Three-Phase Solar-Storage Hybrid Inverter

KOYOE

Applicable to Household Energy Storage Scenarios

5-25kW Three-phase/Hybrid Inverter

Product Models

- KY-EST05KH
- KY-EST06KH
- KY-EST08KH
- KY-EST10KH
- KY-EST12KH
- KY-EST15KH
- KY-EST17KH
- KY-EST20KH
- KY-EST25KH



Three-phase Five-wire Four-bridge

Support **100%** three-phase imbalance

Overload capacity

1.1 times for long-term operation; **1.2** times/**60S**, **1.5** times/**10S**

Fault recording remote recovery

Real-time fault recording, remote analysis and recovery

Fast grid forming seamless switching

Self forming frequency phase within **20ms**
Single machine on-grid and off-grid switching within **10ms**

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*Specifications are subject to the actual nameplate of the product

Model	KY-EST05KH	KY-EST06KH	KY-EST08KH	KY-EST10KH	KY-EST12KH	KY-EST15KH	KY-EST17KH	KY-EST20KH	KY-EST25KH
PV Input Data									
Max. Input Power[W]	8500	10200	13600	17000	20400	25500	28900	34000	42500
Max. Input Voltage[V]	1000								
Operating Voltage Range[V]	180~900								
Max. Input Current[A]	18/18					36/36			
Max. Short Circuit Current[A]	21/21					42/42			
Number of MPPT Trackers	2					2			
Number of Strings per MPPT	1/1					2/2			
MPPT Tracking Efficiency [%]	99.99								
Battery Data									
Battery Voltage Range[V]	200~700								
Input Number	2								
Max.Charge/Discharge Current[A]	25/25								
Max.Charge/Discharge Power[W]	5000	6000	8000	10000	12000	15000	17000	20000	25000
Battery Type	Li-ion/Lead-acid								
AC Data(On-grid Interface)									
Nominal Output Power[W]	5000	6000	8000	10000	12000	15000	17000	20000	25000
Max. Apparent Output Power[VA]	5500	6600	8800	11000	13200	16500	18700	22000	27500
Max Input Power[W]	10000	12000	16000	18000	18000		30000		
Nominal Vollage[Vac]	380/400V,3L/N/PE								
Nominal Frequency[Hz]	50/60								
Max. Output Current[A]	8	9.5	12.7	16	19	24	27	32	40
Max. Three-phase Unbalanced Output Current[A]	11	13	17.5	22	26	33	37	43	43
Grid Bypass Current[A]	35					50			
Power Factor	~1(0.8 lead to 0.8 lag can be set)								
Total Harmonic Distortion[%]	<3								
AC Data(Off-grid Interface)									
Nominal Output Power[W]	5000	6000	8000	10000	12000	15000	17000	20000	25000
Max. Apparent Output Power [VA]	5500	6600	8800	11000	13200	16500	18700	22000	27500
Nominal Output Voltage[Vac]	380/400V,3L/N/PE								
Nominal Output Frequency[Hz]	50/60								
Max. Output Three-phase Apparent Power[VA]	11	13	17.5	22	26	33	37	43	43
Max. Output Single-phase Apparent Power[A]	2500	3000	4000	5000	6000	7500	8500	10000	10000
Peak Output Apparent Power[VA](60s)	6000	7200	9600	12000	14400	18000	20400	24000	29000
Peak Output Apparent Power[VA](10s)	7500	9000	12000	15000	18000	22500	25500	30000	30000
On/Off grid switching time [ms]	<10								
AC Data(Diesel Gen.)									
Nominal Voltage[Vac]	380/400V,3L/N/PE								
Nominal Frequency[Hz]	50/60								
Nominal Input Apparent Power[VA]	10000	12000	16000	18000	18000		30000		
Efficiency									
Max. Efficiency[%]	98.2								
European Efficiency[%]	97.1								
Protective Devices									
DC Reverse Polarity Protection	integrated								
Over Current Protection	integrated								
Anti islanding protection	integrated								
AC short circuit protection	integrated								
Leakage current protection	integrated								
Insulation resistance testing	integrated								
Surge protection	DC Type II / AC Type III								
General Data									
Operating Temperature Range[℃]	-25~60 (>45 derating)								
Operating Altitude[m]	<4000								
Maximum noise index [dB]	50								
Topology	Transtormerless isolation								
Cooling Method	Forced air cooling								
Degree of Protection	IP65								
Relative Humidity[%]	0~95, No condensation								
DC Connection Type	Amphenol/Phoenix								
AC Connection Type	Plug in connector								
Interaction	LCD,RS485								
Cloud Communication	RS485(WIFI/4G optional)								
BMS Communication	CAN								
Meter Communication	RS485								
Installation Method	Wall-mounted								
Dimension(W*D*H)[mm]	505*572*235								
Weight[kg]	35					40			
Certification									
Safety Standards	EN 62109-1/-2								
EMC Standards	IEC/EN 61000-6-1/-3								
On-grid Standard	AS4777.2:2020,NRS097-2-1:2017,EN 50549-1 for Czech,VDE-AR-N 4105:2018,EN50549-1:2019+AC:2,G98 G99,OVE-R25,EN50549-1:2019 for Poland A&B								

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