



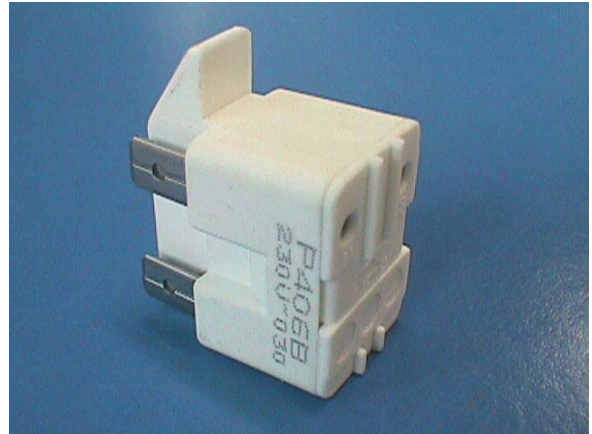
# PTC Start Relay P Type

## ADVANTAGES OF PTC STARTING

The primary advantage of the PTC relay is that it allows a strong current flow through the start winding of the motor during the initial start.

Appropriate motor design can benefit from savings in the start winding and from the energy efficiency improvements obtained with a run capacitor.

One PTC start relay usually fits a complete range of compressors, thereby reducing inventory, part numbering, and planning requirements.



## ELECTRICA P SERIES PTC STARTING RELAY

**P Series** PTC Start Relays are compact components, ideally suited for the starting of hermetic compressors used in refrigerators, freezers and some commercial application.

**P relay** incorporates a PTC (Positive Temperature Coefficient) ceramic pellet with a low, controlled resistance value at ambient temperature, which allows the motor to start.

After a short delay the PTC pellet increases its resistance considerably, and reduces motor starting current to a very low value, which is anyway sufficient to keep the PTC relay in a non-operating condition as long as the motor is running. When the motor is switched off, after a cooling down period (typically 3 minutes at 25°C ambient temperature) the PTC pellet resistance decreases to its original low value. The relay is ready for another start.

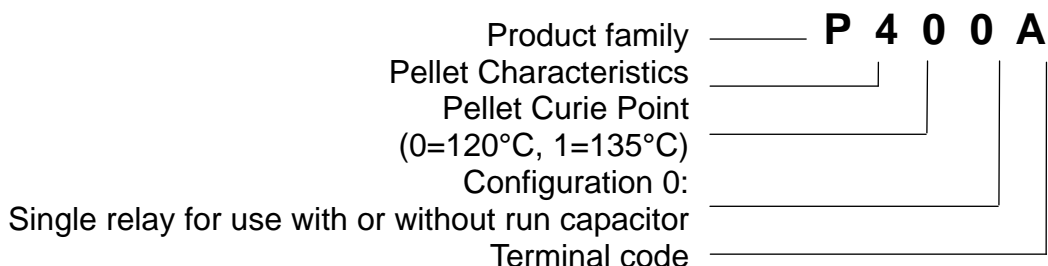
## GENERAL DATA

- Plug-in on three pins hermetic connector
- Rated voltage 115 or 230 VA.C.
- Load controlled Resistive and Inductive
- For Normal pollution condition (according to EN60730)
- Case material: thermoplastic compound  
PTI 250V – UL94 V0 – Rated 140°C
- Max switch head temperature 80°C
- Max mounting face temperature 80°C
- Endurance 100,000 cycles
- Terminals: 4.8 and 6.3 mm quick-connect.

## APPROVALS

- ENEC IMQ – EF959
- UL E51436

## CODE EXPLANATION



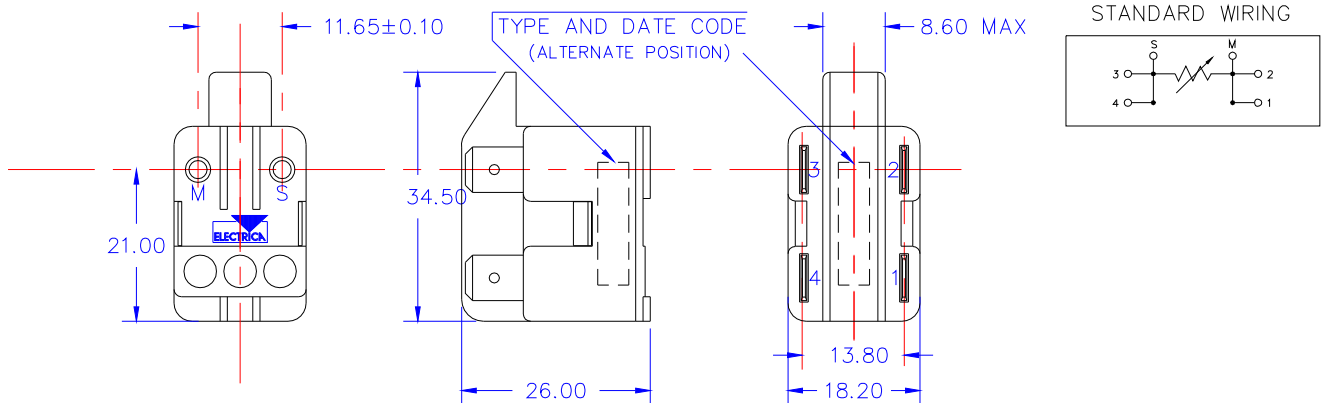
## PELLET CHARACTERISTICS

Type	Curie Point °C	Resistance Ohm	Vmax V	I <sub>max</sub> A	Diameter mm	Thickness mm
<b>40</b>	120	14 ± 30%	350	8	20	3.2
<b>L1</b>	135	4.7 ± 30%	180	12	16	2.5
<b>R1</b>	135	6.8 ± 30%	200	10	16	2.5
<b>N1</b>	135	10 ± 30%	200	8	16	2.5
<b>D1</b>	135	15 ± 30%	300	8	16	2.5
<b>E1</b>	135	22 ± 30%	320	7	16	2.5
<b>F1</b>	135	33 ± 30%	355	6	16	2.5
<b>G1</b>	135	47 ± 30%	400	5	16	2.5

## TERMINAL CODE

Code	Terminal position					Terminal type
	1	2	3	4		
<b>A</b>	♣	♣	♣	♣		♣ = 6.3x0.8 male quick-connect terminal. ♦ = 4.8x0.8 male quick-connect terminal.
<b>B</b>	♣	♣	♣			
<b>C</b>	♣	♣				
<b>D</b>		♣	♣			
<b>E</b>		♣				
<b>F</b>	♦	♦	♦	♦		
<b>G</b>	♦	♦	♦			
<b>H</b>	♦	♦				
<b>J</b>		♦	♦			
<b>K</b>		♦				
<b>M</b>			♣			

## OUTLINE DRAWINGS (Dimensions in millimeters)



### Notice

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

For any different configuration, contact the Factory

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