

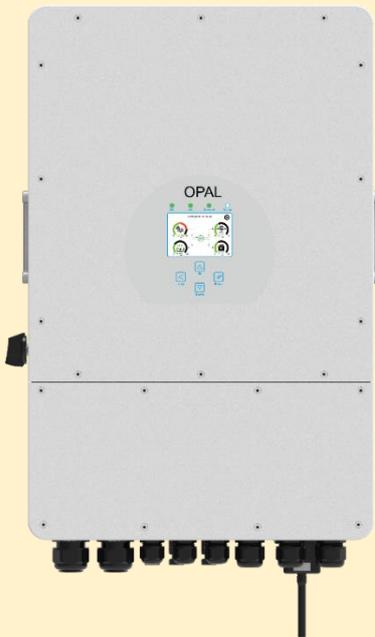
DATA SHEET

SINGLE PHASE HYBRID INVERTER



This Energy Storage System comprises of either a 3.6kW/ 5kW/8kW hybrid single phase hybrid inverter with a 4.8kWh battery pack or 2 x 4.8kWh battery packs expandable to even higher capacity if required. Outdoor enclosure can be provided as an option

OPAL-3.6K-1P- EU/ OPAL-5K-1P-EU OPAL-8K-1P-EU



FEATURES OF HYBRID INVERTER

-  Colourful touch LCD, IP65 protection degree
-  4ms fast transfer from on-grid to off-grid mode, ensuing no disruption to any loads
-  6 time period setting for battery charging/discharging
-  16 The hybrid inverters can be expanded up to 16 inverters
-  120 Able to take high DC charge & discharge current
-  Frequency droop control for off grid micro-grid application
-  Able to support storing energy from diesel generator
-  Suitable for both DC or AC couple to retrofit existing solar system
-  Unique Smart Load application and Grid peak shaving function
-  Easy access to system via either PC or phone App



Opal residential monitoring solution take great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offer you details information of your power generating plant including daily, monthly, yearly energy and total energy etc, through wireless communication with your router to the internet by a smart WIFI plug. User can easily access to the monitoring page via PC web or phone APP. The cloud data will be kept in Europe and Singapore



Technical Specification

Hybrid Inverter

Model	OPAL-3.6K-1P-EU	OPAL-5K-1P-EU	OPAL-8K-1P-EU
PV Input DC Rating			
No of MPPT for solar input	Two		
Max DC input Power	4,680Wp	6,500Wp	10,400Wp
PV DC input MPPT voltage range	125-425V		
Start-up DC Voltage	125V		
PV Input Current per MPPT	13A +13A		26A+26A
Battery Voltage range	40V to 60V		
DC Max. Charging/ Discharging	90A	120A	190A
AC Rating			
Rated AC Output and UPS power	3,600W	5,000W	8,000W
Max. Output AC Output power	3960W	5,500W	8,800W
Off-Grid Peak AC Power	7,200W for 10 sec	10,000W for 10 sec	16,000 for 10 sec
AC Output rated Current	16.4A	22.7A	36.4A
Max. AC Current	18.0A	25.0A	38.5A
Max. Continuous AC pass-through	35.0A		50.0A
Output Voltage frequency	230V single phase 50/60Hz		
Current harmonic Distortion	THD<3% (Linear Load <1.5%)		
Power Factor	0.8 leading to 0.8 lagging		
Efficiency			
Max Efficiency	97.6%		
Euro Efficiency	97.0%		
MPPT Efficiency	99.9%		
Protections			
PV input lightning Protection	Integrated		
Anti-Islanding protection	Integrated		
PV String Input Reverse Polarity Protection	Integrated		
Insulation Resistor Detection	Integrated		
Residual Current monitoring Unit	Integrated		
Output Over Current Protection	Integrated		
Output Short Circuit Protection	Integrated		
Output Over Voltage Protection	Integrated		
Surge Protection	DC Type II/ AC Type II		
UPS Transfer Time	4mSec		
Certifications and Standards			
Grid Regulation	CE, CEI 0-21, IEC61727, IEC62116, IEC60068, IEC61683, VDE 4105		
Safety standard/ EMC	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12		
General			
Operating Temperature Range °C	-25 to 60°C, 45°C derating		
Cooling	SMART COOLING		
Elevation	<3000 M		
Noise (DB)	<30 DB		
Humidity	5% to 95% (non-Condensing)		
Communication with BMS	RS485/ CAN		
Protection Degree	IP65		
Inverter Weight (Kg)	11.4 Kg	14.0Kg	32.0Kg
Inverter Dimension (mm)	330W x 580H x 237D mm (Wall mounted)		420W x 670H x 233D mm (Wall mounted)
Warranty	5 years (Standard) + 5 years (Optional)		