MG10/12/15TL

HIGH YIELD, MORE POWER

- Patented PID Zero technology helps maintain long-term PV performance
- 20 A PV input per string, ready for high-current PV modules
- Wide MPPT voltage range with up to 250% PV oversizing

STRONG BACKUP, HEAVY LOADS

- Up to 200% unbalanced output for demanding loads
- Up to 330 A charge/discharge current for fast energy storage and strong discharge
- 200% peak backup power for 10 s to support high-starting-current loads

BUILT SAFE, BUILT TOUGH

- Dual pressure-relief design for enhanced safety
- Integrated AFCI 3.0+ for rooftop arc protection
- IP66 protection and C5 anti-corrosion for harsh environments

FAST DEPLOYMENT , FRIENDLY EXPERIENCE

- Ultra-quiet operation down to 35 dB(A)
- 4.3-inch colorful LCD touchscreen for easy local commissioning
- Multi-functional interface for generator, smart load control
- Supports 2 battery sets for fast deployment of 2-hour ESS



Type designation	MG10TL	MG12TL	MG15TL
Input (DC)			
Max. PV input power	25000 Wp	30000 Wp	37500 Wp
Max. usable PV input power	16000 W	19200 W	24000 W
Max. PV input voltage [1]		1000 V	
Min. PV input voltage / Startup input voltage		90 V / 100 V	
Rated PV input voltage		650 V	
MPPT operating voltage range [2]		90 V – 950 V	
No. of independent MPP trackers		3	
No. of PV strings per MPP tracker		1 / 1 / 1	
Max. MPPT input current		20 A / 20 A / 20 A	
Max. DC short-circuit current		25 A	
Max. current for input connector		30 A	
Battery Data			
Battery type		Li-ion battery	
Compatible battery model		MBL120 / MBL160 / MBL160-PF / Third-party LV batteries	
Battery voltage range		40 V – 60 V	
Max. charging / discharging current [3]	220 A	265 A	330 A
No. of battery inputs		3	
Max. charging / discharging power	10000 W	12000 W	15000 W
On Grid Output			
Max. AC input power		45360 W	
Rated output power	10000 W	12000 W	15000 W
Max. output apparent power	11000 VA	13200 VA	16500 VA
Max. output current (@ 220 V / 230 V / 240 V)	16.7 A / 15.9 A / 15.2 A	20.0 A / 19.1 A / 18.3 A	25.0 A / 23.0 A / 22.9 A
Rated voltage		3 / N / PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V	
Voltage range		155 V – 277 V / 268 V – 480 V	
Rated grid frequency		50 Hz / 60 Hz	
Grid frequency range		45 Hz – 55 Hz / 55 Hz – 65 Hz	
THD (at rated power)		≤ 3%	
Power factor at rated power / Adjustable power factor		>0.99 / 0.8 leading to 0.8 lagging	
Feed-in phases / Connection phases		3 / 3-N-PE	
Efficiency			
Max. efficiency / European efficiency		97.7% / 97.1%	
Output (AC backup) during on-grid mode			
Max. connectable power for backup load		45360 W	
Max. output current for backup load		63 A	
Output (AC backup) during off-grid mode			
Rated voltage		3 / N / PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V	
Rated frequency		50 Hz / 60 Hz	
THDv (linear load)		< 3%	
Backup switch time		0 ms [4]	
Rated output power	10000 W	12000 W	15000 W
Max. output apparent power	11000 VA	13200 VA	16500 VA
Peak output power		2 times of rated power, 10 s	
Protection & Function			
Grid monitoring		Yes	
PV input reverse polarity protection		Yes	
AC short-circuit protection		Yes	
Leakage current protection		Yes	
Arc fault circuit interrupter (AFCI)		Yes	
DC switch (PV)		Yes	
Surge Protection		PV Type II / AC Type II	
PID Zero		Yes	
Active anti-islanding method		Yes	
General Data			
Topology		Non-isolated [INVERTER]; Isolated [BATTERY]	
Degree of protection		IP66	
Protective class		Class I	
Overvoltage category		III[AC] ; II[PV] ; II[BATTERY]	
Dimensions (W * H * D)		636 mm * 536 mm * 281 mm	
Weight		≤ 50 kg	
Mounting method		Wall-mounting bracket	
Operating ambient temperature range		-25 ℃ to 60 ℃	
Allowable relative humidity range (Non-condensing)		0% – 100%	
Cooling method		Natural convection	
Max. operating altitude		2000 m	
Noise (Typical)		35 dB (A)	
Display		LCD	
Communication		RS485, WLAN, Ethernet, CAN	
DI / DO		DI * 1 / DO * 3	
PV connection type		Plug and play connector (Max. 6 mm²)	
Battery connection type		OT terminal (Max. 50 mm²)	
AC connection type		OT terminal (Max. 16 mm²)	
Compliance		IEC 62109-1/-2, IEC 62477-1, IEC/EN 61000-6-1/-2/-3/-4, IEC 62920, EN 55011, IEC 62116, IEC 61727, NRS 097-2-1	
Country of manufacture		China	

[1] Input voltage exceeding the MPPT operating voltage range triggers inverter protection. [2] Please refer to the user manual for the full load MPPT voltage range. [3] Depending on the connected battery. [4] Available in typical conditions.