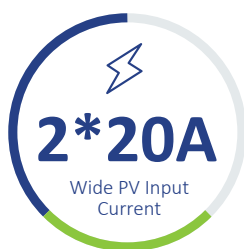




Three Phase Hybrid Inverter

SMART ENERGY
SUSTAINABLE SOLUTIONS „

HESS-HY-T-05K/06K/08K/10K/12K



Easy-to-install

- Phoenix Contact connectors for reliable tool-free DC connection
- Compact wall mount design
- Simple battery and smart meter interfaces
- Compatible with high-voltage batteries

User-friendly

- Commissioning and monitoring via the Hanchu ESS app
- Intelligent work modes and customized battery management for DOD /Time of Use/Power Setting
- Max. 20 A input current, ideal for bifacial and high power PV module

Reliable

- IP66 rated design for outdoor use
- 150 % PV over-sizing array
- 100% unbalanced three phase AC output
- Shadow management - improved generation under non-ideal conditions
- UPS level switching time < 10 ms

Three Phase Hybrid Inverter

Model	HESS-HY-T-05K	HESS-HY-T-06K	HESS-HY-T-08K	HESS-HY-T-10K	HESS-HY-T-12K
PV Input					
Max. PV array power	7500 Wp	9000 Wp	12000 Wp	15000 Wp	18000 Wp
Max. input voltage	1100 V				
MPPT voltage range / rated input voltage	150 V to 950 V / 630 V		200 V to 950 V / 630 V		
Min. input voltage / start voltage	60 V / 180 V				
No. of independent MPP trackers/ strings per MPPT input	2 / 1				
Max. input current per MPP tracker	20 A				
Max. short-circuit current per MPP tracker	30 A				
Battery Input					
Battery voltage range	120 V to 600 V				
Max. charging / discharging power	5000 W	6000 W	8000 W	10000 W	12000 W
Max. charging current /Max. discharging current	36 A				
Rated charging current /Rated discharging current	30 A				
Battery type	LiFePO4				
Compatible Battery	HANCHU HOME-ESS-HV				
AC Output					
AC voltage range /Nominal AC voltage	270 V to 480 V /3/N/PE, 220 / 380 V; 230 / 400 V; 240 / 415V				
Rated AC grid frequency	50 Hz / 60 Hz				
AC grid frequency range	45-55 Hz /55-65 Hz				
Rated apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Max. apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Rated grid output current(@400V)	7.3 A	8.7 A	11.6 A	14.5 A	17.4 A
Max. grid output current(@400V)	8.0 A	9.6 A	12.8 A	16.0 A	19.2 A
Harmonics THDi (@ Nominal power)	<3% (of nominal power)				
AC Input					
Rated grid voltage	3/N/PE, 220 / 380 V; 230 / 400 V; 240 /415 V				
Rated grid frequency	50 Hz / 60 Hz				
Max. input power from grid	10000 W	12000 W	16000 W	20000 W	24000 W
Max. input current from grid	14.5 A	17.4 A	23.2 A	29.0 A	34.8 A
EPS Output					
Nominal output voltage	3/N/PE, 220 / 380 V; 230 / 400 V; 240 /415 V				
Nominal output frequency	50 Hz / 60 Hz				
Rated apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Peak output apparent power	2 times of rated power, 10 s				
Rated current(@400V)	7.3 A	8.7 A	11.6 A	14.5A	17.4 A
Max. switch time	< 10 ms				
Output THDv(@ Linear load)	2%				
Efficiency					
MPPT efficiency	99.9 %				
Euro efficiency / Max. efficiency	97.2 % / 98.0 %	97.5 % / 98.2 %	97.9 % / 98.4 %		



Product Info



Official Website

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

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Three Phase Hybrid Inverter

Model	HESS-HY-T-05K	HESS-HY-T-06K	HESS-HY-T-08K	HESS-HY-T-10K	HESS-HY-T-12K
Safety Protection					
DC surge protection (Type II,according to EN/IEC 61643-11)	Integrated				
Insulation resistance detection	Integrated				
PV string input reverse polarity protection	Integrated				
Battery 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					
Power factor at rated power /adjustable displacement	1 / 0.8 leading to 0.8 lagging				
Dimensions (W / H / D)	545 mm / 465 mm / 205 mm				
Weight	24.5 Kg				
Operating temperature range	-25°C ... +60°C				
Cooling concept	Natural convection				
Ingress Protection Degree	IP66				
Max. relative humidity	100 %				
Max. operating altitude	4000 m				
Features					
User interface	LED & APP				
BMS interface	CAN				
Smart meter interface	RS485				
Internet communication interfaces	WiFi / LAN / 4G / Bluetooth				
Digital output (dry contact) /No. of outputs	Integrated / 2				
Digital input (dry contact) /No. of inputs	Integrated / 4				
Integrated power control /export power control	Integrated / Integrated				
Certifications	EN 61000/IEC 62109/EN 50549/VDE 4105/VFR 201/G98/G99/G10/CEI 0-21/NEN				
Warranty	10 years				



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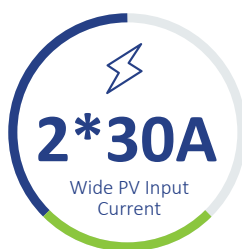
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Three Phase Hybrid Inverter

HESS-HY-T-10K/12K/15K/20K-M4

SMART ENERGY
SUSTAINABLE SOLUTIONS „



Maximized Energy Harvesting

- 110% unbalanced output enhances self-consumption
- 40A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains power
- 10ms UPS-level switch secures supply

Simplified Interaction

- Remote upgrades maintain system health
- Indicators for quick status checks
- OLED and App for easy control

Engineered for Versatility

- Wide 135-750V range fits diverse batteries
- 200% max backup @60s handles overloads
- IP65 protects both indoors and outdoors

Intelligent Energy Dynamics

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency

Three Phase Hybrid Inverter

Type Designation	HESS-HY-T-10K-M4	HESS-HY-T-12K-M4	HESS-HY-T-15K-M4	HESS-HY-T-20K-M4
PV Input				
Max. Input Power	15.0kW	18.0kW	22.5kW	30.0kW
Start-up Voltage	135V			
Max. DC Input Voltage *	1000V			
Rated DC Input Voltage	620V			
MPPT Voltage Range *	200-950V			
No. of MPP Trackers	2			
No. of DC Inputs per MPPT	2			
Max. Input Current	30×2A			
Max. Short-circuit Current	40×2A			
Battery Side				
Battery Type	Lithium Battery (with BMS)			
Battery Voltage Range	135-750V			
Max. Charge/Discharge Current	40/40A			
Grid Side				
Rated Output Power	10.0 kW	12.0kW	15.0 kW	20.0 kW
Max. Output Apparent Power	11.0 ¹⁾ kVA	13.2kVA	16.5 ³⁾ kVA	22.0kVA
Max. Input Apparent Power **	20.0kVA	24.0kVA	30.0kVA	30.0kVA
Max. Charging Power of Battery	10.0 kW	12.0 kW	15.0 kW	20.0 kW
Rated AC Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V			
Rated AC Frequency	50 Hz / 60 Hz			
Max. Output Current	16.5 ²⁾ A	20.0 A	25.0 ⁴⁾ A	33.5 A
Power Factor	0.8 leading ... 0.8 lagging			
Max. Total Harmonic Distortion	<3% @Rated output power			
DCI	<0.5%In			
Back-up Side				
Rated Output Power	10.0kW	12.0kW	15.0kW	20.0kW
Max. Output Apparent Power	11.0 kVA	13.2 kVA	16.5kVA	22.0 kVA
Max. Output Current	16.5A	20.0 A	25.0 A	33.5A
UPS Switching Time	<10ms			
Rated Output Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V			
Rated Output Frequency	50 Hz / 60 Hz			
Peak Output Apparent Power	15, 60s kVA	18, 60s kVA	22.5, 60s kVA	30, 60s kVA
Voltage Harmonic Distortion	<3% @Linear load			
Efficiency				
Max. Efficiency	98.4%			
European Efficiency	97.5 %			



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Three Phase Hybrid Inverter

Type Designation	HESS-HY-T-10K-M4	HESS-HY-T-12K-M4	HESS-HY-T-15K-M4	HESS-HY-T-20K-M4
Protection				
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(Frequency shift)			
AC Over-voltage Protection	Integrated			
Overload Protection	Integrated			
AC Short-circuit Protection	Integrated			
General Data				
Over Voltage Category	PV: II; Main: III			
Dimensions (W×H×D)	534*418*210mm			
Weight	28.0kg		31.0kg	
Protection Degree	IP65			
Standby Self-consumption	<15W			
Topology	Transformerless			
Operating Temperature Range	-30~60℃			
Relative Humidity	0-100%			
Operating Altitude	3000m (>3000mderating)			
Cooling	Natural Convection			
Noise Level	<40dB			
Display	OLED & LED			
Communication	CAN, RS485,WiFi/LAN (Optional)			
Certifications	IEC 62109, EN 61000, EN50549-1, G98, G99, G100, CEI, NRS 097, NTS, VDE-4105, CEI 0-21, NEN			
Warranty	10 years			

* PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting.

** 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.

1) G98: 10.5kVA; 2)G98: 16.00A; 3) AS 4777.2: 15.0kVA; 4) AS 4777.2: 21.7A



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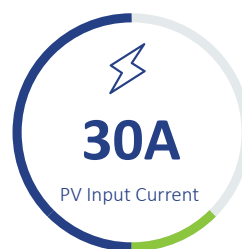


C&I Series Hybrid Inverter

25-50KW Hybrid Inverter

Commercial | Three Phase | HV Battery | 4 MPPTs

SMART ENERGY
SUSTAINABLE SOLUTIONS ”



Talented

- 98.8% max. efficiency
- 135-750V super wide battery voltage range
- Max. 100A charge/discharge current
- Max. 30A PV input current
- Within 20ms UPS-level switching

Reliable

- IP65 protection degree
- Compact and elegant appearance with advanced structure design
- Long-term efficient operation with advanced heat dissipation design
- Outstanding working performance thanks to HANCHU platform

Powerful

- Up to 100% unbalanced load
- Up to 110% AC output overloading
- Max. 120% back-up output overloading @60s
- Parallel operation capacity support system size from KW to MW level

Friendly

- Convenient installation and O&M with horizontal design and quick plug terminals
- Easy data check via both OLED display and App
- Intelligent energy management with HANCHU built-in EMS
- Easy Wifi configuration via App

C&I Series Hybrid Inverter

Type Designation	CESS-HY-25K	CESS-HY-30K	CESS-HY-36K	CESS-HY-40K	CESS-HY-50K
PV Input					
Max. Input Power	37.5kW	40.5kW	54.0kW	60.0kW	75.0kW
Start-up Voltage	135V				
Max. DC Input Voltage *	1000V				
Rated DC Input Voltage	620V				
MPPT Voltage Range *	200-850V*				
No. of MPP Trackers	4				
No. of DC Inputs per MPPT	2				
Max. Input Current	30×4A				
Max. Short-circuit Current	40×4A				
Battery Side					
Battery Type	Lithium Battery (with BMS)				
Battery Voltage Range	135-750V				
Max. Charge/Discharge Current	100/100A				
Grid Side					
Rated Output Power	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW
Max. Output Apparent Power	27.0kVA	33.0/30.0 ¹⁾ kVA	39.6kVA	44.0kVA	55.0kVA
Max. Input Apparent Power **	30.0kVA	36.0kVA	43.5kVA	48.0kVA	60.0kVA
Max. Charging Power of Battery	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW
Rated AC Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated AC Frequency	50 Hz / 60 Hz				
Max. Output Current	42.0 A	50.0/43.5 ²⁾ A	60.0 A	66.0 A	83.0 A
Power Factor	0.8 leading ... 0.8 lagging				
Max. Total Harmonic Distortion	<3% @Rated output power				
DCI	<0.5%In				
Back-up Side					
Rated Output Power	25.0kW	30.0kW	36.0kW	40.0kW	50.0kW
Max. Output Apparent Power	27.5 kVA	33.0 kVA	39.6 kVA	44.0 kVA	55.0 kVA
Max. Output Current	42.0A	50.0 A	60.0 A	66.0 A	83.0 A
UPS Switching Time	<20ms				
Rated Output Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated Output Frequency	50 Hz / 60 Hz				
Peak Output Apparent Power***	30, 60s kVA	36, 60s kVA	43.5, 60s kVA	48, 60s kVA	60, 60s kVA
Voltage Harmonic Distortion	<3% @Linear load				
Efficiency					
Max. Efficiency	98.8 %				
European Efficiency	98.3 %				



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C&I Series Hybrid Inverter

Type Designation	CESS-HY-25K	CESS-HY-30K	CESS-HY-36K	CESS-HY-40K	CESS-HY-50K
Protection					
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				
General Data					
Over Voltage Category	PV: II; Main: III				
Dimensions (W×H×D)	800*620*300mm				
Weight	76.0kg				
Ingress Protection Degree	IP65				
Standby Self-consumption	<15W				
Topology	Transformerless				
Operating Temperature Range	-30~60°C				
Relative Humidity	0-100%				
Operating Altitude	3000m (>3000mderating)				
Cooling	Smart Fan				
Noise Level	<50dB				
Display	OLED & LED				
Communication	CAN, RS485,WiFi/LAN (Optional)				
Certifications	IEC/EN 62109, IEC/EN 61000, EN50549-1, NTS, VDE-AR-N-4105, G99, G100, CEI, NRS097				
Warranty	10 years				

* Max. operating DC voltage is 950V, max. withstanding DC voltage is 1000V

** 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 power in the PV array is sufficient, and the duration of the overload is related to the overload power

1) AS 4777.2: 30.0kVA; 2) AS 4777.2: 43.5A



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