

## Technical Data



SGN3400TL  
 SGN4000TL  
 SGN4600TL  
 SGN5400TL

## Features:

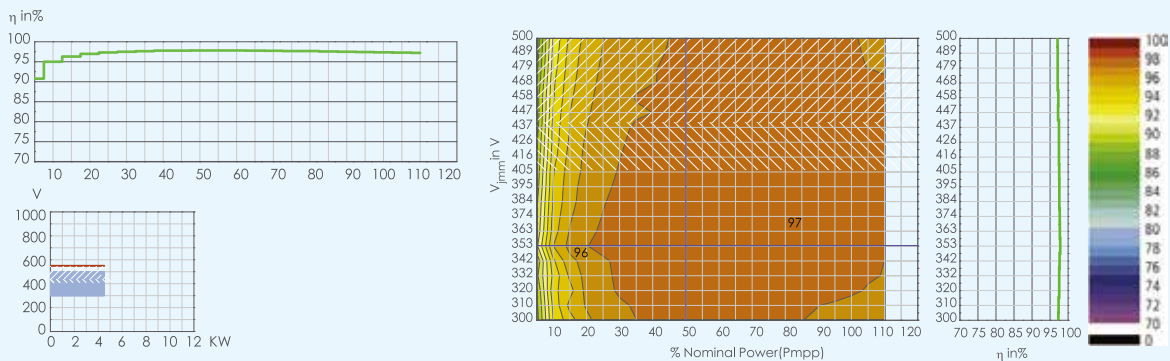
- > Max efficiency 97.8%
- > High efficiency across wide operation range
- > Wide range of input DC and MPPT voltage
- > Low turn-off DC voltage
- > IP65 protection against water and dust
- > Dual independent MPPT input
- > DC switch option



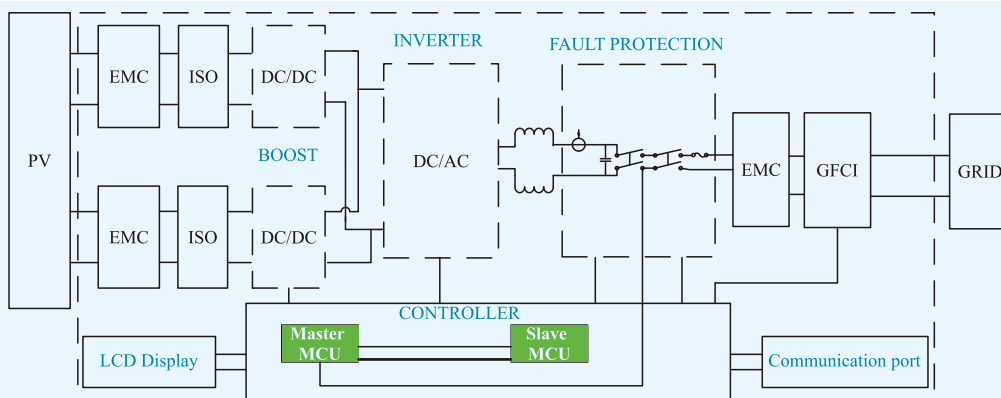
## Certificates and Approvals:

CE, NB/T32004-2013(CQC), VDE AR-N-4105, VDE 0126-1-1+A1, G83/1, G83/2, G59/2, G59/3, EN50438, AS4777(SAA), CEI 0-21, RD1663, IEC61727, ROHS, REACH

## Efficiency Curve From Photon Lab (SGN4600TL):



## Circuit Diagram:



# SGN Series

## SGN3400TL / SGN4000TL / SGN4600TL / SGN5400TL

Model	SGN3400TL	SGN4000TL	SGN4600TL	SGN5400TL
Rated AC power	3000 W	3680 W	4000 W	4600 W
Maximum AC power	3300VA	3680 VA	4400 VA	5000 VA
<b>Input</b>				
Maximum input power	3400 W	4000 W	4600 W	5400 W
Maximum DC input voltage	580 Vdc	580 Vdc	580 Vdc	580Vdc
MPPT operating voltage range	90 - 530 Vdc	90 - 530 Vdc	90 - 530 Vdc	90 - 530 Vdc
Startup voltage	90 Vdc	90 Vdc	90 Vdc	90 Vdc
Initial feeding voltage	110 Vdc	110 Vdc	110 Vdc	110 Vdc
MPPT number	2	2	2	2
Maximum input current	12 Adc / 12 Adc	12 Adc / 12 Adc	12 Adc / 12 Adc	12 Adc / 12 Adc
Number of DC inputs	1+1	1+1	1+1	1+1
DC switch	Optional	Optional	Optional	Optional
<b>Output</b>				
AC nominal voltage	220 / 230 /240 Vac			
AC connection	Single phase			
AC voltage Range	180 - 270 V (May vary as per corresponding country's grid standard)			
Frequency range	50 Hz, 60Hz / -5 Hz ... +5 Hz			
Power factor	> 0.99 , 0.8 leading...0.8 lagging controllable			
Maximum output current	16.0 Aac	16.9 Aac	22.5 Aac	26.0 Aac
DC current injection	< 20 mA	< 20 mA	< 20 mA	< 20 mA
THDi	< 1%	< 1%	< 1%	< 1%
<b>System</b>				
Maximum efficiency	> 97.8 %	> 97.8%	> 97.8%	> 97.8%
European efficiency	> 96.9%	> 97.3%	> 97.3%	> 97.3%
MPPT efficiency	> 99.9%	> 99.9%	> 99.9%	> 99.9%
Night power consumption	< 0.2 W	< 0.2 W	< 0.2 W	< 0.2 W
Topology	Transformerless			
Heat dissipation	Nature Convection			
Insulation monitoring	Yes			
DC reverse-polarity protection	Yes			
AC over current protection	Yes			
Anti-Islanding protection	Yes			
Residual current detection	Yes			
Thermal protection	Yes			
<b>General Parameters</b>				
Dimensions(W×H×D)	500 x 360 x 150 mm			
Weight	21 kg	21 kg	21 kg	21 kg
Display	LCD 2 x 16 Characters			
Function key	1	1	1	1
Data interface	RS232 / RS485/ RS422 / Ethernet / WiFi / GPRS / USB			
Ambient temperature range	-25 °C - +60 °C			
Operating altitude	< 2000 m			
Protection degree	IP65			
Noise emission	< 30dB			
Warranty	Standard 5 years 10/15/20/25 years extension optional			
<b>Certifications</b>				
Safety/EMC	IEC62109-1, IEC62109-2, EN61000-6-2, EN61000-6-3, AS/NZS3100			
Grid code	NB/T32004-2013(CQC), VDE AR-N-4105, VDE 0126-1-1+A1, G83/1, G83/2, G59/2, G59/3, EN50438, AS4777(SAA), CEI 0-21, RD1663, IEC61727, UTE C15-712, MEA, PEA			