

# Mass Combi 12/1600-60 (230 V)



Product code: 36011600

A Mastervolt Mass Combi offers best price/quality ratio. The exceptionally reliable Mass Combi series offers a lot of power at a highly competitive price. In addition, the four models are also available in two customer-friendly variations with remote control or MasterBus.

The powerful 3-step+ battery charger guarantees maximum battery life and can simultaneously charge two battery banks. The inverter with high peak power starts even the heaviest loads, with the Mass Combi 12/1600 being easily sufficient for your espresso machine. A built-in distribution system switches between grid and inverter power, while two separate AC outputs allow users to connect critical loads to a preferred group.

### Grid connected solar power system with energy storage

The Mass Combi enables the expansion of a grid connected solar power system with energy storage in batteries. This way the majority of the generated energy is used, and users are less dependent on the electricity grid. In this setup, the Mass Combi is part of a MasterBus controlled system.

### Benefits of the Mass Combi:

- Compact, lightweight and no hum thanks to HF technology.
- High yield and more power from your batteries.
- Intelligent 3-step+ battery charger with low DC ripple current for fast charging times and long battery life.
- Charges two individual battery banks simultaneously.
- Quiet, powerful inverter with 200 % peak power.
- Power Assist: prevents blown fuses.
- Pure sine wave energy prevents failures and damage to sensitive equipment such as adapters.
- Dual AC outputs to separate critical equipment from heavy loads.
- Higher yields possible via parallel switching (only for 2200 and 2600 W models).
- Professional connections ensure fast installation and operational security.
- CE approved and E-marking for mobile applications.

### Maximise your convenience with a Mass Combi package deal

Combi deal with MasterBus (MB version)

To integrate the Mass Combi into a MasterBus system in a simple manner, Mastervolt can deliver all Mass Combi models in a MasterBus version. The relevant product code includes the Mass Combi model of your choice, complemented by a [MasterBus Combi interface](#) MasterBus Combi interface.

Combi deal with remote control (Remote version)

In addition, Mastervolt can provide all Mass Combi models in a Remote version so that the AC and DC power status can be monitored remotely. The relevant product code includes the Mass Combi model of your choice, plus an [ICC](#) ICC and an [APC](#) APC remote control panel.

# Specifications

## Specifications sine wave inverter

Nominal DC voltage	12 V (10-15 V)
Output voltage	180-250 V (adjustable) 50/60 Hz ( $\pm 0.05\%$ )
Output waveform	true sine
Continuous power at 25 °C / 77 °F, $\cos \phi$ 1	1600 W
Max. peak load	3000 W
Max. efficiency	$\geq 90\%$
Max. ripple on DC (battery at full load)	$< 5\%$
Energy saving mode consumption	0,5 W
Parallel configuration	no
Synchronise with mains/generator	yes
DC consumption at 230 V	$< 9\text{ W}$

## Specifications battery charger

Input voltage range	180-265 V
Max. charge current at 25 °C / 77 °F	60 A at 14.25 V, adjustable
Primary AC consumption (full charge)	4.5 A
Secondary charger output voltage	12 V
Secondary charger output current	5 A
No-load power consumption on AC	$< 15\text{ W}$
Battery temperature sensor	yes, included
Battery voltage sense	automatic compensation

## Specifications transfer system

AC input 1	50 A (25 A switched, to short break output)
AC output 1	25 A (short break output)
AC output 2	50 A (power output)
AC input fuse	yes, resettable
Transfer speed	semi-seamless (10 ms typical)
Transfer voltage range	180-265 V
Transfer frequency range	45-65 Hz

## General specifications

Display/read-out	LED display
Dimensions, h x w x d	371 x 318 x 143 mm 14.6 x 12.5 x 5.6 inch
Weight	7.8 kg 17.2 lb
Compliance	CE, ABYC, E4, RMRS

## Technical specifications

Charge characteristic	IUoUo, automatic / 3-step+ for Gel/AGM/MLI/ flooded/spiral/traction
Max. current power output	50 A
Max. current shortbreak / inverter output	25 A
Recommended battery capacity	$\sim 120\text{-}360\text{ Ah}$ (based on gel batteries, may differ for other types)
Ground relay	yes, configurable
Temperature range (ambient temp.)	$-25\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$ , derating $> 25\text{ }^{\circ}\text{C}$ $-13$ to $140\text{ }^{\circ}\text{F}$
Cooling	maintenance-free vario fans
Protection degree	IP23 (vertical mounting)
Safety class	IEC protection class I
Humidity protection	conformal coating, max. 95 % relative humidity, non condensing
Protections	over temperature, overload, short circuit, high/low battery voltage
Power Assist	yes
MasterBus compatible	yes, in combination with a MasterBus Combi Interface (product code 77030475)