



## **Grid Tied Inverter**

Three Phase: GT3-4K/5K/6K/8K/10K/12K/15K/17K/20K/22K/25K D1

The LIVOLTEK GT3-4/5/6/8/10/12/15/17/20/22/25K-D1 PV inverter is developed for residential or commercial customers who need a three-phase rooftop model. The integrated shade fixing management system ensures the inverter to maximizes energy production even when the PV panels are lightly shaded. The machine has a built-in optional AFCI module to prevent electrical fires caused by abnormal arc faults in the electrical wiring as a high safety feature. With 160V ultra-low start-up voltage, ultra-long working time, it's surely an ideal choice for large commercial and industrial power plants.



## **Features**

- 150% DC/AC ratio
- Export limitation (optional)
- Smart APP to monitor & optimize
- AFCI (optional)
- Plug-and-play installation saves time
- 110% AC output for efficient power generation



Max Efficiency 98.6%



**Support Export Limitation** 



Optional Internal Integrated AFCI Module



SPD II Protection

## **Compatible Products**



Wi-Fi Dongle



Smart Meter



Monitoring System

## **Specifications**

| Model   | GT3-<br>4KD1   | GT3-<br>5KD1 | GT3-<br>6KD1 | GT3-<br>8KD1 | GT3-<br>10KD1 | GT3-<br>12KD1                  | GT3-<br>15KD1 | GT3-<br>17KD1 | GT3-<br>20KD1 | GT3-<br>22KD1 | GT3-<br>25KD1 |  |
|---|--|--------------|--------------|--------------|---------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|--|
| PV Input  |  |              |              |              |               |                                |               |               |               |               |               |  |
| Max. PV Input Power                               | 6000Wp   | 7500Wp       | 9000Wp       | 12000Wp      | 15000Wp       | 18000Wp                        | 22500Wp       | 25500Wp       | 30000Wp       | 33000Wp       | 37500Wp       |  |
| Max. PV Input Voltage                             | 1100V  |              |              |              |               |                                |               |               |               |               |               |  |
| Min. PV Input Voltage                             | 140V   |              |              |              |               |                                |               |               |               |               |               |  |
| Start-up Input Voltage                            | 160V   |              |              |              |               |                                |               |               |               |               |               |  |
| Nominal Input Voltage                             | 650V   |              |              |              |               |                                |               |               |               |               |               |  |
| MPPT Voltage Range                                | 140V-1000V   |              |              |              |               |                                |               |               |               |               |               |  |
| Max. PV Input Current                             | 16A+16A 40A+20A  |              |              |              |               |                                |               |               | 40A+40A       |               |               |  |
| Max. Short Circuit Current                        | 21A+21A  |              |              |              |               | 52A-                           | +26A          | 52A+52A       |               |               |               |  |
| No. of MPPTs                                      | 2  |              |              |              |               | 2                              | 2             | 2             |               |               |               |  |
| No. of Strings per MPPT                           | 1/1  |              |              |              |               | 2,                             | /1            | 2/2           |               |               |               |  |
| AC Output   |  |              |              |              |               |                                |               |               |               |               |               |  |
| Nominal AC Power                                  | 4000W  | 5000W        | 6000W        | 8000W        | 10000W        | 12000W                         | 15000W        | 17000W        | 20000W        | 22000W        | 25000W        |  |
| Max. Apparent Power                               | 4400VA   | 5500VA       | 6600VA       | 8800VA       | 11000VA       | 13200VA                        | 16500VA       | 18700VA       | 22000VA       | 24200VA       | 27500VA       |  |
| Rated AC Grid Output Current                      | 5.8A   | 7.2A         | 8.7A         | 11.5A        | 14.4A         | 17.3A                          | 21.7A         | 24.5A         | 28.9A         | 31.8A         | 36.1A         |  |
| Max. AC Output Current                            | 6.4A   | 7.9A         | 9.5A         | 12.7A        | 15.9A         | 19.1A                          | 23.8A         | 27.0A         | 31.8A         | 34.9A         | 39.7A         |  |
| Rated AC Grid Voltage                             | 3/N/PE, 220V/380V, 230V/400V                             |              |              |              |               |                                |               |               |               |               |               |  |
| AC Grid Voltage Range                             | 270V-480V  |              |              |              |               |                                |               |               |               |               |               |  |
| Rated Grid Frequency                              | 50Hz/60Hz  |              |              |              |               |                                |               |               |               |               |               |  |
| Grid Frequency Range                              | 45Hz-55Hz/55Hz-66Hz                                      |              |              |              |               |                                |               |               |               |               |               |  |
| Power Factor                                      | > 0.99 Rated Power (Adjustable 0.8 Leading - 0.8Lagging) |              |              |              |               |                                |               |               |               |               |               |  |
| THDi, Rated Power[%]                              | <3%  |              |              |              |               |                                |               |               |               |               |               |  |
| Efficiency  |  |              |              |              |               |                                |               |               |               |               |               |  |
| Max. Efficiency                                   | 98.50%   | 98.50%       | 98.50%       | 98.60%       | 98.60%        | 98.60%                         | 98.50%        | 98.50%        | 98.60%        | 98.60%        | 98.60%        |  |
| Euro Efficiency                                   | 98.10%   | 98.10%       | 98.10%       | 98.20%       | 98.20%        | 98.20%                         | 98.10%        | 98.10%        | 98.20%        | 98.20%        | 98.20%        |  |
| MPPT Efficiency                                   | >99%   |              |              |              |               |                                |               |               |               |               |               |  |
| Protection  |  |              |              |              |               |                                |               |               |               |               |               |  |
| Surge Arrester                                    | Type II  |              |              |              |               |                                |               |               |               |               |               |  |
| PV Current Detection                              | Support  |              |              |              |               |                                |               |               |               |               |               |  |
| AC Short Circuit Protection                       | Support  |              |              |              |               |                                |               |               |               |               |               |  |
| Anti-islanding Protection                         | Support  |              |              |              |               |                                |               |               |               |               |               |  |
| Residual Current Monitoring Unit                  | Support  |              |              |              |               |                                |               |               |               |               |               |  |
| Integrated AFCI (Arc-Fault<br>Circuit Protection) | Optional   |              |              |              |               |                                |               |               |               |               |               |  |
| General Data                                      |  |              |              |              |               |                                |               |               |               |               |               |  |
| Dimension (W*H*D)                                 | 520*420*193mm  |              |              |              |               |                                |               |               |               |               |               |  |
| Weight  | 22kg   |              |              |              |               | 24.5kg                         |               |               |               |               |               |  |
| Protection Degree                                 | IP65   |              |              |              |               | IP65                           |               |               |               |               |               |  |
| Cooling   | Natural Cooling  |              |              |              |               | Fan Cooling                    |               |               |               |               |               |  |
| Operating Temperature Range                       | −30°C~ 60°C (Derating at 45°C)                           |              |              |              |               | −30°C~ 60°C (Derating at 45°C) |               |               |               |               |               |  |
| Typical Noise Emission                            | <30dB  |              |              |              |               | <40dB                          |               |               |               |               |               |  |
| Night Self Consumption                            | <1W  |              |              |              |               |                                |               |               |               |               |               |  |
| Display   | LED+APP  |              |              |              |               |                                |               |               |               |               |               |  |
| Communication                                     | RS485 (Meter), Wi-Fi+Bluetooth, DRM                      |              |              |              |               |                                |               |               |               |               |               |  |
| Certifications and Standards                      |  |              |              |              |               |                                |               |               |               |               |               |  |
| Grid Regulation                                   | IEC61727, IEC62116, EN50549, CQC(NB/T32004)              |              |              |              |               |                                |               |               |               |               |               |  |
| Safety/EMC  | IEC62109-1/2, EN61000-6-1/2/3/4                          |              |              |              |               |                                |               |               |               |               |               |  |
| Standard Warranty                                 | 5 Years/10 Years (Optional)                              |              |              |              |               |                                |               |               |               |               |               |  |