

EK60 H3 3-12K Three Phase Hybrid Inverter

EK60 H3, SAJ's latest hybrid inverter for the EU market, is an ultralight energy solution that supports 18A PV input with 200% oversizing and 240A fast charging for peak performance. Featuring 63A whole-house backup capability and 10-unit parallel scalability, it seamlessly integrates intelligent energy management for heat pumps and solar systems. The result is a powerful, space-saving solution that delivers reliable energy for both on-grid and off-grid applications.



- ❑ 100% unbalanced output,max.output of each phase up to 50% rated power
- ❑ Support whole-home backup function with up to 63A bypass
- ❑ Max. 10 pcs in parallel for on-grid and off-grid operation, Support multiple batteries parallel
- ❑ Max. 240A fast charge/discharge current
- ❑ AC coupling to retrofit existing solar system
- ❑ Plug-and-play EU-socket backup for future
- ❑ Integrated intelligent energy management with heat pump,solar system
- ❑ Ultralight for easy installation and space-saving

EK60 H3-3K-LT2 | EK60 H3-4K-LT2

EK60 H3-5K-LT2 | EK60 H3-6K-LT2

EK60 H3-8K-LT2 | EK60 H3-10K-LT2 | EK60 H3-12K-LT2

Model Name	EK60 H3-3K-LT2	EK60 H3-4K-LT2	EK60 H3-5K-LT2	EK60 H3-6K-LT2	EK60 H3-8K-LT2	EK60 H3-10K-LT2	EK60 H3-12K-LT2
DC Input							
Max. PV Array Power [Wp]@ STC	6000	8000	10000	12000	16000	20000	24000
Max. PV Input Power [W]	4800	6400	8000	9600	12800	16000	19200
Max. PV Input Voltage [V]				1000			
MPPT Voltage Range [V]				160-950			
Start-up DC Input Voltage [V]				180			
Rated DC Input Voltage [V]				720			
Max. DC Input Current [A]			18/18				36/18
Max. DC Short Circuit Current [A]			23/23				46/23
No. of MPP Trackers/Strings per MPPT			2(1/1)				2(2/1)
Battery Parameters							
Battery Type				LiFePO4			
Battery Voltage Range [V]				40-60			
Max.Charging/Discharging Current [A]	75	100	125	140	195	210	240
Charging Strategy for Li-ion Battery				Self-adaption to BMS			
Number of Battery Input		1			2		
AC Input/Output [On-grid]							
Rated AC Input/Output Active Power [W]	3000	4000	5000	6000	8000	9999	12000
Max. AC Input/Output Apparent Power [VA]	3300	4400	5500	6600	8800	9999	13200
Rated AC Input/Output Current [A]	4.6/4.4	6.1/5.8	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current [A]	5/4.8	6.7/6.4	8.4/8.0	10.0/9.6	13.4/12.8	15.2/14.5	20/19.2
Rated AC Voltage/Range [V]				3L/N/PE 220/380, 230/400			
Rated Input/Output Frequency/Range [Hz]				50/45 ~ 55, 60/55 ~ 65			
Power Factor Adjustment Range				0.8 leading to 0.8 lagging			
Total Harmonic Distortion [THDi]				<3%			
Bypass Current [A]				63			
AC Output[Back-up]							
Max. AC Output Apparent Power [VA]	3000	4000	5000	6000	8000	10000	12000
Max. AC Output Current [A]	4.6/4.4	6.1/5.8	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4
Peak Power (Off Grid)				2 times of rated power, 10 s			
Rated AC Voltage/Range [V]				3L/N/PE 220/380, 230/400			
Rated Output Frequency/Range [Hz]				50/45 ~ 55, 60/55 ~ 65			
Switth Time [ms]				≤4			
Total Harmonic Distortion [THDv] (@ Linear Load)				<3%			
AC Output [Back-up EU Socket]							
Max.Output Power① ②[VA] @230V	1500	2000	2500	3000		3680	
Max. Output Current① [A]	6.6	8.7	10.9	13.1		16	
Efficiency							
Max. Efficiency				97.6%			
Euro Efficiency				97.0%			
Protection							
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection,AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level						
Surge Protection Level	Integrated SPD/TYPE II(DC), TYPE II(AC)(Optional)						
Interface							
PV Connection	MC4						
AC Connection/Battery Connection	OT terminal						
Display	LED+APP						
Communication	WLAN/Ethernet/4G(Optional)						
General Parameters							
Topology	Non-isolated						
Operating Temperature Range	- 40°C to +60°C (derating above +45°C)						
Cooling Method	Smart Air Cooling						
Ambient Humidity	0-95% Non-condensing						
Altitude	3000m						
Noise [dB]	<50						
Ingress Protection	IP66						
Dimensions [H*W*D] [mm]	600*450*282						
Weight [kg]	35						
Warranty [Year]	10						
Standard	EN 62109-1/2, EN 61000-6-2/4,IEC 62116, IEC 61727,PEA&MEA,NBR 16149, NBR 16150,PORTARIA N° 140						

①App configurable: 10A (max. 2300VA) / 16A (max. 3680VA) to match local installation limits.

②EU Socket supports single-phase loads only; max. power for ≤6K models is limited to 50% of inverter rated output.