Three-phase Hybrid Inverter Datasheet

HYT-5.0HV-AUG1
HYT-6.0HV-AUG1
HYT-8.0HV-AUG1
HYT-10.0HV-AUG1
HYT-12.0HV-AUG1

Description

The HYT-HV Series is a high-performance three-phase hybrid inverter with excellent reliability, including power classes ranging from 5.0 kW to 12.0 kW.

The intelligent EMS function supports self-consumption mode, economical mode, and backup mode for multi-scenario applications.

Monitoring management through S-Miles Cloud allows users to remotely diagnose and track the individual system's performance over time, offering superior energy production.

Features

01	Intelligent export limitation and 100% three-phase imbalanced output
02	Double MPPT tracker, up to 14 A MPPT current
03	Compatible with multiple batteries, providing users with more choices
04	UPS level switching time <10 ms
05	DC/AC ratio up to 150%
06	Ultralight for easy installation and space-saving
07	Built-in dry contact flexibly monitors earth fault alarm and provides load control or generator control
08	Max. 10 parallel inverters

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Technical Specifications

Model	HYT-5.0HV-AUG1	HYT-6.0HV-AUG1	HYT-8.0HV-AUG1	HYT-10.0HV-AUG1	HYT-12.0HV-AUG1
Battery					
Battery type			Li-ion		
Battery voltage range (V)			170-600		
Max. charge/discharge current (A)	20/20	20/20	30/30	30/30	30/30
Max. charge/discharge power (W)	5000/5000	6000/6000	8000/8000	10000/10000	10000/10000
Charging strategy for Li-ion battery			Self-adaption to BMS		
Communication			CAN		
PV Input					
Recommended max. PV power (W)	7500	9000	12000	15000	15000
Max. input voltage (V)			1000		
Rated voltage (V)			720		
Start-up voltage (V)			250		
MPPT voltage range (V)			200-950		
Max. input current (A)	14/14	14/14	14/14	14/28	14/28
Max. short circuit current (A)	17/17	17/17	17/17	17/34	17/34
MPPT number/Max. input strings number	2/2	2/2	2/2	2/3	2/3
AC Input and Output (On-grid)					
Rated output power (W)	5000	6000	8000	10000	12000
Max. output apparent power (VA)	5500	6600	8800	11000	12000
EPS port output power (W)	5000	6000	8000	10000	12000
Max. input power (W)	10000	12000	16000	16000	16000
Grid form			3L/N/PE		
Rated AC output voltage/Range (V)			380/400, 266-480		
Rated grid frequency (Hz)			50/60		
Rated output current (A)	7.2	8.7	11.6	14.5	17.4
Max. output current (A)	8.3	10.0	13.3	16.7	17.4
Max. input current (A)	15.2	18.2	24.2	24.2	24.2
Power factor			>0.99 (0.8 leading ... 0.8 lagging)		
THDi (@rated output)			<3%		
AC Output (Off-grid)					
Rated output power (W)	5000	6000	8000	10000	12000
Max. output apparent power (VA)	10000, 10s	12000, 10s	16000, 10s	16000, 10s	16000, 10s
EPS port output power (W)	5000	6000	8000	10000	12000
Back-up switch time (ms)			<10		
Grid form			3L/N/PE		
Rated output voltage (V)			380/400		
Rated output frequency (Hz)			50/60		
Max. continuous output current (A)	8.3	10.0	13.3	16.7	17.4
THDv (@linear load)			<3%		
Efficiency					
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Max. efficiency	98.0%	98.0%	98.0%	98.0%	98.0%
EU efficiency	97.0%	97.1%	97.2%	97.4%	97.5%
Max. battery discharge to AC efficiency	97.5%	97.5%	97.5%	97.5%	97.5%
Protection					
Anti-islanding protection			Integrated		
PV string input reverse polarity protection			Integrated		
Insulation resistor detection			Integrated		
Residual current monitoring unit			Integrated		
AC over current protection			Integrated		
AC short current protection			Integrated		
AC overvoltage and undervoltage protection			Integrated		
Surge protection			DC Type II/AC Type III		
General					
Dimensions (W × H × D [mm])			502 × 486 × 202		
Weight (kg)			26.5		
Mounting			Wall mounting		
Operating temperature (°C)			-25 to +65 (>45, derating)		
Relative humidity			0-95%, no condensing		
Cooling			Natural convection		
Topology (Solar/Battery)			Transformerless/Transformerless		
Altitude (m)			≤2000		
Protection degree			IP65		
Protection class			Class I		
Noise (dB)			<40		
User interface			LED, App		
Digital input/output			DRM, 1 × DI, 2 × DO		
Communication			RS485, optional: Wi-Fi/Ethernet/4G[1]		
Active anti-islanding method			AFDPF + AQDPF[2]		
Country of Manufacture			China		
Certifications and Standards					
Grid connection standard			EN 50549, VDE-AR-N 4105, AS/NZS 4777.2		
Safety/EMC standard			IEC 62109-1/-2, EN 61000-6-1/-3		

(1) The DTS-Ethernet and DTS-4G solutions will be coming soon.

(2) AFDPF: Active Frequency Drift with Positive Feedback; AQDPF: Active Q Drift with Positive Feedback.