GOODWE

ETR Series 50-125kW

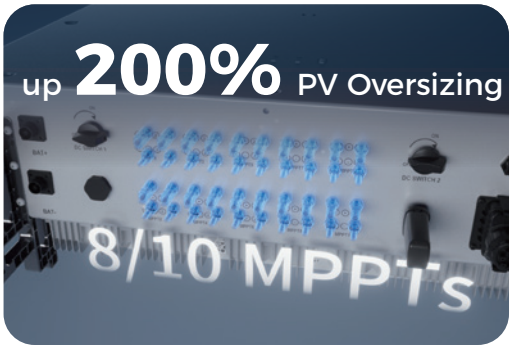
Three Phase Hybrid Inverter (HV)

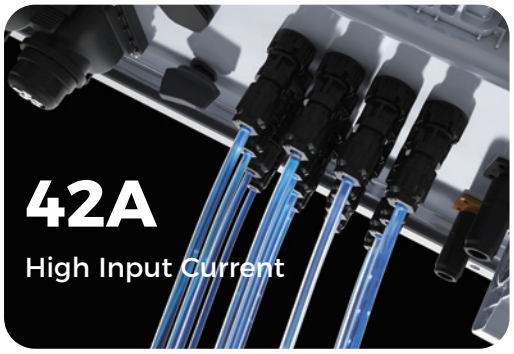
High-Efficiency, Stability, Reliability & Fast

























Technical Data	GW50K-ETR-L-G10	GW75K-ETR-L-G10	GW75K-ETR-G10	GW80K-ETR-G10	GW99.99K-ETR-G10	GW100K-ETR-G10	GW110K-ETR-G10	GW124.99K-ETR-G10	GW125K-ETR-G10
Battery Side[*12]									
Battery Type	LFP ($LiFePO_4$)								
Nominal Voltage (V)	480	480	750	750	750	750	750	750	750
Voltage Range (V)	440 ~ 700	440 ~ 700	700 ~ 1000	700 ~ 1000	700 ~ 1000	700 ~ 1000	700 ~ 1000	700 ~ 1000	700 ~ 1000
Start-up Voltage (V)	440	440	700	700	700	700	700	700	700
Battery Connection Ports	1								
Max. Continuous Charging / Discharging Current (A)	113.6	170.4	107.1	125.7	142.8	157.1	172.8	178.5	180.0
Max. Charging / Discharging Power (kW)	50.0	75.0	75.0	88.0	99.99	110.0	121.0	124.99	137.5
PV Side									
Max. Input Power (kW)	100	150	150	160	200	200	220	250	250
Max. Input Voltage (V)[*1*5]	850	850	1100	1100	1100	1100	1100	1100	1100
MPPT Operating Voltage Range (V)[*2]	160 ~ 800	160 ~ 800	160 ~ 1000	160 ~ 1000	160 ~ 1000	160 ~ 1000	160 ~ 1000	160 ~ 1000	160 ~ 1000
Start-up Voltage (V)	200								
Nominal Input Voltage (V)	420	420	620	620	620	620	620	620	620
Max. MPPT Current (A)	42								
Max. MPPT Short Circuit Current (A)	55								
Number of MPPTs	8	10	8	8	10	10	10	10	10
Number of Strings per MPPT	2								
AC Side (On-Grid)									
Rated Power (kW)	50.0	75.0	75.0	80.0	99.99	100	110.0	124.99	125.0
Max. Power (kW)	50.0	75.0	75.0	88[*7*15]	99.99	110[*7*15*18]	121[*3*7*15*18]	124.99	137.5[*7*15*18]
Rated Apparent Power (kVA)	50.0	75.0	75.0	80.0	99.99	100.0	110.0	124.99	125.0
Max. Apparent Power (kVA)	50.0	75.0	75.0	88[*16]	99.99	110[*16]	121[*3*8*16]	124.99	137.5[*8*16]
Nominal Voltage (V)	127 / 220, 3L / N / PE		220 / 380, 230 / 400, 240 / 415, 277 / 480, 3L / N / PE						
Voltage Range (V) (according to local standard)	114 ~ 139		180 ~ 280[*14]						
Nominal Frequency (Hz)	50 / 60[*10]		50 / 60						
Frequency Range (Hz)	45 ~ 55 / 55 ~ 65[*11]		45 ~ 55 / 55 ~ 65						
Rated Current (A)	131.3	196.9	114.0 @ 380V 108.3 @ 400V 104.4 @ 415V 90.3 @ 480V	121.6 @ 380V 115.5 @ 400V 111.3 @ 415V 96.3 @ 480V	152.0 @ 380V 144.4 @ 400V 139.2 @ 415V 120.3 @ 480V	152.0 @ 380V 144.4 @ 400V 139.2 @ 415V 120.3 @ 480V	167.2 @ 380V 158.8 @ 400V 153.1 @ 415V 132.4 @ 480V	190.0 @ 380V 180.5 @ 400V 174.0 @ 415V 150.4 @ 480V	190.0 @ 380V 180.5 @ 400V 174.0 @ 415V 150.4 @ 480V
Max. Current (A)[*9*17*19]	131.3	196.9	114.0 @ 380V 108.3 @ 400V 104.4 @ 415V 90.3 @ 480V	133.8 @ 380V 127.1 @ 400V 122.5 @ 415V 105.9 @ 480V	152.0 @ 380V 144.4 @ 400V 139.2 @ 415V 120.3 @ 480V	167.2 @ 380V 158.8 @ 400V 153.1 @ 415V 132.4 @ 480V	183.9 @ 380V 174.7 @ 400V[*13] 168.4 @ 415V 145.6 @ 480V	190.0 @ 380V 180.5 @ 400V 174.0 @ 415V 150.4 @ 480V	209.0 @ 380V 198.5 @ 400V 191.3 @ 415V 165.4 @ 480V
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)								
THDi	<3%								
Backup Side[*4]									
Nominal Output Apparent Power (kVA)	50.0	75.0	75.0	80.0	99.99	100.0	110.0	124.99	125.0
Max. Output Apparent Power (kVA)	50.0	75.0	75.0	88.0	99.99	110.0	121[*3]	124.99	137.5
Peak Output Power without Grid (kW)	120% @ 60s 150% @ 10s			110%@continuous 120% @ 60s 150% @ 10s	120% @ 60s 150% @ 10s	110% @ continuous 120% @ 60s 150% @ 10s		120% @60s 150% @10s	110%@continuous 120% @ 60s 150% @ 10s
Nominal Output Voltage (V)	127 / 220, 3L / N / PE		220 / 380, 230 / 400, 240 / 415, 277 / 480, 3L / N / PE						
Nominal Output Frequency (Hz)	50 / 60[*10]	50 / 60[*10]	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Nominal Output Current (A)	131.3	196.9	114.0 @ 380V 108.3 @ 400V 104.4 @ 415V 90.3 @ 480V	121.6 @ 380V 115.5 @ 400V 111.3 @ 415V 96.3 @ 480V	152.0 @ 380V 144.4 @ 400V 139.2 @ 415V 120.3 @ 480V	167.2 @ 380V 158.8 @ 400V 153.1 @ 415V 132.4 @ 480V		190.0 @ 380V 180.5 @ 400V 174.0 @ 415V 150.4 @ 480V	190.0 @ 380V 180.5 @ 400V 174.0 @ 415V 150.4 @ 480V
Max. Output Current (A)	131.3	196.9	114.0	133.8	152.0	167.2	183.9	190.0	209.0
THDv (@Linear Load)	<3%								
On / Off-grid Switching Time	<10ms (one-unit)								

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Technical Data	GW50K-ETR-L-G10	GW75K-ETR-L-G10	GW75K-ETR-G10	GW80K-ETR-G10	GW99.99K-ETR-G10	GW100K-ETR-G10	GW110K-ETR-G10	GW124.99K-ETR-G10	GW125K-ETR-G10
Efficiency									
Max. Efficiency	97.4%	97.4%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%
European Efficiency	96.8%	96.8%	97.7%	97.7%	97.7%	97.7%	97.7%	97.7%	97.7%
Max. Battery to AC Efficiency*6	97.7%	97.7%	98.2%	98.2%	98.2%	98.2%	98.2%	98.2%	98.2%
MPPT Efficiency	99.9%								
Protection									
PV String Current Monitoring	Integrated								
Internal Humidity Monitoring	Integrated								
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)								
AC Surge Protection	Type II								
AFCI	Optional								
Emergency Power Off	Optional								
Rapid Shutdown	Optional								
Remote Shutdown	Optional								
General Data									
Operating Temperature Range (°C)	-35 ~ +60								
Relative Humidity	0 ~ 100%								
Max. Operating Altitude (m)	4000								
Cooling Method	Intelligent Air Cooling								
User Interface	LED, LCD (Optional), WLAN + APP								
Communication with BMS	CAN								
Communication	RS485, WIFI, LAN, Bluetooth, 4G								
Communication Protocols	Modbus TCP (SunSpec Compatible)								
Weight (kg)	82	98	82	82	96	96	96	98	98
Dimension (W × H × D mm)	995 × 758 × 358								
Noise Emission (dB)	60								
Ingress Protection Rating	IP66								
Mounting Method	Wall Mounted								

*1: For GW50K-ETR-L-G10/GW75K-ETR-L-G10, when the input voltage ranges from 800V to 850V, the inverter will enter the standby mode, and the voltage returns to 800V to enter the normal operation state. For GW75K-ETR-G10/GW80K-ETR-G10/GW99.99K-ETR-G10/GW100K-ETR-G10/GW110K-ETR-G10/GW124.99K-ETR-G10/GW125K-ETR-G10, when the input voltage ranges from 1000V to 1100V, the inverter will enter the standby mode, and the voltage returns to 1000V to enter the normal operation state.
*2: Please refer to the user manual for the MPPT Voltage Range at nominal Power.
*3: For Australia is 110kW/kVA.
*4: The STS Box or STS Cabinet is needed.
*5: When connecting the GW261.2-BAT-LCD-G10 battery, the open-circuit voltage input of the PV strings needs to be greater than 813V.
*6: This efficiency refers to the efficiency from the battery port of the inverter to the AC output port of the inverter.
*7: For Chile, Max. Power (kW): GW80K-ETR-G10: 80kW, GW100K-ETR-G10: 100kW.
*8: For Chile, Max. Apparent Power to Grid (kVA)/Max. Apparent Power from Grid (kVA): GW80K-ETR-G10: 80kVA, GW100K-ETR-G10: 100kVA.
*9: For Chile, Max. Current to Grid (A)/Max. Current from Grid (A): GW80K-ETR-G10: 121.6@380Vac, 115.5@400Vac, 111.3@415Vac; GW100K-ETR-G10: 152.0@380Vac, 144.4@400Vac, 139.2@415Vac.
*10: For Mexico and Colombia, the Nominal Frequency of GW50K-ETR-L-G10 and GW75K-ETR-L-G10 is 60Hz.
*11: For Mexico and Colombia, the Frequency Range of GW50K-ETR-L-G10 and GW75K-ETR-L-G10 is 55~65Hz.
*12: Battery-side parameters are only applicable with proprietary battery systems or DC/DC-supported battery interface.
*13: For Australia, Max. Current from Grid/Max. Current to Grid is 158.8A@400V.
*14: When the Nominal Voltage (V) is 277/480, the Voltage Range (V) is 180~305.
*15: For Sri Lanka, Max. Power (kW): GW80K-ETR-G10: 80kW, GW100K-ETR-G10: 100kW, GW110K-ETR-G10: 110kW, GW125K-ETR-G10: 125kW.
*16: For Sri Lanka, Max. Apparent Power to Grid (kVA)/Max. Apparent Power from Grid (kVA): GW80K-ETR-G10: 80kVA, GW100K-ETR-G10: 100kVA, GW110K-ETR-G10: 110kVA, GW125K-ETR-G10: 125kVA.
*17: For Sri Lanka, Max. Current to Grid (A)/Max. Current from Grid (A): GW80K-ETR-G10: 121.6@380Vac, 115.5@400Vac, 111.3@415Vac; GW100K-ETR-G10: 152.0@380Vac, 144.4@400Vac, 139.2@415Vac; GW110K-ETR-G10: 167.2@380V, 158.8@400V, 153.1@415V; GW125K-ETR-G10: 190.0@380V, 180.5@400V, 174.0@415V.
*18: For Brazil, Max. Power (kW): GW100K-ETR-G10: 100kW, GW110K-ETR-G10: 110kW, GW125K-ETR-G10: 125kW.
*19: For Brazil, Max. Current to Grid (A)/Max. Current from Grid (A): GW100K-ETR-G10: 152.0@380Vac, 144.4@400Vac, 139.2@415Vac; GW110K-ETR-G10: 167.2@380V, 158.8@400V, 153.1@415V; GW125K-ETR-G10: 190.0@380V, 180.5@400V, 174.0@415V.
*: Please visit GoodWe website for the latest certificates.