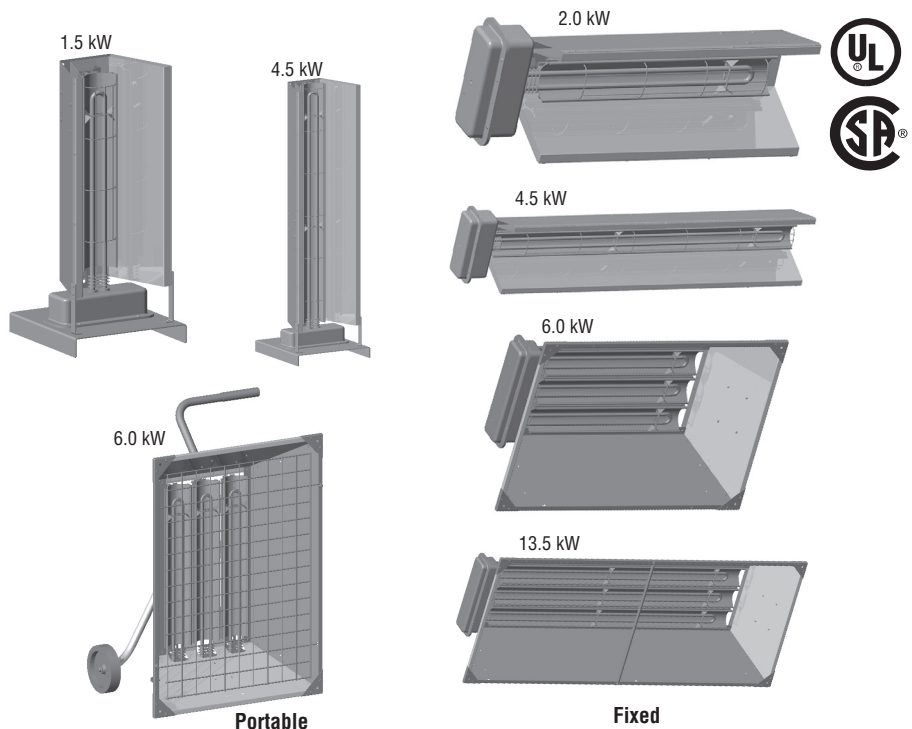


ChromaStar™ Infra-Red Radiant Heaters

- 1.5 to 13.5 kW
- 5,118 to 46,062 BTU/Hr
- 120, 208, 240, 277, 480, and 600 Volts
- Single or 3 Phase - Most Models Field Convertible
- Fixed Overhead - Convertible to Portable
- Portable/Factory Assembled
- Optional Accessories
 - Ground Fault
 - Disconnect
 - Tip Over Shut Down
- UL Listed, CSA (Fixed Overhead Models Only)

Applications

- Localized heating in large plants
- Loading Docks
- Narrow warehouse aisle heating
- Garages
- Dry paint
- Prevent freezing of pipes, valves
- Heat hoppers



Description

The Chromalox ChromaStar™ infra-red comfort heaters are designed to provide a rugged source of heat for use in areas where dependence on air movement is impractical. The heaters are versatile, designed to provide warmth directly where it is needed for primary or spot heating applications. Each unit is constructed for long life and requires minimal maintenance. There are no moving parts or motors to wear out, no air filters or lubrication required.

All Chromalox ChromaStar™ radiant heaters feature the exclusive “Arctic End” Patent Pending heating element terminal construction. This feature lowers the terminal box temperatures resulting in extended element and wiring life.

Extruded aluminum housings are rigid to provide added protection to the heating elements located at the focal point of a built-in mirrored aluminum reflector(s).

The heater(s) consist of hairpin bent .430” diameter alloy sheath tubular element(s) constructed of high quality resistance wire embedded in carefully selected MgO refractory insulation. The element feature “Arctic end” terminal construction for longer life and cooler terminal enclosure temperatures. The element(s) also feature terminal construction using a welded-in silicone bushings that produce unequalled resistance to moisture absorption. The heating element(s) connect to a gasketed, moisture resistance terminal enclosure with liquid-tight bulkhead threaded fittings. An extension reflector constructed of

0.050” mirrored aluminum extends over the assembly to provide a more uniform heating pattern.

Portable

All portable heaters are supplied fully assembled to a rugged, chrome-nickel plated tubular steel cart and handle (1.5 and 2.0 kW heater has a fixed pedestal). The cart features large wheels for easy portability. All portable heaters include safety grills to protect personnel from contacting hot elements.

Field wiring is accomplished through a 3/4” conduit opening in terminal enclosure. The 1.5 kW unit comes complete with a factory installed 6 foot cord and 2 prong grounding type plug. Other models can be field wired using accessory cable and plug kits shown.

Fixed Overhead

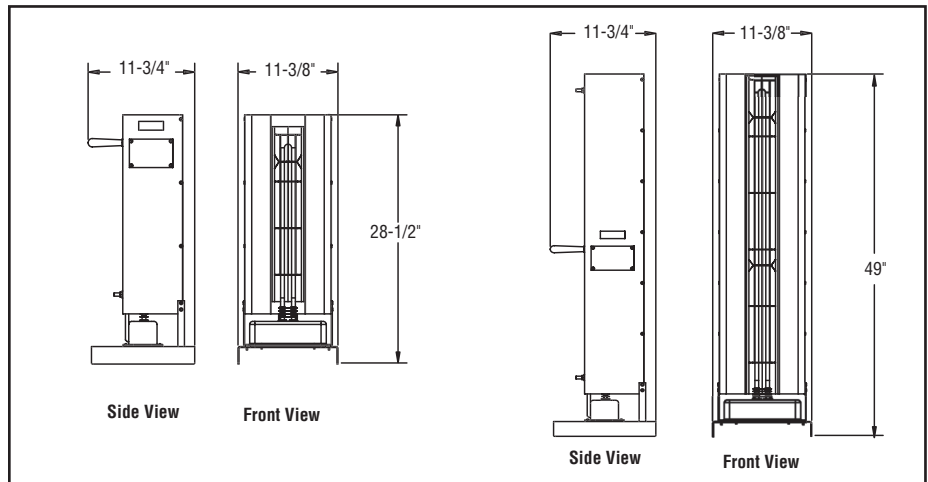
The Chromalox ChromaStar™ radiant heater is shipped fully assembled and can be hung from the ceiling with 2 chains or rigid angle brackets attached to the heater brackets located on the back of the heater.

Field wiring is accomplished through the liquid tight terminal enclosure. No secondary splice box required.

Protective screens, disconnect switches and portable carts are available for these heaters as shown.

ChromaStar™ Infra-Red Radiant Heaters (cont'd.)

Portable Radiant Heaters 1.5 to 4.5 kW Dimensions

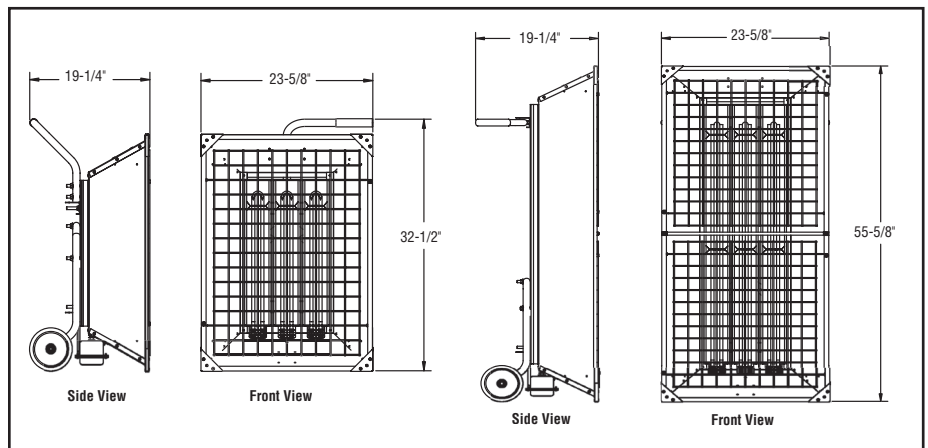


Specifications and Ordering Information

| Electrical | | | | | | Dimensions (in.) | | | Ordering | | | |
|------------|-------|-------|-----------|------|--------|------------------|------------|------------|-----------------|-------|--------|------------|
| kW | Volts | Phase | No. Elem. | Amps | Btuh | Height | Base Width | Base Depth | Model | Stock | PCN | Wt. (Lbs.) |
| 1.5 | 120 | 1 | 1 | 12.5 | 5,118 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-11-PC* | S | 340486 | 15 |
| 2 | 208 | 1 | 1 | 9.6 | 6,824 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-81-P | NS | 340494 | 15 |
| 2 | 240 | 1 | 1 | 8.3 | 6,824 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-21-P | NS | 340507 | 15 |
| 2 | 277 | 1 | 1 | 7.2 | 6,824 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-71-P | NS | 340515 | 15 |
| 2 | 480 | 1 | 1 | 4.2 | 6,824 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-41-P | NS | 340523 | 15 |
| 2 | 600 | 1 | 1 | 3.2 | 6,824 | 28-1/2 | 11-3/8 | 11-3/4 | STAR-02A-61-P | NS | 340531 | 15 |
| 4.5 | 208 | 1 | 1 | 21.6 | 15,354 | 49 | 11-3/8 | 11-3/4 | STAR-05A-81-P | NS | 340380 | 25 |
| 4.5 | 240 | 1 | 1 | 18.8 | 15,354 | 49 | 11-3/8 | 11-3/4 | STAR-05A-21-P | NS | 340398 | 25 |
| 4.5 | 277 | 1 | 1 | 16.2 | 15,354 | 49 | 11-3/8 | 11-3/4 | STAR-05A-71-P | NS | 340400 | 25 |
| 4.5 | 480 | 1 | 1 | 9.4 | 15,354 | 49 | 11-3/8 | 11-3/4 | STAR-05A-41-P | NS | 340419 | 25 |
| 4.5 | 600 | 1 | 1 | 7.5 | 15,354 | 49 | 11-3/8 | 11-3/4 | STAR-05A-61-P | NS | 340427 | 25 |

Stock Status: S = stock NS = non-stock *Incl 6 foot cord and 2-prong grounding type plug.
To Order — Specify model, PCN, kW, volts, phase and quantity.

Portable Radiant Heaters 6 to 13.5 kW Dimensions



Specifications and Ordering Information

| Electrical | | | | | Dimensions (in.) | | | Ordering | | | |
|------------|-------|-------|------|--------|------------------|------------|------------|---------------|-------|--------|------------|
| kW | Volts | Phase | Amps | Btuh | Height | Base Width | Base Depth | Model | Stock | PCN | Wt. (Lbs.) |
| 6 | 208 | 3 | 16.7 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-83-P | NS | 341163 | 26 |
| 6 | 240 | 3 | 14.4 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-23-P | S | 341171 | 26 |
| 6 | 277 | 1 | 21.7 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-71-P | NS | 341180 | 26 |
| 6 | 480 | 3 | 7.2 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-43-P | S | 341198 | 26 |
| 6 | 600 | 3 | 5.8 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-63-P | NS | 341200 | 26 |
| 13.5 | 208 | 3 | 37.5 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-83-P | S | 341219 | 44 |
| 13.5 | 240 | 3 | 32.5 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-23-P | NS | 341227 | 44 |
| 13.2 | 277 | 1 | 47.7 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-71-P | NS | 341235 | 44 |
| 13.5 | 480 | 3 | 16.3 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-43-P | S | 341243 | 44 |
| 13.5 | 600 | 3 | 3 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-63-P | NS | 341251 | 44 |

Stock Status: S = stock NS = non-stock *Includes 6 foot cord and 2-prong grounding type plug.

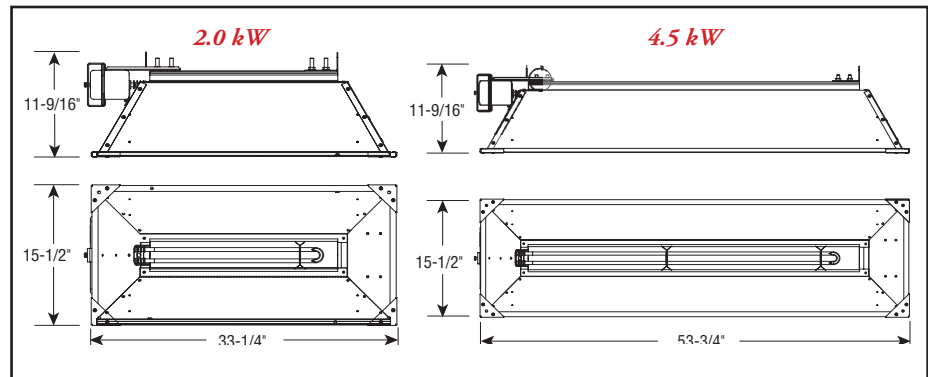
To Order — Specify model, PCN, kW, volts, phase and quantity. Assembly Stock shipped in one week. For Stock shipment, order fixed overhead heaters on following page and appropriate cart kit on page 80.

ChromaStar™

Infra-Red Radiant Heaters

(cont'd.)

Fixed Overhead Radiant Heaters 2.0 to 4.5 kW Dimensions U.L Listed & CSA Certified for Fixed Installations

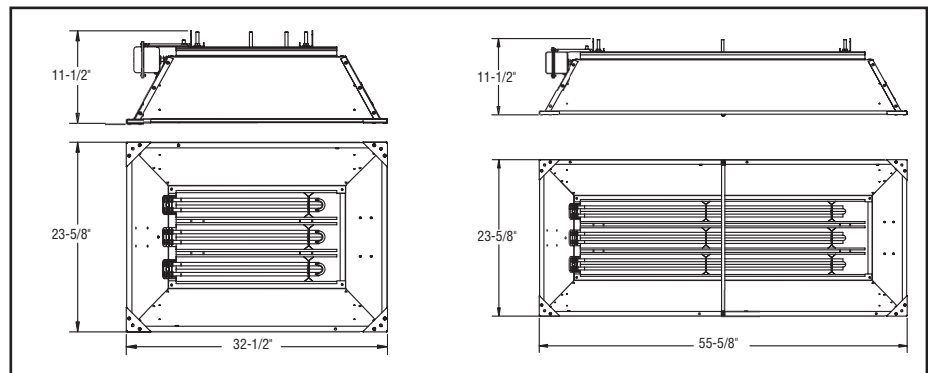


Specifications and Ordering Information

| Electrical | | | | | Dimensions (in.) | | | Ordering | | | |
|------------|-------|-------|------|--------|------------------|------------|------------|---------------|-------|--------|------------|
| kW | Volts | Phase | Amps | Btuh | Height | Base Width | Base Depth | Model | Stock | PCN | Wt. (Lbs.) |
| 2 | 208 | 1 | 9.6 | 6,824 | 27-11/16 | 9-7/8 | 6-13/16 | STAR-02A-81-F | S | 340558 | 14 |
| 2 | 240 | 1 | 8.3 | 6,824 | 27-11/16 | 9-7/8 | 6-13/16 | STAR-02A-21-F | S | 340566 | 14 |
| 2 | 277 | 1 | 7.2 | 6,824 | 27-11/16 | 9-7/8 | 6-13/16 | STAR-02A-71-F | NS | 340574 | 14 |
| 2 | 480 | 1 | 4.2 | 6,824 | 27-11/16 | 9-7/8 | 6-13/16 | STAR-02A-41-F | S | 340582 | 14 |
| 2 | 600 | 1 | 3.3 | 6,824 | 27-11/16 | 9-7/8 | 6-13/16 | STAR-02A-61-F | NS | 340590 | 14 |
| 4.5 | 208 | 1 | 21.6 | 15,354 | 48-3/16 | 9-7/8 | 6-13/16 | STAR-05A-81-F | NS | 340435 | 23 |
| 4.5 | 240 | 1 | 18.8 | 15,354 | 48-3/16 | 9-7/8 | 6-13/16 | STAR-05A-21-F | NS | 340443 | 23 |
| 4.2 | 277 | 1 | 16.2 | 15,354 | 48-3/16 | 9-7/8 | 6-13/16 | STAR-05A-71-F | NS | 340451 | 23 |
| 4.5 | 480 | 1 | 9.4 | 15,354 | 48-3/16 | 9-7/8 | 6-13/16 | STAR-05A-41-F | S | 340460 | 23 |
| 4.5 | 600 | 1 | 7.5 | 15,354 | 48-3/16 | 9-7/8 | 6-13/16 | STAR-05A-61-F | NS | 340478 | 23 |

Stock Status: S = stock NS = non-stock
To Order — Specify model, PCN, kW, volts, phase and quantity.

Fixed Overhead Radiant Heaters 6.0 to 13.5 kW Dimensions



Specifications and Ordering Information

| Electrical | | | | | Dimensions (in.) | | | Ordering | | | |
|------------|-------|-------|------|--------|------------------|------------|------------|---------------|-------|--------|------------|
| kW | Volts | Phase | Amps | Btuh | Height | Base Width | Base Depth | Model | Stock | PCN | Wt. (Lbs.) |
| 6 | 208 | 3 | 16.7 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-83-F | NS | 340339 | 26 |
| 6 | 240 | 3 | 14.4 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-23-F | S | 340347 | 26 |
| 6 | 277 | 1 | 21.7 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-71-F | NS | 340355 | 26 |
| 6 | 480 | 3 | 7.2 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-43-F | S | 340363 | 26 |
| 6 | 600 | 3 | 5.8 | 20,472 | 32-1/2 | 23-5/8 | 11-1/2 | STAR-06A-63-F | NS | 340371 | 26 |
| 13.5 | 208 | 3 | 37.5 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-83-F | NS | 340232 | 44 |
| 13.5 | 240 | 3 | 32.5 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-23-F | S | 340240 | 44 |
| 13.5 | 277 | 1 | 48.7 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-71-F | NS | 340259 | 44 |
| 13.5 | 480 | 3 | 16.3 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-43-F | S | 340267 | 44 |
| 13.5 | 600 | 3 | 13 | 46,062 | 55-5/8 | 23-5/8 | 11-1/2 | STAR-14A-63-F | NS | 340275 | 44 |

Stock Status: S = stock NS = non-stock
To Order — Specify model, PCN, kW, volts, phase and quantity.

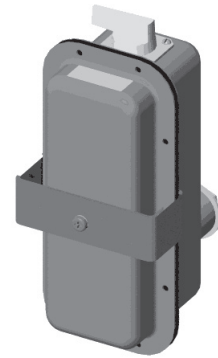
ChromaStar™ Infra-Red Radiant Heaters (cont'd.)

Accessories

For use with both Fixed Overhead and Portable Heaters

Disconnect Kits

The disconnect kit consists of a complete liquid tight assembly including a 3 pole 48 Amp switch, power terminal block and all hardware to mount either the fixed overhead or portable radiant heater.



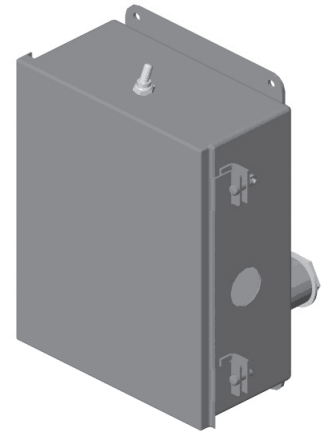
Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|-----|--------|--------|------------|
| DS-50600 | All | AS | 340662 | 3 |

Portable Kits

Tip Over Switch Kits

Chromalox STARTIP tip-over switch kits can be easily added to all Chromalox STAR 06 or 14 series factory assembled portable heaters or fixed overhead heaters which have been modified by use of a portable STAR-CART kit. This kit is designed to de-energize the heating elements of unattended units in event the heater is accidentally knocked over. The kit includes a control circuit transformer, magnetic contactor, tip-over switch assembly and on-off toggle switch with rubber boot, completely prewired in a NEMA 4 enclosure. The kit also includes a 1" coupling, wiring between the contactor and heater, mounting bracket, hardware and instructions to complete the installation to the heater.



Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|-----|--------|--------|------------|
| STARTIP-8 | 208 | NS | 340670 | 14 |
| STARTIP-2 | 240 | NS | 340689 | 14 |
| STARTIP-7 | 277 | NS | 340697 | 14 |
| STARTIP-4 | 480 | NS | 340700 | 14 |
| STARTIP-6 | 600 | NS | 340718 | 14 |

Tip-Over Switch and Ground Fault Detector Kits

(for Portable STAR-06 and STAR-14 Heaters)

The Chromalox STAR-TG series kits include the components and features of the STARTIP tip-over kits with the additional protection provides by a ground fault detector. The ground fault detector will monitor for any gradual changes in the insulation level due to humidity or mechanical damage as they develop and will de-energize the contactor to prevent arcing type faults, preventing premature element failure and potential fire damage.

Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|-----|--------|--------|------------|
| STAR-TG-8 | 208 | NS | 340726 | 16 |
| STAR-TG-2 | 240 | NS | 340734 | 16 |
| STAR-TG-7 | 277 | NS | 340742 | 16 |
| STAR-TG-4 | 480 | NS | 340750 | 16 |
| STAR-TG-6 | 600 | NS | 340769 | 16 |

ChromaStar™

Accessories

(cont'd.)

Plug Kits for Portable Heaters

| Plug Type | Model Number | Description | Volts | Amps | Config. | NEMA# | ANSI# | Fits Cable Dia. | Stock | PCN | Wt. (Lbs.) |
|-------------|--------------|---------------|-------|------|---------|--------|--------|-----------------|-------|--------|------------|
| Locking | PGL-15-20 | 3 Pole 4 Wire | 250 | 20 | | L15-20 | C73.85 | .385"-.780 | NS | 338845 | 0.5 |
| Locking | PGL-15-30 | 3 Pole 4 Wire | 250 | 30 | | L15-30 | C73.86 | .385"-.780 | NS | 338853 | 0.5 |
| Locking | PGL-16-30 | 3 Pole 4 Wire | 480 | 30 | | L16-30 | C73.88 | .595"-1.150 | NS | 338861 | 0.5 |
| Locking | PGL-17-30 | 3 Pole 4 Wire | 600 | 30 | | L17-30 | C73.89 | .595"-1.150 | NS | 338870 | 0.5 |
| Locking | PGL-3763C | 2 Pole 3 Wire | 600 | 50 | | - | - | .750"-1.125 | NS | 338917 | 0.5 |
| Locking | PGL-3765C | 3 Pole 4 Wire | 600 | 50 | | - | - | .750"-1.125 | NS | 338925 | 0.5 |
| Non Locking | PGN-6-50 | 2 Pole 3 Wire | 250 | 50 | | 6-50 | C73.53 | .625"-1.187 | NS | 338888 | 0.5 |
| Non Locking | PGN-15-20 | 3 Pole 4 Wire | 250 | 20 | | 15-20 | C73.59 | .390"-.775 | NS | 338896 | 0.5 |
| Non Locking | PGN-15-50 | 3 Pole 4 Wire | 250 | 50 | | 15-50 | C73.61 | .750"-1.250 | NS | 338909 | 0.5 |

Cable Kits for ChromaStar™ Series Portable Radiant Heaters

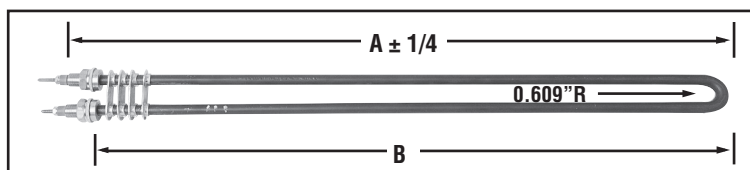
Cable packages include 25 feet Type SO cable, with either 3-conductors or 4-conductors, depending on the heater requirements. Each cable assembly includes the proper cord (connector). Plugs are not included. All models are factory wired for 3-phase, but can be field wired for single phase, select plug and cord accordingly.

| Model No. | Cable Specifications | | | Cord Connector | Stock | PCN | Wt. (Lbs.) |
|------------|----------------------|----------|---------------------|----------------|-------|--------|------------|
| | Size/Type | Max. Amp | Temperature Ratings | NPT | | | |
| PLC-2514-4 | 14/4SO | 15 | 90 Deg. C | 3/4" | NS | 295427 | 7 |
| PLC-2514-3 | 14/3SO | 18 | 90 Deg. C | 3/4" | NS | 295670 | 23 |
| PLC-2512-4 | 12/4SO | 20 | 90 Deg. C | 1" | NS | 295435 | 9 |
| PLC-2512-3 | 12/3SO | 25 | 90 Deg. C | 3/4" | NS | 295662 | 6 |
| PLC-2510-3 | 10/3SO | 30 | 90 Deg. C | 1" | NS | 295443 | 9 |
| PLC-2508-3 | 8/4SO | 35 | 90 Deg. C | 1" | NS | 295460 | 15 |
| PLC-2506-4 | 6/4SO | 45 | 90 Deg. C | 1" | NS | 295494 | 17 |
| PLC-2506-3 | 6/3SO | 55 | 90 Deg. C | 1" | NS | 295486 | 16 |

SO = hard Service Cord, 600V Length = 25 Feet

Replacement Elements

| Model No. | kW | Volts | Win2 | Dimensions - inches | | Status | PCN | Wt. Lbs. |
|-------------|-----|-------|------|---------------------|--------|--------|--------|----------|
| | | | | A | B | | | |
| UTU-STAR 21 | 1.5 | 120 | 32 | 21-1/2 | 20-1/2 | NS | 106059 | 2 |
| UTU-STAR 28 | 2 | 208 | 42 | 21-1/2 | 20-1/2 | NS | 106067 | 3 |
| UTU-STAR 22 | 2 | 240 | 42 | 21-1/2 | 20-1/2 | NS | 106075 | 3 |
| UTU-STAR 27 | 2 | 277 | 42 | 21-1/2 | 20-1/2 | NS | 106083 | 3 |
| UTU-STAR 24 | 2 | 480 | 42 | 21-1/2 | 20-1/2 | NS | 106091 | 3 |
| UTU-STAR 26 | 2 | 600 | 42 | 21-1/2 | 20-1/2 | NS | 106104 | 3 |
| UTU-STAR 48 | 4.5 | 208 | 42 | 43-3/8 | 42-3/8 | NS | 106403 | 4 |
| UTU-STAR 42 | 4.5 | 240 | 42 | 43-3/8 | 42-3/8 | NS | 106411 | 4 |
| UTU-STAR 47 | 4.5 | 277 | 42 | 43-3/8 | 42-3/8 | NS | 106796 | 4 |
| UTU-STAR 44 | 4.5 | 480 | 42 | 43-3/8 | 42-3/8 | NS | 106964 | 4 |
| UTU-STAR 46 | 4.5 | 600 | 42 | 43-3/8 | 42-3/8 | NS | 106972 | 4 |



UTU-STAR

ChromaStar™ Accessories (cont'd.)

Accessories for Fixed Overhead Heaters

Hanger Kit

Hanger kits include 24 feet of chain, 4 "S" hooks to mount units in a fixed overhead position using the universal mounting brackets included on the back of fixed overhead radiant models. The chain is long enough to allow all heaters to be mounted up to 6 feet from the ceiling.

Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|-----|--------|--------|------------|
| STAR-HK | All | S | 340654 | 2 |

Portable Cart Kits

Chromalox series ChromaStar™ fixed overhead radiant heaters can be field converted to portable spot heaters with the use of the cart kits. Each kit includes wheels, legs, handle, grill(s), baffle (if required) and all of the necessary hardware to complete the modification. These kits are easy to install with standard tools.

Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|---------------|------|--------|--------|------------|
| STAR-06A CART | 6 | NS | 340830 | 8 |
| STAR-14A CART | 13.5 | S | 340849 | 8 |

Floor Protection Baffle Kit

The Chromalox safety baffle kit includes a reflector baffle which can be field installed on the lower reflective panel on portable STAR radiant heaters. The baffle will protect temperature sensitive flooring materials such as vinyl tile from being damaged due to radiant heat.

Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|-----------|--------|--------|------------|
| FP-614 | 6 or 13.5 | NS | 340865 | 2 |

Safety Grill Kits

The safety grill kits contain one (2kW, 4.5kW and 6kW) or two grills (13.5kW) to protect personnel from coming in contact with hot heating elements. The grills are constructed of heavy gauge plated steel and are simple to install.

Specifications and Ordering Information

| Model No. | kW | Status | PCN | Wt. (Lbs.) |
|-----------|------|--------|--------|------------|
| GR-2 | 2 | S | 111878 | 5 |
| GR-4 | 4.5 | S | 111894 | 5 |
| GR-6KW | 6 | NS | 340638 | 6 |
| GR-14AKW | 13.5 | NS | 340857 | 12 |

Ground Fault Detection

The Chromalox STAR-GF series wall mounted ground fault detectors are designed to monitor for any gradual changes in the insulation level due to humidity or mechanical damage as they develop and will de-energize the load to prevent arcing type faults, preventing premature element failure and potential fire damage. The detector consists of a ground fault sensor, control circuit transformer, magnetic contactor and an on off toggle switch with rubber boot, completely pre-wired in a NEMA 4 enclosure.

Specifications and Ordering Information

| Model No. | Heater Volts | Status | PCN | Wt. Lbs. |
|-----------|--------------|--------|--------|----------|
| STAR-GF-8 | 208 | NS | 340777 | 16 |
| STAR-GF-2 | 240 | NS | 340785 | 16 |
| STAR-GF-7 | 277 | NS | 340793 | 16 |
| STAR-GF-4 | 480 | NS | 340806 | 16 |
| STAR-GF-6 | 600 | NS | 340814 | 16 |

