

Applicable to C&I Distributed Energy Storage Scenarios Product Models

3-8kW Single-phase photovoltaic storage and off grid hybrid inverter

Product Models

- ◆ KY-ESS3K0H
- ◆ KY-ESS5K0H
- ◆ KY-ESS7K0H
- ◆ KY-ESS4K2H
- ◆ KY-ESS6K0H
- ◆ KY-ESS8K0H



Compatibility



Integrate PV and energy storage to match a variety of batteries

Intelligent switching



Support emergency power supply, single machine and off-grid seamless switching

Fault recording, remote recovery



Real-time fault recording, remote analysis and recovery

Wide voltage range



Ultra-wide PV voltage range from **80V-500V**
Ultra-wide battery voltage range from **85V-450V**

Model	KY-ESS3K0H	KY-ESS4K2H	KY-ESS5K0H	KY-ESS6K0H	KY-ESS7K0H	KY-ESS8K0H
PV Input Data						
Max. Input Power(W)	4500	6300	7500	9000	10500	12000
Max. Input Voltage(V)	590					
Operating Voltage Range/Nominal Input Voltage(V)	80~500/360					
Max. Input Current(A)	16					
Max. Short Circuit Current(A)	20					
Number of MPPT Trackers	2					
Number of Strings per MPPT	1/1					
Battery Input Data						
Battery Voltage Range(V)	85-450					
Input Number	1					
Max.Charge/Discharge Current(A)	25/30					
Max.Charge/Discharge Power(W)	3000/3000	4200/4200	5000/5000	6000/6000	7000/7000	8000/8000
Battery Type	Li-ion/Lead-acid					
AC Output Data(GRID)						
Nominal Output Power(W)	3000	4200	5000	6000	7000	8000
Max. Apparent Power (VA)	3300	4600	5500	6600	7700	8800
Max Input Power(W)	3300	4600	5500	6600	7700	8800
Nominal Output Voltage(Vac)	230,L/N/PE					
Nominal Output Frequency(Hz)	50/60					
Max. Output Current(A)	13	18.3	21.7	26	30.4	34.8
Grid Bypass Current(A)	13	18.3	21.7	26	30.4	34.8
Power Factor			~1 (0.8 lead to 0.8 lag can be set)			
Total Harmonic Distortion(%)	<3					
AC Output Data(EPS)						
Nominal Output Power(W)	3000	4200	5000	6000	7000	8000
Max. Apparent Power (VA)	3300	4600	5500	6600	7700	8800
Nominal Output Voltage(Vac)	230,L/N/PE					
Nominal Output Frequency(Hz)	50/60					
Max. Output Current(A)	14.3	20	23.9	28.6	33.4	38.2
Peak Output Apparent Power(VA)(60s)	3600	5040	6000	7200	8400	8400
Peak Output Apparent Power(VA)(10s)	5500	5500	7500	9000	9000	9000
On/off Grid switching time (ms)	<10					
Efficiency						
Max. Efficiency(%)	98.2					
European Efficiency(%)	97.1					
Protection						
PV Reverse Polarity Protection	Integrated					
Overcurrent Protection	Integrated					
Anti-islanding Protection	Integrated					
Short Circuit Protection	Integrated					
Leakage Current Protection	Integrated					
Insulation Protection	Integrated					
Surge Protection	DC Type II /AC Type III					
General Data						
Operating Temperature Range (℃)	-25~60 (>45 derating)					
Altitude(m)	<4000					
Noise Emission (dB)	<40					
Topology	Transformerless isolation					
Cooling Method	Natural convection					
Ingress Protection Rating	IP65					
Relative Humidity(%)	0-95,No condensation					
DC Connector	MC/Amphenol/Phoenix					
AC Connector	Plug in connector					
Interaction	LCD,RS485					
Cloud Communication	RS485(WIFI/4G optional)					
BMS Communication	CAN					
Meter Communication	RS485					
Installation	Wall-mounted					
Dimension(W*H*D)(mm)	390*407*192					
Weight(kg)	17					
Certification						
Safety Standards	IEC62109-1/2					
EMC Standards	IEC61000-6-1, EN /61000-6-3					
On-grid Standard	CEI 0-21,G98,G99,NRS097-2-1:2017 ,UNE 217001/UNE 217002/NTS631					