

Three-phase C&I On-grid Inverter



X3-FORTH

75kW / 80kW / 100kW

110kW / 120kW / 125kW



High Efficiency

- Up to 98.6% efficiency
- 32A per MPP tracker
- 180~1000Vdc MPPT voltage range
- 150% PV oversizing, 110% overloading output
- Max. 12 MPPTs, 2 strings per MPP tracker



Assured Safety

- IP66 protection degree
- AFCI support (optional)
- AC terminal temperature detection
- String current monitoring
- 24 hours operation monitoring
- Type II SPD on DC & AC side



Intelligent Design

- Night-time reactive power compensation
- Smart air cooling enhances fan longevity
- Heat dissipation reduces system weight & size by over 5%
- I-V curve diagnosis



Flexible Adaptability

- Built-in export power control function
- Remote setting and upgrading
- Aluminium AC cable connection available

X3-FTH-75K
X3-FTH-80K
X3-FTH-100K
X3-FTH-110K
X3-FTH-120K
X3-FTH-125K

PV INPUT						
Max. recommended PV array power	120 kWp	120 kWp	150 kWp	165 kWp	180 kWp	188 kWp
Max. PV input voltage ^①	1100 d.c. V					
Rated PV input voltage	580 d.c. V@220 a.c. V 600 d.c. V@230 a.c. V 730 d.c. V@277 a.c. V					
MPPT voltage range ^②	180 ~ 1000 d.c. V					
Start-up voltage	200 d.c. V					
No. of MPP trackers / strings per MPP tracker	9 / 2		9 / 2 12 / 2 ^③		12 / 2	
Max. input current per MPPT	32 d.c. A					
Max. input short circuit current per MPPT	46 d.c. A					
AC INPUT & OUTPUT (ON-GRID)						
Rated output apparent power	75 kVA	80 kVA	100 kVA	110 kVA	120 kVA	125 kVA
Rated output current	113.7 a.c. A@220 a.c. V 108.7 a.c. A@230 a.c. V 90.3 a.c. A@277 a.c. V	121.3 a.c. A@220 a.c. V 116 a.c. A@230 a.c. V 96.3 a.c. A@277 a.c. V	151.6 a.c. A@220 a.c. V 145 a.c. A@230 a.c. V 120.4 a.c. A@277 a.c. V	166.7 a.c. A@220 a.c. V 159.5 a.c. A@230 a.c. V 132.4 a.c. A@277 a.c. V	181.9 a.c. A@220 a.c. V 174 a.c. A@230 a.c. V 144.5 a.c. A@277 a.c. V	189.4 a.c. A@220 a.c. V 181.2 a.c. A@230 a.c. V 150.5 a.c. A@277 a.c. V
Max. output apparent power	75 kVA	88 kVA	110 kVA	121 kVA	132 kVA	132 kVA
Max. output continuous current	113.7 a.c. A@220 a.c. V 108.7 a.c. A@230 a.c. V 90.3 a.c. A@277 a.c. V	133.4 a.c. A@220 a.c. V 127.6 a.c. A@230 a.c. V 105.9 a.c. A@277 a.c. V	166.7 a.c. A@220 a.c. V 159.5 a.c. A@230 a.c. V 132.4 a.c. A@277 a.c. V	183.4 a.c. A@220 a.c. V 175.4 a.c. A@230 a.c. V 145.7 a.c. A@277 a.c. V	200 a.c. A@220 a.c. V 191.3 a.c. A@230 a.c. V 158.9 a.c. A@277 a.c. V	200 a.c. A@220 a.c. V 191.4 a.c. A@230 a.c. V 158.9 a.c. A@277 a.c. V
Rated AC voltage	3W / (N) / PE, 220 / 380 a.c. V 3W / (N) / PE, 230 / 400 a.c. V 3W / (N) / PE, 277 / 480 a.c. V					
Rated AC frequency	50 / 60 Hz					
AC frequency range ^④	50 ± 5 / 60 ± 5 Hz					
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)					
EFFICIENCY						
Max. efficiency	98.6%					
European efficiency	98.3%					
ENVIRONMENT LIMIT						
Ingress protection	IP66					
Operating temperature range	-25 ~ 60°C					
Max. operating altitude	4000 m					
Relative humidity	4 ~ 100% RH (condensing)					
Overvoltage category	Mains: III, PV: II					
GENERAL						
Dimensions (W × H × D)	985 × 660 × 327.5 mm					
Net weight	83 kg				87 kg	
Cooling concept	Smart air cooling					
Communication interfaces	RS485, DRM					
Power consumption (night)	< 10 W					
Topology	Non-isolated					
Certifications	IEC/EN 62109-1, IEC/EN 62109-2, NB/T 32004, EN 50549, AS4777.2, VDE4105, VDE4110, IEC 61727, IEC 62116, IEC 61683, IEC 60068, EN 50530					
AC auxiliary power supply (APS)	Built-in					
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, Over temperature protection, AC overcurrent protection, AC short-circuit protection					
Surge protection	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 inverter

② Input voltage exceeding the MPPT voltage range may trigger inverter protection

③ 9/12MPPTs is optional for 100kW and 110kW models

④ The AC frequency range may vary from different country codes