

**Thermal overload relays
TI 16C, TI 25C, TI 30C for
contactors CI 6 – CI 30**



Thermal overload relays TI 16C, TI 25C and TI 30C are used with contactors CI 6 – CI 30 to give protection of squirrel-cage motors of 0.09 kW to 15 kW.

The relays have single-phase protection, i.e. accelerated release if phase drop-out occurs. This is particularly important for motors with delta-connected windings.

Other features of TI 16C / 25C / 30C:

- stop/reset button
- manual/automatic reset
- test button
- double scale for direct start or Y/D start
- galvanically isolated signal contact

Type	Range		Max. fuse ¹⁾				HRC ²⁾ II [A]	Code no.
	Motor-starter [A]	Y/D-starter [A]	gI, gL, gG		BS 88, type T			
			Type 1 [A]	Type 2 [A]	Type 1 [A]	Type 2 [A]		
TI 16C	0.13 – 0.20	–	25	–	32	–	1	047H0200
	0.19 – 0.29	–	25	–	32	2	1	047H0201
	0.27 – 0.42	–	25	2	32	2	1	047H0202
	0.4 – 0.62	–	25	2	32	4	1	047H0203
	0.6 – 0.92	–	25	4	32	6	3	047H0204
	0.85 – 1.3	–	25	4	32	6	3	047H0205
	1.2 – 1.9	–	25	6	32	10	6	047H0206
	1.8 – 2.8	3.2 – 4.8	25	6	32	10	15	047H0207
	2.7 – 4.2	4.7 – 7.3	25	16	32	20	15	047H0208
	4.0 – 6.2	6.9 – 10.7	35	20	40	25	15	047H0209
	6.0 – 9.2	10 – 16	50	20	50	25	35	047H0210
8.0 – 12	13 – 20.8	63	25	63	32	35	047H0211	
11 – 16	19 – 27	80	25	80	32	50	047H0212	
TI 25C	15 – 20	26 – 35	80	35 ³⁾	80	40	60	047H0213
	19 – 25	33 – 43	80	63	80	63	60	047H0214
TI 30C	24 – 32	41 – 55	80	63	80	63	60	047H0215

¹⁾ To IEC 947-4 coordination types 1 and 2:

Coordination type 1: Any type of damage to the motor starter is permissible. If the motor starter is in an enclosure, no external damage to the enclosure is permissible. After a short-circuit the thermal overload relay shall be partially or wholly replaced.

Coordination type 2: No damage to the motor starter is permissible, but slight contact burning and welding is permissible.

²⁾ In accordance with HRC form II, TI 16C, TI 25C and TI 30C are suitable for operation in Canada and the USA.

³⁾ 50 A in Norway.

Selection of thermal overload relay

The selection of a thermal overload relay must be based on the motor full load current and the method of starting:

- With direct start the range for motor starter is used.
- With star-delta start the range for Y/D starter is used.

Example:

Full load current: 16 A

- With direct start, the suitable motor starter range is 11 – 16 A, i.e. thermal overload relay **047H0212**.
- With star-delta start, the suitable Y/D starter range is 10 – 16 A, i.e. thermal overload relay **047H0210**.

The range 13 – 20.8 A could also be used, but thermal overload relay 047H0211 will not release as quickly if one phase drops out.