GOODWE

ET PLUS+ Series16A

5-10kW I Three Phase Hybrid Inverter

ET PLUS+ Series integrates the technical strengths that make it one of the most adaptive options in the market for flexible residential needs. The series brings values of high power generation and charging power for optimal energy harvest, flexible applications enabled by smart load control and 100% unbalanced output, and sustainable system reliability and safety. It also presents peak shaving that balances power demand and grid power imported, to effectively reduce extra grid demand. Furthermore, thanks to dry contact in the inverter, external loads such as heat pumps can also be flexibly activated to optimize energy consumption. It is a truly versatile quality investment piece that extends application scenarios and maximizes self-consumption ratios.

Smart Control for Smart Energy

· Smart load control
· Peak shaving

Friendly & Thoughtful Design

· Fanless cooling for quiet operation
· Elegant and compact design

Superb Safety & Reliability

· In-built Type II SPD on DC side
· IP66 ingress protection

Flexible & Adaptable Applications

· Battery ready option
· Maximum 16A DC input current per string

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Technical Data	GW5KN-ET	GW6.5KN-ET	GW8KN-ET	GW10KN-ET
Battery Input Data				
Battery Type	Li-Ion	Li-Ion	Li-Ion	Li-Ion
Nominal Battery Voltage (V)	500	500	500	500
Battery Voltage Range (V)	180 ~ 600	180 ~ 600	180 ~ 600	180 ~ 600
Start-up Voltage (V)	180			
Number of Battery Input	1			
Max. Continuous Charging Current (A)	25	25	25	25
Max. Continuous Discharging Current (A)	25	25	25	25
Max. Charging Power (W)	7500	8450	9600	10000
Max. Discharging Power (W)	7500	8450	9600	10000
PV String Input Data				
Max. Input Power (W)	7500	9700	12000	15000
Max. Input Voltage (V)*1	1000	1000	1000	1000
MPPT Operating Voltage Range (V)*2	200 ~ 850	200 ~ 850	200 ~ 850	200 ~ 850
Start-up Voltage (V)	180	180	180	180
Nominal Input Voltage (V)	620	620	620	620
Max. Input Current per MPPT (A)	16	16	16	16
Max. Short Circuit Current per MPPT (A)	21.2	21.2	21.2	21.2
Number of MPP Trackers	2	2	2	2
Number of Strings per MPPT	1	1	1	1
AC Output Data (On-grid)				
Nominal Output Power (W)	5000	6500	8000	10000
Nominal Apparent Power Output to Utility Grid (VA)	5000	6500	8000	10000
Max. Apparent Power Output to Utility Grid (VA)*2*4	5500	7150	8800	11000
Max. Apparent Power from Utility Grid (VA)	10000	13000	15000	15000
Max. Apparent Power Output to Utility Grid (VA)*2	5000	6500	8000	10000
Nominal Output Voltage (V)	400 / 380, 3L / N / PE			
Output Voltage Range (V)	0 ~ 300			
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
AC Grid Frequency Range (Hz)	45 ~ 65			
Max. AC Current Output to Utility Grid (A)	8.5	10.8	13.5	16.5
Max. AC Current From Utility Grid (A)	15.2	19.7	22.7	22.7
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%
AC Output Data (Back-up)				
Back-up Nominal Apparent Power (VA)	5000	6500	8000	10000
Max. Output Apparent Power without Grid (VA)*3	5000 (10000@60sec)	6500 (13000@60sec)	8000 (16000@60sec)	10000 (16500@60sec)
Max. Output Apparent Power with Grid (VA)*3	5000	6500	8000	10000
Max. Output Current (A)	8.5	10.8	13.5	16.5
Nominal Output Voltage (V)	400 / 380	400 / 380	400 / 380	400 / 380
Nominal Output Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
Output THDv (@Linear Load)	<3%	<3%	<3%	<3%
Efficiency				
Max. Efficiency	98.0%	98.0%	98.2%	98.2%
European Efficiency	97.2%	97.2%	97.5%	97.5%
Max. Battery to AC Efficiency	97.5%	97.5%	97.5%	97.5%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
Protection				
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated	Integrated
DC Switch	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Type II	Type II	Type II	Type II
AC Surge Protection	Type III	Type III	Type III	Type III
Remote Shutdown	Integrated	Integrated	Integrated	Integrated
General Data				
Operating Temperature Range (°C)	-35 ~ +60	-35 ~ +60	-35 ~ +60	-35 ~ +60
Relative Humidity	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%
Max. Operating Altitude (m)	4000	4000	4000	4000
Cooling Method	Natural Convection	Natural Convection	Natural Convection	Natural Convection
User Interface	LED, APP	LED, APP	LED, APP	LED, APP
Communication with BMS*5	RS485, CAN	RS485, CAN	RS485, CAN	RS485, CAN
Communication with Meter	RS485	RS485	RS485	RS485
Communication with Portal	WiFi / WiFi + LAN (Optional) / 4G (Optional)			
Weight (kg)	24	24	24	24
Dimension (W × H × D mm)	415 × 516 × 180	415 × 516 × 180	415 × 516 × 180	415 × 516 × 180
Topology	Non-isolated	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W)*6	<15	<15	<15	<15
Ingress Protection Rating	IP66	IP66	IP66	IP66
Mounting Method	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted

*1: For 1000V system, maximum operating voltage is 950V.
*2: According to the local grid regulation.
*3: Can be reached only if PV and battery power is enough.
*4: For Chile Max. Apparent Power Output to Utility Grid (VA) and Max. Output Power (W): GW5KL(N)-ET is 5000; GW6KL-ET is 6000; GW6.5KN-ET is 6500; GW8KL(N)-ET is 8000; GW10KL(N)-ET is 10000.
*5: CAN communication is configured default. If RS485 communication is used, please replace the corresponding communication line.
*6: No back-up output.
*: Please visit GoodWe website for the latest certificates.