

Ensure the Power Supply

BTC Series

50kW | Three-Phase | AC Retrofit



GoodWe BTC Series is a three-phase, AC retrofit inverter suitable for distributed PV systems and can be connected with high-voltage batteries ranging from 200 to 865V. It follows a simple, Plug & Play modular design consisting of four sections (DC/DC, DC/AC, STS & EMS modules). It can switch to backup mode in less than 10ms and ensures continuous power supply for critical loads. It does not require perfect balance when operating in backup mode, allowing for each phase to supply power to the loads individually. The active, reactive power and power factor of this inverters is fully adjustable, which makes it suitable for application on micro-grids and ensures grid stability for the whole PV system. It offers 10% continuous AC overloading on backup side for maximum power output and remote shutdown function for system safety.



Modular design, quick plug & play



100% unbalanced load when backup



UPS-level switching



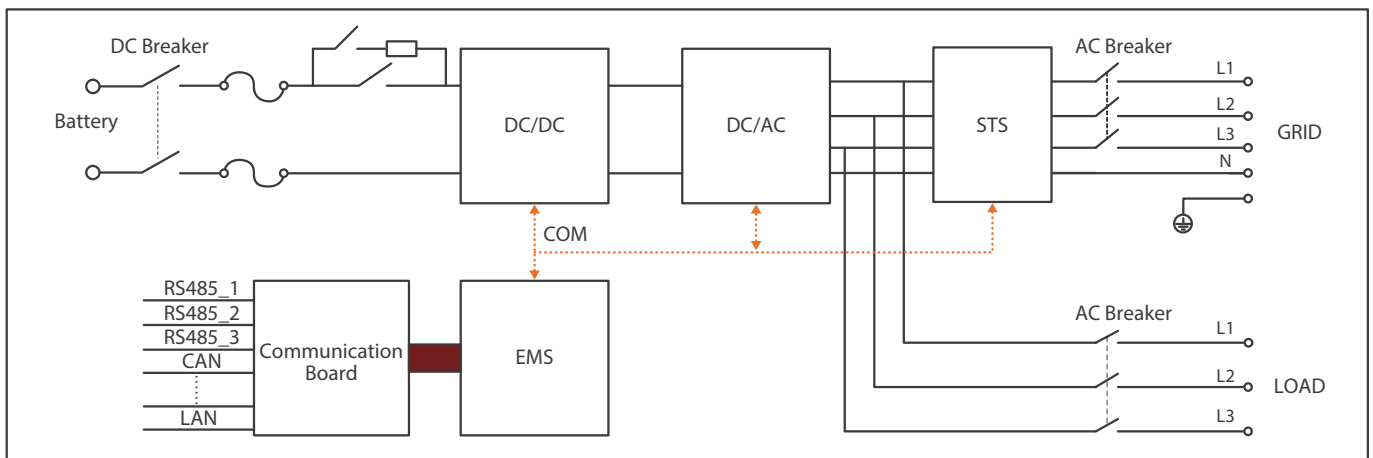
Built-in remote shutdown function



10% continuous AC overloading when backup



Adjustable active, reactive power and power factor



BTC Series

AC-Coupled Retrofit

Technical Data

GW50K-BTC

Battery Input Data

Battery Voltage Range(V)	200~865
Start-up Voltage (V)	250
No. of Battery Input	1
Max Discharge/Charge Current (A)	100
Charging Mode for Battery	Self-adaption to BMS
DC breaker	Integrated

AC Output Data (On-grid mode)

Nominal Output Power (VA)	50k
Max. Output Power (VA)	52.5k
Max. apparent power from Grid(VA)	100k
Max. Current from Grid (A)	145
Nominal Output Current (A)	72.5
Max. Output Current (A)	76
Nominal Output Voltage (V)	400, 3L/N/PE
Nominal Output Frequency (Hz)	50/60
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)
Output THDi (@Nominal Output)	<3%
AC breaker	Integrated

AC Output Data (Backup mode)

Nominal Output Power (VA)	50k
Overload Capability	1.1 Pn continuous overloading; 1.2 Pn less than 60s
Nominal Output Voltage (V)	400, 3L/N/PE
Nominal Output Frequency (Hz)	50/60
Nominal Output Current (A)	72.5
Output THDv (@Liner Load)	<3%
Load Unbalance	100% unbalanced load
AC breaker	Integrated

Efficiency

Max. Discharge Efficiency	97.0%
Max. Charge Efficiency	97.0%

Protection

Reverse Protection	Integrated
Anti-islanding Protection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
AC SPD Protection	Integrated
Output Over Current Protection	Integrated
Output Short Protection	Integrated
Output Over Voltage Protection	Integrated

General Data

Operating Temperature Range (°C)	-25~60
Relative Humidity	0~95%
Operating Altitude (m)	4000
Cooling	Fan Cooling
Noise (dB)	<65
User Interface	LCD&LED
Communication	RS485, LAN
BMS Communication	CAN, RS485
Weight (kg)	125
Size (Width*Depth*Height mm)	585*750*1350
Protection Degree	IP20
Isolation Method	Transformerless