GOODWE

DNS G3 Series

3-6kW I Single Phase
2 MPPTs

The GoodWe DNS G3 series inverter is specially designed for single-phase residential applications. Integrated with high-current input and DC input oversizing capabilities, the series can bring you optimized power generation and make substantial returns. With its lighter and fanless house fit-in compact design, the DNS G3 inverter provides a reliable power supply yet runs at a super quiet operation below 25dB. The inverter also takes safety measures including optional Arc Fault Failure Interrupter (AFCI) and Type II Surge Protection Device (SPD) on both sides to protect the system from electrical fire and lightning hazards in extreme environments for guaranteed safety.

Smart Control & Monitoring

· 24/7 load consumption monitoring*
· Multiple communication protocols supported

Optimal Generation

· Max. 16A input current per string
· 150% DC input oversizing & 110% AC output overloading

Superb Safety & Reliability

· Optional AFCI preventing electrical fires*
· Optional AC & DC Type II SPD & SPD failure alarm*

Friendly & Thoughtful Design

· IP66 ingress protection
· Low noise level thanks to fanless cooling

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Technical Data	GW3000-DNS-30	GW3600-DNS-30	GW4200-DNS-30[*1]	GW5000-DNS-30	GW6000-DNS-30
Input					
Max. Input Voltage (V)	600	600	600	600	600
MPPT Operating Voltage Range (V)	40 ~ 560	40 ~ 560	40 ~ 560	40 ~ 560	40 ~ 560
Start-up Voltage (V)	50	50	50	50	50
Nominal Input Voltage (V)	360	360	360	360	360
Max. Input Current per MPPT (A)	16	16	16	16	16
Max. Short Circuit Current per MPPT (A)	23	23	23	23	23
Number of MPP Trackers	2	2	2	2	2
Number of Strings per MPPT	1	1	1	1	1
Output					
Nominal Output Power (W)	3000	3600	4200	5000	6,000
Nominal Output Apparent Power (VA)	3000	3600	4200	5000	6,000
Max. AC Active Power (W)	3300[*2]	3960[*2]	4620[*2]	5500[*2]	6,600
Max. AC Apparent Power (VA)	3300[*3]	3960[*3]	4620[*3]	5500[*3]	6,600
Nominal Output Voltage (V)	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50/60
Max. Output Current (A)	14.4	17.3	20.1	24	28.8
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%	<3%
Efficiency					
Max. Efficiency	97.9%	97.9%	97.9%	97.9%	97.9%
European Efficiency	97.0%	97.0%	97.2%	97.3%	97.4%
Protection					
PV String Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated
DC Switch	Integrated	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Type III (Type II Optional)				
AC Surge Protection	Type III (Type II Optional)				
AFCI	Optional	Optional	Optional	Optional	Optional
Emergency Power Off	Optional	Optional	Optional	Optional	Optional
Remote Shutdown	Optional	Optional	Optional	Optional	Optional
General Data					
Operating Temperature Range (°C)	-25 ~ +60	-25 ~ +60	-25 ~ +60	-25 ~ +60	-25 ~ +60
Relative Humidity	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%
Max. Operating Altitude (m)	4000[*4]	4000[*4]	4000[*4]	4000[*4]	4000[*4]
Cooling Method	Natural Convection				
Display	LED, LCD (Optional) , WLAN+APP				
Communication	WiFi, RS485 or LAN or 4G or DI (Ripple Control or DRM) (Optional)				
Communication Protocols	Modbus-RTU (SunSpec Compliant)				
Weight (kg)	12.8	12.8	12.8	12.8	13.4
Dimension W×H×D (mm)	350 × 410 × 143	350 × 410 × 143	350 × 410 × 143	350 × 410 × 143	350 × 410 × 143
Noise Emission (dB)	<25	<25	<25	<25	<25
Topology	Non-isolated	Non-isolated	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W)	<1	<1	<1	<1	<1
Ingress Protection Rating	IP66	IP66	IP66	IP66	IP66
DC Connector	MC4 (4 ~ 6mm²)	MC4 (4 ~ 6mm²)	MC4 (4 ~ 6mm²)	MC4 (4 ~ 6mm²)	MC4 (4 ~ 6mm²)
AC Connector	Plug and play connector (Max.6mm²)				

*: All pictures shown are for reference only. Actual appearance may vary.
*: Optional functions or devices are purchased separately.
*: Please visit GoodWe website for the latest certificates.
*1: For Malaysia GW4200-DNS-30 Nominal Output Power (W) and Nominal Output Apparent Power (VA) and Max. AC Active Power (W) and Max. AC Apparent Power (VA) is 4000.
*2: For Belgium Max. AC Active Power (W) GW3000-DNS-30 is 3000, GW3600-DNS-30 is 3600, GW4200-DNS-30 is 4200, GW5000-DNS-30 is 5000, GW6000-DNS-30 is 6000.
*3: For Belgium Max. AC Apparent Power (VA): GW3000-DNS-30 is 3000, GW3600-DNS-30 is 3600, GW4200-DNS-30 is 4200, GW5000-DNS-30 is 5000, GW6000-DNS-30 is 6000.
*4: For Australia Max. Operating Altitude (m) is 3000.
*: AFDPF: Active Frequency Drift with Positive Feedback, AQDPF: Active Q Drift with Positive Feedback.
*: For Australia Nominal Output Current (A) GW3000-DNS-30 is 14.4, GW3600-DNS-30 is 17.3, GW4200-DNS-30 is 20.1, GW5000-DNS-30 is 24.0, GW6000-DNS-30 is 28.8. For Belgium Nominal Output Current (A) GW3000-DNS-30 is 13.0, GW3600-DNS-30 is 15.7, GW4200-DNS-30 is 18.3, GW5000-DNS-30 is 21.7, GW6000-DNS-30 is 26.1.

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