

### The Power to be Independent

Your customers have the highest requirements when it comes to the reliability of their energy supply. This applies equally to places where no fixed or permanent electricity connection is available. From the PC to the washing machine and coffee maker, every piece of electrical equipment must function perfectly. Power is needed everywhere and at all times on the water, in harbour, on vehicles and in the most remote areas.

### The solution

Wherever people may be in the world, Mastervolt offers tailor-made energy. We develop advanced products that ensure customers get the most reliable power supply possible. From batteries and generators to complete energy systems and now we have more good news for you, as Mastervolt proudly presents the new Mass Combi inverter/battery charger.

### A smart combination

The Mass Combi combines all the functions of a battery charger and inverter in one exceptionally compact package. As a result, you can guarantee your customers super efficiency and consistently high quality energy. Power is available around the clock, even in harbours where the shore power source is unreliable. The Mass Combi takes up very little space and is incredibly easy to use. We offer a 2 kW and 4 kW model.

### Power extension

If 2kW inverter power is not sufficient a second Mass Combi can be installed in parallel, resulting in a cont. inverter power rating of 4kW and 8kW surge power capability. The parallel configuration offers a fail safe : in the event of an inverter failure, the second unit will take over. Of course, the battery capacity has to be enlarged in such cases.



### Energy Management & System Control

The Mass Combi is fitted with an extended read-out and diagnostics panel at the front of the unit. We offer the following range of remote panels:

- The remote ICC comes as standard together with 20 ft cable plus plug, offering all relevant DC system information, inverter diagnostics and remote on/off and 'charger only' switching.
- The remote APC monitoring panel is offered as an option and can be used to select the appropriate Power Sharing® mode and gives you the relevant AC info of the system.
- The comprehensive microprocessor based Masterlink/MICC combines immediate system information with very useful power system information such as battery capacity 'remaining' read-out, Ah battery capacity left, time remaining and content information in %. In addition, this monitor stores historical information such as the number of charge/discharge cycles, average depth of discharge.

### Applied technology

Mastervolt utilizes its famous switch mode technology which has been successfully applied for many years in the stand alone Mass inverter and charger series.

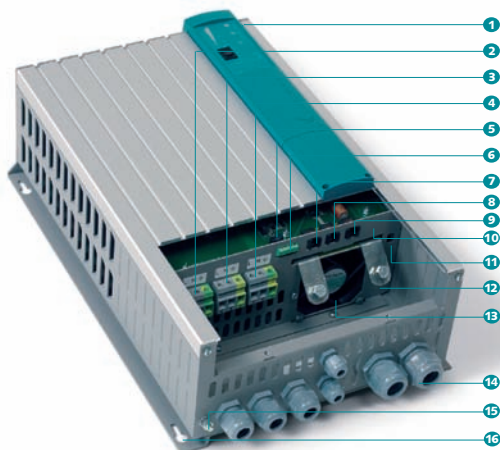
Result: a compact and light weight, easy to install and super quiet onboard power centre. Other important features are the low no-load power consumption (0.5W at stand-by mode, 9W in 'on' position) and high inverter/battery charger efficiency.

- SWITCH MODE TECHNOLOGY
- PURE SINE WAVE INVERTER
- 3-STEP<sup>®</sup> BATTERY CHARGING
- LIGHT WEIGHT & COMPACT
- 2 KW MODELS STACKABLE
- GENSET SUPPORT MODE

## TECHNICAL SPECIFICATIONS 120V MODELS

Model Mass Combi	12/2000-100	24/2000-60	12/4000-200	24/4000-100
Part # 120V	37012005	37022005	37014005	37024005
Part # 230V (see the Mastervolt Powerbook)	36012005	36022005	36014005	36024005
Sine wave inverter				
Waveform	true sine wave	true sine wave	true sine wave	true sine wave
Continuous power @ 77°F	2000VA / 16,7A	2000VA / 16,7A	3750VA / 31A	3750VA / 31A
Surge capability (5 sec., resistive)	4000VA / 34A	4000VA / 34A	7500VA / 62A	7500VA / 62A
Max. efficiency	92%	92%	92%	92%
Output voltage (RMS), adjustable via Wizard	120V	120V	120V	120V
Output voltage regulation	± 5%	± 5%	± 5%	± 5%
Frequency (nominal ± 0.05% crystal controlled)	60/50Hz adjustable	60/50Hz adjustable	60/50Hz adjustable	60/50Hz adjustable
DC input voltage (nominal)	12V	24V	12V	24V
DC voltage range	10-15V	20-31V	10-15V	20-31V
No load consumption 120V	< 9W	<9W	< 18W	<18W
No load consumption 109V (economy mode)	< 8W	< 8W	< 16W	< 16W
Search mode consumption	0.5W	0.5W	1W	1W
Idle power range	150 VA	150 VA	150 VA	150 VA
Harmonic distortion (max.)	5%	5%	5%	5%
Automatic battery charger*				
Input voltage nominal	120V	120V	120V	120V
Input voltage range	90-135V	90-135V	90-135V	90-135V
Frequency	45-65 Hz	45-65 Hz	45-65 Hz	45-65 Hz
Max. charge rate (adjustable), 3-step⊕	100A, at 14.25V DC	60A, at 28.5V DC	200A, at 14.25V DC	100A, at 28.5V DC
Primary AC consumption / full load	1635 VA / 14.5A	1955 VA /17A	3270 VA / 29A	5270 VA / 29A
Charge voltage @ 77°F	14.25/13.25V	28.5/26.5V	14.25/13.25V	28.5/26.5V
Battery type settings	open lead / gel / AGM / spiral			
2nd charge output, 3-step	5A	5A	2x 5A	2x 5A
Charge characteristic	IUoUo 3-stage (bulk, absorption, float), temperature compensation -17mV/cell/°F			
Battery voltage sensing	yes, automatic			
Temperature sensor battery	standardly delivered with 6 mtr cable and telejack plug			
Double pole automatic transfer system				
Max. current 1st output	50A	50A	50A	50A
Max. current shortbreak / inverter output	35A	35A	35A	35A
Transfer rate	10 ms typical, 25 ms maximal			
Common specifications				
Remote panel ICC	standardly delivered with 20 ft cable - DC read out on/off			
Temperature range	32-77°F, thereafter derating			
Dimensions	C4, hxxwd. 18.1 x 12.5 x 5.6 inch			
Weight	24.3 lbs	24.3 lbs	46.3 lbs	46.3 lbs
Grounding	standard with ground relays			
Forced air cooling	maintenance free variable speed fans			

\* The battery charger is operating from 0V DC to the given setpoints.



### Important functions:

1. Front panel display with DC system and Combi diagnostics function.
2. Robust industrial class AC input power terminal block.
3. AC outlet powergroup/various consumers.
4. AC outlet/no-break/consumer group.
5. Dipswitches for various system settings.
6. Potential free alarm contacts - can be used as start/stop signal for genset.
7. Remote control connection (telejack input).
8. Temperature sensor connection.
9. QRS232 for Masterlink/MICC or computer control.
10. Masterbus 2005 communication connection.
11. Second 5A output connection.
12. Robust DC battery connection bar (+ and -).
13. Low audible vario fan.
14. PC glands with strain relief.
15. Earth connection stud.
16. External mounting holes, enabling fast installation.



Remote panel, model ICC (delivered as standard).



Remote panel, model APC (optional) part # 70405050.



Remote panel, model Masterlink/MICC (optional).