



HIGH FREQUENCY SOLAR INVERTER

ES-HY12KW-48 Serie

PV500V | Dual output | WiFi | 6pcs parallel

Smart Load Management

Dual-output design for prioritized main and critical loads.

Scalable & Fully Protected

Supports up to 6 units in parallel with overload, short-circuit, and deep-discharge protection.

High-Efficiency PV Performance

Dual MPPT with a 90–450V range and PV input up to 500V.

Intuitive Monitoring & Control

Color LCD with USB/RS485/WiFi for full system visibility.

Advanced Lithium Integration

Supports BMS communication and AC/PV activation for safer, efficient battery operation.

ES-HY12KW-48

TECHNICAL DATA

Default Battery System Voltage	48VDC
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INVERTER OUTPUT

Rated Power	12000VA/ 12000W
Surge Power	24000W
Waveform	Pure sine wave
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)
Inverter Efficiency(Peak)	92%
Transfer Time	10ms(UPS / VDE4105) / 20ms(APL)

AC INPUT

Voltage	230VAC
Selectable Voltage Range	170–280VAC(UPS) / 90–280VAC(APL) / 184–253VAC(VDE)
Frequency Range	50Hz / 60Hz (Auto sensing)

BATTERY

Normal voltage	48VDC
Floating Charge Voltage	54.8VDC
Overcharge Protection	60VDC

SOLAR CHARGER & AC CHARGER

Maximum PV Array Open Circuit Voltage	500VDC (450V for parallel)
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)
Maximum PV Array Power	12000W
Maximum PV Input Current	27A*2 (40A max)
PV Array MPPT Voltage Range	90–450VDC (90–430VDC for parallel)
Maximum Solar Charge Current	150A
Maximum AC Charge Current	150A
Maximum Charge Current	150A

SOLAR CHARGER & AC CHARGER

Machine Dimension (W*H*D) (mm)	425*527*145
Package Dimension (W*H*D) (mm)	632*257*548
N.W (kg)	18.1
G.W (kg)	20.7

SOLAR CHARGER & AC CHARGER

Humidity	5% to 95% Relativ Humidity (Non-condensing)
Operating Temperature Range	-10°C~50°C
Storage Temperature Range	-15°C ~60°C
Warranty	2 year

SOLAR CHARGER & AC CHARGER

CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011)
CE-LVD (IEC62109-1:2010, EN IEC62109-2:2011)
EN IEC62368-1:2018, EN IEC62109-1:2010, EN IEC62109-2:2011