



HPS50

AC (On-Grid)	
Max Output Power [kVA]	55
Rated Power [kW]	50
Rated Voltage [V]	400
Rated Current [A]	72
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
AC (Off-Grid)	
Max Output Power [kVA]	55
Rated Power [kW]	50
Rated Voltage [V]	400
Rated Current [A]	72
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
Max. PV Power [kW]	60-120
No. of MMPT Charge Controllers	1-2
MPPT Voltage Range [V]	600-880
String Voltage Constraints	Voc to be 200V to 250V higher than max battery voltage
Battery	
Battery Voltage Range with DC Coupled [V]	320-680
Battery Voltage Range without DC Coupled [V]	320-850
Max. Charging Power [kW]	60-120
General Data	
Dimension - H x W x D [mm]	1900x800x800
Max. Weight [kg]	750
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.

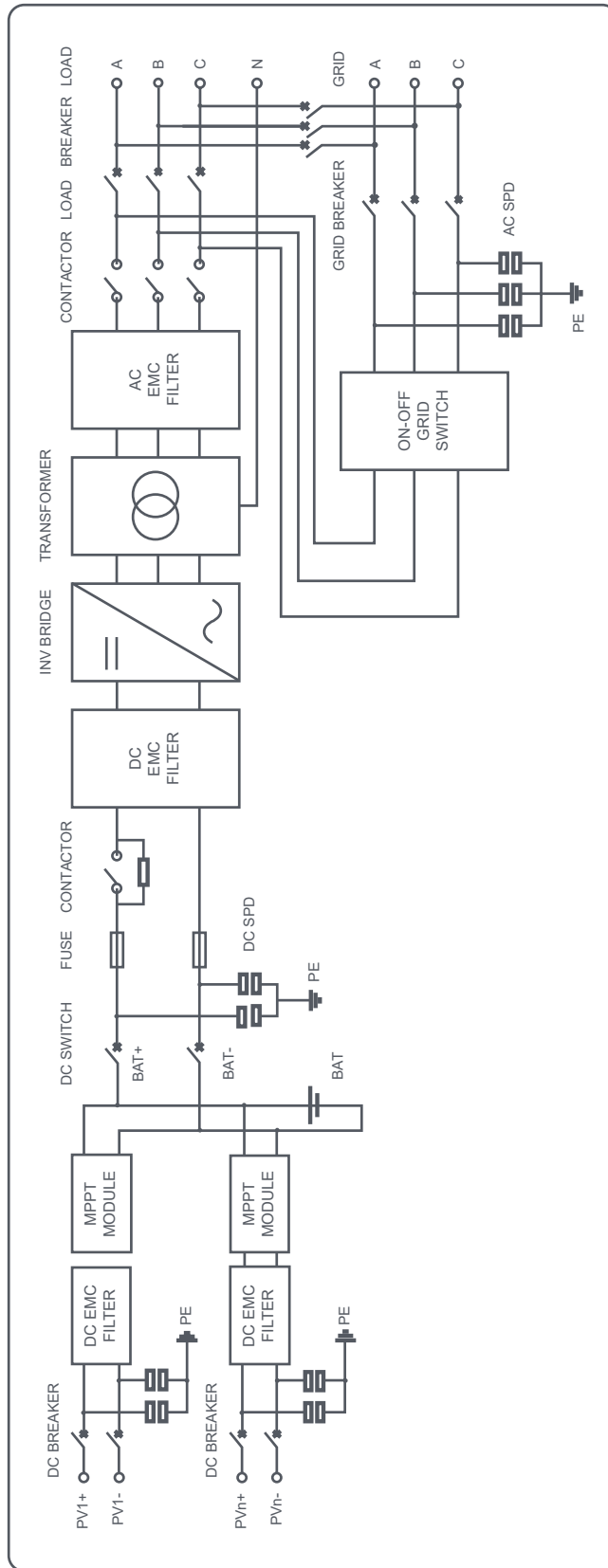
DISTRIBUTORS AND RESELLERS

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

Plug into The Current Future

www.freedomwon.co.za

Wiring Diagram



DISTRIBUTORS AND RESELLERS

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

Plug into The Current Future

www.freedomwon.co.za