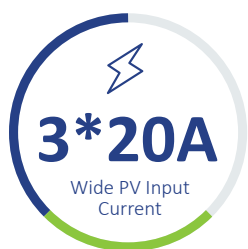




Single Phase Hybrid Inverter

HESS-HY-S-7K/8K/10K

SMART ENERGY
SUSTAINABLE SOLUTIONS „



Optimal performance

- 3 independent MPPTs for flexible and optimized large PV array design
- Max. 20 A input current per MPPT, ideal for bifacial and large area PV modules
- Up to 200% PV array oversizing for higher energy yields
- Built-in shadow management

Safe & Reliable

- UPS-level switching time < 10 ms
- IP66 rated design for indoor and outdoor use
- Up to 200% power output for 10s during power outages
- Multi-source design for black start, integrating PV, battery, and generator

User-friendly

- Expandable up to 30 kW in on-grid and off-grid mode
- Compatible with both lead-acid and lithium batteries
- Smart setup, commissioning and monitoring via HANCHU ESS App

Single Phase Hybrid Inverter

Model	HESS-HY-S-7K	HESS-HY-S-8K	HESS-HY-S-10K
PV Input			
Max. PV array power	14000 Wp	16000 Wp	20000 Wp
Max. input voltage	550 V		
MPPT voltage range / rated input voltage	40 V to 530 V / 380 V		
Min. input voltage / start voltage	40V / 50 V		
No. of independent MPP trackers/ strings per MPPT input	3 / 1		
Max. input current / Max. power per MPP tracker	20 A/10000 W		
Max. short-circuit current per MPP tracker	25 A		
Battery Input			
Nominal battery voltage	48 V/51.2V		
Battery voltage range	40 V to 60 V		
Max. charging / discharging power	7000 W	8000 W	10000 W
Max. charging current / Max. discharging current	165 A	190 A	210 A
Battery type	LiFePO ₄ / Lead-acid		
Compatible Battery	HANCHU HOME-ESS-LV		
AC Output			
AC voltage range / Nominal AC voltage	154V to 276V / 220, 230, 240, L/N		
Rated AC grid frequency	50 Hz / 60 Hz		
AC grid frequency range	45-55Hz / 55-65Hz		
Rated apparent power	7000 VA	8000 VA	10000 VA
Max. apparent power	7000 VA	8000 VA	10000 VA
Rated grid output current (@230V)	30.4 A	34.8 A	43.5 A
Max. grid output current	32 A	38.3 A	47.8 A
Harmonic distortion (THD) at rated output	< 3% (of nominal power)		
Power factor at rated power / adjustable range	1 / 0.8 leading to 0.8 lagging		
AC Input			
Nominal AC voltage	220, 230, 240, L/N		
Rated grid frequency	50Hz / 60Hz		
Max. input power from grid	14000 W	16000 W	18000 W
Max. input current from grid	60.9 A	69.6 A	78.3 A
EPS Output			
Nominal AC voltage	220, 230, 240, L/N		
Nominal output frequency	50 Hz / 60 Hz		
Rated apparent power	7000 VA	8000 VA	10000 VA
Peak output apparent power (off-grid up to 10s)	14000 VA	16000 VA	20000 VA
Rated current (@230V)	30.4 A	34.8 A	43.5 A
Max. current (@230V, continuous on-grid/of-grid)	32 A	38.3 A	47.8 A
Max. switch time	≤ 10 ms		
Output THDi (@Linear load)	<2%		



Product Info



Official Website

 info@hanchuess.com  0510-88865288  www.hanchuess.com

 No.9 Huicheng Road,Huishan District,214177 Wuxi, Jiangsu, China

Single Phase Hybrid Inverter

Model	HESS-HY-S-7K	HESS-HY-S-8K	HESS-HY-S-10K
Generator Side			
Max. input apparent power	7000VA	8000VA	10000VA
Max. charge / discharge power	7000VA	8000VA	10000VA
Max. input current	31.8A	36.4A	45.5A
Rated AC voltage	220, 230, 240, L/N		
Rated AC frequency	50 Hz / 60 Hz		
Efficiency			
MPPT efficiency	99.9 %		
Euro efficiency / Max. efficiency	97% / 97.6%		
Safety Protection			
Surge protection	Integrated / Type II		
Insulation resistance detection	Integrated		
PV string input reverse polarity protection	Integrated		
Ground fault monitoring	Integrated		
Residual current monitoring unit	Integrated		
AC short circuit protection	Integrated		
Anti-islanding protection	Integrated		
General Data			
Dimensions (W/H/D)	484mm / 679mm / 230mm		
Weight	34.5kg		
Operating temperature range	-25°C ... +60°C		
Cooling concept	Smart cooling		
Ingress Protection Degree	IP66		
Max. relative humidity	100%		
Max. operating altitude	3000m		
Features			
User interface	LED & APP		
BMS interface	CAN		
Communication interfaces	Logger: WiFi (2.4 GHz) / LAN (100 Mbps) Inverter: RS485 (ModBus RTU), LAN (100Mbps, Modbus TCP only)		
Digital output (dry contact) / No. of outputs	Integrated / 2		
Digital input (dry contact) / No. of inputs	Integrated / 6		
Warranty	12 years		

202509160002-U



Product Info



Official Website

 info@hanchuess.com  0510-88865288  www.hanchuess.com

 No.9 Huicheng Road,Huishan District,214177 Wuxi, Jiangsu, China