

UT Series

250-350kW | Three Phase | 12/15 MPPTs



Higher Yields

- 20A max. DC input current per string¹
- Anti-PID and PID recovery



Superb Safety & Reliability

- IP66 and optional C5 protection
- Full power operation at 40°C high temperature



Lower Costs

- Reactive power compensation at night
- High-speed Power Line Communication (HPLC) for reduced wiring costs



Grid Friendly

- Stable operation under weak grid conditions: SCR $\geq$ 1.0
- Dynamic reactive power response <30ms

¹: For GW250KH-UT-G20, GW320KH-UT and GW350KH-UT only.

Technical Data

GW250KH-UT-G20

Input

Max. Input Voltage (V)	1500
MPPT Operating Voltage Range (V)	480 ~ 1500
Start-up Voltage (V)	500
Nominal Input Voltage (V)	1160
Max. Input Current per MPPT (A)	40
Max. Short Circuit Current per MPPT (A)	60
Number of MPPT trackers	12
Number of Strings per MPPT	2

Output

Nominal Output Power (kW)	250
Nominal Output Apparent Power (kVA)	250
Max. AC Active Power (kW)	250
Max. AC Apparent Power (kVA)	250
Nominal Output Voltage (V)	800, 3L / PE
Output Voltage Range (V)	640-920
Nominal AC Grid Frequency (Hz)	50 / 60
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65
Max. Output Current (A)	180.5
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)
Max. Total Harmonic Distortion ^{*1}	<1%

Efficiency

Max. Efficiency	99.01%
European Efficiency	98.80%

Protection

PV String Current Monitoring	Integrated
Internal Humidity Monitoring	Integrated
PV Insulation Resistance Detection	Integrated
Residual Current Monitoring	Integrated
PV Reverse Polarity Protection	Integrated
Anti-islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
DC Surge Protection	Type II
AC Surge Protection	Type II
AFCI	Optional
Anti-PID	Integrated
PID Recovery	Integrated
Reactive Power Compensation at Night	Integrated
Power Supply at Night	Integrated
I-V Curve Scan	Optional

General Data

Operating Temperature Range (°C)	-35 ~ +60
Relative Humidity	0 ~ 100%
Max. Operating Altitude (m)	5000 (>4000 derating)
Cooling Method	Smart Fan Cooling
User Interface	LED, LCD (Optional), WLAN + APP
Communication	RS485 or PLC
Communication Protocols	Modbus RTU
Weight (kg)	133.0
Dimension (W × H × D mm)	1120 × 810 × 368
Topology	Non-isolated
Self-consumption at Night (W)	<3
Ingress Protection Rating	IP66
DC Connector ^{*2}	MC4 (4 ~ 10mm ^{*2})
AC Connector	OT / DT terminal (Max. 400mm ²)

*1: Nominal Output Power

*2: DC-strings connectors supplied by GoodWe 4-6mm²; 10mm² must be purchased separately.

*: Please visit GoodWe website for the latest certificates.

Technical Data

GW320K-UT

GW320KH-UT

Input

Max. Input Voltage (V)	1500	
MPPT Operating Voltage Range (V)	480 ~ 1500	
Start-up Voltage (V)	500	
Nominal Input Voltage (V)	1160	
Max. Input Current per MPPT (A)	30	40
Max. Short Circuit Current per MPPT (A)	50	60
Number of MPPT rackers	15	12
Number of Strings per MPPT	2	

Output

Nominal Output Power (kW)	320	
Nominal Output Apparent Power (kVA)	320	
Max. AC Active Power (kW)	352	
Max. AC Apparent Power (kVA)	352	
Nominal Output Voltage (V)	800, 3L / PE	
Output Voltage Range (V)	640~920	
Nominal AC Grid Frequency (Hz)	50 / 60	
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65	
Max. Output Current (A)	254	
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)	
Max. Total Harmonic Distortion ^{*1}	<1%	

Efficiency

Max. Efficiency	99.01%
European Efficiency	98.80%

Protection

PV String Current Monitoring	Integrated
Internal Humidity Monitoring	Integrated
PV Insulation Resistance Detection	Integrated
Residual Current Monitoring	Integrated
PV Reverse Polarity Protection	Integrated
Anti-islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
DC Surge Protection	Type II
AC Surge Protection	Type II
AFCI	Optional
Anti-PID	Integrated
PID Recovery	Integrated
Reactive Power Compensation at Night	Integrated
Power Supply at Night	Integrated
I-V Curve Scan	Optional

General Data

Operating Temperature Range (°C)	-35 ~ +60
Relative Humidity	0 ~ 100%
Max. Operating Altitude (m)	5000 (>4000 derating)
Cooling Method	Smart Fan Cooling
User Interface	LED, LCD (Optional), WLAN + APP
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Weight (kg)	133.0
Dimension (W × H × D mm)	1120 × 810 × 368
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Self-consumption at Night (W)	<3
Ingress Protection Rating	IP66
DC Connector ^{*2}	MC4 (4 ~ 10mm ²)
AC Connector	OT / DT terminal (Max. 400mm ²)

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Technical Data

GW350K-UT

GW350KH-UT

Input

Max. Input Voltage (V)	1500	
MPPT Operating Voltage Range (V)	480 ~ 1500	
Start-up Voltage (V)	500	
Nominal Input Voltage (V)	1160	
Max. Input Current per MPPT (A)	30	40
Max. Short Circuit Current per MPPT (A)	50	60
Number of MPPT rackers	15	12
Number of Strings per MPPT	2	

Output

Nominal Output Power (kW)	352	
Nominal Output Apparent Power (kVA)	352	
Max. AC Active Power (kW)	352	
Max. AC Apparent Power (kVA)	352	
Nominal Output Voltage (V)	800, 3L / PE	
Output Voltage Range (V)	640~920	
Nominal AC Grid Frequency (Hz)	50 / 60	
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65	
Max. Output Current (A)	254	
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AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
DC Surge Protection	Type II
AC Surge Protection	Type II
AFCI	Optional
Anti-PID	Integrated
PID Recovery	Integrated
Reactive Power Compensation at Night	Integrated
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