

# Three

## 20kW

### Solis Three PV Inverter

- ▶ Three phase output
- ▶ Over 98.8% Max. efficiency
- ▶ 200V-1000V input voltage range
- ▶ 7.0" LCD color screen display
- ▶ Four MPPT design with precise MPPT algorithm
- ▶ Compact and light design, easy installation
- ▶ IP65 rated for outdoor installation
- ▶ RS485, WiFi/GPRS (optional) interface
- ▶ Anti-resonance, single transformer can connect 6M+ in parallel
- ▶ Multiple protection functions
- ▶ WiFi and monitoring app available
- ▶ 5 years standard warranty, 20 years optional upgrade



#### Model:

Solis-20K

#### Features:

Fanless  
Cooling  
Concept

Four  
MPPT

7"  
LCD

WiFi/GPRS  
Real time  
monitoring

Available on the iPhone  
App Store  
Available on the iPhone  
App Store

IP65

# Datasheet

| Model                                | Solis-20K                                       |
|--------------------------------------|---|
| Energy Source                        | PV  |
| <b>Input Side(DC)</b>                |   |
| Max. DC input power(kW)              | 23  |
| Max. DC input voltage(V)             | 1000  |
| Start-up voltage(V)                  | 350   |
| MPPT voltage range(V)                | 200-800   |
| Max. input current(A)                | 18A+18A+18A+18A                                 |
| MPPT number/Max input strings number | 4/8   |
| <b>Output Side (AC)</b>              |   |
| Rated output power(kW)               | 20  |
| Max. apparent output power(kVA)      | 22  |
| Max. output power(kW)                | 22  |
| Rated grid voltage(V)                | 400   |
| Grid voltage range(V)                | 304-460   |
| Rated grid frequency(Hz)             | 50/60   |
| Operation phase                      | Three   |
| Rated grid output current(A)         | 28.7  |
| Max. output current(A)               | 33.3  |
| Power Factor (at rated output power) | 0.8...1...0.8                                   |
| THDi (at rated output power)         | <3%   |
| DC injection current(mA)             | <50   |
| Grid frequency range(Hz)             | 47-52 or 57-62                                  |
| <b>Efficiency</b>                    |   |
| Max. efficiency                      | 98.6%   |
| EU efficiency                        | 98.3%/98.3%                                     |
| MPP efficiency                       | 99.9%   |
| <b>Protection</b>                    |   |
| DC reverse-polarity protection       | Yes   |
| Short circuit protection             | Yes   |
| Output over current protection       | Yes   |
| Output over voltage protection       | Yes   |
| Insulation resistance monitoring     | Yes   |
| Residual current detection           | Yes   |
| Surge protection                     | Yes   |
| Islanding protection                 | Yes   |
| temperature protection               | Yes   |
| Integrated DC switch                 | Optional  |
| <b>General Data</b>                  |   |
| Dimensions(mm)                       | 530W*700H*356.5D (mm)                           |
| Weight(kg)                           | 57.2  |
| Topology                             | Transformerless                                 |
| Self consumption (night)             | <1W(Night)                                      |
| Operating ambient temperature range  | -25~60°C  |
| Ingress protection                   | IP65  |
| Noise emission{typical}              | <30 dBA   |
| Cooling concept                      | Natural convection                              |
| Max. operation altitude              | 4000m   |
| Designed lifetime                    | >20years  |
| Grid connection standard             | EN50438, G59/3, AS4777, VDE0126-1-1, IEC61727   |
| Relative humidity                    | 0~100%  |
| Safety/EMC standard                  | IEC62109-1/-2, AS3100, EN61000-6-1, EN61000-6-3 |
| <b>Features</b>                      |   |
| DC connection                        | MC-4mateable                                    |
| AC connection                        | Terminal connectors                             |
| Display                              | 7.0"LCD color screen display                    |
| Communication connections            | 4 pins RS485 connector , 2 RJ45 connector       |
| Warranty                             | 5 years standard (extend to 20 years)           |