

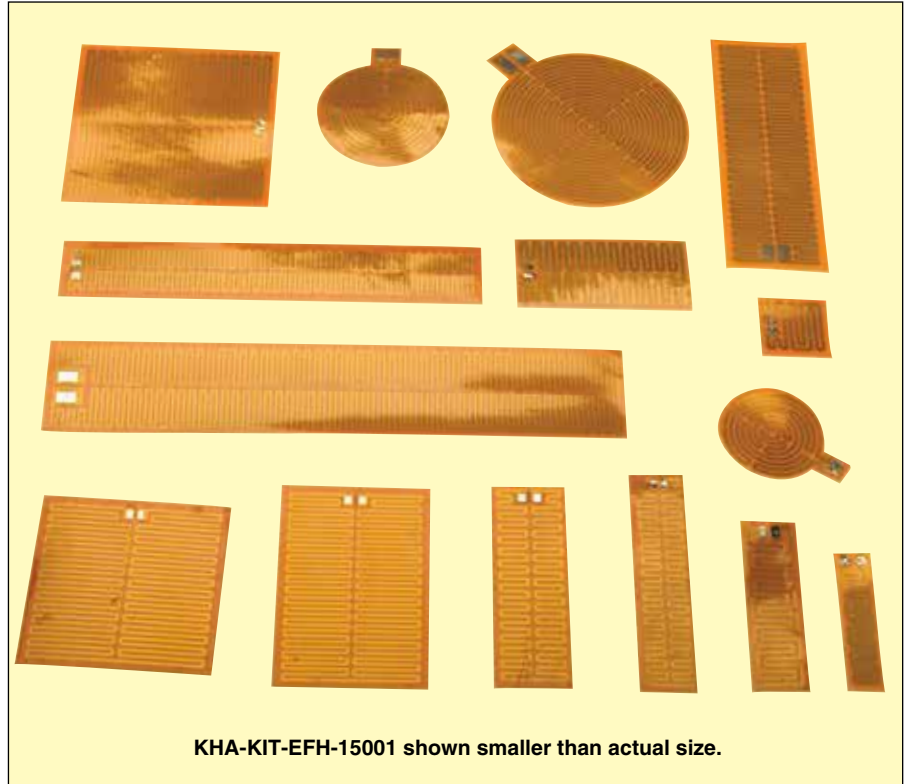
# POLYIMIDE HEATER KIT



KHA-KIT-EFH-15001



- ✓ Withstand Temperature Extremes from -200 to 200°C (-328 to 392°F)
- ✓ Excellent Tensile Strength, and Tear Resistance
- ✓ Low Out-Gassing
- ✓ Wattage 2.5, 5, or 10 W/in<sup>2</sup>
- ✓ Small, Flexible Radius (0.032" Minimum)
- ✓ Chemical Resistance to Many Solvents and Oils
- ✓ Pressure Sensitive Adhesive
- ✓ 115 or 230 Vac
- ✓ Multiple Heaters with Various Wattages and Profiles



KHA-KIT-EFH-15001 shown smaller than actual size.

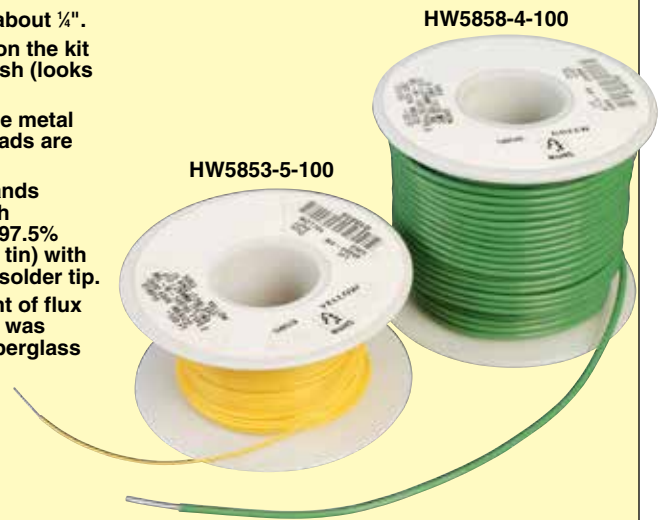
## Typical Applications

- ✓ Aerospace
- ✓ Analytical Equipment
- ✓ Tooling
- ✓ Commercial Equipment
- ✓ Agriculture
- ✓ Packaging
- ✓ Material Handling

The Polyimide heater kit contains thin and flexible heaters with adhesive backing to conform to practically any flat or curved surface. With 15 different shapes, this kit can suit almost any application. Heater configurations are outlined on a 0.3 x 0.3 m (1x1') sheet, with line markings for easy selection and cutout. When used in combination, these heaters can provide a number of resistances and wattages. Leads can be soldered on or connected with alligator clips.

### Lead wire connection note:

1. Strip the wire leads about ¼".
2. Scrub the lead area on the kit with a fiberglass brush (looks like a pencil).
3. Flatten or "crush" the metal strands where the leads are stripped.
4. Tin the flattened strands of the leads with high temperature solder (97.5% lead, 1.5% silver, 1% tin) with about 288°C (550°F) solder tip.
5. Apply a small amount of flux on the lead area that was scrubbed with the fiberglass brush and solder.



### Specifications

**Thickness:** 0.203 mm (0.008")

**Maximum Operating**

**Temperature:**

**Polyimide:** 200°C (392°F)

**Adhesive Backing  
(Continuous Use):**

149°C (300°F)

**Adhesive Backing**

**(Short Time Periods):**

Up to 232°C (450°F)

**Dielectric Strength:** 1000 Vac  
minimum

### Recommended Leads: Current Rating Table

Wire Gage (AWG)	Maximum Current (A)
28	1.25
26	1.25
24	3.16
22	5
20	10
18	15
16	15
14	20

A PTFE-insulated lead wire is recommended for energizing the heater. Use heater wattage chart below along with current rating table to determine the recommended lead-wire gage.

*Note: The chart below shows wattage outputs when heaters are connected to various power supplies. Resistance values are nominal values only. The resistance values have a tolerance of ±10%.*

**CAUTION AND WARNING!**  
Fire and electrical shock may result if products are used improperly or installed or used by non-qualified personnel.

### Heater Wattage Chart

Size (inch)	Resistance (Ω)	Watts (12V)	Amps	Watts (28V)	Amps	Watts (115V)	Watts	Watts (230V)	Amps
0.5 x 2.0	8.8	16.4	1.4	89.1	3.2	1502.8	13.1	6011.4	26.1
0.75 x 2.5	23.5	6.1	0.5	33.4	1.2	562.8	4.9	2251.1	9.8
0.75 x 3.25	33.2	4.3	0.4	23.6	0.8	398.3	3.5	1593.4	6.9
1.0 x 1.0	11.0	13.1	1.1	71.3	2.5	1202.3	10.5	4809.1	20.9
1.0 x 3.0	40.0	3.6	0.3	19.6	0.7	330.6	2.9	1322.5	5.8
1.0 x 6.0	105.9	1.4	0.1	7.4	0.3	124.9	1.1	499.5	2.2
1.5 Dia.	32.8	4.4	0.4	23.9	0.9	403.2	3.5	1612.8	7.0
1.5 x 4.5	120.3	1.2	0.1	6.5	0.2	109.9	1.0	439.7	1.9
1.5 x 8.0	252.0	0.6	0.0	3.1	0.1	52.5	0.5	209.9	0.9
2.0 Dia.	56.4	2.6	0.2	13.9	0.5	234.5	2.0	937.9	4.1
2.0 x 3.0	103.7	1.4	0.1	7.6	0.3	127.5	1.1	510.1	2.2
2.5 x 1.25	42.8	3.4	0.3	18.3	0.7	309.0	2.7	1236.0	5.4
2.5 x 2.5	108.6	1.3	0.1	7.2	0.3	121.8	1.1	487.1	2.1
3.0 Dia.	169.0	0.9	0.1	4.6	0.2	78.3	0.7	313.0	1.4
3.0 x 3.0	153.7	0.9	0.1	5.1	0.2	86.0	0.7	344.2	1.5

*Note: All kit heaters require either a temperature or power controller to regulate heater temperature.*

To Order	
Model No.	Description
KHA-KIT-EFH-15001	Polyimide flexible heater sample kit with 15 different shapes