

3L SERIES, TRIPLE METAL L-SHAPED HEATERS									
WATTS	VOLTS	STD.		STEEL	304 SS	316 SS	TITANIUM	SHIP	WGT.
		HORIZ.	VERT.*						
		In./(mm)	In./(mm)						Lbs./(kg)
3000	240	13	15	3LP3213-R***	3LF3213-R***	3LS3213-R***	3LT3213-R***		30
	480	(330)	(381)	3LP3413-R***	3LF3413-R***	3LS3413-R***	3LT3413-R***		(13.6)
6000	240	17	37	3LP6217-R***	3LF6217-R***	3LS6217-R***	3LT6217-R***		33
	480	(432)	(940)	3LP6417-R***	3LF6417-R***	3LS6417-R***	3LT6417-R***		(15)
9000	240	22	37	3LP9222-R***	3LF9222-R***	3LS9222-R***	3LT9222-R***		36
	480	(559)	(940)	3LP9422-R***	3LF9422-R***	3LS9422-R***	3LT9422-R***		(16.3)
12000	240	26	37	3LP12226-R***	3LF12226-R***	3LS12226-R***	3LT12226-R***		39
	480	(660)	(940)	3LP12426-R***	3LF12426-R***	3LS12426-R***	3LT12426-R***		(17.7)
15000	240	31	37	3LP15231-R***	3LF15231-R***	3LS15231-R***	3LT15231-R***		42
	480	(787)	(940)	3LP15431-R***	3LF15431-R***	3LS15431-R***	3LT15431-R***		(19.1)
18000	240	36	50	3LP18236-R***	3LF18236-R***	3LS18236-R***	3LT18236-R***		45
	480	(914)	(1270)	3LP18436-R***	3LF18436-R***	3LS18436-R***	3LT18436-R***		(20.4)
24000	240	44	50	3LP24244-R***	3LF24244-R***	3LS24244-R***	3LT24244-R***		54
	480	(1118)	(1270)	3LP24444-R***	3LF24444-R***	3LS24444-R***	3LT24444-R***		(24.5)
27000	480	50	50	3LP27450-R***	3LF27450-R***	3LS27450-R***	3LT27450-R***		60
			(1270)	(1270)					(27.2)
30000	480	55	50	3LP30455-R***	3LF30455-R***	3LS30455-R***	3LT30455-R***		66
			(1397)	(1270)					(29.9)
36000	480	64	50	3LP36464-R***	3LF36464-R***	3LS36464-R***	3LT36464-R***		75
			(1626)	(1270)					(34)

\* Specify vertical length by adding height in inches after "-R". Example: 3LS6217-R39-P1.

## 3L Series Heater Features and Benefits

### SUPERIOR CHEMICAL RESISTANCE:

- ◆ For use in most aqueous alkaline solutions, and plating and phosphate tanks. Check solution recommendation chart 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:

- ◆ Watt densities up to 35 watts per square inch (5.4 w/cm<sup>2</sup>) ensure long service life.

### CORROSION RESISTANT HEAD:

- ◆ Vapor resistant, flame retardant polypropylene terminal enclosure with 3 ft (.9m) flexible PVC liquid tight conduit.

### SAFETY FEATURES:

- ◆ Grounded construction.
- ◆ Thermal protectors built in. Replaceable PI protector standard for solutions up to 180°F (82°C).
- ◆ Non-floating construction.

**CERTIFICATIONS:** cULus listed (except steel) and CE compliant (except 600 volts).

**SIZES:** 3,000 watts to 36,000 watts.

### VOLTAGES:

- ◆ 200 to 600 volts.

### OPTIONS AVAILABLE (consult factory):

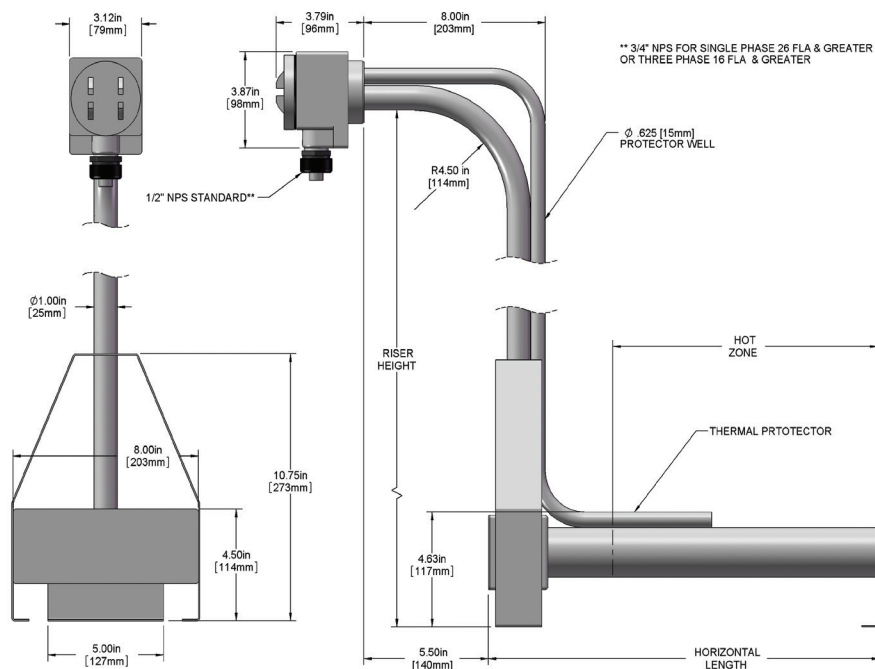
- ◆ Replaceable thermal protectors:  
P4: for solutions up to 230°F(110°C)  
P5: for solutions up to 300°F(149°C)

### Resettable thermal protectors:

- P2: for solutions up to 180°F(82°C)
- P6: for solutions up to 230F(110°C)
- P7: for solutions up to 300°F(149°C)

- ◆ Special configurations and lengths.
- ◆ Longer wire and conduit lengths.
- ◆ Lower watt densities for highly viscous solutions.
- ◆ Temperature and level controls sized to match the heater (sold separately).
- ◆ All metal welded junction box.

## DIMENSIONS



## TRIPLE TUBE METAL OVER THE SIDE HEATER ORDERING INFORMATION

Series	Wattage	Voltage	Horizontal Length (in.)	Vertical Length (in.)	Riser Option	Options	Type of Protector	Wire and Conduit Length																		
	3 = 3000 6 = 6000 9 = 9000 12 = 12000 15 = 15000 18 = 18000 24 = 24000 27 = 27000 30 = 30000 36 = 36000	2 = 240 3 = 380 4 = 480 5 = 415 6 = 600 7 = 400 8 = 208 9 = 220 0 = 200	13 = 3kW 17 = 6kW 22 = 9kW 26 = 12kW 31 = 15kW 36 = 18kW 44 = 24kW 50 = 27kW 55 = 30kW 64 = 36kW	-R19 = 3kW -R37 = 6kW -R37 = 9kW -R37 = 12kW -R37 = 15kW -R50 = 18kW -R50 = 24kW -R50 = 27kW -R50 = 30kW -R50 = 36kW (custom lengths available) Ex: -R21 = 21" -FR = flex riser Ex: -FR21 = 21"				no designator = 36" length standard specify variations from standard Ex: -X84 = 84"																		
	3LP = steel 3LF = 304 stainless steel 3LS = 316 stainless steel 3LT = titanium						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Replaceable Protector</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">P1 (std)</td> <td>for solutions up to 180°F</td> </tr> <tr> <td style="text-align: center;">P4</td> <td>for solutions up to 230°F</td> </tr> <tr> <td style="text-align: center;">P5</td> <td>for solutions up to 300°F</td> </tr> <tr> <th colspan="2" style="text-align: center;">Resettable Protector</th> </tr> <tr> <td colspan="2" style="text-align: center;">(additional control components required)</td> </tr> <tr> <td style="text-align: center;">P2</td> <td>for solutions up to 180°F</td> </tr> <tr> <td style="text-align: center;">P6</td> <td>for solutions up to 230°F</td> </tr> <tr> <td style="text-align: center;">P7</td> <td>for solutions up to 300°F</td> </tr> </tbody> </table>	Replaceable Protector		P1 (std)	for solutions up to 180°F	P4	for solutions up to 230°F	P5	for solutions up to 300°F	Resettable Protector		(additional control components required)		P2	for solutions up to 180°F	P6	for solutions up to 230°F	P7	for solutions up to 300°F	
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			no designator = 90° horizontal bend (standard) -S = straight riser				no designator = three phase power (standard) -1 = single phase power																			

### ORDERING EXAMPLE:

3LS12426-R50-P4-X72

Triple tube, L-shaped, 316 SS, 12,000 watts, 480 volt, 26" length, 50" vertical riser, P4 protector.

