

Thermistor overload relay for machine protection, 230V50/60Hz, with lock



Powering Business Worldwide™

Part no.	EMT6-DB(230V)
Catalog No.	066401
Alternate Catalog No.	EMT6-DB(230V)
EL-Nummer (Norway)	4131787

Delivery program

Product range			EMT6 thermistor overload relay for machine protection
Function			Selector switch with/without manual reset For manual or remote resetting Test button Mains and fault LED display
Rated operational current			
AC-15			
240 V	I_e	A	3
AC-14			
300 V	I_e	A	3
400 V	I_e	A	3
			Value applies starting with release 001.
conventional thermal current	I_{th}	A	6
Rated control voltage	U_s	V	230 V 50/60 Hz
Notes			
Observe manual MN03407006Z-DE/EN.			
Can be snap fitted on a top-hat rail to IEC/EN 60715.			

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, EN 55011
Climatic proofing			Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open	°C	-25 - +60	
Enclosed	°C	-25 - 45	
Storage	°C	-45 - 85	
Mounting position			As required
Weight	kg	0.15	
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27	g	10	
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Safe isolation to EN 61140			
between the contacts	V AC	250	
between contacts and power supply	V AC	250	

Auxiliary and control circuits

Rated impulse withstand voltage	U_{imp}	V AC	4000
Rated impulse withstand voltage	U_{imp}	V AC	6000
	Value applies starting with release 001.		
Overtoltage category/pollution degree	III/3		
Terminal capacities Auxiliary and control circuits			
Solid	mm²	1 x (0.5 - 2.5) 2 x (0.5 - 1.5)	
Flexible with ferrule	mm²	1 x (0.5 - 2.5) 2 x (0.5 - 1.5)	
Solid or stranded	AWG	20 - 14	
Terminal screw			M3.5
Tightening torque	Nm	1.2	

Tools		Size	2
Pozidriv screwdriver		mm	1 x 6
Auxiliary power circuit			
Rated insulation voltage	U_i	V	300
Rated insulation voltage	U_i	V	400
			Value applies starting with release 001.
Rated operational current	I_e	A	
AC--14			
Make contact			
300 V	I_e	A	3
380 V 400 V 415 V	I_e	A	3
			Value applies starting with release 001.
Break contact			
300 V	I_e	A	3
380 V 400 V 415 V	I_e	A	3
			Value applies starting with release 001.
AC-15			
Make contact			
220 V 230 V 240 V	I_e	A	3
300 V	I_e	A	1
380 V 400 V 415 V	I_e	A	1
			Value applies starting with release 001.
Break contact			
220 V 230 V 240 V	I_e	A	3
300 V	I_e	A	1
380 V 400 V 415 V	I_e	A	1
			Value applies starting with release 001.
Max. short-circuit protective device			
Fuse	gG/gL	A	6
Control circuit			
Rated insulation voltage	U_i	V	240
Rated operational voltage	U_e	V	230
Pick-up and drop-out values		$\times U_e$	0.85 - 1.1
Power consumption			
AC		VA	3.5
DC		W	2
Trip at approx.		Ω	3600
Recovery at approx.		Ω	1600
Sensor circuit			Sensor circuit parameters at U_S and +20 °C: max. Cable length to sensor 250m (not insulated) Total cold resistance $\sum R_K \leq 1500 \Omega$ - R_{T1-T2} (T1, T2 shorted): $I_{T1-T2} = 1.9 \text{ mA}$ - R_{T1-T2} (4 k Ω): $U_{T1-T2} = \text{max. } 3 \text{ V DC}$, $I_{T1-T2} = \text{max. } 0.8 \text{ mA}$ - R_{T1-T2} (T1, T2 open): $U_{T1-T2} = 5.1 \text{ V DC typ. (5.5 V DC max.)}$

Electromagnetic compatibility (EMC)

Electrostatic discharge (ESD)			
applied standard			IEC/EN 61000-4-2
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (RFI)			
applied standard			IEC/EN 61000-4-3
		V/m	80 - 1000 MHz: 10 1.4 - 2 GHz: 3 2.0 - 2.7 GHz: 1
Radio interference suppression			EN 55011 Class B
Burst		kV	Supply cables: 2

power pulses (Surge)		Signal cables: 1 according to IEC/EN 61000-4-4
Immunity to line-conducted interference to (IEC/EN 61000-4-6)	V	2 kV (symmetrical) 4 kV (asymmetrical) according to IEC/EN 61000-4-5

Design verification as per IEC/EN 61439

Technical data for design verification		
Rated operational current for specified heat dissipation	I _n	A 0
Heat dissipation per pole, current-dependent	P _{vid}	W 0
Equipment heat dissipation, current-dependent	P _{vid}	W 0
Static heat dissipation, non-current-dependent	P _{vs}	W 1.5
Heat dissipation capacity	P _{diss}	W 0
Operating ambient temperature min.		°C -25
Operating ambient temperature max.		°C 60

Technical data ETIM 8.0

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@ss10.0.1-27-37-18-10 [AKF104014])		
Type of electric connection		Screw connection
Rated control supply voltage Us at AC 50HZ	V	230 - 230
Rated control supply voltage Us at AC 60HZ	V	230 - 230
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
With detachable clamps		No
Number of measuring circuits		1
Error registration possible		No
External reset possible		Yes
Number of contacts as normally closed contact		1
Number of contacts as normally open contact		1
Number of contacts as change-over contact		0
Temperature measuring range	°C	0 - 0
Resistance measuring range	Ohm	750 - 12000
Width	mm	23
Height	mm	83
Depth	mm	103