MOTOR PROTECTION RELAY
2-6500

Bimetal-operated, automatically resetting, single-pole overcurrent protection relay in a space-saving design. Reliable switching behaviour through trip-free mechanism.

TYPICAL FEATURES

- Self-resetting, automatic on-switching after overcurrent tripping and cooling
- Single pole
- Screw mounting

YOUR BENEFITS

- The automatically resettable 2-6500 can be used in all applications in which a reset or fuse change is not or hardly possible.
- Long-lasting reliable snap-action mechanism
- Space-saving design
- Low operational costs: No procurement-, storage- and service costs for fuses
- Reduced costs: the circuit breaker saves components and reduces mounting and wiring efforts as well as material planning and storage costs.

TYPICAL APPLICATIONS

Protection of motors and transformers against harmful overcurrents

APPROVALS / CERTIFICATIONS

WEB LINKS

Further information, International approvals, Technical basics, REACH, RoHS, Contact

COMPLIANCE

GENERAL INFORMATION

SAFETY AND INSTALLATION INSTRUCTIONS

For unmonitored operation, protection is ensured for at least 18 days permanent blocking when the motor is blocked at $I_k \leq 6$ I_n max. 30 A.

Caution: Can only be used as motor protection when automatic restart after overload disconnection does not pose any danger.

TECHNICAL DATA

ELECTRICAL DATA

Rated voltage and rated current range acc. to UL 244	AC 250 V (50/60 Hz); 0.1...10 A DC 28 V; 0.1...10 A
Dielectric strength	Test voltage AC 2,000 V (according to IEC 60730), mounting area
Current ratings	0.2 A; 0.3 A; 0.4 A; 0.5 A; 0.6 A; 0,7 A; 0.8 A; 1 A; 1.2 A; 1.5 A; 1.8 A; 2 A; 2.5 A; 3 A; 3.5 A; 4 A; 4.5 A; 5 A; 6 A; 7 A; 8 A; 9 A; 10 A;

RATED CURRENTS AND TYPICAL INTERNAL RESISTANCE VALUES

Rated current I_n [A]	Internal resistance [Ω]
0.2	46
0.3	20.3
0.5	7.147
0.6	5.18
0.7	3.74
0.8	2.8
1	1.83
1.2	1.26
1.5	0.8
1.8	0.497
1.9 / 2	0.441
2.4 / 2.5	0.288
3	0.176
3.5	0.116
4	0.084
4.5	0.07
5	0.056
6	0.039
7	0.03
8	0.02
8,5	< 0.02
10	< 0,02

Insulation co-ordination (EN IEC 60664)	2.5kV/3
Insulation resistance	> 100 MΩ at DC 500 V
Interrupting capacity	8 x I_n, low-inductance (CO-CO-CO)

MECHANICAL DATA

Mass	approx. 20 g
Mechanical endurance	100,000 cycles at 2 I_n

AMBIENT CONDITIONS

Ambient temperature	-10...+60 °C

Damp heat	**Test according to IEC 60068-2-78, test Cab** 240 hrs in 95 % RH Temperature +40 °C
Vibration	**Test according to IEC 60068-2-6, test Fc** 5 g (57...500 Hz) ± 0.38 mm (10...57 Hz), 10 frequency cycles/axis
Shock	**Test according to IEC 60068-2-27**, test Ea 15 g / 11 ms
Corrosion	**Test according to DIN IEC 60068-2-11, test Ka** 48 hours in 5 % salt mist
IP code standard	IEC 60529, DIN VDE 0470
IP code (standard)	IP30 (Housing)
Terminal area IP code (standard)	IP00

ORDERING NUMBER CODE

2	-	6	5	0	0	-	P	1	0	-	6	A
			1					2			3	

1 TYPE NUMBER

2-6500	Motor protection relay

2 TERMINAL DESIGN

P10	Blade terminals 6.3 x 0.8mm (IEC 61210)

3 RATED CURRENT

0,2...10 A	for increments see indication in the rated current series

APPROVALS

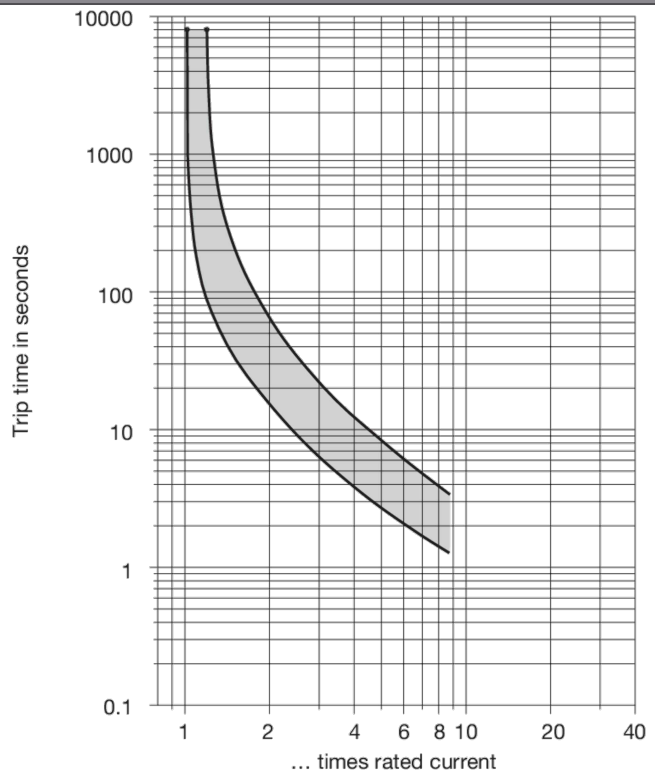
APPROVALS

Approval authority	Test standard	Rated voltage [V]	Rated current range [A]
UL	UL 244A	AC 250 DC 28	AC: 0.2…10 DC: 0.2…10
CSA	C22.2 No. 235	AC 250 DC 28	AC: 0.2…10 DC: 0.2…10

Find further information about approvals here: https://www.e-t-a.de/approvals_en

TIME-/CURRENT CHARACTERISTICS

TIME/CURRENT CHARACTERISTICS



AMBIENT TEMPERATURE-DEPENDENT TRIP CURVE

Ambient temperature [°C]	Temperature correction factor
-10	0.84
0	0.92
10	1
23	1
30	1
40	1.08
50	1.16
60	1.24

The time/current characteristics depend on the ambient temperatures. In order to eliminate nuisance or delayed tripping, please multiply the rated current of the circuit breaker with a temperature factor (see Technical Information chapter).
Example: I_n = 5 A at 50 °C means 5 A x 1.16 = 5.8 A.
A circuit breaker with a rated current at I_N = 6 A must be selected.

Reset time	at 23 °C ≥ 30 sec and ≤ 70 sec

DIMENSIONS

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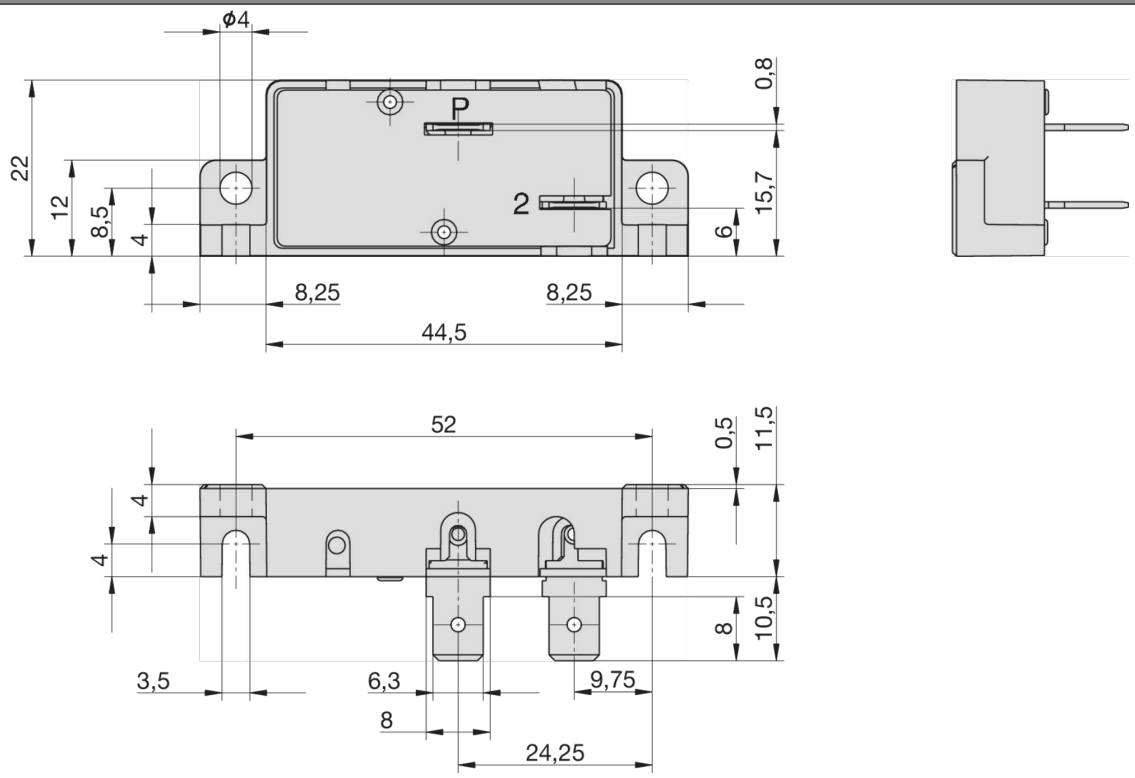
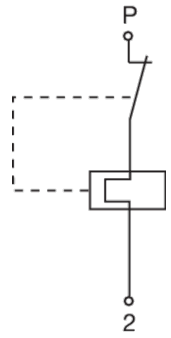


Max. tightening torque:
M3: 0.6 Nm
M3.5: 0.8 Nm

SCHEMATIC DIAGRAMS

SCHEMATIC DIAGRAM



Schematic diagram 2-6500-P10

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

E-T-A Circuit Breakers:

2-6500-P10-5.5A