

# SYNAPSE

## 3.0+ Off-Grid Inverter

- Pure sine wave solar inverter
- Output power factor 1
- High PV input voltage range
- Built-in 60A MPPT solar charger
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit for harsh environment use





<b>Model</b>	
Product Code	SYNAPSE 3.0+
Rated Power	3000VA / 3000W

<b>Input</b>	
Voltage	230V AC
Selectable Voltage Range	170–280V AC (For Personal Computers); 90–280V AC (For Home Appliances)
Frequency Range	50Hz / 60Hz (Auto sensing)

<b>Output</b>	
AC Voltage Regulation (Battery Mode)	230V AC $\pm$ 5%
Surge Power	6000VA
Efficiency (Peak)	90%–93%
Transfer Time	10ms (For Personal Computers); 20ms (For Home Appliances)
Waveform	Pure sine wave

<b>Battery</b>	
Battery Voltage	24V DC
Floating Charge Voltage	27V DC
Overcharge Protection	33V DC

<b>Solar Charger &amp; AC Charger</b>	
Maximum PV Array Open Circuit Voltage	145V DC
Maximum PV Array Power	1500W
MPP Range @ Operating Voltage	30–115V DC
Maximum Solar Charge Current	60A
Maximum AC Charge Current	60A
Maximum Charge Current	120A

<b>Physical</b>	
Dimension (D x W x H)	100 x 300 x 440mm
Net Weight	9,5kgs
Communication Interface	USB / RS232

<b>Environment</b>	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.

**SYNAPSE**

# 3.0V+

## Off-Grid Inverter

- Pure sine wave solar inverter
- Selectable high power charging current
- Wide DC input range
- Built-in 40A MPPT solar charger
- Battery equalisation function to optimise battery performance and extend lifecycle





Model	
Product Code	SYNAPSE 3.0V+
Rated Power	3000VA / 2400W

Input	
Voltage	230V AC
Selectable Voltage Range	170–280V AC (For Personal Computers); 90–280V AC (For Home Appliances)
Frequency Range	50Hz / 60Hz (Auto sensing)

Output	
AC Voltage Regulation (Battery Mode)	230V AC $\pm$ 5%
Surge Power	6000VA
Efficiency (Peak)	90%–93%
Transfer Time	10 ms (For Personal Computers); 20 ms (For Home Appliances)
Waveform	Pure sine wave

Battery	
Battery Voltage	24V DC
Floating Charge Voltage	27V DC
Overcharge Protection	32V DC

Solar Charger & AC Charger	
Maximum PV Array Open Circuit Voltage	102V DC
Maximum PV Array Power	1000W
MPP Range @ Operating Voltage	30–80V DC
Maximum Solar Charge Current	40A
Maximum AC Charge Current	25A
Maximum Charge Current	60A

Physical	
Dimension (D x W x H)	88 x 225 x 320mm
Net Weight	6,0kgs
Communication Interface	USB / RS232

Environment	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 55°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.

# SYNAPSE

## 5.0+ Off-Grid Inverter

- Pure sine wave solar inverter.
- Output power factor 1.
- High PV input voltage range.
- Built-in 80A MPPT solar charger.
- Battery equalisation function to optimise battery performance and extend lifecycle.
- Built-in anti-dust kit for harsh environment use.





Model	
Product Code	SYNAPSE 5.0+
Rated Power	5000VA / 5000W

Input	
Voltage	230V AC
Selectable Voltage Range	170–280V AC (For Personal Computers); 90–280V AC (For Home Appliances)
Frequency Range	50Hz / 60Hz (Auto sensing)

Output	
AC Voltage Regulation (Battery Mode)	230V AC $\pm$ 5%
Surge Power	10000VA
Efficiency (Peak)	90%–93%
Transfer Time	10 ms (For Personal Computers); 20 ms (For Home Appliances)
Waveform	Pure sine wave

Battery	
Battery Voltage	48V DC
Floating Charge Voltage	54V DC
Overcharge Protection	63V DC

Solar Charger & AC Charger	
Maximum PV Array Open Circuit Voltage	500V DC
Maximum PV Array Power	4000W
MPP Range @ Operating Voltage	120–450V DC
Maximum Solar Charge Current	80A
Maximum AC Charge Current	60A
Maximum Charge Current	80A

Physical	
Dimension (D x W x H)	100 x 300 x 440mm
Net Weight	10kgs
Communication Interface	USB / RS232

Environment	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.

# SYNAPSE

## 5.0K+ Off-Grid Inverter

- Zero transfer time to protect mission-critical loads such as servers and ATM.
- Detachable LCD control module with multiple communications.
- Built-in Bluetooth for mobile monitoring (Android App is available).
- Supports USB On-the-Go function.
- Reserved communication port for BMS (RS485, CAN-BUS or RS232).
- Configurable AC/PV output usage timer and prioritisation.
- Optional parallel operation up to 9 units.





<b>Model</b>	
Product Code	SYNAPSE 5.0K+
Rated Power	5000VA / 5000W
Parallel Capability	Up to 9 units

<b>Input</b>	
Voltage	230V AC
Voltage Range	110–280V AC
Frequency Range	50Hz / 60Hz (Auto sensing)

<b>Output</b>	
AC Voltage Regulation (Battery Mode)	230V AC $\pm$ 5%
Surge Power	10000VA for 5 sec
Efficiency (Peak)	93% at Line Mode, 90% at Battery Mode
Transfer Time	0ms
Waveform	Pure sine wave

<b>Solar Charger &amp; AC Charger</b>	
Maximum PV Array Open Circuit Voltage	145V DC
Maximum PV Array Power	4000W
MPP Range @ Operating Voltage	60–115V DC
Maximum Solar Charge Current	80A
Maximum AC Charge Current	60A
Maximum Charge Current	140A

<b>Physical</b>	
Dimension (D x W x H)	140 x 303 x 525mm
Net Weight	13.5kgs
Communication Interface	USB / RS232 / RS485 / Bluetooth / Dry-contact

<b>Environment</b>	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	0°C to 55°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.