

/ STP 13-US-50



Preliminary

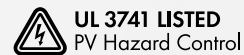


Sunny Tripower X 13-US (208V)

Integrated intelligence for future-proof system design.

/ Now suitable for 120/208V grids.

powered by
ennexOS



Integrated System Manager

- Monitoring and control for up to 5 inverters (max. 150 kVA)
- Remote access with Sunny Portal powered by ennexOS
- SMA Dynamic Power Control

Enhanced safety

- Integrated SunSpec PLC signal for module-level shutdown
- Advanced DC AFCI arc-fault protection
- Optional AC disconnect
- Optional DC type 2 and type 1+2 surge protection

Maximum yields

- Three MPP trackers for flexible array design
- SMA ShadeFix string level optimization
- Integrated I-V curve diagnostics
- Supports 200% DC:AC design capability

Smart monitoring, control and service

- SMA Smart Connected proactive monitoring and service solution
- SMA ennexOS cross-sector energy management platform
- Centerpiece of the proven SMA Energy System Business

Sunny Tripower X is the new innovative inverter solution for commercial PV systems.

Specially designed for the 120 V/208 V grid in the US and Canada. Providing three MPP trackers with SMA ShadeFix string optimization technology for optimal PV array design flexibility and maximum energy yields. SMA's proven integrated rapid shutdown support and reliable DC AFCI arc-fault protection ensure enhanced system safety. And now with the new integrated System Manager, powered by SMA's ennexOS cross-sector energy management platform, Sunny Tripower X becomes the centerpiece of the SMA Energy System Business for comprehensive commercial energy systems now and in the future.

Technical Data	Sunny Tripower X 13-US
Input (DC)	
Maximum array power	26000 Wp
Maximum system voltage	800 V
Rated MPP voltage range	230 V ... 720 V
MPPT operating voltage range	150 V ... 800 V
Minimum DC voltage / start voltage	150 V / 188 V
MPP trackers / strings per MPP input	3 / 2
Maximum usable operating input current / Maximum short circuit current per MPPT	24 A / 37.5 A
Output (AC)	
Nominal output power	13000 W
Maximum apparent power	13000 VA
Output phases / line connection	3 / 3(N)-PE
Nominal AC voltage	208 V / 120 V
AC voltage range	108 V ... 132 V
Maximum output current	36 A
Rated grid frequency / range	60 Hz / 54 Hz ... 66 Hz
Power factor at rated power / adjustable displacement	1 / 0.8 overexcited to 0.8 underexcited
Harmonics (THD)	< 3 %
Efficiency	
CEC efficiency	98 %
Protection and safety features	
Load rated DC disconnect	●
Load rated AC disconnect	○
Ground fault monitoring / grid monitoring	● / ●
DC reverse polarity protection / AC short-circuit protection	● / ●
All-pole sensitive residual-current monitoring unit	●
DC AFCI arc-fault protection	●
SunSpec PLC signal for rapid shutdown	●
DC surge protection: Type 2 / Type 1+2	○ / ○
Protection class / overvoltage category as per UL 840	I / III
General data	
Dimensions (W/H/D)	728 mm / 762 mm / 266 mm (28.7 in / 30.0 in / 10.5 in)
Device weight	35 kg (77 lbs)
Operating temperature range	-25°C to +60°C (-13°F to +140°F)
Audible noise emission (full power @ 1m and 25°C)	59 dB(A)
Topology / cooling concept	Transformerless / OptiCool (forced convection, variable speed fans)
Enclosure protection rating	Type 4X (as per UL 50E)
Corrosivity classification according to IEC 61701	C5
Maximum permissible relative humidity (non-condensing)	100 %
Features / functions / accessories	
Mounting type	Vertical rack / wall mount to 15° from horizontal
DC connection / AC connection	Amphenol H4 Plus / spring-cage terminal
LED indicators (status / fault / communication)	●
INetwork interfaces: Ethernet / WLAN	● (2 ports) / ●
Data protocols: SMA Modbus / SunSpec Modbus / Speedwire	● / ● / ●
Multi-function relay / Extension module slot / Digital inputs	● / ● / ● (6 ports)
ShadeFix technology for string level optimization	●
I-V curve diagnostic function	●
Integrated Plant Control / Q on Demand 24/7	● / ●
SMA Smart Connected (proactive monitoring and service support)	●
Standard warranty	10 years
Optional warranty extensions (total warranty coverage cannot exceed 20 years)	+5 years, +10 years
Certificates and approvals	
Certificates and approvals	UL 62109-1, UL 1699B Ed. 1, CAN/CSA 22.2 No. 62109-1:16 / 62109-2:16, PV Rapid Shutdown System Equipment in accordance with UL1741:2021, UL 3741
FCC compliance	FCC Part 15 Class A
Grid interconnection standards	UL 1741 SB, IEEE 1547:2018, compliance to SRDs: CA Rule 21, HECO Rule 14H, ISO-NE, CSA C22.2 No. 107. 1-16 section 14
Integrated System Manager	
Maximum number of supported inverters / energy meters	5 / 1
Maximum system power PV inverters (nominal AC power)	150 kVA
Centralized commissioning of all devices in the system	●
Remote parameterization of SMA devices	● (via Sunny Portal powered by ennexOS)
SMA Dynamic Power Control (e.g. zero export / Volt-VAR)	●
Type designation	STP 13-US-50

● Standard features ○ Optional — Not available Data in nominal conditions Last revision: 04/2025

Accessories

	SMA Data Manager M EDMM-20		DC Terminal Cover DC-TERM-COVER		SMA Sensor Module MD.SEN-US-40		DC Surge Protection Kits T2: DC_SPD_KIT6-10 T1+2: DC_SPD_KIT7_T1T2		Roof Mount Kit 210462-00.01		AC Disconnect Kit 210841-00.01
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