



## GRID-TIED INVERTER

**THREE PHASE:**  
**GT3-4/5/6/8/10/12/15/17/20/22/25KD1**  
**GT3-10/12KDL1**

The LIVOLTEK GT3-4~25K D1 Grid-tied inverter, designed for both residential and commercial users, is perfect for three-phase rooftop installations. The inverter includes an integrated shadow optimization management system, ensuring maximum energy production even in partially shaded conditions. It includes an optional AFCI module to enhance safety by preventing electrical fires from arc faults in the wiring. With its 160V ultra-low start-up voltage and extended operational duration, this inverter is an excellent choice for residential and small commercial projects.

### Product Benefits

- ⌘ 150% DC/AC ratio
- ⌘ Export limitation (optional)
- ⌘ Smart APP for monitoring and optimization
- ⌘ Integrated arc fault circuit interrupter (optional)
- ⌘ Plug-and-play design for quick installation
- ⌘ 110% AC output for enhanced efficiency

GRID-TIED INVERTER

THREE PHASE: GT3-4K/5K/6K/8K/10K/12K/15K/17K/20K/22K/25KD1

INVERTER

| Model                                               | GT3-4KD1                                                 | GT3-5KD1 | GT3-6KD1 | GT3-8KD1 | GT3-10KD1 | GT3-12KD1                      | GT3-15KD1 | GT3-17KD1 | GT3-20KD1 | GT3-22KD1 | GT3-25KD1 |
|-----------------------------------------------------|----------------------------------------------------------|----------|----------|----------|-----------|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| 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         |           |           |           |
| 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                                                | <3% at rated power                                       |          |          |          |           |                                |           |           |           |           |           |
| 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 AC Breaker (Optional Circuit Protection) | Optional                                                 |          |          |          |           |                                |           |           |           |           |           |
| General Data                                        |                                                          |          |          |          |           |                                |           |           |           |           |           |
| Dimension (W*H*D)                                   | 520*420*193 mm                                           |          |          |          |           |                                |           |           |           |           |           |
| 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                          |          |          |          |           |                                |           |           |           |           |           |

GRID-TIED INVERTER

THREE PHASE: GT3-10K/12KDL1

INVERTER

| Model                          | GT3-10KDL1                                                   | GT3-12KDL1 |
|--------------------------------|--------------------------------------------------------------|------------|
| Input(PV)                      |                                                              |            |
| Max. DC Input Power            | 15000Wp                                                      | 18000Wp    |
| Max. DC Input Voltage          | 1100V                                                        |            |
| Min PV input Voltage           | 140V                                                         |            |
| Start-up DC Input Voltage      | 160V                                                         |            |
| Nominal DC Input Voltage       | 650V                                                         |            |
| MPPT Operating Range           | 140V – 600V                                                  |            |
| Max. DC Input Current          | 40A / 40A                                                    |            |
| Max. Short Circuit Current     | 52A / 52A                                                    |            |
| No. of MPPTs                   | 2                                                            |            |
| No. of Strings per MPP Tackers | 2 / 2                                                        |            |
| Output (AC)                    |                                                              |            |
| Nominal Output Power           | 10000W                                                       | 12000W     |
| Max. Apparent Power            | 11000VA                                                      | 13200VA    |
| Rated AC Grid Output Current   | 26.2 A                                                       | 31.5 A     |
| Max. AC Output Current         | 28.9 A                                                       | 34.6 A     |
| Rated AC Grid Voltage          | 3 / N / PE, 127V / 220V                                      |            |
| AC Grid Voltage Range          | 127V – 300V                                                  |            |
| Rated Grid Frequency           | 50Hz / 60Hz                                                  |            |
| Grid Frequency Range           | 45Hz – 55Hz / 55Hz – 65Hz                                    |            |
| Power Factor                   | > 0.99 at rated power (Adjustable 0.8 Leading – 0.8 Lagging) |            |
| THDi                           | < 3% at rated power                                          |            |
| Efficiency                     |                                                              |            |
| Max. Efficiency                | 98.60%                                                       | 98.60%     |
| Euro Efficiency                | 98.20%                                                       | 98.20%     |
| MPPT Efficiency                | > 99%                                                        |            |
| Certifications and Standards   |                                                              |            |
| Dimensions (W*H*D)             | 520*420*193 mm                                               |            |
| Weight                         | 24.5kg                                                       |            |
| Protection Degree              | IP65                                                         |            |
| Cooling                        | Fan cooling                                                  |            |
| Operating Temperature Range    | –30°C ~ 60°C (Derating at 45°C)                              |            |
| Typical Noise Emission         | < 40dB                                                       |            |
| Night Self Consumption         | < 1W                                                         |            |
| Display                        | LED + APP                                                    |            |
| Communication                  | RS485 (LCD / Meter), 4G / Wi-Fi + Bluetooth, DRM             |            |
| Certifications and Standards   |                                                              |            |
| Grid Regulation                | IEC61727, IEC62116                                           |            |
| Safety/EMC                     | IEC62109-1/2, EN61000-6-1/2/3/4                              |            |