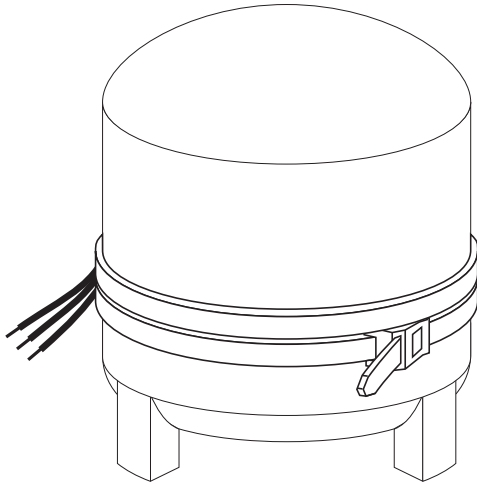


Raychem FREEZGARD SELF-REGULATING CRANKCASE HEATER



PRODUCT OVERVIEW

When compressors operate in cold areas, refrigerant can migrate into the crankcase oil whenever the compressor is not running. On start-up, this can cause excessive motor wear and a loss of refrigeration efficiency.

Raychem FreezGard self-regulating crankcase heaters provide reliable peak heating during critical cold periods and, unlike conventional constant-wattage heaters, reduce their heating once the compressor starts up or the air temperature rises. Also, self-regulating heaters can be safely overlapped and closely spaced without burning out; so one size fits all hermetic compressors up to 5 HP that are 40 inches or less in circumference.

Models for both 120 V and 208 to 277 V are available. Each comes with a flexible lock-strap and prestripped 28-inch cold leads for easy connection and hard-wiring. Use only with refrigeration compressors in nonhazardous areas.

Benefits include:

- Prolongs motor life
- Installs easily
- Works effectively and reliably
- Increases compressor efficiency

SPECIFICATIONS

Service voltage [CCH-1C]	120 V
Service voltage [CCH-2C]	208–277 V
Power at 50°F (10°C)	32 watts (minimum)
Power at 0°F (–18°C)	60 watts (minimum)
Cold lead wire gauge	18 AWG
Cable width (nominal)	0.615 in (1.56 cm)
Cable thickness (nominal)	0.245 in (.62 cm)
Cable length	48 in (122 cm)
Cold lead length	28 in (71 cm)
Intermittent max. exposure temperature	185°F (85°C)
Insulation jacket type	Modified polyolefin
Girth (wraparound) dimension	40 in (102 cm) or less in circumference

FREEZGARD

APPROVALS



BUS WIRES

16 AWG nickel-plated copper

BRAID / OUTER JACKET

Tinned-copper braid with modified polyolefin outer jacket

GROUND-FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Pentair Thermal Management, agency certifications, and national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection.



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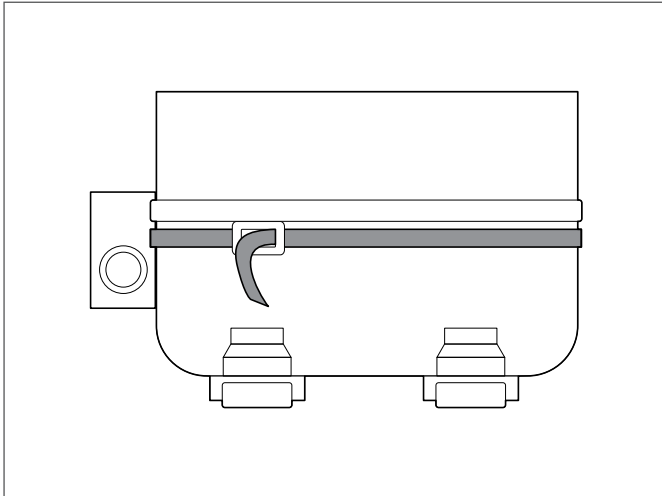
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Raychem FreezGard

SELF-REGULATING CRANKCASE HEATER INSTALLATION INSTRUCTIONS



APPROVALS



DESCRIPTION

FreezGard crankcase heaters are intended for professional installation on refrigeration compressors up to 5 horsepower and 40 inches or less in circumference.

MODELS AVAILABLE

- CCH-1C** For use with 120 Vac power supply
- CCH-2C** For use with 208 – 277 Vac power supply

ADDITIONAL MATERIALS REQUIRED

UL Listed or CSA Certified junction box and appropriate connection accessories.

GENERAL REQUIREMENTS

- FreezGard heaters are intended for use on refrigeration compressors. For any other applications, call Pentair Thermal Management for assistance.
- FreezGard heaters may be used only on metal hermetic compressors up to 40 inches in circumference.
- Never use on any compressor that may exceed 150°F.
- Do not use an extension cord to power the crankcase heater.
- Electrical connections must be in accordance with the National Electrical Code and must be protected from rain and other water.
- Prior to installing the heater, clean the compressor surface and inspect for and remove any sharp surfaces that may damage the heater.
- FreezGard cables must be installed by professional HVAC or refrigeration technicians or equivalent.
- Ground-fault circuit breakers such as the Square D QO-EPD, QOB-EPD, or equivalent, with a 30-mA trip level, should be used. For technical assistance or availability, call Pentair Thermal Management at (800) 545-6258.

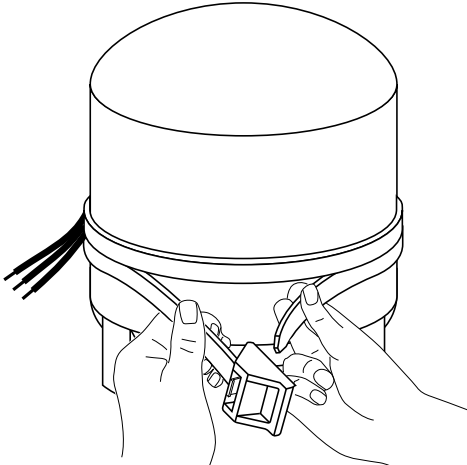
⚠ WARNING:

FIRE AND SHOCK HAZARD: This heater is an electrical device that must be installed correctly to ensure proper operation and to prevent shock or fire. Read these important warnings and carefully follow all the installation instructions.

- To minimize the danger of fire from sustained electrical arcing if the crankcase heater is damaged or improperly installed, ground-fault equipment protection must be used on each branch circuit supplying power to the crankcase heater. Arcing may not be stopped by conventional circuit breakers.
- Do not damage the heating cable, strap, or electrical lead wires. Remove any damaged cables from service immediately.
- Leave these Installation Instructions with the user for future reference.
- If you have any questions about how to use or install this crankcase heater, please call Pentair Thermal Management at (800) 545-6258.

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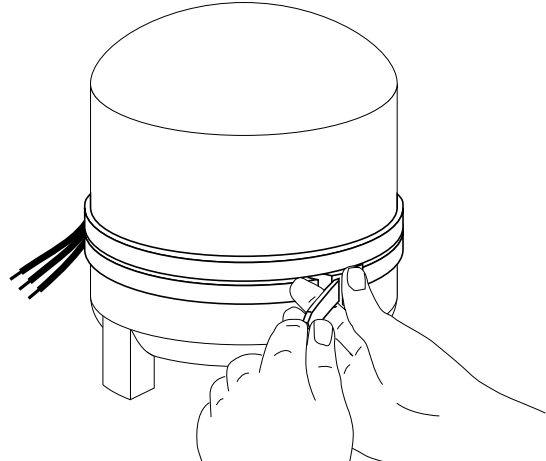
- Disconnect all electrical power to the unit. Slip heater around the compressor casing and position close to the bottom.



2

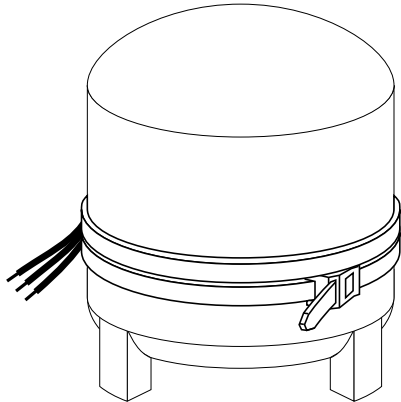
- Feed adjusting strap through ratchet end and hand tighten to secure heater to casing.

⚠ CAUTION: Do not use excessive force or strap may break.



3

- Connect black wires to power and neutral, and the green wire to ground.



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