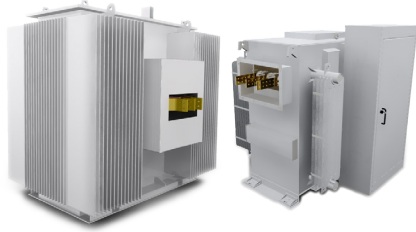




LV5⁺ Solar Power Station MV Step-up Transformer Data Sheet



IEC and IEEE Transformer Configurations

GE's LV5⁺ Solar Power Station combines GE Power Conversion's LV5⁺ 1500V solar inverter, with medium voltage step-up power transformer, optional MV Ring Main Unit (RMU), and various options for a reliable, plug & play, factory integrated power conversion solution for utility-scale solar installations.

Building on GE's expertise in the renewables industry, GE now offers its latest power conversion technology in a pre-assembled, containerized power station for efficient, cost effective and dispatchable solar power.

LV5⁺ Solar Power Station MV Step-up Transformer Features:

- IEEE or IEC configurations available
- Oil filled:
 - Mineral - ONAN (Standard)
 - Biodegradable - KNAN (Option)
- Available for 22 / 33 / 34.5 kV
- Standard and high efficiency option
- Extended monitoring available

GE LV5⁺ Solar Power Station MV Step-up Transformer Data

Specifications	Units	2.5 MVA Transformer	2.6 MVA Transformer	2.7 MVA Transformer	2.8 MVA Transformer
LV5 ⁺ Power Station Type		LV5 ⁺ 1525	LV5 ⁺ 1526	LV5 ⁺ 1527	LV5 ⁺ 1528
Input Data					
Rated Voltage LV Winding	V	600	630	660	690
Rated Current LV Winding (at 35°C / 50°C)	A	2718 / 2406			
LV BIL	kV	40 kV at 22 / 40 kV at 33 / 45 kV at 34.5			
Output Data					
Rated Power (at 50°C)	MVA	2.50	2.63	2.75	2.88
Maximum Power (at 35°C)	MVA	2.83	2.97	3.11	3.25
Number of HV / LV Windings		1 / 1			
Transformer HV / LV Connection		Δ (Delta) / Y (Wye)			
Rated Voltage HV Winding	kV	22 / 33 / 34.5			
Rated Current HV Winding	A	66 / 44 / 42	69 / 46 / 44	72 / 48 / 46	76 / 50 / 48
HV BIL	kV	150 kV at 22 / 200 kV at 33 / 150 kV at 34.5			
Rated Frequency	Hz	50 / 60			
Impedance	%	6 to 7			
Efficiency & Auxiliary Power					
Efficiency at 100% Load (Standard / High)	%	98.8 (Standard) / 99.1 (Option)			
No Load Losses (Standard / High)	kW	≤3.4 / ≤2.0	≤3.6 / ≤2.1	≤3.7 / ≤2.2	≤3.9 / ≤2.3
Full Load Losses (Standard / High)	kW	≤30.3 / ≤22.7	≤31.9 / ≤23.8	≤33.4 / ≤24.9	≤34.9 / ≤26.1
Protection Rating and Ambient Conditions					
Operating Temperature	°C	-25 to +50			
Temperature Rise Oil / Winding ¹	°C	50/55 (IEC) / 65/65 (IEEE Standard) / 55/55 (IEEE Hot Environment)			
Insulation Class		A			
Maximum Altitude Without Derating ²	m / ft	2000 / 6562			

Specifications	Units	2.5 MVA Transformer	2.6 MVA Transformer	2.7 MVA Transformer	2.8 MVA Transformer
Features and Options					
Number of Phases		3			
Winding Material		Aluminium Coils			
Oil Type		Mineral - ONAN (Standard) / Biodegradable - KNAN (Option)			
Pressure Relief Valve		1			
Earthing Terminals		2			
Monitoring / Protection		DGPT2 or DMCR (IEC) / Temperature, Pressure & Level Monitoring Devices (IEEE)			
Tap Changer at HV Winding		No Load / Off Circuit			
Routine Tests		Included (as per IEC / IEEE Standards)			
Type / Design Tests		Option (as per IEC / IEEE Standards)			
IEEE Protection Features		Expulsion Fuses, Current Limiting Fuses, Disconnect Switch			
Total Weight (including Oil)	kg / lbs	approx. 7400 / 16314			
Oil Weight	kg / lbs	approx. 1800 / 3968			
Oil Volume	l / gal	approx. 2000 / 528			
Dimensions (L x W x H)	m / ft	2.1 x 1.6 x 2.3 / 6.9 x 5.2 x 7.5			
Standards					
Standards		IEC60076 or IEEE C57.12.00			

¹ Higher temperature for Biodegradable - KNAN Option according to IEC60076-14 & IEEE C57.154

² Higher altitudes (with derating) on request