Grid-tied Inverter

Three Phase: GT3-30K/33K T1, GT3-36K/37K5/40K/50K/60K Q1
GT3-10K/15K/20K TL1, GT3-25K/30K QL1
GT3-30KTM1, GT3-36K/40K/50K/60K QM1

The LIVOLTEK this Grid-tied inverters are extensively utilized in residential, commercial, and industrial rooftop installations. Each photovoltaic string can handle a maximum input current of 20A and is compatible with high-power modules, including those exceeding 600W, available in the global market. These inverters feature three or four MPP trackers and a precise algorithm, making them an ideal choice for rooftop photovoltaic systems that have complex orientations and utilize a variety of components. With a wide operating voltage range and a low start-up voltage for the MPPT, the inverters ensure extended operational hours and increased power generation. They also support advanced functions such as shadow scanning and remote operation and maintenance, which are designed to maximize the 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



Technical Specification

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[1]	310V - 480V						
Rated Grid Frequency	50Hz / 60Hz						
Grid Frequency Range[2]	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	98.50%	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 (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°C to +60°C (Derating at 45°C)						
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						

Technical Specification

Model	GT3-10KTL1	GT3-15KTL1	GT3-20KTL1	GT3-25KQL1	GT3-30KQL1
PV Input					
Max. PV Input Power	15000Wp	22500Wp	30000Wp	37500Wp	45000Wp
Max. PV Input Voltage	800V				
Start - up Input Voltage	200V				
Nominal Input Voltage	400V				
MPPT Voltage Range	180V - 700V				
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	10000W	15000W	20000W	25000W	30000W
Max. Apparent Power	11000VA	16500VA	22000VA	27500VA	33000VA
Rated AC Grid Output Current	26.2A	39.4A	52.5A	65.6A	78.7A
Max. AC Output Current	28.9A	43.3A	57.7A	72.2A	86.6A
Rated AC Grid Voltage	3L / (N) / PE, 127V / 220V				
AC Grid Voltage Range [1]	180V - 260V				
Rated Grid Frequency	50Hz / 60Hz				
Grid Frequency Range [2]	45Hz - 55Hz / 55Hz - 65Hz				
Power Factor	> 0.99 at rated power (Adjustable 0.8 Leading - 0.8Lagging)				
THDi	<3% at rated power				
Efficiency					
Max. Efficiency	98.50%	98.50%	98.50%	98.50%	98.60%
Euro Efficiency	98.30%	98.30%	98.30%	98.30%	98.40%
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 (Arc-Fault Circuit Protection)	Optional				
General Data					
Dimension (W*H*D)	481*613*251mm				
Weight	44kg	44kg	44kg	47kg	47kg
Protection Degree	IP65				
Cooling	Fan				
Operating Temperature Range	-30°C to +60°C (Derating at 45°C)				
Night Self Consumption	<1W				
Display	LED+APP				
Communication	RS485 (Meter / GEN), Wi-Fi				
Topology	Transformerless				
Certifications and Standards					
Grid Regulation	IEC61727, IEC62116, IEEE1547				
Safety / EMC	IEC62109-1 / -2; UL1741				
Standard Warranty	5 Years(10 Years Optional)				

Technical Specification

Model	GT3-30KTM1	GT3-36KQM1	GT3-40KQM1	GT3-50KQM1	GT3-60KQM1
PV Input					
Max. PV Input Power	45000Wp	54000Wp	60000Wp	75000Wp	90000Wp
Max. PV Input Voltage	1100V				
Start - up Input Voltage	200V				
Nominal Input Voltage	720V				
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	36000W	40000W	50000W	60000W
Max. Apparent Power	33000VA	39600VA	44000VA	55000VA	66000VA
Rated AC Grid Output Current	36.1A	43.3A	48.1A	60.1A	72.2A
Max. AC Output Current	39.7A	47.6A	52.9A	66.2A	79.4A
Rated AC Grid Voltage	3 / N / PE, 3 / PE, 277 / 480V				
AC Grid Voltage Range	425 - 540V				
Rated Grid Frequency	50 / 60Hz				
Grid Frequency Range	45-55 / 55 - 65Hz				
Power Factor	> 0.99 at rated power (Adjustable 0.8 Leading - 0.8 Lagging)				
THDi	< 3% at rated power				
Efficiency					
Max. Efficiency	98.80%	98.80%	98.80%	98.80%	98.80%
Euro Efficiency	98.40%	98.40%	98.40%	98.40%	98.40%
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 (Arc-Fault Circuit Protection)	Optional				
General Data					
Dimension (W*H*D)	481*613*251mm				
Weight	43kg	47kg	47kg	47kg	47kg
Protection Degree	IP65				
Cooling	Fan				
Operating Temperature Range	-30°C to +60°C (Derating at 45°C)				
Night Self Consumption	<3W				
Display	LED + APP				
Communication	RS485 (Meter / GEN), Wi-Fi				
Topology	Transformeriess				
Certifications and Standards					
Grid Regulation	IEEE1547				
Safety / EMC	UL1741				
Standard Warranty	5 Years（10 years optional）				