

SH110CX

Preliminary

Multi-MPPT Commercial & Industrial Hybrid Inverter



HIGH YIELD

- PID Zero®, the industry-exclusive 24-hour anti-PID solution for PV-ESS hybrid systems, ensuring 25 years of peak performance
- Ideal for retrofitting and new installation scenario
- Support variable EMS applications for high returns



FLEXIBLE INSTALLATION

- Higher current input, adaptable to all mainstream PV modules
- Flexible expansion from kilowatt to megawatt
- Support backup application



ULTIMATE SAFETY

- AFCI 3.0, intelligent DC arc interrupter, with a detection range of 450m
- Intelligent string-level protection for enhanced safety



SIMPLIFIED O&M

- Self-cleaning air duct for reduced maintenance and boosted efficiency
- IP66 protection and C5 anti-corrosion, suitable for various harsh environments
- High-precision string monitoring and I-V diagnosis for quick fault detection



Type designation	SH110CX
Input (DC)	
Max. PV input power	220 kWp
Max. PV input voltage *	1100 V
Min. PV input voltage / Startup input voltage	180 V / 200 V
Rated PV input voltage	600 V
MPPT voltage range **	180 V - 1000 V
No. of independent MPP inputs	10
No. of PV strings per MPPT	2
Max. PV input current	40 A * 10
Max. DC short-circuit current	50 A * 10
Max. current for DC connector	30 A
Battery input data	
Battery type	Lithium-ion battery
Max. charge / discharge current ***	200 A / 200 A
Max. charge / discharge power	110 kW / 110 kVA
Input and output (AC)	
Max. AC power from grid	110 kVA @ 230 V
Rated AC output power	110 kW
Max. AC output apparent power	110 kVA
Max. AC output current	158.8 A
Rated AC output current	158.8 A
Rated AC voltage	3 / N / PE, 220 V / 380 V, 230 V / 400 V
AC voltage range	270 V - 480V
Rated grid frequency	50 Hz / 60 Hz
Grid frequency range	45 Hz - 55 Hz / 55 Hz - 65 Hz
Harmonic (THD)	< 3 % (at 400V AC voltage and rated power)
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading - 0.8 lagging
Feed-in phases / AC connection	3 / 3 - N - PE
Backup data	
Rated voltage	3 / N / PE, 220 V / 380 V, 230 V / 400 V
Rated frequency	50 Hz / 60 Hz
THDV (@Linear load)	< 2 % (at rated power)
Backup switch time	≤ 10 ms
Rated output power	110 kW / 110 kVA
Peak load power	1.5 times of rated power, 10 s
Efficiency	
Max. efficiency / European efficiency	98.5 % / 98.2 %
Protection & function	
Grid monitoring	Yes
DC reverse polarity protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
DC switch	Yes
Ground fault monitoring	Yes
PV string current monitoring	Yes
Arc fault circuit interrupter (AFCI)	3.0
Surge protection	DC Type I+II / AC Type II
PID zero	Yes
Battery input reverse polarity protection	Yes
General data	
Topology	Transformerless
Degree of protection	IP66
Dimensions (W * H * D)	1095 mm * 795 mm * 360 mm
Weight	≤ 123 kg
Mounting method	Wall-mounting bracket
Operating ambient temperature range	-30 °C - 60 °C
Allowable relative humidity range (non-condensing)	0 - 100 %
Night power consumption	< 30 W
Corrosion	C5
Cooling method	Smart forced air cooling
Max. operating altitude	3000 m
Noise (Typical)	≤ 65 dB (A)
Display	LED, Bluetooth + APP
Communication	RS485 / CAN
DI / DO	DI * 2 / DO * 3
DC connection type	MC4 (Max. 6 mm ²)
AC connection type ****	OT / DT terminal (Max. 300 mm ²)
Grid compliance	IEC 62109-1/-2, IEC 62477-1, IEC 62920, EN 55011, AS/NZS 4777.2:2020, IEC 63027, VDE-AR-N 4105, VDE-AR-N 4110, NRS 097-2-1, UNE 207002, UNE 207001, NTS 2.1, CEI 0-16, CEI 0-21, EN 50549, EN 50530, IEC 61683, IEC 62116, IEC 61727

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Please refer to the user manual for the full load MPPT voltage range

*** Depending on the connected battery

**** Please refer to the user manual for detail information

