



HIGH FREQUENCY SOLAR INVERTER

ES-HY4KW-24 Series

PV500V | Dual output | WiFi

Smart Load Management

Dual-output design for prioritized main and critical loads.

Fully Protected for Reliable Operation

Built-in overload, short-circuit, and deep-discharge protection for safe, dependable performance.

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-HY4KW-24

TECHNICAL DATA

Default Battery System Voltage	24VDC
--------------------------------	-------

INVERTER OUTPUT

Rated Power	4000VA/ 4000W
Surge Power	8000W
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	24VDC
Floating Charge Voltage	27.4VDC
Overcharge Protection	30VDC

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	5000W
Maximum PV Input Current	18A
PV Array MPPT Voltage Range	90–430VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	80A
Maximum Charge Current	100A

SOLAR CHARGER & AC CHARGER

Machine Dimension (W*H*D) (mm)	322*486*134
Package Dimension (W*H*D) (mm)	575*229*425
N.W (kg)	9.5
G.W (kg)	12

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