



SolarMax®
Since 2007

3 IN ONE

MPPT INVERTER

ON-GRID / OFF-GRID / HYBRID

ORION PV6000



Monitor & Control
with Built-in WiFi



USB On-the-go
Function



Works With &
Without Battery



Touch LCD
Display



BMS
Built-in



Three Lighting Effects



Cycling

Quickly scroll with a colour of your choice in a continuous circular motion



Wheel

Illuminates with twinkling lights in a color of your choice



Chasing

Radiates your selected color upward from the bottom of the ring



User programmable RGB lighting for different operation mode



Pink



Orange



Green



Blue



Sky Blue



Purple



120A

Solar & AC Charging Current



6KW+

PV Input (27AMP)



9 Units

Can Be Parallel



Communication

USB/RS232/RS485/Dry-Contact/WiFi



Net Metering

Feed into Grid

**LIFETIME
WARRANTY**

2YEARS FREE UNLIMITED
PARTS OR REPLACEMENT

LIFETIME FREE SERVICE

SolarMax® Orion Series On-Grid Inverter with Energy Storage

MODEL	SM-ORION-PV6000
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	6000W
RATED OUTPUT POWER	5600W
MAXIMUM CHARGING POWER	6000W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	120 VDC
MPPT Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27 A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	24.3A
Power Factor	> 0.9
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	96%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
MPPT Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sinewave
Efficiency (DC to AC)	93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	110VDC / 120 VDC
MPPT Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27 A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	24.3A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Battery Supported	LEAD ACID VRLA AGM DEEP CYCLE GEL FLOODED TUBULAR LITHIUM-ION (BMS BUILT-IN)
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120A
Maximum AC Charging Current	120A
Maximum Charging Current	120A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	12
INTERACE	
Parallel Function	Yes, 9 units
Communication Port	USB/RS232/RS485/WIFI/Dry-contact
ENVIRONMENT	
Humidity	0 ~ 90% RH (Non-condensing)
Operating Temperature	-10 to 50°C

Product specifications are subject to change without further notice.