




Kingston Smart Hybrid Inverter

KY Series 3.6-6KW



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 190** Max. charging/discharging current of 190A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data




Model	KY Series 3.6KW	KY Series 5KW	KY Series 6KW
Battery Input Data			
Battery Type	Lead-acid or Li-Ion		
Battery Voltage Range (V)	40~60		
Max. Charging Current (A)	90	120	135
Max. Discharging Current (A)	90	120	135
External Temperature Sensor	Yes		
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	4680	6500	7800
Rated PV Input Voltage (V)	370 (125~500)		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150-425		
Full Load DC Voltage Range (V)	300-425		
PV Input Current (A)	13+13		
Max. PV ISC (A)	17+17		
Number of MPPT / Strings per MPPT	2/1+1		
AC Output Data			
Rated AC Output and UPS Power (W)	3600	5000	6000
Max. AC Output Power (W)	3690	5500	6600
AC Output Rated Current (A)	16.4	22.7	27.3
Max. AC Current (A)	18	25	30
Max. Continuous AC Passthrough (A)	35		
Peak Power (off grid)	2 time of rated power, 10 S		
Power Factor	0.8 leading to 0.8 lagging		
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)		
Grid Type	Single Phase		
DC injection current (mA)	THD<3% (Linear load<1.5%)		
Efficiency			
Max. Efficiency	97.60%		
Euro Efficiency	97.00%		
MPPT Efficiency	99.90%		
Protection			
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection		
Output Over Voltage Protection	DC Type II/AC Type III		
Certifications and Standards			
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11		
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
General Data			
Operating Temperature Range (°C)	-45~60°C, >45°C derating		
Cooling	Natural cooling		
Noise (dB)	<30 dB		
Communication with BMS	RS485; CAN		
Weight (kg)	20.5		
Size (mm)	330W x 580H x 233D		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 years		



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- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	KY Series 8KW
Battery Input Data	
Battery Type	Lead-acid or Li-Ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	190
Max. Discharging Current (A)	190
External Temperature Sensor	Yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV String Input Data	
Max. DC Input Power (W)	10400
Rated PV Input Voltage (V)	370 (125~500)
Start-up Voltage (V)	125
MPPT Voltage Range (V)	150-425
Full Load DC Voltage Range (V)	200-425
PV Input Current (A)	26+26
Max. PV ISC (A)	34+34
Number of MPPT / Strings per MPPT	2/2+2
AC Output Data	
Rated AC Output and UPS Power (W)	8000
Max. AC Output Power (W)	8800
AC Output Rated Current (A)	36.4
Max. AC Current (A)	40
Max. Continuous AC Passthrough (A)	50
Peak Power (off grid)	2 time of rated power, 10 S
Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50 / 60Hz; L1/L2/N(PE) 120/240Vac (split phase), 208Vac (2/3 phase), L/N/PE 220/230Vac (single phase)
Grid Type	Split phase; 2/3 phase; Single Phase
DC injection current (mA)	THD<3% (Linear load<1.5%)
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	99.90%
Protection	
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection
Output Over Voltage Protection	DC Type II/AC Type III
Certifications and Standards	
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range (°C)	-45~60°C, >45°C derating
Cooling	Smart cooling
Noise (dB)	<30 dB
Communication with BMS	RS485; CAN
Weight (kg)	32
Size (mm)	420W×670H×233D
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years

