

**Thermistor overload relay for machine protection, multi-function,  
24-240V50/60HZ/DC**

**Part no.** EMT6-DBK

**066168**

**EL Number**

**4131788**

**(Norway)**

<b>General specifications</b>		
Product name		Eaton Moeller® series EMT6 Thermistor overload relay
Part no.		EMT6-DBK
EAN		4015080661689
Product Length/Depth		103 millimetre
Product height		83 millimetre
Product width		23 millimetre
Product weight		0.134 kilogram
Certifications		CE CSA-C22.2 No. 14 IEC/EN 61000-4-3 UL UL 508 VDE 0660 IEC/EN 60947-8 EN 55011 CSA CSA Class No.: 3211-03 UL Category Control No.: NKCR CSA File No.: 12528 IEC/EN 61000-4-2 UL File No.: E29184 IEC/EN 60947
Product Tradename		EMT6
Product Type		Thermistor overload relay
Product Sub Type		None
<b>Features &amp; Functions</b>		
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
Temperature measuring range - min		0 °C
Temperature measuring range - max		0 °C
<b>General information</b>		
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
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		60 °C
Ambient operating temperature (enclosed) - min		25 °C

Ambient operating temperature (enclosed) - max		45 °C
Ambient storage temperature - min		45 °C
Ambient storage temperature - max		85 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>Electro magnetic compatibility</b>		
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
<b>Terminal capacities</b>		
Terminal capacity		1 x (0.5 - 2.5) mm <sup>2</sup> , solid 1 x (0.5 - 2.5) mm <sup>2</sup> , flexible with ferrule 20 - 14 AWG, solid or stranded 2 x (0.5 - 1.5) mm <sup>2</sup> , solid 2 x (0.5 - 1.5) mm <sup>2</sup> , flexible with ferrule
Screw size		M3.5, Terminal screw
Screwdriver size		2, Terminal screw, Pozidriv screwdriver 1 x 6 mm, Terminal screw, Standard screwdriver
Tightening torque		1.2 Nm, Screw terminals
<b>Electrical rating</b>		
Conventional thermal current I <sub>th</sub> of auxiliary contacts (1-pole, open)		6 A
Pick-up voltage		0.85 - 1.1 V x U <sub>#</sub>
Power consumption		2 W at DC 3.5 VA at AC
Rated control supply voltage (U <sub>s</sub> ) at AC, 50 Hz - min		24 V
Rated control supply voltage (U <sub>s</sub> ) at AC, 50 Hz - max		240 V
Rated control supply voltage (U <sub>s</sub> ) at AC, 60 Hz - min		24 V
Rated control supply voltage (U <sub>s</sub> ) at AC, 60 Hz - max		240 V
Rated control supply voltage (U <sub>s</sub> ) at DC - min		24 V
Rated control supply voltage (U <sub>s</sub> ) at DC - max		240 V
Rated insulation voltage (U <sub>i</sub> )		240 V
Rated operational current (I <sub>e</sub> )		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 (U <sub>e</sub> ) - 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
<b>Contacts</b>		
Number of contacts (change-over contacts)		0
Number of contacts (normally closed contacts)		1
Number of contacts (normally open contacts)		1
<b>Design verification</b>		
Equipment heat dissipation, current-dependent P <sub>vid</sub>		0 W

Heat dissipation capacity P <sub>diss</sub>			0 W
Heat dissipation per pole, current-dependent P <sub>vid</sub>			0 W
Rated operational current for specified heat dissipation (I <sub>n</sub> )			0 A
Static heat dissipation, non-current-dependent P <sub>vs</sub>			0.8 W

## Technical data ETIM 9.0

Relays (EG000019) / Temperature monitoring relay (EC001446)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Temperature monitoring equipment (ecl@ss13-27-37-18-10 [AKF104019])			
Type of electric connection			Screw connection
With detachable clamps			No
Voltage type (supply voltage)			AC/DC
Supply voltage AC 50 Hz		V	24 - 240
Supply voltage AC 60 Hz		V	24 - 240
Supply voltage DC		V	24 - 240
Number of measuring circuits			1
Error registration possible			Yes
External reset possible			Yes
Temperature measuring range		°C	0 - 0
Resistance measuring range		Ohm	750 - 12000
Connection type auxiliary circuit			Screw connection
Number of contacts as normally closed contact			1
Number of contacts as normally open contact			1
Number of contacts as change-over contact			0
Voltage type (operating voltage)			AC/DC
Operating voltage AC 50 Hz		V	24 - 240
Operating voltage AC 60 Hz		V	24 - 240
Operating voltage DC		V	24 - 240
Rated switch current		A	6
Width		mm	23
Height		mm	83
Depth		mm	103