

# SYNAPSE ULTRA

S6-EH1P(3-6)K-L-PRO-6kW

NEW

## Model

S6-EH1P3K-L-PRO / S6-EH1P3.6K-L-PRO  
S6-EH1P5K-L-PRO / S6-EH1P6K-L-PRO



## Synapse Ultra 6kW Hybrid Inverter

Advanced Power Hybrid Inverter, 6kW, 30A

### 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 36kW in parallel
- ◆ Up to 135A 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	3k	3.6k	5k	6k
<b>Inut DC (PV side)</b>				
Recommended Max. PV Power	4.8kW	5.76kW	8kW	9.6kW
Max. Input Voltage	600V			
Rated Voltage	330V			
Start-Up Voltage	90V			
MPPT Voltage Range	90-520A			
Max. Input Current	16A / 16A			
Max. Short Circuit Current	24A / 24A			
MPPT Number/Max. Input Strings Number	2 / 2			
<b>Battery</b>				
Battery Type	Li-ion / Lead-acid			
Battery Voltage Range	40-60V			
Max. Charge / Discharge Power	3kW	3.6kW	5kW	6kW
Max. Charge / Discharge Current	70A	80A	112A	135A
Communication	CAN/RS485			
<b>Output AC (Grid Side)</b>				
Rated Output Power	3kW	3.6kW	5kW	6kW
Max. Apparent Output Power	3.3kVA	4kVA	5.5kVA	6.6kVA
Operation Phase	1/N/PE			
Rated Grid Voltage	220V / 230V			
Rated Grid Frequency	50 Hz / 60 Hz			
Rated Grid Output Current	13.6A / 13.0A	16.4A / 15.7A	22.7A / 21.7A	27.3A / 26.1A
Max. Output Current	15A	20A	25A	30A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<2%			
<b>Input AC (Grid Side)</b>				
Input Voltage Range	187-253V			
Max. Input Current	20A	25A	32A	40A
Frequency Range	45-55Hz / 55-65Hz			
<b>Output AC (Back-Up)</b>				
Rated Output Power	3kW	3.6kW	5kW	6kW
Max. Apparent Output Power	2 times of rated power, 10 s			
Back-Up Switch Time	<4 ms			
Rated Output Voltage	1/N/PE, 220V / 230V			
Rated Frequency	50 Hz / 60 Hz			
Rated Output Current	13.6A / 13.0A	16.4A / 15.7A	22.7A / 21.7A	27.3A / 26.1A
Max. Input Current	20A	25A	32A	40A
Max. AC Passthrough Current	35A	35A	40A	40A
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			

Models	3k	3.6k	5k	6k
<b>General Data</b>				
Dimensions (W*H*D)	406*560*205 mm			
Weight	24 kg			
Topology	High frequency isolation (for battery)			
Operating Ambient Temperature Range	-40 ~ +60°C			
Ingress Protection	IP66			
Cooling Concept	Natural convection			
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			
<b>Features</b>				
DC connection	MC4 plug (PV port) / Terminal Block (BAT port)			
AC connection	Terminal Block			
Display	LED + APP			
Display	RS485, CAN, Optional: Wi-Fi, GPRS, LAN			

