

IEC MV TRANSFORMER DATA SHEET

FLEXINVERTER Power Station



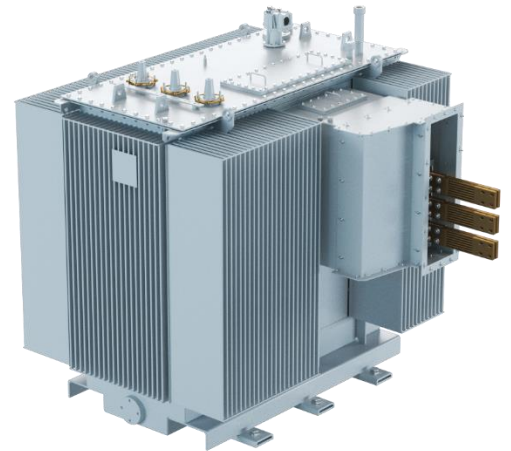
GE's **FLEXINVERTER** Power Station combines GE Renewable Energy's **FLEXINVERTER** 1500V inverter technology, with medium voltage step-up power transformer, and various options for a reliable, plug & play, factory integrated power conversion solution for utility-scale installations.

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



IEC 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	40 kV			
Rated Current LV Winding	Aac	2656			
Rated Power	MVA	2.76	2.90	3.04	3.17
Maximum Power (up to 40°C / at 50°C)	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		Dy11			
Rated Voltage HV Winding ²	kVac	22 / 33			
Maximum Current HV Winding (up to 35°C)	Aac	88 / 59	92 / 62	97 / 64	101 / 67
Maximum Current HV Winding (at 50°C)	Aac	78 / 52	82 / 55	86 / 57	90 / 60
HV BIL	kV	150 kV at 22 kV / 200 kV at 33 kV			
Rated Frequency	Hz	50 or 60			
Impedance	%	6 to 7			
EFFICIENCY & LOSSES AT RATED POWER¹					
Efficiency at 100% rated Load ¹	%	98.8			
No Load Losses ¹	kW	≤ 4.1	≤ 4.3	≤ 4.5	≤ 4.7
Full Load Losses ¹	kW	≤ 33.1	≤ 34.8	≤ 36.5	≤ 38.0
PROTECTION RATING AND AMBIENT CONDITIONS					
Operating Temperature ³	°C	-25 to +55			
Cold Weather Option	°C	Down to -35			
Temperature Rise Oil / Winding ⁴	°C	60/65 (conventional insulation) - or - 60/75 (semi hybrid insulation)			
Insulation Class		105 (conventional insulation) - or - 120 (thermally upgraded paper)			
Maximum Altitude Without Derating ⁵	m	1000			

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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 by DGPT2 or DMCR	
Tap Changer at HV Winding				No Load / Off Circuit	
LV Auxiliary Feeder				Option	
Routine Tests				Included as per IEC Standards	
Type / Design Tests	kg			Option as per IEC Standards	
Maximum Total Weight (including Oil)	kg			approx. 8400	
Maximum Oil Weight				approx. 2400	
Maximum Dimensions (L x W x H)	mm			2100 x 1600 x 2400	
STANDARDS					
Standards				IEC 60076	

1. High Efficiency according EU Reg. No. 584/2014 is available as OPTION
2. Other Medium Voltage ratings available upon request
3. Warm up procedure may be required if extended outage at low temperatures
4. Higher temperature for Biodegradable - KNAN Option according to IEC 60076-14
5. Higher altitudes (with derating) on request

