

**Thermistor overload relay for machine protection, 1N/O+1N/C, 24-240VAC/  
DC, with reclosing lockout**



Powering Business Worldwide™

**Part no.** EMT6-KDB

269471

**EL Number**

4110424

**(Norway)**

<b>General specifications</b>	
Product name	Eaton Moeller® series EMT6 Thermistor overload relay
Part no.	EMT6-KDB
EAN	4015082694715
Product Length/Depth	103 millimetre
Product height	83 millimetre
Product width	23 millimetre
Product weight	0.132 kilogram
Certifications	CSA IEC/EN 61000-4-2 CSA File No.: 12528 CSA-C22.2 No. 14 IEC/EN 60947-8 IEC/EN 60947 CE UL File No.: E29184 CSA Class No.: 3211-03 UL Category Control No.: NKCR VDE 0660 UL UL 508 EN 55011 IEC/EN 61000-4-3
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 Short-circuit in the sensor cable Test function via separate button External reset possible Manual or remote resetting
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, According to EN 61140 250 V AC, Between the contacts and power supply, 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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
<b>Electro magnetic compatibility</b>		
Air discharge		8 kV
Burst impulse		1 kV, Signal cable 2 kV, Supply cable According to IEC/EN 61000-4-4
Contact discharge		6 kV, Electrostatic discharge (ESD)
Electromagnetic fields		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) 10 V/m at 80 - 1000 MHz (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		2 kV, symmetrical, power pulses (Surge), EMC According to IEC/EN 61000-4-5, 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> , flexible with ferrule 1 x (0.5 - 2.5) mm <sup>2</sup> , solid 2 x (0.5 - 1.5) mm <sup>2</sup> , flexible with ferrule 20 - 14 AWG, solid or stranded 2 x (0.5 - 1.5) mm <sup>2</sup> , solid
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> )		400 V
Rated operational current (I <sub>e</sub> )		3 A at AC-14, 380 V 400 V 415 V (NC) 1 A at AC-15, 300 V (NC) 3 A at AC-14, 400 V (NC) 3 A at AC-14, 300 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 3 A at AC-14, 300 V (NC) 3 A at AC-14, 380 V 400 V 415 V (NO) 3 A at AC-15, 220 V 230 V 240 V (NO) 1 A at AC-15, 380 V 400 V 415 V (NC) 3 A at AC-15, 220 V 230 V 240 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 (In)		0 A
Static heat dissipation, non-current-dependent Pvs		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		No
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