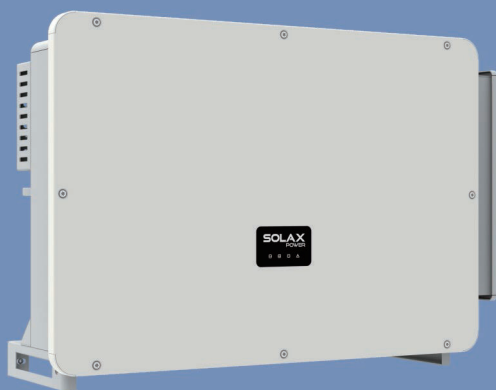


X3-FORTH



X3-FORTH

80kW/100kW/125kW

MALMBERGS
PRO

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

Malmbergs Elektriska AB

PO Box 144, SE-692 23 Kumla, SWEDEN

Phone: +46 (0)19 58 77 00

info@malmbergs.com

www.malmbergs.com

X3-FORTH (THREE PHASE)

99 525 91
X3-FTH-80K

99 525 92
X3-FTH-100K

99 525 93
X3-FTH-125K

DC INPUT

Max. PV array input power [kWp]	120	150	188
Max. PV input voltage [V]	1100	1100	1100
Nominal input voltage [V]*	580/600	580/600	580/600
Startup voltage [V]	200	200	200
MPP tracker voltage range [V]	180~1000	180~1000	180~1000
No. of MPP trackers	9	9	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	125
Rated AC output current [A]*	121.3/116	151.6/145	189.4/181.2
Max. AC output apparent power [kVA]	88	110	132
Max. AC output current [A]*	133.4/127.6	166.7/159.5	200/191.3
Nominal AC voltage [V]		220/380, 230/400, 3/N/PE, 3/PE	
AC voltage range [V]**		304 ~ 480	
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
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	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