

Technical Data



SGN3400TL
SGN4000TL
SGN4600TL
SGN5400TL
SGN6600TL

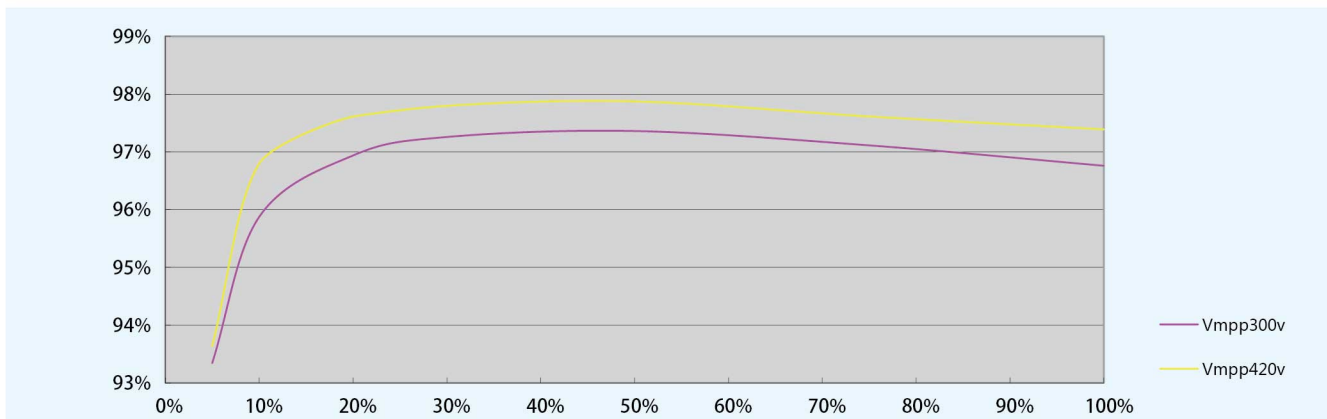
Features:

- > Max efficiency 98.1%
- > 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

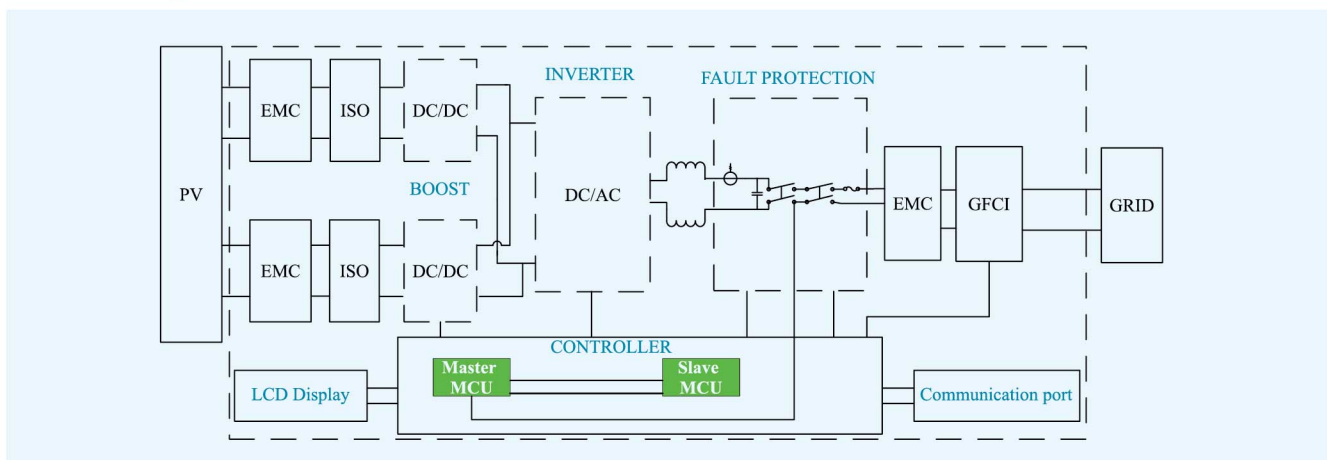
Certificates and Approvals:

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 / SGN6600TL

| Model | SGN3400TL | SGN4000TL | SGN4600TL | SGN5400TL | SGN6600TL |
|--------------------------------|--|-----------------|-----------------|-----------------|-----------------|
| Rated AC power | 3000 W | 3680 W | 4000 W | 4600 W | 6000 W |
| Maximum AC power | 3300VA | 3680 VA | 4400 VA | 5000 VA | 6000 VA |
| Input | | | | | |
| Maximum input power | 3400 W | 4000 W | 4600 W | 5400 W | 6600 W |
| Maximum DC input voltage | 580 Vdc | 580 Vdc | 580 Vdc | 580 Vdc | 580 Vdc |
| MPPT operating voltage range | 90 - 530 Vdc | 90 - 530 Vdc | 90 - 530 Vdc | 90 - 530 Vdc | 90 - 530 Vdc |
| Startup voltage | 90 Vdc | 90 Vdc | 90 Vdc | 90 Vdc | 90 Vdc |
| Initial feeding voltage | 110 Vdc | 110 Vdc | 110 Vdc | 110 Vdc | 110 Vdc |
| MPPT number | 2 | 2 | 2 | 2 | 2 |
| Maximum input current | 12 Adc / 12 Adc | 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 | 1+1 |
| DC switch | Optional | Optional | Optional | Optional | Optional |
| Output | | | | | |
| 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 | 27.3 Aac |
| DC current injection | < 20 mA | < 20 mA | < 20 mA | < 20 mA | < 20 mA |
| THDi | < 1% | < 1% | < 1% | < 1% | < 1% |
| System | | | | | |
| Maximum efficiency | > 97.8% | > 97.8% | > 97.8% | > 97.8% | > 97.8% |
| European efficiency | > 97.3% | > 97.3% | > 97.3% | > 97.3% | > 97.3% |
| MPPT efficiency | > 99.9% | > 99.9% | > 99.9% | > 99.9% | > 99.9% |
| Night power consumption | < 0.2 W | < 0.2 W | < 0.2 W | < 0.2 W | < 0.2 W |
| Topology | Transformerless | | | | |
| Heat dissipation | Natural Convection | | | | |
| Insulation monitoring | Integrated | | | | |
| DC reverse-polarity protection | Integrated | | | | |
| AC over current protection | Integrated | | | | |
| Anti-Islanding protection | Integrated | | | | |
| Residual current detection | Integrated | | | | |
| Thermal protection | Integrated | | | | |
| General Parameters | | | | | |
| Dimensions(W×H×D) | 500 x 360 x 150 mm | | | | |
| Weight | 21 kg | 21 kg | 21 kg | 21 kg | 21 kg |
| Display | LCD 2 x 16 Characters | | | | |
| Function key | 1 | 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 | | | | |
| Certifications | | | | | |
| Safety/EMC | IEC62109-1, IEC62109-2, EN61000-6-2, EN61000-6-3, AS/NZS3100 | | | | |
| Grid code | VDE AR-N-4105, VDE 0126-1-1+A1, AS4777, CEI021, G83/1, G83/2, G59/2, G59/3, RD1663, IEC61727, UTE C15-712, MEA, PEA,EN50438,IEC61727 | | | | |