



# 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 5.0 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

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

Model	HYT-5.0HV-EUG1	HYT-6.0HV-EUG1	HYT-8.0HV-EUG1	HYT-10.0HV-EUG1	HYT-12.0HV-EUG1
<b>Battery</b>					
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				
<b>PV Input</b>					
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
<b>AC Input and Output (On-grid)</b>					
Rated output power (W)	5000	6000	8000	10000	12000
Max. output apparent power (VA)	5500	6600	8800	11000	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				
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%				
<b>AC Output (Off-grid)</b>					
Rated output power (W)	5000	6000	8000	10000	12000
Max. output apparent power (VA)	10000, 10s	12000, 10s	16000, 10s	16000, 10s	16000, 10s
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%				
<b>Efficiency</b>					
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%
<b>Protection</b>					
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				
<b>General</b>					
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				
Noise (dB)	<40				
User interface	LED, App				
Digital input/output	DRM, 1 × DI, 2 × DO				
Communication	RS485, optional: Wi-Fi/Ethernet/4G <sup>(1)</sup>				
<b>Certifications and Standards</b>					
Grid connection standard	EN 50549, VDE-AR-N 4105, VFR: 2019, TOR Erzeuger Type A, RD647, NTS (SENP), CEI 0-21 2019:04				
Safety/EMC standard	IEC 62109-1/-2, EN 61000-6-1/-3				

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