



X1 MINI



X1 AIR



X1 BOOST



X3



X3

	X1-1.1	X1-1.5	X1-2.0	X1-2.5	X1-3.0	X1-3.3	X1-3.0T	X1-3.3T	X1-3.6T	X1-4.2T	X1-5.0T	ZDNY-TL10000	ZDNY-TL12000	ZDNY-TL15000	ZDNY-TL17000	ZDNY-TL20000	X3-30T	X3-36T	
INPUT (DC)																			
Max.recommended DC power [W]	1250	1650	2200	2700	3200	3450	3250	3500	4000	4600	5200	10260	12300	15370	17420	20500	36000	43200	
Max. input DC voltage [V]	400	400	400	600	600	600	600	600	600	600	600			1000				1000	
Max. input current [A]	10	10	10	10	10	10	12/12	12/12	12/12	12/12	12/12	A:22/B:11	A:22/B:11	A:22/B:22	A:22/B:22	A:22/B:22		A:34/B:34	
MPPT voltage range [V]	55-380	55-380	55-380	100-580	100-580	100-580	125-580	125-580	125-580	125-580	125-580	320-800	380-800	350-800	400-800	400-800	480-850	580-850	
Start input/output voltage [V]	55/70	55/70	55/70	65/120	65/120	65/120	110/150	110/150	110/150	110/150	110/150	220/400	220/400	220/400	220/400	220/400	480-850	300	
Number of MPP tracker/strings per MPP tracker	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1	2/1	2/1	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		2/A:4 B:4	
OUTPUT (AC)																			
AC nominal power [VA]	1100	1500	2000	2500	3000	3300	3000	3300	3680	4200	4600	10000	12000	15000	17000	20000	30000	36000	
Max. AC power [VA]	1100	1500	2000	2500	3000	3300	3000	3300	3680	4200	4600	10000	12000	15000	17000	20000	33000	40000	
Normal AC voltage; range [V]		220/230/240; 180~280			220/230/240; 180~280				220/230/240; 180~280					50; 44-55/60;55-65			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]		50/60; ±5			50/60; ±5				50/60; ±5					3/N/PE 230/400; 160-280				50;45-55 / 60;55-65	
Max. AC current [A]	5.5	7.5	9.5	12	14	15	14	15	16	19	21	16	20	24	25	29	48*3	48*3	
Power factor (full load)		0.8 leading ~ 0.8 lagging			0.8 leading ~ 0.8 lagging				0.8 leading ~ 0.8 lagging					0.9 leading ~ 0.9 lagging				0.8 leading ~ 0.8 lagging	
Total harmonic distortion(THD) [%]		<2			<2				<2					<3				<2	
POWER CONSUMPTION																			
Standby power[W]		<10			<10				<2					<10				<7	
EFFICIENCY																			
MPPT efficiency[%]		99.9			99.9				99.9					99.9				99.9	
Euro efficiency[%]	95.5	96	96.5		96.8				97.0					97.6				98.3	
Max. efficiency[%]		97.1			97.6				97.8					98.2				98.6	
SAFETY & PROTECTION																			
Over voltage protection		YES			YES				YES					YES				YES	
Over current protection		YES			YES				YES					YES				YES	
DC isolation impedance monitoring		YES			YES				YES					YES(optional)				YES	
Ground fault current monitoring		YES			YES				YES					YES				YES	
DC injection monitoring		YES			YES				YES					YES				YES	
RCD protection		YES			YES				YES					YES				YES	
Safety		EN62109-1/-2			EN62109-1/-2				IEC62109-1/-2					IEC62109-1/IEC62109-2/AS3100				IEC62109-1/IEC62109-2/AS3100	
EMC		EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3			EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3				EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					EN 61000-3-2/EN 61000-3-3/EN 61000-3-11/EN 61000-3-12/EN 61000-6-2/EN 61000-6-3				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		G83/2;G59/3;AS4777.2-2015;VDE4105; EN50438;CQC;CEI0-21			G83/2;G59/3;AS4777.2-2015;VDE4105; EN50438; CQC				G83/2;G59;AS4777.2-2015;VDE4105; EN50438;CQC;VDE0126					G83;G59;VDE0126;VDE4105;CQC;IEC62172;IEC62116;IEC61683;IEC60068				NB/T 32004-2013/ZVRT/VDE4105/G59/3/AS4777	
ENVIRONMENT LIMITS																			
Protection class		IP65			IP65				IP65					IP55				Ip65	
Operating temperature[°C]		-20~+60(derating at 45)			-20~+60(derating at 45)				-20~+60(derating at 45)					-20~+60 (derating at 45)				-25~+60 (derating at 45)	
Humidity[%]		0~95 (no condensation)			0~95 (no condensation)				0~95 (no condensation)					0~95 (non-condensing)				0~95	
Attitude[m]		2000			2000				2000					2000				2000	
Storage temperature[°C]		-20~+60			-20~60				-20~+60					-20~60				-25~60	
Noise emission[dB]		<25			<30				<25					<50				<50	
DIMENSION & WEIGHT																			
Dimensions(W*H*D) [mm]		248*350*124			323*402*119				339*420*143					513 x 651.5 x 207				10*260	
Weight[Kg]		7			9.5		14.6	14.6	14.6	16.7	16.7	48	48	50.5	50.5	51		60	
GENERAL DATA																			
Topology		Transformerless			Transformerless				Transformerless					Transformerless				Transformerless	
Communication interface		RS485/WIFI(optional)/DRM/USB			RS485/WIFI(optional)/DRM/USB				RS485/WIFI(optional)/DRM/USB/RF(optional)/Meter(optional)					RS485/RS232/WIFI(optional)/DRM				RS485/ WIFI (optional)/ Ethernet/ DRM	
Display		6 LED			11 LED				Backlight 16*4 character					Backlight 128*64 point LCD				4 LED	
Standard warranty[years]		5-10			5-10				5-10					5-10				5-10	
Cooling type		Natural			Natural				Natural					Forced-cooling				Forced-cooling	

