Three Phase Hybrid Inverter Datasheet

HYT-5000HV
HYT-6000HV
HYT-8000HV
HYT-10000HV
HYT-12000HV

Description

The HYT-HV Series is a high-performance three-phase hybrid inverter with excellent reliability, including power class from 5 kW to 12 kW.

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

Module-level monitoring management through Hoymiles Cloud allows users to remotely diagnose and track individual modules' performance over time, offering superior energy production.

Features

01	Max. Efficiency 97.6%, European Efficiency 97.0%
02	Double MPPT tracker, up to 14A MPPT current
03	DC/AC ratio up to 150%
04	Built-in dry contact flexibly monitors earth fault alarm and provides load control or generator control
05	Ultralight for easy installation and space-saving
06	Support both DC-coupled and AC-coupled system
07	Remote monitoring through Hoymiles Cloud
08	EMS integrates with self-consumption, economic mode and backup mode, offering multi-scenario solutions for daily life.

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Technical Specifications

Model	HYT-5000HV	HYT-6000HV	HYT-8000HV	HYT-10000HV	HYT-12000HV
Battery					
Battery Type	Li-ion				
Rated Battery Voltage (V)	500				
Voltage Range (V)	170-600				
Max. Charge Current (A)	20	20	30	30	30
Max. Discharge Current (A)	20	20	30	30	30
Rated Power (W)	5000	6000	8000	10000	10000
Charging Strategy	Self-adaption to BMS				
PV Input					
Max. PV Input Power (W)	7500	9000	12000	15000	15000
Max. PV Input Voltage (V)	1000				
Nominal Input Voltage (V)	720				
MPPT Voltage Range (V)	200-950				
Start-up Voltage (V)	250				
Number of MPPTs	2	2	2	2	2
Max. Number of PV String per MPPT	1/1	1/1	1/1	1/2	1/2
Max. PV Input Current (A)	14/14	14/14	14/14	14/28	14/28
Short-circuit Current of PV Input (A)	17/17	17/17	17/17	17/34	17/34
AC Input and Output (On-grid)					
Nominal Output Apparent Power (VA)	5000	6000	8000	10000	12000
Max. Output Apparent Power (VA)	5500	6600	8800	11000	12000
Max. Input Apparent Power (VA)	10000	12000	16000	16000	16000
Nominal AC Voltage (V)	400/380, 3L/N/PE				
Nominal Grid Frequency (Hz)	50/60				
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	leading 0.8 ... lagging 0.8				
Total Harmonic Distortion (@ nominal output)	<3%				
AC Output (Off-grid)					
Max. Output Apparent Power (VA)	5000	6000	8000	10000	12000
Peak Output Apparent Power (VA)	10000, 10s	12000, 10s	16000, 10s	16000, 10s	16000, 10s
Nominal AC Voltage (V)	400/380, 3L/N/PE				
Nominal AC Frequency (Hz)	50/60				
Max. Output Current (A)	8.3	10.0	13.3	16.7	17.4
Total Harmonic Distortion (@ linear load)	<3%				

Technical Specifications

Model	HYT-5000HV	HYT-6000HV	HYT-8000HV	HYT-10000HV	HYT-12000HV
Efficiency					
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%
Euro Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%
Max. Battery to Load Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
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 Over-voltage and Under-voltage Protection	Integrated				
Surge Protection	DC Type II / AC Type III				
General					
Dimension (W × H × D) [mm]	502 × 486 × 202				
Weight (kg)	26				
Mounting	Wall Mounting				
Operation Temperature (°C)	-25 to + 65 (>45, derating)				
Relative Humidity	0-95%, no condensing				
Altitude (m)	≤4000				
Cooling	Natural convection				
Protection Degree	IP65				
Noise (dB [A])	<40				
User Interface	LED & APP				
Communication with BMS	RS485, CAN				
Communication with Meter	RS485				
Communication Interface	RS485, Wi-Fi/WLAN/GPRS (optional)				
Digital Input/output	DRM, 1 × DI, 2 × DO				
Isolation Method (Solar/Battery)	Transformerless / Transformerless				
Certifications and Standards					
Grid Regulation	EN 50549, VDE-AR-N 4105, AS/NZS 4777.2				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	EN 61000-6-1, EN 61000-6-3				