GOODWE

ET LV Series 5-20kW

Three phase | 2/3/4 MPPTs Hybrid inverter

Low Voltage, High Impact





















*1 Optional functions or devices are purchased separately.

*2 Available on selected models only.

ET LV Series

GOODWE

Technical Data	GW5K-ET-L-G10	GW6K-ET-L-G10	GW8K-ET-L-G10	GW10K-ET-L-G10	GW12K-ET-L-G10	GW15K-ET-L-G10	GW20K-ET-L-G10	GW12K-ET-LL-G10
Battery Side[*1]								
Battery Type	LFP ($LiFePO_4$) / Lead-acid							
Nominal Battery Voltage (V)	48							
Battery voltage range (V)	40 ~ 60							
Start-up Voltage (V)	30							
Number of Battery Inputs	1	1	1	1	1	2	2	1
Max. Continuous Charging Current (A)	125	135	175	220	250	165 / 165	208 / 208	250
Max. Continuous Discharging Current (A)	125	135	175	220	250	165 / 165	208 / 208	250
Max. Charging Power (kW)	5	6	8	10	12	15	20	12
Max. Discharging Power (kW)	5.5	6.6	8.8	11.0	13.2	16.5	22.0	13.2
PV Side								
Max. Input Power (kW)	10	12	16	20	24	30	40	24
Max. Input Voltage (V)[*2]	1000							1000[*3]
MPPT Operating Voltage Range (V)[*4]	150 ~ 850							
Start-up Voltage (V)	180							
Nominal Input Voltage (V)	620							
Max. MPPT Current (A)	20 / 20	20 / 20	20 / 20	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20
Max. MPPT Short Circuit Current (A)	26 / 26	26 / 26	26 / 26	26 / 26 / 26	26 / 26 / 26	26 / 26 / 26 / 26	26 / 26 / 26 / 26	26 / 26 / 26
Number of MPPTs	2	2	2	3	3	4	4	3
Number of Strings per MPPT	1 / 1	1 / 1	1 / 1	1 / 1 / 1	1 / 1 / 1	1 / 1 / 1 / 1	1 / 1 / 1 / 1	1 / 1 / 1
AC Side (On-grid)								
Nominal Power (kW)	5.0	6.0	8.0	10.0	12.0	15.0	20.0	12.0
Max. Power (kW)	5.5[*5]	6.6[*5]	8.8[*5]	11.0[*5]	13.2[*5]	16.5[*5]	22.0[*5]	12.0[*5]
Nominal Apparent Power Output to Grid (kVA)	5.0	6.0	8.0	10.0	12.0	15.0	20.0	12.0
Max. Apparent Power to Utility Grid (kVA)[*6]	5.5[*5]	6.6[*5]	8.8[*5]	11.0[*5]	13.2[*5]	16.5[*5]	22.0[*5]	12.0[*5]
Nominal Apparent Power from Grid (kVA)	5.0	6.0	8.0	10.0	12.0	15.0	20.0	12.0
Max. Apparent Power from Grid (kVA)	48.3	48.3	48.3	48.3	48.3	48.3	48.3	26.7
Nominal Voltage (V)	400 / 380, 3L / N / PE							220, 3L/N/PE, 3L/PE[*7]
Voltage Range (V)	295 ~ 502							170 ~ 290
Nominal Frequency (Hz)	50 / 60							60
Frequency Range (Hz)	45 ~ 65							55 ~ 65
Max. Current to Grid (A)	7.9@230V 8.3@220V	9.6@230V 10@220V	12.8@230V 13.4@220V	15.9@230V 16.7@220V	19.1@230V 20@220V	23.9@230V 25@220V	31.9@230V 33.3@220V	31.5@127V
Max. Current From Grid (A)	70							70
Nominal Current From Grid (A)	7.5@220V 7.2@230V	9.1@220V 8.7@230V	12.1@220V 11.6@230V	15.2@220V 14.5@230V	18.2@220V 17.4@230V	22.7@220V 21.7@230V	30.3@220V 29@230V	31.5@127V
Nominal Current to Grid (A)	7.5@220V 7.2@230V	9.1@220V 8.7@230V	12.1@220V 11.6@230V	15.2@220V 14.5@230V	18.2@220V 17.4@230V	22.7@220V 21.7@230V	30.3@220V 29.0@230V	31.5@127V
Power Factor	~1 (Adjustable from0.8 leading~0.8 lagging)							
THDI	<3%							
Back-up Side								
Nominal Output Apparent Power (kVA)	5	6	8	10	12	15	20	12
Max. Output Apparent Power (kVA)	5.5 (10.0, 10s)	6.6 (12.0, 10s)	8.8 (16.0, 10s)	11.0 (20.0, 10s)	13.2 (24.0, 10s)	16.5 (30.0, 10s)	22.0 (40.0, 10s)	13.2 (24.0, 10s)
Max. Output Apparent Power with Grid (kVA)	48.3							26.7
Max. Output Current (Bypass)	70							
Nominal Output Voltage (V)	400 / 380, 3L / N / PE							220, 3L/N/PE, 3L/PE[*7]
Nominal Output Frequency (Hz)	50 / 60							60
Generator Side								
Nominal Apparent Power (kVA)	20							12
Max. Apparent Power (kVA)	20							12
Nominal Voltage (V)	400 / 380							220
Nominal Frequency (Hz)	50 / 60							60
Frequency Range (Hz)	45 ~ 55 / 55 ~ 65							55 ~ 65
Max. Current (A)	30.3							31.5
Efficiency								
Max. Efficiency	97.8%	97.8%	97.8%	97.8%	97.8%	97.9%	97.8%	97.8%
European Efficiency	97.0%	97.0%	97.1%	97.3%	97.3%	97.3%	97.4%	97.3%
Max. Battery to AC Efficiency	95.5%							
MPPT Efficiency	99.9%							
Protection								
PV String Current Monitoring	Integrated							
PV Insulation Resistance Detection	Integrated							
Residual Current Monitoring	Integrated							
PV Reverse Polarity Protection	Integrated							
Battery Reverse Polarity Protection	Optional	Optional	Optional	Optional	Optional[*8]	Optional[*8]	Optional[*8]	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							
AC Surge Protection	Type II							
AFCI[*9]	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Integrated
Rapid Shutdown	Optional							
Remote Shutdown	Integrated							
General Data								
Operating Temperature Range (°C)	-35 ~ +60							
Relative Humidity	0 ~ 95%							
Max. Operating Altitude (m)	4000							
Cooling Method	Smart Fan Cooling							
User Interface	LCD							
Communication with BMS	CAN							
Communication	WIFI+LAN+Bluetooth, 4G, RS485, CAN							
Communication Protocols	Modbus RTU (RS485), Modbus TCP / IP (Ethernet), Sunspec Modbus RTU							
Weight (kg)	42.2	42.2	42.2	45.3	45.3	49.7	51.2	45.1
Dimension (W x H x D mm)	551 x 756 x 258							
Noise Emission (dB)	<45							
Power Self-consumption at Night (W)	<15							
Ingress Protection Rating	IP66							
Anti-corrosion Class	C4							
Mounting Method	Wall Mounted							

*1: Different models of batteries cannot be mixed in parallel on same battery input
*2: When the input voltage is greater than 980V, the inverter will enter standby mode, and when the voltage returns to below 950V the inverter will return to normal operation.
*3: The Max. PV voltage should be kept below 800V; otherwise, it will affect the load-carrying capacity
*4: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.
*5: For Brazil and Chile and Sri Lanka, the Max. power is the same as the Nominal Power.
*6: For Chile, Max. Apparent Power to Utility Grid is same as Nominal Apparent Power Output to Grid.
*7: GW12K-ET-LL-G10 supports delta grids in some regions.
*8: For Brazil, for GW12K-ET-L-G10, GW15K-ET-L-G10 and GW20K-ET-L-G10, the Battery Reverse Polarity Protection is integrated.
*9: AFCI is integrated in Brazil.
*: Please visit GoodWe website for the latest certificates.
*: All pictures shown are for reference only. Actual appearance may vary.

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