Three-phase C&I On-grid Inverter



X3-MEGA G2

40kW / 50kW / 60kW

High Efficiency

- Up to 98.4% efficiency
- 32A per MPP tracker
- 180~1000Vdc MPPT voltage range
- 150% PV oversizing, 110% overloading output

Assured Safety

- IP66 protection degree
- Type II SPD on AC&DC side (Optional)
- String current monitoring
- 24 hours operation monitoring

Intelligent Design

- Night-time reactive power compensation
- Smart air cooling enhances fan longevity
- Heat dissipation reduces system weight & size by over 10%
- I-V Curve diagnosis

Flexible Adaptability

- Built-in export power control function
- Remote setting and upgrading
- Aluminium AC cable connection available
- Max. 6 MPPTs, 2 strings per MPP tracker

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	X3-MGA-40K-G2	X3-MGA-50K-G2	X3-MGA-60K-G2
PV INPUT			
Max. recommended PV array power	60 kWp	75 kWp	90 kWp
Max. PV input voltage①	1100 V		
Nominal PV input voltage	600 V		
Operating voltage range	200 ~ 1000 V		
MPPT voltage range②	180 ~ 1000 V		
Start-up voltage	200 V		
No. of MPP trackers / Strings per MPP tracker	4 / 2	5 / 2	6 / 2
Max. input current per MPPT	32 A		
Max. input short circuit current per MPPT	46 A		
AC OUTPUT			
Rated output power	40 kW	50 kW	60 kW
Rated output current③	60.6 A / 58 A	75.8 A / 72.5 A	90.9 A / 87 A
Max. output apparent power	44 kVA	55 kVA	66 kVA
Max. output continuous current③	66.7 A / 63.8 A	83.3 A / 79.7 A	100 A / 95.7 A
Nominal AC voltage	3 / (N) / PE, 220 / 380 V 3 / (N) / PE, 230 / 400 V		
Nominal AC frequency	50 Hz / 60 Hz		
AC frequency range④	50 ± 5 Hz / 60 ± 5 Hz		
Adjustable Power Factor range	~ 1 (0.8 lagging to 0.8 leading)		
THDi (rated power)	< 3%		
EFFICIENCY			
Max. efficiency	98.4%		
European efficiency	98.1%		
ENVIRONMENT LIMIT			
Ingress protection	IP66		
Operating ambient temperature range	-25 ~ 60°C		
Max. operating altitude	4000 m		
Relative humidity	0 ~ 100% RH		
Overvoltage Category	Mains: III, PV: II		
GENERAL			
Dimensions (W × H × D)	630 × 521 × 286 mm		
Net weight	44.0 kg	44.5 kg	45.5 kg
Cooling concept	Smart cooling		
Communication interfaces	RS485, DRM, Meter		
Power consumption (night)	< 2 W		
Topology	Non-isolated		
Certificates and approvals	IEC/EN 62109-1, IEC/EN 62109-2, NB/T 32004, EN 50549, AS4777.2, VDE4105, IEC 61727, IEC 62116, IEC 61683, IEC 60068, EN 50530		
AC auxiliary power supply (APS)	Optional		
PROTECTION			
Protections	Over / under voltage protection, DC isolation protection, DC reverse-polarity protection, Grid monitoring, DC injection monitoring, Back feed current monitoring, Residual current detection, AC overcurrent protection, String fault detection, AC overcurrent protection, AC short-circuit protection		
Active anti-islanding method	Frequency shift		
Surge protection (DC / AC)	DC: Type II, AC: Type II		
Arc-fault circuit interrupter (AFCI)	Optional		
Anti-PID	External		

① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter
② Input voltage exceeding the MPPT voltage range may trigger inverter protection
③ The two data refer to different grid voltage 220V/230V (75~125kW models) or 500V/540V (136~150kW models)
④ The AC frequency range may vary from different country codes