

Grid-tied Inverter

Three Phase:
GT3-4K/5K/6K/8K/10K/12K/15K/17K/20K/22K/25KD1
GT3-10K/12KDL1

The LIVOLTEK GT3-4-25KD1 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

202610V2 Edition
Design and specifications are subject to change without notice

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INVERTER

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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. DC Input Power	6000 W	7500 W	9000 W	12000 W	15000 W	18000 W	22500 W	25500 W	30000 W	33000 W	37500 W
Max. PV Input Voltage	1000 V										
Min. PV Input Voltage	140 V										
Start-up Input Voltage	160 V										
Nominal Input Voltage	650 V										
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 Output Power	4000 W	5000 W	6000 W	8000 W	10000 W	12000 W	15000 W	17000 W	20000 W	22000 W	25000 W
Max. Apparent Power	4400 VA	5500 VA	6600 VA	8800 VA	11000 VA	13200 VA	16500 VA	18700 VA	22000 VA	24200 VA	27500 VA
Rated AC Grid Output Current	5.8 A	7.2 A	8.7 A	11.5 A	14.4 A	17.3 A	21.7 A	24.5 A	28.9 A	31.8 A	36.1 A
Max. AC Output Current	6.4 A	7.9 A	9.5 A	12.7 A	15.9 A	19.1 A	23.8 A	27.0 A	31.8 A	34.9 A	39.7 A
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-0.8 Lagging)										
THDi	<3% at rated power										
Efficiency											
Max. Efficiency	98.5%	98.5%	98.5%	98.6%	98.6%	98.6%	98.5%	98.5%	98.6%	98.6%	98.6%
Euro Efficiency	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%	98.1%	98.1%	98.2%	98.2%	98.2%
MPPT Efficiency	>99%										
Protection											
Integrated DC Switch	Optional										
DC SPD Protection	Type II										
PV Current Detection	Support										
Insulation Resistor Detection	Support										
Output Over Current Protection	Support										
AC Short Circuit Protection	Support										
Output Over Voltage Protection	Support										
AC SPD Protection	Type II										
Anti-islanding Protection	Support										
Temperature Protection	Support										
Ground Fault Monitoring	Support										
Internal Over Voltage Protection	Support										
Input Over Current Protection	Support										
Grid Monitoring	Support										
Residual Current Monitoring Unit	Support										
AFCI Protection	Support(Optional)										
General Data											
Demensions	530 × 444 × 190 mm										
Weight	17 kg					22 kg		22 kg		23 kg	
Protection Degree	IP65					IP65		IP65			
Cooling	Natural Cooling					Fan Cooling		Fan Cooling			
Operating Temperature	-30°C to +60°C (Derating at 45°C)					-30°C to +60°C (Derating at 45°C)		-30°C to +60°C (Derating at 45°C)			
Typical Noise Emission	<30 dB					<30 dB		<40 dB			
Night Self Consumption	<1 W										
Display	LED + APP/ LCD (Optional)										
Communication	RS485 (LCD/Meter), 4G/Wi-Fi + Bluetooth, DRM										
Topology	Transformerless										
Certifications and Standards											
Grid Regulation	IEC61727, IEC62116, CQC ABNT NBR 16149, ABNT NBR 16150										
Safety/EMC	IEC62109-1/2, EN61000-6-1/2/3/4										

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Three Phase: GT3-10K/12KDL1

Model	GT3-10KDL1	GT3-12KDL1
Input (PV)		
Max. DC Input Power	15000 Wp	18000 Wp
Max. DC Input Voltage	1100 V	
Min PV input Voltage	140 V	
Start-up DC Input Voltage	160 V	
Nominal DC Input Voltage	650 V	
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 MPPT Tickers	2/2	
Output (AC)		
Nominal Output Power	10000 W	12000 W
Max. Apparent Power	11000 VA	13200 VA
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	98.6%	98.6%
Euro Efficiency	98.2%	98.2%
MPPT Efficiency	>99%	
General Data		
Dimensions (W × H × D)	530 × 444 × 190 mm	
Weight	22 kg	
Protection Degree	IP65	
Cooling	Fan cooling	
Operating Temperature Range	-30°C to +60°C (Derating at 45°C)	
Typical Noise Emission	<40 dB	
Night Self Consumption	<1 W	
Display	LED + APP/ LCD (Optional)	
Communication	RS485	
Topology	Transformerless	
Certifications and Standards		
Grid Regulation	IEC61727, IEC62116, CQC ABNT NBR 16149, ABNT NBR 16150	
Safety/EMC	IEC62109-1/2, EN61000-6-1/2/3/4	