# GOODWE

# **ET** Series

15-30kW I Three Phase Up to 3 MPPTs I Hybrid Inverter (HV)

GoodWe ET 15-30kW Series inverter is ideal for large residential or small commercial and industrial applications. As the core of the energy storage solution, the high-voltage inverters facilitate powerful energy backup and load management for optimized autonomy and reduced energy cost. The ET inverters also present 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. The series can be combined with a range of battery capacities and brands, including the GoodWe Lynx Home F.



## Friendly & Thoughtful Design

- · Elegant and compact design
- · Plug & Play installations



#### Superb Safety & Reliability

Smart Control & Monitoring

· Integrated dry contact for external loads

- · Type II SPD on DC side
- · AFCI optional1

· Peak shaving



### Flexible & Adaptable Applications

- · Max. 15A DC input current per string
- · Up to 150% DC input oversizing



Technical Data	GW15K-ET	GW20K-ET	GW25K-ET	GW29.9K-ET	GW30K-E
Battery Input Data					
Battery Type			Li-lon		
Nominal Battery Voltage (V)			500		
Battery voltage range (V)			200 ~ 800		
Start-up Voltage (V) Number of Battery Input	1	1	200	2	2
Max. Continuous Charging Current (A)	50	50	50 × 2	50 × 2	50 × 2
Max. Continuous Discharging Current (A)	50	50	50 × 2	50 × 2	50 × 2
Max. Charging Power (W)	15000 15000	20000	25000 25000	30000 30000	30000 30000
Max. Discharging Power (W)	15000	20000	25000	30000	30000
PV String Input Data					
Max. Input Power (W)*1	22500	30000	37500	45000	45000
Max. Input Voltage (V)*2 MPPT Operating Voltage Range (V)			1000 200 ~ 850		
Start-up Voltage (V)			200 ~ 850		
Nominal Input Voltage (V)			620		
Max. Input Current per MPPT (A)			30		
Max. Short Circuit Current per MPPT (A)	2	2	38	3	3
Number of MPP Trackers Number of Strings per MPPT	2/2	2/2	2/2/2	2/2/2	2/2/2
* '	2,2		2/2/2	2,2,2	2/2/2
AC Output Data (On-grid)					
Nominal Output Power (W)	15000	20000	25000	29900	30000
Nominal Apparent Power Output to Utility Grid (VA)  Max. Apparent Power Output to Utility Grid (VA)  "3" 111	15000 16500	20000 22000	25000 27500	29900 29900	30000 33000
Max. Apparent Power from Utility Grid (VA)*9	15000	20000	25000	30000	30000
Nominal Output Voltage (V)			380 / 400, 3L / N / PE		
Output Voltage Range (V) <sup>-4</sup> Nominal AC Grid Frequency (Hz)			0 ~ 300		
AC Grid Frequency (Hz)			50 / 60 45 ~ 65		
Max. AC Current Output to Utility Grid (A)*8	23.9	31.9	39.9	43.3	47.8
Max. AC Current From Utility Grid (A)*10	21.7	29.0	36.2	43.3	43.5
Power Factor Max. Total Harmonic Distortion		~1 (Adjusta	ble from 0.8 leading to 0. ≤3.05%	8 lagging)	
			≤3.05%		
AC Output Data (Back-up)					
Back-up Nominal Apparent Power (VA)	15000	20000	25000	29900	30000
Max. Output Apparent Power without Grid (VA)*5 Max. Output Apparent Power with Grid (VA)	15000 (18000@608, 24000@38)	20000 (24000@60s, 32000@3s) 20000	25000 (30000@60s) 25000	30000 (36000@60s) 29900	30000 (36000@6 30000
Max. Output Current (A)		30.3 (36.4@60s, 48.5@3s)	37.9 (45.5@60s)	45.5 (54.5@60s)	45.5 (54.5@60s
Nominal Output Voltage (V)			380 / 400		
Nominal Output Freqency (Hz) Output THDv (@Linear Load)			50 / 60 <3%		
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Max. Efficiency			98.0%		
Max. Efficiency European Efficiency			97.5%		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency					
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency			97.5% 97.5%		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection			97.5% 97.5% 99.9%		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring			97.5% 97.5% 99.9%		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection			97.5% 97.5% 99.9% Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection			97.5% 97.5% 99.9% Integrated Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection			97.5% 97.5% 99.9% Integrated Integrated Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection			97.5% 97.5% 99.9%  Integrated Integrated Integrated Integrated Integrated Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Acti-islanding Protection AC Overcurrent Protection			97.5% 97.5% 99.9%  Integrated Integrated Integrated Integrated Integrated Integrated Integrated Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Short Circuit Protection			97.5% 97.5% 99.9%  Integrated Integrated Integrated Integrated Integrated Integrated Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Short Circuit Protection AC Overvoltage Protection DC Switch®			97.5% 97.5% 99.9%  Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Short Circuit Protection AC Overvoltage Protection DC Switch ** DC Surge Protection DC Surge Protection			97.5% 97.5% 99.9%  Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection AC Overvoltage Protection DC Switch* DC Surge Protection AC Surge Protection AC Surge Protection			97.5% 97.5% 97.5% 99.9%  Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency MPPT Efficiency PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection Act Short Circuit Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection DC Switch ** DC Surge Protection AC Surge Protection AFCI			97.5% 97.5% 99.9%  Integrated Optional Optional		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency MPPT Efficiency PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection Act Short Circuit Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection DC Switch ** DC Surge Protection AC Surge Protection AFCI			97.5% 97.5% 99.9%  Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection AC Surge Protection DC Surge Protection AC Surge Protection AFCI Rapid Shutdown Remote Shutdown			97.5% 97.5% 99.9%  Integrated Optional Optional		
Efficiency  Max. Efficiency  Max. Battery to AC Efficiency  Max. Battery to AC Efficiency  MPPT Efficiency  Protection  PV String Current Monitoring  PV Insulation Resistance Detection  Residual Current Monitoring  PV Reverse Polarity Protection  Battery Reverse Polarity Protection  Anti-islanding Protection  AC Overcurrent Protection  AC Overcurrent Protection  AC Overcurrent Protection  AC Surge Protection  AC Surge Protection  AC Surge Protection  AC Surge Protection  AFCI  Rapid Shutdown  Remote Shutdown  Remote Shutdown  General Data  Operating Temperature Range (°C)			97.5% 97.5% 97.5% 99.9%  Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Short Circuit Protection DC Switch DC Surge Protection AFCI Rapid Shutdown Remote Shutdown  General Data Operating Temperature Range (°C) Relative Humidity			97.5% 97.5% 97.5% 99.9%  Integrated Type III Type III Optional Optional Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection DC Switch'® DC Surge Protection AC Surge Protection AC Surge Protection AFCI Rapid Shutdown Remote Shutdown Remote Shutdown  General Data  Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m)			97.5% 97.5% 97.5% 99.9%  Integrated Optional Optional Integrated		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection DC Switch'® DC Surge Protection AFCI Rapid Shutdown Remote Shutdown Remote Shutdown Remote Shutdown  General Data  Operating Temperature Range (°C) Relative Humidity Max. Operating Method  Cooling Method			97.5% 97.5% 97.5% 99.9%  Integrated Optional Optional Optional Integrated  35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency  Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection AC Surge Protection DC Switch DC Switch DC Switch DC Surge Protection AC Surge Protection AFCI Rapid Shutdown Remote Shutdown  General Data  Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS			97.5% 97.5% 97.5% 99.9%  Integrated Optional Optional Optional Optional Integrated  -35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling LED, WLAN + APP RS485 / CAN		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcultage Protection DC Switch of DC Surge Protection DC Surge Protection AFCI Rapid Shutdown Remote Shutdown  General Data Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with Meter			97.5% 97.5% 97.5% 99.9%  Integrated Optional Optional Optional Integrated Int		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency MPPT Efficiency MPPT Efficiency PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Active Residual Current Monitoring AC Overcurrent Protection AC Short Circuit Protection AC Stort Circuit Protection AC Surge Protection AFCI Report In Temperature Range (°C) Relative Humidity Max. Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with BMS Communication with Portal	40		97.5% 97.5% 97.5% 99.9%  Integrated Type III Optional Optional Optional Integrated  -35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling LED, WLAN + APP RS485 / CAN RS485	EA.	C.A.
Max. Efficiency European Efficiency Max. Battery to AC Efficiency Mex. Battery to AC Efficiency MPPT Efficiency Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcultage Protection AC Surge Protection AC Surge Protection AFCI Rapid Shutdown Remote Shutdown Remote Shutdown  General Data  Operating Temperature Range (°C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with Meter Communication with Meter Communication with Meter	48	48	97.5% 97.5% 97.5% 99.9%  Integrated Type II Optional Optional Optional Optional Integrated  -35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling LED, WLAN + APP RS485 / CAN RS485 WiFi + LAN + Bluetooth	54	54
Max. Efficiency European Efficiency Max. Battery to AC Efficiency Max. Battery to AC Efficiency MPPT Efficiency Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcultage Protection DC Switch ** DC Surge Protection AFCI Rapid Shutdown Remote Shutdown  General Data  Operating Temperature Range (*C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with BMS Communication with Meter Communication with Meter Communication with Portal Weight (kg) Dimension (W × H × D mm)	48		97.5% 97.5% 97.5% 99.9%  Integrated Type III Optional Optional Optional Integrated  -35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling LED, WLAN + APP RS485 / CAN RS485 WiFi + LAN + Bluetooth 54 520 × 660 × 220 < 445	54	54 <60
Max. Efficiency European Efficiency Max. Battery to AC Efficiency Mex. Battery to AC Efficiency MPPT Efficiency Protection PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcultage Protection AC Surge Protection AC Surge Protection AC Surge Protection AFCI Rapid Shutdown Remote Shutdown Remote Shutdown Remote Shutdown General Data  Operating Temperature Range (°C) Relative Humicity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with BMS Communication with Meter Communication with Portal Weight (kg) Dimension (W x H x D mm) Noise Emission (dB) Topology		48	97.5% 97.5% 97.5% 97.5% 99.9%  Integrated In		
Max. Efficiency European Efficiency Max. Battery to AC Efficiency Max. Battery to AC Efficiency MPPT Efficiency Protection  PV String Current Monitoring PV Insulation Resistance Detection Residual Current Monitoring PV Reverse Polarity Protection Battery Reverse Polarity Protection Anti-islanding Protection AC Overcurrent Protection AC Overcurrent Protection AC Overcurrent Protection DC Switch ** DC Surge Protection AFCI Rapid Shutdown Remote Shutdown  General Data  Operating Temperature Range (*C) Relative Humidity Max. Operating Altitude (m) Cooling Method User Interface Communication with BMS Communication with BMS Communication with Meter		48	97.5% 97.5% 97.5% 99.9%  Integrated Type III Optional Optional Optional Integrated  -35 ~ +60 0 ~ 95% 4000 Smart Fan Cooling LED, WLAN + APP RS485 / CAN RS485 WiFi + LAN + Bluetooth 54 520 × 660 × 220 < 445		

- \*1: In Australia, for most of the PV module, the max.Input power can achieve 2\*Pn, Such as the max.input power of GW15K-ET can achieve 30000W. Besides, Max. Input Power, not continuous for 1.5\*normal power.
- \*2: For 1000V system, Maximum operating voltage is 950V.

- 2: Por 10000 system, maximum operating voltage is 350v.

  \*3: According to the local grid regulation.

  \*4: Output Voltage Range: phase voltage.

  \*5: Can be reached only if PV and battery power is enough.

  \*6: DC Switch: GHX6-55P (for Australia).
- \*7: No Back-up Output.
- \*8: For 380V grid, the Max. AC Current Output to Utility Grid is 25.0A for GW15K-ET, 33.3A for GW20K-ET, 41.7A for GW25K-ET, 49.8A for GW29.9K-ET, 50.0A for GW30K-ET.
- \*9: When the load is connected to the inverter's backup port, the Max. Apparent Power from Utility Grid can reach to 22.5K for GW15K-ET, 30K for GW20K-ET, 33K for GW29.9K-ET, and 33K for GW30K-ET respectively.
- \*10: When the load is connected to the inverter's backup port, the Max. AC Current From Utility Grid can reach to 34A for GW15K-ET, 45A for GW20K-ET, 50A for GW25K-ET, 50A for GW29.9K-ET, and 50A for GW30K-ET respectively.
- GW29.9K-E1, and 50A for GW30K-E1 respectively.

  \*11: For Austria, Max. Output Power (W) is 15K for GW15K-ET, 20K for GW20K-ET, 25K for GW25K-ET, 29.9K for GW29.9K-ET, and 30K for GW30K-ET.

  \*: For 380V grid, the Nominal Output Current is 22.7A for GW15K-ET, 30.3A for GW20K-ET, 37.9A for GW25K-ET, 45.3A for GW29.9K-ET, 45.5A for GW30K-ET.

- Please visit GoodWe website for the latest certificates.
   All pictures shown are for reference only. Actual appearance may vary.