

Copeland CS16K6E-PFZ-155 Compressor

Category: Refrigeration

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Focus Keyphrase

Copeland CS16K6E-PFZ-155 Compressor Specifications and R404A Application Data

SEO Title

Mbsm.pro, Compressor, CS16K6E-PFZ-155, 1.25 HP, 1Ph, 220-240V, R404A, Hermetic Reciprocating

Meta Description

Discover the technical specifications for the Copeland CS16K6E-PFZ-155 compressor. High-performance 1.25 HP hermetic reciprocating unit for R404A/R507 refrigeration systems.

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Tags

Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, Copeland, CS16K6E-PFZ-155, 1.25 HP Compressor, R404A, Refrigeration, Hermetic Reciprocating, HVAC Parts, 220V 50Hz Compressor

Excerpt

The Copeland CS16K6E-PFZ-155 is a high-efficiency hermetic reciprocating compressor designed for commercial refrigeration. Operating at 220-240V and 50Hz, this 1.25 HP powerhouse is optimized for R404A and R507 refrigerants. Known for its durability in medium-temperature

applications, it features POE oil and thermal protection, making it a reliable choice for cold rooms and professional cooling systems.



Mbsm.pro, Compressor, Copeland, CS16K6E-

PFZ-155, 1.25 HP, 1Ph, 220-240V, 50Hz, R404A/R507

When it comes to commercial refrigeration, the reliability of the compressor is the heartbeat of the system. The **Copeland CS16K6E-PFZ-155** stands out as a robust solution for professionals seeking a balance between high-torque performance and long-term durability. This hermetic reciprocating compressor is specifically engineered for medium-temperature applications, utilizing modern HFC refrigerants.

Technical Deep Dive: The CS16K6E-PFZ-155

The CS series from Copeland is famous for its “tough-as-nails” construction. The **CS16K6E-PFZ-155** model operates on a single-phase 220-240V power supply at 50Hz. With a Locked Rotor Amperage (LRA) of **68.6A**, it provides the necessary starting torque to handle demanding commercial environments, such as walk-in coolers and display cases.

Core Specifications Table

Feature	Specification
Brand	Copeland (Emerson)
Model Number	CS16K6E-PFZ-155
Horsepower (HP)	1.25 HP (Approx. 1-1/4 HP)
Refrigerant	R404A, R507, R452A
Oil Type	45 POE (Polyolester Oil)
Voltage/Frequency	220-240V / 50Hz / 1 Phase
Locked Rotor Amps (LRA)	68.6 A
Cooling Capacity	~13,500 - 16,000 BTU/hr (at MBP)
Application	Medium Temperature (MBP)

Comparative Analysis: Copeland CS vs. Competition

To understand where the CS16K6E fits in the market, it is helpful to compare it with similar models from other industry leaders like Tecumseh and Danfoss.

Performance Comparison Table

Model	Brand	Displacement	HP Class	Refrigerant
CS16K6E-PFZ	Copeland	29.3 cm³	1.25 HP	R404A
CAE4456Z	Tecumseh	14.5 cm ³	0.5 HP	R404A
SC18MLX	Danfoss	17.7 cm ³	0.75 HP	R404A
MTZ022	Danfoss	38.1 cm³	1.75 HP	R404A

While the CS16K6E sits comfortably in the 1.25 HP range, it often outperforms competitors in high-ambient conditions due to its superior thermal protection and larger internal volume, which helps in heat dissipation.

Why Choose the CS16K6E-PFZ-155?

The “E” in the model name indicates that this unit is pre-charged with **POE oil**. This is crucial for systems using R404A, as POE oil is miscible with HFCs, ensuring proper lubrication return to the crankcase.

Key Advantages:

1. **High Starting Torque (HST):** Ideal for systems using expansion valves where pressure might not be fully equalized at start-up.
2. **Internal Thermal Protection:** Automatically shuts down the motor in case of overheating, preventing catastrophic coil failure.
3. **Compact Footprint:** Fits into standard condensing units, making it an excellent choice for field replacements.

Maintenance and Installation Best Practices

To ensure the longevity of your **Copeland CS16K6E-PFZ-155**, certain installation standards must be met. Since this unit uses POE oil, it is highly hygroscopic (it absorbs moisture quickly).

- **Vacuum Level:** Ensure the system is evacuated to at least 500 microns to remove all moisture.
- **Filter Drier:** Always replace the liquid line filter drier whenever the system is opened.
- **Voltage Stability:** Ensure the 220V supply stays within $\pm 10\%$ to avoid tripping the 68.6A LRA limit.

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