

98.2%

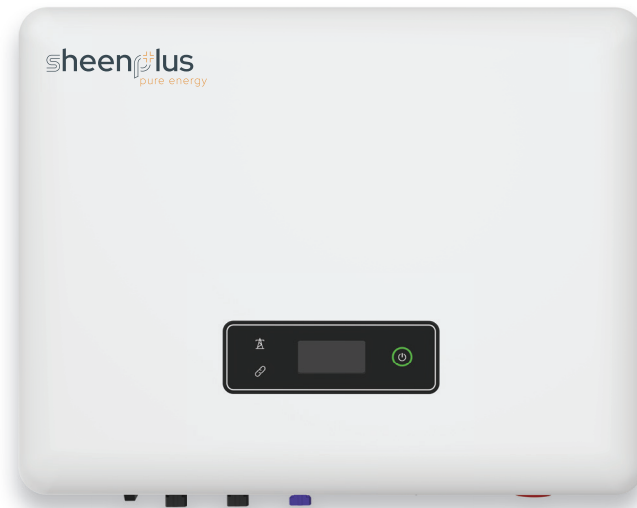
Max. Efficiency

15 A

PV Input Current

Three phase

2 MPPTs



## THREE PHASE STORAGE INVERTER WITH TWO MPPT

SP\_HYB-T\_06K | SP\_HYB-T\_10K | SP\_HYB-T\_15K |  
SP\_HYB-T\_20K



Up to 110% phase unbalanced output available on both on-grid and back-up outputs.



Support back-up paralleling connection of up to 10 units.



Fast and easy data checking and commissioning via App or OLED display.



135~750V wide battery connection range to store more energy and optimize self-sufficiency rate.



Arbitrary phase of back-up output allows up to 125% overloading ability.



Maximum 200% back-up output overloading @60s.



Uninterruptible power supply, switch to off-grid mode within 10ms.

Model	SP_HYB-T_06K	SP_HYB-T_10K	SP_HYB-T_15K	SP_HYB-T_20K
<b>PV INPUT DATA</b>				
Max. Input Power	9.0 kW	15.0 kW	22.5 kW	30.0 kW
Start-up Voltage	135 V	135 V	135 V	135 V
Max. DC Input Voltage	1.000 V*	1.000 V	1.000 V	1.000 V
Rated DC Input Voltage	620 V	620 V	620 V	620 V
MPPT Voltage Range	120-950 V	200-950 V	200-950 V	200-950 V
No. of MPP Trackers	2	2	2	2
No. of PV Inputs	1/1	2/2	2/2	2/2
Max. DC Input Current	15/15 A	30/30 A	30/30 A	30/30 A
Max. DC Short-circuit Current	20/20 A	40/40 A	40/40 A	40/40 A
<b>OUTPUT DATA (GRID)</b>				
Rated Output Power	6.0 kW	10.0 kW	15.0 kW	20.0 kW
Max. Output Apparent Power	6.6 kVA	11.0 kVA	16.5/15.0 <sup>1)</sup> kVA	22.0 kVA
Max. Input Apparent Power**	12.0 kVA	20.0 kVA	30.0 kVA	30.0 kVA
Max. Charging Power of Battery	6.0 kW	10.0 kW	15.0 kW	20.0 kW
Rated AC Voltage	3L/N/PE; 220/380 V; 230/400 V; 240/415 V			
Rated AC Frequency	50/60 Hz			
Max. Output Current	10.00 A	16.5 A	25.0/21.7 <sup>2)</sup> A	33.5 A
Power Factor	0.8 leading ...0.8 lagging			
Max. Total Harmonic Distortion DCI	< 3 % @Rated Output Power < 0.5 %In			
<b>OUTPUT DATA (BACK-UP)</b>				
Rated Output Power	6.0 kW	10.0 kW	15.0 kW	20.0 kW
Max. Output Apparent Power	6.6 kVA	11.0 kVA	16.5 kVA	22.0 kVA
Max. Output Current	10.0 A	16.5 A	25.0 A	33.5 A
UPS Switching Time	< 10 ms			
Rated Output Voltage	3/N/PE; 220/380 V; 230/400 V; 240/415 V			
Rated Output Frequency	50/60 Hz			
Peak Output Apparent Power***	12.60 s kVA	20.60 s kVA	25.60 s kVA	25.60 s kVA
Voltage Harmonic Distortion	< 3 % @Linear Load			
<b>BATTERY</b>				
Battery Type	Lithium Battery (with BMS)			
Battery Voltage Range	135-750 V			
Max. Charge/Discharge Current	25/25 A	40/40 A		
<b>EFFICIENCY</b>				
Max. Efficiency	98.1 %	98.4 %	98.4 %	98.4 %
European Efficiency	97.3 %	97.5 %	97.5 %	97.5 %
<b>GENERAL DATA</b>				
Over Voltage Category	PV: II; Main III			
Size (WxHxD)	534x418x210 mm			
Weight	26.0 kg (06 K); 28.0 kg (10 K); 31.0 kg (15+20 K)			
Protection Degree	IP65			
Standby Self-consumption	< 15 W			
Topology	Transformerless			
Operating Temperature Range	-30 °C ~ 60 °C			
Relative Humidity	0~100 %			
Operating Altitude	3.000 m (> 3.000 m derating)			
Cooling	Natural Convection (06 K); Smart Fan (10/15/20 K)			
Noise	<25 dB (06 K); <40 dB (10/15/20 K)			
Display	OLED & LED			
Communication	CAN; RS485; WiFi/LAN (Optional)			
Compliance	IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105			
<b>PROTECTION</b>				
DC Reverse Polarity Protection	Integrated			
Battery Input Reverse Connection Protection	Integrated			
Insulation Resistance Protection	Integrated			
Surge Protection	Integrated			
Over-temperature Protection	Integrated			
Residual Current Protection	Integrated			
Islanding Protection	Integrated			
AC Over-voltage Protection	Integrated			
Overload Protection	Integrated			
AC Short-circuit Protection	Integrated			

\* Max. operating DC voltage is 950 V, max. withstanding DC voltage is 1.000 V.

\*\* Max. apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.

\*\*\* The output power will exceed the rated value only when the PV array is sufficient, and the duration of the overload is related to the overload power.

<sup>1)</sup> AS 4777.2: 15.0 kVA; <sup>2)</sup> AS4777.2: 21.7A