

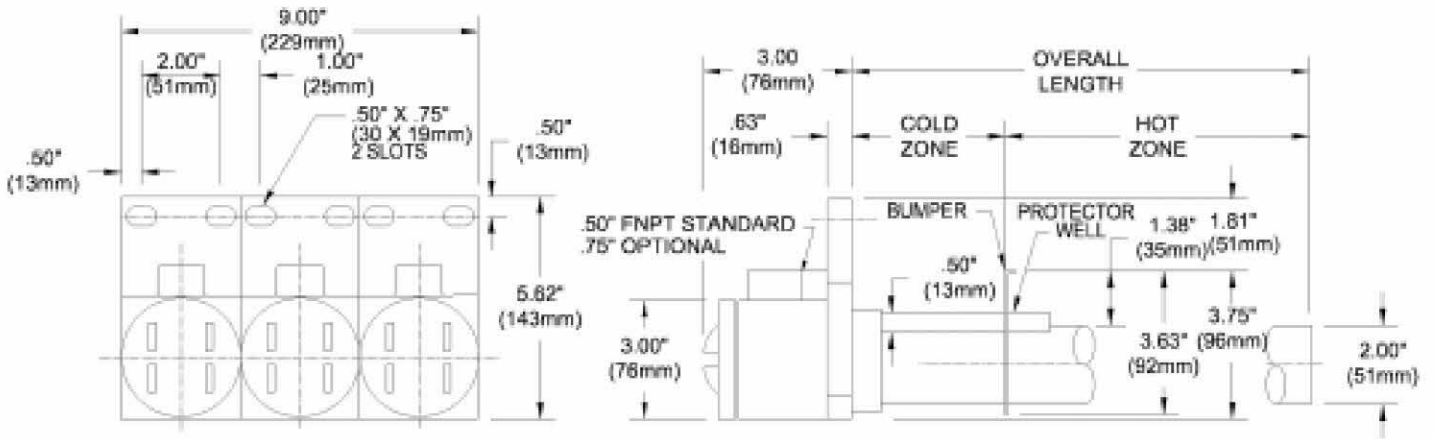
| D3 SERIES, DERATED TRIPLE METAL HEATERS |       |            |            |               |               |               |               |           |            |
|---|-------|------------|------------|---------------|---------------|---------------|---------------|-----------|------------|
| WATTS                                   | VOLTS | HOT ZONE   |            | STEEL         | 304 SS        | 316 SS        | TITANIUM      | SHIP WGT. | Lbs. /(kg) |
|   |       | IN. / (mm) | IN. / (mm) |               |               |               |               |           |            |
| 1500                                    | 120   | 6          | 11         | D3P1.5111-**  | D3F1.5111-**  | D3S1.5111-**  | D3T1.5111-**  | 21        |            |
|   | 240   | (155)      | (280)      | D3P1.5211-**  | D3F1.5211-**  | D3S1.5211-**  | D3T1.5211-**  | (9.5)     |            |
| 3000                                    | 240   | 10         | 17         | D3P3217-**    | D3F3217-**    | D3S3217-**    | D3T3217-**    | 30        |            |
|   | 480   | (255)      | (430)      | D3P3417-**    | D3F3417-**    | D3S3417-**    | D3T3417-**    | (14)      |            |
| 4500                                    | 240   | 16         | 23         | D3P4.5223-**  | D3F4.5223-**  | D3S4.5223-**  | D3T4.5223-**  | 33        |            |
|   | 480   | (405)      | (585)      | D3P4.5423-**  | D3F4.5423-**  | D3S4.5423-**  | D3T4.5423-**  | (15)      |            |
| 6000                                    | 240   | 20         | 29         | D3P6229-**    | D3F6229-**    | D3S6229-**    | D3T6229-**    | 39        |            |
|   | 480   | (510)      | (735)      | D3P6429-**    | D3F6429-**    | D3S6429-**    | D3T6429-**    | (18)      |            |
| 7500                                    | 240   | 25         | 35         | D3P7.5235-**  | D3F7.5235-**  | D3S7.5235-**  | D3T7.5235-**  | 45        |            |
|   | 480   | (635)      | (890)      | D3P7.5435-**  | D3F7.5435-**  | D3S7.5435-**  | D3T7.5435-**  | (20.5)    |            |
| 9000                                    | 240   | 30         | 40         | D3P9240-**    | D3F9240-**    | D3S9240-**    | D3T9240-**    | 51        |            |
|   | 480   | (760)      | (1015)     | D3P9440-**    | D3F9440-**    | D3S9440-**    | D3T9440-**    | (23)      |            |
| 12000                                   | 240   | 37         | 47         | D3P12247-**   | D3F12247-**   | D3S12247-**   | D3T12247-**   | 63        |            |
|   | 480   | (940)      | (1195)     | D3P12447-**   | D3F12447-**   | D3S12447-**   | D3T12447-**   | (28.5)    |            |
| 13500                                   | 240   | 44         | 54         | D3P13.5254-** | D3F13.5254-** | D3S13.5254-** | D3T13.5254-** | 69        |            |
|   | 480   | (1120)     | (1370)     | D3P13.5454-** | D3F13.5454-** | D3S13.5454-** | D3T13.5454-** | (31)      |            |
| 15000                                   | 240   | 49         | 59         | D3P15259-**   | D3F15259-**   | D3S15259-**   | D3T15259-**   | 75        |            |
|   | 480   | (1245)     | (1500)     | D3P15459-**   | D3F15459-**   | D3S15459-**   | D3T15459-**   | (34)      |            |
| 18000                                   | 240   | 58         | 68         | D3P18268-**   | D3F18268-**   | D3S18268-**   | D3T18268-**   | 84        |            |
|   | 480   | (1475)     | (1730)     | D3P18468-**   | D3F18468-**   | D3S18468-**   | D3T18468-**   | (38)      |            |

Standard units consist of three individual elements, each with its own conduit. Single head with single conduit (3 phase wiring standard) available at same price, add "-3" before thermal protector designator for three phase or "-1" for single head wired for single phase.

## Product Features and Benefits:

- ◆ **SUPERIOR CHEMICAL RESISTANCE:** Materials available for use in most concentrated aqueous alkaline solutions, plating, and phosphate solutions. Check solution recommendation chart or with your chemical supplier for proper sheath material selection.
- ◆ **RUGGED CONSTRUCTION:** Heavy wall metal sheaths available in:
  - Steel.
  - 304 stainless steel.
  - 316 stainless steel.
  - Titanium.
- ◆ **OUTSTANDING PERFORMANCE:** Low watt densities of 18 watts per square inch (2.8 w/cm<sup>2</sup>) extend service life.
- ◆ **CORROSION RESISTANT HEADS:** Vapor tight, flame retardant polypropylene terminal enclosures each with 3-foot (.9m) flexible PVC liquid tight conduits.
- ◆ **SAFETY FEATURES:**
  - Grounded construction.
  - Thermal protector built in. Replaceable PI fuse standard for solutions up to 180°F (82°C).
  - Non-floating construction.
- ◆ **CERTIFICATIONS:** UL (Except steel sheath), CSA, and CE.
- ◆ **SIZES:** 1,500 watts to 18,000 watts.
- ◆ **VOLTAGES:** 120, 240 or 480 volts. 208, 380, 415, 600 and other voltages available. Each head is single phase standard. May be wired together as single or three phase.
- ◆ **OPTIONS AVAILABLE (consult factory):**
  - Replaceable thermal protectors:
    - PIM: for solutions from 180°F (82°C) to 230°F (110°C).
    - PIH: for solutions from 230°F (110°C) to 300°F (150°C).
  - Resettable thermal protectors:
    - PII: for solutions up to 180°F (82°C).
    - PIIM: for solutions from 180°F (82°C) to 230°F (110°C).
    - PIIH: for solutions from 230°F (110°C) to 300°F (150°C).
  - Special configurations and lengths.
  - One common head (terminal enclosure) with single conduit for single or three phase.
  - Longer wire and conduit lengths.
  - Lower watt densities for highly viscous solutions.
  - Temperature and level controls sized to match the heater.

## DIMENSIONS



## DERATED TRIPLE TUBE METAL OVER THE SIDE HEATER ORDERING INFORMATION

| Series | Wattage  | Voltage   | Length   | Options   | Type of Fuse   | Wire and Conduit Length   |
|--------|--|---|--|---|--|---|
|        | 1.5 = 1500<br>3 = 3000<br>4.5 = 4500<br>6 = 6000<br>7.5 = 7500<br>9 = 9000<br>12 = 12000<br>13.5 = 13500<br>15 = 15000<br>18 = 18000 | 1 = 120<br>2 = 240<br>4 = 480<br>-208- = 208<br>-380- = 380<br>-415- = 415<br>-600- = 600 | 11 = 1.5kW<br>17 = 3kW<br>23 = 4.5kW<br>29 = 6kW<br>35 = 7.5kW<br>40 = 9kW<br>47 = 12kW<br>54 = 13.5kW<br>59 = 15kW<br>68 = 18kW<br>specify custom lengths, not to exceed tank depth | D3P = steel<br>D3F = 304 stainless steel<br>D3S = 316 stainless steel<br>D3T = titanium | -X = any special configuration not called out in the part number (specify in clear text)<br>no designator = three phase power (standard)<br>-1 = single phase power<br>-3 = three phase wiring with single head and single conduit | no designator = 36" length standard<br>specify variations from standard<br>Ex: -X84 = 84" |
|        |  |   |  |   | <b>Replaceable Fuse</b>  |   |
|        |  |   |  |   | -PI (std)  | for solutions up to 180°F   |
|        |  |   |  |   | -PIM   | for 180° - 230°F solutions  |
|        |  |   |  |   | -PIH   | for 230° - 300°F solutions  |
|        |  |   |  |   | <b>Resettable Fuse</b>   |   |
|        |  |   |  |   | (additional control components required)   |   |
|        |  |   |  |   | -PII   | for solutions up to 180°F   |
|        |  |   |  |   | -PIIM  | for 180° - 230°F solutions  |
|        |  |   |  |   | -PIIH  | for 230° - 300°F solutions  |

### ORDERING EXAMPLE:

D3F12447-PIM-X72

Derated, triple tube, 304 stainless steel, 12,000 watts, 480 volt, 47" long, PIM fuse, 72" wire and conduit

**PROCESS  
TECHNOLOGY**