



IP65 SINGLE PHASE
DUAL PV9000
with Parallel Feature

ON-GRID

OFF-GRID

HYBRID



Wifi Built-in

You can monitor & control with
Built-in Wifi



IP65 Protection

Protection against water jets & Dust
from any angle



Lifetime Warranty

6 Years free parts replacement &
Lifetime free service warranty

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



Net Metering
Feed into Grid



BMS
Battery Management System



Smart Power Management



Battery Voltage
40 ~ 60VDC



Internal Surge Protection



Monitor & Control
with Built-in Wifi



Zero Export Built-in



IP65 Protection



Built-in Bluetooth



Parallel Feature



Smart Load Management



Communication Ports
RS232/USB/RS485/CAN



Wide PV Input Range



High Surge Endurance



MPPT Efficiency
99%



Pure Sine Wave



6 Years Warranty

Model	SM-ONYX-DUAL-PV9000
Input (PV)	
MAX PVPower (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 connection	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	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

Save time, save cost



Android & ios

WEB PORTAL

From everytime, anywhere



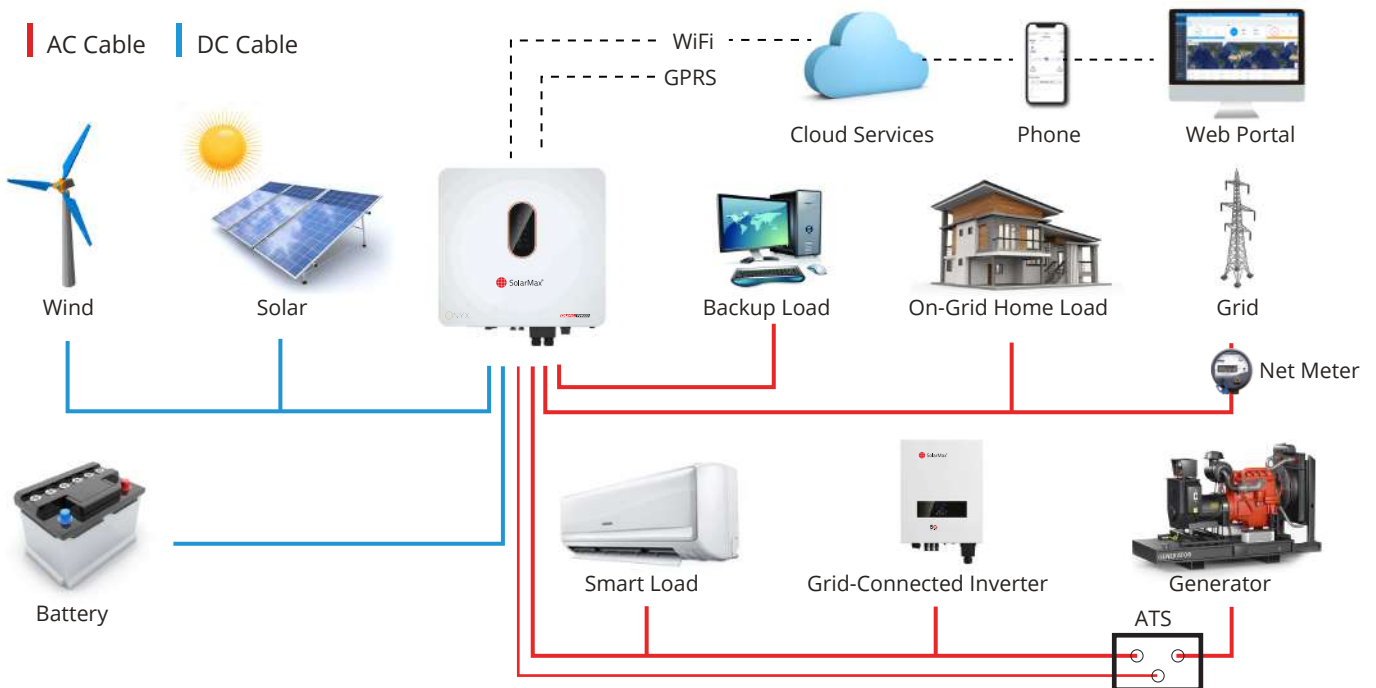
Intelligent
Cloud Monitoring

Update &
Maintenance

Data
Logging

Control &
Operate

ALL IN ONE



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