

# SON 3-10KTL

Single Phase On-Grid Solar Inverter



Belgian Technology  
Up to 15-Year Warranty

[www.solarin.be](http://www.solarin.be)

## Efficient • Productive

Max. Efficiency 98.3%  
Wide MPPT Voltage Range: 80-560V  
High Single Circuit Tracking Accuracy, Fast Dynamic Response

**2** MPPT Trackers | **150%** DC Input Oversizing

## Safe • Reliable

Intelligent Fault Detection  
AFCI Function (Optional)  
Smart I-V Curve Diagnosis Function

**IP66** Protection | **DC & AC Type II** Surge Protection

Compact Design and Light Weight  
Easy to Operate and Maintain, Smart Choice  
Support RS485 (WiFi/GPRS/Ethernet optional): remote monitoring and operation via PC or mobile phones

| Module                              | SON3KTL  | SON3K6TL    | SON4KTL     | SON4K2TL    | SON4K6TL    | SON5KTL     | SON6KTL     | SON7KTL     | SON8KTL     | SON10KTL    | SON7KTL-S     | SON8KTL-S   | SON10KTL-S  |
|-------------------------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|
| <b>Input (DC)</b>                   |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Max. Input Power                    | 4.5kW  | 5.52kW      | 6kW         | 6.3kW       | 6.9kW       | 7.5kW       | 9kW         | 10.5kW      | 12kW        | 15kW        | 10.5kW        | 12kW        | 15kW        |
| Max. Input Voltage                  | 600V   |             |             |             |             |             |             |             |             |             |               |             |             |
| Start Voltage                       | 80V  |             |             |             |             |             |             |             |             |             |               |             |             |
| Rated Input Voltage                 | 360V   |             |             |             |             |             |             |             |             |             |               |             |             |
| Full-load MPPT Voltage Range        | 120V ~ 480V  | 135V ~ 480V | 145V ~ 480V | 150V ~ 480V | 160V ~ 480V | 170V ~ 480V | 190V ~ 480V | 230V ~ 480V | 250V ~ 480V | 290V ~ 480V | 230V ~ 480V   | 250V ~ 480V | 290V ~ 480V |
| MPPT Voltage Range                  | 80V ~ 560V   |             |             |             |             |             |             |             |             |             |               |             |             |
| Number of MPPT Trackers             | 2  |             |             |             |             |             |             |             |             |             |               |             |             |
| Number of String per MPPT           | 1/1  |             |             |             |             |             |             |             |             |             | 1/2           |             |             |
| Max. Current per MPPT               | 20A  |             |             |             |             |             |             |             |             |             | 14A / 28A     |             |             |
| Max. Short Circuit Current per MPPT | 26A  |             |             |             |             |             |             |             |             |             | 18.2A / 36.4A |             |             |
| <b>Output (AC)</b>                  |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Max. Output Current                 | 15A  | 16A         | 20A         | 21A         | 23A         | 25A         | 30A         | 35A         | 40A         | 45.5A       | 35A           | 40A         | 45.5A       |
| Rated Output Power                  | 3kW  | 3.68kW      | 4kW         | 4.2kW       | 4.6kW       | 5kW         | 6kW         | 7kW         | 8kW         | 10kW        | 7kW           | 8kW         | 10kW        |
| Max. Output Power                   | 3.3kVA   | 3.68kVA     | 4.4kVA      | 4.62kVA     | 5kVA        | 5.5kVA      | 6.6kVA      | 7.7kVA      | 8.8kVA      | 10kVA       | 7.7kVA        | 8.8kVA      | 10kVA       |
| Rated Grid Frequency                | 50Hz / 60Hz  |             |             |             |             |             |             |             |             |             |               |             |             |
| Rated Grid Voltage                  | 220Vac / 230Vac / 240Vac   |             |             |             |             |             |             |             |             |             |               |             |             |
| Power Factor                        | >0.99 (0.8 leading~0.8 lagging)  |             |             |             |             |             |             |             |             |             |               |             |             |
| THDi                                | <3% (Rated Power)  |             |             |             |             |             |             |             |             |             |               |             |             |
| <b>Efficiency</b>                   |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Max. Efficiency                     | 98.10%   |             |             | 98.30%      |             |             |             | 98.10%      |             |             |               |             |             |
| European Efficiency                 | 97.30%   |             |             | 97.40%      |             |             |             | 97.30%      |             |             |               |             |             |
| MPPT Efficiency                     | 99.90%   |             |             |             |             |             |             |             |             |             |               |             |             |
| <b>Protection</b>                   |  |             |             |             |             |             |             |             |             |             |               |             |             |
| DC reverse polarity protection      | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Anti-islanding protection           | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| AC short circuit protection         | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Residual current monitoring unit    | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Insulation resistance monitoring    | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Ground fault monitoring             | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Grid monitoring                     | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| PV string monitoring                | Yes  |             |             |             |             |             |             |             |             |             |               |             |             |
| Surge protection                    | Type II  |             |             |             |             |             |             |             |             |             |               |             |             |
| AFCI protection                     | Optional   |             |             |             |             |             |             |             |             |             |               |             |             |
| <b>Communication</b>                |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Display                             | LCD / LED+APP  |             |             |             |             |             |             |             |             |             |               |             |             |
| Communication                       | Standard : RS485<br>Optional: WIFI / GPRS / Ethernet   |             |             |             |             |             |             |             |             |             |               |             |             |
| <b>Standard Compliance</b>          |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Certification                       | IEC/EN 62109-1/2, IEC/EN 61000-6-1/3, EN50549, IEC61727/IEC62116, CEI0-21, C10/C11, G98/G99, RD244, UNE217001, UNE217002, TOR Erzeuger, AS4777, ABNT, NB/T 32004 |             |             |             |             |             |             |             |             |             |               |             |             |
| <b>General Data</b>                 |  |             |             |             |             |             |             |             |             |             |               |             |             |
| Dimensions (W x H x D)              | 380 x 380 x 160 mm   |             |             |             |             |             |             |             |             |             |               |             |             |
| Weight                              | 13kg   |             |             |             |             |             |             |             |             |             |               |             |             |
| Operating Temperature Range         | -30°C ~ +60°C  |             |             |             |             |             |             |             |             |             |               |             |             |
| Cooling Method                      | Natural  |             |             |             |             |             |             |             |             |             | Smart Cooling |             |             |
| Protection Degree                   | IP66   |             |             |             |             |             |             |             |             |             |               |             |             |
| Max. Operating Altitude             | 4000m  |             |             |             |             |             |             |             |             |             |               |             |             |
| Relative Humidity                   | 0 ~ 100%   |             |             |             |             |             |             |             |             |             |               |             |             |
| Topology                            | Transformerless  |             |             |             |             |             |             |             |             |             |               |             |             |
| Night Power Consumption             | <1W  |             |             |             |             |             |             |             |             |             |               |             |             |