

## MG5RL / MG6RL

NEW



### Robust Power Performance

- 100% full power backup output, delivering stable performance even at temperatures above 45°C
- Whole-home backup with 40 A bypass switch



### Robust Backup Power

- 4ms Seamless Switch<sup>1)</sup>
- 10 seconds of 200% backup peak power capability



### Robust Solar Generation

- Industry-leading Max. 20A PV input per string
- Wider MPPT voltage range



### Robust Safety Features

- Dual-system pressure relief structure



### Robust Control Interface

- 4.3-inch large LCD touchscreen
- Multi-functional interface for Generator, Smart load control or Sungrow string inverter



Technical Data Sheet	MG5RL	MG6RL
<b>Input (DC)</b>		
Recommended max. PV input power	10000 Wp	12000 Wp
Max. usable PV input power	8000 Wp	9600 Wp
Max. PV input voltage		500 V
Min. PV input voltage / Startup input voltage		40 V / 50 V
Rated PV input voltage		360 V
MPPT operating voltage range <sup>2)</sup>		40 V – 425 V
No. of independent MPP trackers		2
No. of PV strings per MPPT		1/1
Max. PV input current		40 A ( 20 A / 20 A )
Max. DC short-circuit current		50 A ( 25 A / 25 A )
Max. current for DC connector		25 A
<b>Battery data</b>		
Battery type		Li-ion battery
Battery voltage range		40 V – 60 V
Max. charge / discharge current <sup>3)</sup>	120 A / 120 A	135 A / 135 A
Max. charge / discharge power	5000 W / 5000 W	6000 W / 6000 W
<b>Input / Output (AC)</b>		
Max. AC power from grid		8800 W
Rated AC output power	5000 W	6000 W
Max. AC output apparent power	5000 VA	6000 VA
Max. AC output current	22.7 A	27.3 A
Rated AC voltage		220 V / 230 V / 240 V
AC voltage range		154 V – 276 V
Rated grid frequency		50 Hz / 60 Hz
Grid frequency range		45 Hz – 55 Hz / 55 Hz – 65 Hz
Harmonic ( THD )		< 3% ( of rated power )
Power factor at rated power / Adjustable power factor		> 0.99 at default value at rated power / 0.8 leading to 0.8 lagging
Feed-in phases / Connection phases		1/1
<b>Backup Data (on grid mode)</b>		
Max. output power for backup load <sup>4)</sup>		8800 W
Max. output current for backup load		40 A
<b>Backup Data (off-grid mode)</b>		
Rated voltage		220 V / 230 V / 240 V
Rated frequency		50 Hz / 60 Hz
THDV ( @ Linear load )		< 2 %
Backup switch time		≤ 4 ms
Rated output power	5000 W	6000 W
Max. output power for backup load	5500 W	6600 W
Peak output power		2 times of rated power, 10 s
<b>Efficiency</b>		
Max. efficiency / European efficiency		97.6 % / 96.7 %
<b>Protection &amp; Function</b>		
Grid monitoring		Yes
DC reverse polarity protection		Yes
AC short-circuit protection		Yes
Leakage current protection		Yes
DC switch ( solar )		Yes
Surge protection		DC Type II / AC Type II
PID Zero		Yes
Micro-inverter compatibility <sup>5)</sup>		Optional
Arc fault circuit interrupter ( AFCI )		Optional
<b>General Data</b>		
Topology ( Inverter )		Non-isolated
Topology ( Battery BDC )		Isolated
Degree of protection		IP65
Dimensions ( W * H * D )		532 mm * 386 mm * 210 mm
Weight		≤ 18 kg
Mounting method		Wall-mounting bracket
Operating ambient temperature range		-25 °C to 60 °C
Allowable relative humidity range		0 % – 95 %
Cooling method		Natural convection
Max. operating altitude		2000 m
Noise ( typical )		≤ 35 dB ( A )
Display		LCD digital touchable display & LED indicator
Communication		CAN, RS485, Ethernet, WLAN
DI / DO		DI *1 / DO *1
DC connection type		MC4 compatible ( Max. 6 mm <sup>2</sup> )
Battery connection type		OT terminal ( 35 mm <sup>2</sup> – 50 mm <sup>2</sup> )
AC connection type		Plug and Play ( Max. 8 AWG )
Scalability <sup>6)</sup>		8 in parallel
Grid compliance	IEC 62109-1/-2, IEC/EN 61000-6-1/-3, IEC 62116, IEC 61727, NRS 097-2-1, MEA, PEA, DEWA	

<sup>1)</sup> Available in typical conditions

<sup>2)</sup> Please refer to the user manual for the full load MPPT voltage range

<sup>3)</sup> The system's charging and discharging capability is also limited by the battery's charging and discharging performance

<sup>4)</sup> Please refer to the user manual and modify the settings based on actual load power

<sup>5)</sup> For micro-inverter compatibility, it is only available for the grid-connection port of the inverter

<sup>6)</sup> If the number of inverters in parallel exceeds 4, please consult SUNGROW