

EK60 H3 5-12K 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 H3-5K-LT2 | EK60 H3-6K-LT2 | EK60 H3-8K-LT2
EK60 H3-10K-LT2 | EK60 H3-12K-LT2

Model Name	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	10000	12000	16000	20000	24000
Max. PV Input Power [W]	8000	9600	12800	16000	19200
Max. PV Input Voltage [V]	1000				
MPPT Voltage Range [V]	160-950				
Start-up DC Input Voltage [V]	150				
Rated DC Input Voltage [V]	720				
Max. DC Input Current [A]	18/18				36/18
Max. DC Short Circuit Current [A]	25/25				50/25
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]	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]	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power [VA]	5500	6600	8800	11000	13200
Rated AC Input/Output Current [A]	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]	8.4/8.0	10.0/9.6	13.4/12.8	16.7/16.0	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]	5000	6000	8000	10000	12000
Max. AC Output Current [A]	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]	<10				
Total Harmonic Distortion [THDv] (@ Linear Load)	<3%				
AC Output [Back-up EU Socket]					
Max.Output Power [VA]	2300/3680				
Max. Output Current [A] @230V	10/16				
Peak Output Apparent Power [VA]	2 Times,10s				
Output THDv (@ Linear Load)	<3%				
Efficiency					
Max. Efficiency	98.0%				
Euro Efficiency	97.5%				
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	4000m (>3000m Power Derating)				
Noise [dB]	<45				
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				