

SMA Backup for Sunny Tripower Hybrid X

Battery backup power supply and automatic switchover device between grid-connected and off-grid operation

Battery backup for the entire building

- Protect all loads in the household (max. 63 A continuous current)
- Automatic switching in case of grid failure
- Black start capability for restart, even during prolonged grid failures
- Configurable backup reserve

Efficient and robust for everyday use

- No self-consumption during grid operation
- ≤ 4 W consumption in backup mode
- Standard components with proven technology

Adjustable to system and country specifications

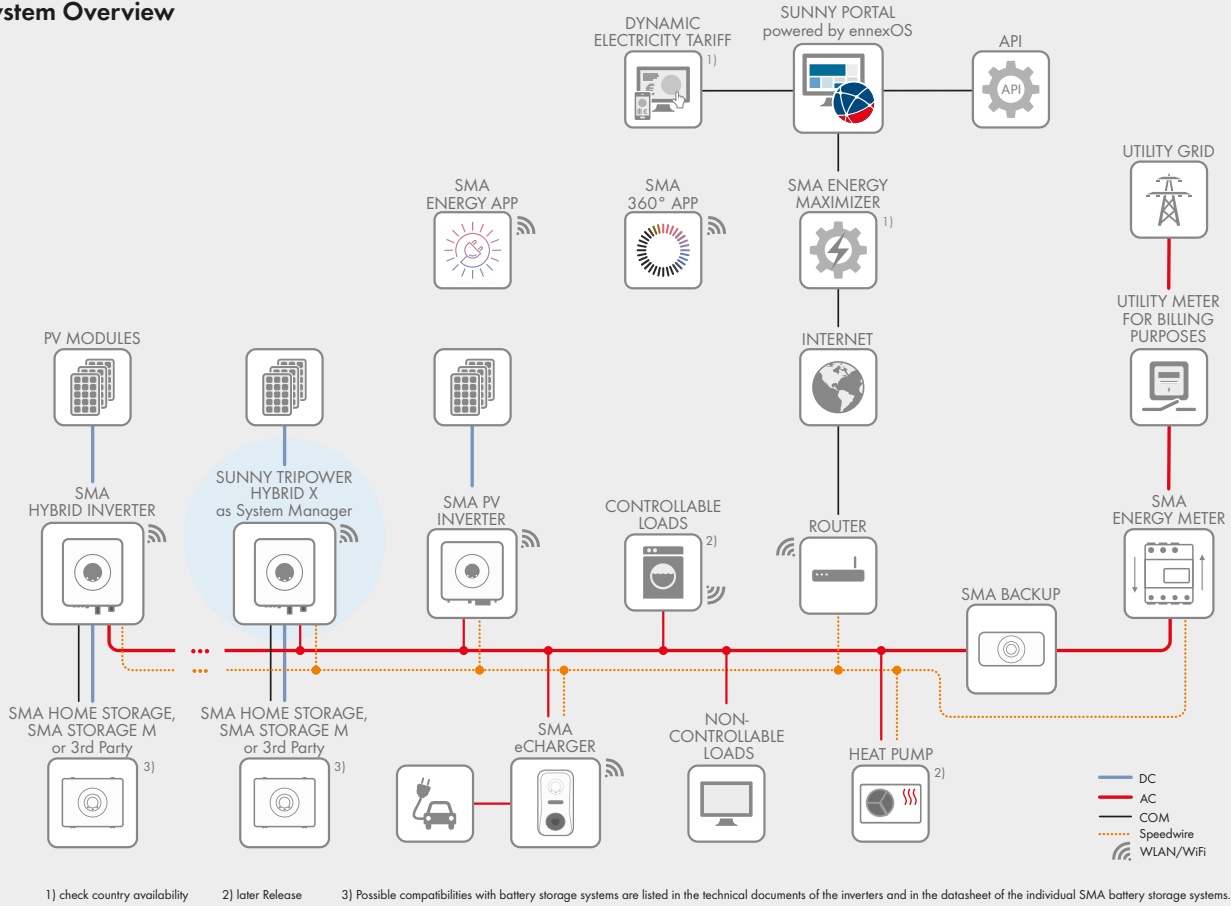
- Versions for 3-pole or 4-pole grid disconnection
- Parallel operation of up to three hybrid inverters for maximum security of supply
- Versions as separate backup box or pre-configured kit for DIN rail mounting

The SMA backup solution for the Sunny Tripower Hybrid X provides an automatic and reliable battery backup power supply for three-phase households.

In case of grid failure, the system safely disconnects the building from the utility grid and takes over the power supply of all connected loads up to 63 A continuous current. In grid operation, the solution works without self-consumption and seamlessly integrates into the overall system in an energy-efficient manner.

The backup solution is available in 3-pole or 4-pole versions as well as a separate box or a pre-configured kit for DIN rail mounting, and can be flexibly integrated both into new or existing installations. Functions such as parallel operation of several inverters, black start or a configurable backup reserve enable an efficient and reliable battery backup solution for various applications. When combined with the Sunny Tripower Hybrid X inverter and an electricity storage system by SMA, the result is a robust battery-backup system that sustainably increases the security of supply – without sacrificing comfort.

System Overview



Technical Data	SMA Backup (3P, 63A, Kit)	SMA Backup (3P, 63A, Box)	SMA Backup (4P, 63A, Kit)	SMA Backup (4P, 63A, Box)
Compatible with the following inverters	Sunny Tripower Hybrid X: STPH5-60, STPH6-60, STPH8-60, STPH10-60, STPH12-60, STPH15-60 STPH20-70, STPH25-70, STPH30-70			
Grid-parallel operation				
Nominal voltage	230 V / 400 V			
AC grid frequency / range	50 Hz			
Max. permissible continuous current	63 A			
Grid types	TN-S / TN-C-S		TT / TN-S / TN-C-S	
Battery backup				
Grid disconnection	3-pole disconnection		4-pole disconnection	
Switching mode	automatic			
Switching of the neutral conductor	NA		leading or simultaneously	
Switching times (adjustable)				
Parallel grid operation in battery-backup system	1 s to 600 s (default: 5 s)			
Battery-backup system in parallel grid operation	1 s to 600 s (default: 5 s)			
General Data				
Dimensions (W / H / D)	249 mm x 170 mm x 110 mm	506 mm x 260 mm x 236 mm	249 mm x 250 mm x 110 mm	506 mm x 260 mm x 236 mm
Weight	1.5 kg	5.5 kg	2.5 kg	6.6 kg
Installation site	Indoor	Indoor / outdoor	Indoor	Indoor / outdoor
Mounting type	DIN rail	Wall mounting bracket	DIN rail	Wall mounting bracket
Recommended preliminary fuse on the grid side	50 A			
Degree of protection (according to IEC 60529)	IP20	IP65	IP20	IP65
Operating temperature range	-10°C to +30°C	-40°C to +45°C ¹⁾	-10°C to +30°C	-40°C to +45°C ¹⁾
Storage/transport temperature range	-40°C to +70°C			
Maximum height above mean sea level	3000 m			
Maximum permissible value for relative humidity (non-condensing)	4% to 100%	0% to 100%	4% to 100%	0% to 100%
Self-consumption in parallel grid operation	0 W			
Self-consumption in battery-backup system	2 W		4 W	
Warranty	2 years	2 years	2 years	2 years
Type designation	BU-STPH-3P63K	BU-STPH-3P63B	BU-STPH-4P63K	BU-STPH-4P63B

1) In case of additional components in the box (e.g. SMA Energy Meter, fuses, etc.), observe temperature limitation to 35°C

Status: 05/2026