



9EA SERIES

PTC MOTOR START RELAY

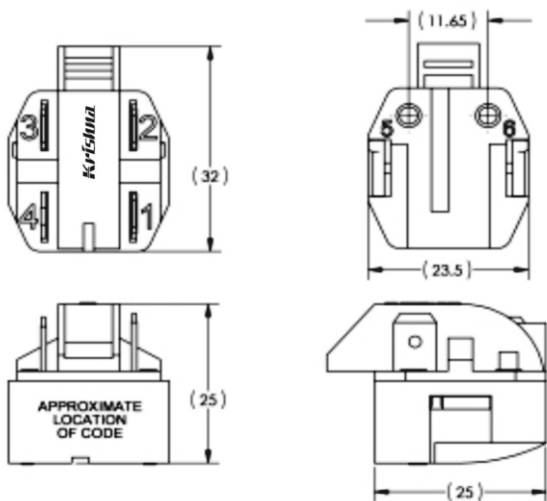
PRODUCT OVERVIEW

"Krishna" 9EA motor starter, a low-cost alternative to electro mechanical relays, performs the PTC (positive temperature coefficient) solid-state starter function. The 9EA is suitable for compressors used in refrigerators, freezers, water coolers, de-humidifiers, vending machines and similar refrigeration applications. It plugs directly onto the compressor terminal pins.

KEY FEATURES

- Utilizes PTC pill materials to energize / de-energize motor start windings
- Provides inherent start winding protection
- Optimal packaging approach improves efficiency
- Used in 120V or 240V applications
- Provides lowest power consumption in industry
- Wide spectrum of resistance ranges available

Dimensional Drawings (mm)



QUALITY

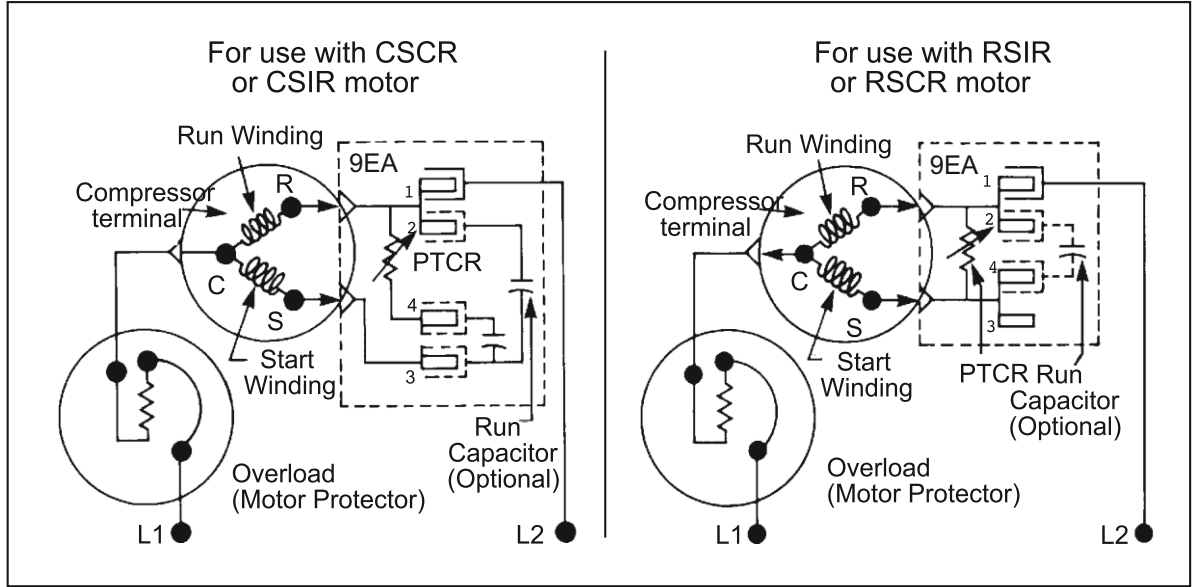
- PTC pills 100% electrically tested twice
- High reliability with no moving parts
- 500K cycles min. at max. rated condition
- Dissipates less than 2 watts under normal operating conditions

THE ETERNAL GUARDIAN FOR MOTOR PROTECTION

PTC PERFORMANCE

When power is first applied to the compressor via the 9EA, the PTC pill is in low resistance state. Current flows through the PTC pill to the start windings, causing a beneficial phase angle shift between start and main windings, and resulting in an increase in the starting torque.

Wiring Diagram



9EA PTC Motor Starter Design Chart

		Device Property			
		Switch Time	Power	Max. Voltage	Cool Rate
P T C R	Resistance	↑	↓	↑	↓
	Mass	↓	↓	↓	↓
	Switch Temperature	↓	↓	—	↑

General trends are shown for changes in the PTCR element specifications and the corresponding 9EA device properties.

Common Electrical Rating

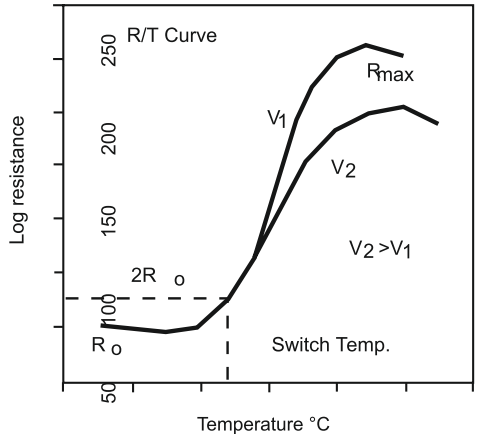
Series 9EA	Application Voltage	VI max	V max	Nominal Resistance (Ohms)	Heat Capacity MCP
13CX	120	180 / 12		4.7 ± 20%	1.40
14CX	120	200 / 12		6.8 ± 20%	1.40
15CX	120	200 / 10		10 ± 20%	1.40
16CX	240	300 / 7		22 ± 20%	1.40
17CX	240	355 / 6		33 ± 20%	1.40
18CX	240	300 / 8		15 ± 20%	1.40
19CX	240	400 / 5		47 ± 20%	1.40

For other ratings contact SKCPL

Terminal Configurations

Device	Terminal Numbers			
	1	2	3	4
9EA	—	M	—	—
9EA	M	M	—	—
9EA	M	M	M	—
9EA	M	M	M	M
9EA	—	M	M	—

M = 1/4" Male Quick Connect Terminal
For other ratings contact SKCPL



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