



MANGO POWER M is a universal, all-in-one intelligent power system compatible with AC-coupled solar power systems and DC coupling with new solar power modules. It can fulfill any on/off grid needs, providing a complete one-stop solution to household backup power. With its integrated, 12 kW hybrid inverter, combine input from photovoltaics, generators, and the grid simultaneously with ease.

Sporting a capacity range of 15 ~ 80 kWh, the world-leading lithium iron phosphate (LFP) batteries provided by CATL are safe and enduring, realizing efficient power distribution through intelligent load control to fulfill any and all backup power demands. In a commercial environment, you can superimpose up to 10 inverters to reach a total power of 120 kW. Through battery expansion, the system can support 100% power independency.

MANGO POWER M Features



Powerful

Enjoy backup power that lasts as long as you need it to with a battery capacity ranging from 12 - 120 kWh. Supports both AC-coupling for your existing solar systems and DC-coupling for newer solar modules. The sleek, modular design and intricate features make it an ideal companion in a modern household – powering up your entire home - or even your business.

An all-in-one system that offers an integrated solution - a built-in inverter, backup gateway, EV charger, and smart control for both AC-coupled existing solar and DC-coupled new modules. An internal AGS allows for generator connections, two 200A breakers, and direct 240V split-phase output are all supported without the need for an autotransformer. All necessary connection cables, including 2m 400A battery cables, are provided in the package.



Easy Installation



Affordable

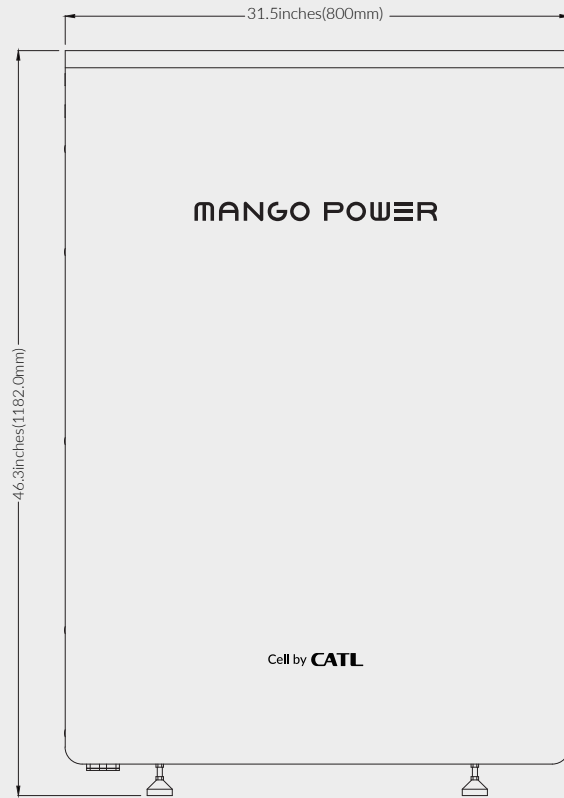
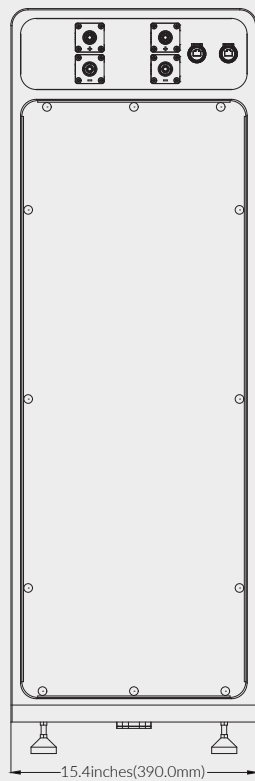
Say goodbye to fuel hikes and startling electricity bills. Utilize the MANGO POWER M with your solar power units to either power your own home or feed power back into the grid, earning on the excess you generate. Save money while you save the planet.

Powered by industry-leading LFP batteries from CATL, the Mango Power M provides secure, robust, and dependable energy. With enhanced battery charging speed and longevity, the integrated RSD Transmitter & AFCI all work in tandem to ensure a highly reliable, full home or business solution, with a 10-year warranty.

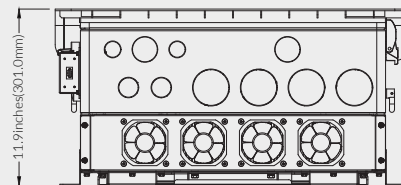


Reliable & Safe

MANGO POWER Product Dimensions



M Cabinet



M Hybrid Inverter

MANGO POWER M Specifications

M Hybrid Inverter 12kW Parameters	
Weight	119.9lbs (54.4kg)
Size	36.4x23.7x11.9in(925.6*606*301mm)
AC - On-Grid Power Parameters	
Maximum continuous AC output power ¹	12000W/240V & 10400W/208V
Peak power ¹	24000W 500ms
Grid-tied power factor (adjustable)	0.8leading-0.8lagging adjustable
Nominal AC output voltage	120V/240V/208V
Voltage range	180V-270V
Maximum continuous AC current	50A
Nominal frequency	60Hz
Extended frequency range	55-65Hz
Maximum AC output over current protection	75A
Max efficiency	97.5%(PV to grid) 94%(battery to grid)
THDI	<3%
Cooling	Low noise Fans
AC - Backup Output Power Parameters	
Maximum continuous AC output power ¹	12000W/240V & 10400W/208V
Peak power ¹	24000W 500ms
Nominal AC output voltage	120V/240V/208V
Voltage range	180V-270V
Maximum continuous AC current	50A
Nominal frequency	60Hz
Extended frequency range	55-65Hz
Maximum AC output over current protection	75A
Max efficiency	97.5%(PV to grid) 94.0%(battery to grid)
THDV	<3%
Bypass grid switching time	<20ms
Maximum AC output over current	200A
DC-PV Parameters	
PV modules power	18000W
MPPT numbers	3 max power point trackers (two strings combined)
MPPT voltage range	120V-500V
Full power MPPT voltage range	230V-500V
Maximum input DC voltage	600V
Maximum input current	25/15/15A
Maximum DC input short circuit current	31/19/19A
MPPT efficiency	99.90%
M Smart Screen	
WiFi Dongle	2.4G connection , 802.11b/g/n
Connection	HDMI
Screen Size	4.3 inches

M Battery 5kWh Parameters

Battery chemistry	World's best LFP battery powered by CATL
Capacity	From 15kWh/300Ah to 20Wh/400Ah with four M Battery packs
Battery DC voltage range	44V~60V
Max charging current	Super-fast continuous charging speed, up to 1C for battery pack. 250A for 15000Wh and 20000Wh
Max discharging current	250A (for at least 3 M Battery packs)
Roundtrip efficiency	97.00%
Weight	103.6lbs(47kg)
Size	22.9x5.2x15.2 inches (581x133x387mm)
Battery Working Temperature	Charging: 0°C~60°C (32°F~140°F) Discharging: -20°C~60°C (-4°F~140°F)
Life Span	6000 cycles (@25°C, +0.5C/-0.5C)

M Cabinet Parameters

Environmental category/UV expose rating	NEMA Type 4X/IP65 outdoor
Capacity	From 1~4 M Battery packs
Weight	114.2lbs (51.8kg)
Size	31.5x15.4x46.3in (800x390x1182mm)
Cabinet installation	M-slide-a-way for easy installation

Features and Certification

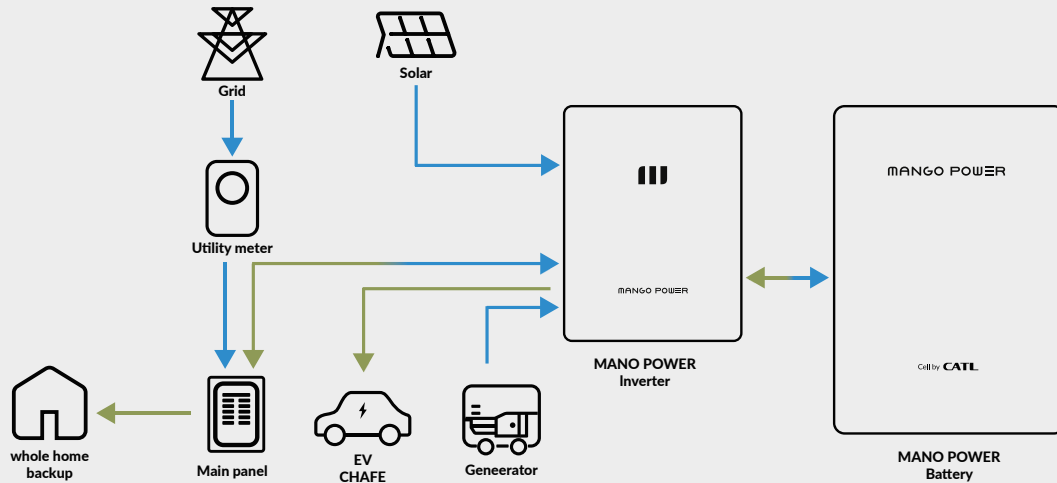
RSD/AFCI	PV rapid shut down integrated
Integrated disconnection	DC switch
Grid-following	Grid-tied
Grid-forming	Micro-grid
Certification	CA rule21 UL1741/IEEE1547/UL1973/UL1642/UL9540&UL9540A
Generator	Smart control by AGS (Auto Generator Start) 10800W for generator,120V/240V Maximum 90A
Home backup	Whole and partial home backup
Smart control	MANGO POWER App download from APP Store or Google Play
System design	AC coupled and DC coupled
Grid type	120V/240V/208V Split-phase L1,L2,N,PE (single phase)
Inverter Working Temperature	-13°F to 140°F >113°F derating (-25°C to 60°C >45°C derating)
Size	36.4x23.7x11.9in (925.6*606*301mm) 31.5x15.4x46.3in (800x390x1182mm)
Weight	119.9lbs (54.4kg) for M Power Hybrid Inverter, 103.6lbs (47kg) for M Battery, 114.2lbs (51.8kg) for M Cabinet
Installation	Ground placed and slightly wall mounted
Noise	<50dB (Do not install Power M next to the wall of bedroom)
Environmental category/UV expose rating	NEMA type 4X/IP65 outdoor rated
Relative humidity	0%-100% (condensing)
Altitude	<2000m
Warranty	M Battery 10 years
	M Hybrid Inverter 10 years
	M Smart Screen 3 years

1. Power Factor(PF)=1

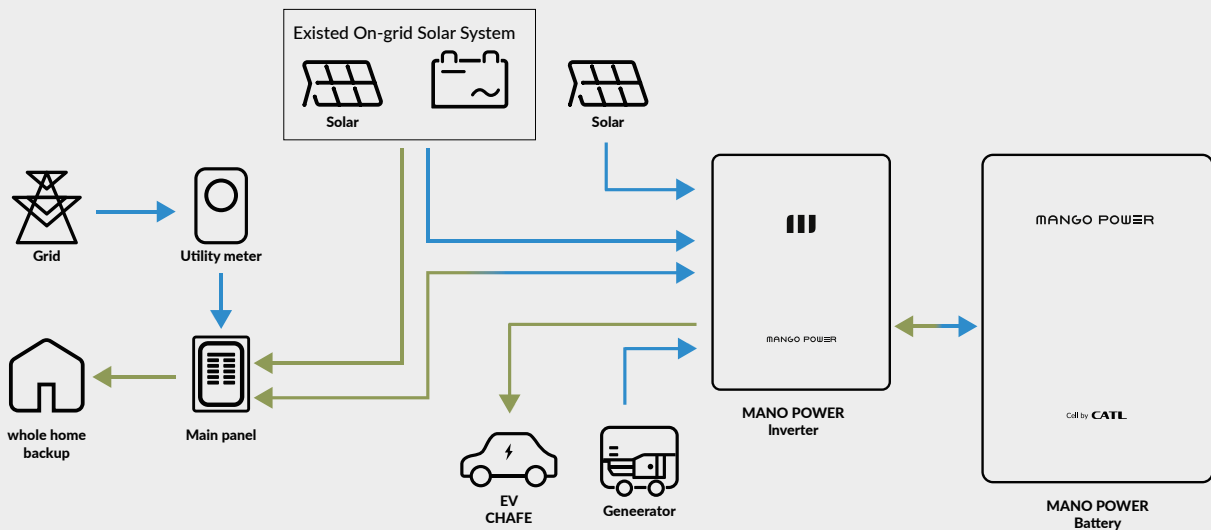
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MANGO POWER M Configuration

WHOLE HOME BACKUP



AC Coupling with existed solar system



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