

# ZEUS APPOLLO™

## Z21 Hybrid Series

### Efficiency

- ⚡ Maximum efficiency up to 97.6%
- ⚡ European efficiency up to 97.0%
- ⚡ MPPT efficiency up to 99.9%
- ⚡ Dual MPPT design

### Safety

- ⚡ IP65 Protection (Suitable for indoor and outdoor use)
- ⚡ 45°C full-load output and wide ambient temperature range
- ⚡ Inbuilt DC switch

### Features

- ⚡ Up to 4600W of charge and discharge capability
- ⚡ Reactive power control
- ⚡ Emergency backup output (UPS) that provides up to 6900W of power during a power outage (4.6kW model)
- ⚡ Programmable charge times and load prioritisation
- ⚡ Compatible with Lithium\*, Gel and Lead Acid batteries
- ⚡ Remote monitoring and control via 'Z21 Manager'
- ⚡ Zero export function inbuilt
- ⚡ Receive email notifications in the event of a fault



## Z21 Series Hybrid Inverter + Energy Storage System

The new Zeus Appollo Z21 hybrid inverter with a battery storage system is suitable for both on-grid and emergency back-up PV applications. The Z21 series allows the user to charge the battery during the day and draw from it whenever it is needed for an even more energy efficient and cost effective solution for your premises. Being a fully programmable hybrid inverter, the Z21 allows the user to determine whether the electricity generated is to be consumed, stored or fed back into the grid. With the added programmability of charging the battery storage system from the grid and multiple communications and monitoring options, the management of your solar generation has never been easier. With Zeus Appollo, we put you in full control of your solar needs.

# Technical data

## Z2114K6D48/Z2113K6D48



Inverter Model	Z2114K6D48	Z2113K6D48
<b>Input (DC)</b>		
Max. Recommended DC Power [W]	6000	4600
Max. DC Voltage [V]	580	580
MPPT Voltage Range [V]	125-550	125-550
Starting Voltage [V]	125	125
Max. Input Current [A]	11/11	11/11
Number of DC Connectors	2	2
Number of MPPTs	2 (Can be parallel)	2 (Can be parallel)
DC Connector Type	SUNCLIX/MC4 (optional)	SUNCLIX/MC4 (optional)
<b>Battery</b>		
Battery Type	Lead-Acid or Li-Ion	Lead-Acid or Li-Ion
Nominal Voltage [V]	48	48
Charging Voltage	57V	57V
Max. Discharge Power [W]	4600	3600
Max. Charge Power [W]	4600, programmable	3600, programmable
Battery Capacity [Ah]	50Ah> (depending on requirement)	
Charging Curve	3-stage adaptive with maintenance	
Battery Temperature Compensation	Included (Li-Ion)	
Battery Voltage Sense	Integrated	
Current Shunt	Integrated	
<b>Output (AC)</b>		
Nominal AC Power [W]	4600	3600
Max. AC Power [W]	4950	3600
Peak Power (Back-Up) [W]	6900, 10 sec	5400, 10 sec
Max. AC Current [A]	20	16
Nominal AC Output	50/60Hz; 220/230Vac	
AC Output Range	45~55Hz/55~65Hz; 180~270Vac	
AC Output (Back-Up)	230Vac±2%, 50Hz±2%, THDv<3% (linear load)	
Total Harmonic Distortion (THD)	<1.5%	
Power Factor	0.8 leading - 0.8 lagging	
Grid Connection	Single phase	
<b>Efficiency</b>		
MPPT Adaptation Efficiency	99.9%	99.9%
European Efficiency	>97.0%	>97.0%
Max. Efficiency	97.60%	97.60%
<b>Safety &amp; Protection</b>		
Residual Current Monitoring Unit	Integrated	
Islanding Protection	Integrated	
DC Switch (PV)	Integrated	
AC Over Current Protection	Integrated	
DC Insulation Monitoring	Integrated	
<b>Normative Reference</b>		
Grid Regulation Compliance	VDE-AR-N4105, AS4777.2&3, RD1699, IEC62109-2/1, VDE0126-1-1+A1, EN50438, G83/G59	
EMC Compliance	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-3-11, EN61000-3-12	
Safety Compliance	IEC62109-1 & -2, AS3100, IEC62040-1	
<b>Environment</b>		
Degree of Protection	IP65	
Operating Temperature Range	-25-60°C (>45°C derating)	
Relative Humidity	0-95%	
Altitude [m]	4000 (>3000 derating)	
Noise Emission (Typical) [dB]	<25	
<b>General Data</b>		
Dimensions (L*W*H) [mm]	516*440*184	
Weight [kg]	30	28
Cooling Concept	Natural Convection	
Topology	Transformerless	
Communication Interfaces	USB2.0; RS485; Wi-Fi	
LCD Display	LED Light & APP	
Standard Warranty [Years]	5 (10 optional)	

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## How It Works

