

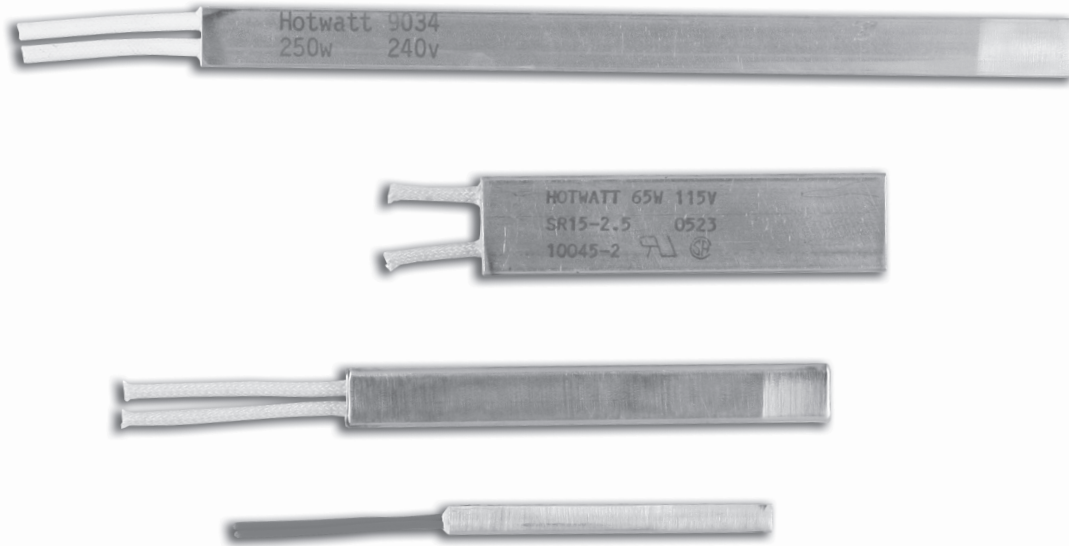


# Cartridge Heaters

## Square and Rectangular Low to Medium Watt Density

U.L. Recognized – E56973  
C.S.A. Certified 016386-0-000

CARTRIDGE

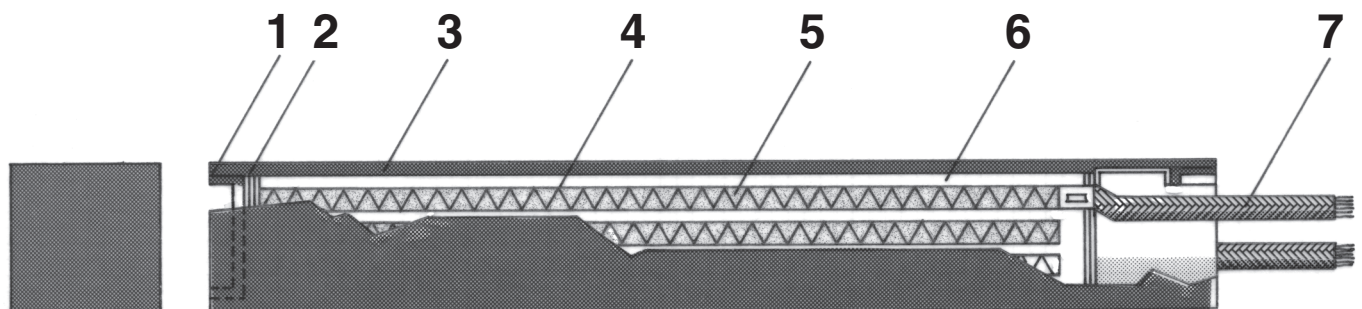


### Features:

- The Hotwatt Square and Rectangular Cartridge Heater is designed to distribute maximum heat within a desired area. Because they are completely enclosed, square units will furnish more usable heat for a given wattage than a comparable strip heater attached to the exterior of a mold, platen or other equipment.
- The units are inserted in a milled slot, permitting greater lengths than would be feasible with a drilled or reamed hole. Close dimensional tolerances are held to permit intimate fit for best transfer to surrounding medium.
- Heating elements arranged just beneath outside surface for maximum heat transfer, minimum wire temperature, and faster heating.
- Maximum surface temperatures up to 1200°F. Designations are etched on the sheath to preserve accurate shape.
- Long, trouble free service.
- Made in U.S.A.

### Construction:

- 1 Sealed end.
- 2 Mica.
- 3 Series 300 stainless steel sheath for non-oxidizing, stable service with cavities machined for them.
- 4 Element wire situated in close proximity to outside surface for maximum heat transfer, minimum wire temperature and faster heating.
- 5 Magnesium oxide packing.
- 6 Ceramic element support.
- 7 Teflon insulated leads: ¼" square.  
Fiberglass insulated leads: ⅜" to ½" square, ¼" x ⅜" and ¼" x 1" rectangular.





# Cartridge Heaters

## Square—Low to Medium Watt Density

**CARTRIDGE**

▼ Manufactured Items ▼

### Square

**Size:**  $\frac{1}{8}'' \times \frac{1}{8}''$  (.124/.120 x .124/.120)  
**Maximum Amperage:** 1 Not UL/CSA

$\frac{3}{16}'' \times \frac{3}{16}''$  (.186/.183 x .186/.183)  
**3.5**

Sheath Length	Cat. No.	Min. Watts	Max. Watts
1"	SS12-1	10	15
2"	SS12-2	10	35
3"	SS12-3	10	55
4"	SS12-4	10	75
5"	SS12-5	10	95
6"	SS12-6	10	115
7"	SS12-7	10	135
8"	SS12-8	10	155
9"	SS12-9	10	175
10"	SS12-10	10	195
11"	SS12-11	10	215
12"	SS12-12	10	235

Cat. No.	Min. Watts	Max. Watts
SS18-1	10	20
SS18-2	10	45
SS18-3	10	70
SS18-4	10	105
SS18-5	10	130
SS18-6	10	160
SS18-7	10	195
SS18-8	10	230
SS18-9	10	250
SS18-10	10	270
SS18-11	10	295
SS18-12	10	320

For longer lengths,  
compute wattage at: **10 watts per linear  $\frac{1}{2}''$**   
• Lengths longer than those listed may be ordered.

**12 watts per linear  $\frac{1}{2}''$**

### Square

**Size:**  $\frac{1}{4}''$  (.249/.245 x .249/.245)  
**Maximum Amperage:** **3.5**

$\frac{3}{8}''$  (.374/.370 x .374/.370)  
**6**

$\frac{1}{2}''$  (.499/.495 x .499/.495)  
**10**

Sheath Length	Cat. No.	Min. Watts	Max. Watts
2"	SS25-2	10	60
3"	SS25-3	10	100
4"	SS25-4	10	150
6"	SS25-6	10	225
8"	SS25-8	10	350
10"	SS25-10	10	450
12"	SS25-12	10	550
16"	SS25-16	10	750
18"	SS25-18	10	840
24"	SS25-24	10	840

Cat. No.	Min. Watts	Max. Watts
SS37-2	10	90
SS37-3	10	150
SS37-4	10	210
SS37-6	10	330
SS37-8	10	450
SS37-10	10	570
SS37-12	10	690
SS37-16	10	930
SS37-18	10	1050
SS37-24	10	1410

Cat. No.	Min. Watts	Max. Watts
SS50-2	10	130
SS50-3	10	210
SS50-4	10	300
SS50-6	10	500
SS50-8	10	700
SS50-10	10	850
SS50-12	10	1000
SS50-16	10	1280
SS50-18	10	1440
SS50-24	10	1920

For longer lengths,  
compute wattage at: **840 watts max.**  
• Lengths longer than those listed may be ordered.

**30 watts per linear  $\frac{1}{2}''$**

**40 watts per linear  $\frac{1}{2}''$**

### Wattage

#### Minimum Wattage

The following table should be used to determine the allowable voltage for low wattage miniature elements:

Size:	$\frac{1}{8}''$ Square				$\frac{3}{16}''$ Square			
	30v	60v	120v	230v	30v	60v	120v	230v
1"	.6w	2.5w	10w	NA	.8w	3w	12w	NA
1 $\frac{1}{2}$ "	.6w	2.5w	10w	NA	.5w	2w	8w	30w
2"	.5w	2w	8w	27w	.4w	1.5w	6w	22w

NA = Not Available

### Voltage

Standard voltage is either 120V or 240V. Other voltages are available.

### Termination

All units within published amperage limits are manufactured with 6" (type SF1) leads; longer length leads are available. Standard insulation on  $\frac{1}{4}''$  square units is Teflon (200°C). Fiberglass (250°C) is standard on all other sizes.



# Cartridge Heaters

## Rectangular—Low to Medium Watt Density

CARTRIDGE

▼ Manufactured Items ▼

### Rectangular

**Size:**  $\frac{1}{8}$ " x  $\frac{1}{4}$ " (.124/.120 x .249/.245)  
**Maximum Amperage:** 2

Sheath Length	Cat. No.	Min. Watts	Max. Watts
1"	SR14-1	10	20
2"	SR14-2	10	55
3"	SR14-3	10	85
4"	SR14-4	10	110
5"	SR14-5	10	135
6"	SR14-6	10	170
7"	SR14-7	10	200
8"	SR14-8	10	230
9"	SR14-9	10	260
10"	SR14-10	10	290
11"	SR14-11	10	320
12"	SR14-12	10	350

$\frac{1}{8}$ " x  $\frac{3}{8}$ " (.124/.120 x .374/.370)  
**3.5**

Cat. No.	Min. Watts	Max. Watts
SR13-1	10	35
SR13-2	10	90
SR13-3	10	140
SR13-4	10	190
SR13-5	10	240
SR13-6	10	290
SR13-7	10	340
SR13-8	10	390
SR13-9	10	440
SR13-10	10	490
SR13-11	10	540
SR13-12	10	590

For longer lengths, compute wattage at: **15 watts per linear  $\frac{1}{2}$ "**

- Lengths longer than those listed may be ordered.

**25 watts per linear  $\frac{1}{2}$ "**

### Rectangular

**Size:**  $\frac{1}{4}$ " x  $\frac{5}{8}$ " (.249/.245 x .624/.620)  
**Maximum Amperage:** 6

Sheath Length	Cat. No.	Min. Watts	Max. Watts
1"	SR15-1	10	35
2"	SR15-2	10	100
3"	SR15-3	10	175
4"	SR15-4	10	250
5"	SR15-5	10	320
6"	SR15-6	10	455
7"	SR15-7	10	560
8"	SR15-8	10	640
9"	SR15-9	10	720
10"	SR15-10	10	800
11"	SR15-11	10	880
12"	SR15-12	10	960
16"	SR15-16	10	1280
18"	SR15-18	10	1440
24"	SR15-24	10	1920

$\frac{1}{4}$ " x 1" (.249/.245 x .999/.993)  
**10**

Cat. No.	Min. Watts	Max. Watts
SR16-1	10	50
SR16-2	10	150
SR16-3	10	300
SR16-4	10	400
SR16-5	10	500
SR16-6	10	600
SR16-7	10	700
SR16-8	10	800
SR16-9	10	900
SR16-10	10	1000
SR16-11	10	1100
SR16-12	10	1200
SR16-16	10	1600
SR16-18	10	1800
SR16-24	10	2400

For longer lengths, compute wattage at: **35 watts per linear  $\frac{1}{2}$ "**

- Lengths longer than those listed may be ordered.

**50 watts per linear  $\frac{1}{2}$ "**

### Tolerances

Wattage tolerances are held to +5%, -10% at rated voltage. Width and height are always .001" less but not more than .010" less than the nominal (fractional) heater size; length tolerances are  $\pm 2\%$  with a  $\pm \frac{1}{16}$ " minimum. This sizing is maintained so that all units are a slide fit into a standard milled slot of the size required. Thermal action will expand the unit to a snug fit for best heat conduction.

### How to Order

After determining the wattage required and the line voltage available, determine the physical space available for heaters and the numbers of heaters required.

Review Special Features, see page 22-27.

**Specify:** catalog number, wattage, voltage, lead length and special features required.

**Example:** SR16-7.5/750W240V/SF1-48