



TESVOLT
Free to go green.

TESVOLT TAYTAN

*The future of storage system technology
with digital security, made in Germany.*



Security

Data security – **Infineon cybersecurity** chip technology.
Energy security – ready for **energy trading**.
Service security – **over-the-air updates & digital services**.



Efficiency

Up to **15,000 cycles** ensure high energy throughput and **optimum economic efficiency** with a guarantee of up to **12 years**.



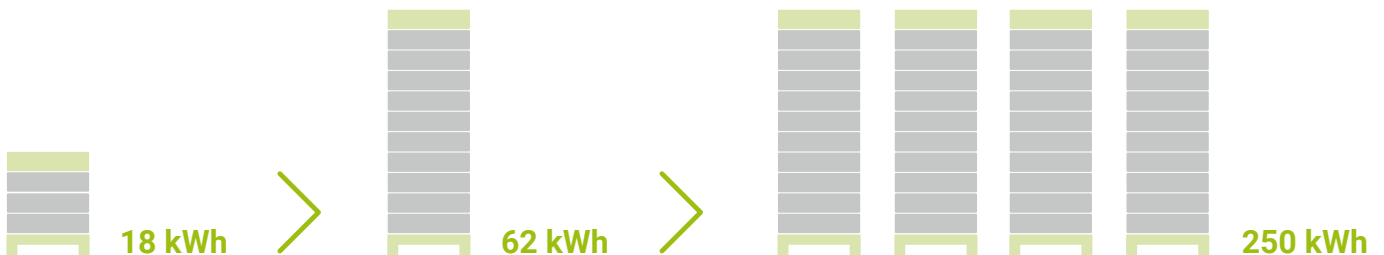
Flexibility

3–10 battery modules per battery string and up to 4 strings per inverter.
Can be expanded at module level without additional hardware.



Power

1C charging and discharging current (75 A) with high efficiency and innovative **passive cooling** for **power-intensive applications** like back-up power and charging station infrastructure.



Technical Data Sheet

TESVOLT TAYTAN

Technical data TESVOLT TAYTAN

Product name		TESVOLT TAYTAN							
Type designation		TAYTAN/ 03-40	TAYTAN/ 04-40	TAYTAN/ 05-40	TAYTAN/ 06-40	TAYTAN/ 07-40	TAYTAN/ 08-40	TAYTAN/ 09-40	TAYTAN/ 10-40
DC output									
Energy content (at 100% DoD) @ 25 °C, 0.3C		18.75 kWh	25.00 kWh	31.25 kWh	37.50 kWh	43.75 kWh	50.00 kWh	56.25 kWh	62.50 kWh
Nominal output (battery)		18.75 kW	25.00 kW	31.25 kW	37.50 kW	43.75 kW	50.00 kW	56.25 kW	62.50 kW
Nominal voltage		249 V \approx	332 V \approx	416 V \approx	499 V \approx	582 V \approx	665 V \approx	748 V \approx	832 V \approx
Operating voltage in V \approx		223...276	297...369	371...461	445...553	519...646	593...738	667...830	741...923
Rated capacity		75 Ah							
Nominal/maximum charging current		75 A \approx / 88 A \approx for 5s @16 °C \leq T \leq 50 °C							
Nominal/maximum discharging current		75 A \approx / 88 A \approx for 5s @1 °C \leq T \leq 50 °C							
Nominal output / C-rate	SMA SI X 30	-	-	30 kW / 1.00C	30 kW / 0.84C	30 kW / 0.72C	30 kW / 0.63C	30 kW / 0.56C	30 kW / 0.50C
	SMA SI X 50	-	-	-	-	-	-	50 kW / 0.93C	50 kW / 0.80C
Efficiency									
Round-trip efficiency / max. efficiency (battery)					In development				
Self-consumption (standby)					In development				
Operating conditions									
Permitted operating temperature					-20...50 °C				
Permitted ambient temperature					-20...50 °C				
Recommended ambient temperature					15...30 °C				
Humidity					5...95% (non-condensing)				
Installation site					Indoor and covered outdoor area				
Altitude of installation site					\leq 3000 m above sea level				
Cooling concept					Passive cooling				
Weight	Total	216 kg	278 kg	340 kg	402 kg	464 kg	526 kg	588 kg	650 kg
	Module	62 kg							
	BMU	18.5 kg							
	Base	11.5 kg							
Dimensions (H x W x D)		791 x 754	950 x 754	1110x754	1270x754	1430x754	1589x754	1750x754	1909x754
Without wall clearance		x 465 mm	x 465 mm	x 465 mm	x 465 mm	x 465 mm	x 465 mm	x 465 mm	x 465 mm
Degree of protection		IP 55							
IK rating		In development							
Protection class / overvoltage category					I / II				
Pollution degree					In development				
General data									
Warranty				Up to 12 years warranty (performance)					
Guaranteed energy throughput				35.8 MWh per module					
@100% DoD 65% SoH -20...50 °C 1C/1C									
Cycles expected				15.000					
@100% DoD 65% SoH -20...50 °C 0.5C/0.5C									
Expandability in the string / with additional strings					Up to 2 years / unlimited				
Battery type				Rechargeable industrial lithium-ion battery					
Cell				Lithium iron phosphate (LFP)					
Certification/standards	Battery cell	UN 38.3 / IEC 62619 / UL 1973 / UL 9540A							
	Module	UN38.3 / IEC 62619							
	System	IEC 63056:2020 / IEC 62619:2022 / VDE-AR-E 2510-50:2017 / IEC 61010-1:2020 / EN 61508: 2010 Part 1-7 - SIL 2							

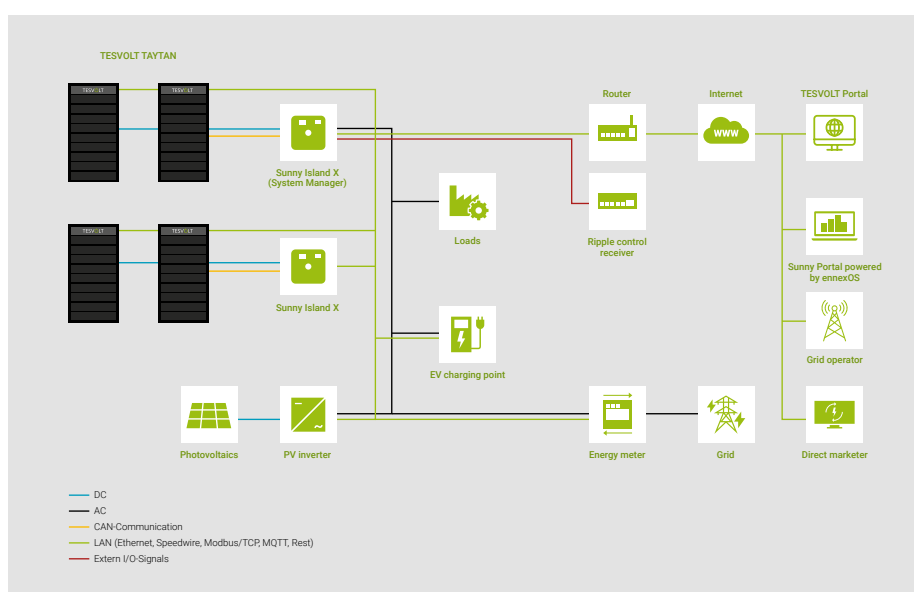
Technical Data Sheet

TESVOLT TAYTAN

Technical data battery inverter Sunny Island X

Product name	Sunny Island X 30 (SI X 30)	Sunny Island X 50 (SI X 50)
Type designation	SI30-20	SI50-20
Power supply (AC)		
Nominal power (AC)	30 kW	50 kW
Max. AC apparent power	30 kVA	50 kVA
Max. output current	45.6 A per phase	75.5 A per phase
AC nominal voltage / AC voltage range	400 V / 187...528 V	
Rated grid frequency / grid frequency range	50 Hz or 60 Hz / 44...66 Hz	
Power factor at rated power / adjustable displacement power factor	1 / 0 overexcited to 0 underexcited	
Connection line conductors	5 (L1, L2, L3, N, PE)	
Efficiency		
Max. efficiency / European efficiency	98.0% / 97.6%	98.0% / 97.2%
Self-consumption (standby)	25 W	
Mechanical data		
Dimensions (H x W x D)	837.3 x 772 x 443.8 mm	
Weight	104 kg	
Noise emission, typical	69 dB (A)	
Operating temperature range	-25 °C to 60 °C (with derating from 45 °C)	
Degree of protection	IP 65 / NEMA 4X	
Protection class / overvoltage category	I / DC: II, AC: III	
Permitted maximum value for relative humidity	95% (non-condensing)	
Topology / cooling concept	3-phasig / aktiv	
General data		
Warranty	5 + 5* years SMA warranty (*after successful SMA product registration)	
Energy management functions (integrated)	Self-consumption optimisation, peak load shaving, multi-use, zero feed-in	
Number of supported devices	11 (system manager function) / 50 (Data Manager M)	
Additional information	SMA website	

System configuration



The product is currently under development. The information and/or technical data shown are based on the current state of development and may change until the start of series production. This data sheet is for product information purposes only and is not legally binding. The actual specifications and/or product features (especially in the case of further product development) may differ slightly. Errors and changes excepted. Please read the safety and installation instructions carefully and completely before using the product. The currently valid guarantee declarations and the general terms and conditions of delivery and business of TESVOLT AG apply on purchase.

Technical Data Sheet

TESVOLT TAYTAN

System configuration TESVOLT TAYTAN with Sunny Island X

		Number of battery modules per string*								
Total number of strings	Unit	5	6	7	8	9	10			
12	kWh	375	450	525	600	675	750			
11		343	412	481	550	618	687			
10		312	375	437	500	562	625			
9		281	337	393	450	506	562			
8		250	300	350	400	450	500			
7		218	262	306	350	393	437			
6		187	225	262	300	337	375			
5		156	187	218	250	281	312			
4		125	150	175	200	225	250			
3		93	112	131	150	168	187			
2	62	75	87	100	112	125				
1	31	37	43	50	56	62				
Output [kW]								30	60	90
Number of Sunny Island X 30								1	2	3

		Number of battery modules per string*						
Total number of strings	Unit	9	10					
20	kWh	1125	1250					
19		1068	1187					
18		1012	1125					
17		956	1062					
16		900	1000					
15		843	937					
14		787	875					
13		731	812					
12		675	750					
11		618	687					
10		562	625					
9		506	562					
8		450	500					
7		393	437					
6		337	375					
5		281	312					
4		225	250					
3		168	187					
2		112	125					
1		56	62					
Output [kW]				50	100	150	200	250
Number of Sunny Island X 50				1	2	3	4	5

*Mixing the number of battery modules when connecting strings in parallel is not permitted.