VIỆT NAM SOLAR
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# 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, 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

| | |
|---|---|
| 01 | Intelligent export limitation |
| 02 | Double MPPT tracker, up to 32 A MPPT current |
| 03 | Compatible with multiple batteries, providing users with more choices |
| 04 | Seamless backup power for whole home or critical loads |
| 05 | DC/AC ratio up to 130% |
| 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 | Remote monitoring through S-Miles Cloud |


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# Technical Specifications

| Model | HYS-8.0LV-EUG2 | HYS-10.0LV-EUG2 | HYS-12.0LV-EUG2 |
|---|---|---|---|
| **Battery** | | | |
| Battery type | | Li-ion/Lead-acid(1) | |
| 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 | |
| **PV Input** | | | |
| 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 |
| **AC Input and Output (On-grid)** | | | |
| 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% | |
| **AC Output (Off-grid)** | | | |
| 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% | |
| **Efficiency** | | | |
| 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% |
| **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** | | | |
| Dimensions (W × H × D [mm]) | | 502 × 740 × 202 | |
| Weight (kg) | | 41 | |
| Mounting | | Wall mounting | |
| Operating temperature (℃) | | -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, optional: Wi-Fi/Ethernet/4G(2) | |
| **Certifications and Standards** | | | |
| 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) The DTS-Ethernet and DTS-4G solutions will be coming soon.

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