

## Silicone Rubber Enclosure Heaters

### EHR Series



Built-in air sensing thermostat

### Design Features

- Available with or without an Integrated Thermostat (See EHA below for Remote Thermostats)
- Custom Design and Alternate Thermostat Settings Available
- Heater Vulcanized to an Aluminum Mounting Plate for Easy Installation
- 120V Standard; Custom Voltages Available upon Request
- 1.2 m (48") PTFE Leads Standard
- Safe to Operate, No Exposed Electrical Connections
- 13 mm (½") Mounting Flange

EHR Series silicone rubber heaters are designed for easy installation and safe operation. These rectangular shaped wire-wound silicone rubber heaters are vulcanized to an aluminum mounting plate with mounting holes. They provide superior protection for enclosures of all types against condensation, humidity and freezing.

It is recommended that the enclosure heater be used with a thermostat either built in or mounted remotely to limit the maximum temperature reached and conserve energy. The suggested mounting method is at the bottom of the enclosure, mounted vertically. If a remote mounted thermostat is preferred, mount the heater on the bottom of the enclosure and the thermostat in the middle of the enclosure.

### Determining the Minimum Wattage for Your Application

1. Determine the lowest temperature to which the enclosure is expected to be exposed
2. Determine the operating temperature to which you want the enclosure heated
3. Subtract the ambient temperature from the enclosure temperature to get the temperature change required
4. Calculate the surface area of the enclosure; For a rectangular enclosure use the formula: 2 [(Length × Width) + (Length × Height) + (Width × Height)]
5. Select the correct table below depending upon whether your box is insulated or non-insulated; Read from the table the wattage required depending upon your calculated temperature change and surface area
6. Add an additional 50% of the determined wattage if the enclosure is to be located in windy conditions

### Selecting the Right Heater for Your Application

1. Determine the wattage of heater(s) that you need. See the instructions on this page to determine your wattage requirements.
2. Determine the type of heater that you need. Depending upon conditions, one heater type might be better than others. Items to take into consideration are space constraints inside the enclosure and wattages required.
3. Determine the number of heaters you need. You can combine multiple heaters to achieve your wattage requirements.
4. Determine how you will control the heaters. Will you use built-in thermostats to monitor the temperature? Or will you use a single temperature control to monitor and control the heaters? OMEGA manufactures a wide range of temperature control devices.

### Insulated Enclosure Wattage Selection Table

Δ Temperature °C (°F)	Total Surface Area m <sup>2</sup> (ft <sup>2</sup> )													
	0.19 (2)	0.28 (3)	0.37 (4)	0.47 (5)	0.56 (6)	0.70 (7.5)	0.84 (9)	0.93 (10)	1.40 (15)	1.86 (20)	2.33 (25)	2.79 (30)	3.72 (40)	4.65 (50)
11 (20)	10	10	15	20	20	25	30	35	50	65	80	100	130	160
22 (40)	15	20	30	35	40	50	60	65	100	130	160	195	260	320
33 (60)	20	30	45	50	60	75	90	100	145	195	240	290	385	480
44 (80)	30	40	55	65	80	100	115	130	195	260	320	320	515	640
56 (100)	35	50	65	80	100	125	145	160	240	320	400	400	640	800
67 (120)	40	60	80	100	115	150	175	195	290	385	480	480	770	960
78 (140)	45	70	90	115	135	175	205	225	340	450	560	560	900	1120

### Uninsulated Enclosure Wattage Selection Table

Δ Temperature °C (°F)	Total Surface Area m <sup>2</sup> (ft <sup>2</sup> )													
	0.19 (2)	0.28 (3)	0.37 (4)	0.47 (5)	0.56 (6)	0.70 (7.5)	0.84 (9)	0.93 (10)	1.40 (15)	1.86 (20)	2.33 (25)	2.79 (30)	3.72 (40)	4.65 (50)
11 (20)	30	40	55	70	80	100	120	135	205	270	335	405	540	670
22 (40)	55	80	110	135	160	200	245	270	405	540	670	805	1075	1340
33 (60)	90	120	160	205	245	300	365	405	605	805	1005	1210	1610	2010
44 (80)	110	160	215	270	325	400	485	540	805	1075	1340	1610	2145	2680
56 (100)	135	200	270	335	405	500	605	670	1005	1340	1675	2010	2680	3350
67 (120)	165	240	320	405	485	600	725	805	1210	1610	2010	2415	3220	4020
78 (140)	190	280	375	470	565	700	845	940	1410	1880	2345	2815	3775	4690

## Silicone Rubber Enclosure Heaters (Continued)

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Model No.	Width mm (inch)	Length mm (inch)	Mounting Center	Watts	Volts	Lead Length m (inch)	Thermostat °C (°F)	
							Opens	Closes
EHR00001	64 (2½)	127 (5)	3	25	120	1.2 (48)	—	—
EHR00002	64 (2½)	127 (5)	3	25	120	1.2 (48)	16 (60)	4 (40)
EHR00003	64 (2½)	127 (5)	3	35	120	1.2 (48)	—	—
EHR00037	64 (2½)	127 (5)	3	50	12	1.2 (48)	16 (60)	4 (40)
EHR00039	64 (2½)	127 (5)	3	50	24	1.2 (48)	—	—
EHR00004	64 (2½)	127 (5)	3	50	120	1.2 (48)	—	—
EHR00005	64 (2½)	127 (5)	3	50	120	1.2 (48)	16 (60)	4 (40)
EHR00048	64 (2½)	152 (6)	4	60	24	1.2 (48)	60 (140)	43 (110)
EHR00006	64 (2½)	152 (6)	4	60	120	1.2 (48)	—	—
EHR00007	64 (2½)	152 (6)	4	60	120	1.2 (48)	16 (60)	4 (40)
EHR00008	64 (2½)	152 (6)	4	60	120	1.2 (48)	60 (140)	43 (110)
EHR00009	64 (2½)	152 (6)	4	60	120	1.2 (48)	82 (180)	66 (150)
EHR00010	64 (2½)	254 (10)	7	70	120	1.2 (48)	—	—
EHR00047	64 (2½)	254 (10)	7	100	12	1.2 (48)	16 (60)	4 (40)
EHR00049	64 (2½)	254 (10)	7	100	12	1.2 (48)	—	—
EHR00035	64 (2½)	254 (10)	7	100	24	1.2 (48)	16 (60)	4 (40)
EHR00011	64 (2½)	254 (10)	7	100	120	1.2 (48)	—	—
EHR00012	64 (2½)	254 (10)	7	100	120	1.2 (48)	16 (60)	4 (40)
EHR00028	64 (2½)	254 (10)	7	100	230	1.2 (48)	16 (60)	4 (40)
EHR00032	64 (2½)	305 (12)	9	80	240	1.2 (48)	16 (60)	4 (40)
EHR00013	64 (2½)	305 (12)	9	120	120	1.2 (48)	—	—
EHR00014	64 (2½)	305 (12)	9	120	120	1.2 (48)	16 (60)	4 (40)
EHR00015	64 (2½)	305 (12)	9	120	120	1.2 (48)	60 (140)	43 (110)
EHR00016	64 (2½)	305 (12)	9	120	120	1.2 (48)	82 (180)	66 (150)
EHR00034	64 (2½)	305 (12)	9	120	240	1.2 (48)	16 (60)	4 (40)
EHR00017	114 (4½)	254 (10)	7	140	120	1.2 (48)	—	—
EHR00018	114 (4½)	254 (10)	7	250	120	1.2 (48)	—	—
EHR00019	114 (4½)	254 (10)	7	250	120	1.2 (48)	16 (60)	4 (40)
EHR00044	114 (4½)	254 (10)	7	250	240	1.2 (48)	60 (140)	43 (110)

Note: Dimensions listed are for heater and bracket; actual heater width is 12.7 mm (½") less.

Note: Mounting slot size is 6 x 4 mm (¼ x 5/32").

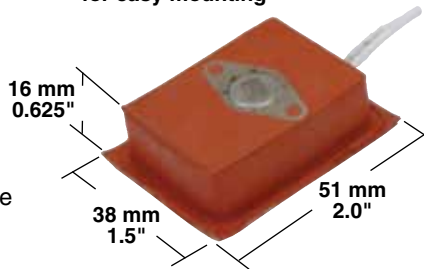
## Remote Thermostats for Enclosure Heaters

### EHA Series

#### Design Features

- Standard PTFE Lead Length: 1.2 m (48")
- Can Easily be Located Anywhere in the Enclosure Using the Pressure Sensitive Adhesive
- Any Standard Thermostat can be Used
- Silicone Rubber Base and Enclosure
- Ratings: 10A/250 Vac, 15A/120 Vac

Pressure Sensitive Adhesive for easy mounting



EHA00005 D-ring and strap mounting thermostat. Can be applied to sense the air around an object or an object directly.



#### Ordering Information

Select a remote thermostat from the list to the right  
Custom engineered/manufactured heaters available consult OMEGA.

#### Please specify the following:

- Range: Select from the list of thermostats at [omega.com](http://omega.com)
- Lead Length: Specify any special lead length you require

To Order Visit [omega.com/ehr\\_eha\\_series](http://omega.com/ehr_eha_series) for Pricing and Details

Model Number		Opens °F	Closes °F
PSA	D-ring and Strap		
EHA00001	EHA00005	60±5	40±7
EHA00002	—	140±5	110±10
EHA00003	—	180±5	150±10