

Three-phase C&I On-grid Inverter



X3-FORTH PLUS

100kW / 120kW / 125kW /
136kW / 150kW



High Efficiency

- Up to 98.6% efficiency
- 150% oversizing, 110% overloading range
- 180~1000V, up to 65 A per MPPT



Assured Safety

- IP66 ingress protection
- AFCI support (optional)
- AC terminal over temperature detection
- Automatic tripping DC switch
- Type II SPD on DC side (optional Type I + II SPD), Type II SPD on AC side



Intelligent Design

- Fan self-cleaning function for easier maintenance
- Night-time SVG voltage regulation support
- Remote settings and upgrades
- 24-hour monitoring



Flexible Adaptability

- 6 MPPTs, max. 4 strings per MPPT for precise power
- Reliable up to 4000m altitude
- Power line communication (PLC) (optional)
- Built-in Anti-PID Protection (optional)

	X3-FTH-100K-P	X3-FTH-120K-P	X3-FTH-125KT-P	X3-FTH-125K-P	X3-FTH-136K-P	X3-FTH-150K-P
PV INPUT						
Max. recommended PV array power	150 kWp	180.0 kWp	187.5 kWp	187.5 kWp	204 kWp	225 kWp
Max. PV input voltage ^①	1100 d.c. V					
Rated PV input voltage	580 d.c. V@220a.c. V 600 d.c. V@230a.c. V 730 d.c. V@277 a.c. V					
Operation voltage range ^②	180 ~ 1000 d.c. V					
Start-up voltage	200 d.c. V					
No. of MPP trackers / strings per MPP tracker	6 / 3	6 / 4	6 / 3	6 / 4		
Max. input current per MPPT	52 d.c. A	65 d.c. A	52 d.c. A	65 d.c. A		
Max. input short circuit current per MPPT	65 d.c. A	82 d.c. A	65 d.c. A	82 d.c. A		
AC INPUT & OUTPUT (ON-GRID)						
Rated output apparent power	100 kVA	120 kVA	125 kVA	125 kVA	136 kVA	150 kVA
Rated output current	151.5 a.c. A@220 a.c. V 144.9 a.c. A@230 a.c. V 120.4 a.c. A@277 a.c. V	181.8 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	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	206.6 a.c. A@220 a.c. V 196.3 a.c. A@230 a.c. V 163.7 a.c. A@277 a.c. V	227.3 a.c. A@220 a.c. V 217.4 a.c. A@230 a.c. V 180.6 a.c. A@277 a.c. V
Max. output apparent power	110 kVA	132 kVA	137.5 kVA	137.5 kVA	150 kVA	165 kVA
Max. output continuous current	167.1 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	200.6 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	209 a.c. A@220 a.c. V 199.3 a.c. A@230 a.c. V 165.5 a.c. A@277 a.c. V	209 a.c. A@220 a.c. V 199.3 a.c. A@230 a.c. V 165.5 a.c. A@277 a.c. V	228 a.c. A@220 a.c. V 217.4 a.c. A@230 a.c. V 180.6 a.c. A@277 a.c. V	250.7 a.c. A@220 a.c. V 239.2 a.c. A@230 a.c. V 198.6 a.c. A@277 a.c. V
Rated AC voltage	3W / (N) / PE, 220 / 380 ac. 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 ^③	50 ± 5 / 60 ± 5 Hz					
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)					
EFFICIENCY						
Max. efficiency	98.6%					
European efficiency	98.2%					
ENVIRONMENT LIMIT						
Ingress protection	IP66					
Operation temperature range	-25 ~ 60°C					
Max. operation altitude	4000 m					
Relative humidity	4 ~ 100% RH (condensing)					
Overvoltage category	Mains: III, PV: II					
GENERAL						
Dimensions (W × H × D)	1082 × 724 × 373 mm					
Net weight	98 kg	108.1 kg	98 kg	108.1 kg		
Cooling concept	Smart air cooling					
Communication interfaces	RS485, Optional: PLC, Pocket WiFi / LAN / 4G					
Power consumption (night)	< 10 W					
Topology	Non-isolated					
Certifications	IEC 61727, IEC 62116, AS/NZS 4777.2, VDE4110, VDE4105, EN50549, NRS097, G99, RD1699, PPDS2020, CEI0-21, CEI0-16, VFR 2019					
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 (optional Type I + II), AC: Type II					
Arc-fault circuit interrupter (AFCI)	Optional					
Anti-PID	Optional					

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 operating voltage range may trigger inverter protection. Please refer to the user manual for the full load MPPT voltage range.

③ The AC frequency range may vary from different country codes.