



Single-phase Hybrid Inverter Datasheet

- HYS-3.0LV-EUG1**
- HYS-3.6LV-EUG1**
- HYS-4.6LV-EUG1**
- HYS-5.0LV-EUG1**
- HYS-6.0LV-EUG1**

Description

The HYS-LV Series is a high-performance single-phase hybrid inverter with excellent reliability, including power classes ranging from 3.0 kW to 6.0 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 system's performance over time, maximizing the total solar power production and battery utilization.

Features

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

Model	HYS-3.0LV-EUG1	HYS-3.6LV-EUG1	HYS-4.6LV-EUG1	HYS-5.0LV-EUG1	HYS-6.0LV-EUG1
Battery					
Battery type	Li-ion/Lead-acid				
Battery voltage range (V)	40-60				
Max. charge/discharge current (A)	75/75	90/90	100/100	100/100	100/100
Max. charge/discharge power (W)	3000/3000	3600/3600	4600/4600	5000/5000	5000/5000
Charging strategy for Li-ion battery	Self-adaption to BMS				
Charging curve	3 Stages/Equalization				
External temperature sensor	Optional				
Communication	CAN				
PV Input					
Recommended max. PV power (W)	4500	6000	7500	7500	7500
Max. input voltage (V)	550				
Rated voltage (V)	360				
Start-up voltage (V)	150				
MPPT voltage range (V)	125-500				
Max. input current (A)	14				
Max. short circuit current (A)	14	14/14	14/14	14/14	14/14
MPPT number/Max. input strings number	17	17/17	17/17	17/17	17/17
AC Input and Output (On-grid)					
Rated output power (W)	3000				
Max. output apparent power (VA)	3000	3680	4600	5000(1)	6000(1)
Max. input power (W)	3000	3680	4600(2)	5000(1) (2)	6000(1) (2)
Grid form	6000	7360	7360	7360	7360
Rated AC output voltage/Range (V)	L/N/PE				
Rated grid frequency (Hz)	230, 161-276				
Max. output current (A)	50/60				
Max. input current (A)	13.0	16.0	20.0	21.7	26.0
Power factor	26.1	32.0	32.0	32.0	32.0
THDi (@rated output)	>0.99 (0.8 leading ... 0.8 lagging)				
AC Output (Off-grid)					
Rated output power (W)	3000				
Max. output apparent power (VA)(3)	3000	3680	4600	5000	6000
Back-up switch time (ms)	6000, 10s	7360, 10s	9200, 10s	10000, 10s	10000, 10s
Grid form	<10				
Rated output voltage (V)	L/N/PE				
Rated output frequency (Hz)	230				
Max. continuous output current (A)	50/60				
THDv (@linear load)	13.0	16.0	20.0	21.7	26.0
Efficiency					
MPPT efficiency	<3%				
Max. efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
EU efficiency	97.6%	97.6%	97.6%	97.6%	97.6%
Max. battery discharge to AC efficiency	97.0%	97.0%	97.0%	97.0%	97.0%
Protection					
Anti-islanding protection	95.0%	95.0%	95.0%	95.0%	95.0%
PV string input reverse polarity protection					
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	Integrated				
General					
Dimensions (W × H × D [mm])	DC Type II/AC Type III				
Weight (kg)	502 × 461 × 202				
Mounting	24				
Operating temperature (°C)	Wall mounting				
Relative humidity	-25 to +65 (>45, derating)				
Cooling	0-95%, no condensing				
Topology (Solar/Battery)	Natural convection				
Altitude (m)	Transformerless/High-frequency isolation				
Protection degree	≤2000				
Noise (dB)	IP65				
User interface	<40				
Digital input/output	LED, App				
Communication	DRM, 1 × DI, 2 × DO				
Certifications and Standards					
Grid connection standard	RS485, optional: Wi-Fi/Ethernet/4G(4)				
Safety/EMC standard					
	EN 50549, VDE-AR-N 4105, AS/NZS 4777.2, VFR: 2019, TOR Erzeuger Type A, RD647, NTS (SENP), CEI 0-21 2019:04, C10-11 Type A				
	IEC 62109-1/-2, EN 61000-6-1/-3				

(1) 4600 for VDE-AR-N 4105 & VDE0126-1-1

(2) Max. output apparent power 3680 VA for TOR Erzeuger Type A

(3) Can be achieved only if PV and battery power are sufficient.

(4) The DTS-4G solution will be coming soon.



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