IEEE MV TRANSFORMER DATA SHEET

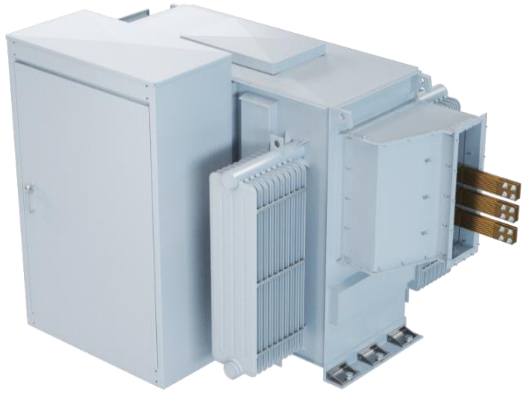
FLEXINVERTER Power Station

GE's **FLEX**INVERTER Power Station combines GE Renewable Energy's **FLEX**INVERTER 1500V inverter technology, with medium voltage step-up power transformer, and various options for a reliable, plug & play, factory integrated power conversion solution for utility-scale 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 energy storage solution.

FLEXINVERTER Power Station MV Transformer Features:

- Oil filled:
  - Mineral - ONAN / ONAF (Standard)
  - Bio - KNAN / KNAF (Option)
- Extended monitoring available



IEEE Pad Mount MV Transformer Configuration

FLEXINVERTER Power Station MV Transformer Data

SPECIFICATIONS	UNITS	1560	1563	1566	1569
GENERAL DATA					
Rated Voltage LV Winding	Vac	600	630	660	690
LV BIL	kVac	45 kV			
Rated Current LV Winding (ONAN & KNAN) / (ONAF & KNAF)[1]	Aac	2656 / 3058			
Rated Power (ONAN & KNAN) / (ONAF & KNAF)[1]	MVA	2.76 / 3.18	2.90 / 3.34	3.04 / 3.50	3.17 / 3.65
Maximum Power (up to 35°C) (ONAN / KNAN)	MVA	3.39	3.56	3.73	3.9
Maximum Power (up to 40°C / at 50°C) (ONAF / KNAF)[2]	MVA	3.39 / 3.01	3.56 / 3.16	3.73 / 3.31	3.90 / 3.46
Number of HV / LV Windings		1/1			
Transformer HV / LV Connection		△ (Delta) / Y (Wye)			
Rated Voltage HV Winding[3]	kVac	34.5			
Maximum Current HV Winding (up to 35°C)	Aac	56	59	62	65
Maximum Current HV Winding (up to 40°C / at 50°C)	Aac	56 / 50	59 / 52	62 / 55	65 / 57
HV BIL	kV	150 kV at 34.5			
Rated Frequency	Hz	60			
Impedance	%	6 to 7			
EFFICIENCY & LOSSES AT RATED POWER[4]					
Efficiency at 100% rated Load[4]	%	98.8			
No Load Losses[4]	kW	≤4.2	≤4.4	≤4.6	≤4.8
Full Load Losses[4]	kW	≤33.5	≤35.2	≤36.9	≤38.5
PROTECTION RATING AND AMBIENT CONDITIONS					
Operating Temperature[5]	°C / °F	-25 to +55 / -13 to +131			
Cold Weather Option	°C / °F	Down to -35 / -31			
Temperature Rise Oil / Winding[6]	°C	65/65 (IEEE Standard)			
Insulation Class		Class 105 Insulation System			
Maximum Altitude Without Derating[7]	m / ft	1000 / 3281			

SPECIFICATIONS	UNITS	1560	1563	1566	1569
FEATURES AND OPTIONS					
Number of Phases		3			
Winding Material		Aluminum Coils			
Oil Type		Mineral / Biodegradable (Option)			
Pressure Relief Valve		1			
Earthing Terminals		2			
Monitoring / Protection		Temperature, Pressure & Level Monitoring Devices (IEEE)			
Tap Changer at HV Winding		No Load / Off Circuit			
LV Auxiliary Feeder		Option			
Routine Tests		Included as per IEEE Standards			
Type / Design Tests		Option as per IEEE Standards			
IEEE Protection Features		Expulsion Fuses, Current Limiting Fuses, Disconnect Switch			
Maximum Total Weight (including Oil)	kg / lbs	approx. 7850 / 17306			
Maximum Oil Weight	kg / lbs	approx. 1890 / 4166			
Maximum Oil Volume	l / gal	approx. 2100 / 554			
Maximum Dimensions (L x W x H)	m / ft	2.2 x 2.7 x 2.3 / 7.2 x 8.9 x 7.5			
STANDARDS					
Standards		IEEE C57.12.00			

1. *As per IEEE 57.12.00*
2. *Except for **FLEX**INVERTER 1560 Transformer, which is ONAN / KNAN over the entire operating temperature range*
3. *Other Medium Voltage ratings available upon request*
4. *High Efficiency 99.1% at 100% rated load is available as OPTION*
5. *Warm up procedure may be required if extended outage at low temperatures*
6. *Higher temperature for Biodegradable - KNAN Option according to IEEE C57.154*
7. *Higher altitudes (with derating) on request*

www.ge.com/renewableenergy/hybrid

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English
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