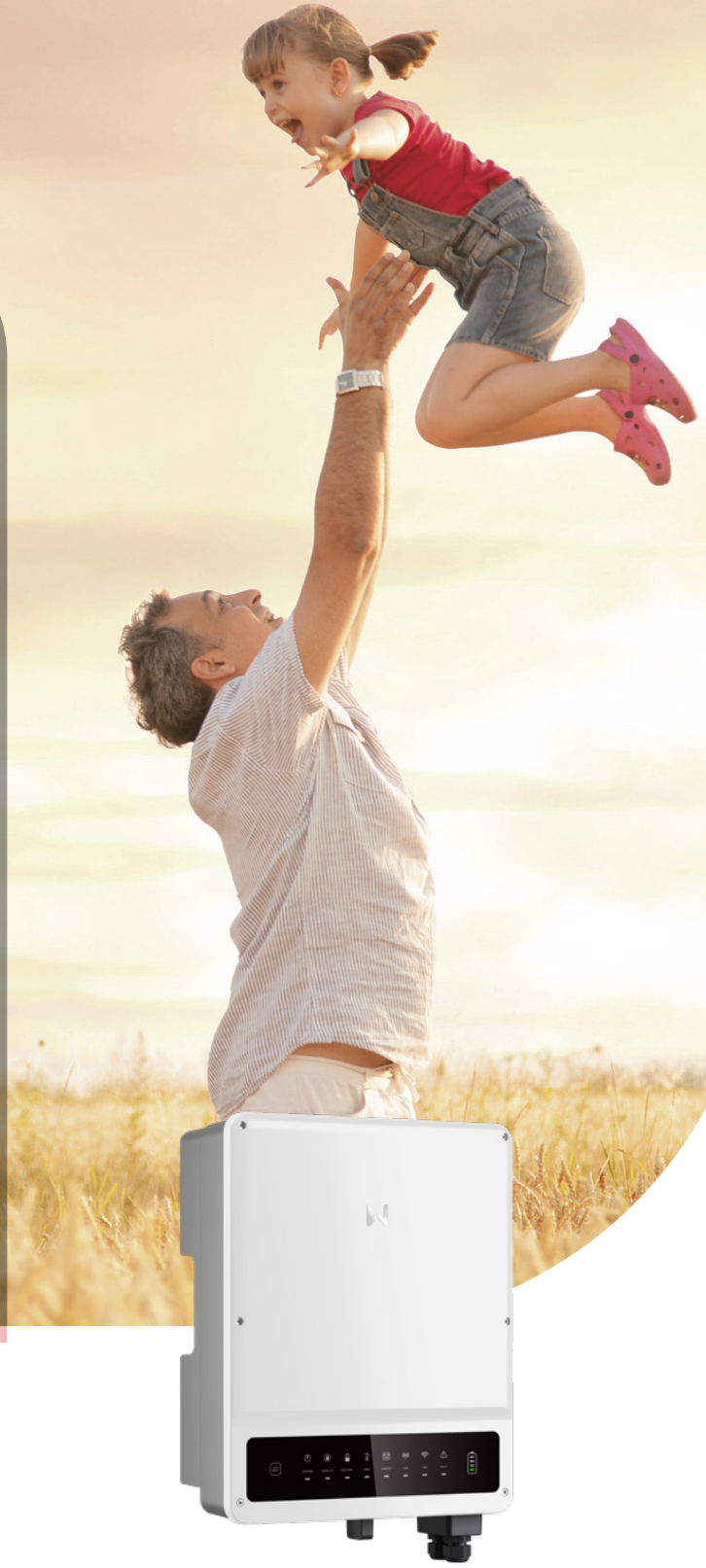
GOODWE

BT Series

5-10kW I Three Phase AC-Coupled HV Retrofit Inverter

The BT series is a GoodWe retrofit AC coupled solution, which is able to upgrade existing three-phase PV systems to storage systems of 5kW, 6kW, 8kW & 10kW. This solution is able to modernize any three-phase PV system, providing the ability to store power or operate with the back-up of batteries, ensuring interactivity or grid independence. It is compatible with high voltage Li-Ion batteries ranging from 180 to 600V and is also equipped with UPS function. As part of its set of protections, it incorporates a Battery Input Reverse Polarity Protection.



- 8 ms UPS-level Switching
- 110% AC output overloading
- High voltage battery (180-600V)
- Battery Input Reverse Polarity Protection

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Technical Data	GW5K-BT	GW6K-BT	GW8K-BT	GW10K-BT
Battery Input Data				
Battery Type	Li-Ion	Li-Ion	Li-Ion	Li-Ion
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)	5000	6000	8000	10000
Max. Discharging Power (W)	5000	6000	8000	10000
AC Output Data (On-grid)				
Nominal Apparent Power Output to Utility Grid (VA)	5000	6000	8000	10000
Max. Apparent Power Output to Utility Grid (VA)*1*4	5500	6600	8800	11000
Max. Apparent Power from Utility Grid (VA)	10000	12000	15000	15000
Nominal Output Voltage (V)	400/380, 3L/N/PE	400/380, 3L/N/PE	400/380, 3L/N/PE	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	10.5	13.5	16.5
Max. AC Current From Utility Grid (A)	15.2	18.2	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)				
Back-up Nominal Apparent Power (VA)	5000	6000	8000	10000
Max. Output Apparent Power (VA)	5000 (10000@60sec)	6000 (12000@60sec)	8000 (15000@60sec)	10000 (15000@60sec)
Max. Output Current (A)	8.5	10.5	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	97.60%	97.60%	97.60%	97.60%
European Efficiency	97.20%	97.20%	97.50%	97.50%
Max. Battery to AC Efficiency	97.60%	97.60%	97.60%	97.60%
Protection				
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated
Battery 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
General Data				
Operating Temperature Range (°C)	-35~+60	-35~+60	-35~+60	-35~+60
Relative Humidity	0~95%	0~95%	0~95%	0~95%
Max. Operating Altitude (m)	4000	4000	4000	4000
Cooling Method	Nature Convection	Nature Convection	Nature Convection	Nature Convection
Display	LED & APP	LED & APP	LED & APP	LED & APP
Communication with BMS*2	RS485; CAN	RS485; CAN	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485	RS485	RS485
Communication with Portal	Wi-Fi; LAN	Wi-Fi; LAN	Wi-Fi; LAN	Wi-Fi; LAN
Weight (kg)	21	21	21	21
Dimension W×H×D (mm)	415 × 516 × 180	415 × 516 × 180	415 × 516 × 180	415 × 516 × 180
Noise Emission (dB)	<30	<30	<30	<30
Topology	Battery Non-Isolation	Battery Non-Isolation	Battery Non-Isolation	Battery Non-Isolation
Self-consumption at Night (W)*3	<15	<15	<15	<15
Ingress Protection Rating	IP66	IP66	IP66	IP66
Mounting Method	Wall Bracket	Wall Bracket	Wall Bracket	Wall Bracket

*1: According to the local grid regulation..
*2: CAN communication is configured by default. If 485 communication is used, please replace the corresponding communication line.
*3: No Back-up Output.
*4: For Belgium Max. Apparent Power Output to Utility Grid (VA): GW5K-BT is 5000; GW6K-BT is 6000; GW8K-BT is 8000; GW10K-BT is 10000.

*: Peak output apparent power can be reached only if PV and battery power is enough.
*: AFDPF: Active Frequency Drift with Positive Feedback, AQDPF: Active Q Drift with Positive Feedback.
*: Please visit GoodWe website for the latest certificates