

X3-FORTH

THREE-PHASE
ON-GRID INVERTER
80~150kW



Features

More energy harvest

- Maximum efficiency up to 99%
- 180~1000Vdc MPPT voltage range
- Maximum 12 MPPTs, 2 strings per MPP tracker
- 150% PV oversizing input, 110% overloading output
- Maximum 32A MPPT current

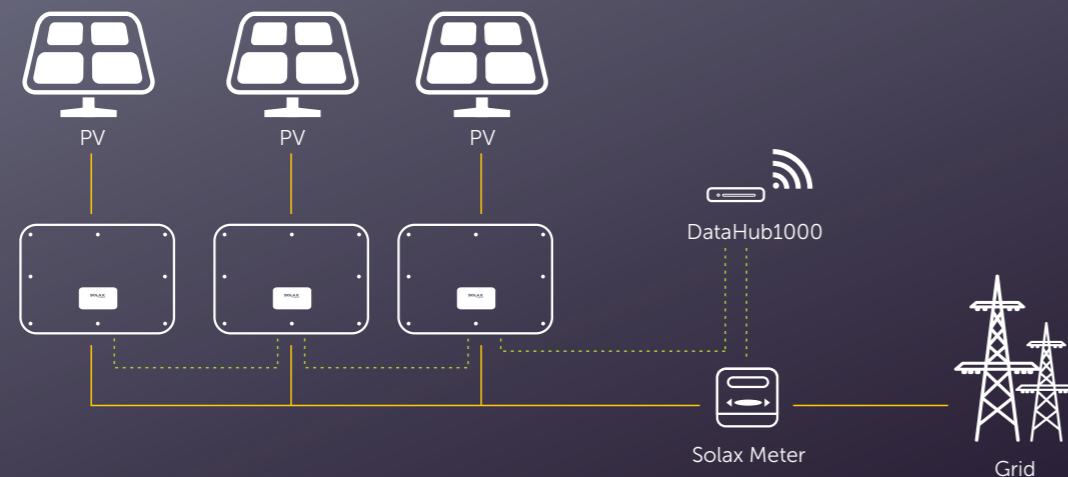
Safety & Reliability

- IP66 protection level
- AFCI protection (Optional)
- AC terminal temperature detection
- Both AC&DC SPDs(Type II) inside, Type I+II SPD is optional

Intelligence for easy maintenance and economy

- Built-in export power control
- Remote setting and upgrading
- 24 hours operation monitoring
- Smart I-V Curve Diagnosis supported
- Night-time reactive power compensation
- Aluminium AC cable connection available
- Power line communication(PLC)(Optional)
- Fuse free design with smart string current monitoring
- Smart air cooling technique results in long lifetime of fans
- Advanced heat dissipation technology makes the system more than 5% lighter and smaller

SOLUTION DESIGN



X3-FORTH

THREE PHASE

X3-FTH-80K X3-FTH-100K X3-FTH-110K X3-FTH-120K X3-FTH-125K X3-FTH-136K-MV X3-FTH-150K-MV

DC INPUT

Max. PV array input power [kWp]	120	150	165	180	188	204	225
Max. PV input voltage [V]	1100	1100	1100	1100	1100	1100	1100
Nominal input voltage [V]*	580/600	580/600	580/600	580/600	580/600	730/785	730/785
Startup voltage [V]	200	200	200	200	200	200	200
MPP tracker voltage range [V]	180~1000	180~1000	180~1000	180~1000	180~1000	180~1000	180~1000
No. of MPP trackers	9	9	9	12	12	12	12
Strings per MPP tracker				2			
Max. PV input current per MPPT [A]				32			
Isc PV Array Short Circuit current per MPPT [A]				46			

AC OUTPUT

Rated AC output power [kW]	80	100	110	120	125	136	150
Rated AC output current [A]*	121.3/116	151.6/145	166.7/159.5	181.9/174	189.4/181.2	157.1/145.4	173.2/160.4
Max. AC output apparent power [kVA]	88	110	121	132	132	149.6	165
Max. AC output current [A]*	133.4/127.6	166.7/159.5	183.4/175.4	200/191.3	200/191.3	172.8/160	190.6/176.5
Nominal AC voltage [V]	220/380, 230/400, 3/N/PE, 3/PE					500/540,3P3W+PE 500/540,3P3W+PE	
AC voltage range [V]**	304 ~ 480					425 ~ 594	
Nominal AC frequency/AC frequency range [Hz]**						50/60, ±5	
THDi (Rated power) [%]						<3	
Power Factor range						0.8 leading ~ 0.8 lagging	

SYSTEM DATA

MPPT efficiency [%]	99.9						
Max. efficiency [%]	98.6	98.6	98.6	98.6	98.6	99.0	99.0
Ingress protection	IP66						
Operating ambient temperature range [°C]	-30~+60 (Derating above 45)						
Max. operation altitude [m]	4000 (Derating above 3000)						
Relative humidity [%]	0~100						
Dimensions [WxHxD] [mm]	985x660x327.5						
Weight [kg]	83	83	83	87	87	87	87
Cooling concept	Smart fan cooling						
Communication interfaces	RS485 / USB / DRM / PLC(Optional)						
Optional monitoring dongle	Pocket WiFi/LAN/4G						
Display	LCD(16x2, optional)/LEDx4						

PROTECTION

Over/under voltage protection	YES
DC isolation protection	YES
Grid monitoring	YES
DC injection monitoring	YES
Residual current detection	YES
Anti-islanding protection	YES
String fault detection	YES
SPD (DC/AC)	Type II / Type II
Arc-fault circuit interrupter(AFCI)	Optional
AC terminals over temperature detection	YES
AC auxiliary power supply(APS)	Optional
Power line communication(PLC)	Optional

STANDARD

Safety	IEC/EN 62109-1; IEC/EN 62109-2; NB/T 32004
EMC	IEC/EN 61000; NB/T 32004
Certification	EN 50549; AS4777.2; VDE4105; IEC 61727; IEC 62116; IEC 61683; IEC 60068; EN 50530; NB/T 32004

* The two data refer to different grid voltage 220V/230V or 500V/540V

** The AC voltage and the frequency range may vary from different country codes

V2.7 Information may be subject to modify without notice.650.00001.00