

EK70 HS5 Three 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, 50% single-phase high output power.



Total Peace of Mind with Multi-layer Protection

- Battery Protection
 - Full-coverage temperature sensor
 - Thermal aerosol fire suppression
 - Decompression valve
- System Protection
 - DC ground-fault protection
 - Grid fault protection
 - 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...)



MODEL	EK70 HS5-8K-T3-X	EK70 HS5-10K-T3-X	EK70 HS5-12K-T3-X	EK70 HS5-12K-T3-X-IE	EK70 HS5-15K-T3-X	EK70 HS5-20K-T3-X
Input (PV)						
Recommended max. PV power [W]	16000	20000	24000	24000	30000	40000
Max. input voltage [V]	1000					
MPPT voltage range [V]	150~900					
Operating Voltage Range [V]	150~1000					
Start-up voltage [V]	160					
Nominal DC input voltage [V]	600					
Max. input current per MPPT [A]	20					
Max. short-circuit current per MPPT [A]	25					
Number of MPP trackers	3					
No. of Strings per MPP Tracker	1+1+1			1+1+2		
Input (DC Battery)						
Battery Type	LiFePO4					
Battery Voltage Range [V]	600~900					
Communication Interface for BAT	CAN					
Max. Battery Quantity in one system	6					
AC Output/Input (On Grid)						
Rated output power [W]	8000	9999	12000	11000	15000	20000
Rated apperant power [VA]	8000	9999	12000	11000	15000	20000
Max. apparent power [VA]	8800	9999	13200	11000	16500	22000
Rated. output current [A]	11.6	14.5	17.4	15.9	21.7	29.0
Max. output current [A]	12.8	14.5	19.1	15.9	23.9	31.9
Rated output/input voltage [V]	3L+N+PE, 220/380, 230/400, 240/415					
Rated AC grid frequency [Hz]	50/60					
Max. AC Input Current (per phase)** [A]	63					
Adjustable power factor	0.8 leading~ 0.8 lagging					
Total current harmonic distortion	THDI < 3%					
AC Output (Back-up)						
Max. Output Apparent Power [VA]	8000	10000	12000	12000	15000	20000
Peak Output Apparent Power [VA]	16000, 10s	20000, 10s	24000, 10s	24000, 10s	30000, 10s	40000, 10s
Max. Current (per phase) [A]	11.6	14.5	17.4	17.4	21.7	29.0
Maximum unbalanced load power [W]	4000	5000	6000	6000	7500	10000
Rated output voltage [V]	3L+N+PE, 220/380, 230/400, 240/415					
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	98.2%					
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: 44.5; Battery pack:BU5-6.0-TV: 60.4; BU5-7.0-TV: 68; BU5-9.0-TV: 79.2; Battery base: 8					
Operating temperature range [°C]	-30 ~ + 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	EN 62109-1/2, EN 61000-6-2/4, EN 50438, EN 50549, C10/11, IEC 62116, IEC 61727, RD 1699, RD 413, UNE 206006, UNE 206007, NTS, CEI 0-16, CEI 0-21, AS 4777.2, NBR 16149, NBR 16150 VDE-AR-N 4105, VDE 0126-1-1					
Warranty [Year]	Refer to the warranty policy					

* X for battery system configuration: X=6/7/9/12/14/15/16/18/21/24/25/27/30/28/35/36/40/42/45/50/54 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.

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