

## 9 TECHNICAL DATA

### 9.1 SPECIFICATIONS

Model	Mass 12/60-2 MB	Mass 12/80-2 MB	Mass 24/50-2 MB	Mass 24/75 MB
Article no.	40010606	40010806	40020506	40020756
<b>INPUT</b>				
Mains voltage	230V, -10% + 15%	230V, -10% + 15%	230V, -10% + 15%	230V, -10% + 15%
Frequency	50-60 Hz ± 5 Hz	50-60 Hz ± 5 Hz	50-60 Hz ± 5 Hz	50-60 Hz ± 5 Hz
Inrush current	None, the battery charger is equipped with a soft start in accordance with IEC 1003-3			
Input current	4A	6A	7A	12A
Power factor (Cos phi)	1	1	1	1
Maximum efficiency	89%	89%	89%	89%
Input power	900W	1400W	1600W	2700W
<b>OUTPUT</b>				
Nominal voltage	12V DC	12V DC	24V DC	24V DC
Max charge current (I <sub>max</sub> )*	60 A	80 A	50 A	75 A
Outputs	1x60 A and 1x3 A	1x80 A and 1x3 A	1x50 A and 1x3 A	1 x 75 A
Charge characteristic*	three-step plus, fully automatic	three-step plus, fully automatic	three-step plus, fully automatic	three-step plus, fully automatic
Battery types:	Flooded lead acid, gel/AGM lead acid, NiCd, Mastervolt MLI (see chapter 7 for settings)			
Default charge voltages at 25°C				
Absorption voltage*	14.25V	14.25V	28.5V	28.5V
Float voltage*	13.25V	13.25V	26.5V	26.5V
Voltage ripple	max. 100mV RMS with resistive load @ full power			
Short circuit current (1/4 of I <sub>max</sub> )	15A	20A	12.5A	18.75A
Wire gauge (up to 3 m length)	25 mm <sup>2</sup>	35 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>
Charger fuse (external)	63A	100A	63A	80A
<b>ENVIRONMENTAL</b>				
Ambient temperature	-20 to 40°C @ 100% output power, derated with 2,5% / °C above 40°C			
Cooling	Forced air, by means of a ventilator with variable speed			
Humidity	Maximum 95%RV, non condensing			
<b>MASTERBUS</b>				
MasterBus powering capability	Yes	Yes	Yes	Yes
MasterBus menu languages	English, Dutch, German, French, Spanish, Italian			
<b>ENCLOSURE TYPE</b>				
	<b>C2</b>	<b>C2</b>	<b>C2</b>	<b>C3</b>
Dimensions (hxwxd) mm	See figure 12	See figure 12	See figure 12	See figure 13
Protection degree	IP23	IP23	IP23	IP23
Weight	5 kg	5 kg	5 kg	9 kg

\* Adjustable, see chapter 5.

Specifications are subject to change without prior notice.

Model	Mass 24/100 MB	Mass 3-24/100 MB	Mass 48/25 MB	Mass 48/50 MB
Article no.	40021006	40031006	40040256	40040506
<b>INPUT</b>				
Mains voltage	230V, -10% + 15%	3 x 365..550 V**	230V, -10% + 15%	230V, -10% + 15%
Frequency	50-60 Hz $\pm$ 5 Hz	50-60 Hz $\pm$ 5 Hz	50-60 Hz $\pm$ 5 Hz	50-60 Hz $\pm$ 5 Hz
Inrush current	None, the battery charger is equipped with a soft start in accordance with IEC 1003-3			
Current	16 A	6.5 A	8 A	16 A
Power factor (Cos phi)	1	0.8	1	1
Efficiency	89%	89%	89%	89%
Input power	3600W	3500W	1800W	3600W
<b>OUTPUT</b>				
Nominal voltage	24V DC	24V DC	48 V DC	48 V DC
Max charge current ( $I_{max}$ )*	100 A	100 A	25 A	50 A
Outputs	1 x 100 A	1 x 100 A	1x25 A	1x50 A
Charge characteristic*	three-step plus, fully automatic	three-step plus, fully automatic	three-step plus, fully automatic	three-step plus, fully automatic
Battery types:	Flooded lead acid, gel/AGM lead acid, NiCad, Mastervolt MLI (settings: section 7.10)			
Default charge voltages at 25°C				
Absorption voltage*	28.5 V	28.5 V	57 V	57 V
Float voltage*	26.5 V	26.5 V	53 V	53 V
Voltage ripple	max. 100mV RMS with resistive load @ full power			
Short circuit current (1/4 of $I_{max}$ )	25 A	25 A	6 A	12.5 A
Cable size (within 3 m)	35 mm <sup>2</sup>	35 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>
Charger fuse (external)	125 A	125 A	32 A	63 A
<b>ENVIRONMENTAL</b>				
Ambient temperature	-20 to 40°C @ 100% output power, derated with 2,5% / °C above 40°C			
Cooling	Forced air, by means of a ventilator with variable speed			
Humidity	Maximum 95%RV, non condensing			
<b>MASTERBUS</b>				
MasterBus powering capability	Yes	Yes	Yes	Yes
MasterBus menu languages	English, Dutch, German, French, Spanish, Italian			
<b>ENCLOSURE TYPE</b>				
Dimensions (hxwxd) mm	C3	C3	C2	C3
See figure 13	See figure 13	See figure 13	See figure 12	See figure 13
Protection degree	IP23	IP23	IP23	IP23
Weight	9 kg	10 kg	5 kg	9 kg

\* Adjustable, see chapter 5.

\*\* for device versions up to J (refer to section 1.4): 3x 365..440 V

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