

MTP

PTC STARTING DEVICE, DISCONNECTED BY AN INTEGRATED ELECTROMECHANICAL RELAY FOR ENERGY SAVING MOTOR COMPRESSOR

U.S. PATENT 6,356,047



MTP relays combine the advantages of PTC starters with those of mechanical relays, allowing maximum energy efficiency.

The PTC element remains off during the running time of the compressor, thus saving about 2W. The compressor may be restarted without delay. Terminals are provided for an optional run capacitor.

MTP relays are designed for direct insertion into the hermetic 3-pin terminal and is compatible with 3/4in overloads, as well as direct plug-in protectors.

Electrical Characteristics

- Class B coil (130°C)
- P.U. current up to 21.90 amps, 50/60 Hz
- Normally-open circuit, single pole, double break, common coil
- For Normal pollution conditions (according to EN60730)
- · Run capacitor wiring option
- Contact ratings: 8 amps/250 VAC
 12 amps/120 VAC
- Endurance 200.000 operations
- Ambient temperature Tmax = 80°C
- Case material: thermoplastic compound PTI 250V – UL94V0

Mechanical Characteristics

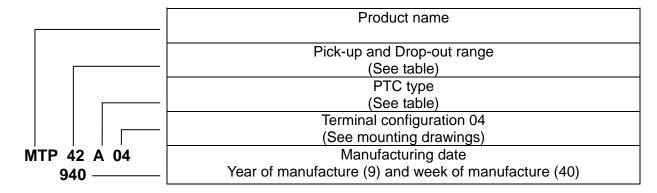
- Plug-in mounting directly on hermetic 3-pin terminal
- 6.3 mm (.250") quick-connect terminals
- Compact size

Approvals

UL E51436ENEC IMQ - EQ582

 According to EN60079-15:2005 for use with flammable refrigerant gases

Coding and marking



Relay Pick-up and Drop-out range

CODE	Max. Pick-up Amp	Min. Drop-out Amp	CODE	Max. Pick-up Amp	Min. Drop-out Amp
	•		40	•	•
20	2,00	1,70	46	7,10	6,00
22	2,20	1,85	48	7,80	6,65
24	2,40	2,05	50	8,60	7,35
26	2,70	2,30	52	9,50	8,05
28	2,95	2,50	54	10,50	8,90
30	3,25	2,75	56	11,55	9,80
32	3,55	3,05	58	12,70	10,80
34	3,95	3,35	60	14,00	11,90
36	4,35	3,70	62	17,40	14,80
38	4,80	4,10	64	18,20	15,50
40	5,30	4,50	66	19,20	16,20
42	5,80	4,95	68	20,30	17,25
44	6,40	5,45	70	21,90	18,20

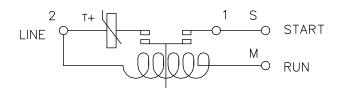
For different operating values, contact the Factory.

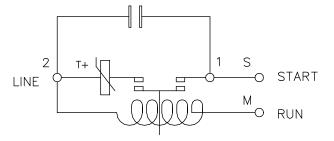
PTC pellet characteristics

Туре		Α	В	С	D	E	F	G
Max operating voltage	(V)	180	320	350	200	355	200	400
Max current at Vmax	(A)	12	7	8	8	6	10	5
Rated resistance	(Ω)	4,7 <u>+</u> 30%	22 <u>+</u> 30%	15 <u>+</u> 30%	10 <u>+</u> 30%	33 <u>+</u> 30%	6.8 <u>+</u> 30%	47 <u>+</u> 30%
Dimensions (diameter x thickness)	(mm)				16 x 2,5			

Other types available upon request.

Circuit diagrams



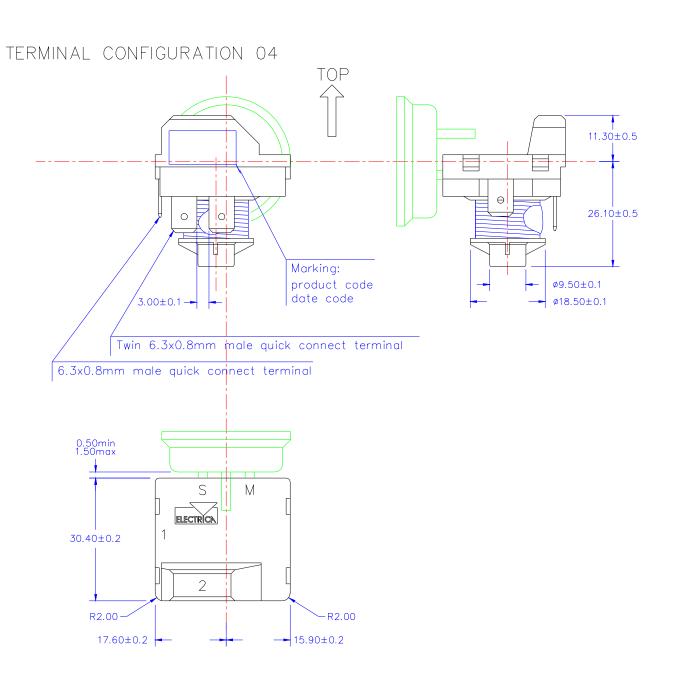


Standard

Run capacitor wiring

Notice

PTC elements may be degraded by excessive humidity, especially saline, and by pollution, especially CI and Ph. Carefully evaluate the use of PVC parts near PTC elements.



For any different configuration, contact the Factory

Electrica s.r.l. - via privata Della Torre, 24 - 20127 Milano - Italy
Tel. +39 02 2892641 Fax +39 02 2827511
www.electrica.it info@electrica.it

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