other                    |
| <b>ELECTRICAL</b>                                              | Screw connection                      |

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**CONNECTION TYPE FOR  
AUXILIARY- AND  
CONTROL-CURRENT  
CIRCUIT**

|                          |                            |
|--------------------------|----------------------------|
| <b>ACTUATING VOLTAGE</b> | 230 V 50 Hz<br>240 V 60 Hz |
|--------------------------|----------------------------|

|                          |       |
|--------------------------|-------|
| <b>POWER CONSUMPTION</b> | 2.1 W |
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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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