

GOODWE

ET G3 Series 25-50kW

Three Phase Hybrid Inverter (HV)

Smarter Energy. Ready for More.



Starts More, Motor-Friendly

Handles High Inrush Currents

50dB

Technology,
Quiet as Breathing.

Generator Peak Shaving

Power Beyond
Generator Limits.

0ms^{*2}

Switching,
Keep Your Home Powered

2 × 100A

Dual Battery Inputs

IP66

Protection

-35°C to 60°C

5 MPPTs

More Flexible Solar Panel Layouts

200% PV Oversizing

Make the Most of Your Roof

V2X Ready^{*1}

V2H/V2B/V2G/...

Power Your Home, Building & Grid with Your EV

*1: New Features on the Way. Coming Soon in Selected Regions.

*2: Tested with the grid circuit open.

Technical Data	GW25K-ET-G30	GW29.999K-ET-G30	GW30K-ET-G30	GW37.5K-ET-G30	GW40K-ET-G30	GW49.999K-ET-G30	GW50K-ET-G30	GW18K-ET-L-G30	GW25K-ET-L-G30	GW30K-ET-L-G30	
Battery Side											
Battery TypeLFP (LiFePO ₄)											
Nominal Voltage (V)720								430			
Voltage Range (V)150 ~ 950								150 ~ 650			
Start-up Voltage (V)150											
Number of Battery Inputs2											
Max. Continuous Charging Current (A)		80 / 80		100 / 100				80 / 80	100 / 100		
Max. Continuous Discharging Current (A)		80 / 80		100 / 100				80 / 80	100 / 100		
Max. Charging Power (kW)		25	30	30	37.5	40	50	50	18	25	30
Max. Discharging Power (kW)		27.5	33	33	41.3	44	55	55	19.8	27.5	33
PV Side											
Max. Input Power (kW)		50	60	60	75	80	100	100	36	50	60
Max. Input Voltage (V) ¹¹ 1000								850			
MPPT Operating Voltage Range (V) ¹² 120 ~ 970								120 ~ 650			
Start-up Voltage (V)160											
Nominal Input Voltage (V)750								460			
Max. MPPT Current (A)		42 / 42 / 42		42 / 42 / 42 / 42		42 / 42 / 42 / 42 / 42		42 / 42 / 42	42 / 42 / 42 / 42	42 / 42 / 42 / 42 / 42	
Max. MPPT Short Circuit Current (A)		52	52	52	52	52	52	52	52	52	
Number of MPPTs		3	3	3	4	4	5	5	3	4	5
Number of Strings per MPPT		2 / 2 / 2		2 / 2 / 2 / 2		2 / 2 / 2 / 2 / 2		2 / 2 / 2	2 / 2 / 2 / 2	2 / 2 / 2 / 2 / 2	
AC Side (Grid Port)											
Rated Power (kW)		25	29.999	30	37.5	40	49.999	50	18	25	30
Max. Power (kW)		25	29.999	30	37.5	40	49.999	50	18	25	30
Rated Power at 40°C (kW)		25	29.999	30	37.5	40	49.999	50	18	25	30
Max. Power at 40°C (kW)		25	29.999	30	37.5	40	49.999	50	18	25	30
Rated Apparent Power from Grid (kVA)		25	29.999	30	37.5	40	49.999	50	18	25	30
Rated Apparent Power to Grid (kVA)		25	29.999	30	37.5	40	49.999	50	18	25	30
Max. Apparent Power to Grid (kVA)		25	29.999	30	37.5	40	49.999	50	18	25	30
Max. Apparent Power from Grid (kVA)		52.8 @ 380V 55.2 @ 400V 57.6 @ 415V	52.8 @ 380V 55.2 @ 400V 57.6 @ 415V	52.8 @ 380V 55.2 @ 400V 57.6 @ 415V	105.6 @ 380V 110.4 @ 400V 115.2 @ 415V	105.6 @ 380V 110.4 @ 400V 115.2 @ 415V	105.6 @ 380V 110.4 @ 400V 115.2 @ 415V	105.6 @ 380V 110.4 @ 400V 115.2 @ 415V	28.8 @ 208V 30.5 @ 220V	57.6 @ 208V 61.0 @ 220V	57.6 @ 208V 61.0 @ 220V
Nominal Voltage (V)220 / 380, 230 / 400, 240 / 415, 3L / N / PE								120 / 208, 127 / 220, 3L / N / PE or 3L / PE			
Voltage Range (V)150 ~ 280 (According to local standard)								90 ~ 168 (According to local standard)			
Nominal Frequency (Hz)50 / 60								60			
Frequency Range (Hz)45 ~ 55 / 55 ~ 65								55 ~ 65			
Rated Current from Grid (A)		37.9 @ 380V 36.3 @ 400V 34.8 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	56.9 @ 380V 54.4 @ 400V 52.1 @ 415V	60.7 @ 380V 58.0 @ 400V 55.6 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	50.0 @ 208V 47.3 @ 220V	69.5 @ 208V 65.7 @ 220V	83.4 @ 208V 78.8 @ 220V
Rated Current to Grid (A)		37.9 @ 380V 36.3 @ 400V 34.8 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	56.9 @ 380V 54.4 @ 400V 52.1 @ 415V	60.7 @ 380V 58.0 @ 400V 55.6 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	50.0 @ 208V 47.3 @ 220V	69.5 @ 208V 65.7 @ 220V	83.4 @ 208V 78.8 @ 220V
Max. Current from Grid (A)		80	80	80	160	160	160	160	80	160	160
Max. Current to Grid (A)		37.9 @ 380V 36.3 @ 400V 34.8 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	45.5 @ 380V 43.5 @ 400V 41.7 @ 415V	56.9 @ 380V 54.4 @ 400V 52.1 @ 415V	60.7 @ 380V 58.0 @ 400V 55.6 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	75.8 @ 380V 72.5 @ 400V 69.5 @ 415V	50.0 @ 208V 47.3 @ 220V	69.5 @ 208V 65.7 @ 220V	83.4 @ 208V 78.8 @ 220V
Power Factor0.8 lagging ~ 0.8 leading											
THDi<3%											

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AC Side (Back-up Port)										
Rated Apparent Power (kVA)	25	29.999	30	37.5	40	49.999	50	18	25	30
Max. Apparent Power (kVA) ³	Off-grid: 27.5 (37.5, 10s)	Off-grid: 33 (45, 10s)	Off-grid: 33 (45, 10s)	Off-grid: 41.3 (56.3, 10s)	Off-grid: 44 (60, 10s)	Off-grid: 55 (75, 10s)	Off-grid: 55 (75, 10s)	Off-grid: 19.8 (27, 10s)	Off-grid: 27.5 (37.5, 10s)	Off-grid: 33 (45, 10s)
	On-grid: 55.2	On-grid: 55.2	On-grid: 55.2	On-grid: 110.4	On-grid: 110.4	On-grid: 110.4	On-grid: 110.4	On-grid: 30.5	On-grid: 61.0	On-grid: 61.0
Nominal Voltage (V)	220 / 380, 230 / 400, 240 / 415, 3L / N / PE							120 / 208, 127 / 220, 3L / N / PE or 3L / PE		
Nominal Frequency (Hz)	50 / 60							60		
Rated Current (A)	37.9 @ 380V	45.5 @ 380V	45.5 @ 380V	56.9 @ 380V	60.7 @ 380V	75.8 @ 380V	75.8 @ 380V	50.0 @ 208V 47.3 @ 220V	69.5 @ 208V 65.7 @ 220V	83.4 @ 208V 78.8 @ 220V
	36.3 @ 400V	43.5 @ 400V	43.5 @ 400V	54.4 @ 400V	58.0 @ 400V	72.5 @ 400V	72.5 @ 400V			
	34.8 @ 415V	41.7 @ 415V	41.7 @ 415V	52.1 @ 415V	55.6 @ 415V	69.5 @ 415V	69.5 @ 415V			
Max. Current (A) ³	Off-grid: 50.0 (56.9, 10s)	Off-grid: 50.0 (68.2, 10s)	Off-grid: 50.0 (68.2, 10s)	Off-grid: 83.4 (85.4, 10s)	Off-grid: 83.4 (91.0, 10s)	Off-grid: 83.4 (113.7, 10s)	Off-grid: 83.4 (113.7, 10s)	Off-grid: 52.0 (71.0, 10s)	Off-grid: 86.7 (98.6, 10s)	Off-grid: 86.7 (118.2, 10s)
	On-grid: 80	On-grid: 80	On-grid: 80	On-grid: 160	On-grid: 160	On-grid: 160	On-grid: 160	On-grid: 80	On-grid: 160	On-grid: 160
THDv (@Linear Load)						<3%				
On / Off-grid Switching Time (ms) ⁴						0				
AC Side (Smart Port)										
Max. Apparent Power (kVA)	27.5	33	33	41.3	44	55	55	19.8	27.5	33
Nominal Voltage (V)	220 / 380, 230 / 400, 240 / 415, 3L / N / PE							120 / 208, 127 / 220, 3L / N / PE or 3L / PE		
Nominal Frequency (Hz)	50 / 60							60		
Frequency Range (Hz)	45 ~ 55 / 55 ~ 65							55 ~ 65		
Max. Current (A)	41.7	50	50	62.5	66.7	83.4	83.4	52	72.3	86.7
Efficiency										
Max. Efficiency	97.9%	97.9%	97.9%	98.0%	98.0%	98.0%	98.0%	96.8%	97.5%	97.5%
European Efficiency	97.2%	97.2%	97.2%	97.2%	97.2%	97.2%	97.2%	96.0%	96.7%	96.7%
Max. Battery to AC Efficiency	97.8%	97.8%	97.8%	97.8%	97.8%	97.8%	97.8%	96.7%	97.5%	97.5%
MPPT Efficiency	99.9%									
Protection										
PV String Current Monitoring	Integrated (Optional)	Integrated	Integrated (Optional)	Integrated (Optional)	Integrated (Optional)	Integrated	Integrated (Optional)	Integrated (Optional)	Integrated (Optional)	Integrated (Optional)
PV Insulation Resistance Detection						Integrated				
Residual Current Monitoring						Integrated				
PV Reverse Polarity Protection						Integrated				
Battery Reverse Polarity Protection						Integrated				
Anti-islanding Protection						Integrated				
AC Overcurrent Protection						Integrated				
AC Short Circuit Protection						Integrated				
AC Overvoltage Protection						Integrated				
DC Switch						Integrated				
DC Surge Protection	Type II (Type I + II Optional)			Type II	Type II (Type I + II Optional)			Type II		
AC Surge Protection						Type II				
Emergency Power Off						Integrated				
Remote Shutdown						Integrated				
AFCI						Optional				
Rapid Shutdown						Optional				
General Data										
Operating Temperature Range (°C)						-35 ~ +60				
Relative Humidity						0 ~ 100%				
Max. Operating Altitude (m)						4000				
Cooling Method						Smart Fan Cooling				
User Interface						LED, LCD (Optional), WLAN + APP				
Communication with BMS						CAN				
Communication						RS485, WiFi + LAN + Bluetooth, 4G+Bluetooth (Optional)				
Communication Protocols						Modbus-RTU (SunSpec Compliant), Modbus-TCP				
Weight (kg)	61.5	61.5	61.5	71	71	71	71	61.5	71	71
Dimension (W × H × D mm)						651 × 876 × 303				
Noise Emission (dB)	<45	<45	<45	<50	<50	<50	<50	<45	<50	<50
Ingress Protection Rating						IP66				
Mounting Method						Wall Mounted				

*1: When the input voltage is between 970V and 1000V or between 650V and 850V, the inverter will enter standby mode. When the voltage returns to 970V or 650V, the inverter will resume normal operation.

*2: Please refer to the user manual for the MPPT Voltage Range at nominal Power.

*3: The maximum output current under off-grid conditions takes into account the maximum three-phase imbalance capacity of 110%. The standard voltage model is calculated based on a phase voltage of 230V, and the low voltage model is calculated based on a phase voltage of 127V.

*4: Test conditions: under grid open-circuit conditions, the inverter's rated power is greater than the total load power.

*: Please visit GoodWe website for the latest certificates.