

# EK70 HS5 Three Phase All-in-One Solution

Your Ultimate Smart Home Butler



## Smart Home Energy Ecosystem

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             | • 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...)



| MODEL                                   | EK70 HS5-10K-T3-X*                 |  | EK70 HS5-15K-T3-X*                                                                |  | EK70 HS5-20K-T3-X*                       |  |
|-----------------------------------------|------------------------------------|--|-----------------------------------------------------------------------------------|--|------------------------------------------|--|
| Input (PV)                              |                                    |  |                                                                                   |  |                                          |  |
| Recommended max. PV power [W]           | 20000                              |  | 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]         | 20/20/20                           |  |                                                                                   |  | 40/20/20                                 |  |
| Max. short-circuit current per MPPT [A] | 25/25/25                           |  |                                                                                   |  | 50/25/25                                 |  |
| Number of MPP trackers                  |                                    |  | 3                                                                                 |  |                                          |  |
| No. of Strings per MPP Tracker          | 1+1+1                              |  |                                                                                   |  | 2+1+1                                    |  |
| 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]                  | 9999                               |  | 15000                                                                             |  | 20000                                    |  |
| Rated apperant power [VA]               | 9999                               |  | 15000                                                                             |  | 20000                                    |  |
| Max. apparent power [VA]                | 9999                               |  | 16500                                                                             |  | 22000                                    |  |
| Rated. output current [A]               | 14.5                               |  | 21.7                                                                              |  | 29.0                                     |  |
| Max. output current [A]                 | 14.5                               |  | 23.9                                                                              |  | 31.9                                     |  |
| Rated output/input voltage [V]          |                                    |  | 3L+N+PE, 220/380, 230/400                                                         |  |                                          |  |
| Rated AC grid frequency [Hz]            |                                    |  | 50/60                                                                             |  |                                          |  |
| Max. Input Current (per phase) ** [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]         | 10000                              |  | 15000                                                                             |  | 20000                                    |  |
| Peak Output Apparent Power [VA]         | 20000,10s                          |  | 30000,10s                                                                         |  | 40000,10s                                |  |
| Max. Current (per phase) [A]            | 14.5                               |  | 21.7                                                                              |  | 29.0                                     |  |
| Maximum unbalanced load power [W]       | 5000                               |  | 7500                                                                              |  | 10000                                    |  |
| Rated output voltage [V]                |                                    |  | 3L+N+PE, 220/380, 230/400                                                         |  |                                          |  |
| 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: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.

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