



# Single-phase Hybrid Inverter

- 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, economy 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

- |           |   |           |  |
|-----------|---|-----------|--|
| <b>01</b> | Intelligent export limitation   | <b>05</b> | DC/AC ratio up to 130%   |
| <b>02</b> | Double MPPT tracker, up to 32 A MPPT current                          | <b>06</b> | Ultralight for easy installation and space-saving  |
| <b>03</b> | Compatible with multiple batteries, providing users with more choices | <b>07</b> | Built-in dry contact flexibly set to earth fault alarm, load control, or generator control |
| <b>04</b> | Seamless backup power for whole home or critical loads                | <b>08</b> | Remote monitoring through S-Miles Cloud  |

# Technical Specifications

Model	HYS-8.0LV-EUG2	HYS-10.0LV-EUG2	HYS-12.0LV-EUG2
<b>Battery</b>			
Battery type		Li-ion/Lead-acid	
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	
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	
Communication		RS485, Wi-Fi/Ethernet/4G (optional) <sup>(1)</sup>	
<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) The DTS-4G solution will be coming soon.