

ETC Series

50kW | Three phase | MPPT modules
Hybrid inverter (HV)

GoodWe ETC Series is a three-phase battery storage inverter with wide battery voltage range from 200 to 865V. It follows a simple plug and play modularised design consisting of five main modules (MPPT, DC/DC, DC/AC, STS & EMS modules), which allows a more flexible and easier installation.

It can switch to backup mode in less than 10ms ensuring uninterruptible power supply for critical loads. It offers 110% continuous AC overloading on backup for maximum power output and emergency shutdown function for system safety. The active, reactive power and power factor of this inverter is fully adjustable, which makes it suitable for micro-grids and ensures grid stability for the whole system. Whether to increase self-consumption, to realize peak-shaving, or for on-grid/off-grid use, the ETC series is the perfect energy storage solution for commercial and industrial applications.



Smart Control & Monitoring

- <10ms UPS-level switching
- Multi-protocol communication



Friendly & Thoughtful Design

- Plug & Play modularized design
- Adjustable active, reactive power and power factor



Superb Safety & Reliability

- Type I surge protection optional*
- Emergency shutdown



Flexible & Adaptable Applications

- Peak load shaving
- 100% unbalanced load
- Powerful off-grid overloading
- 200~865V wide battery voltage range

Technical Data		GW50K-ETC
Battery Input Data		
Battery Type		Li-Ion
Nominal Battery Voltage (V)*		422.4 / 499.2 / 576 / 652.8
Battery Voltage Range (V)		200 ~ 865
Max. Continuous Charging Current (A)		100
Max. Continuous Discharging Current (A)		100
Max. Charging Power (kW)		50
Max. Discharging Power (kW)		55
No. of Battery Input		1
PV String Input Data		
Max. Input Power (kW)		65
Max. Input Voltage (V)		1000
MPPT Operating Voltage Range (V)**		250 ~ 850
Start-up Voltage (V)		250
Nominal Input Voltage (V)		600
Max. Input Current per MPPT (A)		100
Max. Short Circuit Current per MPPT (A)		125
Number of MPP Trackers		1
Number of Strings per MPPT		8
AC Output Data (On-grid)		
Nominal Apparent Power Output to Utility Grid (kVA)		50
Max. Apparent Power Output to Utility Grid (kVA)		52.5
Max. Apparent Power from Utility Grid (kVA)		55
Nominal Output Voltage (V)		400, 3L / N / PE
Output Voltage Range (V)		312 ~ 460 (AU); 318 ~ 497 (Germany)
Nominal AC Grid Frequency (Hz)		50 / 60
Max. AC Current Output to Utility Grid (A)		76
Max. AC Current From Utility Grid (A)		100
Nominal Output Current (A)		72.5
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)
Max. Total Harmonic Distortion		<3%
AC Output Data (Back-up)		
Back-up Nominal Apparent Power (kVA)		50
Max. Output Apparent Power (kVA)		55
Max. Output Current (A)		76
Nominal Output Voltage (V)		400
Nominal Output Frequency (Hz)		50 / 60
Output THDv (@Linear Load)		<3%
Efficiency		
Max. Efficiency		97.6%
European Efficiency		97.3%
Max. Battery to AC Efficiency		97.2%
MPPT Efficiency		99.9%
Protection		
PV Insulation Resistance Detection		Integrated
Residual Current Monitoring		Integrated
PV Reverse Polarity Protection		Integrated
Battery Reverse Polarity Protection		Integrated
Anti-islanding Protection		Integrated
AC Overcurrent Protection		Integrated
AC Short Circuit Protection		Integrated
AC Overvoltage Protection		Integrated
DC Switch		Integrated
AC Switch		Integrated
DC Surge Protection		Type II (Type I+ II Optional)
AC Surge Protection		Type II (Type I+ II Optional)
Emergency Power Off		Integrated
Rapid Shutdown		Optional
Remote Shutdown		Integrated
General Data		
Operating Temperature Range (°C)		-20 ~ +60 (>45°C derating)
Relative Humidity		0 ~ 95% (Non-condensing)
Max. Operating Altitude (m)		4000
Cooling Method		Smart Fan Cooling
User Interface		LED, LCD, WLAN + APP
Communication with BMS		RS485
Communication with Meter		RS485
Communication with Portal		RS485, LAN / Bluetooth
Weight (kg)		142
Dimension (W x H x D mm)		585 x 1360 x 750
Topology		Non-isolated
Ingress Protection Rating		IP20
Overvoltage Category		DC II / AC III
Protective Class		I
Mounting Method		Grounded
Country of Manufacture		China

*1: Nominal Battery Voltage (V): With GOODWE battery model: LXC101-10: 422.4V, LXC120-10: 499.2V, LXC138-10: 576V, LXC156-10: 652.8V.

*: Please visit GoodWe website for the latest certificates.

** : Please refer to the user manual for the MPPT Voltage Range at Nominal Power.