

# **SOFAR** **3K~7.5KTL-G2**

3000/3600/4000/4600/5000/6000/7500



## **Single-Phase      Dual-MPPT**

- |                                                                                                                                            |                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|  Built-in zero export function                          |  2 MPPT high precision string detection  |
|  IP65 ingress protection                                |  I-V curve scanning function             |
|  Max. efficiency up to 98.2%                            |  Built-in sound and light alarm function |
|  Smart monitoring, RS485, Wifi/Ethernet/GPRS (optional) |                                                                                                                             |

| Datasheet                                       | SOFAR<br>3KTLM-G2                                                                                                                                                       | SOFAR<br>3.6KTLM-G2 | SOFAR<br>4KTLM-G2 | SOFAR<br>4.6KTLM-G2 | SOFAR<br>5KTLM-G2 | SOFAR<br>6KTLM-G2 | SOFAR<br>7.5KTLM |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|---------------------|-------------------|-------------------|------------------|
| Input (DC)                                      |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Recommended Max. PV input power                 | 3990Wp                                                                                                                                                                  | 4790Wp              | 5320Wp            | 6120Wp              | 6650Wp            | 7980Wp            | 9980Wp           |
| Max DC power for single MPPT                    | 3500W                                                                                                                                                                   | 3500W               | 3500W             | 3500W               | 3500W             | 3500W             | 2*2750W/ 2750W   |
| Number of MPP trackers                          | 2                                                                                                                                                                       |                     |                   |                     |                   |                   |                  |
| Number of DC inputs                             | 1/1                                                                                                                                                                     |                     |                   |                     |                   |                   | 2/1              |
| Max. Input voltage                              | 600V                                                                                                                                                                    |                     |                   |                     |                   |                   |                  |
| Start-up voltage                                | 120V                                                                                                                                                                    |                     |                   |                     |                   |                   |                  |
| Rated input voltage                             | 360V                                                                                                                                                                    |                     |                   |                     |                   |                   |                  |
| MPPT operating voltage range                    | 90-580V                                                                                                                                                                 |                     |                   |                     |                   |                   |                  |
| Full power MPPT voltage range                   | 160V-520V                                                                                                                                                               | 180V-520V           | 200V-520V         | 230V-520V           | 250V-520V         | 300V-520V         | 250V-520V        |
| Max. Input current per MPPT                     | 11A/11A                                                                                                                                                                 |                     |                   |                     |                   |                   | 22A/11A          |
| Maximun DC input short circuit current per MPPT | 13.2A                                                                                                                                                                   |                     |                   |                     |                   |                   | 26.4/13.2A       |
| Output (AC)                                     |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Rated power                                     | 3000W                                                                                                                                                                   | 3680W               | 4000W             | 4600W               | 5000W             | 6000W             | 7500W            |
| Max. AC power                                   | 3000VA                                                                                                                                                                  | 3680VA              | 4000VA            | 4600VA              | 5000VA            | 6000VA            | 7500VA           |
| Max. Output current                             | 13.7A                                                                                                                                                                   | 16.8A               | 18.2A             | 21A                 | 22.8A             | 27.3A             | 32.6A            |
| Nominal grid voltage                            | L/N/PE, 220Vac, 230Vac, 240Vac                                                                                                                                          |                     |                   |                     |                   |                   |                  |
| Grid voltage range                              | 180Vac-276Vac (According to local standard)                                                                                                                             |                     |                   |                     |                   |                   |                  |
| Nominal frequency                               | 50Hz/60Hz                                                                                                                                                               |                     |                   |                     |                   |                   |                  |
| Grid frequency range                            | 45Hz-55Hz/54Hz-66Hz (According to local standard)                                                                                                                       |                     |                   |                     |                   |                   |                  |
| Active power adjustable range                   | 0~100%                                                                                                                                                                  |                     |                   |                     |                   |                   |                  |
| THDi                                            | <3%                                                                                                                                                                     |                     |                   |                     |                   |                   |                  |
| Power factor                                    | 1 default (adjustable +/-0.8)                                                                                                                                           |                     |                   |                     |                   |                   |                  |
| Power limit export                              | Zero export or adjustable power limit export                                                                                                                            |                     |                   |                     |                   |                   |                  |
| Performance                                     |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Max efficiency                                  | 98.0%                                                                                                                                                                   |                     |                   |                     |                   |                   | 98.2%            |
| European weighted efficiency                    | 97.5%                                                                                                                                                                   |                     |                   |                     |                   |                   | 97.6%            |
| Self-consumption at night                       | <1W                                                                                                                                                                     |                     |                   |                     |                   |                   |                  |
| MPPT efficiency                                 | >99.9%                                                                                                                                                                  |                     |                   |                     |                   |                   |                  |
| Protection                                      |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| DC reverse polarity protection                  | Yes                                                                                                                                                                     |                     |                   |                     |                   |                   |                  |
| DC switch                                       | Optional                                                                                                                                                                |                     |                   |                     |                   |                   |                  |
| Protection class/overvoltage category           | I/III                                                                                                                                                                   |                     |                   |                     |                   |                   |                  |
| Safety protection                               | Anti islanding, RCMU, Ground fault monitoring                                                                                                                           |                     |                   |                     |                   |                   |                  |
| SPD                                             | MOV: Type III standard                                                                                                                                                  |                     |                   |                     |                   |                   |                  |
| Communication                                   |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Power management unit                           | According to certification and request                                                                                                                                  |                     |                   |                     |                   |                   |                  |
| Standard communication mode                     | Rs485, Wifi/Ethernet/GPRS(optional), SD card(optional)                                                                                                                  |                     |                   |                     |                   |                   |                  |
| Operation data storage                          | 25 years                                                                                                                                                                |                     |                   |                     |                   |                   |                  |
| General Data                                    |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Ambient temperature range                       | -25℃~+60℃                                                                                                                                                               |                     |                   |                     |                   |                   | -30℃~+60℃        |
| Topology                                        | Transformerless                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| Degree of protection                            | IP65                                                                                                                                                                    |                     |                   |                     |                   |                   |                  |
| Allowable relative humidity range               | 0~100%                                                                                                                                                                  |                     |                   |                     |                   |                   |                  |
| Max. Operating altitude                         | 2000m                                                                                                                                                                   |                     |                   |                     |                   |                   |                  |
| Noise                                           | <25dB                                                                                                                                                                   |                     |                   |                     |                   |                   |                  |
| Weight                                          | 11.5kg                                                                                                                                                                  |                     |                   |                     |                   |                   | 18kg             |
| Cooling                                         | Natural                                                                                                                                                                 |                     |                   |                     |                   |                   |                  |
| Dimension                                       | 405*315*135mm                                                                                                                                                           |                     |                   |                     |                   |                   | 467*352*157mm    |
| Display                                         | LCD display                                                                                                                                                             |                     |                   |                     |                   |                   |                  |
| Warranty                                        | 5 years/ 7 years/ 10 years                                                                                                                                              |                     |                   |                     |                   |                   |                  |
| Standard                                        |                                                                                                                                                                         |                     |                   |                     |                   |                   |                  |
| EMC                                             | EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12                                                                                    |                     |                   |                     |                   |                   |                  |
| Safety standards                                | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)                                                                                                        |                     |                   |                     |                   |                   |                  |
| Grid standards                                  | AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G83/G59/G98/G99, NB/T32004; ABNT NBR 16149/16150 (for SOFAR3KTLM-G2, SOFAR5KTLM-G2& 7.5KTLM) |                     |                   |                     |                   |                   |                  |