

Three-phase C&I On-grid Inverter



X3-FORTH-LV

40kW / 50kW / 60kW / 70kW



High Efficiency

- Up to 97.5% efficiency
- 32A per MPPT tracker
- 180~650Vdc MPPT voltage range
- 150% PV oversizing, 110% overloading output
- Max. 9 MPPTs, 2 strings per MPPT 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-40K-LV
X3-FTH-50K-LV
X3-FTH-60K-LV
X3-FTH-70K-LV

PV INPUT				
Max. recommended PV array power	60 kWp	75 kWp	90 kWp	105 kWp
Max. PV input voltage ^①	800 d.c. V			
Rated PV input voltage	360 d.c. V			
MPPT voltage range ^②	180 ~ 650 d.c. V			
Start-up voltage	200 d.c. V			
No. of MPP trackers / strings per MPP tracker	6 / 2		9 / 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	40 kVA	50 kVA	60 kVA	70 kVA
Rated output current	105 a.c. A	131.3 a.c. A	157.5 a.c. A	183.7 a.c. A
Max. output apparent power	44 kVA	55 kVA	66 kVA	70 kVA
Max. output continuous current	115.5 a.c. A	144.5 a.c. A	173.5 a.c. A	183.7 a.c. A
Rated AC voltage	3W / (N) / PE, 127 / 220 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	97.5%			
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	80.5 kg		83 kg	
Cooling concept	Smart air cooling			
Communication interfaces	RS485, DRM, DI/DO			
Power consumption (night)	< 2 W			
Topology	Non-isolated			
Certifications	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)	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 The AC frequency range may vary from different country codes