SUNGROW

# SG500MX/SG630MX

## High Yield

- Efficient three-level topology, max. efficiency up to 99 %
- Long-term overload at 1.1 Pn
- Full power operation without derating at 55 ℃

## Easy O&M

- Integrated zone current monitoring function for fast trouble shooting
- Modular design and front service, easy for maintenance

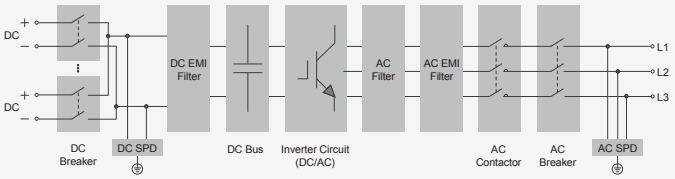
## Saved Investment

- Max. DC/AC ratio up to 1.3
- Integrated SVG function

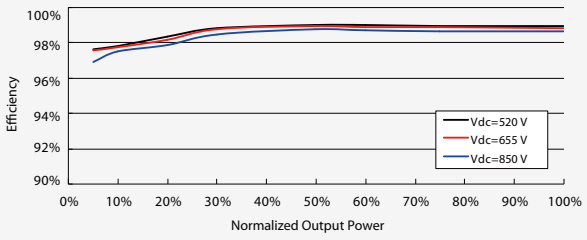
## Grid Support

- Compliance with standards: CE, IEC 62109, IEC 61727, IEC 62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

### Circuit Diagram




### Efficiency Curve



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# SG500MX/SG630MX

| Input (DC) | SG500MX | SG630MX |
|---|---|---|
| Max. PV input voltage | 1000 V | |
| Min. PV input voltage / Startup input voltage | 460 V / 500 V | 520 V / 540 V |
| MPP voltage range for nominal power | 460 – 850 V | 520 – 850 V |
| No. of independent MPP inputs | 1 | |
| No. of DC inputs | 6 – 10 | |
| Max. PV input current | 1220 A | 1356 A |
| Max. DC short-circuit current | 1460 A | 1695 A |

| Output (AC) | | |
|---|---|---|
| Nominal AC power (at 55 ˚C) | 500 kW | 630 kW |
| Max. AC output power at PF=1 (at 50 ˚C) | 550 kW | 693 kW |
| Max. AC apparent power (at 50 ˚C) | 550 kVA | 693 kVA |
| Max. AC output current | 1008 A | 1111 A |
| Nominal AC voltage | 315 V | 360 V |
| AC voltage range | 252 – 362 V | 288 – 414 V |
| Nominal grid frequency / Grid frequency range | 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz | |
| THD | < 3 % (at nominal power) | |
| DC current injection | < 0.5 % In | |
| Power factor at nominal power / Adjustable power factor | > 0.99 / 0.8 leading – 0.8 lagging | |
| Feed-in phases / Connection phases | 3 / 3 | |

| Efficiency | |
|---|---|
| Max. efficiency / Euro. efficiency | 99.0 % / 98.7 % |

| Protection | |
|---|---|
| DC reverse connection protection | Yes |
| DC input protection | Circuit breaker |
| AC output protection | Circuit breaker |
| Overvoltage protection | DC Type II / AC Type II |
| Grid monitoring / Ground fault monitoring | Yes / Yes |
| Insulation monitoring | Yes |
| Overheat protection | Yes |
| Anti-PID function | Optional |

| General Data | | |
|---|---|---|
| Dimensions (W*H*D) | 1005*1915*835 mm | |
| Weight | 800 kg | |
| Isolation method | Transformerless | |
| Degree of protection | IP21 | |
| Night power consumption | < 20 W | |
| Operating ambient temperature range | -30 to 65 ℃ (> 55 ℃ derating) | |
| Allowable relative humidity range (non-condensing) | 0 – 95 % | |
| Cooling method | Temperature controlled forced air cooling | |
| Max. operating altitude | 4500 m (> 3500 m derating) | |
| Display | Touch screen | |
| Communication | RS485 / Modbus, Ethernet | |
| Compliance | CEA, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, CE | |
| Grid support | SVG function, LVRT, HVRT, active & reactive power control and power ramp rate control | |
| Type designation | SG500MX-10 | SG630MX-10 |