



## Smart Control for Smart Energy

- · Smart load control
- · Peak shaving



## Superb Safety & Reliability

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



## Friendly & Thoughtful Design

- · Fanless cooling for quiet operation
- · Elegant and compact design



## Flexible & Adaptable Applications

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



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				
- <b>J</b>   1 · · · · ·	7500	9700	12000	15000
Max. Input Power (W)  Max. Input Voltage (V)	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
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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,	3L / N / PE	
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	leading to 0.8 lagging)	
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%
AC Output Data (Back-up)				
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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@60se
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%
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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				
	05 .00	25 . 60	05 .00	05 .00
Operating Temperature Range (°C)	-35 ~ +60	-35 ~ +60	-35 ~ +60	-35 ~ +60
Operating Temperature Range (°C) Relative Humidity	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%
General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m)	0 ~ 95% 4000	0 ~ 95% 4000	0 ~ 95% 4000	0 ~ 95% 4000
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method	0 ~ 95% 4000 Natural Convection	0 ~ 95% 4000 Natural Convection	0 ~ 95% 4000 Natural Convection	0 ~ 95% 4000 Natural Convection
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface	0 ~ 95% 4000 Natural Convection LED, APP	0 ~ 95% 4000 Natural Convection LED, APP	0 ~ 95% 4000 Natural Convection LED, APP	0 ~ 95% 4000 Natural Convection LED, APP
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS <sup>*5</sup>	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN	0 ~ 95% 4000 Natural Convectio LED, APP RS485, CAN
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS <sup>*5</sup> Communication with Meter	0 ~ 95% 4000 Natural Convection LED, APP	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	0 ~ 95% 4000 Natural Convection LED, APP
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS <sup>*s</sup> Communication with Meter Communication with Portal	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	0 ~ 95% 4000  Natural Convection  LED, APP  RS485, CAN  RS485  WiFi / WiFi + LAN (Op	0 ~ 95% 4000  Natural Convection  LED, APP  RS485, CAN  RS485  tional) / 4G (Optional)	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS <sup>75</sup> Communication with Meter Communication with Portal Weight (kg)	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 WiFi / WiFi + LAN (Op	0 ~ 95% 4000  Natural Convection  LED, APP RS485, CAN RS485  tional) / 4G (Optional) 24	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS'5 Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm)	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 tional) / 4G (Optional) 24 415 × 516 × 180	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS <sup>75</sup> Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm) Topology	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  24 415 × 516 × 180  Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180 Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  Itional) / 4G (Optional) 24 415 × 516 × 180  Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  24 415 × 516 × 180  Non-isolated
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS' <sup>5</sup> Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm) Topology Self-consumption at Night (W)' <sup>6</sup>	0 ~ 95% 4000 Natural Convection LED, APP RS485, CAN RS485 24 415 × 516 × 180 Non-isolated <15	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180 Non-isolated <15	0 ~ 95% 4000  Natural Convection  LED, APP RS485, CAN RS485  stional) / 4G (Optional) 24 415 × 516 × 180 Non-isolated <15	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  24 415 × 516 × 180  Non-isolated <15
Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS'5 Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm)	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  24 415 × 516 × 180  Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485 WiFi / WiFi + LAN (Op 24 415 × 516 × 180 Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  Itional) / 4G (Optional) 24 415 × 516 × 180  Non-isolated	0 ~ 95% 4000  Natural Convection LED, APP RS485, CAN RS485  24 415 × 516 × 180  Non-isolated



<sup>\*1:</sup> 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): GW5KN-ET is 5000; GW6.5KN-ET is 6500; GW8KN-ET is 8000; GW10KN-ET is 10000.

<sup>\*5:</sup> CAN communication is configured default. If RS485 communication is used, please replace the corresponding communication line. \*6: No back-up output.

<sup>\*:</sup> Please visit GoodWe website for the latest certificates.