

# ETC Series

## 50kW | Three-phase 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 & Play modularized design consisting of five main modules (MPPT, DC/DC, DC/AC, STS & EMS modules), which allows more flexible and easier installation. It can switch to backup mode in less than 8ms 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 inverters 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-/off-grid use, the ETC series is the perfect energy storage solution for commercial and industrial applications.



Modularized Design



100% Unbalanced Load



Peak Load Shaving



UPS-level Switching



Adjustable Active, Reactive Power  
and Power Factor



Powerful Backup Supply Ability

Technical Data		GW50K-ETC
<b>Battery Input Data</b>		
Battery Type		Li-Ion
Nominal Battery Voltage (V)		620
Battery Voltage Range (V)		200~865
Start-up Voltage (V)		200
No. of Battery Input		1
Max. Continuous Total Charging / Discharging Current (A)		100
Max Charge / Discharge Power (W)		50000
<b>PV String Input Data</b>		
Max. Input Power (W)		65000
Max. Input Voltage (V)		1000
MPPT Operating Voltage Range (V)		250~850
MPPT Voltage Range at Nominal Power (V)		510~850
Start-up Voltage (V)		180
Nominal Input Voltage (V)		600
Max. Input Current per MPPT (A)		100
Max. Short Circuit Current per MPPT (A)		125
Max. Back-feed Current to the Array (A)		0
Number of MPPTs		1
Number of Strings per MPPT		8
<b>AC Output Data (On-grid)</b>		
Nominal Apparent Power Output to Utility Grid (VA)		50000
Output Rated Active Power (W)		50000
Max. Apparent Power Output to Utility Grid (VA)		52500
Nominal Apparent Power from Grid (VA)		50000
Max. Apparent Power from Utility Grid (VA)		55000
Nominal Output Voltage (V)		400, 3L / N / PE
Output Voltage Range (V)		312~460 (AS) / 318~497 (Germany)
Nominal AC Grid Frequency (Hz)		50 / 60
AC Grid Frequency Range (Hz)		47~52 (AS) / 47.5~51.5 (Germany)
Max. AC Current Output to Utility Grid (A)		76
Max. AC Current from Utility Grid (A)		100
Max. Output Fault Current (Peak & Duration) (A)		156A@150us
Inrush Current (Peak & Duration) (A)		160
Nominal Output Current (A)		72.5
Output Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)
Max. Total Harmonic Distortion		<3%
<b>AC Output Data (Back-up)</b>		
Back-up Nominal Apparent Power (VA)		50000
Output Rated Active Power (W)		50000
Peak / Max. Output Apparent Power (VA)		55000
Max. Output Current (A)		76
Nominal Output Voltage (V)		400Vac, 3L / N / PE
Nominal Output Frequency (Hz)		50 / 60
Output THDv (@Linear Load)		<3%

\*: Please visit GoodWe website for the latest certificates.

Technical Data		GW50K-ETC
<b>Efficiency</b>		
Max. Efficiency		97.60%
European Efficiency		97.30%
Max. Battery to Load Efficiency		97.20%
<b>Protection</b>		
DC Insulation Resistance Detection		Integrated
Residual Current Monitoring Unit		Integrated
Anti-islanding Protection		Integrated
DC Reverse Polarity Protection		Integrated
AC Overcurrent / Overvoltage Protection		Integrated
AC Short Circuit Protection		Integrated
DC / AC Surge Arrester		Type II (Type I Optional)
DC / AC Switch		Integrated
PV String Current Monitoring		Optional
DC Arc Fault Circuit Interrupter		Optional
Emergency Power Off		Integrated
Rapid Shutdown		Optional
Remote Shutdown		Integrated
PID Recovery		Optional
I-V Curve Scan & Diagnosis		Optional
<b>General Data</b>		
Operating Temperature Range (°C)		-20~+60°C (>45°C derating)
Relative Humidity		0~95% (Non-condensing)
Max. Operating Altitude (m)		4000
Cooling Method		Fan Cooling
User Interface		LCD & LED & APP
Communication with BMS		RS485
Communication with Meter		RS485
Communication with Portal		RS485, LAN / Bluetooth
Weight (Kg)		142
Dimension W × H × D -in (mm)		585 × 1360 × 750
Noise Emission (dB)		<68
Topology		Transformerless
Ingress Protection Rating		IP20
DC / AC Connector		NC
Protective Class		I
Environmental Category		4K4H
Storage Environment (°C)		-30~+60°C
Pollution Degree		II
Overvoltage Category		DC II / AC III
The Decisive Voltage Class (DVC)		C
Mounting Method		Tower

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