

# Three-phase C&I On-grid Inverter



## X3-FORTH PLUS

120kW / 125kW / 136kW / 150kW



### High Efficiency

- Up to 99% efficiency
- 200% PV oversizing
- 180~1000V, up to 65A per MPPT
- Maintains full power up to 50°C, with operation range from -25°C to +60°C



### Assured Safety

- IP66 protection degree
- AFCI support (optional)
- Remote settings and upgrades
- 24-hour monitoring
- Automatic tripping DC switch
- Type II SPD on AC&DC side (Optional)



### Intelligent Design

- Fan self-cleaning function for easier maintenance
- Night-time SVG voltage regulation support
- AC terminal over temperature detection



### 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**

PV INPUT				
Max. recommended PV array power	180.0 kWp	187.5 kWp	204 kWp	225 kWp
Max. PV input voltage <sup>①</sup>	1100 V			
Nominal PV input voltage	580 V / 600 V			
Operating voltage range	200 ~ 1000 V			
MPPT voltage range <sup>②</sup>	180 ~ 1000 V			
Start-up voltage	200 V			
No. of MPP trackers / Strings per MPP tracker	6 / 4			
Max. input current per MPPT	65 A			
Max. input short circuit current per MPPT	82 A			
AC OUTPUT				
Rated output power	120 kW	125 kW	136 kW	150 kW
Rated output current	181.8 A / 174 A	189.4 A / 181.2 A	206.6 A / 196.3 A	227.3 A / 217.4 A
Max. output apparent power	132 kVA	137.5 kVA	150 kVA	165 kVA
Max. output continuous current	200.6 A @ 380 V	209 A @ 380 V	228 A @ 380 V	250.7 A @ 380 V
Max. short circuit current	500 A			
Nominal AC voltage	3 / (N) / PE, 220 / 380 V, 230 / 400 V			
Nominal AC frequency	50 Hz / 60 Hz			
AC frequency range <sup>③</sup>	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	98.6%			
European efficiency	98.2%			
ENVIRONMENT LIMIT				
Ingress protection	IP66			
Operating ambient temperature range	-25 ~ 60°C			
Max. operating altitude	5000m (derating above 4000m)			
Relative humidity	0 ~ 100% RH (condensing)			
Overvoltage Category	Mains: III, PV: II			
GENERAL				
Dimensions (W × H × D)	1082 × 724 × 373 mm			
Net weight	99.8 kg			
Cooling concept	Smart cooling			
Communication interfaces	RS485, Optional: PLC, Pocket WiFi / LAN / 4G			
Power consumption (night)	< 10 W			
Topology	Non-isolated			
Certificates and approvals	IEC 61727, IEC 62116, VDE4110, VDE4105, EN50549, NRS097, G99, RD1699, PPDS2020, CEI0-21, CEI0-16, VFR 2019			
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			
Active anti-islanding method	Frequency shift			
Surge protection (DC / AC)	DC: Type II (Optional Type I + II), AC: Type II			
Arc-fault circuit interrupter (AFCI)	Optional			
AC auxiliary power supply (APS)	Built-in			
Anti-PID	Optional			

①The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter

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

③The AC frequency range may vary from different country codes