MG20/25TL

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 440 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 50 dB(A)
- 4.3-inch colorful LCD touchscreen for easy local commissioning
- Multi-functional interface for generator, smart load control
- Supports 3 battery sets for fast deployment of 2-hour ESS



Type designation	MG20TL	MG25TL
Input (DC)		
Max. PV input power	40000 Wp	50000 Wp
Max. usable PV input power	32000 W	40000 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	2 / 2 / 1	
Max. PV input current	20 A / 20 A / 20 A	
Max. DC short-circuit current	25 A / 25 A / 25 A	
Max. current for input connector	30 A	
Battery Data		
Battery type	Li-ion battery	
Compatible battery model	MBL120 / MBL160 / Third-party LV batteries	
Battery voltage range	40 V – 60 V	
Max. charging / discharging current [3]	440 A	
No. of battery inputs	3	
Max. charging / discharging power	20000 W	25000 W
On Grid Output		
Max. AC input power	45360 W	
Rated output power	20000 W	25000 W
Max. output apparent power	22000 VA	27500 VA
Max. output current (@ 220 V / 230 V / 240 V)	33.4A / 31.9 A / 30.5 A	41.7 A / 39.9 A / 38.2 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	
Rated output power	20000 W	25000 W
Max. output apparent power	22000 VA	27500 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)	641 mm * 541 mm * 286 mm	
Weight	≤ 60 kg	
Mounting method	Wall-mounting bracket	
Operating ambient temperature range	-25 ℃ to 60 ℃	
Allowable relative humidity range (Non-condensing)	0% – 100%	
Cooling method	Intelligent air cooling	
Max. operating altitude	2000 m	
Noise (Typical)	50 dB (A)	
Display	LCD	
Communication	RS485, WLAN, Ethernet, CAN	
DI / DO	DI * 1 / DO * 2	
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.