Data sheet

Thermal overload relay T16

Thermal overload relays are economic electromechanical protection devices for the main circuit. They are used mainly to protect motors against overload and phase failures. Starter combinations are setup together with contactors.

Description

- Overload protection – trip class 10
- Phase loss sensitivity
- Temperature compensation from -25 … +60 °C
- Adjustable current setting for overload protection
- Automatic or manual reset selectable
- Suitable for three- and single-phase application
- Trip-free mechanism
- Status indication
- STOP and TEST function
- Direct mounting onto mini contactors or block contactors

Approvals

- cULus UL 508
- CB scheme
- CCC
- ABS
- RINA
- DNV
- Lloyd's Register

Marks

- CE

Order data

T16 screw terminal
For B6/B7/VB6/VB7 mini contactors
For AS block contactors

Setting range	Type	Order code	Packing unit	Weight per PCE
A			PCE	kg
0.10 ... 0.13	T16-0.13	1SAZ711201R1005	1	0.100
0.13 ... 0.17	T16-0.17	1SAZ711201R1008	1	0.100
0.17 ... 0.23	T16-0.23	1SAZ711201R1009	1	0.100
0.23 ... 0.31	T16-0.31	1SAZ711201R1013	1	0.100
0.31 ... 0.41	T16-0.41	1SAZ711201R1014	1	0.100
0.41 ... 0.55	T16-0.55	1SAZ711201R1017	1	0.100
0.55 ... 0.74	T16-0.74	1SAZ711201R1021	1	0.100
0.74 ... 1.00	T16-1.0	1SAZ711201R1023	1	0.100
1.00 ... 1.30	T16-1.3	1SAZ711201R1025	1	0.100
1.30 ... 1.70	T16-1.7	1SAZ711201R1028	1	0.100
1.70 ... 2.30	T16-2.3	1SAZ711201R1031	1	0.100
2.30 ... 3.10	T16-3.1	1SAZ711201R1033	1	0.100
3.10 ... 4.20	T16-4.2	1SAZ711201R1035	1	0.100
4.20 ... 5.70	T16-5.7	1SAZ711201R1038	1	0.100
5.70 ... 7.60	T16-7.6	1SAZ711201R1040	1	0.100
7.60 ... 10.0	T16-10	1SAZ711201R1043	1	0.104
10.0 ... 13.0	T16-13	1SAZ711201R1045	1	0.104
13.0 ... 16.0	T16-16	1SAZ711201R1047	1	0.104

Suitable for mounting on:
AS09 … AS16
B6/BC6, B7/BC7
VB6/VBC6, VB7/VBC7

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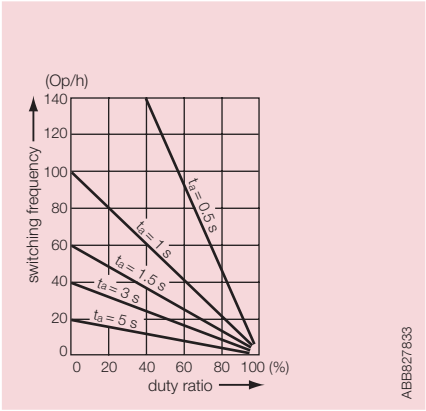
Resistance and power loss per pole and short-circuit protection device

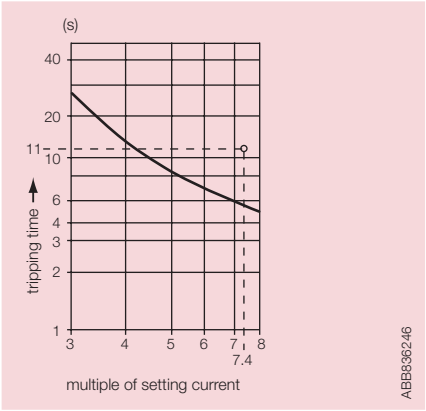
Type	Setting range		Resistance per pole	Power loss		Short-circuit protection device
	lower value A	upper value A	Ω	at lower value W	at upper value W	coordination type 2
T16-0.13	0.10	0.13	106.51	1.1	2.0	0.5 A, Type T
T16-0.17	0.13	0.17	62.28	1.1	2.0	1.0 A, Type T
T16-0.23	0.17	0.23	37.43	1.1	2.0	1.0 A, Type T
T16-0.31	0.23	0.31	20.60	1.1	2.0	1.0 A, Type T
T16-0.41	0.31	0.41	11.42	1.1	2.0	2.0 A, Type gG
T16-0.55	0.41	0.55	6.35	1.1	2.0	2.0 A, Type gG
T16-0.74	0.55	0.74	3.62	1.1	2.0	4.0 A, Type gG
T16-1.0	0.74	1.00	1.920	1.1	2.0	6.0 A, Type gG
T16-1.3	1.00	1.30	1.065	1.1	2.0	6.0 A, Type gG
T16-1.7	1.30	1.70	0.623	1.1	2.0	10.0 A, Type gG
T16-2.3	1.70	2.30	0.340	1.1	2.0	10.0 A, Type gG
T16-3.1	2.30	3.10	0.187	1.1	2.0	10.0 A, Type gG
T16-4.2	3.10	4.20	0.102	1.1	2.0	20.0 A, Type gG
T16-5.7	4.20	5.70	0.059	1.1	2.0	20.0 A, Type gG
T16-7.6	5.70	7.60	0.031	1.1	2.0	35.0 A, Type gG
T16-10	7.60	10.00	0.0193	1.1	2.0	35.0 A, Type gG
T16-13	10.00	13.00	0.0131	1.3	2.2	40.0 A, Type gG
T16-16	13.00	16.00	0.0078	1.3	2.2	40.0 A, Type gG

Technical diagrams

Intermittent periodic duty



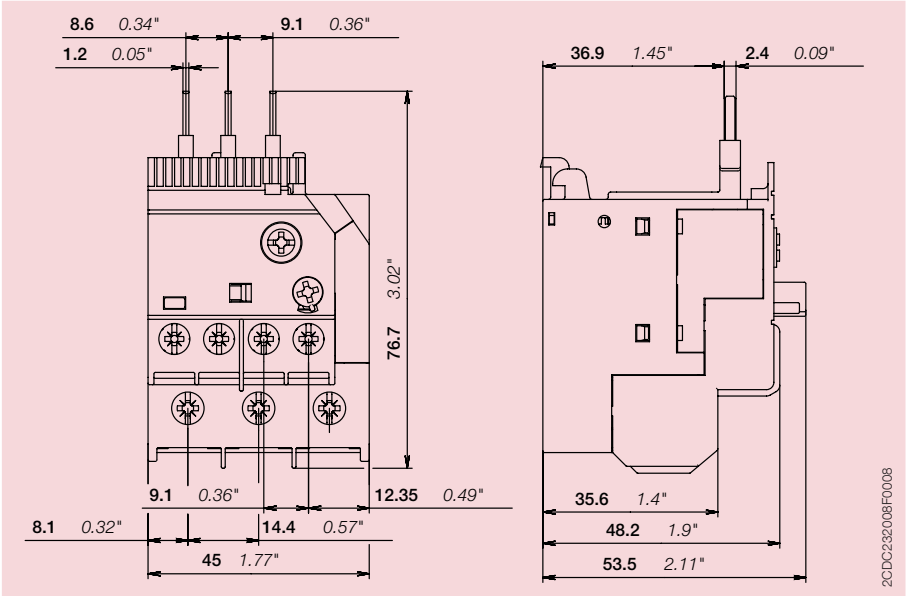
Motor starting time



Tripping curve, starting from cold state

Dimensions

in **mm** and inches



Technical data UL/CSA

Full load amps and short-circuit protection device

Type	Full load amps (FLA)	Short-circuit protection device 480 / 600 V a.c.		480 / 600 V a.c.	
		SCCR	Fuse type	SCCR	Fuse type
T16-0.13	0.13 A	18 kA	1 A, K5	100 kA	30 A, Class J
T16-0.17	0.17 A	18 kA	1 A, K5	100 kA	30 A, Class J
T16-0.23	0.23 A	18 kA	1 A, K5	100 kA	30 A, Class J
T16-0.31	0.31 A	18 kA	3 A, K5	100 kA	30 A, Class J
T16-0.41	0.41 A	18 kA	3 A, K5	100 kA	30 A, Class J
T16-0.55	0.55 A	18 kA	3 A, K5	100 kA	30 A, Class J
T16-0.74	0.74 A	18 kA	3 A, K5	100 kA	30 A, Class J
T16-1.0	1.00 A	18 kA	6 A, K5	100 kA	30 A, Class J
T16-1.3	1.30 A	18 kA	6 A, K5	100 kA	30 A, Class J
T16-1.7	1.70 A	18 kA	6 A, K5	100 kA	30 A, Class J
T16-2.3	2.30 A	18 kA	10 A, K5	100 kA	30 A, Class J
T16-3.1	3.10 A	18 kA	10 A, K5	100 kA	30 A, Class J
T16-4.2	4.20 A	18 kA	15 A, K5	100 kA	30 A, Class J
T16-5.7	5.70 A	18 kA	20 A, K5	100 kA	30 A, Class J
T16-7.6	7.60 A	18 kA	25 A, K5	100 kA	30 A, Class J
T16-10	10.0 A	18 kA	35 A, K5	100 kA	45 A, Class J
T16-13	13.0 A	18 kA	40 A, K5	100 kA	45 A, Class J
T16-16	16.0 A	18 kA	60 A, K5	100 kA	45 A, Class J

Main circuit

Max. operational voltage	600 V a.c.
Trip rating	125 % of FLA
Full load amps (FLA)	see table above
Short-circuit rating RMS symmetrical	see table above
Short-circuit protection device	see table above

Electrical connection		
Connecting capacity	stranded	1/2 x AWG 18 ... 10
	flexible without ferrule	1/2 x AWG 18 ... 10
Stripping length		12 mm
Tightening torque		9 ... 13 lb-in

Auxiliary circuit

Conventional thermal current	NC, 95-96	5 A
	NO, 97-98	2.5 A
Making and breaking capacity	NC, 95-96	B600, Q300
	NO, 97-98	D300, Q300

Electrical connection		
Connecting capacity	stranded	1/2 x AWG 18 ... 12
	flexible without ferrule	1/2 x AWG 18 ... 12
Stripping length		9 mm
Tightening torque		9 ... 13 lb-in