



# Split-phase Hybrid Inverter

**HYS-7.5LV-USG1**

## Description

The HYS-7.5LV-USG1 is a high-performance split-phase hybrid inverter with excellent reliability.

The intelligent EMS function supports self-consumption mode, economy mode, and backup mode for multi-scenario applications.

Monitoring management through S-Miles Cloud allows users to remotely diagnose and track individual system's performance over time, maximizing the total solar power production and battery utilization.

## Features

**01** MPPT efficiency 99.9%, EU efficiency 96.3%

**02** Double MPPT tracker, up to 32 A MPPT current

**03** DC/AC ratio up to 150%

**04** Ultralight for easy installation and space-saving

**05** Seamless backup power for whole home or critical loads

**06** Integrated arc fault protection and rapid shutdown function

# Technical Specifications

Model	HYS-7.5LV-USG1
<b>Battery</b>	
Battery type	Li-ion/Lead-acid
Battery voltage range (V)	40-60
Max. charge/discharge current (A)	200/160
Max. charge/discharge power (W)	9600/7500
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)	11520
Max. input voltage (V)	550
Rated voltage (V)	380
Start-up voltage (V)	150
MPPT voltage range (V)	125-500
Max. input current (A)	32/32
Max. short circuit current (A)	40/40
MPPT number/Max. input strings number	2/4
<b>AC Input and Output (On-grid)</b>	
Rated output power (W)	7500
Max. output apparent power (VA)	7500
Max. input power (W)	15000
Rated AC output voltage (V)	2L/N/PE, 127/220
Rated grid frequency (Hz)	60
Max. output current (A)	34.1
Max. input current (A)	68.2
Power factor	>0.99 (0.8 leading ... 0.8 lagging)
THDi (@rated output)	<3%
<b>AC Output (Off-grid)</b>	
Rated output power (W)	7500
Max. output apparent power (VA)	15000, 10s
Rated output voltage (V)	2L/N/PE, 127/220
Rated output frequency (Hz)	60
Max. continuous output current (A)	34.1
THDv (@linear load)	<3%
<b>Efficiency</b>	
MPPT efficiency	99.9%
EU efficiency	96.3%
Max. battery discharge to AC efficiency	95.0%
<b>Protection</b>	
Anti-islanding protection	Integrated
PV arc fault detection	Integrated
PV string input reverse polarity protection	Integrated
Compliant MLRSD products	Integrated
Insulation resistor detection	Integrated
Residual current monitoring unit	Integrated
AC overcurrent 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)	502 × 740 × 202 mm (19.8 × 29.1 × 7.95 in)
Weight	41 kg (90.4 lb)
Mounting	Wall mounting
Operating temperature	-25°C to +65°C (>45°C, derating)/-13°F to +149°F (>113°F, derating)
Relative humidity	0-95%, no condensing
Cooling	Natural convection
Topology (Solar/Battery)	Transformerless/High-frequency isolation
Altitude	≤2000 m (6562 ft)
Protection degree	Type 4X
Noise (dB)	<40
User interface	LED, App
Digital input/output	1 × DI, 2 × DO
Max. parallel	10
Communication	RS485, Wi-Fi/Ethernet/4G (optional)
Warranty	10 Years
<b>Certifications and Standards</b>	
Grid connection standard	Inmerto 140