

## Eaton 102970

Eaton Moeller® series MSC-D DOL starter,  
380 V 400 V 415 V: 1.1, 1.5 kW, I<sub>r</sub>= 2.5 - 4 A,  
24 V DC, DC voltage

<b>PRODUCT NAME</b>	Eaton Moeller® series MSC-D DOL starter
<b>CATALOG NUMBER</b>	102970
<b>PRODUCT LENGTH/DEPTH</b>	154 mm
<b>PRODUCT HEIGHT</b>	200 mm
<b>PRODUCT WIDTH</b>	45 mm
<b>PRODUCT WEIGHT</b>	0.93 kg
<b>CERTIFICATIONS</b>	CE CSA File No.: 012528 CSA Class No.: 3211-04 CSA-C22.2 No. 14 (on request) UL CSA UL60947-4-1A UL File No.: E123500 UL Category Control No.: NKJH UL 508 (on request) IEC/EN 60947-4-1 CSA-C22.2 No. 14-10

<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

<a href="#">IL034014ZU</a> <a href="#">IL034038ZU</a>	
<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>	

<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
<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>	2.5 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 SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V</b>	50000 A
<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>	4 A
<b>SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)</b>	1 A, Class J/CC, max. Fuse, SCCR (UL/CSA) 100 kA, Fuse, SCCR (UL/CSA)
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b>	15 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
<b>RATED OPERATIONAL</b>	3.6 A

<b>CURRENT (IE)</b>	
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	4 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
<b>COORDINATION TYPE</b>	2
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	6 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	2 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>	4 A
<b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>	0.75 kW
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	1.5 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>	62 A
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>	2.6 W

PVS	
COORDINATION CLASS (IEC 60947-4-3)	Class 2
DEGREE OF PROTECTION	IP20 NEMA Other
ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT	Screw connection
ACTUATING VOLTAGE	24 V DC
POWER CONSUMPTION	2.6 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



Eaton House  
30 Pembroke Road  
Dublin 4,  
Eaton.com  
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