



Energy of the Future, Today

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# SOLAX

## STRING INVERTER

ENGINEERED FOR SOLAR

2019 Product Brochure



## X1 SINGLE PHASE INVERTER

SolaX X1 single phase inverters are high quality single & dual MPPT inverters offering efficiency and reliability at an unbeatable cost.

SolaX have developed a range of single phase inverters, unrivaled in the industry for their quality, reliability and efficiency. The SolaX single phase inverters boast a wide MPPT voltage range to allow you to harvest the maximum amount of energy possible from your PV system and have a maximum input voltage of 600V, with a maximum efficiency up to 97.8%.

SolaX Power Network Technology(Zhejiang) Co., Ltd is one of the largest inverter manufacturer in China, a subsidiary company of Hangzhou Sunny Energy Science & Technology Co., Ltd. SolaX established in 2007. Headquarter located in the National College Science Park of Zhejiang University, to cooperate with Zhejiang University, focusing on research and development of Photovoltaic products.

Specialized in R&D, production, sales and service by a range of grid-tied inverters, PV Storage inverters and Family Smart Energy systems. So far, SolaX is one of few domestic Photovoltaic manufacturers offering massive production of smart PV Storage inverters.

SolaX has achieved more than 50 national patents including 15 invention patents, 25 utility model patents, and more than 10 design patents. SolaX inverters also have been tested and obtained more than 80 international authorized certifications.





## X1-MINI (SINGLE PHASE)

X1-0.7 X1-1.1 X1-1.5 X1-2.0

INPUT (DC)				
Max.PV array power [Wp]	840	1250	1650	2200
Max.DC voltage [V]	400	400	400	400
Nominal DC operating voltage [V]	360	360	360	360
Max. input current [A]	10	10	10	10
Max. short circuit current [A]	12	12	12	12
MPPT voltage range[V]	55-380	55-380	55-380	55-380
Start operating voltage[V]	70	70	70	70
No. of MPP trackers	1	1	1	1
Strings per MPP tracker	1	1	1	1
OUTPUT AC				
Nominal AC power [VA]	700	1100	1500	2000
Max. AC power [VA]	700	1100	1500	2000
Nominal grid voltage(AC voltage range) [V]	220/230/240; 180~280			
Nominal grid frequency/range [Hz]	50/60; ±5			
Nominal AC current [A]	3,04	4,78	6,52	8,70
Max. AC current [A]	3,5	5,5	7,5	9,5
Displacement power factor	0.8 leading ~ 0.8 lagging			
THDi, rated power [%]	<3			
EFFICIENCY				
MPPT efficiency [%]	99.9			
Euro efficiency [%]	95	95,5	96	96,5
Max. efficiency [%]	97.1			
POWER CONSUMPTION				
Standby consumption (Night) [W]	<1			
STANDARD				
Over voltage protection	YES			
Over current protection	YES			
DC isolation impedance monitoring	YES			
Ground fault current monitoring	YES			
DC injection monitoring	YES			
RCD protection	YES			
Safety	IEC62109-1/-2			
EMC	EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3			
Certification	G98; SAA 4777; VDE4105; EN50549; CEI0-21			
ENVIRONMENT LIMIT				
Degree of protection(according to IEC60529)	IP65			
Operating temperature range [°C]	-25~+60(derating at 45)			
Max. operation altitude [m]	2000			
Humidity [%]	0~100 ( condensation)			
Storage temperature [°C]	-25~+60			
Typical noise emission [dB]	25			
DIMENSION AND WEIGHT				
Dimensions(WxHxD) [mm]	267*328*116			
Weight[kg]	6			
Cooling concept	Natural			
Topology	Non-isolated			
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade			
LCD display	Yes			
Standard warranty [years]	5-10			



## X1-AIR (SINGLE PHASE)

X1-2.5 X1-3.0 X1-3.3

INPUT (DC)			
Max.PV array power [Wp]	2700	3200	3450
Max.DC voltage [V]	600	600	600
Nominal DC operating voltage [V]	360	360	360
Max. input current [A]	10	10	10
Max. short circuit current [A]	12	12	12
MPPT voltage range[V]	70-580	70-580	70-580
Start operating voltage[V]	80	80	80
No. of MPP trackers	1	1	1
Strings per MPP tracker	1	1	1
OUTPUT AC			
Nominal AC power [VA]	2500	3000	3300
Max. AC power [VA]	2500	3000	3300
Nominal grid voltage(AC voltage range) [V]	220/230/240; 180~280		
Nominal grid frequency/range [Hz]	50/60; ±5		
Nominal AC current [A]	10,8	13,0	14,3
Max. AC current [A]	12	14	15
Displacement power factor	0.8 leading ~ 0.8 lagging		
THDi, rated power [%]	<2		
EFFICIENCY			
MPPT efficiency [%]	99.9		
Euro efficiency [%]	96.8		
Max. efficiency [%]	97.1		
POWER CONSUMPTION			
Standby consumption (Night) [W]	<1		
STANDARD			
Over voltage protection	YES		
Over current protection	YES		
DC isolation impedance monitoring	YES		
Ground fault current monitoring	YES		
DC injection monitoring	YES		
RCD protection	YES		
Safety	EN62109-1/-2		
EMC	EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3		
Certification	G98;AS4777.2;VDE4105; EN50549; CEI0-21		
ENVIRONMENT LIMIT			
Degree of protection(according to IEC60529)	IP65		
Operating temperature range [°C]	-25~+60(derating at 45)		
Max. operation altitude [m]	0~100 (condensation)		
Humidity [%]	2000		
Storage temperature [°C]	-25~60		
Typical noise emission [dB]	25		
DIMENSION AND WEIGHT			
Dimensions(WxHxD) [mm]	323*402*119		
Weight[kg]	10.5		
Cooling concept	Natural		
Topology	Transformerless		
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade		
LCD display	Yes		
Standard warranty [years]	5-10		



# X1-BOOST (SINGLE PHASE)

	X1-3.0T	X1-3.3T	X1-3.6T	X1-4.2T	X1-4.6T	X1-5.0T
<b>INPUT (DC)</b>						
Max.PV array power [Wp]	3250	3500	4000	4600	5200	5200
Max.DC voltage [V]	600	600	600	600	600	600
Nominal DC operating voltage [V]	360	360	360	360	360	360
Max. input current [A]	12/12	12/12	12/12	12/12	12/12	12/12
Max. short circuit current [A]	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8
MPPT voltage range[V]	70-580	70-580	70-580	70-580	70-580	70-580
Start operating voltage[V]	100	100	100	100	100	100
No. of MPP trackers	2	2	2	2	2	2
Strings per MPP tracker	1	1	1	1	1	1
<b>OUTPUT AC</b>						
Nominal AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Max. AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Nominal grid voltage(AC voltage range) [V]	220/230/240; 180~280					
Nominal grid frequency/range [Hz]	50/60; ±5					
Nominal AC current [A]	13	14.3	16	18.3	20	21.7 (20 for VDE4105)
Max. AC current [A]	14	15	16.8(16 for G98)	19	21	22.7 (21.7 for AS4777)
Displacement power factor	0.8 leading ~ 0.8 lagging					
THDi, rated power [%]	<2					
<b>EFFICIENCY</b>						
MPPT efficiency [%]	99.9					
Euro efficiency [%]	97.0					
Max. efficiency [%]	97.8					
<b>POWER CONSUMPTION</b>						
Standby consumption (Night) [W]	<1					
<b>STANDARD</b>						
Over voltage protection	YES					
Over current protection	YES					
DC isolation impedance monitoring	YES					
Ground fault current monitoring	YES					
DC injection monitoring	YES					
RCD protection	YES					
Safety	IEC62109-1/-2					
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					
Certification	VDE4105 /G98 / G99/ AS4777 / EN50549 / CEI0-21					
<b>ENVIRONMENT LIMIT</b>						
Degree of protection(according to IEC60529)	IP65					
Operating temperature range [°C]	-25~+60(derating at 45)					
Max. operation altitude [m]	2000					
Humidity [%]	0~100 (condensation)					
Storage temperature [°C]	-25~+60					
Typical noise emission [dB]	25					
<b>DIMENSION AND WEIGHT</b>						
Dimensions(WxHxD) [mm]	341.5*430*143					
Weight[kg]	13.5	13.5	13.5	14.5	14.5	14.5
Cooling concept	Natural					
Topology	Non-isolated					
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade					
LCD display	Yes					
Standard warranty [years]	5-10					



# X1-SMART (SINGLE PHASE)

	X1-6.0	X1-7.0	X1-8.0
<b>INPUT (DC)</b>			
Max.PV array power [Wp]	3000/4000	3000/5000	3000/6000
Max.DC voltage [V]	550	550	550
Nominal DC operating voltage [V]	360	360	360
Max. input current [A]	11/22	11/22	11/22
Max. short circuit current [A]	12/24	12/24	12/24
MPPT voltage range[V]	100-500	100-500	100-500
Start operating voltage[V]	120	120	120
No. of MPP trackers	2	2	2
Strings per MPP tracker	1/2	1/2	1/2
<b>OUTPUT AC</b>			
Nominal AC power [VA]	6000	7000	8000
Max. AC power [VA]	6000	7000	8000
Nominal grid voltage(AC voltage range) [V]	220/230/240; 160-285		
Nominal grid frequency/range [Hz]	50/60; ±5		
Nominal AC current [A]	28	32	35
Max. AC current [A]	45		
Displacement power factor	0.8 leading... 0.8 lagging		
THDi, rated power [%]	< 3		
<b>EFFICIENCY</b>			
MPPT efficiency [%]	99.90		
Euro efficiency [%]	96.80		
Max. efficiency [%]	97.40		
<b>POWER CONSUMPTION</b>			
Standby consumption (Night) [W]	<1		
<b>STANDARD</b>			
Over voltage protection	YES		
Over current protection	YES		
DC isolation impedance monitoring	YES		
Ground fault current monitoring	YES		
DC injection monitoring	YES		
RCD protection	YES		
Safety	IEC62109-1/IEC62109-2		
EMC	EN 61000-3-2 / EN 61000-3-3 / EN 61000-3-11 / EN 61000-3-12 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3		
Certification	AS/NZS4777		
<b>ENVIRONMENT LIMIT</b>			
Degree of protection(according to IEC60529)	IP65		
Operating temperature range [°C]	-25~+60 (derating at 45)		
Max. operation altitude [m]	2000		
Humidity [%]	0~100, non condensing		
Storage temperature [°C]	-25~+60		
Typical noise emission [dB]	40		
<b>DIMENSION AND WEIGHT</b>			
Dimensions(WxHxD) [mm]	450*401*190		
Weight[kg]	22		
Cooling concept	Natural		
Topology	Non-isolated		
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade		
LCD display	Backlight 20*4 character		
Standard warranty [years]	5-10		



# X3-MIC (THREE PHASE) *(T For Dual MPPT S For Single MPPT)*

	X3-4.0-T	X3-5.0-T	X3-6.0-T	X3-7.0-T	X3-8.0-T	X3-9.0-T	X3-10.0-T	X3-4.0-S	X3-5.0-S
<b>INPUT (DC)</b>									
Max.PV array power [Wp]	5200	6500	7800	8400	9600	10800	12000	4800	6000
Max.DC voltage [V]	800	800	800	1000	1000	1000	1000	1000	1000
Nominal DC operating voltage [V]	600	600	600	600	600	600	600	600	600
Max. input current [A]	11/11	11/11	11/11	11/11	11/11	11/11	11/11	11	11
Max. short circuit current [A]	14/14	14/14	14/14	14/14	14/14	14/14	14/14	14	14
MPPT voltage range[V]	160-750	160-750	160-750	160-900	160-900	160-900	160-900	160-900	160-900
Start operating voltage[V]	180	180	180	180	180	180	180	180	180
No. of MPP trackers	2	2	2	2	2	2	2	1	1
Strings per MPP tracker	1	1	1	1	1	1	1	1	1
<b>OUTPUT AC</b>									
Nominal AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Max. AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Nominal grid voltage(AC voltage range) [V]	3/N/PE, 3/PE, 230/400(310-480)						3/N/PE, 3/PE, 230/400(310-480)		
Nominal grid frequency/range [Hz]	50/60;±5						50/60;±5		
Nominal AC current [A]	5.8	7.2	8.7	10.1	11.6	13.0	14.5	5.8	7.2
Max. AC current [A]	6.4	8.0	9.6	11.2	12.8	14.4	16.0	6.4	8.0
Displacement power factor	0.8leading-0.8lagging						0.8leading-0.8lagging		
THDi, rated power [%]	<2						<2		
<b>EFFICIENCY</b>									
MPPT efficiency [%]	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Euro efficiency [%]	97.8	97.8	97.8	98	98	98	98	97.8	97.8
Max. efficiency [%]	98.3	98.3	98.3	98.4	98.4	98.5	98.5	98.3	98.3
<b>POWER CONSUMPTION</b>									
Standby consumption (Night) [W]	<3						<3		
<b>STANDARD</b>									
Over voltage protection	YES						YES		
Over current protection	YES						YES		
DC isolation impedance monitoring	YES						YES		
Ground fault current monitoring	YES						YES		
DC injection monitoring	YES						YES		
RCD protection	YES						YES		
Safety	EN62109-1/-2						EN62109-1/-2		
EMC	EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3						EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3		
Certification	AS4777; VDE4105; G98; G99; EN50549; CEI0-21						AS4777; VDE4105; G98; G99; EN50549; CEI0-21		
<b>ENVIRONMENT LIMIT</b>									
Degree of protection(according to IEC60529)	IP65						IP65		
Operating temperature range [°C]	-25~+60(derating at 45)						-25~+60(derating at 45)		
Max. operation altitude [m]	2000						2000		
Humidity [%]	0~100,condensing						0~100,condensing		
Storage temperature [°C]	-25~60						-25~60		
Typical noise emission [dB]	35						35		
<b>DIMENSION AND WEIGHT</b>									
Dimensions(WxHxD) [mm]	534*419*201						534*419*201		
Weight[kg]	30	30	30	30	30	30	30	28	28
Cooling concept	Natural						Natural		
Topology	Non-isolated						Non-isolated		
Communication interfaces	RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade						RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade		
LCD display	Backlight 20*4 character						Backlight 20*4 character		
Standard warranty [years]	5-10						5-10		



## Features:

- Secure & reliable with software and hardware protection
- Maximum efficiency up to 98.3%, Euro efficiency up to 97.8%
- Wide MPPT voltage range & Two independent MPPT (three strings)
- Enclosure Rating-IP65
- Multiple protections: Over voltage / under voltage, earth protection, anti-islanding, overload, over temperature and RCD protection, etc.



## X3-PRO (THREE PHASE)

X3-8.0P

X3-10.0P

X3-12.0P

X3-15.0P

### INPUT (DC)

Max.PV array power [Wp]	A:3200/B:6400	A:4000/B:8000	A:4800/B:9600	A:6000/B:12000
Max.DC voltage [V]	1000	1000	1000	1000
Nominal DC operating voltage [V]	600	600	600	600
Max. input current [A]	10/20	10/20	10/20	10/20
Max. short circuit current [A]	12/24	12/24	12/24	12/24
MPPT voltage range[V]	160-850	160-850	160-850	160-850
Start operating voltage[V]	180	180	180	180
No. of MPP trackers	2	2	2	2
Strings per MPP tracker	A:1/B:2	A:1/B:2	A:1/B:2	A:1/B:2

### OUTPUT AC

Nominal AC power [VA]	8000	10000	12000	15000
Max. AC power [VA]	8000	10000	12000	15000
Nominal grid voltage(AC voltage range) [V]	3/N/PE, 230/400(310-480)			
Nominal grid frequency/range [Hz]	50/60;±5			
Nominal AC current [A]	11.6	14.5	17.4	21.7
Max. AC current [A]	12.8	16	19.2	23.8
Displacement power factor	0.8leading-0.8lagging			
THDi, rated power [%]	<3			

### EFFICIENCY

MPPT efficiency [%]	99.9
Euro efficiency [%]	97.8
Max. efficiency [%]	98.3

### POWER CONSUMPTION

Standby consumption (Night) [W]	<3
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### STANDARD

Over voltage protection	YES
Over current protection	YES
DC isolation impedance monitoring	YES
Ground fault current monitoring	YES
DC injection monitoring	YES
RCD protection	YES
Safety	EN62109-1/-2
EMC	EN61000-6-1;EN61000-6-2;EN61000-6-3; EN61000-3-12; EN61000-3-11
Certification	VDE4105; AS/NZS4777.7; EN50549; IEC61727

### ENVIRONMENT LIMIT

Degree of protection(according to IEC60529)	IP65
Operating temperature range [°C]	-25~+60(derating at 45)
Max. operation altitude [m]	2000
Humidity [%]	0~100,condensing
Storage temperature [°C]	-25~60
Typical noise emission [dB]	45

### DIMENSION AND WEIGHT

Dimensions(WxHxD) [mm]	534*419*179
Weight[kg]	32
Cooling concept	Forced-cooling
Topology	Non-isolated
Communication interfaces	S485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade
LCD display	Backlight 16*4 character
Standard warranty [years]	5/10(optional)