MAKINEX RENEWABLES

MAKINEX RENEWABLES HYBRID POWER SYSTEMS (HPS) SPECIFICATIONS

FEATURES

- Clean Power
- 24/7 Continuous Power
- 98% Fuel Reduction
- Deployable Power
- Scalable Design

	HPS15	HPS20	HPS45
Output			
Output (V)	230	415	415
Nominal Frequency (Hz)	50	50	50
Phase	1	3	3
Available Outputs	125A Hardwire 15A 1P Utility	63A Hardwire 15A 1P Utility	125A Busbar 125A Camlocks 125A CEE-Form 15A 1P Utility
Main AC Output Breaker Rating (A)	125	63	125
Maximum Unstacked Load (kW) Inverter only	15	20	50
Solar Array			
Solar Array Maximum Output (kWp)	4	4	8
Panel Size (kWp)	500	500	500
PV Type	Monocrystaline	Monocrystaline	Monocrystaline
Number of Panels	8	8	16
Generator			
Generator Model	PLG-Y33(S)	PLG-Y33(S)	PLG-CS66(S)
Generator (kVA)	15	33	66
Engine	4TNV98-GGFC	4TNV98-GGFC	DCEC/4BTA3.9-G2
Alternator	NPE32 VL4 C 35kVA (Configured for 1P 15kW)	NPE32 VL4 C 35kVA	ECP32 2M4C 62.5kVA
Controller	DSE7420 Mk II	DSE7420 Mk II	DSE7420 Mk II
Integrated Fuel Tank Capacity (L)	500L	500L	500L

	HPS15	HPS20	HPS45
Battery			
Battery Capacity (kWh)	20	30	60
Battery Chemistry	LiFePO4	LiFePO4	LiFePO4
Battery Type	LV	HV	HV
Battery Nom. Voltage (V)	51.2	409.6	614.4
Number of Batteries	4	6	12
General Specifications			
Weight (kg) Wet	2,400	3000	Generator Skid 1820, Battery Skid 2220
Weight (kg) Dry	2,000	2600	Generator Skid 1820, Battery Skid 2220
Dimensions (packed for transport)	L 2540 x W 1350 x H 2570mm	L 2540 x W 1350 x H 2570mm	L 2540 x W 1350 x H 2570mm x 2 Skids
Dimensions (solar panels deployed)	L 4300 x W 4200 x H 2200mm	L 4300 x W 4200 x H 2200mm	L 4300 x W 4200 x H 2200mm x 2 Skids
Technical Specifications			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	0.8 leading to 0.8 lagging	0.8 leading to 0.8 lagging
Rated Input/Output Voltage Range (V)	230 /240 0.85Un-1.1Un	230 /240 0.85Un-1.1Un	230 /240 0.85Un-1.1Un
Rated Input/Output Frequency Range (Hz)	50Hz/45Hz-55Hz	50Hz/45Hz-55Hz	50Hz/45Hz-55Hz
Total Current Harmonic Distortion THDi	<3% (of nominal power)	<3% (of nominal power)	<3% (of nominal power)
Max Efficiency (Inverter)	97.60%	97.60%	97.60%
Operating Temperature Range (°C)	Charge: 0~55°C/Discharge: -20~55°C	Charge: 0~55°C/Discharge: -20~55°C	Charge: 0~55°C/Discharge: -20~55°C
Permissible Ambient Humidity	5%~85%RH	5%~85%RH	5%~85%RH
Permissible Altitude	2000m	2000m	2000m
Inverter Topology	Transformerless (Solid State)	Transformerless (Solid State)	Transformerless (Solid State)
Type of Cooling	Active (HVAC) / Inverter Heat to ambient	Active (HVAC) / Inverter Heat to ambient	Active (HVAC) / Inverter Heat to ambient

Standard Features
Generator backup for excess power needs and extended poor weather affecting solar generation
4G Telecommunications for complete remote programming, cloud monitoring and alarms
GPS tracking and cellular coverage
Customisable programs for generator run time/quiet time
Integrated Fuel Tank with tank level telemetry
Folding design for easy storage and transport
Durable Galvanised frame
Forklift pockets and tie-downs for transportation
Rated lifting lugs for crane lift
Wind rating: 35 m/sec (126 km/h) in fully deployed position with outriggers engaged
Remote performance monitoring of solar generation, consumption, battery status and generator runtime
Remote access to main control screen to enable premium support for users
Air-Conditioned Electrical Enclosure