



ECOSHIELD
TO A BETTER FUTURE

ES-HY 16KW

Single Phase | 3 MPPTs Hybrid Inverter (LV)

ES-HY 16KW is a powerful 16kW low-voltage hybrid inverter for homes and microgrids, featuring 275A battery current for large lithium systems and peak loads, 3 MPPTs, and 150% PV oversizing. It supports AC coupling, generators or smart load control, and parallel operation (up to 6 units), with IP66 protection for tough conditions.



Max. 275A Charge/Discharge
for High-Rate Battery Support



3 Mppts With 150% PV
Oversizing for Higher Yield



Wide MPPT Range(120-480V)
for Complex Rooftop Design



Supports Generator & Smart
load, Parallel Up to 6 Units



<10ms UPS-Level Switching
for Critical Load Continuity



AC Coupling Ready for Easy
Retrofit and System Upgrade



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TCHNICAL SPECIFICATION	
Model	ES-HY 16KW
INVERTER INPUT/OUTPUT (GRID)	
Rated Power(kW)	16
Rated Voltage	220 / 230 / 240 V a.c., L+N+PE
Rated Frequency (Hz)	50 / 60
Rated Factor Range	0.8 Leading ~ 0.8 Lagging
Switch Time(ms)	< 10
Current (Maximum Continuous) (A a.c.)	69.6
Max Output Overcurrent Protection	100
BATTERY	
Battery Type	Lithium / Lead-acid
Battery Voltage Range (V d.c.)	40 ~ 60
Rated Battery Voltage (V d.c.)	51.2
Max Charge Current (A d.c.)	275
Max Discharge Current (A d.c.)	275
Reverse Connect Protection	Yes
PV INPUT	
No.of MPPT Tracker / Strings	3 / 2+2+2
Max. PV Array Power	22.5
Max. DC Voltage (V d.c.)	550
MPPT Voltage Range (V d.c.)	120~480
Start-Up Voltage (V d.c.)	120
Max. Input Current (A d.c.)	3*26
Isc PV (Absolute Maximum) (A d.c.)	3*29
AC OUTPUT (EPS)	
EPS Rated Output Voltage	220 / 230 / 240 V a.c., L+N+PE
EPS Rated Output Frequency (Hz)	50 / 60
EPS Rated Output Active Power (kW)	16
EPS Rated Output Apparent Power (kVA)	16
EPS Rated Output Current (A a.c.)	69.6
Overload Capacity (Off Grid)	200% (,10s) / 150% (<60s)
EFFICIENCY	
MPPT Efficiency	99.90%
Euro-efficiency	96.50%
Max. Efficiency	97.30%
PROTECTION & FEATURE	
Insulation Monitoring	Yes
Residual Current Monitoring	Yes
Parallel Function	Yes
Protection Degree	IP66
Certifications	IEC 62109-1/2,IEC 62477-1,IEC 61000-6-1,IEC 61000-6-3 EN 50549-1&-10,NRS 097-2-1, ABNT NBR 16149,IEC 61727,IEC61683,IEC62116 etc.
Other Protection	Output Over Voltage, Output Over Current, Short Circuit, Surge, Temperature
GENERAL PARAMETER	
Storage Temperature	-25℃ ~ +60℃
Operating Temperature	-25℃ ~ +60℃ (Linely derating to 60% when exceed +45℃ ~ +60℃
Humidity	0-100% (Non-condensing)
Altitude (m)	4000 (>2000 Derating)
Noise (dB)	<50
Machine Dimension (W*H*D) (mm)	600*466*252
Machine Weight / N.W. (kg)	40
DISPLAY & COMMUNICATION	
Display	LCD + APP
Interface	RS485 / WIFI / CAN / Bluetooth (Optional: LAN / Meter)

- The AC voltage and frequency range can differ according to the grid standards of each country.
- Please note that all specifications are subject to change without prior notice.