



Prolec GE Step Up Transformers for Solar Energy Applications



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

Value Added

Concept	Features	Value point
Step Up	Increased margin for core over excitation, withstanding high magnetizing inrush currents	Prevent core saturation or ferroresonance
Electronic Protection	Electrostatic Shield	Provide a pathway to ground for any residual resonance
Network Protection		Prevent capacitive coupling between the grid and capacitive banks of the inverter
* 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 IBC Certified
- Stainless steel tank and cabinet construction
- Optional colors

Standards and certifications available



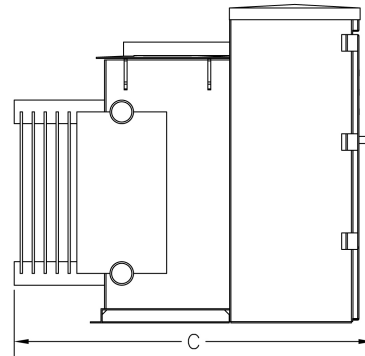
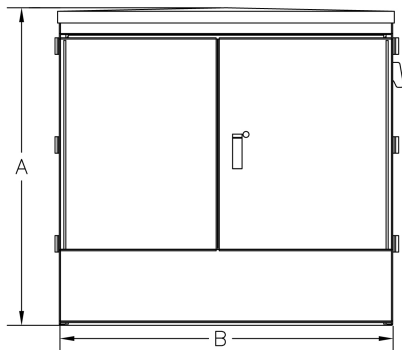


Table 1
Overall typical dimensions for reference

kVA	A* Height	B* Width	C* Depth	WEIGHT (lb)	Core Material
700	70	70	80	7,000	Silicon
1000	75	90	80	9,000	Steel
700	75	85	80	8,000	Amorphous
1000	80	90	80	11,000	Metal

Table 2
Standard ratings

kVA	HV Ratings	BIL	LV Ratings
700 1000	12470 DELTA	95	480Y/277
	24940 DELTA	150	
	34500 DELTA	150	

* 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

