

EK70 HS5 Single Phase All-in-One Solution

Your Ultimate Smart Home Butler



Smart Home Energy Ecosystem

The eManager 5.0 and elekeeper 5.0 connect PV, storage, EV charger, smart plug, heat pump, and more for fully automated whole-home energy management.



Easy, Fast, and Smart Installation

- Modular design with blind-mate connectors, no complex external cabling.
- Innovative Wireless-pro meter, providing longer range, more stable connectivity, and wiring-free installation.
- Effortless App commissioning features 3-step initialization and One Click Self-diagnosis (Meter & CT Phase Auto Adjustment)
- No backup retrofit required: 63A bypass.



Total Peace of Mind with Multi-layer Protection

- | | |
|----------------------------------|----------------------------|
| • Battery Protection | • System Protection |
| Full-coverage temperature sensor | DC ground-fault protection |
| Thermal aerosol fire suppression | Grid fault protection |
| Decompression valve | DC Bus protection |



Future-Ready Scaling with Ultimate Battery Performance

- Built-in DCDC optimizer
Fully independent charge & discharge
Eliminates wooden barrel effect
Seamless capacity expansion
- Built to Last: 10,000 cycles*** with premium 314Ah cell



AI-powered Energy Higher returns for every kWh

• elekeeper 5.0

AI Keeper – Intelligent energy manager
AI Care – AI-powered system health guardian
AI Designer – Intelligent plant design platform
VPP ready – empower a connected energy ecosystem

• AI Saving 3.0

AI + Multi-scenario (Peak Shaving, EV Charging, VPP, Temporary Scheduling...)



*** Provided by the battery manufacturer. Test conditions: 25±2°C, 0.5C charge and discharge rate, SOH 60%.

MODEL	EK70 HS5-5K-S3-X*	EK70 HS5-8K-S3-X*	EK70 HS5-10K-S4-X*
Input (PV)			
Recommended max. PV power [W]	10000	16000	20000
Max. input voltage [V]		600	
MPPT voltage range [V]		50~550	
Operating Voltage Range [V]		50~600	
Start-up voltage [V]		80	
Nominal DC input voltage [V]		360	
Max. input current per MPPT [A]		20	
Max. short-circuit current per MPPT [A]		25	
Number of MPP trackers	3		4
No. of Strings per MPP Tracker	1+1+1+1		1+1+1+1
Input (DC Battery)			
Battery Type		LiFePO4	
Battery Voltage Range [V]		350~600	
Communication Interface for BAT		CAN	
Max. Battery Quantity in one system		6	
AC Output/Input (On Grid)			
Rated output power [W]	4999	8000	9999
Rated apperant power [VA]	4999	8000	9999
Max. apparent power [VA]	4999	8800	9999
Rated. output current [A]	21.7	34.8	43.5
Max. output current [A]	21.7	38.3	43.5
Rated output/input voltage [V]		L+N+PE, 220, 230, 240	
Rated AC grid frequency [Hz]		50/60	
Max. Input Current** [A]		63	
Adjustable power factor		0.8 leading-0.8 lagging	
Total current harmonic distortion		< 3%	
AC Output (Back-up)			
Max. Output Apparent Power [VA]	5000	8000	10000
Max. output current [A]	21.7	34.8	43.5
Peak Output Apparent Power [VA]	10000,10s	16000,10s	20000,10s
Rated output voltage [V]		L+N+PE, 220, 230, 240	
Rated AC grid frequency [Hz]		50/60	
Adjustable power factor		0.8 leading-0.8 lagging	
Total current harmonic distortion		< 3%	
Switch time [ms]		≤ 10	
Efficiency			
Euro Efficiency		97.6%	
Max. Efficiency		98.0%	
Protection			
Insulation Monitoring		Integrated	
Residual Current Monitoring		Integrated	
DC Reverse Polarity Protection		Integrated	
Anti-islanding Protection		AFD	
AC Short-circuit Protection		Integrated	
AC Overcurrent/Overvoltage Protection		Integrated	
DC Switch		Integrated	
surge protection		Type II DC/AC	
AFCI		Integrated	
General Data			
Inverter topology		Non-isolation	
Protective class		I	
Overvoltage category		DC II, AC III	
Dimensions (W / H / D) [mm]		Inverter: 835 / 350 / 270 Battery pack: 835 / 270 / 270 Battery base: 835 / 70 - 80 / 270	
Weight [kg]		Inverter: 39.5 Battery pack:EK70 BU5-6.0-TV: 60.4 EK70 BU5-7.0-TV: 71.7 EK70 BU5-9.0-TV: 79.2 Battery base: 8	
Operating temperature range [°C]		Charging temperature: 0°C to +50°C Discharging temperature: -10 °C to + 50 °C	
Relative humidity range		5% ~ 95% Non-condensing	
Corrosion resistance grade		C4	
Max. operating altitude [m]		3000	
Cooling		Smart air cooling	
Degree of protection		IP66	
Communication		WLAN / Fast Ethernet / RS485 / eSolar 4G pro /eSolar AIO3 pro	
Standard		IEC62109-1/2, IEC62040, IEC62477,EN61000-6-1/2/3/4, IEC62619,AS4777.2, SA TS 5398	
Warranty [Year]		Refer to the warranty policy	

* X for battery system configuration: X=14/16/18/21/25/27/28/35/36/42/45/50/54 kWh; each number presents the energy storage capacity for different models;

For battery combinations and ratings refer to the battery combination datasheet.

** The built-in 63A bypass function enables the whole-house backup power, and the current can be configured on the elekeeper App.

SAJ All-In-One Energy Storage System-Battery Combination

suffix X for battery system configuration	14	16	18	21	25	27	28	35	36	42	45	50	54
Input/Output (DC Battery)													
Battery model #1	EK70 BU5-7.0-TV												
Number of battery modules [pcs]	2	1	0	3	1	0	4	5	0	6	0	2	0
Battery model #2	EK70 BU5-9.0-TV												
Number of battery modules [pcs]	0	1	2	0	2	3	0	0	4	0	5	4	6
Total energy capacity [kWh]	14	16	18	21	25	27	28	35	36	42	45	50	54
Usable energy capacity [kWh]	14	16	18	21	25	27	28	35	36	42	45	50	54
Depth of discharge	100%												
Voltage Range [V]	350-600												
Rated Current (Max. Continuous Current [A]) for EK70 HS5-5K-S3-X	18	20.8	23.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6
Dimensions (W /H / D) [mm]	835 / 540 / 270			835 / 810 / 270			835 / 1080 / 270	835 / 1350 / 270	835 / 1080 / 270	835 / 1620 / 270	835 / 1350 / 270	835 / 1620 / 270	
Weight [kg]	143.4	150.9	158.4	215.1	230.1	35.4	286.8	358.5	316.8	430.2	396	460.2	475.2
Rated Current (Max. Continuous Current [A]) for EK70 HS5-8K-S3-X	18	20.8	23.6	27	32.6	35.4	36	41	41	41	41	41	41
Dimensions (W /H / D) [mm]	835 / 540 / 270			835 / 810 / 270			835 / 1080 / 270	835 / 1350 / 270	835 / 1080 / 270	835 / 1620 / 270	835 / 1350 / 270	835 / 1620 / 270	
Weight [kg]	143.4	150.9	158.4	215.1	230.1	35.4	286.8	358.5	316.8	430.2	396	460.2	475.2
Rated Current (Max. Continuous Current [A]) for EK70 HS5-10K-S4-X	18	20.8	23.6	27	32.6	35.4	36	45	47.2	51.3	51.3	51.3	51.3
Dimensions (W /H / D) [mm]	835 / 540 / 270			835 / 810 / 270			835 / 1080 / 270	835 / 1350 / 270	835 / 1080 / 270	835 / 1620 / 270	835 / 1350 / 270	835 / 1620 / 270	
Weight [kg]	143.4	150.9	158.4	215.1	230.1	35.4	286.8	358.5	316.8	430.2	396	460.2	475.2