TL Series

- TL3200
- TL4000
- TL4600
- TL5400



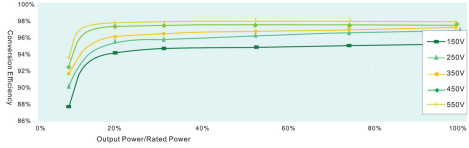
Features:

- Maximum efficiency of 97.6%
- Wide range of DC input and MPPT voltage
- Low turn-off DC voltage
- With integrated DC-switch or without DC-switch for preference
- High protection class:IP65
- Comprehensive function of fault detection
- Certificate: G83/1,SAA, VDE, CE,ENEL Guide, RD1663,CQC
- Single-phase feed-in design
- High reliability

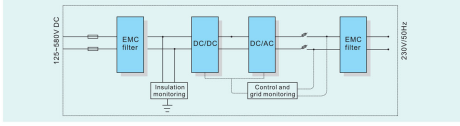
Certificates:

G83 SAA VDE GS CE ENEL Guide RD1663 CQC

Efficiency Curve:



Circuit Diagram:



Technical Specifications:

	TL3200	TL4000	TL4600	TL5400
DC input data				
Max. PV-generator power [W]	3200	4000	4600	5400
Max. DC voltage [V]	580	680	680	680
MPPT voltage range [V]	115-530	115-550	115-550	115-550
Turn-off DC voltage [V]	115	115	115	115
Max. DC current [A]	20	20	20	25
Nominal DC current [A]	18	18	18	22.5
Number of DC connection	1	2	2	2
Number of MPP trackers	1	1	1	2
DC-connection			MC4	
Turn-on power [W]			10	
DC-switch			Optional	
Output data				
AC connector			Plug-in connector	
Power connection			Single phase	
Rated AC power [W]	2800	3600	4000	4600
Max. AC power [W]	3080	4000	4400	5060
Grid voltage range		187-264 (VDE 0126-1-1)/ 207-264 (G83/1)/ 196-253 (RD1663)/200-270 (AS4777)/ 184-276(ENEL Guide line)		
Grid frequency range		47.5-50.2 (VDE 0126-1-1)/ 47-50.5 (G83/1)/ 49-51 (RD1663)/45-55 (AS4777)/ 49.7-50.3 (ENEL Guide line)		
Rated current [A]	12.2	15.6	17.4	20
Max. current [A]	15. 4(others)/ 14. 9(G83/1)	20(others)/ 16(G83/1)	22(others)/ 16(G83/1) /	25.3(others) / 24.4(G83/1)
Power factor	0.99	0.99	0.99	0.99
Harmonic distortion (THD) at rated output	<2%	<2%	<2%	<2%
Power consumption at night [W]	<0.2	<0.2	<0.2	<0.2
Power consumption at standby [W]	6	6	6	6
Efficiency				
Max. efficiency			97.60%	
Euro efficiency			97.00%	
MPPT adaptation efficiency			99.50%	
Safety equipment				
Internal overvoltage protection			Integrated	
DC insulation monitoring			Integrated	
Earth fault protection			Integrated	
Mains monitoring			Integrated	
Earth fault current monitoring			Integrated	
DC current monitoring			Integrated	
Islanding effect monitoring			AFD	
General data				
Dimensions (L*W*H) [mm]	608*347*165	608*347*165	608*347*165	608*347*165
Net weight [kg]	20.9	21.4	21.4	23.5
Installation environment	Indoor and outdoor		Indoor and outdoor	
Mounting information	Wall bracket		Wall bracket	
Operating temperature range	-20°C to +60°C(up 45°C derating)		-20°C to +60°C(up 40°C derating)	
Relative humidity	0% to 98%, no condensation		0% to 98%, no condensation	
Site altitude	Up to 2000m without derating above sea level		Up to 2000m without derating above sea level	
IP protection type	IP 65 according to IEC 60529		IP 65 according to IEC 60529	
Isolation type	Transformerless		Transformerless	
Cooling concept	Convection		Convection	
Noise level	<40 dBA		<40 dBA	
LED display	3		3	
LCD display	Backlight, 16*2 Character LCD		Backlight, 16*2 Character LCD	
Data logger	RS485, Wireless(Optional)		RS485, Wireless(Optional)	
Computer communication	USB(Optional)		USB(Optional)	
Standard warranty	5 years		5 years	