Prolec GE has developed Step Up Transformers designed specifically for Solar Power Generation applications. Operational characteristics include thermal design for higher ambient temperature ranges and core and coils designed for step up application with an electrostatic shield for protection against electrical noise coming from the grid and the inverter. Various efficiency levels are available to match project financial requirements, including ultra-efficient amorphous metal cores.

**Product scope / Standard features**

- From 500 kVA to 1000 kVA
- High Voltage ratings: 12470 V, 24940 V & 34500 V (See Table 2)
- Low voltage rating: 480Y/277 (See Table 2)
- HV connection: DELTA
- LV connection: Wye
- 60 Hz operation
- 65°C winding temperature rise
- HV tap changer for (2) 5% full capacity tape above and below rated voltage
- Loop feed dead front HV terminals
- Cooling Class: ONAN
- % Impedance: 5.75% +/- 7.5%
- ANSI 70 Paint Finish
- Altitude of operation up to: 3300 ft
- Bayonet expulsion fuse plus partial range current-limiting fuses
- Built to all applicable IEEE standards

<table>
<thead>
<tr>
<th>Concept</th>
<th>Features</th>
<th>Value point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Up</td>
<td>Increased margin for core over excitation, withstand high magnetizing inrush currents</td>
<td>Prevent core saturation or ferroresonance</td>
</tr>
<tr>
<td>Electronic</td>
<td>Electrostatic Shield</td>
<td>Provide a pathway to ground for any residual resonance</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network</td>
<td></td>
<td>Prevent capacitive coupling between the grid and capacitive banks of the inverter</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Solutions for Arc Flash

- Accessories externally accessible and monitoring of the transformer
- Mitigate the hazard during the performance of the O&M routines

* Detailed information in PGE catalog: Transformer solutions for Arc Flash Risks.

**Special / Optional features**

- From 1000 kVA to 4000 kVA single voltage
- From 1000 kVA to 2800 kVA dual voltage
- Other connections available
- LV ratings: from 208 V to 600 V
- HV BIL: from 95 kV to 200 kV
- LV BIL: from 30 kV to 60 kV
- 50 Hz operation
- 55°C winding temperature rise
- Bayonet fuse holders with flappers
- High fire point fluids, such as silicone, hydrocarbon or vegetable fluids
- Internal oil switch (radial or loop)
- Under oil internal arresters
- Seismic designs IEC Certified
- Stainless steel tank and cabinet construction
- Optional colors

**Standards and certifications available**

- UL Listed
- UL Listed
- BISCTC Certified
- FM Approved
Table 1
Overall typical dimensions for reference

<table>
<thead>
<tr>
<th>kVA</th>
<th>A* Height</th>
<th>B* Width</th>
<th>C* Depth</th>
<th>WEIGHT (lb)</th>
<th>Core Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>70</td>
<td>70</td>
<td>80</td>
<td>7,000</td>
<td>Silicon</td>
</tr>
<tr>
<td>1000</td>
<td>75</td>
<td>90</td>
<td>80</td>
<td>9,000</td>
<td>Steel</td>
</tr>
<tr>
<td>700</td>
<td>75</td>
<td>85</td>
<td>80</td>
<td>8,000</td>
<td>Amorphous</td>
</tr>
<tr>
<td>1000</td>
<td>80</td>
<td>90</td>
<td>80</td>
<td>11,000</td>
<td>Metal</td>
</tr>
</tbody>
</table>

* Dimensions in inches
** Dimensions and weight are approximate and subject to change without notice and should not be used for construction purposes
*** Other ratings available upon request

Table 2
Standard ratings

<table>
<thead>
<tr>
<th>kVA</th>
<th>HV Ratings</th>
<th>BIL</th>
<th>LV Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>12470 DELTA</td>
<td>95</td>
<td>480Y/277</td>
</tr>
<tr>
<td>1000</td>
<td>24940 DELTA</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>34500 DELTA</td>
<td>150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>