

PCS 125K Series

100/125kW | Three Phase | String PCS

GoodWe's 100/125kW PCS is a high-performance power conversion system designed for both on-grid and off-grid applications. With advanced control technology, it offers fast and precise response to system scheduling, along with outstanding grid and load adaptability. Compact yet powerful, it supports intelligent grid interaction and seamless compatibility with various battery systems-making it a reliable choice for optimized energy management and modern energy storage solutions.



Harsh Environment Adaptability

- 110% continuous overloading capability at 40°C
- No power derating at up to 50°C
- Terminal temperature detection & residual current protection



Powerful Performance

- 100% unbalanced output
- LVRT/HVRT, weak grid support
- Seamless communication with BMS and EMS



Superb Safety & Reliability

- IP66 protection and optional C5 protection¹
- Class B EMC compliance for safer integration



User-Friendly Design & Flexibility

- Horizontal or vertical installation for easy cabinet integration
- Plug-in terminals for quick, flexible installation

1: Optional functions or devices are purchased separately.

Technical Data		GW100K-PCS-N-G10	GW125K-PCS-N-G10	GW100K-PCS-N-G11	GW125K-PCS-N-G11
Battery Input Data					
Battery Type		Li-Ion			
Start-up Voltage (V)		680			
Nominal Operating Voltage		832			
Nominal Operating Voltage Range (V) ¹		680 ~ 936			
Operating Voltage Range (V)		670 ~ 1000			
Max. DC Voltage (V)		1000			
Number of Battery Input		1			
Max. Continuous Charging Current (A)	158.8	198.5	158.8	198.5	198.5
Max. Continuous Discharging Current (A)	158.8	198.5	158.8	198.5	198.5
Max. Continuous Charging Power (kW)	110.0	137.5	110.0	137.5	137.5
Max. Continuous Discharging Power (kW)	110.0	137.5	110.0	137.5	137.5
AC Output Data (On-grid)					
Nominal Output Power (kW)	100	125	100	125	
Max. Output Power (kW)	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	
Nominal Apparent Power (kVA)	100	125	100	125	
Nominal Output Voltage (V)		400 / 380, 3L / N / PE			
Output Voltage Range (V)		340 ~ 440 / 323 ~ 418			
Nominal AC Grid Frequency (Hz)		50 / 60			
AC Grid Frequency Range (Hz)		47.5 ~ 52.5 / 57.5 ~ 62.5			
Max. Output Apparent Power to Grid (kVA)	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	
Max. Input Apparent Power from Grid (kVA)	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	
Max. AC Current Output to Utility Grid (A)	158.8	198.5	158.8	198.5	
Max. AC Current from Utility Grid (A)	158.8	198.5	158.8	198.5	
Nominal Output Current (A)	144.3@400V AC 151.9@380V AC	180.4@400V AC 189.9@380V AC	144.3@400V AC 151.9@380V AC	180.4@400V AC 189.9@380V AC	
Power Factor		-0.8 ~ 0.8 (Adjustable from 1leading~1lagging)			
Max. Total Harmonic Distortion		<3%			
AC Output Data (Off-grid)					
Nominal Apparent Power (kVA)	100	125	100	125	
Max. Output Apparent Power (kVA)	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	110.0@400V AC 104.5@380V AC	137.5@400V AC 130.6@380V AC	
Nominal Output Current (A)	144.3@400V AC 151.9@380V AC	180.4@400V AC 189.9@380V AC	144.3@400V AC 151.9@380V AC	180.4@400V AC 189.9@380V AC	
Max. Output Current (A)	158.8	198.5	158.8	198.5	
Nominal Output Voltage (V)		400 / 380, 3L / N / PE			
Nominal Output Frequency (Hz)		50 / 60			
Output THDv (@Linear Load)		<3%			
Efficiency					
Max. Efficiency		98.6%			
European Efficiency		98.4%			
Protection					
Residual Current Monitoring		Integrated			
Battery Reverse Polarity Protection		Integrated			
Anti-islanding Protection		Integrated			
AC Overcurrent Protection		Integrated			
AC Short Circuit Protection		Integrated			
AC Overvoltage Protection		Integrated			
DC Surge Protection		Type II			
AC Surge Protection		Type II			
General Data					
Operating Temperature Range (°C) ²		-25 ~ +60			
Derating temperature (°C) ³		50			
Relative Humidity		0 ~ 100%			
Max. Operating Altitude (m)		4000			
Cooling Method		Smart Fan Cooling			
User Interface		LED			
Communication		RS485, CAN, Ethernet			
Communication Protocols		Modbus RTU, Modbus TCP			
Weight (kg)		80			
Dimension (W x H x D mm)		600 x 266 x 900			
Noise Emission (dB)		<68			
Topology		Non-isolated			
Ingress Protection Rating		IP66			
Environmental Category		4K4H			
Pollution Degree		III			
Overvoltage Category		DC II / AC III			
Protective Class		I			
The Decisive Voltage Class (DVC)		Battery: C; AC: C; Com: A			
Type of Electrical Supply System		TN-S, TN-C, TN-C-S, TT, IT			
Country of Manufacture		China			
Integrated PDU	Integrated	Integrated	-	-	

*1: For the three-phase 400V AC output. The full-load voltage range of the DC is from 705V to 936V.

*2: The auxiliary power supply can start up at -25°C.

*3: 1.1 times overload derating temperature: 40°C.

*: Please visit GoodWe website for the latest certificates.