

# SUNNY TRIPOWER STORAGE X

Technical data	Sunny Tripower Storage X 30	Sunny Tripower Storage X 50
<b>Battery connection (DC)</b>		
Max. DC power	30600 W	51000 W
DC voltage range	200 V to 980 V	
Max. usable input current ( $I_{DC, max}$ )	150 A	
Battery type	Li-ion	
<b>Grid connection (AC)</b>		
Rated power at nominal voltage	30000 W	50000 W
Max. apparent AC power	30000 VA	50000 VA
Max. reactive power	30000 Var	50000 Var
Nominal AC voltage	400 V, $\pm 15\%$	
AC voltage range	340 V to 477 V	
Rated grid frequency	50 Hz / 60 Hz	
Power frequency range	44 Hz to 66 Hz	
Max. output current	45.6 A per line conductor	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)	
<b>Efficiency</b>		
Max. efficiency/European efficiency	98.0% / 97.6%	98.0% / 97.2%
<b>Protective devices</b>		
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)/overvoltage category (according to IEC 60664-1)	I / DC: II; AC: III	
<b>General data</b>		
Dimensions (W/H/D)	772 / 837.3 / 443.8 mm (30.4 / 33 / 17.5 inch)	
Weight	104 kg (229 lb)	
Operating temperature range	-25°C to +60°C (-13°F to +140°F) with derating	
Noise emission, typical	69 dB(A)	
Self-consumption	25 W (if AC + DC are connected)	
Topology/cooling concept	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%	
<b>Features/functions/accessories</b>		
DC connection/AC connection	Screw terminal / screw terminal	
Communication/protocols	Modbus (SMA, Sunspec), SMA Speedwire, Webconnect	
LED display (Status / Fault / Communication)	● / ● / ●	
Energy management functions	Self-consumption optimization, peak load shaving, multi-use	
Display / web user interface / WLAN <sup>3)</sup>	○ / ● / ●	
Retrofitting in systems with external inverters	●	
System monitoring	Sunny Portal powered by ennexOS	
Bus battery interface	Ethernet (Modbus)	
Backup	In preparation	
<b>System manager function</b>		
Total number of supported devices when a Sunny Tripower Storage is the system manager <sup>1)</sup>	5	
Total number of supported devices when a SMA Data Manager M is the system manager <sup>1)</sup> or via eProduct <sup>2)</sup>	50	
Centralized commissioning of all devices in the system	●	
Remote parameterization of SMA devices with Sunny Portal powered by ennexOS	●	
Type designation	STPS30-20	STPS50-20

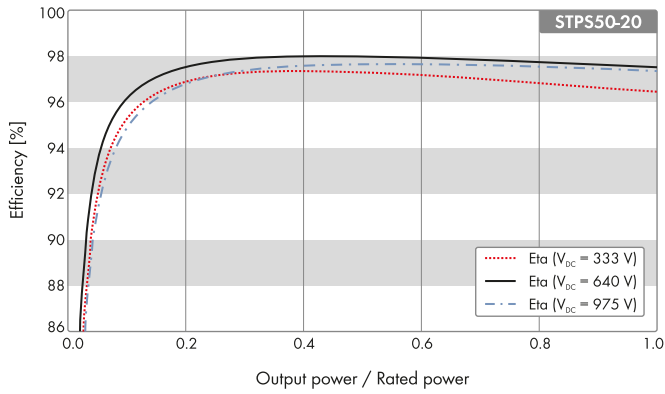
● Standard equipment ○ Optional – Not available Data at nominal conditions Last revised: 03/2023

1) Supported devices: SMA EV Charger Business, PV inverter, Sunny Tripower, and Energy Meter

2) eProduct in preparation

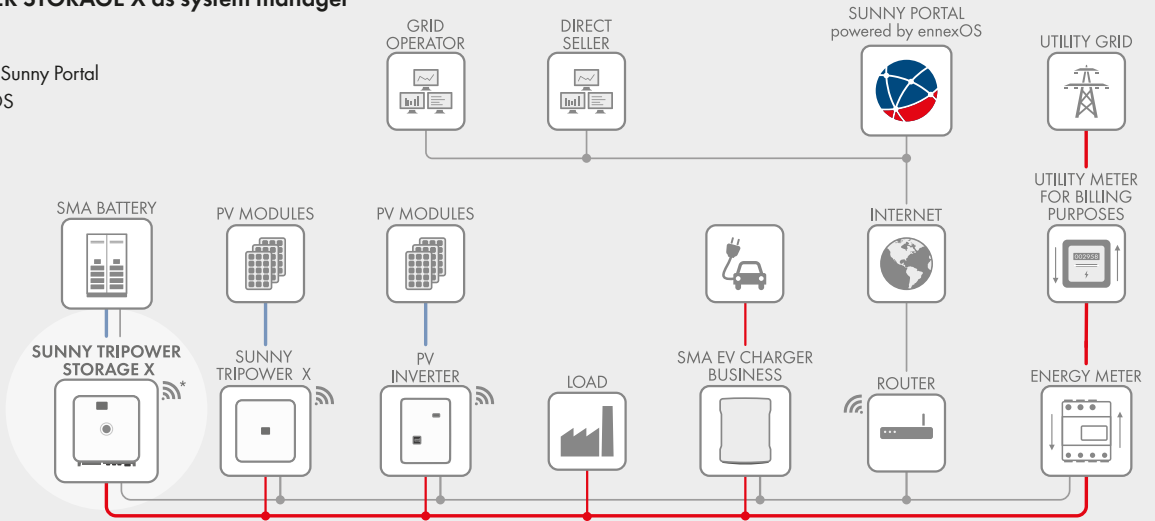
3) only for commissioning

## Efficiency curve



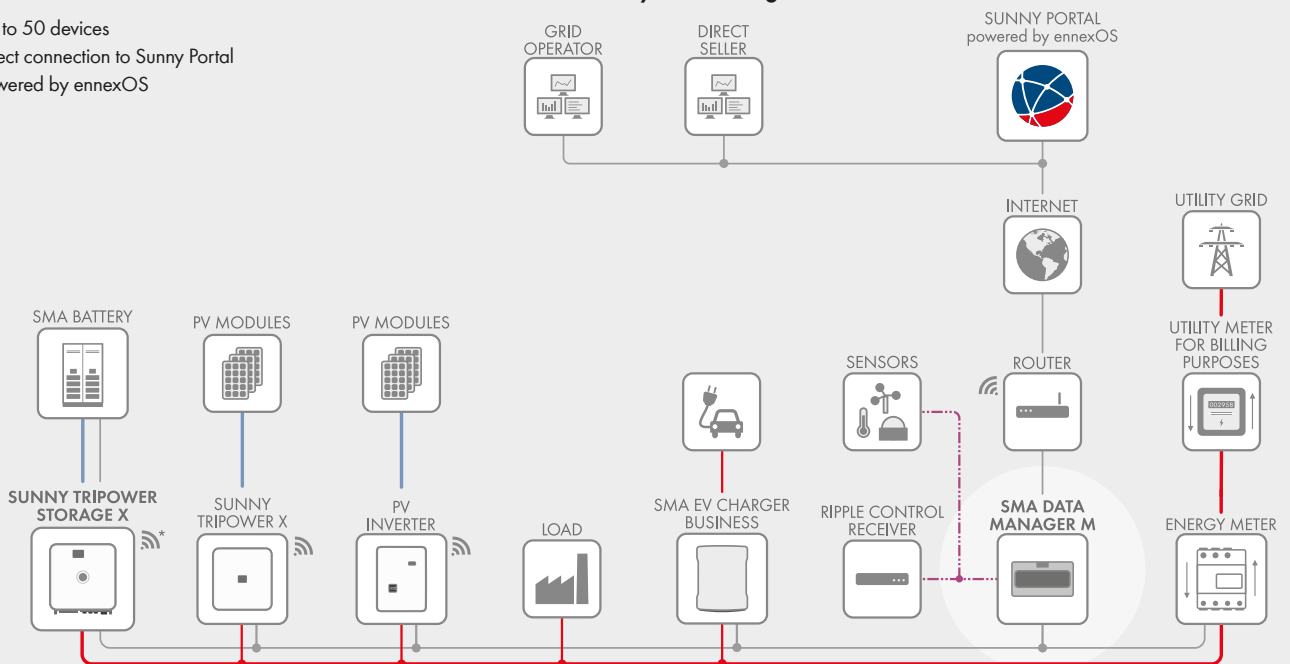
### SUNNY TRIPOWER STORAGE X as system manager

- Up to 5 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