

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

| | 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 voltage ^① | 1100 V | 600 V | 600 V |
| Nominal PV input voltage | 600 V | 600 V | 600 V |
| Operating voltage range | 200 ~ 1000 V | 200 ~ 1000 V | 200 ~ 1000 V |
| MPPT voltage range ^② | 180 ~ 1000 V | 180 ~ 1000 V | 180 ~ 1000 V |
| Start-up voltage | 200 V | 200 V | 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 current ^③ | 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 current ^③ | 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 range ^④ | 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 x H x D) | 630 x 521 x 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