



Three-phase Hybrid Inverter Datasheet

HYT-5.0HV-EUG1
HYT-6.0HV-EUG1
HYT-8.0HV-EUG1
HYT-10.0HV-EUG1
HYT-12.0HV-EUG1

Description

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

The intelligent EMS function supports self-consumption mode, economic 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 set to earth fault alarm, load control or generator control

08

Max. 10 parallel inverters

Technical Specifications

Model	HYT-5.0HV-EUG1	HYT-6.0HV-EUG1	HYT-8.0HV-EUG1	HYT-10.0HV-EUG1	HYT-12.0HV-EUG1
Battery					
Battery Type	Li-ion				
Nominal 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	0.8 leading ... 0.8 lagging				
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%				
Efficiency					
Max. Efficiency	98.0%	98.0%	98.0%	98.0%	98.0%
Euro Efficiency	97.0%	97.1%	97.2%	97.4%	97.5%
Max. Battery to Load Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%
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 Overvoltage and Undervoltage Protection	Integrated				
Surge Protection	DC Type II / AC Type III				
General					
Dimension (W × H × D [mm])	502 × 486 × 202				
Weight (kg)	26.5				
Mounting	Wall Mounting				
Operation Temperature (°C)	-25 to + 65 (>45, derating)				
Relative Humidity	0-95%, no condensing				
Altitude (m)	≤2000				
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/Ethernet/4G (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, VFR: 2019, TOR Erzeuger Type A, RD647, NTS (SENP), CEI 0-21 2019:04				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	EN 61000-6-1, EN 61000-6-3				