SUNNY TRIPOWER STORAGE X 27-US / 60-US



Technical data	Sunny Tripower Storage X 27 (US 208)	Sunny Tripower Storage X 60 (US 480)
Battery connection (DC)		
Max. DC power	27600 W	61200 W
DC voltage range	200 V to 980 V	
Max. usable input current (I_{DC}, max)	150 A	
Battery type	Li-ion	
Grid connection (AC)		
Rated power at nominal voltage	27000 W	60000 W
Max. apparent AC power	27000 VA	60000 VA
Max. reactive power	27000 Var	60000 Var
Nominal AC voltage	208 V	480 V
AC voltage range	177 V to 250 V	408 V to 576 V
Rated grid frequency	50 Hz / 60 Hz	
Power frequency range	44 Hz to 66 Hz	
Max. output current	75.5 A per line conductor	
Power factor at rated power / adjustable displacement power factor	1 / 0 overexcited to 0 underexcited	
Feed-in line conductors / connection line conductors	3 (L1, L2, L3) / 5 (L1, L2, L3, N, PE)	
Efficiency		
Max. efficiency / European efficiency	98.0 % / 97.6 %	98.0 % / 97.2 %
Protective devices		
Grid monitoring	●	
Overtemperature / battery deep discharge	● / ●	
AC short-circuit current capability / galvanically isolated	● / –	
All-pole-sensitive residual-current monitoring unit	●	
Protection class (according to IEC 62109-1) / surge category (according to IEC 60664-1)	I / DC: II; AC: III	
General data		
Dimensions (W/H/D)	772 / 837.3 / 443.8 mm (30.4 / 33 / 17.5 inch)	
Weight	102 kg (225 lb)	
Operating temperature range	–25°C to +60°C (–13°F to +140°F) with derating	
Noise emission, typical	69 dB(A)	
Standby	25W	
Topology / Cooling method	three-phase / active	
Degree of protection (according to IEC 60529 / UL 50E)	IP65 / NEMA 4X	
Climatic category (according to IEC 60721-3-4)	4K4 / 4Z4 /4S2 / 4M3 / 4C2 / 4B2	
Max. permissible value for relative humidity (non-condensing)	95 %	

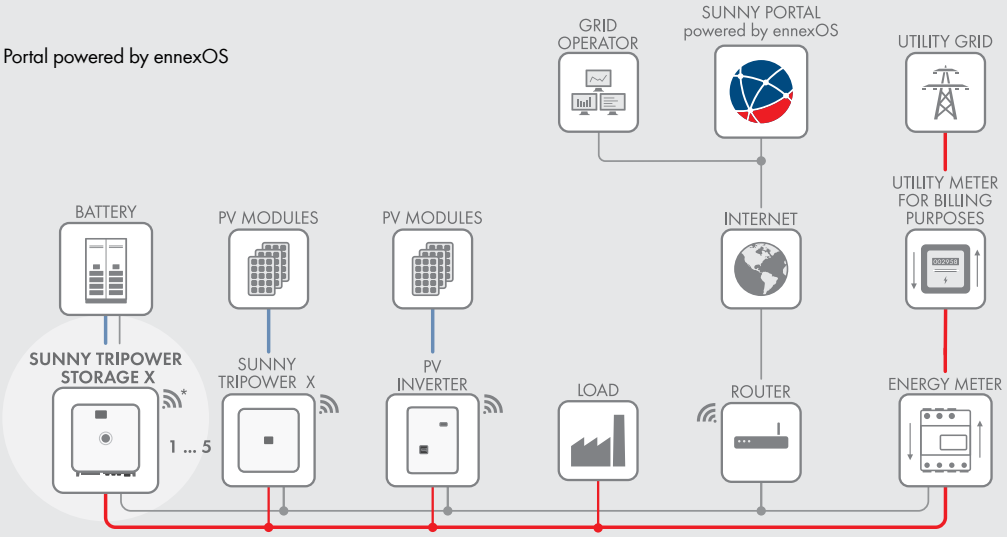
Features / functions / accessories

DC connection / AC connection	Terminal lug (50 mm² up to 95 mm² (1 AWG up to 3/0 AWG)) / Screw terminal (50 mm² up to 95 mm² (1 AWG up to 3/0 AWG))	
Communication/protocols	Modbus (SMA, Sunspec), SMA Speedwire, Webconnect	
LED display (Status / Fault / Communication)	● / ● / ●	
Energy management functions	Self-consumption optimization, Peak load shaving, Multi-Use [2]	
Display / Web User Interface	○ / ●	
Retrofitting with PV inverters from other suppliers	●	
System monitoring	Sunny Portal powered by ennexOS	
Battery interface	Ethernet (Modbus)	
Warranty: 10 years	●	
System manager function		
Total number of supported devices when a Sunny Tripower Storage is the system manager [1]	10	
Total number of supported devices when a SMA Data Manager M is the system manager [1][2]	50	
Centralized commissioning of all devices in the system	●	
Remote parameterization of SMA devices with Sunny Portal powered by ennexOS	●	
Type designation	STPS27-US-20	STPS60-US-20

● Standard equipment ○ Optional – Not available Data at nominal conditions 1) Supported devices: PV inverter, Sunny Tripower Storage and SMA Commercial Energy Meter 2) In preparation 3) Only for commissioning Last revised: 02/2024

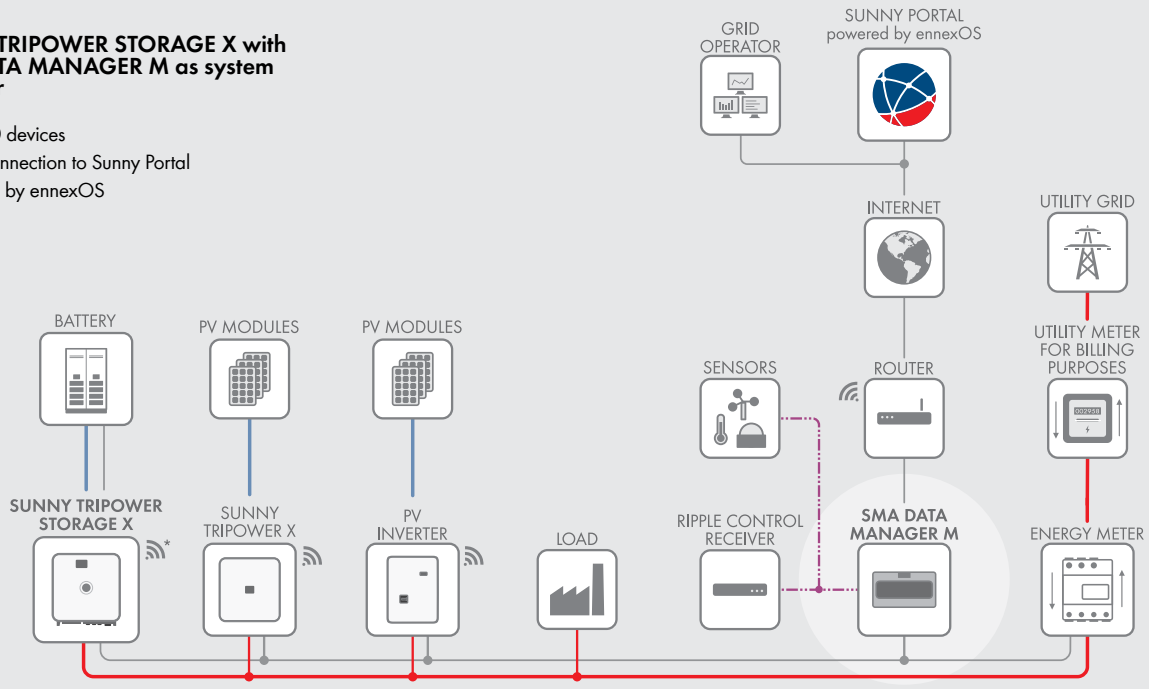
SUNNY TRIPOWER STORAGE X as system manager

- Up to 10 devices
- Direct connection to Sunny Portal powered by ennexOS



SUNNY TRIPOWER STORAGE X with SMA DATA MANAGER M as system manager

- Up to 50 devices
- Direct connection to Sunny Portal powered by ennexOS



*) only for commissioning

DC AC Ethernet/Internet Radio Extern signals

STPSX-US-DSen-13 Changes to products and services, including those resulting from country-specific requirements, as well as deviations from technical data are subject to change at any time without notice. SMA assumes no liability for typographical or other errors. Please visit www.SMA-Solar.com for the latest information.