

# SMART ENERGY CONTROLLER

SUN2000-8/10K-LC0



**Active Safety**  
Active Arcing Protection



**Higher Yields**  
Up to 30% More Energy  
with Optimizer



**Battery Ready**  
Plug & Play, Whole-house  
power backup

# SUN2000-8/10K-LC0

## Technical Specification

| Technical Specification                            |                    | SUN2000-8K-LC0 | SUN2000-10K-LC0                                                                                                                                                   |
|----------------------------------------------------|--------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Efficiency                                         |                    |                |                                                                                                                                                                   |
| Max. efficiency                                    |                    |                | 98.1%                                                                                                                                                             |
| European weighted efficiency                       |                    |                | 97.5%                                                                                                                                                             |
| Input (PV)                                         |                    |                |                                                                                                                                                                   |
| Recommended max. PV power <sup>1</sup>             | 12,000 Wp          | 15,000 Wp      |                                                                                                                                                                   |
| Max. input voltage                                 |                    |                | 600 V                                                                                                                                                             |
| Startup voltage                                    |                    |                | 50 V                                                                                                                                                              |
| MPPT operating voltage range                       |                    |                | 40 ~ 560 V                                                                                                                                                        |
| Rated input voltage                                |                    |                | 360 V                                                                                                                                                             |
| Max. input current per MPPT                        |                    |                | 16 A                                                                                                                                                              |
| Max. short-circuit current                         |                    |                | 20 A                                                                                                                                                              |
| Max. number of inputs                              |                    |                | 3                                                                                                                                                                 |
| Number of MPP trackers                             |                    |                | 3                                                                                                                                                                 |
| Input (DC Battery)                                 |                    |                |                                                                                                                                                                   |
| Compatible battery                                 |                    |                | LUNA2000-5/10/15-S0                                                                                                                                               |
| Operating voltage range                            |                    |                | 350 ~ 560 Vdc                                                                                                                                                     |
| Max. operating current                             |                    |                | 25 A                                                                                                                                                              |
| Max. charge power                                  | 8,000 W            |                | 10,000 W                                                                                                                                                          |
| Max. discharge power                               | 8,000 W            |                | 10,000 W                                                                                                                                                          |
| Output (On Grid)                                   |                    |                |                                                                                                                                                                   |
| Grid connection                                    |                    |                | Single-phase                                                                                                                                                      |
| Rated output power                                 | 8,000 W            |                | 10,000 W                                                                                                                                                          |
| Max. apparent power                                | 8,800 VA           |                | 10,000 VA                                                                                                                                                         |
| Rated output voltage                               |                    |                | 220 Vac / 230 Vac / 240 Vac, L / N + PE                                                                                                                           |
| Max. output current                                | 40.0 A             |                | 45.5 A                                                                                                                                                            |
| Rated AC grid frequency                            |                    |                | 50 Hz/60 Hz                                                                                                                                                       |
| Adjustable power factor                            |                    |                | 0.8 leading ... 0.8 lagging                                                                                                                                       |
| Max. total harmonic distortion                     |                    |                | ≤ 3%                                                                                                                                                              |
| Backup power output                                |                    |                | Yes (via SmartGuard-63A-S0)                                                                                                                                       |
| Features & Protection                              |                    |                |                                                                                                                                                                   |
| Anti-islanding protection                          |                    |                | Yes                                                                                                                                                               |
| DC reverse polarity protection                     |                    |                | Yes                                                                                                                                                               |
| Insulation monitoring                              |                    |                | Yes                                                                                                                                                               |
| DC surge protection                                |                    |                | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11                                                                                        |
| AC surge protection                                |                    |                | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11                                                                                        |
| Residual current monitoring unit                   |                    |                | Yes                                                                                                                                                               |
| AC overcurrent protection                          |                    |                | Yes                                                                                                                                                               |
| AC short-circuit protection                        |                    |                | Yes                                                                                                                                                               |
| AC overvoltage protection                          |                    |                | Yes                                                                                                                                                               |
| Over-heat protection                               |                    |                | Yes                                                                                                                                                               |
| Arc fault protection                               |                    |                | Yes                                                                                                                                                               |
| Battery charging from grid                         |                    |                | Yes                                                                                                                                                               |
| General Data                                       |                    |                |                                                                                                                                                                   |
| Operating temperature range                        |                    |                | -25°C to +60°C (-13 °F ~ 140 °F)                                                                                                                                  |
| Relative operating humidity                        |                    |                | 0%-100% RH                                                                                                                                                        |
| Operating altitude                                 |                    |                | 0-4,000 m (Derating above 2,000 m)                                                                                                                                |
| Cooling                                            | Natural convection |                | Smart Air Cooling                                                                                                                                                 |
| Display                                            |                    |                | LED indicators; integrated WLAN + FusionSolar app                                                                                                                 |
| Communication                                      |                    |                | RS485, WLAN / Ethernet via Smart Dongle-WLAN-FE (Optional)<br>4G / 3G / 2G via Smart Dongle-4G (Optional), EMMA                                                   |
| Weight                                             | 14.5 kg            |                | 15 kg                                                                                                                                                             |
| Dimensions (W x H x D)<br>(incl. mounting plate)   |                    |                | 425 mm x 376.5 mm x 150 mm                                                                                                                                        |
| Degree of protection                               |                    |                | IP66                                                                                                                                                              |
| Optimizer Compatibility                            |                    |                |                                                                                                                                                                   |
| Compatible optimizer                               |                    |                | SUN2000-450W-P2, SUN2000-600W-P                                                                                                                                   |
| Standards Compliance (More Available Upon Request) |                    |                |                                                                                                                                                                   |
| Certificates                                       |                    |                | IEC62109-1, IEC62109-2, EN 61000-6 series , EN 62920 EMC, EN 55011 EMC, ETSI EN 301-489-1 EMC, ETSI EN 301 489-17 EMC, EN 61000 3-11, EN 61000 3-12, IEC61000 2-2 |
| Grid connection standards                          |                    |                | ABNT16149/16150:2013, NRS 097-2-1, PEA, MEA                                                                                                                       |

\*1.The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

Disclaimer: the preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.