

SolarMax SHT-Series

17SHT • 20SHT • 22SHT • 25SHT • 28SHT • 30SHT

The perfect three-phase inverter for medium-sized and large commercial and industrial plants



- String fuses from 25SHT integrated
- Dual MPP tracker for optimum energy yield
- High efficiency
- Wide input voltage range
- Protection class IP65, suitable for outdoor use
- Compact size and high power-to-weight ratio
- Quick and easy installation with MaxLink APP
- WLAN interface
- Optional with LCD display
- APP & Monitoring Portal
- 5 year warranty (optional 10 year warranty)
- Service-hotline

SolarMax SHT-Series

Technical specifications

		17SHT	20SHT	22SHT	25SHT	28SHT	30SHT	
Input values	MPP voltage range	180 V ... 950 V	180 V ... 950 V	180 V ... 950 V	180 V ... 950 V	180 V ... 950 V	180 V ... 950 V	
	MPP voltage range at nominal power	480 V ... 800 V	480 V ... 800 V	480 V ... 800 V	480 V ... 800 V	480 V ... 800 V	480 V ... 800 V	
	Maximum DC voltage	1,000 V						
	Minimum DC voltage for startup	250 V						
	Minimum DC voltage for shutdown	180 V						
	Maximum DC current	50 A (2 x 25 A)			75 A (2 x 37.5 A)			
	Maximum DC short circuit current	60 A (2 x 30 A)			84 A (2 x 42 A)			
	Number of MPP trackers	2						
	Maximum PV output per MPPT ¹⁾	MPPT1: 14,000 W / MPPT2: 14,000 W			MPPT1: 19,500 W / MPPT2: 19,500 W			
	Number of string connections	4 (2/2)			6 (3/3)			
Connection type	Amphenol H4 (type MC4)							
Output values	Rated output power	17,000 W	20,000 W	22,000 W	25,000 W	28,000 W	30,000 W	
	Maximum output apparent power	18,700 VA	22,000 VA	24,200 VA	27,500 VA	30,800 VA	33,000 VA	
	Maximum AC current	3 x 28.3 A	3 x 33.5 A	3 x 35 A	3 x 40 A	3 x 45 A	3 x 48 A	
	Mains nominal voltage	400 V (3 L + N + PE)						
	Mains voltage range	277 V ... 520 V (adjustable)						
	Mains frequency	50 Hz / 60 Hz						
	Mains frequency range	45 Hz ... 55 Hz / 55 Hz ... 65 Hz						
	Power factor cos (φ)	Adjustable from 0.8 overexcited to 0.8 underexcited						
	Distortion factor at rated output power	< 3 %						
	Power input at night	< 1 W						
	Connection type	Connector						
	Efficiency	Maximum efficiency	98.2 %	98.2 %	98.2 %	98.2 %	98.2 %	98.2 %
Euro efficiency		97.7 %	97.7 %	97.7 %	97.7 %	97.7 %	97.7 %	
Ambient conditions	Protection class	IP65						
	Ambient temperature range	- 25 °C ... + 60 °C (Nominal power up to + 45 °C)						
	Relative humidity	0 % ... 100 % (not condensing)						
	Cooling	Air cooling			With fan			
	Maximum operating height above sea level	2,000 m (without derating) / 4,000 m max						
	Audible noise emissions	< 30 dB(A) @ 1 m			< 50 dB(A) @ 1 m			
Configuration	Display	App over WLAN connection + LED, optional with LCD display						
	Inverter topology	Transformerless						
	DC disconnect	Integrated						
	DC polarity inversion protection	Integrated						
	Residual Current Monitoring Unit (RCMU)	Integrated						
	Grid protection interface	Integrated						
	Protection class (IEC 62109-1)	I						
	Overvoltage category (IEC 62109-1)	AC: III / DC: II						
AC/DC surge arrester	Type 2 / Type 2							
Standard and guidelines	EMV	EN 61000-6-2, EN 61000-6-4						
	Grid connection	EN50549-1, EN50549-2, VDE-AR-N 4105, VDE-AR-N 4110 ²⁾ , IEC 61727, IEC 62116, VDE 0126-1-1, CEI 0-21						
	Device safety	IEC 62109-1, IEC 62109-2						
Interfaces	Data communication	WLAN, RS485 (optional: GPRS)						
Weight and dimensions	Weight	37 kg			40 kg			
	Dimensions (W x H x D)	555 mm x 446 mm x 270 mm						
Warranty	Standard warranty	5 years / optional 10 years						

¹⁾ Higher connected load permissible, but cannot be used by the inverter.

²⁾ Prototype certificate according to VDE-AR-N 4110:2018 (only for 25SHT, 28SHT & 30SHT).

