

Technical Data Sheet

TESVOLT FORTON

Technical Data TESVOLT FORTON

Product name	TESVOLT FORTON
Type designation	FORTON/11-30
DC output	
Energy content (at 100% DoD)	84 kWh
Maximum charging/discharging power	84 kW
Nominal voltage	845 V \approx
Operating voltage	739.2...950.4 V \approx
Rated capacity	100 Ah
Max. C-rate	1C
Operating conditions	
Ambient temperature	-20...55 °C
Air humidity	5...95% (non-condensing)
Altitude of installation site	≤ 3000 above sea level
Cooling	Active, heat exchanger, air-cooled
Weight (without battery inverter)	1300 kg
Dimensions (H x W x D) without battery inverter	2100 x 860 x 1300 mm
Degree of protection	IP 55
Coating	C4
Noise level (without battery inverter)	60 dB (A)
General data	
Warranty	12-year capacity warranty / 5-year product warranty
Battery type	Rechargeable lithium-ion industrial battery
Cell chemistry	Lithium iron phosphate (LFP), high temperature
Certification	CE, UN 38.3, IEC 62619:2022, IEC 62477-1:2022



Technical Data Sheet

TESVOLT FORTON

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 772.0 x 443.8 mm	
Weight	104 kg	
Noise emission, typical	69 dB (A)	
Operating temperature range	-25...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-phase / active	
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 TESVOLT FORTON with Sunny Island X

TESVOLT FORTON with SMA SI X is supplied with a maximum of three energy storage units per battery inverter. A maximum of two expansion cabinets may be used per main cabinet.

Number of energy storage systems	Energy [kWh]																
16	1352																
15	1267																
14	1183																
13	1098																
12	1014																
11	929																
10	845																
9	760																
8	676																
7	591																
6	507																
5	422																
4	338																
3	253																
2	169																
1	84																
Output [kW]	SMA SI X 30	30	60	90	120	150	180	210	240	270	300	330	360	390	420	450	480
	SMA SI X 50	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Number of battery inverters		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

A maximum of three energy storage units can be connected to a single battery inverter.