



# Single-phase Hybrid Inverter Datasheet

- HYS-8.0LV-EUG2**
- HYS-10.0LV-EUG2**
- HYS-12.0LV-EUG2**

## Description

The HYS-LV-EUG2 Series is a new generation single-phase hybrid inverter with excellent reliability, including power classes ranging from 8.0 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 Hoymiles 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><b>01</b> Intelligent export limitation</p>   | <p><b>05</b> DC/AC ratio up to 130%</p>  |
| <p><b>02</b> Double MPPT tracker, up to 32 A MPPT current</p>                          | <p><b>06</b> Ultralight for easy installation and space-saving</p>   |
| <p><b>03</b> Compatible with multiple batteries, providing users with more choices</p> | <p><b>07</b> Built-in dry contact flexibly set to earth fault alarm, load control or generator control</p> |
| <p><b>04</b> Seamless backup power for whole home or critical loads</p>                | <p><b>08</b> Remote monitoring through S-Miles Cloud</p>   |

# Technical Specifications

Model	HYS-8.0LV-EUG2	HYS-10.0LV-EUG2	HYS-12.0LV-EUG2
<b>Battery</b>			
Battery type	Li-ion/Lead-acid <sup>(1)</sup>		
Battery voltage range (V)	40-60		
Max. charge/discharge current (A)	160/160	200/200	240/240
Max. charge/discharge power (W)	8000/8000	10000/10000	12000/12000
Charging strategy for Li-ion battery	Self-adaption to BMS		
Charging curve	3 Stages/Equalization		
External temperature sensor	Optional		
Communication	CAN		
<b>PV Input</b>			
Recommended max. PV power (W)	10400	13000	15600
Max. input voltage (V)	550		
Rated voltage (V)	360		
Start-up voltage (V)	150		
MPPT voltage range (V)	125-500		
Max. input current (A)	32/32	32/32	32/32
Max. short circuit current (A)	40/40	40/40	40/40
MPPT number/Max. input strings number	2/4	2/4	2/4
<b>AC Input and Output (On-grid)</b>			
Rated output power (W)	8000	10000	12000
Max. output apparent power (VA)	8800	11000	13200
Max. input power (W)	23000	23000	23000
Grid form	L/N/PE		
Rated AC output voltage/Range (V)	220/230, 154-276		
Rated grid frequency (Hz)	50/60		
Max. output current (A)	38.3	47.8	57.4
Max. input current (A)	100	100	100
Power factor	>0.99 (0.8 leading ... 0.8 lagging)		
THDi (@rated output)	<3%		
<b>AC Output (Off-grid)</b>			
Rated output power (W)	8000	10000	12000
Max. output apparent power (VA)	16000, 10s	20000, 10s	23000, 10s
Back-up switch time (ms)	<10 <sup>(2)</sup>		
Grid form	L/N/PE		
Rated output voltage (V)	220/230		
Rated output frequency (Hz)	50/60		
Max. continuous output current (A)	34.8	43.5	52.2
THDv (@linear load)	<3%		
<b>Efficiency</b>			
MPPT efficiency	99.9%	99.9%	99.9%
Max. efficiency	97.6%	97.6%	97.6%
EU efficiency	97.0%	97.0%	97.0%
Max. battery discharge to AC efficiency	95.0%	95.0%	95.0%
<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 × 740 × 202		
Weight (kg)	41		
Mounting	Wall mounting		
Operating temperature (°C)	-25 to +65 (>45, derating)		
Relative humidity	0-95%, no condensing		
Cooling	Smart cooling		
Topology (Solar/Battery)	Transformerless/High-frequency isolation		
Altitude (m)	≤2000		
Protection degree	IP65		
Noise (dB)	<40		
User interface	LED & APP		
Digital input/output	1 × DI, 2 × DO		
Max. parallel	10 <sup>(3)</sup>		
Communication	RS485, optional: Wi-Fi/WLAN		
<b>Certifications and Standards</b>			
Grid connection standard	EN 50549, NRS 097-2-1		
Safety/EMC standard	IEC 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4		

(1) Lead-acid batteries will be supported soon.

(2) This will be supported soon.

(3) On-grid and off-grid parallel solutions will be coming soon.