

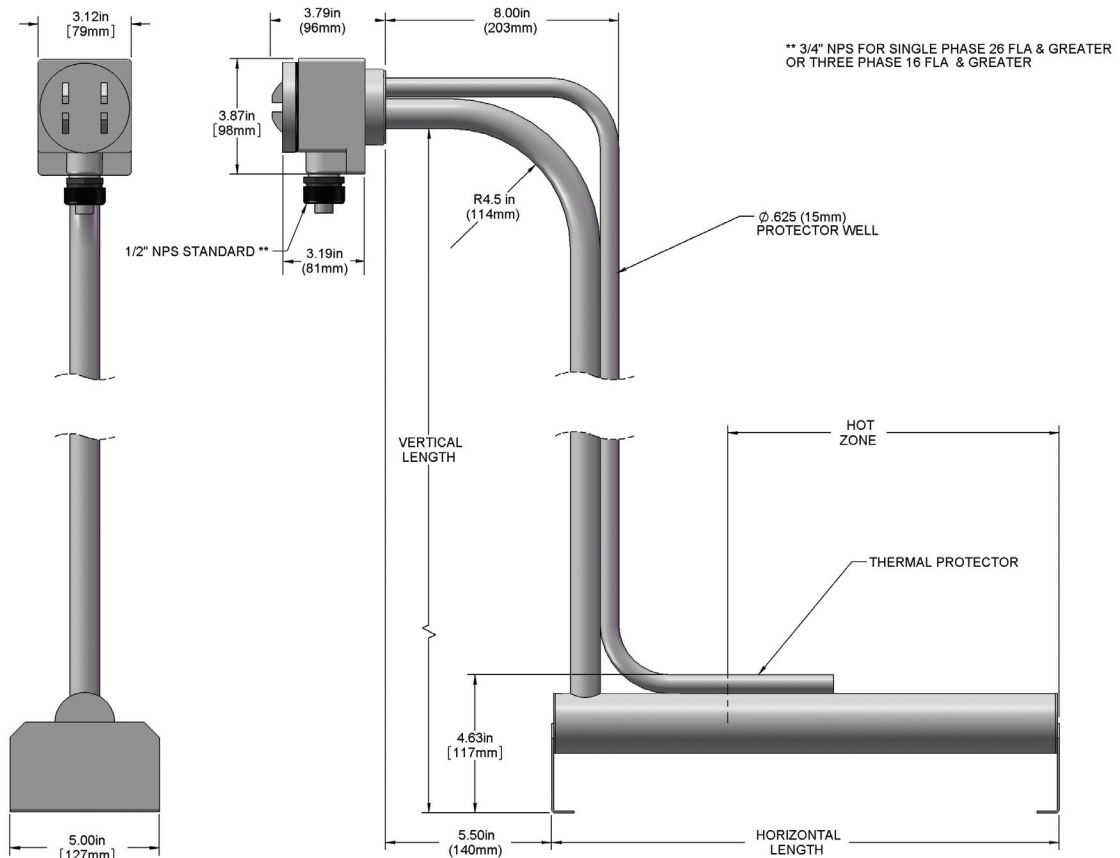
DL SERIES, DERATED METAL L-SHAPED HEATERS									
WATTS	VOLT	STD.		STEEL	304 SS	316 SS	TITANIUM	SHIP WGT.	Lbs./kg)
		HORIZ	VERT.*						
		In./(mm)	In./(mm)						
500	120	13	15	DLP.5113-R*-**	DLF.5113-R*-**	DLS.5113-R*-**	DLT.5113-R*-**	10	
	240	(330)	(380)	DLP.5213-R*-**	DLF.5213-R*-**	DLS.5213-R*-**	DLT.5213-R*-**	(4.5)	
1000	120	17	19	DLP1117-R*-**	DLF1117-R*-**	DLS1117-R*-**	DLT1117-R*-**	11	
	240	(430)	(485)	DLP1217-R*-**	DLF1217-R*-**	DLS1217-R*-**	DLT1217-R*-**	(5)	
1500	120	22	25	DLP1.5122-R*-**	DLF1.5122-R*-**	DLS1.5122-R*-**	DLT1.5122-R*-**	12	
	240	(560)	(635)	DLP1.5222-R*-**	DLF1.5222-R*-**	DLS1.5222-R*-**	DLT1.5222-R*-**	(5.5)	
	480			DLP1.5422-R*-**	DLF1.5422-R*-**	DLS1.5422-R*-**	DLT1.5422-R*-**		
2000	240	26	25	DLP2226-R*-**	DLF2226-R*-**	DLS2226-R*-**	DLT2226-R*-**	13	
	480	(660)	(635)	DLP2426-R*-**	DLF2426-R*-**	DLS2426-R*-**	DLT2426-R*-**	(6)	
2500	240	31	37	DLP2.5231-R*-**	DLF2.5231-R*-**	DLS2.5231-R*-**	DLT2.5231-R*-**	14	
	480	(790)	(940)	DLP2.5431-R*-**	DLF2.5431-R*-**	DLS2.5431-R*-**	DLT2.5431-R*-**	(6.5)	
3000	240	36	50	DLP3236-R*-**	DLF3236-R*-**	DLS3236-R*-**	DLT3236-R*-**	15	
	480	(915)	(1270)	DLP3436-R*-**	DLF3436-R*-**	DLS3436-R*-**	DLT3436-R*-**	(7)	
4000	240	44	50	DLP4244-R*-**	DLF4244-R*-**	DLS4244-R*-**	DLT4244-R*-**	18	
	480	(1120)	(1270)	DLP4444-R*-**	DLF4444-R*-**	DLS4444-R*-**	DLT4444-R*-**	(8)	
4500	240	50	50	DLP4.5250-R*-**	DLF4.5250-R*-**	DLS4.5250-R*-**	DLT4.5250-R*-**	20	
	480	(1270)	(1270)	DLP4.5450-R*-**	DLF4.5450-R*-**	DLS4.5450-R*-**	DLT4.5450-R*-**	(9)	
5000	240	55	50	DLP5255-R*-**	DLF5255-R*-**	DLS5255-R*-**	DLT5255-R*-**	22	
	480	(1400)	(1270)	DLP5455-R*-**	DLF5455-R*-**	DLS5455-R*-**	DLT5455-R*-**	(10)	
6000	240	64	50	DLP6264-R*-**	DLF6264-R*-**	DLS6264-R*-**	DLT6264-R*-**	25	
	480	(1625)	(1270)	DLP6464-R*-**	DLF6464-R*-**	DLS6464-R*-**	DLT6464-R*-**	(11.5)	

* Specify vertical length by adding height in inches after "R". Example: DLS1117-R24-P1.

Product Features and Benefits:

- ◆ **SUPERIOR CHEMICAL RESISTANCE:** Materials available for use in most aqueous alkaline solutions, plating solutions, and rinse tanks. 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:** Watt densities of 18 watts per square inch (2.8 w/cm²) ensure long service life. Two-inch sludge legs standard, other lengths available.
- ◆ **EVEN HEATING:** Bottom design for even heating and varying liquid levels.
- ◆ **CORROSION RESISTANT HEAD:** Vapor resistant, flame retardant polypropylene terminal enclosure with 3-foot (.9m) flexible PVC liquid tight conduit.
- ◆ **SAFETY FEATURES:**
 - Grounded construction.
 - Thermal protector built in. Replaceable P1 protector standard for solutions up to 180°F (82°C).
 - Non-floating construction.
- ◆ **CERTIFICATIONS:** UL listed (except steel) to U.S. and Canadian safety requirements, and CE.
- ◆ **SIZES:** 500 watts to 6,000 watts.
- ◆ **VOLTAGES:** 120 to 600 volts. Single phase standard, three phase available. Some amperage limitations apply, consult factory.
- ◆ **OPTIONS AVAILABLE (consult factory):**
 - Replaceable thermal protectors:
 - P4: for solutions from 180°F (82°C) to 230°F (110°C).
 - P5: for solutions from 230°F (110°C) to 300°F (150°C).
 - Resettable thermal protectors:
 - P2: for solutions up to 180°F (82°C).
 - P6: for solutions from 180°F (82°C) to 230°F (110°C).
 - P7: for solutions from 230°F (110°C) to 300°F (150°C).
 - Special configurations and vertical lengths.
 - Longer sludge legs.
 - Flexible risers. (Available with P2 thermal protectors only.)
 - Longer wire and conduit lengths.
 - Lower watt densities for highly viscous solutions.
 - Temperature and level controls sized to match the heater.

DIMENSIONS



DERATED SINGLE TUBE METAL L-SHAPED HEATER ORDERING INFORMATION

Series	Wattage	Voltage	Horizontal Length (in.)	Vertical Length (in.)	Riser Option	Options	Type of Protector	Wire and Conduit Length																		
	.5 = 500 1 = 1000 1.5 = 1500 2 = 2000 2.5 = 2500 3 = 3000 4 = 4000 4.5 = 4500 5 = 5000 6 = 6000	1 = 120 2 = 240 3 = 380 4 = 480 5 = 415 6 = 600 7 = 400 8 = 208 9 = 220 0 = 200	13 = .5kW 17 = 1kW 22 = 1.5kW 26 = 2kW 31 = 2.5kW 36 = 3kW 44 = 4kW 50 = 4.5kW 55 = 5kW 64 = 6kW	-R15 = .5kW -R19 = 1kW -R25 = 1.5kW -R37 = 2.5kW -R50 = 3kW -R50 = 4kW -R50 = 4.5kW -R50 = 5kW -R50 = 6kW (custom lengths available) Ex: -R21 = 21" -FR = flex riser Ex: -FR21 = 21"				no designator = 36" length standard specify variations from standard Ex: -X84 = 84"																		
	DLP = steel DLF = 304 stainless steel DLS = 316 stainless steel DLT = titanium						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Replaceable Protector</th> </tr> <tr> <td style="text-align: center;">-P1</td> <td>for solutions up to 180°F</td> </tr> <tr> <td style="text-align: center;">-P4</td> <td>for 180° - 230°F solutions</td> </tr> <tr> <td style="text-align: center;">-P5</td> <td>for 230° - 300°F solutions</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 180° - 230°F solutions</td> </tr> <tr> <td style="text-align: center;">-P7</td> <td>for 230° - 300°F solutions</td> </tr> </table>	Replaceable Protector		-P1	for solutions up to 180°F	-P4	for 180° - 230°F solutions	-P5	for 230° - 300°F solutions	Resettable Protector		(additional control components required)		-P2	for solutions up to 180°F	-P6	for 180° - 230°F solutions	-P7	for 230° - 300°F solutions	
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			no designator = 90° horizontal bend (standard) -S = straight riser				no designator = single phase power (standard) -3 = three phase power 1 inch = 25.4mm																			

ORDERING EXAMPLE:

DLS3436-R25-P1

Derated single tube L-shaped, 316 SS, 3,000 watts, 480 volts, 36" horizontal length, 25" riser, P1 protector.

**PROCESS
TECHNOLOGY**