

ENCORE HPS HYBRID INVERTER RANGE

Range Overview Specification Sheet

freedom
WON



HPS50



HPS100



HPS150



HPS250



HPS500

AC (On-Grid)

Max Output Power [kVA]	55	110	165	275	550
Rated Power [kW]	50	100	150	250	500
Rated Voltage [V]	400				
Rated Current [A]	72	144	216	361	722
Voltage Range [V]	320-460				
Rated Frequency [Hz]	50/60				
Frequency Range [Hz]	45-55/55-65				
THDi [%]	<3				
Power Factor	1lagging-1leading				
AC Connection	3W+N+PE				
Transformer Ratio	200/400	270/400	270/400	270/400	315/400

AC (Off-Grid)

Max Output Power [kVA]	55	110	165	275	550
Rated Power [kW]	50	100	150	250	500
Rated Voltage [V]	400				
Rated Current [A]	72	144	216	361	722
THDu [%]	≤1% linear; or ≤5% non-linear				
Rated Frequency [Hz]	50/60				
Overload Capacity	110% (5 minutes per 15 minute intervals)				

Photovoltaic Input (MPPT Charge Controllers Optional)

Max. PV Input Voltage [V]	1000			750	
Max. PV Power [kW]	60-120	60-180	60-240	60-300	60-600
No. of MMPT Charge Controllers	1-2	1-3	1-4	1-5	1-10
MPPT Voltage Range [V]	600-880			450-650	
String Voltage Constraints	Voc to be 200V to 250V higher than max battery voltage			Voc to be less than min battery voltage	

DISTRIBUTORS AND RESELLERS

Contact your nearest Accredited Freedom Won Distributor or Reseller Installer for further sales and technical support.

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Battery

Battery Voltage Range with DC Coupled [V]	320-680	420-680	420-680	600-850	600-850
Battery Voltage Range without DC Coupled [V]	320-850	420-850	420-850	420-850	500-850
Max. Charging Power [kW]	60-120	60-180	60-240	60-300	60-600

General Data

Dimension - H x W x D [mm]	1900x800x800	2050x1200x800	2050x1200x800	2050x600x720 (x1) + 2050x1200x800	2050x600x720 (x2) + 2050x1600x1050
Max. Weight [kg]	750	1150	1310	Inverter: 1680 Full Cabinet: 330	Inverter: 2665 Full Cabinet: 660
Operating Temperature [°C]	-30 to +55°C				
Relative Humidity	0-95% (non-condensing)				
Ingress Protection	IP20				
Noise Emission [dB]	<70				
Altitude [m]	5000 (derating above 3000)				
Cooling	Air Cooling				

Display and Communication

Display	LCD touch-screen
BMS Communication	RS485, CAN
EMS Communication	RS485, TCP/IP
Certificates	EN62109-1/-2, EN62477-1, EN61000-6-2, EN61000-6-4, South Africa NRS097-2-1:2017, Pakistan & India IEC61727, IEC62116, IEC 61683

Notes to Specification Sheet

1. MPPT Charge Controllers are an optional extra for all HPS Inverters. The HPS250 and HPS500 require an additional MPPT Charge Controller Cabinet to house the MPPT Charge Controllers.
2. HPS250 and HPS500 do not have an internal bypass switch.
3. Any motors exceeding 7% of the selected HPS inverter's power rating must be fitted with a VSD. The total connected inductive load without VSD's may not comprise more than 15% of the HPS inverter's rated power.
4. Paralleling up to 4 inverters is possible BUT each inverter must have its own battery DC bus.
5. Weights and dimensions are based on the inclusion of the maximum number of MPPT charge controller modules.

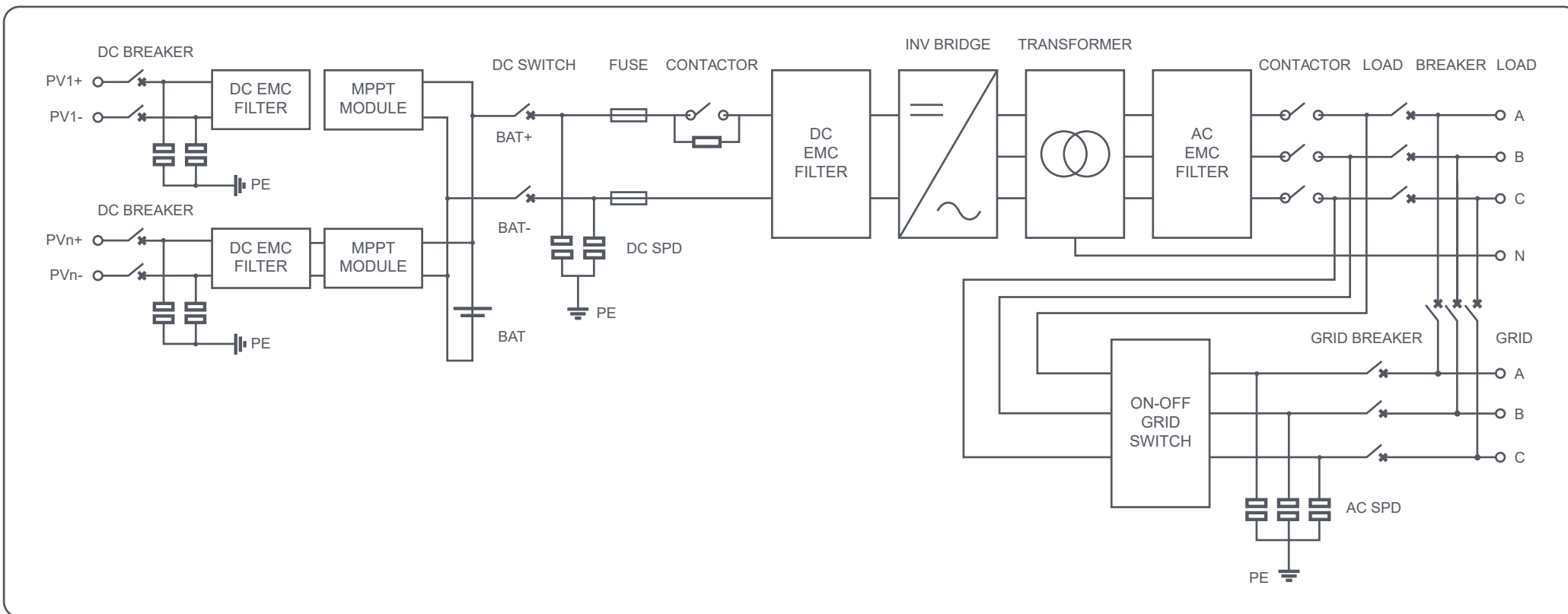
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Wiring Diagram



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