



SOLAX INVERTER

2018 Product Brochure

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X1 MINI

X1-0.7

X1-1.1

X1-1.5

X1-2.0

INPUT (DC)				
Max.recommended DC power [W]	840	1250	1650	2200
Max. input DC voltage [V]	400	400	400	400
Max. input current [A]	10	10	10	10
MPPT voltage range [V]	50-380	55-380	55-380	55-380
Start output voltage [V]	70	70	70	70
Number of MPP tracker/strings per MPP tracker	1/1	1/1	1/1	1/1
OUTPUT (AC)				
AC nominal power [VA]	700	1100	1500	2000
Max. AC power [VA]	700	1100	1500	2000
Nominal AC voltage; range [V]	220/230/240; 180~280			
AC grid frequency; range) [Hz]	50/60; ±5			
Max. AC current [A]	3.5	5.5	7.5	9.5
Power factor (full load)	0.8 leading ~ 0.8 lagging			
Total harmonic distortion(THD) [%]	<1.5			
POWER CONSUMPTION				
Night consumption [W]	<1			
EFFICIENCY				
MPPT efficiency[%]	99.9			
Euro efficiency[%]	95	95.5	96	96.5
Max. efficiency[%]	97.1			
SAFETY & PROTECTION				
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	G83/2;AS4777.2-2015;VDE4105; EN50438;CQC;CEI0-21			
ENVIRONMENT LIMITS				
Protection class	IP65			
Operating temperature[°C]	-20~+60(derating at 45)			
Humidity[%]	0~95 (no condensation)			
Altitude[m]	2000			
Storage temperature[°C]	-20~+60			
Noise emission[dB]	<25			
DIMENSION & WEIGHT				
Dimensions(W*H*D) [mm]	248*350*124			
Weight[Kg]	7			
GENERAL DATA				
Topology	Transformerless			
Communication interface	RS485/WIFI(optional)/DRM/USB			
Display	6 LED			
Standard warranty[years]	5-10			
Cooling type	Natural			

*Can be modified without notice.(V4)



X1 AIR

X1-2.5

X1-3.0

X1-3.3

INPUT (DC)			
Max.recommended DC power [W]	2700	3200	3450
Max. input DC voltage [V]	600	600	600
Max. input current [A]	10	10	10
MPPT voltage range [V]	100-580	100-580	100-580
Start output voltage [V]	120	120	120
Number of MPP tracker/strings per MPP tracker	1/1	1/1	1/1
OUTPUT (AC)			
AC nominal power [VA]	2500	3000	3300
Max. AC power [VA]	2500	3000	3300
Nominal AC voltage; range [V]	220/230/240; 180~280		
AC grid frequency; range [Hz]	50/60; ± 5		
Max. AC current [A]	12	14	15
Power factor (full load)	0.8 leading ~ 0.8 lagging		
Total harmonic distortion(THD) [%]	<2		
POWER CONSUMPTION			
Night consumption [W]	0		
EFFICIENCY			
MPPT efficiency[%]	99.9		
Euro efficiency[%]	96.8		
Max. efficiency[%]	97.6		
SAFETY & PROTECTION			
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	G83/2;AS4777.2-2015;VDE4105; EN50438; CQC		
ENVIRONMENT LIMITS			
Protection class	IP65		
Operating temperature[°C]	-20~+60(derating at 45)		
Humidity[%]	0~95 (no condensation)		
Altitude[m]	2000		
Storage temperature[°C]	-20~60		
Noise emission[dB]	<30		
DIMENSION & WEIGHT			
Dimensions(W*H*D) [mm]	323*402*119		
Weight[Kg]	9.5		
GENERAL DATA			
Topology	Transformerless		
Communication interface	RS485/WIFI(optional)/DRM/USB		
Display	11 LED		
Standard warranty[years]	5-10		
Cooling type	Natural		

*Can be modified without notice.(V4)



X1 BOOST

X1-3.0T

X1-3.3T

X1-3.6T

X1-4.2T

X1-5.0T

INPUT (DC)					
Max.recommended DC power [W]	3250	3500	4000	4600	5200
Max. input DC voltage [V]	600	600	600	600	600
Max. input current [A]	12/12	12/12	12/12	12/12	12/12
MPPT voltage range [V]	125-580	125-580	125-580	125-580	125-580
Start output voltage [V]	150	150	150	150	150
Number of MPP tracker/strings per MPP tracker	2/1	2/1	2/1	2/1	2/1
OUTPUT (AC)					
AC nominal power [VA]	3000	3300	3680	4200	4600
Max. AC power [VA]	3000	3300	3680	4200	4600
Nominal AC voltage; range [V]	220/230/240; 180~280				
AC grid frequency; range [Hz]	50/60; ± 5				
Max. AC current [A]	14	15	16	19	21
Power factor (full load)	0.8 leading ~ 0.8 lagging				
Total harmonic distortion(THD) [%]	<2				
POWER CONSUMPTION					
Night consumption [W]	<3				
EFFICIENCY					
MPPT efficiency[%]	99.9				
Euro efficiency[%]	97.0				
Max. efficiency[%]	97.8				
SAFETY & PROTECTION					
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	G83/2;G59/3;AS4777.2-2015;VDE4105; EN50438;CQC;VDE0126				
ENVIRONMENT LIMITS					
Protection class	IP65				
Operating temperature[°C]	-20~+60(derating at 45)				
Humidity[%]	0~95 (no condensation)				
Altitude[m]	2000				
Storage temperature[°C]	-20~+60				
Noise emission[dB]	<25				
DIMENSION & WEIGHT					
Dimensions(W*H*D) [mm]	339*420*143				
Weight[Kg]	14.6	14.6	14.6	16.7	16.7
GENERAL DATA					
Topology	Transformerless				
Communication interface	RS485/WIFI(optional)/DRM/USB/RF(optional)/Meter(optional)				
Display	Backlight 16*4 character				
Standard warranty[years]	5-10				
Cooling type	Natural				

*Can be modified without notice.(V4)



X3-4.0T ~ 10.0T X3-4.0S/X3-5.0S

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

INPUT (DC)									
Max.recommended DC power [W]	5200	6500	7800	8400	9600	10800	12000	4800	6000
Max. input DC voltage [V]	800	800	800	1000	1000	1000	1000	1000	1000
Max. input current [A]	11/11	11/11	11/11	11/11	11/11	11/11	11/11	11	11
MPPT voltage range [V]	160-750	160-750	160-750	160-900	160-900	160-900	160-900	160-900	160-900
Start output voltage [V]	180	180	180	180	180	180	180	180	180
Number of MPP tracker/strings per MPP tracker	2/1	2/1	2/1	2/1	2/1	2/1	2/1	1/1	1/1
OUTPUT (AC)									
AC nominal 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 AC voltage; range [V]	3/N/PE, 3/PE, 230/400(310-480)								
AC grid frequency; range) [Hz]	50/60;±5								
Max. AC current [A]	6.4	8.0	9.6	11.2	12.8	14.4	16.0	6.4	8.0
Power factor (full load)	0.8leading-0.8lagging								
Total harmonic distortion(THD) [%]	<2								
POWER CONSUMPTION									
Night consumption [W]	<2								
EFFICIENCY									
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
SAFETY & PROTECTION									
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;EN61000-3-2;EN61000-3-3								
Certification	AS4777.2-2015; VDE4105								
ENVIRONMENT LIMITS									
Protection class	IP65								
Operating temperature[°C]	-25~+60(derating at 45)								
Humidity[%]	0~100								
Altitude[m]	2000								
Storage temperature[°C]	-25~60								
Noise emission[dB]	<35								
DIMENSION & WEIGHT									
Dimensions(W*H*D) [mm]	534*419*179								
Weight[Kg]	30	30	30	30	30	30	30	28	28
GENERAL DATA									
Topology	Transformerless								
Communication interface	RS485 /DRM / POCKET-WIFI(optional) / POCKET-LAN (optional) /Meter (optional) / USB / RF								
Display	Backlight 16*4 character								
Standard warranty[years]	5/10 (dependent on territory)								
Cooling type	Natural								

*Can be modified without notice.(V4)



X3-Pro

8.0kW~15.0kW

X3-8.0P-T-D(N)

X3-10.0P-T-D(N)

X3-12.0P-T-D(N)

X3-15.0P-T-D(N)

INPUT (DC)				
Max.recommended DC power [W]	A:3200/B:6400	A:4000/B:8000	A:4800/B:9600	A:6000/B:12000
Max. input DC voltage [V]	1000	1000	1000	1000
Max. input current [A]	10/20	10/20	10/20	10/20
MPPT voltage range [V]	160-850	160-850	160-850	160-850
Start output voltage [V]	180	180	180	180
Number of MPP tracker/strings per MPP tracker	2/A:1 B:2	2/A:1 B:2	2/A:1 B:2	2/A:1 B:2
OUTPUT (AC)				
AC nominal power [VA]	8000	10000	12000	15000
Max. AC power [VA]	8000	10000	12000	15000
Nominal AC voltage; range [V]	3/N/PE, 230/400(310-480)			
AC grid frequency; range [Hz]	50/60;±5			
Max. AC current [A]	12.8	16	19.2	23.8
Power factor (full load)	0.8leading-0.8lagging			
Total harmonic distortion(THD) [%]	<3			
POWER CONSUMPTION				
Night consumption [W]	<3			
EFFICIENCY				
MPPT efficiency[%]	99.9			
Euro efficiency[%]	97.8			
Max. efficiency[%]	98.3			
SAFETY & PROTECTION				
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			
Certification	VDE4105 AS/NZS4777.7 NB/T32004 EN50438 IEC61727 EN61000-6-1 EN61000-6-2 EN61000-6-3			
ENVIRONMENT LIMITS				
Protection class	IP65			
Operating temperature[°C]	-25~+60(derating at 45)			
Humidity[%]	0~100			
Altitude[m]	2000			
Storage temperature[°C]	-25~60			
Noise emission[dB]	<45			
DIMENSION & WEIGHT				
Dimensions(W*H*D) [mm]	534*419*179			
Weight[Kg]	32			
GENERAL DATA				
Topology	Transformerless			
Communication interface	Rs485 /Meter (optional)/DRM / Pocket wifi(optional) / Pocket Lan (optional)/ Pocket GPRS(optional)/USB/ RF(optional)/Remote upgrade			
Display	Backlight 16*4 character			
Standard warranty[years]	5/10(optional)			
Cooling type	TBD			

*Can be modified without notice.(V4)



X3

ZDNY-TL10000

ZDNY-TL12000

ZDNY-TL15000

ZDNY-TL17000

ZDNY-TL20000

INPUT (DC)					
Max.recommended DC power [W]	10260	12300	15370	17420	20500
Max. input DC voltage [V]	1000				
Max. input current [A]	A:22/B:11	A:22/B:11	A:22/B:22	A:22/B:22	A:22/B:22
MPPT voltage range [V]	320-800	380-800	350-800	400-800	480-800
Start output voltage [V]	400				
Number of MPP tracker/strings per MPP tracker	2/A:3 B:1	2/A:3 B:1	2/A:3 B:3	2/A:3 B:3	2/A:3 B:3
OUTPUT (AC)					
AC nominal power [VA]	10000	12000	15000	17000	20000
Max. AC power [VA]	10000	12000	15000	17000	20000
Nominal AC voltage; range [V]	3/N/PE 230/400; 160-280				
AC grid frequency; range [Hz]	50; 44-55/60;55-65				
Max. AC current [A]	16	20	24	25	29
Power factor (full load)	0.9 leading ~ 0.9 lagging				
Total harmonic distortion(THD) [%]	<3				
POWER CONSUMPTION					
Night consumption [W]	<10				
EFFICIENCY					
MPPT efficiency[%]	99.9				
Euro efficiency[%]	97.6				
Max. efficiency[%]	98.2				
SAFETY & PROTECTION					
Over voltage protection	YES				
Over current protection	YES				
DC isolation impedance monitoring	YES(optional)				
Ground fault current monitoring	YES				
DC injection monitoring	YES				
RCD protection	YES				
Safety	IEC62109-1/IEC62109-2/AS3100				
EMC	EN 61000-3-2/EN 61000-3-3/EN 61000-3-11/EN 61000-3-12/EN 61000-6-2/EN 61000-6-3				
Certification	G83;G59;VDE0126;VDE4105;CQC;IEC62172;IEC62116;IEC61683;IEC60068				
ENVIRONMENT LIMITS					
Protection class	IP65 (Fan IP54)				
Operating temperature[°C]	-20~+60 (derating at 45)				
Humidity[%]	0~95 (non-condensing)				
Altitude[m]	2000				
Storage temperature[°C]	-20~60				
Noise emission[dB]	<50				
DIMENSION & WEIGHT					
Dimensions(W*H*D) [mm]	513 x 651.5 x 207				
Weight[Kg]	48	48	50.5	50.5	51
GENERAL DATA					
Topology	Transformerless				
Communication interface	RS485/RS232/WIFI(optional)/DRM				
Display	Backlight 240*160 point LCD				
Standard warranty[years]	5-10				
Cooling type	Forced-cooling				

*Can be modified without notice.(V4)



X3

X3-30T

X3-36T

INPUT (DC)

Max.recommended DC power [W]	36000	43200
Max. input DC voltage [V]	1000	
Max. input current [A]	A:34/B:34	
MPPT voltage range [V]	280-950	280-950
Start output voltage [V]	300	
Number of MPP tracker/strings per MPP tracker	2/A:4 B:4	

OUTPUT (AC)

AC nominal power [VA]	30000	36000
Max. AC power [VA]	33000	40000
Nominal AC voltage; range [V]	3/PE 380, 400;+/-10%; 3/N/PE 380, 400;+/-10%;	3/PE 480;+/-10%; 3/N/PE 480;+/-10%;
AC grid frequency; range [Hz]	50;45-55 / 60;55-65	
Max. AC current [A]	48*3	48*3
Power factor (full load)	0.8 leading ~ 0.8 lagging	
Total harmonic distortion(THD) [%]	<3	

POWER CONSUMPTION

Night consumption [W]	<1
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EFFICIENCY

MPPT efficiency[%]	99.9
Euro efficiency[%]	98.3
Max. efficiency[%]	98.6

SAFETY & PROTECTION

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/AS3100
EMC	EN 61000-3-2/EN 61000-3-3/EN 61000-3-11/EN 61000-3-12/EN 61000-6-2/EN 61000-6-3
Certification	NB/T 32004-2013/ZVRT/VDE4105/G59/3/AS4777

ENVIRONMENT LIMITS

Protection class	IP65
Operating temperature[°C]	-25~+60 (derating at 45)
Humidity[%]	0~95
Altitude[m]	2000
Storage temperature[°C]	-25~60
Noise emission[dB]	<60

DIMENSION & WEIGHT

Dimensions(W*H*D) [mm]	660*610*260
Weight[Kg]	60

GENERAL DATA

Topology	Transformerless
Communication interface	RS485/ WIFI (optional)/ Ethernet/ DRM/ USB
Display	4 LED
Standard warranty[years]	5-10
Cooling type	Forced-cooling

*Can be modified without notice.(V4)



X1-Hybrid

X-Hybrid Ready Inverter
(BMU: To be ordered separately)

SK-TL3000E

SK-TL3700E

SK-TL5000E

INPUT (DC)			
Max.recommended DC power[W]	3300	4000	5000
Max.DC voltage[V]		550	
Nominal DC operating voltage[V]		360	
Max.input current[A]		12/12	
Max. short circuit current[A]		15/15	
MPPT voltage range[V]		125-530	
No. of MPP trackers		2	
Strings per MPP tracker		1	
OUTPUT AC			
Nominal AC power [VA]	3000	3680	4600
Max. AC power [VA]	3300	3680	4999
Rated grid voltage(AC voltage range) [V]		230 (180 to 270)	
Rated grid frequency [Hz]		50/60	
Nominal AC current [A]	13	16	20
Max. AC current [A]	14.4	16	21.7
Displacement power factor		0.8 leading to 0.8 lagging	
Total harmonic distortion(THD, rated power) [%]		<3	
Load control		Yes (optional)	
OUTPUT DC (BATTERY)			
Battery voltage range [V]		40-60	
Recommended battery voltage [V]		48	
Max.charging/discharging power [W]		According to BMU	
Max.charging/discharging current [A]		According to BMU	
Communication interfaces		Can/RS232	
Reverse connect protection		Yes	
EPS OUTPUT (WITH BATTERY)			
EPS rated power [VA]	2000/3000	2000/3680	2000/4000
EPS rated voltage [V], Frequency [Hz]		230, 50/60	
EPS rated current [A]	8.7/13	8.7/16	8.7/17
EPS peak power[W];Duration [s]	1.5xRated, 10	1.5xRated, 10	1.5xRated, 10
Switch time[s]		<5	
Total harmonic distortion(THD, linear load) [%]		<3	
Parallel operation		No	
EFFICIENCY			
MPPT efficiency [%]		99.9	
Euro efficiency [%]		97.0	
Max. efficiency [%]		97.6	
Battery charge/discharge efficiency [%]		94.0	
POWER CONSUMPTION			
Standby consumption [W]		<7	
Idle mode		YES	
STANDARD			
Safety		IEC62109-1; IEC62109-2; IEC62040-1	
EMC		IEC61000-6-1/2/3	
Certification		VDE 4105 / AS/NZS4777.2 / C10 11 / EN50438-NL / EN50438-DK / OVE/ONORME 8001/ G83,G59 / CEI 0-21	
ENVIRONMENT LIMIT			
Protection class		IP20 (indoor use)	
Operating temperature range [°C]		-10~+50 (derating at 40)	
Altitude[m]		<2000	
Storage temperature[°C]		-20~+60	
Noise emission(typical) [dB]		<40	
Over voltage category		III (electric supply side), II (PV side)	
DIMENSION AND WEIGHT			
Dimensions(WxHxD) [mm]		475*591*151	
Weight[kg]		21.5	
Cooling concept		Forced airflow	
Topology		Transformerless	
Communication		Ethernet / WIFI / Dry Contact	
LCD display		Backlight 16*4 character	
Standard warranty [years]		5-10	

*Can be modified without notice.(V4)



X-Hybrid Inverter

X1-Hybrid

SK-SU3000E(S)

SK-SU3700E

SK-SU5000E

INPUT (DC)	SK-SU3000E(S)	SK-SU3700E	SK-SU5000E
Max.recommended DC power[W]	3300	4000	5000
Max.DC voltage[V]		550	
Nominal DC operating voltage[V]		360	
Max.input current[A]	12	12/12	12/12
Max. short circuit current[A]	15	15/15	15/15
MPPT voltage range[V]		125-530	
No. of MPP trackers	1	2	2
Strings per MPP tracker	1	1	1
OUTPUT AC			
Nominal AC power [VA]	3000	3680	4600
Max. AC power [VA]	3300	3680	4999
Rated grid voltage(AC voltage range) [V]		230 (180 to 270)	
Rated grid frequency [Hz]		50/60	
Norminal AC current [A]	13	16	20
Max. AC current [A]	14.4	16	21.7
Displacement power factor		0.8 leading to 0.8 lagging	
Total harmonic distortion(THD, rated power) [%]		<3	
Load control		Yes (optional)	
OUTPUT DC (BATTERY)			
Battery voltage range [V]		40-60	
Recommended battery voltage [V]		48	
Max.charging/discharging power [W]	2500	2500	2500
Max.charging/discharging current [A]	25	25	25
Communication interfaces		Can/RS232	
Reverse connect protection		Yes	
EPS OUTPUT (WITH BATTERY)			
EPS rated power [VA]	2000	2000	2000
EPS rated voltage [V], Frequency [Hz]		230,50/60	
EPS rated current [A]	8.7	8.7	8.7
EPS peak power[W];Duration [s]	1.5xRated, 10	1.5xRated, 10	1.5xRated, 10
Switch time[s]		<5	
Total harmonic distortion(THD, linear load) [%]		<3	
Parallel operation		No	
EFFICIENCY			
MPPT efficiency [%]		99.9	
Euro efficiency [%]		97.0	
Max. efficiency [%]		97.6	
Battery charge/discharge efficiency [%]		94.0	
POWER CONSUMPTION			
Standby consumption [W]		<7	
Idle mode		YES	
STANDARD			
Safety	IEC62109-1; IEC62109-2; IEC62040-1		
EMC	IEC61000-6-1/2/3		
Certification	VDE 4105 / AS/NZS4777.2 / C10 11 / EN50438-NL / EN50438-DK / OVE/ONORME 8001/ G83,G59 / CEI 0-21		
ENVIRONMENT LIMIT			
Protection class		IP20 (indoor use)	
Operating temperature range [°C]		-10~+50 (derating at 40)	
Altitude[m]		<2000	
Storage temperature[°C]		-20~+60	
Noise emission(typical) [dB]		<40	
Over voltage category		III (electric supply side), II (PV side)	
DIMENSION AND WEIGHT			
Dimensions(WxHxD) [mm]		700*591*151	
Weight[kg]		27.7	
Cooling concept		Forced airflow	
Topology		Transformerless	
Communication		Ethernet / WIFI / Dry Contact	
LCD display		Backlight 16*4 character	
Standard warranty [years]		5-10	

*Can be modified without notice.(V4)



X1-Hybrid HV

(SINGLE PHASE)

X1-HYBRID-3.0T

X1-HYBRID-3.7T

X1-HYBRID-4.6T

X1-HYBRID-5.0T

INPUT (DC)				
Max.recommended DC power[W]	4000	5000	6000	6000
Max.DC voltage[V]	600	600	600	600
Nominal DC operating voltage[V]	360	360	360	360
Max.input current[A]	10/10	10/10	10/10	10/10
Max. short circuit current[A]	14/14	14/14	14/14	14/14
MPPT voltage range[V]	125-550	125-550	125-550	125-550
No. of MPP trackers	2	2	2	2
Strings per MPP tracker	1	1	1	1
OUTPUT AC				
Nominal AC power [VA]	3000	3680	4600	4999
Max. AC power [VA]	3000	3680	4600	4999
Rated grid voltage(AC voltage range) [V]	230(180 to 270)	230(180 to 270)	230(180 to 270)	230(180 to 270)
Rated grid frequency [Hz]	50/60	50/60	50/60	50/60
Normal AC current [A]	13	16	20	21.7
Max. AC current [A]	14.4	16	21	21.7
Displacement power factor	0.8 leading ... 0.8 lagging			
Total harmonic distortion(THD, rated power) [%]	<2			
Load control	Yes (optional)			
OUTPUT DC (BATTERY)				
Battery voltage range [V]	85-400			
Recommended battery voltage [V]	300			
Max.charging/discharging power [W]	6000			
Max.charging/discharging current [A]	20			
Communication interfaces	CAN/RS485			
Reverse connect protection	Yes			
EPS OUTPUT (WITH BATTERY)				
EPS rated power [VA]	4000	4000	5000	5000
EPS rated voltage [V], Frequency [Hz]	230, 50/60	230, 50/60	230, 50/60	230, 50/60
EPS rated current [A]	17.4	17.4	21.7	21.7
EPS peak power[W];Duration [s]	8000,10	8000,10	8000,10	8000,10
Switch time[s]	<0.5			
Total harmonic distortion(THD, linear load) [%]	<2			
Parallel operation	Being developed			
EFFICIENCY				
MPPT efficiency [%]	99.9			
Euro efficiency [%]	97.0			
Max. efficiency [%]	97.8			
Battery charge/discharge efficiency [%]	96.5 (PV-BAT) 97.0 (BAT-AC)			
POWER CONSUMPTION				
Standby consumption [W]	<7			
Idle mode	YES			
STANDARD				
Safety	IEC62109-1-2 / IEC62040			
EMC	EN61000-6-1/EN61000-6-2/EN61000-6-3			
Certification	VDE0126-1-1 A1:2012/VDE-AR-N4105/G83/G59/AS4777/EN50438/CEI0-21/VDE2510			
ENVIRONMENT LIMIT				
Protection class	IP65			
Operating temperature range [°C]	-20~+60 (derating at+45)			
Altitude[m]	<2000			
Storage temperature[°C]	-20~+60			
Noise emission(typical) [dB]	<30			
Over voltage category	III (electric supply side), II (PV side)			
DIMENSION AND WEIGHT				
Dimensions(WxHxD) [mm]	460*477*181.5			
Weight[kg]	26.9			
Cooling concept	Natural			
Topology	Transformerless			
Communication	Ethernet/Meter/WIFI (optional)/RF(optional)/DRM/USB/ISO alarm/Parallel operation			
LCD display	Backlight 20*4 character			
Standard warranty [years]	5-10			

*Can be modified without notice.(V4)



X3-Hybrid HV

(THREE PHASE)

X3-HYBRID-5.0T

X3-HYBRID-6.0T

X3-HYBRID-8.0T

X3-HYBRID-10.0T

INPUT (DC)				
Max.recommended DC power[W]	6000	8000	10000	13000
Max.DC voltage[V]	1000	1000	1000	1000
Nominal DC operating voltage[V]	720	720	720	720
Max.input current[A]	11/11	11/11	11/11	20/11
Max. short circuit current[A]	14/14	14/14	14/14	23/14
MPPT voltage range[V]	230-800	280-800	370-800	330-800
No. of MPP trackers	2	2	2	2
Strings per MPP tracker	1	1	1	2/1
OUTPUT AC				
Nominal AC power [VA]	5000	6000	8000	10000
Max. AC power [VA]	5000	6000	8000	10000
Rated grid voltage(AC voltage range) [V]	400(360 to 440)	400(360 to 440)	400(360 to 440)	400(360 to 440)
Rated grid frequency [Hz]	50/60	50/60	50/60	50/60
Norminal AC current [A]	7.6	9	12.2	15
Max. AC current [A]	8.5	10	13.5	16
Displacement power factor	0.8 leading ... 0.8 lagging			
Total harmonic distortion(THD, rated power) [%]	<2			
Load control	Yes (optional)			
OUTPUT DC (BATTERY)				
Battery voltage range [V]	170-500			
Recommended battery voltage [V]	200	240	320	400
Max.charging/discharging power [W]	6000	8000	10000	10000
Max.charging/discharging current [A]	25			
Communication interfaces	CAN/RS485			
Reverse connect protection	Yes			
EPS OUTPUT (WITH BATTERY)				
EPS rated power [VA]	5000	6000	8000	10000
EPS rated voltage [V], Frequency [Hz]	400/380, 50/60	400/380, 50/60	400/380, 50/60	400/380, 50/60
EPS rated current [A]	7.2	8.7	11.6	14.5
EPS peak power[W];Duration [s]	10000,60	12000,60	14000,60	14000,60
Switch time[s]	<0.5			
Total harmonic distortion(THD, linear load) [%]	<2			
Parallel operation	Being developed			
EFFICIENCY				
MPPT efficiency [%]	99.9			
Euro efficiency [%]	97.0			
Max. efficiency [%]	97.6			
Battery charge/discharge efficiency [%]	97.6 (PV-BAT) 96.0 (BAT-AC)			
POWER CONSUMPTION				
Standby consumption [W]	<7			
Idle mode	YES			
STANDARD				
Safety	IEC62109-1-2 / IEC62040			
EMC	EN61000-6-1/EN61000-6-2/EN61000-6-3			
Certification	VDE0126-1-1 A1:2012/VDE-AR-N4105/G59-3/AS4777/EN50438/CEI 0-21/IEC62619/ISO13849-2/SN29500/IEC615086			
ENVIRONMENT LIMIT				
Protection class	IP65			
Operating temperature range [°C]	-25~+60 (derating at+45)			
Altitude[m]	<2000			
Storage temperature[°C]	-20~+60			
Noise emission(typical) [dB]	<30			
Over voltage category	III (electric supply side), II (PV side)			
DIMENSION AND WEIGHT				
Dimensions(WxHxD) [mm]	655*456*208			
Weight[kg]	40			
Cooling concept	Natural			
Topology	Transformerless			
Communication	Ethernet/Meter/WIFI (optional)/RF(optional)/DRM/USB/Parallel operation			
LCD display	Backlight 20*4 character			
Standard warranty [years]	5-10			

*Can be modified without notice.(V4)



X1-Retro Fit

X1-Fit-3.7kW/4.6kW/5.0kW

Version: E,C

E:with EPS function C:without EPS function

X1-Fit-3.7kW

X1-Fit-4.6kW

X1-Fit-5.0kW

OUTPUT AC				E Version	C Version	E Version	C Version	E Version	C Version
Nominal AC power[VA]				3680	3680	4600	4600	4999	4999
Max. apparent AC power[VA]				3680	3680	4600	4600	4999	4999
Rated grid voltage(AC voltage range)[V]				220/230/240 (180 to 270)		220/230/240 (180 to 270)		220/230/240 (180 to 270)	
Rated grid Frequency[Hz]				50/60		50/60		50/60	
Nominal AC current[A]				16		20	20	21.7	21.7
Max. AC current[A]				16	16	21	21	21.7	21.7
Displacement power factor				0.8 leading to 0.8 lagging		0.8 leading to 0.8 lagging		0.8 leading to 0.8 lagging	
THDi, rated power [%]				<2		<2		<2	
parallel operation				Being developed		Being developed		Being developed	
Load control				Being developed (optional)		Being developed (optional)		Being developed (optional)	
INPUT AC									
Nominal AC power[VA]				3680	3680	4600	4600	4999	4999
Max. AC current[A]				16	16	21	21	21.7	21.7
Rated grid voltage(AC voltage range)[V]				220/230/240 (180 to 270)		220/230/240 (180 to 270)		220/230/240 (180 to 270)	
Rated grid Frequency[Hz]				50/60		50/60		50/60	
Displacement power factor				0.8 leading to 0.8 lagging		0.8 leading to 0.8 lagging		0.8 leading to 0.8 lagging	
BATTERY									
Battery voltage range[V]				85-400		85-400		85-400	
Recommended battery voltage[V]				300		300		300	
Max.charge/discharge power[W]				6000		6000		6000	
Max.charge/discharge current[A]				20		20		20	
Peak charge/discharge current[A]				30A,30S		30A,30S		30A,30S	
Communication interfaces				CAN/ RS485		CAN/ RS485		CAN/ RS485	
Reverse connect protection				YES		YES		YES	
EPS OUTPUT(WITH BATTERY)									
EPS MAX power[VA]				5000	—	6000	—	6000	—
EPS rated power[VA]				4000	—	5000	—	5000	—
EPS rated voltage[V],Frequency[Hz]				230, 50/60	—	230, 50/60	—	230, 50/60	—
EPS rated current[A]				17.4	—	21.7	—	21.7	—
EPS MAX current[A]				21.7	—	26	—	26	—
EPS peak power[W], Duration [s]				8000, 10	—	8000, 10	—	8000, 10	—
Switch time[s]				<0.5	—	<0.5	—	<0.5	—
Total harmonic distortion(THDv, linear Load) [%]				<2	—	<2	—	<2	—
On-grid parallel operation				Yes	—	Yes	—	Yes	—
Off-grid parallel operation				Being developed	—	Being developed	—	Being developed	—
Changeover device				External	—	External	—	External	—
Compatible with the generator				YES (signal provided)		YES (signal provided)		YES (signal provided)	
EFFICIENCY									
Max. Battery charge efficiency (AC to BAT)(@full load) [%]				95.60		95.60		95.60	
Max. Battery discharge efficiency (BAT to AC)(@full load) [%]				97.00		97.00		97.00	
POWER CONSUMPTION									
Internal consumption(Idle) [W]				<3		<3		<3	
Idle mode				YES		YES		YES	
STANDARD									
Safety				IEC62109-1 / -2 / IEC62040 /					
EMC				EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					
Cetification				VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 / G83 / G59 / AS4777 / EN50438 / CEI 0-21 / VDE 2510					
ENVIRONMENT LIMIT									
Ingress protection				IP65					
Operating temperature range[oC]				-20..... +60 (derating at +45)					
Humidity[%]				0~95 (non-condensing)					
Altitude[m]				<2000					
Storage temperature[oC]				-20..... +60					
Noise emission(typical)[dB]				<40					
Over voltage category				III(electric supply side), II(battery side)					
DIMENSION AND WEIGHT									
Demensions(WxHxD) [mm]				460*477*181.5					
Weight [kg]				26.85					
Cooling concept				Natural					
Topology				Transformerless					
Communication				Ethernet, Meter, WIFI(optional), RF(optional), DRM, USB, ISO alarm					
LCD display				Bcaklight 20*4 character					
Button				Capacitive Touch Sense					
Standard warranty [year]				5					

*Can be modified without notice.(V4)



X3-Retro Fit

X3-Fit-8kW/10kW

X3-Fit-8.0E

X3-Fit-8.0C

X3-Fit-10.0E

X3-Fit-10.0C

OUTPUT AC				
Normal AC power[VA]	8000	8000	10000	10000
Max. apparent AC power[VA]	8000	8000	10000	10000
Rated grid voltage(AC voltage range)[V]	400V/230VAC;380/220VAC			
Rated grid Frequency[Hz]	50/60			
Normal AC current[A]	12.2	12.2	15	15
Max. AC current[A]	13.5	13.5	16	16
Displacement power factor	0.8 leading to 0.8 lagging			
Total harmonic distortion(THDi, rated power) [%]	<2			
parallel operation	Yes			
Load control	Yes(optional)			
INPUT AC				
Normal AC power[VA]	8000	8000	10000	10000
Max. AC current[A]	13.5	13.5	16	16
Rated grid voltage(AC voltage range)[V]	400V/230VAC;380/220VAC;			
Rated grid Frequency[Hz]	50/60			
Power factor	1			
BATTERY				
Battery voltage range[V]	175-500			
Max.charge/discharge current[A]	25			
Peak charge/discharge current[A]	30 (60S)			
Communication interfaces	CAN/ RS485			
Reverse connect protection	YES			
EPS OUTPUT(WITH BATTERY)				
EPS MAX power[VA]	8000	—	10000	—
EPS rated power[VA]	8000	—	10000	—
EPS rated voltage[V],Frequency[Hz]	400/380 50/60	—	400/380 50/60	—
EPS rated current[A]	12.2	—	15	—
EPS MAX current[A]	13.5	—	16	—
EPS peak power[W], duration [s]	16000,60	—	16000,60	—
Switch time[s]	<0.5	—	<0.5	—
Total harmonic distortion(THDv, linear Load) [%]	<2	—	<2	—
Parallel operation	Being developed	—	Being developed	—
Changeover device	external	—	external	—
Generator AC couple	No	—	No	—
Generator control	Being developed	—	Being developed	—
Three phases unbalanced	YES			
EFFICIENCY				
Max. Battery charge efficiency (GRID to BAT)	96	96	96	96
Max. Battery discharge efficiency (BAT to AC)	96.5	96.5	96.5	96.5
POWER CONSUMPTION				
Internal consumption(night) [W]	<7			
Idle mode	YES			
STANDARD				
Safety	IEC62109-1-2 / IEC62040/ AS3100			
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3			
Certification	VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 / G83 / AS4777 / EN50438 / CEI 0-21 /			
ENVIRONMENT LIMIT				
Protection class	IP65			
Operating temperature range[°C]	-20..... +60 (derating at +45)			
Humidity[%]	0~95 (non-condensing)			
Altitude[m]	<2000			
Storage temperature[°C]	-20..... +60			
Noise emission(typical)[dB]	<40			
Over voltage category	III(electric supply side), II(battery side)			
DIMENSION AND WEIGHT				
Dimensions(WxHxD) [mm]	576X453X209			
Weight [kg]	38			
Cooling concept	Natural			
Topology	Transformerless			
Communication	Ethernet, Meter, WIFI(optional), RF(optional), DRM, USB, ISO alarm			
LCD display	Backlight 20*4 character			
Button	Capacitive Touch Sense			
Standard warranty [year]	5			

*Can be modified without notice.(V4)



SOLAXBOX LV

Inverter + Battery

3K+2.5K

3.7K+2.5K

5K+2.5K

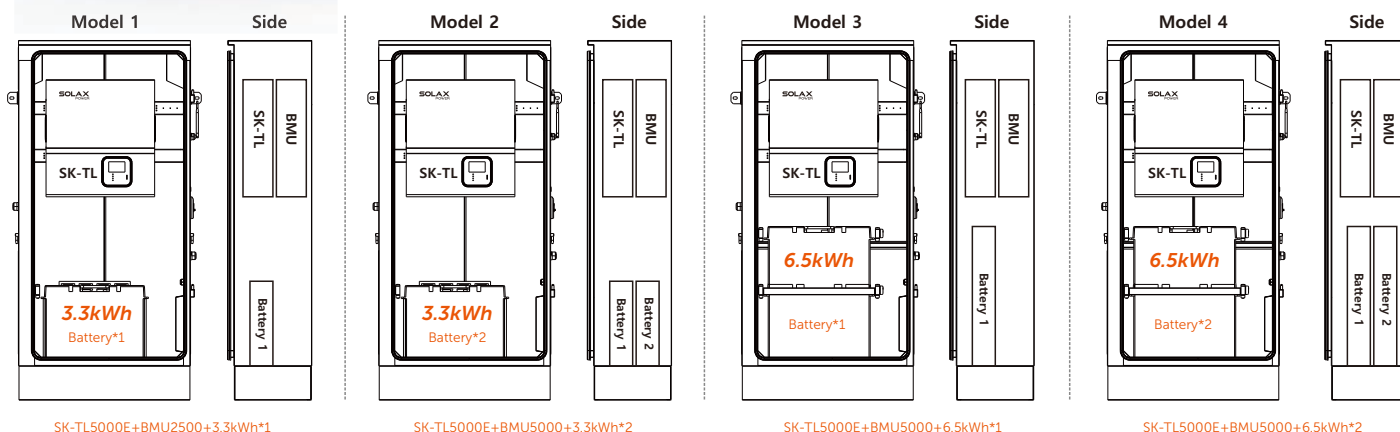
5K+5K

INPUT (DC)				
Max.recommended DC power[W]	3300	4000	5000	5000
Max.DC voltage[V]	550	550	550	550
Norminal DC operating voltage[V]	360	360	360	360
Max.input current[A]	12	12/12	12/12	12/12
Max. short circuit current[A]	15	15/15	15/15	15/15
MPPT voltage range[V]	125-530	125-530	125-530	125-530
No. of MPP trackers	1	2	2	2
Strings per MPP tracker	1	1	1	1
OUTPUT AC				
Normal AC power [VA]	3000	3680	4600	4600
Max. AC power [VA]	3300	3680	4999	4999
Rated grid voltage(AC voltage range) [V]	230 (180 to 270)			
Rated grid frequency [Hz]	50/60			
Normal AC current [A]	13	16	20	20
Max. AC current [A]	14.4	16	21.7	21.7
Displacement power factor	0.80 leading...0.80 lagging			
Total harmonic distortion(THD, rated power) [%]	<3			
Load control	No			
OUTPUT DC (BATTERY)				
Battery voltage range [V]	40-60			
Recommended battery voltage [V]	48			
Max.charging/discharging power [W]	2500	2500	2500	5000
Max.charging/discharging current [A]	50	50	50	100
Communication interfaces	CAN/RS232			
Reverse connect protection	Yes			
EPS OUTPUT (WITH BATTERY)				
EPS rated power [VA]	2000		4000	
EPS rated voltage [V], Frequency [Hz]	230; 50/60		230; 50/60	
EPS rated current [A]	8.7		17.3	
EPS peak power[W];Duration [s]	1.5xPrated, 10		1.5xPrated, 10	
Switch time[s]	<5		<5	
Total harmonic distortion(THD, linear load) [%]	<3		<3	
Parallel operation	No		No	
EFFICIENCY				
MPPT efficiency [%]	99.9			
Euro efficiency [%]	97.0			
Max. efficiency [%]	97.6			
Battery charge/discharge efficiency [%]	94.0			
POWER CONSUMPTION				
Standby consumption [W]	<7			
Idle mode	YES			
STANDARD				
Safety	IEC62109-1; IEC62109-2; IEC62040-1			
EMC	EN 61000-6-1; EN 61000-6-2; EN 61000-6-3			
Certification	VDE 4105 / AS/NZS4777.2 / C10 11 / EN50438-NL / EN50438-DK / OVE/ONORME 8001/ G83,G59 / CEI 0-21			
ENVIRONMENT LIMIT				
Protection class	IP20 (for indoor use)			
Operating temperature range [°C]	Inverter: -10~+50 (derating at 40); Bettery: -10~+50			
Altitude[m]	<2000			
Storage temperature[°C]	-20~+60			
Noise emission(typical) [dB]	<40			
Over voltage category	III (electric supply side), II (PV side)			
DIMENSION AND WEIGHT				
Dimensions(WxHxD) [mm]	600*1205*675			
Weight[kg]	180			
Cooling concept	Forced airflow			
Topology	Transformerless			
Communication	Ethernet / Dry contact(optional) / WIFI / Meter			
LCD display	7" touchscreen			
Standard warranty [years]	5-10			



Power Station

Power station consists of one X1-Hybrid inverter (SK-TL) and **one** or **two 3kWh** or **6kWh** batteries.



Battery Specifications

General Information		3.3kWh	6.5kWh
Module type		LG rack mount	
Battery type		Li-ion (NMC)	
Components		Battery Cells + BMS + Protection Device (Breaker)	
Performance			
Nominal Capacity ¹ [Ah]		63	126
Nominal Energy ¹ [kWh]		3.3	6.5
Nominal Voltage [V]		51.8	
Operating Voltage [V]		42~58.8	
Max. Charge/Discharge Current ² [A]		63	63
Max. Charge/Discharge Power ² [kW]		3.3	3.3
Continuous Charge/Discharge Power ² [kW]		3.0	3.0
Round-Trip Efficiency [%]		≥95	
Cooling		Natural convection	
Communication Interface	Protocol	CAN 2.0B or Modbus 485	
	Port	RJ48	
Dry Contact		2Ch (Warning or Fault 1/Fault 2)	
Cabinet Dimensions [mm]		750*1570*367	
Operating Conditions			
Operating temperature range [°C]		-10~45	
Optimal operating Temperature [°C]		15~30	
Storage Temperature [°C]		-30~60	
Self -Discharge Rate During Storage [°C]		Less than 6% per year at 25	
Humidity [%]		5~95	
Altitude [m]		Below 2,000	
Certification			
Certification (SK-TL)		VDE 4105 / AS/NZS4777.2 / C10 11 / EN50438-NL / EN50438-DK / OVE ONORME 8001/ G83,G59 / CEI 0-21	

¹ At standard conditions:

- Charge: CC-CV, with 0.3CC, to 58.8V (3.15A cut off) at 25°C
- Discharge: CC, with 0.3CC, to 42V at 25°C

² It can be de-rated in accordance with the power limit by BMS.

※ Not acceptable to use two kinds of modules mixed