

**SYNAPSE**  
ULTRA

S6-EH1P8K-L-PRO

NEW

**Model**

S6-EH1P8K-L-PRO



## Synapse Ultra 8kW Hybrid Inverter

Advanced Power Hybrid Inverter, 8kW, 40A

### Features

- ◆ Generator connectivity with multiple input methods and automatic generator On/Off control
- ◆ Automatic UPS switching
- ◆ 10 second 200% surge power backup overload capability
- ◆ Supports 1ph and 3ph flexible connection with max 48kW in parallel
- ◆ Up to 190A max charge/discharge current
- ◆ 6 customisable charge/discharge time settings
- ◆ Compatible with lead-acid and lithium batteries, with multiple battery protection features
- ◆ Supports peak shaving control in both “self-use” and “generator” mode

SWITCHED ON

Models	8K
<b>Features</b>	
Recommended Max. PV power	12.8 kW
Max. Input Voltage	600 V
Rated Voltage	330 V
Start-Up Voltage	90 V
MPPT Voltage Range	90 - 520 V
Max. Input Current	32 A / 20 A
Max. Short Circuit Current	36 A / 30 A
MPPT Number/Max. Input Strings Number	2 / 3
<b>Battery</b>	
Battery Type	Li-ion / Lead-acid
Battery Voltage Range	40 - 60 V
Max. Charge / Discharge Power	8 kW
Max. Charge / Discharge Current	190 A
Communication	CAN/RS485
<b>Output AC (Grid side)</b>	
Rated Output Power	8 kW
Max. Apparent Output Power	8.8 kVA
Operation Phase	1/N/PE
Rated Grid Voltage	220 V / 230 V
Rated Grid frequency	50 Hz / 60 Hz
Rated Grid Output Current	36.4 A / 34.8 A
Max. Output Current	40 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<2%
<b>Input AC (Grid side)</b>	
Input Voltage Range	187 - 253 V
Max. Input Current	50 A
Frequency Range	45-55 Hz / 55-65 Hz
<b>Output AC (Back-up)</b>	
Rated Output Power	8 kW
Max. Apparent Output Power	2 times of rated power, 10 s
Back-Up Switch Time	<4 ms
Rated Output Voltage	1/N/PE, 220 V / 230 V
Rated Frequency	50 Hz / 60 Hz
Rated Output Current	36.4 A / 34.8 A
Max. Output Current	40 A
Max. AC Passthrough Current	50 A
THDv (@Linear Load)	<2%
<b>Efficiency</b>	
Max. Efficiency	> 97.5%
EU Efficiency	> 96.2%
<b>Protection</b>	
DC Reverse-Polarity Protection	Yes
Ground Fault Monitoring	Yes
Integrated AFCI (DC Arc-Fault Circuit Protection)	Yes (Activation Required)
Protection class/Over voltage category	I/II
<b>General Data</b>	
Dimensions (W*H*D)	406*560*215 mm
Weight	27 kg
Topology	High frequency isolation (for battery)
Operating Ambient Temperature Range	-40 - +60°C
Ingress Protection	IP66
Cooling Concept	Intelligent redundant fan-cooling
Max. Operation Altitude	4000m
Grid Connection Standard	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA
Safety/EMC Standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3

Models	8K
<b>Features</b>	
DC Connection	MC4 plug (PV port) / Terminal Block (BAT port)
AC Connection	Terminal Block
Display	LED + APP
Communication	RS485, CAN, Optional: Wi-Fi, GPRS, LAN

