GOODWE

ET PLUS+ Series 16A 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 is a truly versatile quality investment piece that extends application scenarios and maximizes self-consumption ratios.

h.l



Smart Control for Smart Energy

- · Smart load control
- \cdot Peak shaving



Superb Safety & Reliability

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



Friendly & Thoughtful Design

Flexible & Adaptable Applications

Fanless cooling for quiet operation
 Elegant and compact design

()

- · Battery ready option
- · 100% unbalanced output

GOODWE

Technical Data	GW5KN-ET	GW6.5KN-ET	GW8KN-ET	GW10KN-ET
Battery Input Data				
Battery Type	Li-lon	Li-lon	Li-lon	Li-lon
Nominal Battery Voltage (V)	500	500	500	500
Battery Voltage Range (V)	180 ~ 600	180 ~ 600	180 ~ 600	180 ~ 600
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				
	7500	0700	10000	45000
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)	<u> </u>	<u>180</u> 620	180 620	<u>180</u> 620
Nominal Input Voltage (V)	16	16	16	16
Max. Input Current per MPPT (A) Max. Short Circuit Current per MPPT (A)	21.2	21.2	21.2	21.2
Number of MPP Trackers	21.2	2	21.2	21.2
Number of Strings per MPPT	2	1	1	1
			I	
AC Output Data (On-grid)				
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
Nominal Output Voltage (V)		400 / 380,		
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
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		
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 (VA) ³	5000 (10000@60sec)	6500 (13000@60sec)	8000 (16000@60sec)	10000 (16500@60s
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%
Max. Efficiency European Efficiency	98.0%	98.0%	98.2%	98.2%
Max. Battery to AC Efficiency	97.5%	97.5%	97.5%	97.5%
Max. Battery to AC Enciency MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
		33.378	33.378	33.378
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	Туре II	Type II	Type II
			- III	III aqvT
AC Surge Protection	Type III	Type III	Type III	/
AC Surge Protection	Type III Integrated	Type III Integrated	Iype III Integrated	Integrated
AC Surge Protection Remote Shutdown			/	/
AC Surge Protection Remote Shutdown General Data	Integrated		Integrated	Integrated
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C)	Integrated -35 ~ +60	Integrated -35 ~ +60	Integrated -35 ~ +60	Integrated -35 ~ +60
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity	Integrated	Integrated	Integrated	Integrated
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m)	-35 ~ +60 0 ~ 95%	-35 ~ +60 0 ~ 95%	-35 ~ +60 0 ~ 95%	-35 ~ +60 0 ~ 95% 4000
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method	Integrated -35 ~ +60 0 ~ 95% 4000	Integrated -35 ~ +60 0 ~ 95% 4000	Integrated -35 ~ +60 0 ~ 95% 4000	-35 ~ +60 0 ~ 95% 4000
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ^{*5}	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ⁷⁵ Communication with Meter	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ^{*5} Communication with Meter Communication with Portal	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ⁷⁵ Communication with BMS ⁷⁵ Communication with Meter Communication with Portal Weight (kg)	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 24	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485, CAN RS485 WiFi / WiFi + LAN (Op 24	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 tional) / 4G (Optional) 24	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN RS485 24
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ¹⁵ Communication with BMS ¹⁵ Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm)	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 24 415 × 516 × 180	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP R\$485, CAN R\$485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 tional) / 4G (Optional) 24 415 × 516 × 180	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN RS485 24 415 × 516 × 180
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ⁷⁵ Communication with Meter Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm) Topology	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 24 415 × 516 × 180 Non-isolated	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP R\$485, CAN R\$485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180 Non-isolated	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 tional) / 4G (Optional) 24 415 × 516 × 180 Non-isolated	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN RS485 24 415 × 516 × 180 Non-isolated
AC Surge Protection Remote Shutdown General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS ⁷⁵ Communication with BMS ⁷⁵ Communication with Meter Communication with Portal Weight (kg)	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 24 415 × 516 × 180	Integrated -35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP R\$485, CAN R\$485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180	-35 ~ +60 0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 tional) / 4G (Optional) 24 415 × 516 × 180	-35 ~ +60 0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN RS485 24 415 × 516 × 180

*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 Belgium, max. output apparent power (VA): GW5K-ET is 5000, GW6.5K-ET is 6500, GW8K-ET is 8000, GW10K-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.