

Specifications



Eaton 066168

Eaton Moeller® series EMT6 Thermistor overload relay for machine protection, multi-function, 24-240V50/60HZ/DC

General specifications

PRODUCT NAME	Eaton Moeller® series EMT6 Thermistor overload relay
CATALOG NUMBER	066168
MODEL CODE	EMT6-DBK
EAN	4015080661689
PRODUCT LENGTH/DEPTH	103 mm
PRODUCT HEIGHT	83 mm
PRODUCT WIDTH	23 mm
PRODUCT WEIGHT	0.134 kg
CERTIFICATIONS	CSA IEC/EN 60947 UL IEC/EN 60947-8 UL 508 CE CSA-C22.2 No. 14 IEC/EN 61000-4-3 IEC/EN 61000-4-2 UL Category Control No.: NKCR CSA Class No.: 3211-03 UL File No.: E29184 CSA File No.: 12528 EN 55011 VDE 0660



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Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX 60 °C

AMBIENT STORAGE TEMPERATURE - MAX 85 °C

AMBIENT OPERATING TEMPERATURE - MIN -25 °C

AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX 45 °C

AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN -25 °C

AMBIENT STORAGE TEMPERATURE - MIN -45 °C

CLIMATIC PROOFING Damp heat, constant, to IEC 60068-2-78
Damp heat, cyclic, to IEC 60068-2-30

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID 0 W

HEAT DISSIPATION CAPACITY PDISS 0 W

HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID 0 W

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) 0 A

STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS 0.8 W

Contacts

NUMBER OF CONTACTS (CHANGE-OVER CONTACTS) 0

NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS) 1

NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS) 1

Electrical rating

CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN) 6 A

PICK-UP VOLTAGE 0.85 - 1.1 V x U_e

POWER CONSUMPTION 2 W at DC
3.5 VA at AC

RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX 240 V

RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN 24 V

RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX 240 V

RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN 24 V

RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX 240 V

RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN 24 V

RATED INSULATION VOLTAGE (UI) 240 V

RATED OPERATIONAL CURRENT (IE) 3 A at AC-14, 300 V (NC)
3 A at AC-14, 380 V 400 V

	415 V (NC) 3 A at AC-15, 220 V 230 V 240 V 3 A at AC-14, 400 V (NC) 3 A at AC-15, 220 V 230 V 240 V (NC) 3 A at AC-14, 380 V 400 V 415 V (NO) 1 A at AC-15, 300 V (NO) 1 A at AC-15, 380 V 400 V 415 V (NO) 3 A at AC-15, 220 V 230 V 240 V (NO) 1 A at AC-15, 300 V (NC) 3 A at AC-14, 300 V (NO) 1 A at AC-15, 380 V 400 V 415 V (NC)
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
RESET RESISTANCE	1600 Ω
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, Fuse, Contacts
TRIP RESISTANCE	3600 Ω
VOLTAGE RATING - MAX	600 V

Electro magnetic compatibility	
AIR DISCHARGE	8 kV
BURST IMPULSE	According to IEC/EN 61000-4-4 1 kV, Signal cable 2 kV, Supply cable
CONTACT DISCHARGE	6 kV
ELECTROMAGNETIC FIELDS	10 V/m at 80 - 1000 MHz (according to IEC EN 61000-4-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-4-3) 1 V/m at 2.0 - 2.7 GHz (according to IEC EN 61000-4-3)
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V (according to IEC/EN 61000-4-6)
RADIO INTERFERENCE CLASS	Class B (EN 55011)
SURGE RATING	According to IEC/EN 61000-4-5, power pulses (Surge), EMC 2 kV, symmetrical, power pulses (Surge), EMC 4 kV, asymmetrical, power pulses (Surge), EMC

Features & functions	
ELECTRIC CONNECTION TYPE	Screw connection
FUNCTIONS	Manual reset Notifications of mains and faults via LED display Test function via separate button External reset possible Manual or remote resetting Trip with short-circuit in the sensor cable Zero-voltage safe Error registration possible Short-circuit recognition and zero-voltage safety can be deactivated

General information

DEGREE OF PROTECTION	IP20
MOUNTING POSITION	As required
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	EMT6 thermistor overload relay for machine protection
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC 4000 V AC
SAFE ISOLATION	250 V AC, Between the contacts and power supply, According to EN 61140 250 V AC, Between the contacts, According to EN 61140
SHOCK RESISTANCE	10 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
VOLTAGE TYPE	AC/DC

Terminal capacities

SCREW SIZE	M3.5, Terminal screw
SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 1 x 6 mm, Terminal screw, Standard screwdriver
TERMINAL CAPACITY	1 x (0.5 - 2.5) mm ² , solid 1 x (0.5 - 2.5) mm ² , flexible with ferrule 20 - 14 AWG, solid or stranded 2 x (0.5 - 1.5) mm ² , solid 2 x (0.5 - 1.5) mm ² , flexible with ferrule
TIGHTENING TORQUE	1.2 Nm, Screw terminals

Resources

BROCHURES	EMR6 - EMT6 - ETR4 brochure
CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-tripping-emt6-thermistor-overload-relay-characteristic-curve.eps
	eaton-tripping-emt6-thermistor-overload-relay-characteristic-curve-003.eps
	eaton-tripping-emt6-thermistor-overload-relay-characteristic-curve-002.eps
DECLARATIONS OF CONFORMITY	eaton-thermistor-overload-relay-declaration-of-conformity-uk251011en.pdf
	eaton-thermistor-overload-relay-declaration-of-conformity-eu251529en.pdf
DRAWINGS	eaton-tripping-devices-relay-emt6-thermistor-overload-relay-dimensions.eps
	eaton-tripping-thermistor-relay-emt6-dimensions.eps
	eaton-tripping-devices-relay-emt6-thermistor-overload-relay-3d-drawing-002.eps
ECAD MODEL	DA-CE-ETN.EMT6-DBK
INSTALLATION INSTRUCTIONS	eaton-emt6-thermistor-overload-motor-protection-relays-instruction-leaflet-il03407100z.pdf
MANUALS AND USER GUIDES	MN03407006Z DE EN
MCAD MODEL	eaton-monitoring-relays-mcad-drawings-emt6-db.dwg
	DA-CS-emt6_db
WIRING DIAGRAMS	eaton-tripping-devices-emt6-thermistor-overload-relay-wiring-diagram.eps

[eaton-tripping-devices-
operating-emt6-
thermistor-overload-relay-
wiring-diagram.eps](#)

[eaton-tripping-devices-
auto-mode-emt6-
thermistor-overload-relay-
wiring-diagram.eps](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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