

We build Quality / We offer Quality

## YOUR BEST CHOICE FOR **AC STORAGE HYBRID SOLUTIONS AND STRING INVERTERS**



**Shenzhen SOFARSOLAR Co.,Ltd.**

SOFARSOLAR



**Headquarters:** Building No.4, Antongda Industrial Park, No.1, Liuxian Avenue, Bao'an District, Shenzhen, China.

**Marketing & Sales Center:** 26th Floor, Office B-No. 1, Wuxi 66 Plaza, No. 139, Renmin Road, Liangxi District, Wuxi, Jiangsu Province, China.

**Factory ADD:** 1st to 9th Floor, Building E, No.1 Jinqi Road, Bihu Industrial Zone, Wulian Village, Fenggang Town, Dongguan, Guangdong, China.

+86(0)510 66902301

✉ info@sofarsolar.com

🌐 [www.sofarsolar.com](http://www.sofarsolar.com)

SHENZHEN SOFARSOLAR CO., LTD.

# SOFARSOLAR COMPANY PROFILE

SOFARSOLAR (est 2012) is one of the subsidiaries of SOFAR Group in China and specializes in R&D, production, sales and service of grid-tied inverters ranging from 1kW to 7.5kW (residential), 10kW to 255kW (commercial) , hybrid inverters ranging from 3kW to 20kw and Amass store battery, etc . SOFARSOLAR is currently known to be one of the top 5 string inverter companies found throughout China. After breaking ground and gaining the reputation of being reliable, efficient, and professional, it has now become one of the famous companies in power storage inverters.

SOFARSOLAR, certified by ISO 9001 & ISO 14001, with around 600 employees, is equipped with a very strong R&D team and the major R&D personnel have more than 10 years' experience in the PV industry. We have successfully improved many areas of technology in both software and hardware which had not been solved by other popular brands in the recent past. For example, detection accuracy of insulation resistance, grid resonance if multiple units are connected, remote monitoring-WiFi as standard communication, anti-corrosion protection, etc.

Now, SOFARSOLAR inverters have been installed in more than 60 countries (e.g. Brazil, India, Australia, the UK, Germany, Italy, Belgium, Spain, Netherland, France, Vietnam, South Africa, Pakistan, Japan, Korea, China etc.) with currently 11 own subsidiaries in Shenzhen, Wuxi, Dongguan, Wuhan, Shanghai, Xinyang, Australia, India, Germany, UK and Italy.

## Why choose SOFARSOLAR inverters ?

All SOFARSOLAR inverters are equipped with 25-year data storage capability (Internal SD Card)

All SOFARSOLAR inverters can be found in PV Sol system

All SOFARSOLAR inverters and distributors are insured by US CHUBB Insurance corporation company

All SOFARSOLAR inverters are equipped with Standard WiFi communication

## INVERTER PORTFOLIO

## INVERTER PORTFOLIO

### Single Phase Inverter

- ▶ 1100TL-G3 / 1600TL-G3 / 2200TL-G3 / 2700TL-G3 / 3000TL-G3 / 3300TL-G3
- ▶ 3KTLM-G3/ 3.6KTLM-G3/ 4KTLM-G3/ 4.6KTLM-G3/ 5KTLM-G3/ 5KTLM-G3-A/ 6KTLM-G3
- ▶ 3KTLM-G2/ 3.6KTLM-G2/ 4KTLM-G2/ 4.6KTLM-G2/ 5KTLM-G2/ 6KTLM-G2/ 7.5KTLM

### Three Phase Inverter

- ▶ 3.3KTL-X / 4.4KTL-X / 5KTL-X / 5.5KTL-X / 6.6KTL-X / 8.8KTL-X / 11KTL-X / 12KTL-X
- ▶ 3.3KTLX-G3/4.4KTLX-G3/5KTLX-G3/5.5KTLX-G3/6.6KTLX-G3/8.8KTLX-G3/10KTLX-G3/11KTLX-G3/12KTLX-G3
- ▶ 15KTLX-G3 / 17KTLX-G3 / 20KTLX-G3 / 22KTLX-G3 / 24KTLX-G3
- ▶ 10000TL-G2 / 12000TL-G2 / 15000TL-G2
- ▶ 20000TL-G2 / 25000TL-G2 / 30000TL-G2 / 33000TL-G2
- ▶ 30000TL / 33000TL / 36000TL / 40000TL
- ▶ 50000TL / 60000TL / 70000TL-HV
- ▶ 80KTL / 100KTL / 110KTL / 100KTL-HV / 125KTL-HV / 136KTL-HV
- ▶ 250KTL-HV / 255KTL-HV

### Energy Storage System

- ▶ ME 3000SP
- ▶ ME 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 15KTL-3PH / 20KTL-3PH
- ▶ HYD 3000-ES / 3600-ES / 4000-ES / 4600-ES / 5000-ES / 6000-ES
- ▶ HYD 3000-EP / 3680-EP / 4000-EP / 4600-EP / 5000-EP / 5500-EP / 6000-EP
- ▶ HYD 5000TL-3PH / 6000TL-3PH / 8000TL-3PH / 10000TL-3PH / 15000TL-3PH / 20000TL-3PH
- ▶ GTX2000
- ▶ GTX2500
- ▶ GTX3000-H4 / 3000-H5 / 3000-H6 / 3000-H7 / 3000-H8 / 3000-H9 / 3000-H10
- ▶ GTX5000

### Inverter Data Logger

- ▶ LIG-1 / LIW-1
- ▶ LSG-3 / LSG-4 / LSW-3 / LS4G-3 / LSE-3
- ▶ LP-1 / LP-2



# SOFAR 1.1K~3.3KTL-G3

1100/1600/2200/2700/3000/3300



## Single-Phase     Single-MPPT

- 1.4

I.4 DC overload
- IP65

IP65 ingress protection
- 97.7%

Max. efficiency up to 97.7%
- Light weight

Light weight, quick and easy to install
- 0

Built-in zero export function
- Smart monitoring

Smart monitoring, RS485, Wifi/Ethernet/GPRS(optional)

| Datasheet                                       | SOFAR<br>1100TL-G3                                                           | SOFAR<br>1600TL-G3 | SOFAR<br>2200TL-G3 | SOFAR<br>2700TL-G3 | SOFAR<br>3000TL-G3 | SOFAR<br>3300TL-G3 |
|-------------------------------------------------|------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Input (DC)                                      |                                                                              |                    |                    |                    |                    |                    |
| Recommended Max. PV input power                 | 1500Wp                                                                       | 2200Wp             | 3000Wp             | 3700Wp             | 4100Wp             | 4500Wp             |
| Max. Input voltage                              | 500V                                                                         | 500V               | 500V               | 550V               | 550V               | 550V               |
| Start-up voltage                                | 70V                                                                          |                    |                    |                    |                    |                    |
| Rated input voltage                             | 360V                                                                         |                    |                    |                    |                    |                    |
| MPPT operating voltage range                    | 50-500V                                                                      | 50-500V            | 50-500V            | 50-550V            | 50-550V            | 50-550V            |
| Full power MPPT voltage range                   | 110-450V                                                                     | 150-450V           | 200-450V           | 250-500V           | 275-500V           | 300-500V           |
| Max. Input current MPPT                         | 12A                                                                          |                    |                    |                    |                    |                    |
| Maximun DC input short circuit current per MPPT | 15A                                                                          |                    |                    |                    |                    |                    |
| Number of MPPT/ String per MPPT                 | 1/1                                                                          |                    |                    |                    |                    |                    |
| Input terminal type                             | MC4/H4                                                                       |                    |                    |                    |                    |                    |
| Output (AC)                                     |                                                                              |                    |                    |                    |                    |                    |
| Rated power                                     | 1100W                                                                        | 1600W              | 2200W              | 2700W              | 3000W              | 3300W              |
| Max. AC power                                   | 1100VA                                                                       | 1600VA             | 2200VA             | 2700VA             | 3000VA             | 3300VA             |
| Rated Output current                            | 4.8A                                                                         | 7A                 | 9.6A               | 11.8A              | 13A                | 14.3A              |
| Max. Output current                             | 5.3A                                                                         | 7.7A               | 10.6A              | 13A                | 14.5A              | 16A                |
| 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                            | 45~55Hz/54~66Hz (According to local standard)                                |                    |                    |                    |                    |                    |
| THDi                                            | <3%                                                                          |                    |                    |                    |                    |                    |
| Power factor                                    | 1 default (adjustable +/-0.8)                                                |                    |                    |                    |                    |                    |
| Efficiency                                      |                                                                              |                    |                    |                    |                    |                    |
| Max. Efficiency                                 | 97.5%                                                                        | 97.5%              | 97.5%              | 97.7%              | 97.7%              | 97.7%              |
| European weighted efficiency                    | 96.9%                                                                        | 96.9%              | 96.9%              | 97.2%              | 97.2%              | 97.2%              |
| Self-consumption at night                       | <1W                                                                          |                    |                    |                    |                    |                    |
| MPPT efficiency                                 | >99.9%                                                                       |                    |                    |                    |                    |                    |
| Protection                                      |                                                                              |                    |                    |                    |                    |                    |
| Anti-Islanding protection                       | Yes                                                                          |                    |                    |                    |                    |                    |
| DC reverse polarity protection                  | Yes                                                                          |                    |                    |                    |                    |                    |
| Over temp protection                            | Yes                                                                          |                    |                    |                    |                    |                    |
| Leakage current protection                      | Yes                                                                          |                    |                    |                    |                    |                    |
| Over voltage protection                         | Yes                                                                          |                    |                    |                    |                    |                    |
| Over current protection                         | Yes                                                                          |                    |                    |                    |                    |                    |
| Earth fault protection                          | Yes                                                                          |                    |                    |                    |                    |                    |
| SPD                                             | MOV: Type III standard                                                       |                    |                    |                    |                    |                    |
| Communication                                   |                                                                              |                    |                    |                    |                    |                    |
| Standard communication mode                     | RS485, WiFi/GPRS/Ethernet(optional), USB                                     |                    |                    |                    |                    |                    |
| General Data                                    |                                                                              |                    |                    |                    |                    |                    |
| Topology                                        | Transformerless                                                              |                    |                    |                    |                    |                    |
| Ambient temperature range                       | -30℃ ~ +60℃                                                                  |                    |                    |                    |                    |                    |
| Allowable relative humidity range               | 0~100%                                                                       |                    |                    |                    |                    |                    |
| Noise                                           | <25dB                                                                        |                    |                    |                    |                    |                    |
| DC switch                                       | optional                                                                     |                    |                    |                    |                    |                    |
| Cooling                                         | Natural                                                                      |                    |                    |                    |                    |                    |
| Max. Operating altitude                         | 2000m                                                                        |                    |                    |                    |                    |                    |
| Dimension[mm]                                   | 303*260.5*118                                                                | 303*260.5*118      | 303*260.5*118      | 321*260.5*131.5    | 321*260.5*131.5    | 321*260.5*131.5    |
| Support bracket                                 | Wall-mounted                                                                 |                    |                    |                    |                    |                    |
| Weight                                          | 5.5kg                                                                        | 5.5kg              | 5.5kg              | 6.3kg              | 6.3kg              | 6.3kg              |
| Display                                         | LCD+LED                                                                      |                    |                    |                    |                    |                    |
| Degree of protection                            | IP65                                                                         |                    |                    |                    |                    |                    |
| Warranty                                        | 5 years/ 7 years/ 10 years                                                   |                    |                    |                    |                    |                    |
| Standard                                        |                                                                              |                    |                    |                    |                    |                    |
| EMC                                             | EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3                       |                    |                    |                    |                    |                    |
| Safety standards                                | IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2         |                    |                    |                    |                    |                    |
| Grid standards                                  | AS 4777, VDE V 0124-100, VDE V 0126-1-1, VDE-AR-N 4105, G98, C10/11, RD 1699 |                    |                    |                    |                    |                    |



# SOFAR 3K~6KTLM-G3

3000/3600/4000/4600/5000/6000



## Single-Phase      Dual-MPPT

- 0

Built-in zero export function
- AFCI

Optional AFCI function
- Compact design, light in weight
- Natural cooling, no fans, low noise
- 98.4%

Max. efficiency up to 98.4%
- 2 MPPT

Two MPP trackers with 1.5\*DC overload
- Smart monitoring, remote firmware upgrade

| Datasheet                                 | SOFAR<br>3KTLM-G3                                                                                    | SOFAR<br>3.6KTLM-G3 | SOFAR<br>4KTLM-G3 | SOFAR<br>4.6KTLM-G3 | SOFAR<br>5KTLM-G3 | SOFAR<br>5KTLM-G3-A | SOFAR<br>6KTLM-G3 |
|-------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| Input (DC)                                |                                                                                                      |                     |                   |                     |                   |                     |                   |
| Recommended Max. PV input power           | 4500Wp                                                                                               | 5400Wp              | 6000Wp            | 7000Wp              | 7500Wp            | 7500Wp              | 9000Wp            |
| Max DC power for single MPPT              | 3500W                                                                                                | 3500W               | 3500W             | 3500W               | 3750W             | 3750W               | 4500W             |
| Number of MPP trackers                    | 2                                                                                                    |                     |                   |                     |                   |                     |                   |
| Number of DC inputs                       | 1 for each MPPT                                                                                      |                     |                   |                     |                   |                     |                   |
| Max. Input voltage                        | 600V                                                                                                 |                     |                   |                     |                   |                     |                   |
| Start-up voltage                          | 90V                                                                                                  |                     |                   |                     |                   |                     |                   |
| Rated input voltage                       | 380V                                                                                                 |                     |                   |                     |                   |                     |                   |
| MPPT operating voltage range              | 80V-550V                                                                                             |                     |                   |                     |                   |                     |                   |
| Full power MPPT voltage range             | 200V-500V                                                                                            | 200V-500V           | 200V-500V         | 200V-500V           | 210V-500V         | 210V-500V           | 260V-500V         |
| Max. Input MPPT current                   | 15A/15A                                                                                              |                     |                   |                     |                   |                     |                   |
| Max. input short circuit current per MPPT | 22.5A/22.5A                                                                                          |                     |                   |                     |                   |                     |                   |
| Output (AC)                               |                                                                                                      |                     |                   |                     |                   |                     |                   |
| Rated power                               | 3000W                                                                                                | 3680W               | 4000W             | 4600W               | 5000W             | 5000W               | 6000W             |
| Max. AC power                             | 3300VA                                                                                               | 3680VA              | 4400VA            | 4600VA              | 5500VA            | 5000VA              | 6000VA            |
| Nominal output current                    | 13.6A                                                                                                | 16A                 | 18.2A             | 21A                 | 22.7A             | 21.7A               | 27.3A             |
| Max. Output current                       | 15A                                                                                                  | 16A                 | 20A               | 23A                 | 25A               | 21.7A               | 29A               |
| 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)                                                                        |                     |                   |                     |                   |                     |                   |
| Performance                               |                                                                                                      |                     |                   |                     |                   |                     |                   |
| Max efficiency                            | 98.2%                                                                                                | 98.2%               | 98.2%             | 98.4%               | 98.4%             | 98.4%               | 98.4%             |
| European efficiency                       | 97.3%                                                                                                | 97.3%               | 97.3%             | 97.5%               | 97.5%             | 97.5%               | 97.5%             |
| Protection                                |                                                                                                      |                     |                   |                     |                   |                     |                   |
| DC reverse polarity protection            | Yes                                                                                                  |                     |                   |                     |                   |                     |                   |
| DC switch                                 | Optional                                                                                             |                     |                   |                     |                   |                     |                   |
| AFCI protection                           | Optional                                                                                             |                     |                   |                     |                   |                     |                   |
| Protection class/overvoltage category     | I/III                                                                                                |                     |                   |                     |                   |                     |                   |
| Safety protection                         | Anti islanding, RCMU, Ground fault monitoring                                                        |                     |                   |                     |                   |                     |                   |
| SPD                                       | MOV: Type III standard                                                                               |                     |                   |                     |                   |                     |                   |
| Communication                             |                                                                                                      |                     |                   |                     |                   |                     |                   |
| Standard communication mode               | RS485/USB, Optional: WiFi/GPRS                                                                       |                     |                   |                     |                   |                     |                   |
| General Data                              |                                                                                                      |                     |                   |                     |                   |                     |                   |
| Ambient temperature range                 | -30°C~+60°C                                                                                          |                     |                   |                     |                   |                     |                   |
| Self-consumption at night                 | <1W                                                                                                  |                     |                   |                     |                   |                     |                   |
| Topology                                  | Transformerless                                                                                      |                     |                   |                     |                   |                     |                   |
| Degree of protection                      | IP65                                                                                                 |                     |                   |                     |                   |                     |                   |
| Allowable relative humidity range         | 0~100%                                                                                               |                     |                   |                     |                   |                     |                   |
| Max. Operating altitude                   | 4000m                                                                                                |                     |                   |                     |                   |                     |                   |
| Noise                                     | <25dB                                                                                                |                     |                   |                     |                   |                     |                   |
| Weight                                    | 9.2kg                                                                                                | 9.2kg               | 9.2kg             | 10kg                | 10kg              | 10kg                | 10kg              |
| Cooling                                   | Natural                                                                                              |                     |                   |                     |                   |                     |                   |
| Dimension                                 | 349*344*164mm                                                                                        |                     |                   |                     |                   |                     |                   |
| Display                                   | LCD&Bluetooth+APP                                                                                    |                     |                   |                     |                   |                     |                   |
| Standard warranty                         | 5 years, Optional: 7&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                            | VDE-AR-N 4105, VDE V 0126-1-1, V 0124-100, AS/NZS 4777, CEI 0-21, G98/G99, C10/11, EN 50549, RD 1699 |                     |                   |                     |                   |                     |                   |



# SOFAR 3K~7.5KTL-G2

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



## Single-Phase      Dual-MPPT

- 0

Built-in zero export function
- 2 MPPT high precision string detection
- 💧

IP65 ingress protection
- 📊

I-V curve scanning function
- 98.2%

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           |                  |
| Maximum 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 <sup>*1</sup> | 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°C~+60°C                                            |                   | -30°C~+60°C       |                  |
| 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, G98/G99, NB/T32004; ABNT NBR 16149/16150 (for SOFAR3KTLM-G2, SOFAR5KTLM-G2& 7.5KTLM) |                     |                   |                                                        |                   |                   |                  |

\*1: For G98 UK standard, SOFAR 3.6KTLM-G2, Max. Output current is 16A.



# SOFAR 3.3K~12KTL-X

3300/4400/5000/5500/6600/8800/11000/12000



## Three-Phase      Dual-MPPT

- Integrated with DC switch
- Max. efficiency up to 98.3%
- Super large 4-inch LCD
- Built-in DRM port and logic
- Smart monitoring,RS485,Wifi/Ethernet/GPRS (optional)
- Over / under voltage, over current, over temperature, Anti-islanding and other multiple protections

### Datasheet

| Datasheet                                       | SOFAR <sup>*</sup><br>3.3KTL-X                                                                                                | SOFAR<br>4.4KTL-X | SOFAR <sup>*</sup><br>5KTL-X<br>(Australia) | SOFAR<br>5.5KTL-X | SOFAR<br>6.6KTL-X | SOFAR<br>8.8KTL-X | SOFAR<br>11KTL-X | SOFAR<br>12KTL-X |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------|-------------------|-------------------|-------------------|------------------|------------------|
| Input (DC)                                      |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Recommended Max. PV input power                 | 4390Wp                                                                                                                        | 5860Wp            | 6650Wp                                      | 7320Wp            | 8780Wp            | 11710Wp           | 14630Wp          | 15960Wp          |
| Max DC power for single MPPT                    | 3550W                                                                                                                         | 4500W             | 5700W                                       | 5700W             | 6250W             | 6200W             | 6200W            | 6850W            |
| Number of MPP trackers                          | 2                                                                                                                             |                   |                                             |                   |                   |                   |                  |                  |
| Number of DC inputs                             | 1 for each MPPT                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Max. Input voltage                              | 1000V                                                                                                                         |                   |                                             |                   |                   |                   |                  |                  |
| Start-up voltage                                | 200V                                                                                                                          |                   |                                             |                   |                   |                   |                  |                  |
| Rated input voltage                             | 600V                                                                                                                          |                   |                                             |                   |                   |                   |                  |                  |
| MPPT operating voltage range                    | 160-960V                                                                                                                      |                   |                                             |                   |                   |                   |                  |                  |
| Full power MPPT voltage range                   | 160V-850V                                                                                                                     | 190V-850V         | 240V-850V                                   | 240V-850V         | 290V-850V         | 380V-850V         | 480V-850V        | 575V-850V        |
| Max. Input current per MPPT                     | 11A/11A                                                                                                                       |                   |                                             |                   |                   |                   |                  |                  |
| Maximun DC input short circuit current per MPPT | 14A                                                                                                                           |                   |                                             |                   |                   |                   |                  |                  |
| Output (AC)                                     |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Rated power                                     | 3000W                                                                                                                         | 4000W             | 5000W                                       | 5000W             | 6000W             | 8000W             | 10000W           | 12000W           |
| Max. AC power                                   | 3300VA                                                                                                                        | 4400VA            | 5000VA                                      | 5500VA            | 6600VA            | 8800VA            | 11000VA          | 13200VA          |
| Max. Output current                             | 4.8A                                                                                                                          | 6.4A              | 8.0A                                        | 8.0A              | 9.6A              | 12.8A             | 15.9A            | 19.1A            |
| Nominal grid voltage                            | 3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac                                                                                    |                   |                                             |                   |                   |                   |                  |                  |
| Grid voltage range                              | 310Vac-480Vac (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                                    | 1default (adjustable+/-0.8)                                                                                                   |                   |                                             |                   |                   |                   |                  |                  |
| Power limit export                              | Zero export or adjustable power limit export                                                                                  |                   |                                             |                   |                   |                   |                  |                  |
| Performance                                     |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Max efficiency                                  | 98.0%                                                                                                                         | 98.0%             | 98.0%                                       | 98.0%             | 98.0%             | 98.3%             | 98.3%            | 98.3%            |
| European weighted efficiency                    | 97.5%                                                                                                                         | 97.5%             | 97.5%                                       | 97.5%             | 97.5%             | 98.0%             | 98.0%            | 98.0%            |
| Self-consumption at night                       | <1W                                                                                                                           |                   |                                             |                   |                   |                   |                  |                  |
| MPPT efficiency                                 | >99.9%                                                                                                                        |                   |                                             |                   |                   |                   |                  |                  |
| Protection                                      |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| DC reverse polarity protection                  | Yes                                                                                                                           |                   |                                             |                   |                   |                   |                  |                  |
| DC switch                                       | Yes                                                                                                                           |                   |                                             |                   |                   |                   |                  |                  |
| Safety protection                               | Anti islanding, RCMU, Ground fault monitoring                                                                                 |                   |                                             |                   |                   |                   |                  |                  |
| ARPC                                            | Anti reverse power controller(optional)                                                                                       |                   |                                             |                   |                   |                   |                  |                  |
| Communication                                   |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Power management unit                           | According to certification and request                                                                                        |                   |                                             |                   |                   |                   |                  |                  |
| Standard communication mode                     | RS485, Wifi/Ethernet/GPRS(optional), SD card                                                                                  |                   |                                             |                   |                   |                   |                  |                  |
| Operation data storage                          | 25 years                                                                                                                      |                   |                                             |                   |                   |                   |                  |                  |
| General Data                                    |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Ambient temperature range                       | -25°C~+60°C                                                                                                                   |                   |                                             |                   |                   |                   |                  |                  |
| Topology                                        | Transformerless                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| Degree of protection                            | IP65                                                                                                                          |                   |                                             |                   |                   |                   |                  |                  |
| Allowable relative humidity range               | 0~100%                                                                                                                        |                   |                                             |                   |                   |                   |                  |                  |
| Max. Operating altitude                         | 2000m                                                                                                                         |                   |                                             |                   |                   |                   |                  |                  |
| Noise                                           | <29dB                                                                                                                         |                   |                                             |                   |                   |                   |                  |                  |
| Weight                                          | 21kg                                                                                                                          | 21kg              | 21kg                                        | 21kg              | 21kg              | 22kg              | 22kg             | 22kg             |
| Cooling                                         | Natural                                                                                                                       |                   |                                             |                   |                   |                   |                  |                  |
| Dimension                                       | 457*452*202mm                                                                                                                 |                   |                                             |                   |                   |                   |                  |                  |
| Display                                         | LCD display                                                                                                                   |                   |                                             |                   |                   |                   |                  |                  |
| Warranty                                        | 5 years/ 7 years/ 10 years                                                                                                    |                   |                                             |                   |                   |                   |                  |                  |
| Standard                                        |                                                                                                                               |                   |                                             |                   |                   |                   |                  |                  |
| EMC                                             | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4                                                                        |                   |                                             |                   |                   |                   |                  |                  |
| Safety standards                                | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30), IEC60255                                                    |                   |                                             |                   |                   |                   |                  |                  |
| Grid standards                                  | AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G98/G99, RD1699, UTE C15-712-1, EN50530, NB/T32004 |                   |                                             |                   |                   |                   |                  |                  |

The models marked with "\*" should be available only for some designated countries.

# SOFAR 3.3K~12KTLX-G3

3300/4400/5000/5500/6600/8800/10000/11000/12000



- Three-Phase

Remote firmware upgrade

Smart string level monitoring

Maximum DC input voltage 1100V

Low start-up voltage, wide MPPT voltage
- Dual-MPPT

98.6%

Maximum efficiency 98.6%

SPD

Type II SPD for both DC and AC

Natural cooling, no fans, low noise

## Datasheet

|                                           | SOFAR<br>3.3KTLX-G3 | SOFAR<br>4.4KTLX-G3 | SOFAR *<br>5KTLX-G3<br>(Australia) | SOFAR<br>5.5KTLX-G3 | SOFAR<br>6.6KTLX-G3                                                                                                            | SOFAR<br>8.8KTLX-G3 | SOFAR *<br>10KTLX-G3<br>(Australia) | SOFAR<br>11KTLX-G3 | SOFAR<br>12KTLX-G3 |
|-------------------------------------------|---------------------|---------------------|------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------|--------------------|--------------------|
| Input (DC)                                |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| Recommended Max. PV input power           | 4500Wp              | 6000Wp              | 7500Wp                             | 7500Wp              | 9000Wp                                                                                                                         | 12000Wp             | 15000Wp                             | 15000Wp            | 18000Wp            |
| Number of MPP trackers                    |                     |                     |                                    |                     | 2                                                                                                                              |                     |                                     |                    |                    |
| Number of DC inputs                       | 1/1                 | 1/1                 | 1/1                                | 1/1                 | 1/1                                                                                                                            | 1/1                 | 2/1                                 | 1/1                | 2/1                |
| Max. input voltage                        |                     |                     |                                    |                     | 1100V                                                                                                                          |                     |                                     |                    |                    |
| Start-up voltage                          |                     |                     |                                    |                     | 160V                                                                                                                           |                     |                                     |                    |                    |
| Rated input voltage                       |                     |                     |                                    |                     | 650V                                                                                                                           |                     |                                     |                    |                    |
| MPPT operating voltage range              |                     |                     |                                    |                     | 140V-1000V                                                                                                                     |                     |                                     |                    |                    |
| Full power MPPT voltage range             | 160V-850V           | 190V-850V           | 240V-850V                          | 240V-850V           | 290V-850V                                                                                                                      | 380V-850V           | 420V-850V                           | 420V-850V          | 420V-850V          |
| Max. input MPPT current                   | 13A/13A             | 13A/13A             | 13A/13A                            | 13A/13A             | 13A/13A                                                                                                                        | 13A/13A             | 26A/13A                             | 13A/13A            | 26A/13A            |
| Max. input short circuit current per MPPT | 18A/18A             | 18A/18A             | 18A/18A                            | 18A/18A             | 18A/18A                                                                                                                        | 18A/18A             | 36A/18A                             | 18A/18A            | 36A/18A            |
| Output (AC)                               |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| Rated power                               | 3000W               | 4000W               | 5000W                              | 5000W               | 6000W                                                                                                                          | 8000W               | 10000W                              | 10000W             | 12000W             |
| Max. AC power                             | 3300VA              | 4400VA              | 5000VA                             | 5500VA              | 6600VA                                                                                                                         | 8800VA              | 11000VA                             | 11000VA            | 13200VA            |
| Max. Output current                       | 4.8A                | 6.4A                | 7.3A                               | 8.0A                | 9.6A                                                                                                                           | 12.8A               | 15.9A                               | 15.9A              | 19.1A              |
| Nominal grid voltage                      |                     |                     |                                    |                     | 310V/PE, 220V/380Vac, 230V/400Vac                                                                                              |                     |                                     |                    |                    |
| Grid voltage range                        |                     |                     |                                    |                     | 310Vac-480Vac (According to local standard)                                                                                    |                     |                                     |                    |                    |
| Nominal frequency                         |                     |                     |                                    |                     | 50 / 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)                                                                                                  |                     |                                     |                    |                    |
| Performance                               |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| Max efficiency                            | 98.40%              | 98.40%              | 98.40%                             | 98.40%              | 98.40%                                                                                                                         | 98.50%              | 98.50%                              | 98.50%             | 98.50%             |
| European weighted efficiency              | 97.50%              | 97.50%              | 97.50%                             | 97.50%              | 97.50%                                                                                                                         | 98.00%              | 98.00%                              | 98.00%             | 98.00%             |
| Self-consumption at night                 |                     |                     |                                    |                     | <1W                                                                                                                            |                     |                                     |                    |                    |
| MPPT efficiency                           |                     |                     |                                    |                     | >99.9%                                                                                                                         |                     |                                     |                    |                    |
| Protection                                |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| DC reverse polarity protection            |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| Anti-islanding protection                 |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| Leakage current protection                |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| Ground fault monitoring                   |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| PV-array string fault monitoring          |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| Anti reverse power function               |                     |                     |                                    |                     | Optional                                                                                                                       |                     |                                     |                    |                    |
| DC switch                                 |                     |                     |                                    |                     | Yes                                                                                                                            |                     |                                     |                    |                    |
| AFCI protection                           |                     |                     |                                    |                     | Optional                                                                                                                       |                     |                                     |                    |                    |
| Input / output SPD                        |                     |                     |                                    |                     | PV: type II standard, AC: type II standard                                                                                     |                     |                                     |                    |                    |
| Communication                             |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| Power management unit                     |                     |                     |                                    |                     | According to certification and request                                                                                         |                     |                                     |                    |                    |
| Standard communication mode               |                     |                     |                                    |                     | RS485/ USB/ Bluetooth, Optional: WiFi / GPRS                                                                                   |                     |                                     |                    |                    |
| Operation data storage                    |                     |                     |                                    |                     | 25 years                                                                                                                       |                     |                                     |                    |                    |
| General Data                              |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| Ambient temperature range                 |                     |                     |                                    |                     | -30℃~+60℃                                                                                                                      |                     |                                     |                    |                    |
| Topology                                  |                     |                     |                                    |                     | Transformerless                                                                                                                |                     |                                     |                    |                    |
| Degree of protection                      |                     |                     |                                    |                     | IP65                                                                                                                           |                     |                                     |                    |                    |
| Allowable relative humidity range         |                     |                     |                                    |                     | 0~100%                                                                                                                         |                     |                                     |                    |                    |
| Max. Operating altitude                   |                     |                     |                                    |                     | 4000m                                                                                                                          |                     |                                     |                    |                    |
| Noise                                     |                     |                     |                                    |                     | <40dB                                                                                                                          |                     |                                     |                    |                    |
| Weight                                    | 15kg                | 15kg                | 15kg                               | 15kg                | 15kg                                                                                                                           | 17kg                | 17kg                                | 17kg               | 17kg               |
| Cooling                                   |                     |                     |                                    |                     | Natural                                                                                                                        |                     |                                     |                    |                    |
| Dimension                                 |                     |                     |                                    |                     | 430*375*179mm                                                                                                                  |                     |                                     |                    |                    |
| Display                                   |                     |                     |                                    |                     | LCD&Bluetooth + APP                                                                                                            |                     |                                     |                    |                    |
| Warranty                                  |                     |                     |                                    |                     | 5 years/ 7 years/ 10 years                                                                                                     |                     |                                     |                    |                    |
| Standard                                  |                     |                     |                                    |                     |                                                                                                                                |                     |                                     |                    |                    |
| EMC                                       |                     |                     |                                    |                     | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4                                                                         |                     |                                     |                    |                    |
| Safety standards                          |                     |                     |                                    |                     | IEC62109-1/2, IEC62116, IEC61727, IEC61683, 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/CEI 0-16, UNE 206 007-1, EN50549, G98/G99, EN50530, NB/T32004 |                     |                                     |                    |                    |

The models marked with \* \* \* should be available only for some designated countries.



# SOFAR 15K~24KTLX-G3

15000/17000/20000/22000/24000



## Three-Phase      Dual-MPPT

-  Remote firmware upgrade
-  Smart string level monitoring
-  Maximum DC input voltage 1100V
-  Low start-up voltage, wide MPPT voltage

-  Maximum efficiency 98.6%
-  Type II SPD for both DC and AC
-  110% long-time overload ability

| Datasheet                                 | SOFAR<br>15KTLX-G3                                                                                                         | SOFAR<br>17KTLX-G3 | SOFAR<br>20KTLX-G3 | SOFAR<br>22KTLX-G3 | SOFAR<br>24KTLX-G3 |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Input (DC)                                |                                                                                                                            |                    |                    |                    |                    |
| Recommended Max. PV input power           | 22500Wp                                                                                                                    | 25500Wp            | 30000Wp            | 33000Wp            | 36000Wp            |
| Number of MPPT trackers                   | 2                                                                                                                          |                    |                    |                    |                    |
| Number of DC inputs                       | 2/2                                                                                                                        |                    |                    |                    |                    |
| Max. input voltage                        | 1100V                                                                                                                      |                    |                    |                    |                    |
| Start-up voltage                          | 160V                                                                                                                       |                    |                    |                    |                    |
| Rated input voltage                       | 650V                                                                                                                       |                    |                    |                    |                    |
| MPPT operating voltage range              | 140V-1000V                                                                                                                 |                    |                    |                    |                    |
| Full power MPPT voltage range             | 420V-850V                                                                                                                  | 450V-850V          | 480V-850V          | 510V-850V          | 540V-850V          |
| Max. input MPPT current                   | 26A/26A                                                                                                                    | 26A/26A            | 26A/26A            | 26A/26A            | 26A/26A            |
| Max. input short circuit current per MPPT | 36A/36A                                                                                                                    | 36A/36A            | 36A/36A            | 36A/36A            | 36A/36A            |
| Output (AC)                               |                                                                                                                            |                    |                    |                    |                    |
| Rated power                               | 15000W                                                                                                                     | 17000W             | 20000W             | 22000W             | 24000W             |
| Max. AC power                             | 16500VA                                                                                                                    | 18700VA            | 22000VA            | 24200VA            | 26400VA            |
| Max. Output current                       | 23.9A                                                                                                                      | 27.1A              | 31.9A              | 35.1A              | 38.3A              |
| Nominal grid voltage                      | 3/N/PE, 220V/380Vac, 230V/400Vac                                                                                           |                    |                    |                    |                    |
| Grid voltage range                        | 310Vac-480Vac (According to local standard)                                                                                |                    |                    |                    |                    |
| Nominal frequency                         | 50 / 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)                                                                                              |                    |                    |                    |                    |
| Performance                               |                                                                                                                            |                    |                    |                    |                    |
| Max efficiency                            | 98.60%                                                                                                                     |                    |                    |                    |                    |
| European weighted efficiency              | 98.20%                                                                                                                     |                    |                    |                    |                    |
| Self-consumption at night                 | <1W                                                                                                                        |                    |                    |                    |                    |
| MPPT efficiency                           | >99.9%                                                                                                                     |                    |                    |                    |                    |
| Protection                                |                                                                                                                            |                    |                    |                    |                    |
| DC reverse polarity protection            | Yes                                                                                                                        |                    |                    |                    |                    |
| Anti-islanding protection                 | Yes                                                                                                                        |                    |                    |                    |                    |
| Leakage current protection                | Yes                                                                                                                        |                    |                    |                    |                    |
| Ground fault monitoring                   | Yes                                                                                                                        |                    |                    |                    |                    |
| PV-array string fault monitoring          | Yes                                                                                                                        |                    |                    |                    |                    |
| Anti reverse power function               | Optional                                                                                                                   |                    |                    |                    |                    |
| DC switch                                 | Yes                                                                                                                        |                    |                    |                    |                    |
| AFCL protection                           | Optional                                                                                                                   |                    |                    |                    |                    |
| Input / output SPD                        | PV: type II standard, AC: type II standard                                                                                 |                    |                    |                    |                    |
| Communication                             |                                                                                                                            |                    |                    |                    |                    |
| Power management unit                     | According to certification and request                                                                                     |                    |                    |                    |                    |
| Standard communication mode               | RS485/ USB/ Bluetooth, Optional: WiFi / GPRS                                                                               |                    |                    |                    |                    |
| Operation data storage                    | 25 years                                                                                                                   |                    |                    |                    |                    |
| General Data                              |                                                                                                                            |                    |                    |                    |                    |
| Ambient temperature range                 | -30°C~+60°C                                                                                                                |                    |                    |                    |                    |
| Topology                                  | Transformerless                                                                                                            |                    |                    |                    |                    |
| Degree of protection                      | IP65                                                                                                                       |                    |                    |                    |                    |
| Allowable relative humidity range         | 0~100%                                                                                                                     |                    |                    |                    |                    |
| Max. Operating altitude                   | 4000m                                                                                                                      |                    |                    |                    |                    |
| Noise                                     | <40dB                                                                                                                      |                    |                    |                    |                    |
| Weight                                    | 20kg                                                                                                                       | 22kg               | 22kg               | 23kg               | 23kg               |
| Cooling                                   | Fan                                                                                                                        |                    |                    |                    |                    |
| Dimension                                 | 520*430*189mm                                                                                                              |                    |                    |                    |                    |
| Display                                   | LCD&Bluetooth +APP                                                                                                         |                    |                    |                    |                    |
| Warranty                                  | 5 years/ 7 years/ 10 years                                                                                                 |                    |                    |                    |                    |
| Standard                                  |                                                                                                                            |                    |                    |                    |                    |
| EMC                                       | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4                                                                     |                    |                    |                    |                    |
| Safety standards                          | IEC62109-1/2, IEC62116, IEC61727, IEC61683, 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/CEI 0-16, UNE 206 007-1, EN50549, G99, EN50530, NB/T32004 |                    |                    |                    |                    |

# SOFAR 10K~15KTL-G2

10000 / 12000 / 15000



## Three-Phase Dual-MPPT



Fuse free design

98.3%

Max. efficiency up to 98.3%

DRM

Built-in DRM port and logic



Outdoor IP65 protection level



I-V curve scanning function



Smart control and flexible configuration

### Datasheet

**SOFAR  
10000TL-G2**

**SOFAR  
12000TL-G2**

**SOFAR  
15000TL-G2**

#### Input (DC)

|                                                 |              |              |              |
|-------------------------------------------------|--------------|--------------|--------------|
| Max. PV input power                             | 18000Wp      | 18000Wp      | 19950Wp      |
| Max DC power for single MPPT                    | 11000W/7500W | 11000W/7500W | 11000W/7500W |
| Number of MPPT trackers                         | 2            |              |              |
| Number for DC inputs                            | 2/1          |              |              |
| Max. input voltage                              | 1000V        |              |              |
| Start-up voltage                                | 200V         |              |              |
| Rated input voltage                             | 600V         |              |              |
| MPPT operating voltage range                    | 160V-960V    |              |              |
| Full power MPPT voltage range                   | 350V-850V    | 500V-850V    | 500V-850V    |
| Max. input MPPT current                         | 21A/11A      |              |              |
| Maximum DC input short circuit current per MPPT | 30A/15A      |              |              |

#### Output (AC)

|                               |                                                   |         |         |
|-------------------------------|---------------------------------------------------|---------|---------|
| Rated power                   | 10000W                                            | 12000W  | 15000W  |
| Max. AC power                 | 11000VA                                           | 13200VA | 16500VA |
| Max. Output current           | 3*16.5A                                           | 3*20A   | 3*24A   |
| Nominal grid voltage          | 3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac        |         |         |
| Grid voltage range            | 310Vac-480Vac (According to local standard)       |         |         |
| Nominal frequency             | 50/60Hz                                           |         |         |
| Grid Frequency range          | 45Hz-55Hz/54Hz-66Hz (According to local standard) |         |         |
| Active power adjustable range | 0~100%                                            |         |         |
| THDi                          | <3%                                               |         |         |
| Power factor                  | >0.99 (adjustable +/-0.8)                         |         |         |

#### Performance

|                              |        |
|------------------------------|--------|
| Max efficiency               | 98.3%  |
| European weighted efficiency | 98.0%  |
| Self-consumption at night    | <1W    |
| MPPT efficiency              | >99.9% |

#### Protection

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| DC reverse polarity protection | Yes                                           |
| DC switch                      | Yes                                           |
| ARPC                           | Anti reverse power controller (optional)      |
| Safety protection              | Anti islanding, RCMU, Ground fault monitoring |

#### Communication

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Power management unit       | According to certification and request        |
| Standard communication mode | RS485, Wifi/Ethernet/GPRS (optional), SD card |
| Operation data storage      | 25 years                                      |

#### General Data

|                                   |                            |        |      |
|-----------------------------------|----------------------------|--------|------|
| Ambient temperature range         | -25°C~+60°C                |        |      |
| Topology                          | Transformerless            |        |      |
| Degree of protection              | IP65                       |        |      |
| Allowable relative humidity range | 0~100%                     |        |      |
| Max. Operating altitude           | 2000m                      |        |      |
| Noise                             | <45dB                      |        |      |
| Weight                            | 23.5kg                     | 23.5kg | 25kg |
| Cooling                           | Fan                        |        |      |
| Dimension                         | 539*452*202mm              |        |      |
| Display                           | LCD display                |        |      |
| Warranty                          | 5 years/ 7 years/ 10 years |        |      |

#### Standard

|                  |                                                                           |  |  |
|------------------|---------------------------------------------------------------------------|--|--|
| EMC              | EN 61000-6-1, EN 61000-6-3                                                |  |  |
| Safety standards | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)          |  |  |
| Grid standards   | AS/NZS 4777, VDE-AR-N 4105, CEI 0-21, G99, EN50549, V 0126-1-1, NB/T32004 |  |  |

# SOFAR 20K~33KTL-G2

20000/ 25000/ 30000/ 33000



## Three-Phase      Dual-MPPT

- 4"

Super large 4-inch LCD
- 1100V

1100V voltage level design
- DRM

Built-in DRM port and logic
- 98.6%

Max. efficiency up to 98.6%
- I-V

I-V curve scanning function
- SPD

Built-in SPD, over / under voltage, over current, over temperature, Anti-islanding and other multiple protections

### Datasheet

| Datasheet                                       | SOFAR<br>20000TL-G2                                                                                                                             | SOFAR<br>25000TL-G2 | SOFAR<br>30000TL-G2 | SOFAR<br>33000TL-G2 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|
| Input (DC)                                      |                                                                                                                                                 |                     |                     |                     |
| Recommended Max. PV input power                 | 26600Wp                                                                                                                                         | 33250Wp             | 39900Wp             | 43890Wp             |
| Max DC power for single MPPT                    | 13000W                                                                                                                                          | 16000W              | 18000W              | 20000W              |
| Number of MPP trackers                          | 2                                                                                                                                               |                     |                     |                     |
| Number for DC inputs                            | 2 for each MPPT                                                                                                                                 | 3 for each MPPT     | 3 for each MPPT     | 3 for each MPPT     |
| Max. input voltage                              | 1100V                                                                                                                                           |                     |                     |                     |
| Start-up voltage                                | 250V                                                                                                                                            |                     |                     |                     |
| Rated input voltage                             | 620V                                                                                                                                            |                     |                     |                     |
| MPPT operating voltage range                    | 230V-960V                                                                                                                                       |                     |                     |                     |
| Full power MPPT voltage range                   | 480V-850V                                                                                                                                       | 460V-850V           | 520V-850V           | 580V-850V           |
| Max. input MPPT current                         | 24A/24A                                                                                                                                         | 28A/28A             | 30A/30A             | 30A/30A             |
| Maximum DC input short circuit current per MPPT | 30A                                                                                                                                             | 35A                 | 37.5A               | 37.5A               |
| Output (AC)                                     |                                                                                                                                                 |                     |                     |                     |
| Rated power                                     | 20000W                                                                                                                                          | 25000W              | 30000W              | 33000W              |
| Max. AC power                                   | 22000VA                                                                                                                                         | 27500VA             | 33000VA             | 36300VA             |
| Max. Output current                             | 32A                                                                                                                                             | 40A                 | 48A                 | 53A                 |
| Nominal grid voltage                            | 3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac                                                                                                      |                     |                     |                     |
| Grid voltage range                              | 310Vac-480Vac (According to local standard)                                                                                                     |                     |                     |                     |
| Nominal frequency                               | 50/60Hz                                                                                                                                         |                     |                     |                     |
| Grid Frequency range                            | 45Hz-55Hz/54Hz-66Hz (According to local standard)                                                                                               |                     |                     |                     |
| Active power adjustable range                   | 0~100%                                                                                                                                          |                     |                     |                     |
| THDi                                            | <3%                                                                                                                                             |                     |                     |                     |
| Power factor                                    | >0.99 (adjustable +/-0.8)                                                                                                                       |                     |                     |                     |
| Performance                                     |                                                                                                                                                 |                     |                     |                     |
| Max efficiency                                  | 98.2%                                                                                                                                           | 98.4%               | 98.4%               | 98.6%               |
| European weighted efficiency                    | 98.0%                                                                                                                                           | 98.2%               | 98.2%               | 98.2%               |
| Self-consumption at night                       | <1W                                                                                                                                             |                     |                     |                     |
| MPPT efficiency                                 | >99.9%                                                                                                                                          |                     |                     |                     |
| Protection                                      |                                                                                                                                                 |                     |                     |                     |
| DC reverse polarity protection                  | Yes                                                                                                                                             |                     |                     |                     |
| DC switch                                       | Yes                                                                                                                                             |                     |                     |                     |
| Protection class/ overvoltage category          | I/III                                                                                                                                           |                     |                     |                     |
| Safety protection                               | Anti islanding, RCMU, Ground fault monitoring                                                                                                   |                     |                     |                     |
| ARPC                                            | Anti reverse power controller (optional)                                                                                                        |                     |                     |                     |
| Communication                                   |                                                                                                                                                 |                     |                     |                     |
| Power management unit                           | According to certification and request                                                                                                          |                     |                     |                     |
| Standard communication mode                     | RS485, Wifi/Ethernet/GPRS(optional), SD card                                                                                                    |                     |                     |                     |
| Operation data storage                          | 25 years                                                                                                                                        |                     |                     |                     |
| General Data                                    |                                                                                                                                                 |                     |                     |                     |
| Ambient temperature range                       | -25℃~+60℃                                                                                                                                       |                     |                     |                     |
| Topology                                        | Transformerless                                                                                                                                 |                     |                     |                     |
| Degree of protection                            | IP65                                                                                                                                            |                     |                     |                     |
| Allowable relative humidity range               | 0~100%                                                                                                                                          |                     |                     |                     |
| Max. operating altitude                         | 2000m                                                                                                                                           |                     |                     |                     |
| Noise                                           | <30dB                                                                                                                                           | <45dB               | <45dB               | <45dB               |
| Weight                                          | 37kg                                                                                                                                            |                     |                     |                     |
| Cooling                                         | Natural                                                                                                                                         | Fan                 | Fan                 | Fan                 |
| Dimension                                       | 666*512*254mm                                                                                                                                   |                     |                     |                     |
| Display                                         | LCD display                                                                                                                                     |                     |                     |                     |
| Warranty                                        | 5 years/ 7 years/ 10 years                                                                                                                      |                     |                     |                     |
| Standard                                        |                                                                                                                                                 |                     |                     |                     |
| EMC                                             | EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12                                                                                        |                     |                     |                     |
| Safety standards                                | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30), IEC60255                                                                      |                     |                     |                     |
| Grid standards                                  | AS/NZS 4417, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN 50549, G99, P.O. 12.3, RD1699, UTE C15-712-1, EN 50530, NB/T32004 |                     |                     |                     |



SOFAR

50K~70KTL

50000/ 60000/ 70000

Three-Phase

Three-MPPT

- 4"

Super large 4-inch LCD
- Outdoor IP65 protection level
- Sound and light alarm function
- DC SPD Class 2, over/under voltage, over current, over temperature, Anti-islanding and other multiple protections
- Fuse free design
- Built-in DRM port and logic
- Max. efficiency up to 98.6%



| Datasheet                                       | SOFAR<br>50000TL                                                                                                                 | SOFAR<br>60000TL | SOFAR<br>70000TL-HV                        |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------|
| Input (DC)                                      |                                                                                                                                  |                  |                                            |
| Recommended Max. PV input power                 | 66500Wp                                                                                                                          | 79800Wp          | 93100Wp                                    |
| Max DC power for single MPPT                    | 22000W                                                                                                                           | 22000W           | 26000W                                     |
|                                                 | 16000W                                                                                                                           | 22000W           | 26000W                                     |
|                                                 | 16000W                                                                                                                           | 22000W           | 26000W                                     |
| Number of MPP trackers                          | 3                                                                                                                                |                  |                                            |
| Number for DC inputs                            | 4/3/3                                                                                                                            | 4/4/4            | 4/4/4                                      |
| Max. input voltage                              | 1000V                                                                                                                            |                  |                                            |
| Start-up voltage                                | 350V                                                                                                                             |                  |                                            |
| Rated input voltage                             | 600V                                                                                                                             | 600V             | 700V                                       |
| MPPT operating voltage range                    | 250V-950V                                                                                                                        |                  |                                            |
| Full power MPPT voltage range                   | 530V-800V                                                                                                                        | 530V-800V        | 660V-800V                                  |
| Max. input MPPT current                         | 40A/30A/30A                                                                                                                      | 40A/40A/40A      | 40A/40A/40A                                |
| Max. input current pet string                   | 12A                                                                                                                              |                  |                                            |
| Maximun DC input short circuit current per MPPT | 48A/36A/36A                                                                                                                      | 48A              | 48A                                        |
| Output (AC)                                     |                                                                                                                                  |                  |                                            |
| Rated power                                     | 50000W                                                                                                                           | 60000W           | 70000W                                     |
| Max. AC power                                   | 50000VA                                                                                                                          | 60000VA          | 75000VA                                    |
| Max. Output current                             | 80A                                                                                                                              | 90A              | 90A                                        |
| Nominal grid voltage                            | 3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac                                                                                       |                  | 3/N/PE or 3/PE, 277/480Vac                 |
| Grid voltage range                              | 310Vac-480Vac (According to local standard)                                                                                      |                  | 422Vac-528Vac(According to local standard) |
| Nominal frequency                               | 50/60Hz                                                                                                                          |                  |                                            |
| Grid Frequency range                            | 45Hz-55Hz/54Hz-66Hz (According to local standard)                                                                                |                  |                                            |
| Active power adjustable range                   | 0~100%                                                                                                                           |                  |                                            |
| THDi                                            | <3%                                                                                                                              |                  |                                            |
| Power factor                                    | >0.99 ( adjustable+/-0.8 )                                                                                                       |                  |                                            |
| Performance                                     |                                                                                                                                  |                  |                                            |
| Max efficiency                                  | 98.5%                                                                                                                            | 98.6%            | 98.6%                                      |
| European weighted efficiency                    | 98.3%                                                                                                                            | 98.4%            | 98.4%                                      |
| Self-consumption at night                       | <1W                                                                                                                              |                  |                                            |
| MPPT efficiency                                 | >99.9%                                                                                                                           |                  |                                            |
| Protection                                      |                                                                                                                                  |                  |                                            |
| DC reverse polarity protection                  | Yes                                                                                                                              |                  |                                            |
| DC switch                                       | Yes                                                                                                                              |                  |                                            |
| Protection class/ overvoltage category          | I/III                                                                                                                            |                  |                                            |
| Input/ output SPD(III)                          | PV: type II standard, AC: type II optional                                                                                       |                  |                                            |
| Safety protection                               | Anti islanding, RCMU, Ground fault monitoring                                                                                    |                  |                                            |
| ARPC                                            | Anti reverse power controller (optional)                                                                                         |                  |                                            |
| Communication                                   |                                                                                                                                  |                  |                                            |
| Power management unit                           | According to certification and request                                                                                           |                  |                                            |
| Standard communication mode                     | RS485, Wifi/Ethernet/GPRS(optional), SD card, Multi-function relay                                                               |                  |                                            |
| Operation data storage                          | 25 years                                                                                                                         |                  |                                            |
| General Data                                    |                                                                                                                                  |                  |                                            |
| Ambient temperature range                       | -25°C~+60°C                                                                                                                      |                  |                                            |
| Topology                                        | Transformerless                                                                                                                  |                  |                                            |
| Degree of protection                            | IP65                                                                                                                             |                  |                                            |
| Allowable relative humidity range               | 0~100%                                                                                                                           |                  |                                            |
| Max. operating altitude                         | 4000m                                                                                                                            |                  |                                            |
| Noise                                           | ≤60dB                                                                                                                            |                  |                                            |
| Weight                                          | 68kg                                                                                                                             | 70kg             | 70kg                                       |
| Cooling                                         | Fan                                                                                                                              |                  |                                            |
| Dimension                                       | 713*737*297mm                                                                                                                    |                  |                                            |
| Display                                         | LCD display                                                                                                                      |                  |                                            |
| Warranty                                        | 5 years/ 7 years/ 10 years                                                                                                       |                  |                                            |
| Standard                                        |                                                                                                                                  |                  |                                            |
| EMC                                             | EN 61000-6-2, EN 61000-6-4, 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, BDEW, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50549, G99, EN50530, NB/T32004 |                  |                                            |



# SOFAR 80K~136KTL

80KTL/100KTL/110KTL/100KTL-HV/125KTL-HV/136KTL-HV



## Three-Phase      Eight to twelve MPPTs

- 99%

Max. efficiency up to 99%
- Remote firmware upgrade
- Outdoor IP66 protection level
- I-V curve scanning function
- Type II SPD for both DC and AC
- 12 MPPT

Maximum 12 MPP trackers with 1.5\* DC overload
- Support Modbus communication, external Wifi/ PLC/ GPRS (optional)
- AC / DC dual power supply redundant design, 24-hour status monitoring

| Datasheet                                 | SOFAR 80KTL                                                                                                                | SOFAR 100KTL  | SOFAR 110KTL  | SOFAR 100KTL-HV | SOFAR 125KTL-HV | SOFAR 136KTL-HV |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------|---------------|-----------------|-----------------|-----------------|
| Input (DC)                                |                                                                                                                            |               |               |                 |                 |                 |
| Max. input voltage                        | 1100V                                                                                                                      |               |               |                 |                 |                 |
| Rated input voltage                       | 625V                                                                                                                       | 625V          | 625V          | 725V            | 725V            | 785V            |
| Start-up voltage                          | 200V                                                                                                                       |               |               |                 |                 |                 |
| MPPT operating voltage range              | 180V-1000V                                                                                                                 |               |               |                 |                 |                 |
| Full power MPPT voltage range             | 500V-850V                                                                                                                  | 500V-850V     | 500V-850V     | 550V-850V       | 550V-850V       | 550V-850V       |
| Number of MPP trackers                    | 8                                                                                                                          | 10            | 10            | 10              | 10              | 12              |
| Number for DC inputs                      | 16                                                                                                                         | 20            | 20            | 20              | 20              | 24              |
| Max. input current per MPPT               | 26A                                                                                                                        |               |               |                 |                 |                 |
| Max. input short circuit current per MPPT | 40A                                                                                                                        |               |               |                 |                 |                 |
| Output (AC)                               |                                                                                                                            |               |               |                 |                 |                 |
| Rated power                               | 80kW                                                                                                                       | 100kW         | 110kW         | 100kW           | 125kW           | 136kW           |
| Max. AC power                             | 88kVA                                                                                                                      | 110kVA        | 121kVA        | 110kVA          | 137kVA          | 150kVA          |
| Max. output current                       | 128A                                                                                                                       | 160A          | 175A          | 128A            | 160A            | 160A            |
| Nominal grid voltage                      | 3/N/PE, 230V/400Vac, 220V/380Vac                                                                                           |               |               | 3/PE, 500Vac    | 3/PE, 500Vac    | 3/PE, 540Vac    |
| Grid voltage range                        | 310Vac-480Vac                                                                                                              | 310Vac-480Vac | 310Vac-480Vac | 400Vac-575Vac   | 400Vac-575Vac   | 432Vac-621Vac   |
| Nominal frequency                         | 50/60Hz                                                                                                                    |               |               |                 |                 |                 |
| 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)                                                                                              |               |               |                 |                 |                 |
| Performance                               |                                                                                                                            |               |               |                 |                 |                 |
| Max. Efficiency                           | 98.60%                                                                                                                     | 98.70%        | 98.75%        | 98.80%          | 99.00%          | 99.00%          |
| European weighted efficiency              | 98.20%                                                                                                                     | 98.30%        | 98.30%        | 98.50%          | 98.50%          | 98.51%          |
| MPPT efficiency                           | >99.9%                                                                                                                     |               |               |                 |                 |                 |
| Protection                                |                                                                                                                            |               |               |                 |                 |                 |
| DC reverse polarity protection            | Yes                                                                                                                        |               |               |                 |                 |                 |
| Anti-islanding protection                 | Yes                                                                                                                        |               |               |                 |                 |                 |
| Leakage current protection                | Yes                                                                                                                        |               |               |                 |                 |                 |
| Ground fault monitoring                   | Yes                                                                                                                        |               |               |                 |                 |                 |
| PV-array string fault monitoring          | Yes                                                                                                                        |               |               |                 |                 |                 |
| Zero voltage ride through                 | Yes                                                                                                                        |               |               |                 |                 |                 |
| DC switch                                 | Yes                                                                                                                        |               |               |                 |                 |                 |
| Anti-PID protection                       | Optional                                                                                                                   |               |               |                 |                 |                 |
| AFCI                                      | Optional                                                                                                                   |               |               |                 |                 |                 |
| Protection class/ Overvoltage category    | I/III                                                                                                                      |               |               |                 |                 |                 |
| Input/ Output SPD                         | PV: type II standard, AC: type II standard                                                                                 |               |               |                 |                 |                 |
| Communication                             |                                                                                                                            |               |               |                 |                 |                 |
| Power management unit                     | According to certification and request                                                                                     |               |               |                 |                 |                 |
| Communication                             | RS485, Optional: WiFi /GPRS /PLC                                                                                           |               |               |                 |                 |                 |
| Operation data storage                    | 25 years                                                                                                                   |               |               |                 |                 |                 |
| General Data                              |                                                                                                                            |               |               |                 |                 |                 |
| Ambient temperature range                 | -30°C ~ +60°C                                                                                                              |               |               |                 |                 |                 |
| Topology                                  | Transformerless                                                                                                            |               |               |                 |                 |                 |
| Degree of protection                      | IP66                                                                                                                       |               |               |                 |                 |                 |
| Allowable relative humidity range         | 0~100%                                                                                                                     |               |               |                 |                 |                 |
| Max. operating altitude                   | 4000m                                                                                                                      |               |               |                 |                 |                 |
| Weight                                    | 88kg                                                                                                                       | 90kg          | 90kg          | 90kg            | 90kg            | 92kg            |
| Cooling                                   | Smart forced air cooling                                                                                                   |               |               |                 |                 |                 |
| Dimension                                 | 995.5*663.5*368mm                                                                                                          |               |               |                 |                 |                 |
| Display                                   | LCD&Bluetooth+APP                                                                                                          |               |               |                 |                 |                 |
| Warranty                                  | 5 years/ 7 years/ 10 years                                                                                                 |               |               |                 |                 |                 |
| Standard                                  |                                                                                                                            |               |               |                 |                 |                 |
| EMC                                       | EN 61000-6-2, EN 61000-6-4                                                                                                 |               |               |                 |                 |                 |
| Safety standard                           | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)                                                           |               |               |                 |                 |                 |
| Grid standard                             | AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50549, G99, EN50530, NB/T32004 |               |               |                 |                 |                 |



SOFAR

250K~255KTL-HV

250KTL-HV / 255KTL-HV

Three-Phase

Twelve MPPTs

- Built-in Anti-PID and PID recovery
- IP66 and C5 protection
- Type II SPD for both DC and AC
- Touch free commissioning and remote firmware upgrade
- AC / DC dual power supply redundant design, 24-hour status monitoring
- Compatible with Al and Cu AC cables
- IV curve scan and diagnosis
- 12\*MPPT with max. efficiency 99.01%



| Datasheet                              | SOFAR<br>250KTL-HV                                                                                                         | SOFAR<br>255KTL-HV                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Input (DC)                             |                                                                                                                            |                                         |
| Max. input voltage                     | 1500V                                                                                                                      |                                         |
| Rated input voltage                    | 1080V                                                                                                                      |                                         |
| Start-up voltage                       | 550V                                                                                                                       |                                         |
| MPPT operating voltage range           | 500V-1500V                                                                                                                 |                                         |
| Full power MPPT voltage range          | 800V-1300V                                                                                                                 |                                         |
| Number of MPP trackers                 | 12                                                                                                                         |                                         |
| Number for DC inputs                   | 24                                                                                                                         |                                         |
| Max. input MPPT current                | 30A*12                                                                                                                     |                                         |
| Max. input short circuit current       | 50A*12                                                                                                                     |                                         |
| Output (AC)                            |                                                                                                                            |                                         |
| AC output power                        | 250kVA@30°C / 235kVA@40°C / 220kVA@50°C                                                                                    | 255kVA@30°C / 235kVA@40°C / 220kVA@50°C |
| Max. output current                    | 180.5A                                                                                                                     | 184A                                    |
| Nominal grid voltage                   | 3/PE, 800Vac                                                                                                               |                                         |
| Grid voltage range                     | 640Vac-920VVac                                                                                                             |                                         |
| Nominal frequency                      | 50 / 60Hz                                                                                                                  |                                         |
| Grid frequency range                   | 45~55Hz / 55~ 65Hz (According to local standard)                                                                           |                                         |
| Active power adjustable range          | 0~100%                                                                                                                     |                                         |
| THDi                                   | <3%                                                                                                                        |                                         |
| Power factor                           | I default (adjustable+/-0.8)                                                                                               |                                         |
| Performance                            |                                                                                                                            |                                         |
| Max. Efficiency                        | 99.01%                                                                                                                     |                                         |
| European efficiency                    | 98.80%                                                                                                                     |                                         |
| Protection                             |                                                                                                                            |                                         |
| DC reverse polarity protection         | Yes                                                                                                                        |                                         |
| Anti-islanding protection              | Yes                                                                                                                        |                                         |
| Leakage current protection             | Yes                                                                                                                        |                                         |
| Ground fault monitoring                | Yes                                                                                                                        |                                         |
| PV-array string fault monitoring       | Yes                                                                                                                        |                                         |
| Zero voltage ride through              | Yes                                                                                                                        |                                         |
| DC switch                              | Yes                                                                                                                        |                                         |
| Anti-PID function                      | Optional                                                                                                                   |                                         |
| AFCI protection                        | Optional                                                                                                                   |                                         |
| Protection class/ Overvoltage category | I/III                                                                                                                      |                                         |
| Input/ Output SPD                      | PV: type II standard AC: type II Standard                                                                                  |                                         |
| Communication                          |                                                                                                                            |                                         |
| Communication                          | RS485 /USB /Bluetooth, Optional: WiFi /GPRS /PLC                                                                           |                                         |
| General Data                           |                                                                                                                            |                                         |
| Ambient temperature range              | -30°C~ +60°C                                                                                                               |                                         |
| Self-consumption at night              | <2W                                                                                                                        |                                         |
| Topology                               | Transformerless                                                                                                            |                                         |
| Degree of protection                   | IP66                                                                                                                       |                                         |
| Allowable relative humidity range      | 0~100%                                                                                                                     |                                         |
| Max. operating altitude                | 4000m                                                                                                                      |                                         |
| Noise                                  | ≤60 dB                                                                                                                     |                                         |
| Weight                                 | 99kg                                                                                                                       |                                         |
| Cooling                                | Smart forced air cooling                                                                                                   |                                         |
| Dimension                              | 1100.5*713.5*368mm                                                                                                         |                                         |
| Display                                | LCD&Bluetooth+APP                                                                                                          |                                         |
| Standard warranty                      | 5 years/ 7 years/ 10 years                                                                                                 |                                         |
| Standard                               |                                                                                                                            |                                         |
| EMC                                    | EN 61000-6-2, EN 61000-6-4                                                                                                 |                                         |
| Safety standard                        | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)                                                           |                                         |
| Grid standard                          | AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50549, G99, EN50530, NB/T32004 |                                         |



# ME 3000SP

## 3KW AC Coupled energy storage inverter

- 

A variety of work modes are optional
- 

LCD+LED – human friendly-machine interface
- 

Outdoor IP65 design
- 

Smart battery energy management system
- 

Compatible with other brands of inverter
- 

Flexible configuration of lead acid or lithium battery
- 

Integrated fanless self-recognition heat dissipation design

| Datasheet                              |                                                                                                                 | ME 3000SP |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|
| Battery Parameters                     |                                                                                                                 |           |
| Battery Type                           | Lithium-ion, Lead-acid                                                                                          |           |
| Nominal battery voltage                | 48V                                                                                                             |           |
| Battery voltage range                  | 42-58V                                                                                                          |           |
| Recommended battery capacity           | 200Ah (100~500Ah optional)                                                                                      |           |
| Recommended storage capacity           | 9.6kWh                                                                                                          |           |
| Max. Charging current                  | 60A                                                                                                             |           |
| Charging current range                 | 0-60A (Programmable)                                                                                            |           |
| Charging curve                         | 3-Stage adaptive with maintenance                                                                               |           |
| Max. Discharging current               | 60A                                                                                                             |           |
| Electronic protection                  | OCP OTP OVP                                                                                                     |           |
| Short circuit protection               | Fuse (100A)                                                                                                     |           |
| Discharge times (Hour)                 | Po=1kVA9.6h                                                                                                     |           |
|                                        | Po=3kVA3.2h                                                                                                     |           |
| Depth of discharge                     | Lithium-ion: 0-80% DOD adjustable                                                                               |           |
|                                        | Lead-acid: 0-50% DOD adjustable                                                                                 |           |
| AC Parameters                          |                                                                                                                 |           |
| Max. Output power                      | 3kVA                                                                                                            |           |
| Rated Input/ Output voltage            | 230V                                                                                                            |           |
| Max. Input/ Output current             | 13A                                                                                                             |           |
| AC Input/ Voltage range                | 180V-270V                                                                                                       |           |
| Grid frequency range                   | 44~55Hz / 54~66Hz                                                                                               |           |
| THD                                    | <3%                                                                                                             |           |
| Power factor                           | 1 default (+/-0.8 adjustable)                                                                                   |           |
| Connection phase                       | Single                                                                                                          |           |
| Current (inrush)                       | 0.8A/ 1us                                                                                                       |           |
| Maximum output fault current           | 100A/ 1us                                                                                                       |           |
| Maximum output over current protection | 13A                                                                                                             |           |
| System Parameters                      |                                                                                                                 |           |
| Max. Charging efficiency               | >95%                                                                                                            |           |
| Max. Discharging efficiency            | >95%                                                                                                            |           |
| Standby losses                         | <5W                                                                                                             |           |
| Topology                               | High frequency isolated transformer                                                                             |           |
| Degree of protection                   | IP65                                                                                                            |           |
| Safety protection                      | Anti islanding, RCMU, Ground fault monitoring                                                                   |           |
| Communication                          | RS485, Wifi/Ethernet/GPRS, CAN2.0                                                                               |           |
| SPD protection                         | III                                                                                                             |           |
| Environmental                          |                                                                                                                 |           |
| Ambient temperature range              | -25°C~ +60°C (Above 45°C Derating)                                                                              |           |
| Allowable relative humidity range      | 0~100%                                                                                                          |           |
| Protective class                       | Class I                                                                                                         |           |
| Max. Operating altitude                | 2000m                                                                                                           |           |
| Current sensor connection              | External                                                                                                        |           |
| Emergency Power Supply                 |                                                                                                                 |           |
| EPS rated power                        | 3000VA                                                                                                          |           |
| EPS rated voltage, Frequency           | 230V, 50/60Hz                                                                                                   |           |
| EPS rated current                      | 13A                                                                                                             |           |
| Total harmonic distortion              | <3%                                                                                                             |           |
| Switch time                            | <3s                                                                                                             |           |
| General Data                           |                                                                                                                 |           |
| Noise                                  | <25dB                                                                                                           |           |
| Weight                                 | 16kg                                                                                                            |           |
| Cooling                                | Natural                                                                                                         |           |
| Dimension (W*H*D)                      | 530*360*173mm                                                                                                   |           |
| Display                                | LCD display                                                                                                     |           |
| Warranty                               | 5 Years (Optional: Extension to 10 years)                                                                       |           |
| Standard                               |                                                                                                                 |           |
| EMC                                    | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4                                                          |           |
| Safety standards                       | IEC62109-1/2, IEC62040-1                                                                                        |           |
| Grid standards                         | AS/NZS 4777, AS/NZS 62040, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G83/G98, UTE C15-712-1 |           |



ME  
5k~20kTL-3PH

5000/6000/8000/10000/15000/20000

5K~20KW AC  
Coupled energy storage inverter

- Compact design with functional LCD
- Wide battery voltage range(180-800V)
- Off-grid and On-grid output can be connected to unbalanced load
- Flexible switching between grid-tied mode and energy storage mode
- 2 strings of battery input with maximum 50A charge and discharge current

97.8% Max. battery charge/discharge efficiency 97.8%



| Datasheet                                   | ME<br>5KTL-3PH                                                                                                                          | ME<br>6KTL-3PH | ME<br>8KTL-3PH | ME<br>10KTL-3PH | ME<br>15KTL-3PH   | ME<br>20KTL-3PH |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------|-------------------|-----------------|
| Battery Input Data                          |                                                                                                                                         |                |                |                 |                   |                 |
| Battery type                                | Li-Ion & Lead-acid                                                                                                                      |                |                |                 |                   |                 |
| No. of battery input                        | 1                                                                                                                                       |                |                | 2               |                   |                 |
| Battery voltage range                       | 180V~800V                                                                                                                               |                |                |                 |                   |                 |
| Battery voltage range for full load         | 200V~800V                                                                                                                               | 240V~800V      | 320V~800V      | 200V~800V       | 300V~800V         | 400V~800V       |
| Nominal charging/discharging power          | 5000W                                                                                                                                   | 6000W          | 8000W          | 10000W          | 15000W            | 20000W          |
| Max. charging/discharging current           | 25A                                                                                                                                     |                |                |                 | 50A(25A/25A)      |                 |
| Peak charging/discharging current, Duration | 40A, 60s                                                                                                                                |                |                |                 | 70A(35A/35A), 60s |                 |
| Charging strategy for battery               | Self-adaption to BMS                                                                                                                    |                |                |                 |                   |                 |
| Communication interfaces                    | CAN(RS485)                                                                                                                              |                |                |                 |                   |                 |
| AC Output Data (On-grid)                    |                                                                                                                                         |                |                |                 |                   |                 |
| Nominal AC power                            | 5000W                                                                                                                                   | 6000W          | 8000W          | 10000W          | 15000W            | 20000W          |
| Max. AC power output to utility grid        | 5500VA                                                                                                                                  | 6600VA         | 8800VA         | 11000VA         | 16500VA           | 22000VA         |
| Max. AC power from utility grid             | 10000VA                                                                                                                                 | 12000VA        | 16000VA        | 20000VA         | 30000VA           | 40000VA         |
| Max. AC current output to utility grid      | 8A                                                                                                                                      | 10A            | 13A            | 16A             | 24A               | 32A             |
| Max. AC Current from utility grid           | 15A                                                                                                                                     | 17A            | 24A            | 29A             | 44A               | 58A             |
| Nominal grid voltage                        | 3/N/PE, 220/380Vac, 230/400Vac                                                                                                          |                |                |                 |                   |                 |
| Grid voltage range                          | 184Vac~276Vac                                                                                                                           |                |                |                 |                   |                 |
| Nominal grid frequency                      | 50/60Hz                                                                                                                                 |                |                |                 |                   |                 |
| Grid frequency range                        | 45Hz~55Hz/55Hz~65Hz                                                                                                                     |                |                |                 |                   |                 |
| Output power factor                         | ~1(0.8 leading to 0.8 lagging)                                                                                                          |                |                |                 |                   |                 |
| Output THDi (@Nominal output)               | <3%                                                                                                                                     |                |                |                 |                   |                 |
| AC Output Data (Back-up)                    |                                                                                                                                         |                |                |                 |                   |                 |
| Nominal output power                        | 5000W                                                                                                                                   | 6000W          | 8000W          | 10000W          | 15000W            | 20000W          |
| Max. output power                           | 5500VA                                                                                                                                  | 6600VA         | 8800VA         | 11000VA         | 16500VA           | 22000VA         |
| Peak output power, Duration                 | 10000VA, 60s                                                                                                                            | 12000VA, 60s   | 16000VA, 60s   | 20000VA, 60s    | 22000VA, 60s      | 22000VA, 60s    |
| Max. output current                         | 8A                                                                                                                                      | 10A            | 13A            | 16A             | 24A               | 32A             |
| Peak output current, Duration               | 15A, 60s                                                                                                                                | 18A, 60s       | 24A, 60s       | 30A, 60s        | 32A, 60s          | 32A, 60s        |
| Nominal output voltage                      | 3/N/PE, 220/380Vac, 230/400Vac                                                                                                          |                |                |                 |                   |                 |
| Nominal output frequency                    | 50/60Hz                                                                                                                                 |                |                |                 |                   |                 |
| Output THDv (@Liner load)                   | <3%                                                                                                                                     |                |                |                 |                   |                 |
| Switch time                                 | <10ms                                                                                                                                   |                |                |                 |                   |                 |
| Efficiency                                  |                                                                                                                                         |                |                |                 |                   |                 |
| Max. discharge efficiency                   | 97.6%                                                                                                                                   |                |                |                 | 97.8%             |                 |
| Max. charge efficiency                      | 97.6%                                                                                                                                   |                |                |                 | 97.8%             |                 |
| Protection                                  |                                                                                                                                         |                |                |                 |                   |                 |
| DC switch                                   | Yes                                                                                                                                     |                |                |                 |                   |                 |
| PV reverse polarity protection              | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Output over current protection              | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Output over voltage protection              | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Anti-islanding protection                   | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Residual current detection                  | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Insulation resistor detection               | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Surge protection level                      | AC: Type II, DC: Type III                                                                                                               |                |                |                 |                   |                 |
| Battery reverse protection                  | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Feature                                     |                                                                                                                                         |                |                |                 |                   |                 |
| DC terminal                                 | MC4                                                                                                                                     |                |                |                 |                   |                 |
| Grid AC terminal                            | 5P Connector                                                                                                                            |                |                |                 |                   |                 |
| Back-up AC terminal                         | 5P Connector                                                                                                                            |                |                |                 |                   |                 |
| Display                                     | LCD Display                                                                                                                             |                |                |                 |                   |                 |
| Monitoring interfaces                       | Bluetooth / RS485 / WIFI / GPRS (optional)                                                                                              |                |                |                 |                   |                 |
| Parallel operation                          | Yes                                                                                                                                     |                |                |                 |                   |                 |
| Standard warranty                           | Standard 5 years                                                                                                                        |                |                |                 |                   |                 |
| General Data                                |                                                                                                                                         |                |                |                 |                   |                 |
| Dimension                                   | 586.6*515*261.2mm                                                                                                                       |                |                |                 |                   |                 |
| Weight                                      | 30kg                                                                                                                                    |                |                | 34kg            |                   |                 |
| Inverter topology                           | Transformerless                                                                                                                         |                |                |                 |                   |                 |
| Standby self consumption                    | <15W                                                                                                                                    |                |                |                 |                   |                 |
| Operating temperature range                 | -30℃~60℃                                                                                                                                |                |                |                 |                   |                 |
| Relative humidity                           | 0~100%                                                                                                                                  |                |                |                 |                   |                 |
| Noise                                       | <45dB                                                                                                                                   |                |                |                 |                   |                 |
| Operating altitude                          | <4000m                                                                                                                                  |                |                |                 |                   |                 |
| Cooling                                     | Natural                                                                                                                                 |                |                | Forced airflow  |                   |                 |
| Protection degree                           | IP65                                                                                                                                    |                |                |                 |                   |                 |
| Certifications & Standards                  |                                                                                                                                         |                |                |                 |                   |                 |
| EMC                                         | EN61000-1, EN61000-2, EN61000-3, EN61000-4, EN61000-4-16, EN61000-4-18, EN61000-4-29                                                    |                |                |                 |                   |                 |
| Safety                                      | IEC62109-1, IEC62109-2, NB-T32004/IEC62040-1                                                                                            |                |                |                 |                   |                 |
| Grid                                        | AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN50438/EN50549, G83/G59/G98/G99, UTE C15-712-1, UNE206 007-1 |                |                |                 |                   |                 |



# HYD 3K~6K-ES

3000/3600/4000/4600/5000/6000

## Single-Phase Energy storage integrated inverter

- Outdoor IP65 design
- Compatible with on grid and off grid
- A variety of work modes are optional
- EPS function, switching time is less than 10ms
- Built-in zero export function
- Flexible configuration of lead acid or lithium battery
- Integrated fanless self-recognition heat dissipation design



| Datasheet                              | HYD<br>3000-ES                                                                                                           | HYD<br>3600-ES | HYD<br>4000-ES | HYD *<br>4600-ES | HYD<br>5000-ES | HYD<br>6000-ES |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------|----------------|------------------|----------------|----------------|
| Battery Parameters                     |                                                                                                                          |                |                |                  |                |                |
| Battery Type                           | Lithium-ion, Lead-acid                                                                                                   |                |                |                  |                |                |
| Nominal battery voltage                | 48V                                                                                                                      |                |                |                  |                |                |
| Battery voltage range                  | 42-58V                                                                                                                   |                |                |                  |                |                |
| Battery Capacity                       | 50-2000Ah                                                                                                                |                |                |                  |                |                |
| Maximum Charging / Discharging Power   | 3000W                                                                                                                    |                |                |                  |                |                |
| Maximum Charging Current               | 65A (Programmable)                                                                                                       |                |                |                  |                |                |
| Maximum Discharging Current            | 70A (Programmable)                                                                                                       |                |                |                  |                |                |
| Charging curve(Lithium-ion)            | BMS                                                                                                                      |                |                |                  |                |                |
| Charging curve(Lead-acid)              | 3-Stage adaptive with maintenance                                                                                        |                |                |                  |                |                |
| Depth of discharge                     | Lithium-ion: 0-90% DOD adjustable, Lead-acid:0-50% DOD adjustable                                                        |                |                |                  |                |                |
| Input DC(PV side)                      |                                                                                                                          |                |                |                  |                |                |
| Recommended Max. PV input power        | 3990Wp                                                                                                                   | 4790Wp         | 5320Wp         | 6120Wp           | 6650Wp         | 7980Wp         |
| Max DC power for single MPPT           | 2000W                                                                                                                    | 2400W          | 2600W          | 2800W            | 3000W          | 3500W          |
| Max. input voltage                     | 600V                                                                                                                     |                |                |                  |                |                |
| Start-up voltage                       | 120V                                                                                                                     |                |                |                  |                |                |
| Nominal DC 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      |
| MPPT number                            | 2                                                                                                                        |                |                |                  |                |                |
| The max DC input current               | 12A/12A                                                                                                                  |                |                |                  |                |                |
| The max DC input short current         | 15A/15A                                                                                                                  |                |                |                  |                |                |
| Output AC(Grid side)                   |                                                                                                                          |                |                |                  |                |                |
| Rated Power                            | 3000W                                                                                                                    | 3680W          | 4000W          | 4600W            | 5000W          | 6000W          |
| Max. Output Power                      | 3000VA                                                                                                                   | 3680VA         | 4000VA         | 4600VA           | 5000VA         | 6000VA         |
| Nominal Grid Voltage                   | L/N/PE, 220, 230, 240                                                                                                    |                |                |                  |                |                |
| Operation phase                        | Single (L-N-PE)                                                                                                          |                |                |                  |                |                |
| Max. Input / Output current            | 13.7A                                                                                                                    | 16A            | 18.2A          | 21.0A            | 22.8A          | 27.3A          |
| AC voltage Range                       | 180V~276V (According to local standard)                                                                                  |                |                |                  |                |                |
| Grid Frequency range                   | 44-55Hz/54-66Hz (According to local standard)                                                                            |                |                |                  |                |                |
| THD                                    | < 3%                                                                                                                     |                |                |                  |                |                |
| Power factor                           | 1 default (+/-0.8 adjustable)                                                                                            |                |                |                  |                |                |
| Output AC(Emergency Power Supply)      |                                                                                                                          |                |                |                  |                |                |
| EPS rated power                        | 3000VA                                                                                                                   |                |                |                  |                |                |
| Operation phase                        | Single (L-N-PE)                                                                                                          |                |                |                  |                |                |
| EPS rated voltage,Frequency            | 230V, 50/60Hz                                                                                                            |                |                |                  |                |                |
| EPS rated current                      | 13.2A                                                                                                                    |                |                |                  |                |                |
| Peak Output Apparent Power             | 4000VA, 10s                                                                                                              |                |                |                  |                |                |
| THD                                    | < 3%                                                                                                                     |                |                |                  |                |                |
| Switch time                            | 10ms default                                                                                                             |                |                |                  |                |                |
| Efficiency                             |                                                                                                                          |                |                |                  |                |                |
| MPPT efficiency                        | 99.9%                                                                                                                    |                |                |                  |                |                |
| Max efficiency of solar Inverter       | 97.6%                                                                                                                    | 97.6%          | 97.6%          | 97.8%            | 97.8%          | 98.0%          |
| European efficiency of solar Inverter  | 97.2%                                                                                                                    | 97.2%          | 97.2%          | 97.3%            | 97.3%          | 97.5%          |
| Max. Charging efficiency of battery    | 94.6%                                                                                                                    |                |                |                  |                |                |
| Max. DisCharging efficiency of battery | 94.6%                                                                                                                    |                |                |                  |                |                |
| Protection                             |                                                                                                                          |                |                |                  |                |                |
| PV reverse polarity protection         | Yes                                                                                                                      |                |                |                  |                |                |
| PV insulation detection                | Yes                                                                                                                      |                |                |                  |                |                |
| Ground fault monitoring                | Yes                                                                                                                      |                |                |                  |                |                |
| Over current protection                | Yes                                                                                                                      |                |                |                  |                |                |
| Over voltage protection                | Yes                                                                                                                      |                |                |                  |                |                |
| Battery soft start protection          | Yes                                                                                                                      |                |                |                  |                |                |
| SPD protection                         | III                                                                                                                      |                |                |                  |                |                |
| General Data                           |                                                                                                                          |                |                |                  |                |                |
| Ambient temperature range              | -25℃~+60℃ (Above 45℃ Derating)                                                                                           |                |                |                  |                |                |
| Standby Losses                         | < 10W                                                                                                                    |                |                |                  |                |                |
| Topology                               | High frequency insulation (for bat)                                                                                      |                |                |                  |                |                |
| DC-Switch                              | Yes                                                                                                                      |                |                |                  |                |                |
| Degree Of Protection                   | IP65                                                                                                                     |                |                |                  |                |                |
| Allowable Relative Humidity Range      | 0~100%                                                                                                                   |                |                |                  |                |                |
| Communication                          | RS485, Wifi/Ethernet/GPRS, SD, CAN2.0                                                                                    |                |                |                  |                |                |
| Protective class                       | Class I                                                                                                                  |                |                |                  |                |                |
| Max. Operating Altitude                | 2000m                                                                                                                    |                |                |                  |                |                |
| Current Sensor Connection              | External                                                                                                                 |                |                |                  |                |                |
| Noise                                  | <25dB                                                                                                                    |                |                |                  |                |                |
| Weight                                 | 20.5kg                                                                                                                   |                |                |                  |                |                |
| Cooling                                | Natural                                                                                                                  |                |                |                  |                |                |
| Dimension (W*H*D)                      | 566*394*173 mm                                                                                                           |                |                |                  |                |                |
| Display                                | LCD display                                                                                                              |                |                |                  |                |                |
| Warranty                               | 5 Years or more                                                                                                          |                |                |                  |                |                |
| 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, IEC62040-1, 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, GB3/G59/G98/G99, UTE C15-712-1, UNE 206 007-1 |                |                |                  |                |                |



# HYD 3K~6K-EP

3000/3680/4000/4600/5000/5500/6000

## Single-Phase Energy storage integrated inverter

- Outdoor IP65 design
- Compatible with on grid and off grid
- A variety of work modes are optional
- EPS function, switching time is less than 10ms
- Built-in zero export function
- Flexible configuration of lead acid or lithium battery
- Integrated fanless self-recognition heat dissipation design

| Datasheet                                 | HYD<br>3000-EP                                                                                                            | HYD<br>3680-EP | HYD<br>4000-EP | HYD<br>4600-EP | HYD *<br>5000-EP<br>(Australia) | HYD<br>5500-EP | HYD<br>6000-EP |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|---------------------------------|----------------|----------------|
| Battery Parameters                        |                                                                                                                           |                |                |                |                                 |                |                |
| Battery type                              | Lithium-ion, Lead-acid                                                                                                    |                |                |                |                                 |                |                |
| Nominal battery voltage                   | 48V                                                                                                                       |                |                |                |                                 |                |                |
| Battery voltage range                     | 42-58V                                                                                                                    |                |                |                |                                 |                |                |
| Battery capacity                          | 50-2000Ah                                                                                                                 |                |                |                |                                 |                |                |
| Maximum charging / Discharging power      | 3750W                                                                                                                     | 4000W          | 4250W          | 5000W          | 5000W                           | 5000W          | 5000W          |
| Maximum charging current                  | 75A                                                                                                                       | 80A            | 85A            | 100A           | 100A                            | 100A           | 100A           |
| Maximum discharging current               | 75A                                                                                                                       | 80A            | 85A            | 100A           | 100A                            | 100A           | 100A           |
| Charging curve(Lithium-ion)               | BMS                                                                                                                       |                |                |                |                                 |                |                |
| Charging curve(Lead-acid)                 | 3-Stage adaptive with maintenance                                                                                         |                |                |                |                                 |                |                |
| Depth of discharge                        | Lithium-ion: 0-90% DOD adjustable, Lead-acid:0-50% DOD adjustable                                                         |                |                |                |                                 |                |                |
| Input DC (PV side)                        |                                                                                                                           |                |                |                |                                 |                |                |
| Recommended Max. PV input power           | 4500Wp                                                                                                                    | 5400Wp         | 6000Wp         | 6900Wp         | 7500Wp                          | 7500Wp         | 9000Wp         |
| Max DC power for single MPPT              | 3500W                                                                                                                     |                |                |                |                                 |                |                |
| Max. input voltage                        | 600V                                                                                                                      |                |                |                |                                 |                |                |
| Start-up voltage                          | 100V                                                                                                                      |                |                |                |                                 |                |                |
| 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                       | 250V-520V      | 300V-520V      |
| Number of MPP trackers                    | 2                                                                                                                         |                |                |                |                                 |                |                |
| Max. input current per MPPT               | 13A/13A                                                                                                                   |                |                |                |                                 |                |                |
| Max. input short circuit current per MPPT | 18A/18A                                                                                                                   |                |                |                |                                 |                |                |
| Output / Input AC (Grid side)             |                                                                                                                           |                |                |                |                                 |                |                |
| Nominal AC power                          | 3000W                                                                                                                     | 3680W          | 4000W          | 4600W          | 5000W                           | 5000W          | 6000W          |
| Max. AC power output to utility grid      | 3300VA                                                                                                                    | 3680VA         | 4400VA         | 4600VA         | 5000VA                          | 5500VA         | 6000VA         |
| Max. AC power from utility grid           | 6000VA                                                                                                                    | 7360VA         | 8000VA         | 9200VA         | 10000VA                         | 10000VA        | 12000VA        |
| Max. AC current output to utility grid    | 15A                                                                                                                       | 16A            | 20A            | 20.9A          | 21.7A                           | 25A            | 27.3A          |
| Max. AC current from utility grid         | 27.3A                                                                                                                     | 32A            | 36.4A          | 41.8A          | 43.4A                           | 43.4A          | 54.6A          |
| Nominal grid voltage                      | L/N/PE, 220V, 230V, 240V                                                                                                  |                |                |                |                                 |                |                |
| Grid voltage range                        | 180Vac-276Vac (According to local standard)                                                                               |                |                |                |                                 |                |                |
| Nominal frequency                         | 50Hz / 60Hz                                                                                                               |                |                |                |                                 |                |                |
| Output THDi (@Nominal output)             | <3%                                                                                                                       |                |                |                |                                 |                |                |
| Power factor                              | 1 default (+/-0.8 adjustable)                                                                                             |                |                |                |                                 |                |                |
| Output AC (Emergency Power Supply)        |                                                                                                                           |                |                |                |                                 |                |                |
| Max. apparent power                       | 3000VA                                                                                                                    | 3680VA         | 4000VA         | 4600VA         | 5000VA                          | 5000VA         | 5000VA         |
| Peak output power,Duration                | 3600VA, 60s                                                                                                               | 4400VA, 60s    | 4800VA, 60s    | 5520VA, 60s    | 6000VA, 60s                     | 6000VA, 60s    | 6000VA, 60s    |
| Max. output current                       | 13.6A                                                                                                                     | 16A            | 18.2A          | 20.9A          | 22.7A                           | 22.7A          | 22.7A          |
| Nominal voltage, Frequency                | 220V/230V, 50/60Hz                                                                                                        |                |                |                |                                 |                |                |
| THDv (@Liner load)                        | <3%                                                                                                                       |                |                |                |                                 |                |                |
| Switch time                               | 10ms default                                                                                                              |                |                |                |                                 |                |                |
| Efficiency                                |                                                                                                                           |                |                |                |                                 |                |                |
| MPPT efficiency                           | 99.9%                                                                                                                     |                |                |                |                                 |                |                |
| Max efficiency of solar inverter          | 97.6%                                                                                                                     | 97.6%          | 97.6%          | 97.8%          | 97.8%                           | 97.8%          | 98.0%          |
| European efficiency of solar inverter     | 97.2%                                                                                                                     | 97.2%          | 97.2%          | 97.3%          | 97.3%                           | 97.3%          | 97.5%          |
| Max. charging efficiency of battery       | 94.6%                                                                                                                     |                |                |                |                                 |                |                |
| Max. discharging efficiency of battery    | 94.6%                                                                                                                     |                |                |                |                                 |                |                |
| Protection                                |                                                                                                                           |                |                |                |                                 |                |                |
| PV reverse polarity protection            | Yes                                                                                                                       |                |                |                |                                 |                |                |
| PV insulation detection                   | Yes                                                                                                                       |                |                |                |                                 |                |                |
| Ground fault monitoring                   | Yes                                                                                                                       |                |                |                |                                 |                |                |
| Over current protection                   | Yes                                                                                                                       |                |                |                |                                 |                |                |
| Over voltage protection                   | Yes                                                                                                                       |                |                |                |                                 |                |                |
| DC switch                                 | Yes                                                                                                                       |                |                |                |                                 |                |                |
| Firm frequency response function          | Optional                                                                                                                  |                |                |                |                                 |                |                |
| SPD protection                            | MOV: Type III standard                                                                                                    |                |                |                |                                 |                |                |
| General Data                              |                                                                                                                           |                |                |                |                                 |                |                |
| Ambient temperature range                 | -30℃~+60℃ (Above 45℃ Derating)                                                                                            |                |                |                |                                 |                |                |
| Standby self-consumption                  | <10W                                                                                                                      |                |                |                |                                 |                |                |
| Topology                                  | High frequency insulation (for bat)                                                                                       |                |                |                |                                 |                |                |
| Degree of protection                      | IP65                                                                                                                      |                |                |                |                                 |                |                |
| Allowable relative humidity range         | 0~100%                                                                                                                    |                |                |                |                                 |                |                |
| Communication                             | RS485, Wifi/Ethernet/GPRS, CAN2.0                                                                                         |                |                |                |                                 |                |                |
| Protective class                          | Class I                                                                                                                   |                |                |                |                                 |                |                |
| Max. operating altitude                   | 4000m                                                                                                                     |                |                |                |                                 |                |                |
| Current sensor connection                 | External                                                                                                                  |                |                |                |                                 |                |                |
| Noise                                     | <25dB                                                                                                                     |                |                |                |                                 |                |                |
| Weight                                    | 21.5kg                                                                                                                    |                |                |                |                                 |                |                |
| Cooling                                   | Natural                                                                                                                   |                |                |                |                                 |                |                |
| Dimension                                 | 482*503*183mm                                                                                                             |                |                |                |                                 |                |                |
| Display                                   | LCD & APP+Bluetooth                                                                                                       |                |                |                |                                 |                |                |
| Warranty                                  | 5 Years or more                                                                                                           |                |                |                |                                 |                |                |
| 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, IEC62040-1, 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, UTE C 15-712-1, UNE 206 007-1 |                |                |                |                                 |                |                |



# HYD 5K~20KTL-3PH

5000/6000/8000/10000/15000/20000

## Three-Phase Energy storage integrated inverter

- 2  
MPPT

2 MPPT inputs, more flexible configuration
- APF

Maximum two battery inputs
- 0123  
456  
789

Full digital control, higher control accuracy
- Diversified work patterns and rapid gains
- Multiple parallel systems, more flexible system solutions
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported

| Datasheet                                   | HYD<br>5KTL-3PH                                                                                           | HYD<br>6KTL-3PH       | HYD<br>8KTL-3PH        | HYD<br>10KTL-3PH       | HYD<br>15KTL-3PH         | HYD<br>20KTL-3PH         |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------|------------------------|------------------------|--------------------------|--------------------------|
| Battery Input Data                          |                                                                                                           |                       |                        |                        |                          |                          |
| Battery type                                | Li-Ion                                                                                                    |                       |                        |                        |                          |                          |
| No. of battery input                        | 1                                                                                                         | 1                     | 1                      | 2                      | 2                        | 2                        |
| Battery voltage range                       | 180V-800V                                                                                                 |                       |                        |                        |                          |                          |
| Battery voltage range for full load         | 200V-800V                                                                                                 | 240V-800V             | 320V-800V              | 200V-800V              | 300V-800V                | 400V-800V                |
| Nominal charging/discharging power          | 5000W                                                                                                     | 6000W                 | 8000W                  | 10000W                 | 15000W                   | 20000W                   |
| Max. charging/discharging current           | 25A                                                                                                       | 25A                   | 25A                    | 50A(25A/25A)           | 50A(25A/25A)             | 50A(25A/25A)             |
| Peak charging/discharging current, Duration | 40A, 60s                                                                                                  | 40A, 60s              | 40A, 60s               | 70A(35A/35A), 60s      | 70A(35A/35A), 60s        | 70A(35A/35A), 60s        |
| Charging strategy for battery               | Self-adaption to BMS                                                                                      |                       |                        |                        |                          |                          |
| Communication interfaces                    | CAN(RS485)                                                                                                |                       |                        |                        |                          |                          |
| PV String Input Data                        |                                                                                                           |                       |                        |                        |                          |                          |
| Recommended Max. PV input power             | 7500Wp(6000Wp/6000Wp)                                                                                     | 9000Wp(6600Wp/6600Wp) | 12000Wp(6600Wp/6600Wp) | 15000Wp(7500Wp/7500Wp) | 22500Wp(11250Wp/11250Wp) | 30000Wp(15000Wp/15000Wp) |
| Max. DC voltage                             | 1000V                                                                                                     |                       |                        |                        |                          |                          |
| Start-up operating voltage                  | 200V                                                                                                      |                       |                        |                        |                          |                          |
| MPPT voltage range                          | 180V-960V                                                                                                 |                       |                        |                        |                          |                          |
| Nominal DC voltage                          | 600V                                                                                                      |                       |                        |                        |                          |                          |
| Full power MPPT voltage range               | 250V-850V                                                                                                 | 320V-850V             | 360V-850V              | 220V-850V              | 350V-850V                | 450V-850V                |
| Max. input current                          | 12.5A/12.5A                                                                                               | 12.5A/12.5A           | 12.5A/12.5A            | 25A/25A                | 25A/25A                  | 25A/25A                  |
| Max. short current                          | 15A/15A                                                                                                   | 15A/15A               | 15A/15A                | 30A/30A                | 30A/30A                  | 30A/30A                  |
| No. of MPP trackers                         | 2                                                                                                         |                       |                        |                        |                          |                          |
| No. of strings per MPP tracker              | 1                                                                                                         | 1                     | 1                      | 2                      | 2                        | 2                        |
| AC Output Data (On-grid)                    |                                                                                                           |                       |                        |                        |                          |                          |
| Nominal AC power                            | 5000W                                                                                                     | 6000W                 | 8000W                  | 10000W                 | 15000W                   | 20000W                   |
| Max. AC power output to utility grid        | 5500VA                                                                                                    | 6600VA                | 8800VA                 | 11000VA                | 16500VA                  | 22000VA                  |
| Max. AC power from utility grid             | 10000VA                                                                                                   | 12000VA               | 16000VA                | 20000VA                | 30000VA                  | 40000VA                  |
| Max. AC current output to utility grid      | 8A                                                                                                        | 10A                   | 13A                    | 16A                    | 24A                      | 32A                      |
| Max. AC current from utility grid           | 15A                                                                                                       | 17A                   | 24A                    | 29A                    | 44A                      | 58A                      |
| Nominal grid voltage                        | 3/N/PE, 220/380Vac, 230/400Vac                                                                            |                       |                        |                        |                          |                          |
| Grid voltage range                          | 184Vac~276Vac                                                                                             |                       |                        |                        |                          |                          |
| Nominal grid frequency                      | 50/60Hz                                                                                                   |                       |                        |                        |                          |                          |
| Grid frequency range                        | 45Hz~55Hz/55Hz~65Hz                                                                                       |                       |                        |                        |                          |                          |
| Output power factor                         | ~1(0.8 leading to 0.8 lagging)                                                                            |                       |                        |                        |                          |                          |
| Output THDi (@Nominal output)               | <3%                                                                                                       |                       |                        |                        |                          |                          |
| AC Output Data (Back-up)                    |                                                                                                           |                       |                        |                        |                          |                          |
| Nominal output power                        | 5000W                                                                                                     | 6000W                 | 8000W                  | 10000W                 | 15000W                   | 20000W                   |
| Max. output power                           | 5500VA                                                                                                    | 6600VA                | 8800VA                 | 11000VA                | 16500VA                  | 22000VA                  |
| Peak output power, Duration                 | 10000VA, 60s                                                                                              | 12000VA, 60s          | 16000VA, 60s           | 20000VA, 60s           | 22000VA, 60s             | 22000VA, 60s             |
| Max. output current                         | 8A                                                                                                        | 10A                   | 13A                    | 16A                    | 24A                      | 32A                      |
| Peak output current, Duration               | 15A, 60s                                                                                                  | 18A, 60s              | 24A, 60s               | 30A, 60s               | 32A, 60s                 | 32A, 60s                 |
| Nominal output voltage                      | 3/N/PE, 220/380Vac, 230/400Vac                                                                            |                       |                        |                        |                          |                          |
| Nominal output frequency                    | 50/60Hz                                                                                                   |                       |                        |                        |                          |                          |
| Output THDv (@Liner load)                   | <3%                                                                                                       |                       |                        |                        |                          |                          |
| Switch time                                 | <20ms                                                                                                     |                       |                        |                        |                          |                          |
| Efficiency                                  |                                                                                                           |                       |                        |                        |                          |                          |
| MPPT efficiency                             | 99.9%                                                                                                     |                       |                        |                        |                          |                          |
| Euro efficiency                             | 97.5%                                                                                                     | 97.5%                 | 97.5%                  | 97.7%                  | 97.7%                    | 97.7%                    |
| Max. efficiency                             | 98.0%                                                                                                     | 98.0%                 | 98.0%                  | 98.2%                  | 98.2%                    | 98.2%                    |
| Max. battery charge/discharge efficiency    | 97.6%                                                                                                     | 97.6%                 | 97.6%                  | 97.8%                  | 97.8%                    | 97.8%                    |
| Protection                                  |                                                                                                           |                       |                        |                        |                          |                          |
| DC switch                                   | Yes                                                                                                       |                       |                        |                        |                          |                          |
| PV reverse polarity protection              | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Output over current protection              | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Output over voltage protection              | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Anti-islanding protection                   | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Residual current detection                  | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Insulation resistor detection               | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Surge protection level                      | II                                                                                                        |                       |                        |                        |                          |                          |
| Battery reverse protection                  | Yes                                                                                                       |                       |                        |                        |                          |                          |
| General Data                                |                                                                                                           |                       |                        |                        |                          |                          |
| Dimension                                   | 571.4*515*264.1mm                                                                                         |                       |                        |                        |                          |                          |
| Weight                                      | 33kg                                                                                                      | 33kg                  | 33kg                   | 37kg                   | 37kg                     | 37kg                     |
| Inverter topology                           | Transformerless                                                                                           |                       |                        |                        |                          |                          |
| Standby self-consumption                    | <15W                                                                                                      |                       |                        |                        |                          |                          |
| Operating temperature range                 | -30℃~+60℃                                                                                                 |                       |                        |                        |                          |                          |
| Relative humidity                           | 0~100%                                                                                                    |                       |                        |                        |                          |                          |
| Noise                                       | <45dB                                                                                                     |                       |                        |                        |                          |                          |
| Operating altitude                          | <4000m                                                                                                    |                       |                        |                        |                          |                          |
| Cooling                                     | Natural                                                                                                   | Natural               | Natural                | Forced airflow         | Forced airflow           | Forced airflow           |
| Protection degree                           | IP65                                                                                                      |                       |                        |                        |                          |                          |
| Feature                                     |                                                                                                           |                       |                        |                        |                          |                          |
| DC terminal                                 | MC4                                                                                                       |                       |                        |                        |                          |                          |
| Grid AC terminal                            | 5P Connector                                                                                              |                       |                        |                        |                          |                          |
| Back-up AC terminal                         | 5P Connector                                                                                              |                       |                        |                        |                          |                          |
| Display                                     | LCD Display                                                                                               |                       |                        |                        |                          |                          |
| Monitoring interfaces                       | Bluetooth / RS485 / WIFI / GPRS (optional)                                                                |                       |                        |                        |                          |                          |
| Parallel operation                          | Yes                                                                                                       |                       |                        |                        |                          |                          |
| Standard warranty                           | Standard 5 years                                                                                          |                       |                        |                        |                          |                          |
| Certifications & Standards                  |                                                                                                           |                       |                        |                        |                          |                          |
| EMC                                         | EN61000-6-1, EN61000-6-3                                                                                  |                       |                        |                        |                          |                          |
| Safety                                      | IEC62109-1, IEC62109-2, NB-T32004/IEC62040-1                                                              |                       |                        |                        |                          |                          |
| Grid                                        | AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-16/CEI 0-21, EN50549, G98/G99, UTE C15-712-1 |                       |                        |                        |                          |                          |



# AMASSTORE BATTERY

GTX2500



-  Compatible with multi-brand storage inverters
-  Remote diagnosis and real-time data monitoring
-  Supports parallel expansion, supports up to 8 parallels
-  Certification of IEC62619, UN38.3, IEC62040-1, SAA etc
-  Long cycle life energy storage battery (6000 times)
-  Simple stack installation, time and cost saving
-  Han's Laser automated PACK production line, stable and reliable production quality
-  One-button automatic assignment battery module ID, simple and convenient operation

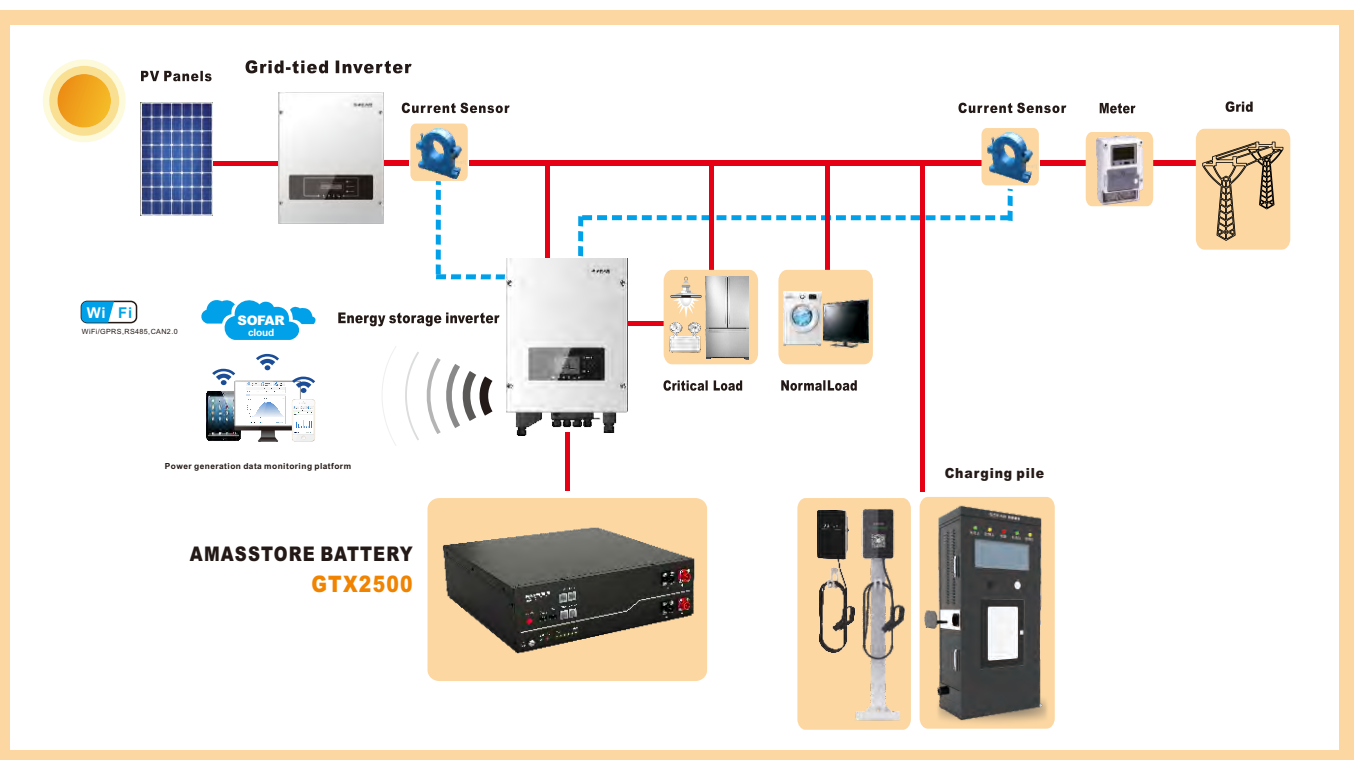
## Datasheet

## GTX2500

### Basic Parameters

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Battery Type                  | LiFePO4, Lithium Iron Phosphate            |
| Nominal Capacity (Ah)         | 50AH                                       |
| Nominal Voltage (V)           | 51.2Vdc                                    |
| Total Energy                  | 2500Wh                                     |
| Usable Energy (90% DOD)       | 2250Wh                                     |
| Charge Voltage (V)            | 55.68~56.16Vdc                             |
| Discharge Voltage (V)         | 45.6~56.16Vdc                              |
| Nominal Charge Current (A)    | 25A                                        |
| Max. Charge Current (A)       | 30A                                        |
| Max. Charge Power (W)         | 1685W                                      |
| Nominal Discharge Current (A) | 25A                                        |
| Nominal Discharge Power (W)   | 1280W                                      |
| Max. Discharge Current (A)    | 30A                                        |
| Max. Discharge Power (W)      | 1500W                                      |
| Short Current (A)             | 350A                                       |
| Communication                 | RS232, RS485, CAN                          |
| Working Temperature           | -20℃~60℃                                   |
| Storage Temperature           | ≤ 25℃, 12 months                           |
|                               | ≤ 35℃, 6 months                            |
|                               | ≤ 45℃, 3 months                            |
| Operating Humidity            | < 95% RH                                   |
| Storage Humidity              | < 95% RH                                   |
| Max. Operating Altitude       | ≤ 2000m                                    |
| Scalable                      | Suggest Up to 4                            |
| Enclosure Protection Rating   | IP20                                       |
| Net Weight                    | 27Kg                                       |
| Dimension                     | 400mm*417mm*120mm                          |
| Certification                 | IEC62619, UN38.3, IEC62040-1, SAA etc.     |
| Cycle Life                    | 6000 Cycles@ 80% DOD / 25℃ / 0.5C, 60% EOL |

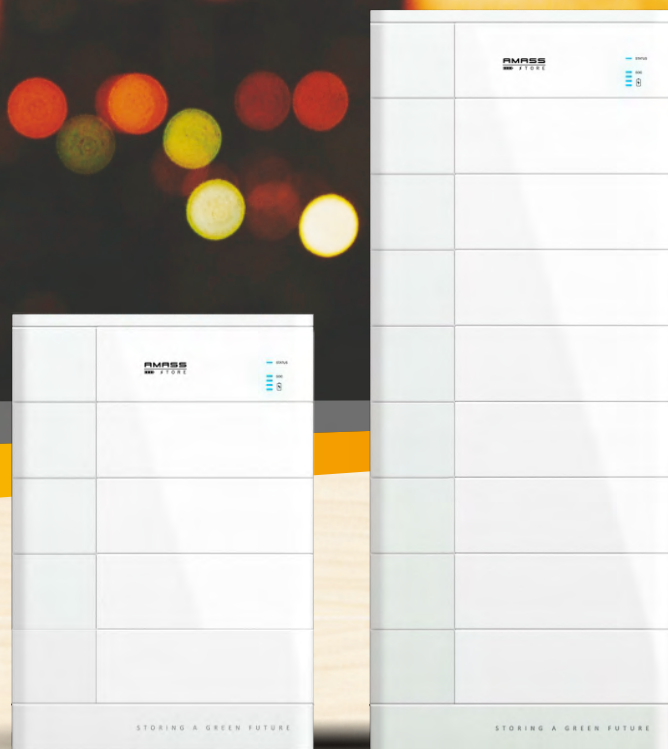
## AC Coupled Solar System



# AMASSTORE BATTERY

GTX3000

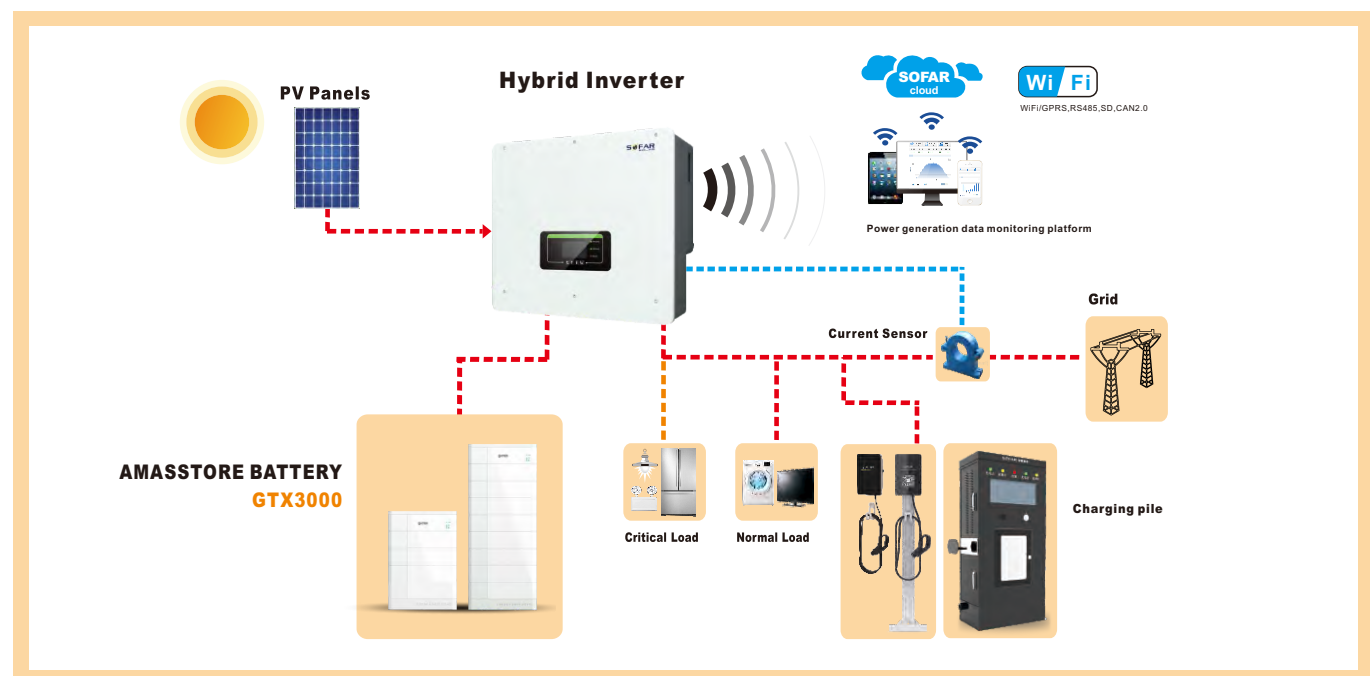
- Remote diagnosis and real-time data monitoring
- Support soft startup
- Support battery system direct parallel, up to 4 parallels
- Support charging activation
- Long cycle life energy storage battery (6000 times)
- Certification of IEC62619, UN38.3, IEC62040-1, SAA etc
- Simple stack installation, time and cost saving
- Han's Laser automated PACK production line, stable and reliable production quality
- One-button automatic assignment battery module ID, simple and convenient operation



## Datasheet

| Datasheet                         | GTX<br>3000-H4 | GTX<br>3000-H5 | GTX<br>3000-H6 | GTX<br>3000-H7                         | GTX<br>3000-H8 | GTX<br>3000-H9 | GTX<br>3000-H10 |
|-----------------------------------|----------------|----------------|----------------|----------------------------------------|----------------|----------------|-----------------|
| Parameters                        |                |                |                |                                        |                |                |                 |
| Battery Module Quantity           | 4              | 5              | 6              | 7                                      | 8              | 9              | 10              |
| Nominal Voltage                   | 204.8V         | 256V           | 307.2V         | 358.4V                                 | 409.6V         | 460.8V         | 512V            |
| MAX. Charge Voltage               | 230.4V         | 288V           | 345.6V         | 403.2V                                 | 460.8V         | 518.4V         | 576V            |
| MIN. Discharge Voltage            | 182.4V         | 228V           | 273.6V         | 319.2V                                 | 364.8V         | 410.4V         | 456V            |
| Nominal Energy                    | 10kWh          | 12.5kWh        | 15kWh          | 17.5kWh                                | 20kWh          | 22.5kWh        | 25kWh           |
| Available Energy(90%DOD)          | 9kWh           | 11.25kWh       | 13.5kWh        | 15.75kWh                               | 18kWh          | 20.25kWh       | 22.5kWh         |
| Dimension(mm)                     | 515*480*770    | 515*480*895    | 515*480*1020   | 515*480*1145                           | 515*480*1270   | 515*480*1395   | 515*480*1520    |
| Weight                            | 138kg          | 168kg          | 198kg          | 228kg                                  | 258kg          | 288kg          | 318kg           |
| Protection Class                  |                |                |                | IP65                                   |                |                |                 |
| Cooling                           |                |                |                | Natural                                |                |                |                 |
| Nominal Charging Current          |                |                |                | 25A                                    |                |                |                 |
| Max. Continuous Charging Current  |                |                |                | 30A                                    |                |                |                 |
| Nominal Discharge Current         |                |                |                | 25A                                    |                |                |                 |
| Max. Continuous Discharge Current |                |                |                | 30A                                    |                |                |                 |
| Working Temperature               |                |                |                | -20℃ ~ 60℃                             |                |                |                 |
| Storage Temperature               |                |                |                | ≤25℃, 12 months                        |                |                |                 |
|                                   |                |                |                | ≤35℃, 6 months                         |                |                |                 |
|                                   |                |                |                | ≤45℃, 3 months                         |                |                |                 |
| Environmental humidity            |                |                |                | ≤ 95%RH (No condensation)              |                |                |                 |
| Operating Altitude                |                |                |                | ≤2000 m                                |                |                |                 |
| Scale                             |                |                |                | Suggest no more than 4 parallel        |                |                |                 |
| Certificates                      |                |                |                | UN38.3, IEC62619, IEC62040-1, SAA etc. |                |                |                 |
| Cycle Life                        |                |                |                | 6000 @ 80% DOD / 25℃ / 0.5C / 60% EOL  |                |                |                 |
| Battery module parameters         |                |                |                |                                        |                |                |                 |
| Battery Type                      |                |                |                | LiFePO4, Lithium Iron Phosphate        |                |                |                 |
| Nominal Voltage                   |                |                |                | 51.2V                                  |                |                |                 |
| Nominal Capacity                  |                |                |                | 50AH                                   |                |                |                 |
| Weight                            |                |                |                | 30kg                                   |                |                |                 |
| Dimension                         |                |                |                | 515*478.8*125 mm                       |                |                |                 |
| Protection                        |                |                |                | IP65                                   |                |                |                 |

## Hybrid Solar System



# AMASSTORE BATTERY

GTX5000



-  Compatible with multi-brand storage inverters
-  Remote diagnosis and real-time data monitoring
-  Supports parallel expansion, supports up to 4 parallels
-  Certification of IEC62619, UN38.3, IEC62040-I, SAA etc
-  CATL brand battery, long cycle life (6000 times)
-  Wall-mounted or floor-mounted installation, time and cost saving
-  Han's Laser automated PACK production line, stable and reliable production quality
-  One-button automatic assignment battery module ID, simple and convenient operation

## Datasheet

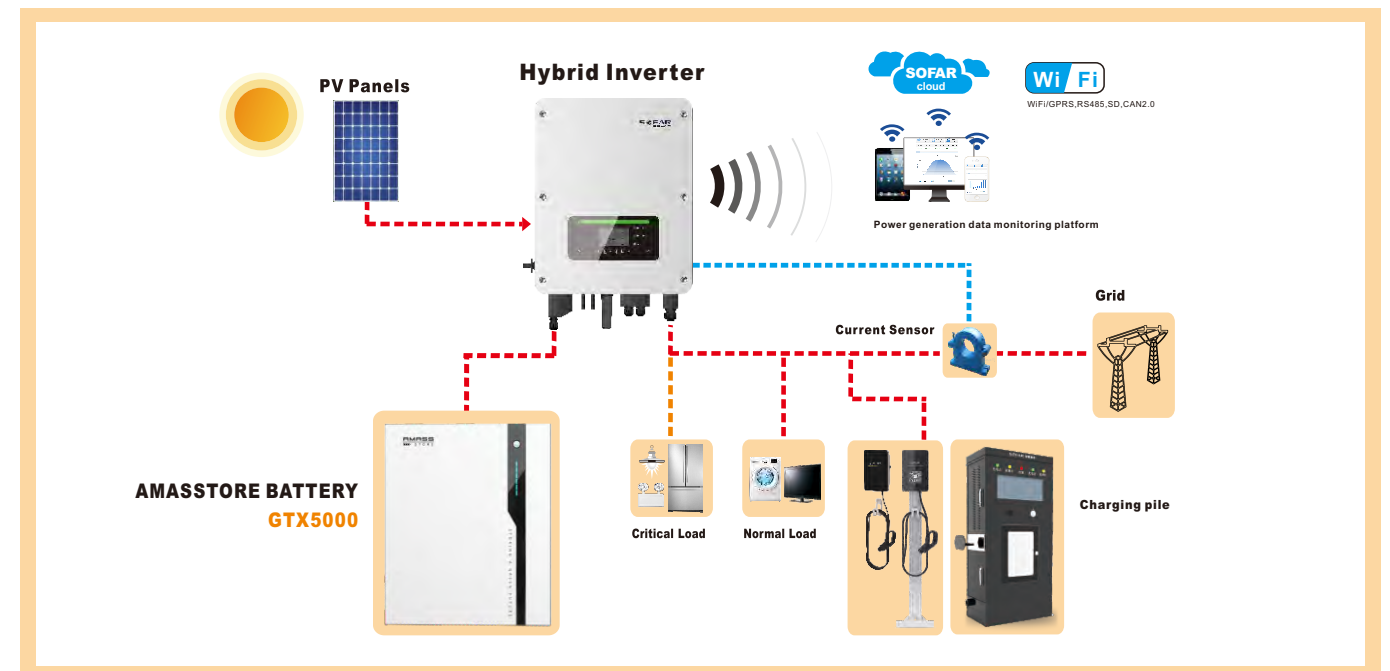
## GTX5000

### Basic Parameters

|                             |                                                              |
|-----------------------------|--------------------------------------------------------------|
| Battery Type                | LiFePO4, Lithium Iron Phosphate                              |
| Nominal Capacity            | 100AH                                                        |
| Nominal Voltage             | 51.2Vdc                                                      |
| Total Energy                | 5120Wh                                                       |
| Usable Energy (90% DOD)     | 4600Wh                                                       |
| Charge Voltage              | 55.68~56.16Vdc                                               |
| Discharge Voltage           | 45.6~56.16Vdc                                                |
| Nominal Charge Current      | 50A                                                          |
| Max. Charge Current         | 50A                                                          |
| Max. Charge Power           | 2800W                                                        |
| Nominal Discharge Current   | 50A                                                          |
| Nominal Discharge Power     | 2560W                                                        |
| Max. Discharge Current      | 75A                                                          |
| Max. Discharge Power        | 3500W                                                        |
| Short Current               | 350A                                                         |
| Communication               | RS232, RS485, CAN                                            |
| Working Temperature         | 0 °C ~ 55 °C                                                 |
| Storage Temperature         | ≤ 25 °C, 12 months<br>≤ 35 °C, 6 months<br>≤ 45 °C, 3 months |
| Operating Humidity          | < 95% RH                                                     |
| Storage Humidity            | < 95% RH                                                     |
| Max. Operating Altitude     | ≤ 2000m                                                      |
| Scalable                    | Suggest Up to 4                                              |
| Enclosure Protection Rating | IP20                                                         |
| Net Weight                  | 55Kg                                                         |
| Dimension (W*D*H)           | 480mm*211.5mm*600mm                                          |
| Certificates                | IEC62619, UN38.3, IEC62040-I, SAA etc                        |
| Cycle Life                  | 6000 Cycles@ 80% DOD / 25 °C / 0.5C, 60% EOL                 |

**Note:** Operating current derating according to cell voltage and battery temperature.

## Hybrid Solar System





# Inverter Logger

GPRS/WIFI&Ethernet



- ▶ Realtime alerts with immediate notification for fast troubleshooting
- ▶ Quick installation and easy operation with “Plug & Play” function
- ▶ Suitable for rural areas where no network connection is available (GPRS Version)
- ▶ High network coverage around the world
- ▶ Devices could be upgraded and debugged remotely for easy maintenance
- ▶ Check the system status anytime and anywhere via online portal or app, no additional software required

## Global Data Service

SOFAR SOLAR provides global data service for users around the world. For project sites in rural areas or where no Internet is available, inverter logger ensures stable data transmission to remote



◆ Data plans for different users



◆ Wide network coverage for most countries



◆ Pay as you go service & online top up

| Datasheet                            | LIG-1                                        | LIW-1                                         |
|--------------------------------------|----------------------------------------------|-----------------------------------------------|
| General Parameters                   |                                              |                                               |
| No. of Connections                   | Basic Version: 1-4<br>Advanced Version: 1-10 | Basic Version: 1-4<br>Advanced Version: 1-10  |
| Inverter Communication Interface     | One-way RS485/422                            |                                               |
| Remote Communication Interface       | GSM                                          | WiFi(802.11b/g/n)/Ethernet                    |
| Serial Communication Rate            | 1200-57600bps(Configurable)                  | 1200-19200bps(Configurable)                   |
| Working Frequency                    | 850/900/1800/1900MHz                         | 2.4GHz                                        |
| Communication Range                  | -                                            | 400m (Open Space)                             |
| Transmitting Power                   | 2W(Max.)/1W(Min.)                            | 802.11b/g/n: +20dBm/+18dBm/15dBm(Max.)        |
| Data Collection Interval             | Default: 5 mins (1-15 mins Configurable)     |                                               |
| Parameter Setting                    | Serial Port AT Instruction                   | Web Server/Serial Port AT Instruction         |
| Data Access                          | RS485/422, Remote Server                     | Serial Port/WiFi Point to Point/Remote Server |
| Status                               | LED x4                                       |                                               |
| Electrical Parameters                |                                              |                                               |
| Input Voltage                        | DC 5V(+/-5%)                                 | DC 5V                                         |
| Static Power Consumption             | <2W                                          | <1.6W                                         |
| Max. Instantaneous Power Consumption | 3W                                           | <2.5W                                         |
| Environmental Parameters             |                                              |                                               |
| Working Temperature                  | -25℃~+65℃                                    | -10℃~+65℃                                     |
| Working Humidity                     | 10-90% (No Condensation)                     |                                               |
| Storage Temperature                  | -25℃~+65℃                                    | -10℃~+65℃                                     |
| Storage Humidity                     | <40%                                         |                                               |
| Protection Class                     | IP21                                         |                                               |
| Physical Parameters                  |                                              |                                               |
| Dimension(L*W*H)                     | 110mm*80mm*24mm                              | 110mm*80mm*26mm                               |
| Others                               |                                              |                                               |
| Installation                         | Wall-Hanging/Flatwise                        | 110mm*80mm*26mm                               |



# Stick Logger

GPRS / WIFI / 4G / ETHERNET / NB-IOT

- ▶ External light indicator, logging status at a glance
- ▶ External design, easier to replace faulty equipment
- ▶ IP65 water-proof design, resistant to bad weather, enhance stability
- ▶ Plug and play, pick power within inverter, no external power needed, easy to install
- ▶ Independent from inverter to protect parts inside inverter, eliminate potential problems
- ▶ End-user can monitor yields at any time with SOLARMAN APP



| Datasheet                      | LSG-3                               | LSG-4                               | LSW-3                                      | LS4G-3                    | LSE-3                       |
|--------------------------------|-------------------------------------|-------------------------------------|--------------------------------------------|---------------------------|-----------------------------|
| Remote communication interface | GPRS                                | GPRS                                | WiFi                                       | 4G                        | LAN                         |
| Working frequency              | GSM850/EGSM900 /DCS1800/ PCS1900MHz | GSM850/EGSM900 /DCS1800/ PCS1900MHz | 2.142GHz~ 2.484GHz                         | 704~960MHz 1710~2690MHz   | Adaptive Network 10M / 100M |
| Satellite positioning          | -                                   | GPS / Beidou < 15m                  | -                                          | -                         | -                           |
| Antenna                        | External GPRS Stick Antenna         | External GPRS Stick Antenna         | External WiFi Stick Antenna                | External 4G Stick Antenna | -                           |
| Data interface                 | RS232                               |                                     |                                            |                           |                             |
| Working voltage                | DC4.7V ~ DC15V                      |                                     |                                            |                           |                             |
| Working power                  | 3W                                  | 3W                                  | 1.5W                                       | 5W                        | 1W                          |
| SIM card                       | Chip card/MicroSIM                  | Chip card/MicroSIM                  | -                                          | MicroSIM                  | -                           |
| Mermory                        | 2M Flash (2M-16M Optional)          |                                     |                                            |                           |                             |
| Working temperature            | -40℃ ~ +85℃                         |                                     |                                            |                           |                             |
| Working humidity               | < 90% (No Condensing)               |                                     |                                            |                           |                             |
| No. of connections             | One                                 |                                     |                                            |                           |                             |
| Serial communication rate      | bps (1200-115200bps Configurable)   |                                     |                                            |                           |                             |
| Data acquisition interval      | Default 5min (1-15min Configurable) |                                     |                                            |                           |                             |
| Use configuration              | Bluetooth                           | APP/Web                             | AT + Instruction Set Remote server APP/Web | Local serial port         | Web                         |
| Firmware upgrade               | Remote Upgrade                      |                                     |                                            |                           |                             |
| Others                         | Real-time Control, Data resuming    |                                     |                                            |                           |                             |

# Pro Logger

GPRS / WIFI / 4G / ETHERNET

- ▶ Multi-interfaces: RS485, RS232, RS422, CAN; supports connection of P1 meter;
- ▶ Support magnetic latching relay controlling 250VAC/16A circuit externally;
- ▶ Standard accessory: 8GB TF card; supports 20-year storage; data in Solarman platform will be saved permanently;
- ▶ Support multi-channel digital/analog input interface; support grid dispatching, sensor and multi-scenarios;
- ▶ SOLARMAN Pro version supports intelligent plant management.
- ▶ Dual SIM chips, supporting on-grid project that requires private network power supply;
- ▶ Support static page configuration or upgrade, local/remote multi-mode monitoring;
- ▶ Support importing data and error history via USB;
- ▶ Embedded super capacitor supports power-off reminder; Simplify plant O&M significantly;



## Datasheet

## LP-1

## LP-2

### Wireless Parameters

|                        |                                       |                                             |
|------------------------|---------------------------------------|---------------------------------------------|
| Remote Communication 1 | GPRS                                  | 4G                                          |
| Frequency              | GSM850/EGSM900/<br>DCS1800/PCS1900MHz | LTE-FDD/LTE-TDD/WCDMA/<br>TD-SCDMA/CDMA/GSM |
| Remote Communication 2 | GPRS / 4G                             |                                             |
| Remote Communication 3 | -                                     | WiFi                                        |
| Antenna                | Sucker Antenna                        |                                             |

### Hardware Parameters

|                        |                                              |                                       |
|------------------------|----------------------------------------------|---------------------------------------|
| Ethernet               | Adaptive Network: 10 / 100M                  |                                       |
| Input Voltage          | DC 15V~60V                                   |                                       |
| Working Power          | < 10W                                        |                                       |
| Output Voltage         | DC 12V 500mA                                 |                                       |
| Indicator Light        | LED x4                                       |                                       |
| Memory                 | 128MByte NAND FLASH                          |                                       |
|                        | 8GB TF Card (Optional)                       | 8GB TF Card (Standard)                |
| Analog / Digital Input | Analog Input x6 /<br>Digital Input x6        | Analog Input x4 /<br>Digital Input x4 |
| Digital Output         | 16A 250VAC Magnetic Latching Relay Output x2 |                                       |
| USB                    | Mini USB x1                                  | USB x1                                |
| S0 in                  | NA                                           | 2                                     |
| Clock                  | Chip Internal Clock                          |                                       |
| RS 485                 | 4                                            | 4                                     |
| RS 232                 | 1                                            | 1                                     |
| CAN                    | 1                                            | 1                                     |
| PI                     | -                                            | 1                                     |
| Power off Reminder     | X                                            | √                                     |
| Operating Temperature  | -20°C ~ +60°C                                |                                       |
| Operating Humidity     | 10-95% (No Condensing)                       |                                       |
| Dimension              | 240*118*49mm                                 |                                       |
| IP Grade               | IP20                                         |                                       |
| Installation Method    | 35mm Din-Rail Mount                          |                                       |

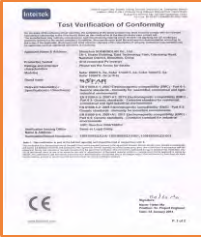
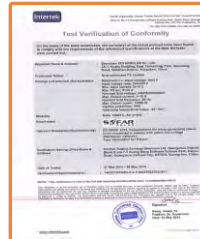
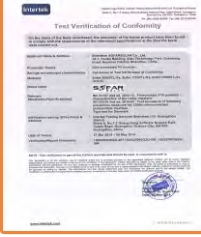
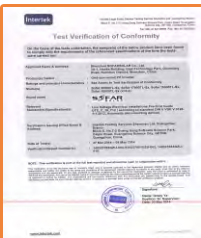
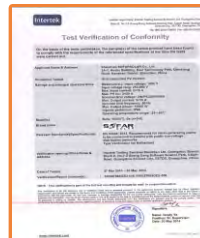
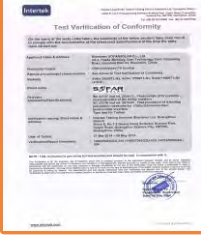
### Software Parameters

|                           |                                           |
|---------------------------|-------------------------------------------|
| No. of Connections        | 1-100                                     |
| Data Acquisition Interval | Default: 5mins (1-15 mins Configurable)   |
| User Configuration        | AT + Instruction Set, Remote Server       |
| Firmware Upgrade          | SMS / Remote / Local                      |
| Others                    | Real-time Control, Data Resuming Transfer |

WITH WORLD-CLASS COMPONENTS SUPPLIERS

|                    |                                                                                                                                                                                                                                                        |                                 |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| IGBT               |    | America<br>Germany              |
| IC                 |    | America                         |
| FUSE               |                                                                                     | America                         |
| Capacitor          |    | Japan                           |
| Current Transducer |    | Switzerland<br>Japan<br>Germany |
| Relay              |                                                                                 | Japan                           |
| Diode              |                                                                                 | America                         |
| MCU                |                                                                                 | America<br>Nederland            |
| PV connector       |                                                                                 | Switzerland<br>America          |
| DC Isolator        |                                                                                 | Nederland<br>Germany            |
| MOV                |                                                                                                                                                                     | America                         |
| Cooling Fan        |                                                                                 | Japan                           |

CERTIFICATION ( SECTION )

|                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| EMC                                                                                   | IEC 62109                                                                             | IEC 60068 (India)                                                                     | IEC 60183 (India)                                                                     |
|    |    |    |    |
| IEC 61727 (India)                                                                     | IEC 62116 (India)                                                                     | Poland                                                                                | Australia                                                                             |
|    |    |    |    |
| Denmark                                                                               | Germany                                                                               | Belgium                                                                               |                                                                                       |
|   |   |   |   |
| France                                                                                | Netherlands                                                                           | Greece                                                                                |                                                                                       |
|  |  |  |  |
| Turkey                                                                                | Spain                                                                                 | UK                                                                                    |                                                                                       |
|  |  |  |  |

PROJECT CASES



50 MW

Henan  
China



28 MW

India



10 MW

Korea



PROJECT CASES



8 MW

Shanxi  
China



3 MW

Brazil



2.4 MW

Korea



PROJECT CASES



2 MW

Brazil



1.1 MW

Jiangsu  
China



1 MW

Brazil



PROJECT CASES



1 MW

Gujarat  
India



1 MW

Binh Duong province  
Vietnam



300 KW

India



PROJECT CASES



250 KW

Bao Quyen intl preschool  
Vietnam



180 KW

Netherlands



60 KW

Philippines



PROJECT CASES



30 KW

India



10 KW

Pakistan



5 KW

Australia

