SolarMax®
Since 2007

ONYX
ULTRA 6KW

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DUAL MPPT PV INPUT 9KW

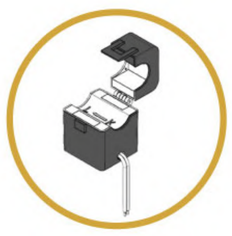
IP65 HYBRID INVERTER

ON-GRID / OFF-GRID

Smart Monitoring

IP65 Protection

Unique Features



Built-in CT Function

To meet self consumption Application

Reset ON/OFF Button

You can Reset and ON/OFF manually

Sync with Generator

Auto Start

Parallel in Single & Three Phase

Parallel Function Built-in

LED Indication & LCD Display

For real time status

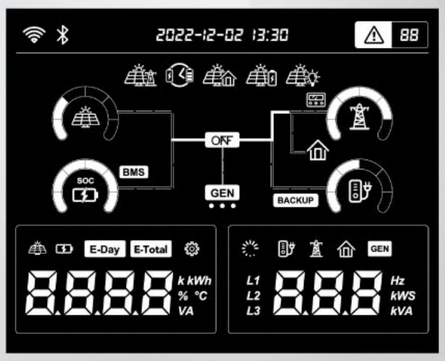
ONYX
ULTRA 6KW

NO.1 PV INVERTER EXPERT

Easy to Install
Plug & Play

IP65
IP65 Protection

LCD Display



MPPT Range 70~520VDC

6 Year
unlimited replacement & Lifetime free service warranty

*Term & Conditions Apply

Parallel in Single & Three Phase

Sync with Generator

Reset ON/OFF Button

Built-in CT Function

FEATURES

- **Max PV Input**
  9000W
- **DUAL AC Output**
  6000W
- **MPPT Range**
  70 ~ 520VDC
- **Max Charging Current**
  120A
- **DUAL MPPT**
  15A + 15A
- **Max PV (ISC) Current**
  20A + 20A
- **Max PV Voltage**
  550VDC
- **Battery Voltage**
  40 ~ 60VDC
- **IP65 Protection**
- **Sync With**
  Generator
- **Reset ON/OFF**
  Button
- **Built-in**
  CT Function
- **Smart Power**
  Management
- **Net Metering**
  Feed into Grid
- **BMS**
  Battery Management System
- **Mobile & Web Monitoring**
  & OTA Firmware Upgrade
  Wifi Dongle Included
- **Zero Export Buit-in**
- **LED Indication &**
  LCD Display
- **Built-in Bluetooth**
- **Parallel in Single**
  & Three Phase
- **Smart Load**
  Management
- **Comunication Ports**
  RS232/USB/RS485/CAN
- **Pure Sine Wave**
- **6 Year Unlimited**
  Replacement Warranty
  *Term & Conditions Apply

Model	SM-ONYX-DUAL ULTRA 6KW
Input (PV)	
MAX PV Power (W)	9000W
Max PV Voltage (V)	550VDC
Max input current (input A/input B) (A)	30A (15A + 15A)
Max short current (input A/input B) (A)	40A (20A + 20A)
Start operating voltage (V)	90VDC
MPPT voltage range (V)	70-520VDC
No.of MPPT trackers	2
String per MPP tracker	1
Input (BATTERY)	
Compatible battery type	Lithium-ion / Lead-acid
Nominal battery voltage (V)	48VDC
Battery voltage range (V)	40-60VDC
Max. charge/discharge current (A)	120A / 120A
Max. charge/discharge power (W)	6000W / 6000W DUAL
Charging curve	3 Stages / Equalization
Lithium battery charge curve	Self-adaption to BMS
Output (Grid)	
Nominal AC output power (W)	6000W DUAL
Max. AC output apparent power (VA)	6000W DUAL
Max.AC output power (PF=1) (W)	6000W DUAL
Max. AC output current (A)	27.2A
Rated AC voltage (V)	220VAC
AC voltage range (V)	150-300VAC (adjustable)
Rated grid frequency (Hz)	50Hz / 60Hz
AC frequency range (Hz)	45-55Hz / 55-65Hz (adjustable)
Grid connecion	Single Phase
THDI	<3%
Output (Back up)	
Nominal output voltage (V)	230VAC
Nominal output frequency (Hz)	50 / 60Hz
Nominal output power (W)	6000W
Nominal output current (A)	26A
Transfer time (ms)	**10(typ) / 20(max)**
THDV	<3% @100% R Load
Protection	
Protection category	Class I
DC switch	**Support**
Anti-islanding protection	**Support**
AC overcurrent protection	**Support**
AC short circuit protection	**Support**
DC reverse connection	**Support**
Surge Arrester	**DC Type III, AC Type III**
Insulation detection	**Support**
Leakage current protection	**Support**
PV overvoltage category	II
AC overvoltage category	III
Efficiency	
Max.Efficiency (PV to AC)	>97.3%
Max.Efficiency (BAT to AC)	>94.0%
MPPT Efficiency	>99.0%
General	
Max. operation altitude (m)	4000
Noise emission (dB)	<35
Ingress protection degree	IP65
Operating temperature range	-25~60
Relative humidity (%)	0~100
Cooling concept	Natural Cooling
Mounting	Wall bracket
Dimensions (W*H*D)	515mm*450mm*175mm
Weight	25Kg
PV connection way	MC4/H4
Battery connection way	Dedicated DC connector
AC connection way (grid & back up)	Dedicated AC connector
HMI & COM	
Display	LCD+LED+APP
Communication interface	**RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Bluetooth, Wifi, Optional: GPRS/Ethernet**
Certification	
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1
Safety	IEC62109-1&2, IEC62040-1, IEC62477-1
Warranty (years)	6 Years

Product specifications are subject to change without further notice.

SMART MONITORING & CONTROL

MOBILE APP
WEB PORTAL
From everytime, anywhere

Intelligent Cloud Monitoring | **Update & Maintenance** | **Data Logging** | **Control & Operate**

ALL IN ONE