



Eaton 102990

Eaton Moeller® series MSC-R Reversing starter, 380 V 400 V 415 V: 4 kW, Ir= 6.3 - 10 A, 230 V 50 Hz, 240 V 60 Hz, AC voltage MSC-R-10-M9(230V50HZ)/BBA

□□□□

PRODUCT NAME	Eaton Moeller® series MSC-R Reversing starter
CATALOG NUMBER	102990
PRODUCT LENGTH/DEPTH	200 mm
PRODUCT HEIGHT	153 mm
PRODUCT WIDTH	90 mm
PRODUCT WEIGHT	1.56 kg
CERTIFICATIONS	UL60947-4-1A CSA CSA Class No.: 3211-04 UL CE IEC/EN 60947-4-1 UL File No.: E123500 CSA File No.: 012528 UL 508 (on request) CSA-C22.2 No. 14 (on request) CSA-C22.2 No. 14-10 UL Category Control No.: NKJH



Powering Business Worldwide

TYPE	Starter with Bi-Metal release
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	Meets the product

DECLARATIONS OF CONFORMITY	eaton-reversing-starter-declaration-of-conformity-uk251158en.pdf
00000	IL03402006Z IL03402015Z
000	eaton-manual-motor-starters-starter-msc-r-reversing-starter-wiring-diagram.eps
0000	eaton-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf
00	eaton-manual-motor-starters-busbar-msc-r-reversing-starter-dimensions-002.eps

CREEPAGE DISTANCES	standard's requirements.
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:	Short-circuit release
POLLUTION DEGREE	3
CLASS	CLASS 10 A
CONNECTION TO SMARTWIRE-DT	No
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
MODEL	IEC/UL starter
ALTITUDE	Max. 2000 m
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
VOLTAGE TYPE	AC
MOUNTING METHOD	Mounting on Busbar 60 mm
OVERVOLTAGE CATEGORY	III
CONNECTION	Screw terminals
FUNCTIONS	Temperature compensated overload protection
OVERLOAD RELEASE CURRENT SETTING - MIN	6.3 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V	0 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V,	100 A

415 V	
RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 480 Y/277 V	0 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 600 Y/347 V	0 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	9 A
POWER CONSUMPTION, SEALING, 50 HZ	1.2 W, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	15 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
RATED OPERATIONAL CURRENT (IE)	8.5 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	9 A
RATED OPERATIONAL VOLTAGE	230 - 415 V AC
SUITABLE FOR	Also motors with efficiency class IE3
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING	-25 °C

TEMPERATURE - MIN	
COORDINATION TYPE	1
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	8.4 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.8 W
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF COMMAND POSITIONS	0
NUMBER OF PILOT LIGHTS	0
OVERLOAD RELEASE CURRENT SETTING - MAX	10 A
RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ	2.2 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	4 kW
RATED POWER AT 460 V, 60 HZ, 3-PHASE	0 kW
RATED POWER AT 575 V, 60 HZ, 3-PHASE	0 kW
SHORT-CIRCUIT RELEASE (IRM) - MAX	155 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1.4 W
COORDINATION CLASS (IEC 60947-4-3)	Class 1
DEGREE OF PROTECTION	IP20 NEMA Other
ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT	Screw connection
ACTUATING VOLTAGE	230 V 50 Hz 240 V 60 Hz
POWER CONSUMPTION	1.4 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:



 Eaton House
30 Pembroke Road
Dublin 4,
Eaton.com

© 2025

Follow us on social media to get the latest product and support information.

