



Low-Density Cartridge Heater Specifications

Standard Specifications and Tolerances of Low Density Cartridge Heaters. If tighter tolerances are required consult Tempco.

PERFORMANCE RATINGS

Maximum Temperature: 1200°F (650°C)

Maximum Watt Density: 20-45 W/in² (3.1-7.0 W/cm²) depending on heater size and operating temperature.

DIMENSIONAL SPECIFICATIONS

Nominal Diameter	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1-1/4
Actual Diameter— in.	.185	.247	.372	.496	.621	.745	.870	.933	.995	1.250
Actual Diameter—(mm)	(4.70)	(6.27)	(9.45)	(12.60)	(15.77)	(18.92)	(22.10)	(23.70)	(25.27)	(31.75)
Diameter Tolerance	±.002 (.051 mm)									±.005 (.127 mm)
Length Tolerance	±1/16 (1.59 mm) up to 6" (152.4 mm) long; ±1/8" (3.18 mm) over 6" long									
Camber Tolerance	.010" (.254 mm) per foot of length									

ELECTRICAL SPECIFICATIONS

Nominal Diameter	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1-1/4
Maximum Voltage	240	240	240	240	480*	480*	480*	480*	480*	480*
Maximum Amperage	1.5	3.5	6	8	10	15	15	15	25	30
Maximum Wattage	Consult Tempco									
Wattage Tolerance	Plus 5%, Minus 10%									
Resistance Tolerance	Plus 10%, Minus 5%									

*480V when applicable. Consult Tempco.

Standard (Non-Stock) Low-Density Cartridge Heaters

3/16" Diameter Actual .185" (4.70 mm)

Sheath Length	Watts		Watt Density		Part Number	
	in	mm	W/in ²	W/cm ²	120V	240V
1	25.4	15	34	5.3	LDC00001	—
1½	38.1	20	30	4.7	LDC00002	—
2	50.8	30	31	4.9	LDC00003	—
2½	63.5	40	32	5.0	LDC00004	—
3	76.2	45	29	4.5	LDC00005	—
4	101.6	65	31	4.7	LDC00006	—
5	127.0	80	29	4.6	LDC00007	—
6	152.4	100	30	4.7	LDC00008	—
7	177.8	125	32	5.0	LDC00009	—
8	203.2	150	33	5.2	LDC00010	—
10	254.0	170	30	4.7	LDC00011	—

1/4" Diameter Actual .247" (6.27 mm)

Sheath Length	Watts		Watt Density		Part Number	
	in	mm	W/in ²	W/cm ²	120V	240V
1	25.4	20	34	5.3	LDC00012	—
1½	38.1	20	23	3.5	LDC00014	—
2	50.8	32	27	4.2	LDC00015	—
2	50.8	40	34	5.3	LDC00016	—
2	50.8	50	42	6.6	LDC00017	—
2½	63.5	30	19	3.0	LDC00018	—
3	76.2	32	16	2.5	LDC00019	—
3	76.2	50	25	3.9	LDC00020	—
3½	88.9	80	34	5.3	LDC00021	—
4	101.6	100	36	5.6	LDC00022	LDC00023
5	127.0	125	35	5.5	LDC00024	—
6	152.4	150	35	5.4	LDC00025	LDC00026
7	177.8	100	20	3.0	LDC00027	LDC00028
8	203.2	200	34	5.3	LDC00029	LDC00030
10	254.0	250	34	5.2	LDC00031	LDC00032



Note: Part Numbers above are for Low Density Cartridge Heaters terminated with Type F flexible leads, 10" long. See pages 2-39 through 2-57 for other terminations.

Low-Density Cartridge Heaters are made-to-order only. Standard lead time is 3 weeks.

Custom Engineered/Manufactured Low-Density Cartridge Heaters

Refer to ordering information on page 2-38.