

# Grid Tied Inverter

Three Phase: GT3-30K/33K T1 GT3-36K/37K5/40K/50K/60K Q1

LIVOLTEK GT3-30~60kW Grid-tied inverters are widely used in residential, commercial and industrial roofs. The maximum input current of each PV string is 20A, also compatible with 600W+ modules in the global markets. Combined with 3/4-way MPPT and precise algorithm, it's the ideal option for rooftop photovoltaic systems with complex orientations and various components. The inverters with wide operating voltage range of MPPT and low start-up voltage ensure longer working time and more power generation, supporting functions such as shadow scanning, remote operation and maintenance, so as to maximize continuous long-term benefits for end-users.

## Features

- 24/7 live monitoring
- String current up to 20A
- AFCI function (optional)
- Night SVG function
- Export limitation (optional)
- Built-in PID recovery function



# Specifications

| Model                                             | GT3-30KT1                                                | GT3-33KT1 | GT3-36KQ1       | GT3-37K5Q1 | GT3-40KQ1 | GT3-50KQ1 | GT3-60KQ1 |
|---------------------------------------------------|----------------------------------------------------------|-----------|-----------------|------------|-----------|-----------|-----------|
| PV Input                                          |                                                          |           |                 |            |           |           |           |
| Max. PV Input Power                               | 45000Wp                                                  | 49500Wp   | 54000Wp         | 56250Wp    | 60000Wp   | 75000Wp   | 90000Wp   |
| Max. PV Input Voltage                             | 1100V                                                    |           |                 |            |           |           |           |
| Start-up Input Voltage                            | 180V                                                     |           |                 |            |           |           |           |
| Nominal Input Voltage                             | 620V                                                     |           |                 |            |           |           |           |
| MPPT Voltage Range                                | 180V-1000V                                               |           |                 |            |           |           |           |
| Max. PV Input Current                             | 40A/40A/40A                                              |           | 40A/40A/40A/40A |            |           |           |           |
| Max.Short Circuit current                         | 52A/52A/52A                                              |           | 52A/52A/52A/52A |            |           |           |           |
| No. of MPPTs                                      | 3                                                        |           | 4               |            |           |           |           |
| No. of Strings per MPP Tackers                    | 2/2/2                                                    |           | 2/2/2/2         |            |           |           |           |
| AC Output                                         |                                                          |           |                 |            |           |           |           |
| Nominal AC Power                                  | 30000W                                                   | 33000W    | 36000W          | 37500W     | 40000W    | 50000W    | 60000W    |
| Max. Apparent Power                               | 33000VA                                                  | 36300VA   | 39600VA         | 37500VA    | 44000VA   | 55000VA   | 60000VA   |
| Rated AC Grid Output Current                      | 45.6A                                                    | 50.1A     | 54.7A           | 57.0A      | 60.8A     | 76.0A     | 91.0A     |
| Max. AC Output Current                            | 50.1A                                                    | 55.2A     | 60.2A           | 57.0A      | 66.9A     | 83.6A     | 91.0A     |
| Rated AC Grid Voltage                             | 3/N/PE,3/PE,380V/400V                                    |           |                 |            |           |           |           |
| AC Grid Voltage Range <sup>[1]</sup>              | 310V~480V                                                |           |                 |            |           |           |           |
| Rated Grid Frequency                              | 50Hz/60Hz                                                |           |                 |            |           |           |           |
| Grid Frequency Range <sup>[2]</sup>               | 45Hz-55Hz/55Hz-65Hz                                      |           |                 |            |           |           |           |
| 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%          | 98.50%     | 98.50%    | 98.50%    | 98.50%    |
| Euro Efficiency                                   | 98.30%                                                   | 98.30%    | 98.30%          | 98.30%     | 98.30%    | 98.30%    | 98.30%    |
| MPPT Efficiency                                   | >99%                                                     |           |                 |            |           |           |           |
| Protection                                        |                                                          |           |                 |            |           |           |           |
| Surge Arrester                                    | Type II                                                  |           |                 |            |           |           |           |
| AC Short Circuit Protection                       | Support                                                  |           |                 |            |           |           |           |
| Anti-islanding Protection                         | Support                                                  |           |                 |            |           |           |           |
| Shade Fix Function                                | Support                                                  |           |                 |            |           |           |           |
| Integrated PID recovery                           | Support                                                  |           |                 |            |           |           |           |
| AC Auxiliary Power Supply (APS)                   | Support                                                  |           |                 |            |           |           |           |
| Residual Current Monitoring Unit                  | Support                                                  |           |                 |            |           |           |           |
| Integrated AFCI<br>(Arc-Fault Circuit Protection) | Optional                                                 |           |                 |            |           |           |           |
| General Data                                      |                                                          |           |                 |            |           |           |           |
| Dimension (W*H*D)                                 | 481*613*251mm                                            |           |                 |            |           |           |           |
| Weight                                            | 44kg                                                     | 44kg      | 44kg            | 47kg       | 47kg      | 47kg      | 47kg      |
| Protection Degree                                 | IP65                                                     |           |                 |            |           |           |           |
| Cooling                                           | Fan                                                      |           |                 |            |           |           |           |
| Operating Temperature Range                       | -30℃ ~ +60℃ (Derating at 45℃)                            |           |                 |            |           |           |           |
| Night Self Consumption                            | <3W                                                      |           |                 |            |           |           |           |
| Display                                           | LED+APP                                                  |           |                 |            |           |           |           |
| Communication                                     | RS485 (Meter/GEN/DRM), Wi-Fi                             |           |                 |            |           |           |           |
| Certifications and Standards                      |                                                          |           |                 |            |           |           |           |
| Grid Regulation                                   | IEC61727, IEC62116, EN50549                              |           |                 |            |           |           |           |
| Safety/EMC                                        | IEC62109-1/-2; EN61000-6-1/2/3/4                         |           |                 |            |           |           |           |
| Standard Warranty                                 | 5 Years/10 Years (Optional)                              |           |                 |            |           |           |           |