The Loomia 12V heater is designed to quickly heat up with a 12V wall converter barrel jack connection. This heater is best used on “warm” surfaces like foam or wood and may under-perform if used on “cold” surfaces like metal or marble.

Loomia Technologies
9415 Culver Blvd
#106
Culver City, CA 90232
BASIC CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (L x W x H)</td>
<td>304.81 x 254.00 x 00.254 mm</td>
</tr>
<tr>
<td>Operating Voltage Range</td>
<td>12 V - 16V</td>
</tr>
<tr>
<td>Resistance</td>
<td>3.5 Ω ± 0.2</td>
</tr>
<tr>
<td>Current</td>
<td>Max 3A</td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Thermoplastic Polyurethane (with options for specific use cases)</td>
</tr>
<tr>
<td>Conductor</td>
<td>Proprietary (multi-metal)</td>
</tr>
<tr>
<td>Connector</td>
<td>Barrel Jack (default); other customized connector options available upon request</td>
</tr>
<tr>
<td>Standard Deviation between Heaters</td>
<td>0.125 Ω</td>
</tr>
<tr>
<td>Stackup Variation Type</td>
<td>40275 (not laminated to a-surface)</td>
</tr>
</tbody>
</table>
Performance

Performance at -40°C (Full Blast)

[Graphs showing temperature and current readings over time at -40°C]
Performance at Room Temp

Loomia Heater Testing at Room Temp

Temperature (°C)

Time (min.)

Inside Thermocouple

Outside Thermocouple

Loomia Heater Testing at Room Temp

Current (mA)

Time (min.)
Technical Drawing

---

Heating Area Indicated by Red Dotted Line

---

LOOMIA TECHNOLOGIES
www.loomia.com • Culver City, CA

PART NAME
12V Heater

INTEGRATION TYPE
N/A

DWG NO. SCALE DATE
0001  0.44X Jun 7, 2022
CUSTOMIZATION

We understand that for certain applications, an off-the-shelf component is simply not compatible. Our patented Loomia Electronic Layers (LEL) can also be customized suit a variety of needs. Please contact us for more details about this offering.

⚠ CAUTION AND NOTICE

- Do not wash
- Do not cut
- Do not disassemble
- Do not sew outside of allowed sew boarder
- Do not expose to temperatures above 150ºF
- User care when soldering. Long exposure to heat will cause delamination
- Do not solder on top of a textile
- For prototyping only. All data is approximate, and these parts are not designed for production use
- Loomia parts are produced by hand. There can be significant variation between units. Please use this data only as a reference, as your part’s exact values may differ