

3T Type 3/4 inch size Three-Phase Motor Protector



The 3/4" size model 3T Type three-phase motor protector consists of a molded phenolic base containing three heaters and a snap-acting bimetal disc with three contacts. The motor protector must be connected to the three-phase electric motor so that the bimetal disc is the neutral point of the motor. Each contact and each heater are in series with one of the phase windings of the motor. When the bimetal disc opens because of overheating, the neutral point is open, thereby shutting down the motor.

The 3T Type three-phase motor protector is designed to protect single phase induction motor against overload and locked rotor condition up to 65A.

Automatic Reset: Main application is protection of hermetic compressor for refrigeration. Models with cover are approved for use with flammable refrigerant gases.

Manual Reset: Main application is protection of electric motor where automatic reset would be dangerous or otherwise undesirable (food mixers, chainsaws, etc.). Trip-free to assure contact break independent of manual action.

GENERAL CHARACTERISTICS

Normally Closed (NC) Circuit	Three pole, Single Throw, Normally Closed		
Standard Temperature Range	Automatic reset	Standard open from 95 °C to 150 °C ± 5 °C Standard close from 43 °C to 102 °C ± 9 °C	
	Manual reset	Open from 95 °C to 150 °C ± 5 °C Manual reset after 3s from trip	
Tolerance on Open Temperature	± 5 °C		
Differential	25 °C minimum		
Maximum Contact Rating <i>Rating are locked-rotor inductive currents (LRA)</i>	Low Capacity	Automatic reset	24A @ 230VAC 18A @ 460VAC <i>3.000 cycles minimum</i>
		Manual reset	24A @ 230VAC 18A @ 460VAC <i>500 cycles minimum</i>
	High Capacity	Automatic reset	37A @ 230VAC 28A @ 460VAC <i>3.000 cycles minimum</i>
		Manual reset	37A @ 230VAC 28A @ 460VAC <i>500 cycles minimum</i>
Terminal Configuration	Quick-connect tab ; Solder terminal and cable leads (AWG14 or AWG16)		
Approvals	UL E51822		

CODE EXPLANATION

Commercial Code

3T	A	2	L	M	707	90	425
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¾ Inch Size Model

Reset Type / Base

- A** = Automatic Reset / Eared Base
- B** = Automatic Reset / Round Base
- M** = Manual Reset / Eared Base
- N** = Manual Reset / Round Base

Disc Physical Size

- 1** = 19.0 x 0.26 mm Full Round
- 2** = 16.0 x 0.18 mm Full
- 3** = 19.0 x 0.26 mm Perforated

Disc Resistivity / Contact Type

- A – T** = High Capacity Types 37A @ 230V / 28A @ 460V
- U – Y** = Low Capacity Types 24A @ 230V / 18A @ 460V

Disc Open Temperatures (See Table)

Heaters (See Table)

- 110 – 170** = Flat Type *Code example 707 = ∅0.70 mm (700) + 7 turns (007)*
- 103 – 107 / 207 – 958** = Coiled Type
- A03 – Y07** = Coiled Special Type

Terminals and Mounting Data

- 00 – 99** = Different terminals options

Data Code

- 4** = Last digit of the year
- 25** = Week number

Special Code

3T	A	0002	/01
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¾ Inch Size Model

Reset Type / Base (Same as Standard Code)

Progressive Number

Terminals and Mounting Data

- 00 – ZZ** = Different terminals options

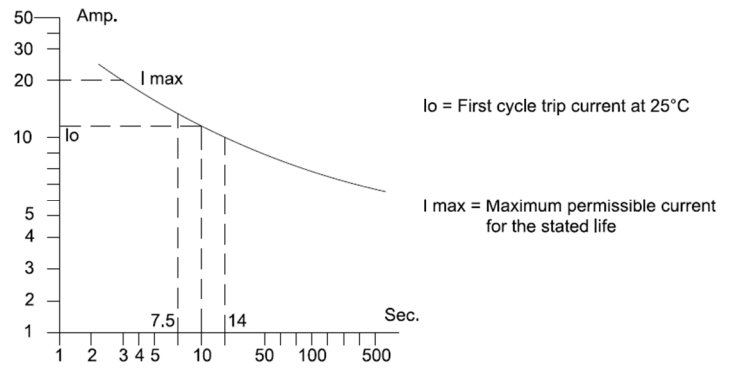
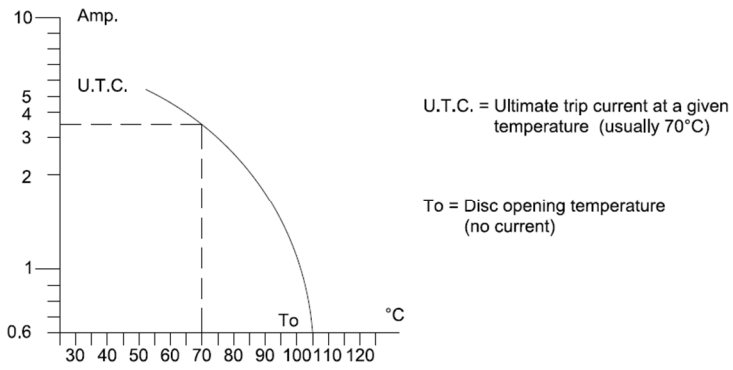
DISC OPEN / CLOSE TEMPERATURE

Code	G	J	F	K	L	V	B	Z	N	X	Y
Open Temp (°C)	90	90	105	105	105	105	120	120	120	120	120
Close Temp (°C)	MAN	57	MAN	61	69	78	MAN	61	69	78	92
Code	D	W	U	M	R	S	E	H	T	O	P
Open Temp (°C)	135	135	135	135	135	135	150	150	150	150	150
Close Temp (°C)	MAN	61	68	78	92	102	MAN	78	92	102	115

HEATERS

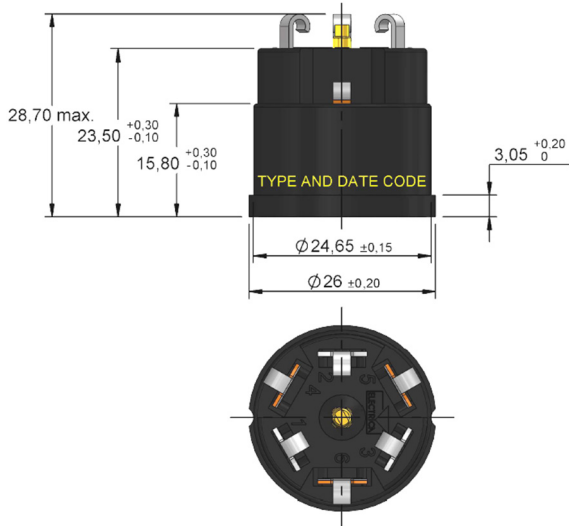
FLAT TYPE					
Code	Diam. Ø	Mat.	Code	Diam. Ø	Mat.
110	1.10	NiCr	120	1.20	NiCr
130	1.30	NiCr	140	1.40	NiCr
150	1.50	NiCr	160	1.60	NiCr
170	1.70	NiCr	180	1.80	NiCr
COILED TYPE					
Code		Diam. Ø	Turns Num.		Mat.
From	To		Min.	Max.	
207	220	0.20	007	020	NiCr
257	268	0.25	007	018	NiCr
307	316	0.30	007	016	NiCr
257	366	0.35	007	016	NiCr
406	414	0.40	006	014	NiCr
456	464	0.45	006	014	NiCr
505	512	0.50	005	012	NiCr
555	562	0.55	005	012	NiCr
605	611	0.60	005	011	NiCr
655	661	0.65	005	011	NiCr
703	710	0.70	003	010	NiCr
753	760	0.75	003	010	NiCr
803	809	0.80	003	009	NiCr
853	859	0.85	003	009	NiCr
903	908	0.90	003	008	NiCr
953	958	0.95	003	008	NiCr
103	107	1.00	003	007	NiCr
COILED SPECIAL TYPE					
Code		Diam. Ø	Turns Num.		Mat.
From	To		Min.	Max.	
A03	A07	1.00	003	007	CuNi
B03	B08	0.95	003	008	CuNi
C03	C08	0.90	003	008	CuNi
D03	D09	0.85	003	009	CuNi
E03	E09	0.80	003	009	CuNi
W03	W10	0.70	003	010	CuSn
X03	X10	0.70	003	010	CuZn
Y03	Y07	1.00	003	007	CuZn

PERFORMANCE CURVES

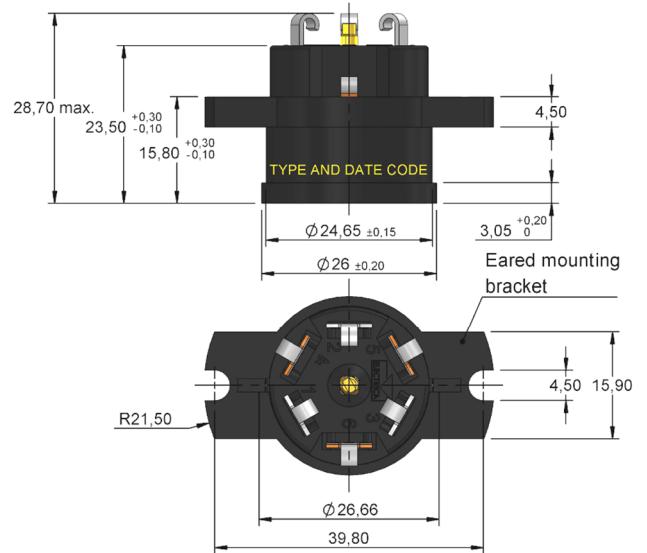


DIMENSIONS (mm)

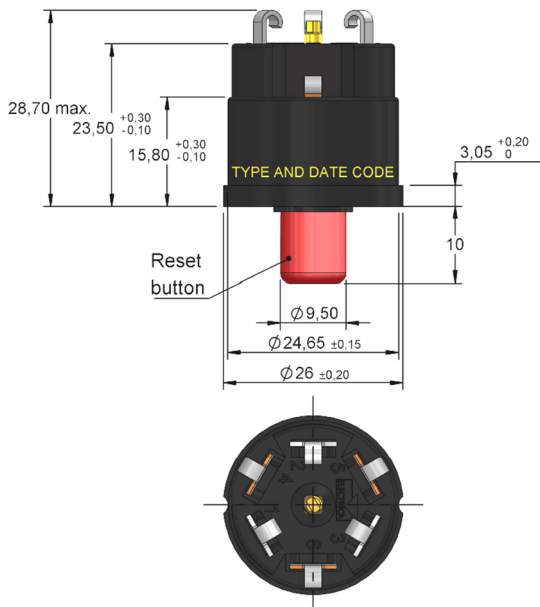
AUTOMATIC RESET ROUND BASE



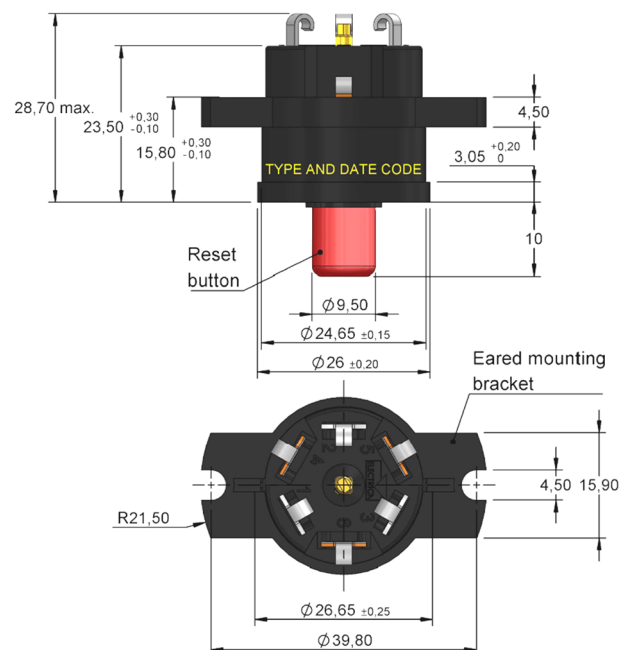
AUTOMATIC RESET EARED BASE



MANUAL RESET ROUND BASE



MANUAL RESET EARED BASE



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