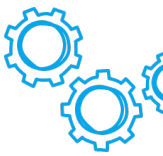




Bimetal-operated, automatically resetting, single-pole overcurrent protection relay in a space-saving design. Reliable switching behaviour through trip-free mechanism.



## TYPICAL FEATURES

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

## TYPICAL APPLICATIONS

Protection of motors and transformers against harmful overcurrents

## WEB LINKS

[Further information](#), [International approvals](#), [Technical basics](#), [REACH](#), [RoHS](#), [Contact](#)

## 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.

## APPROVALS / CERTIFICATIONS



## 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

<b>Rated voltage and rated current range acc. to UL 244</b>	AC 250 V (50/60 Hz); 0.1...10 A DC 28 V; 0.1...10 A
<b>Dielectric strength</b>	Test voltage AC 2,000 V (according to IEC 60730), mounting area
<b>Current ratings</b>	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 [ $\Omega$ ]
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

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

#### MECHANICAL DATA

<b>Mass</b>	approx. 20 g
<b>Mechanical endurance</b>	100,000 cycles at 2 $I_n$

#### AMBIENT CONDITIONS

<b>Ambient temperature</b>	-10...+60 °C
----------------------------	--------------

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

### ORDERING NUMBER CODE



#### 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

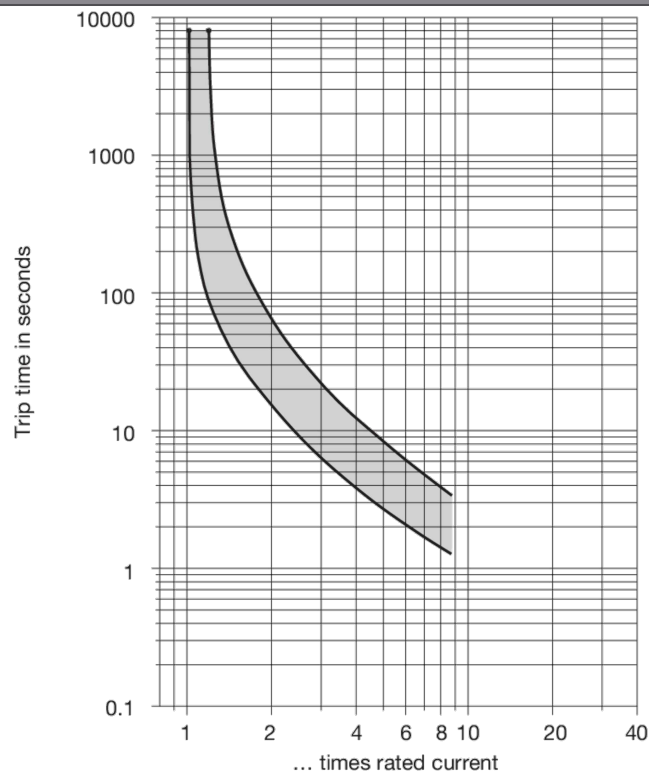
### APPROVALS

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](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).

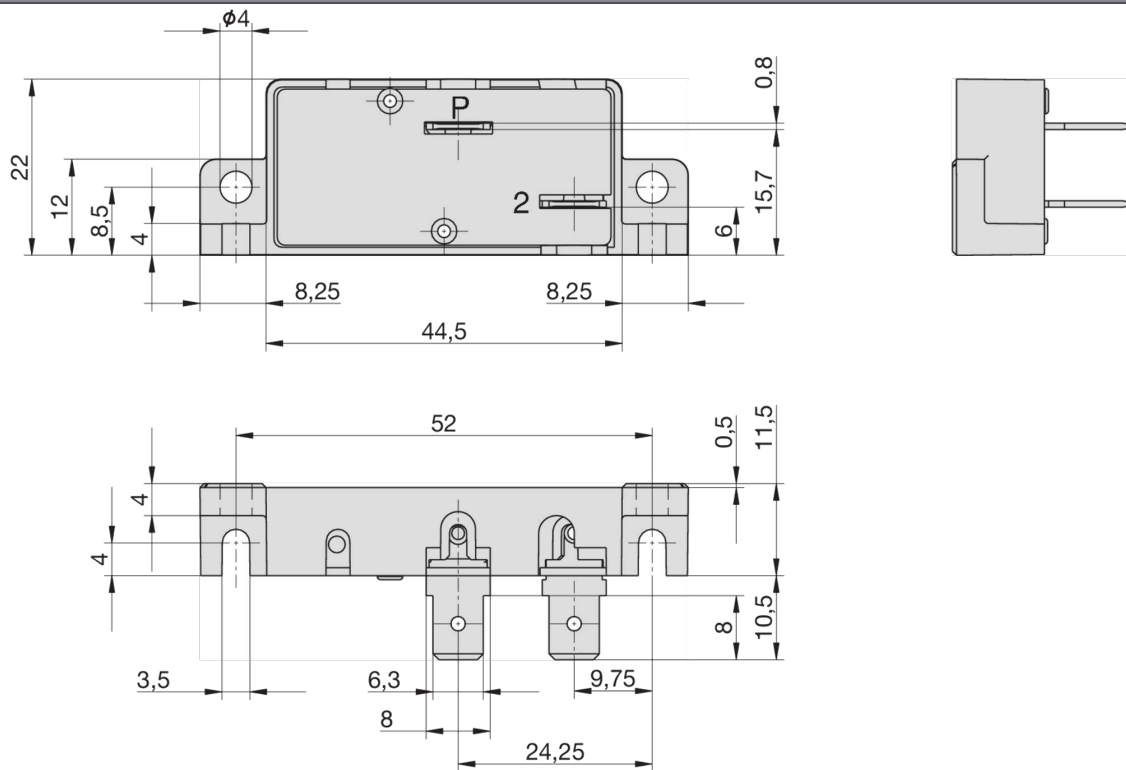
Example:  $I_n = 5 \text{ A}$  at  $50 \text{ °C}$  means  $5 \text{ A} \times 1.16 = 5.8 \text{ A}$ .

A circuit breaker with a rated current at  $I_N = 6 \text{ A}$  must be selected.

**Reset time** at  $23 \text{ °C} \geq 30 \text{ sec}$  and  $\leq 70 \text{ sec}$

## DIMENSIONS

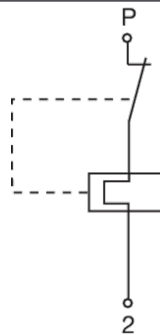
### DIMENSIONS



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

## SCHEMATIC DIAGRAMS

### SCHEMATIC DIAGRAM



Schematic diagram 2-6500-P10

*All information and data given on our products are accurate and reliable to the best of our knowledge, but E-T-A does not accept any responsibility for the use in applications which are not in accordance with the present specification. E-T-A reserves the right to change specifications at any time in the interest of technical improvement. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. All dimensions, data, pictures and descriptions are for information only and are not binding. Amendments, errors and omissions excepted. Ordering part numbers may differ from the device marking.*