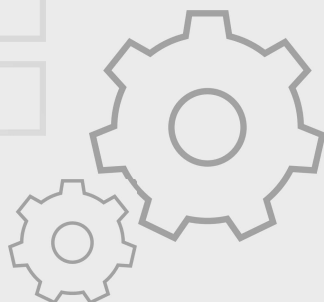


“Power Your Home and Invest Today”

OPAL 3.6KW/5KW/6KW/8KW Single Phase Hybrid Inverter








SINGLE PHASE HYBRID INVERTER

This Energy Storage System comprises of either a 3.6KW/5KW/6KW/8KW hybrid single phase inverter with a 4.8KWh battery pack or 2 battery packs expandable to even higher capacity if required. Outdoor enclosure will be provided



FEATURES OF HYBRID INVERTER



- LCD** Colourful touch LCD, IP65 protection degree
- 4** 4ms fast transfer from on-grid to off-grid mode, ensuing no disruption to any loads
- 6** 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 excess 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



Single Phase Hybrid Inverter

Model	OPAL-3.6K-1P-EU	Opal-5K-1P-EU
PV Input DC Rating		
No of MPPT for solar input	2	
Max DC input Power	4,680Wp	6,500Wp
PV DC input MPPT voltage range	150-425V	
Start-up DC Voltage	125V	
PV Input Current per MPPT	13A +13A	
Battery Voltage range	40V to 60V	
DC Max. Charging/ Discharging	90A	120A
AC Rating		
Rated AC Output and UPS power	3,600W	5,000W
Max. Output AC Output power	3,690W	5,500W
Off-Grid Peak AC Power	7,200W for 10 sec	10,000W for 10 sec
AC Output rated Current	16.4A	22.7A
Max. AC Current	18.0A	25.0A
Max. Continuous AC pass-through	35.0A	
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	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	CEI 0-21, IEC61727, IEC62116, VDE4105, UNE 217002, VDE 0216 -1-1	
Safety standard/ EMC	IEC62109-1/-2, IEC61000-6-1/2/3/4	
General		
Operating Temperature Range °C	-45 to 60°C, >45°C derating	
Cooling	NATURAL 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)	20.5 Kg	
Inverter Dimension (mm)	330W x 580H x 232D mm (Wall mounted)	
Warranty	5 years (Standard) + 5 years (Optional)	

Technical Specification

Single Phase Hybrid Inverter



Model	OPAL-6K-1P-EU	Opal-8K-1P-EU
PV Input DC Rating		
No of MPPT for solar input	2	
Max DC input Power	7,800Wp	10,400Wp
PV DC input MPPT voltage range	150-425V	125-425V
Start-up DC Voltage	125V	150V
PV Input Current per MPPT	13A +13A	22A +22A
Battery Voltage range	40V to 60V	
DC Max. Charging/ Discharging	135A	190A
AC Rating		
Rated AC Output and UPS power	6,000W	8,000W
Max. Output AC Output power	6,000W	8,000W
Off-Grid Peak AC Power	12,000W for 10 sec	16,000W for 10 sec
AC Output rated Current	26.1A	35.0A
Max. AC Current	26.1A	40.0A
Max. Continuous AC pass-through	40.0A	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	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
Protections		
PV input lightning Protection	Integrated	
Anti-Islanding protection	Integrated	
PV String Input Reverse Polarity	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	AS/NZS477.22:2020	UNE217002,IEC61727,IEC62116,VDE 0126-1-1
Safety standard/ EMC	IEC62109-1/-2, IEC61000-6-1/2/3/4	
General		
Operating Temperature Range °C	-45 to 60°C, >45°C derating	
Cooling	NATURAL 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	32.0Kg
Inverter Dimension (mm)	330W x 433H x 238D mm (Wall mounted)	420W x 670H x 233D mm (Wall mounted)
Warranty	5 years (Standard) + 5 years (Optional)	