

# Three-phase C&I On-grid Inverter



## X3-FORTH PLUS

120kW / 125kW / 136kW / 150kW



### High Efficiency

- Up to 98.6% efficiency
- 150% oversizing, 110% overloading range
- 180~1000V, up to 65A 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, 4 strings per MPPT for precise power
- Reliable up to 5000m altitude
- Power line communication (PLC) (Optional)
- Built-in Anti-PID Protection (Optional)

*\* Feature to be upgraded in the future*

	X3-FTH-120K-P	X3-FTH-125K-P	X3-FTH-136K-P	X3-FTH-150K-P
<b>PV INPUT</b>				
Max. recommended PV array power	180.0 kWp	187.5 kWp	204 kWp	225 kWp
Max. PV input voltage <sup>①</sup>	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 <sup>②</sup>	180 ~ 1000 d.c. V			
Start-up voltage	200 d.c. V			
No. of MPP trackers / strings per MPP tracker	6 / 4			
Max. input current per MPPT	65 d.c. A			
Max. input short circuit current per MPPT	82 d.c. A			
<b>AC INPUT &amp; OUTPUT (ON-GRID)</b>				
Rated output apparent power	120 kVA	125 kVA	136 kVA	150 kVA
Rated output current	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	206.1 a.c. A@220 a.c. V 197.2 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	132 kVA	137.5 kVA	150 kVA	165 kVA
Max. output continuous current	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	208.4 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	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	250 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 ac. V 3W / (N) / PE, 277 / 480 ac. V			
Rated AC frequency	50 / 60 Hz			
AC frequency range <sup>③</sup>	50 ± 5 / 60 ± 5 Hz			
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)			
<b>EFFICIENCY</b>				
Max. efficiency	98.6%			
European efficiency	98.2%			
<b>ENVIRONMENT LIMIT</b>				
Ingress protection	IP66			
Operation temperature range	-25 ~ 60°C			
Max. operation altitude	5000 m (> 4000m derating)			
Relative humidity	4 ~ 100% RH (condensing)			
Overvoltage category	Mains: III, PV: II			
<b>GENERAL</b>				
Dimensions (W × H × D)	1082 × 724 × 373 mm			
Net weight	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, VDE4110, VDE4105, EN50549, NRS097, G99, RD1699, PPDS2020, CEIO-21, CEIO-16, VFR 2019			
AC auxiliary power supply (APS)	Built-in			
<b>PROTECTION</b>				
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			
Active anti-islanding method	Frequency shift			
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