



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

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-4G solution will be coming soon.

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