





Specifications Mac & Magic converters

| |  |  |  |  |
|------------------------------------|---|---|---|---|
| | Mac 24/12-20 | Magic 24/12-20 | Magic 24/24-20 | Magic 12/12-20 |
| Product code | 81200100 | 81300100 | 81300200 | 81300400 |
| INPUT SPECS | | | | |
| Nominal input voltage | 24 V | 24 V | 24 V | 12 V |
| Input range | 20-32 V DC | 19-32 V DC | 19-32 V DC | 11-16 V DC |
| Input range, 3-step charge mode | 24-32 V DC | 24-32 V DC | 24-32 V DC | 12-16 V DC |
| Lower input set point* | 20 V DC | 20 V DC | 20 V DC | 10 V DC |
| Delay lower input set point* | 30 sec. | 30 sec. | 30 sec. | 30 sec. |
| OUTPUT SPECS | | | | |
| Nominal output voltage* | 13.6 V DC | 13.6 V DC | 27.2 V DC | 13.6 V DC |
| Output voltage | 10-15 V DC | 10-15 V DC | 20-28.5 V DC | 10-15 V DC |
| Output voltage dimmer* | 4-13 V DC | 4-13 V DC | 8-26 V DC | 4-13 V DC |
| Output voltage stabilisation | 2% at extremes of temperatures, load and input | 2% at extremes of temperatures, load and input | 2% at extremes of temperatures, load and input | 2% at extremes of temperatures, load and input |
| Ripple | max. 1% peak peak | max. 1% peak peak | max. 1% peak peak | max. 1% peak peak |
| Power (max./nominal) | 300 / 270 W | 300 / 300 W | 580 / 580 W | 300 / 300 W |
| Max. current | 20 A | 20 A | 20 A | 20 A |
| Charge current - 3-step mode | 16 A | 16 A | 16 A | 16 A |
| Parallel configuration | yes, up to 10 | yes, up to 10 | yes, up to 10 | yes, up to 10 |
| GENERAL SPECS | | | | |
| Galvanic isolation | no | yes | yes | yes |
| Voltage limited | yes | yes | yes | yes |
| Efficiency | >90% (at nom. input voltage, full load); 92% peak | >90% (at nom. input voltage, full load); 92% peak | >90% (at nom. input voltage, full load); 92% peak | >90% (at nom. input voltage, full load); 92% peak |
| Protected against over load | yes | yes | yes | yes |
| Protected against over temperature | yes | yes | yes | yes |
| Dimmer function | yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting | yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting | yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting | yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting |
| Alarm contact | no | yes (fast-on connector) | yes (fast-on connector) | yes (fast-on connector) |
| Dimensions, hwxwd | 190 x 130 x 61 mm 7.5 x 5.1 x 2.4 inch | 227 x 154 x 81 mm 8.9 x 6.1 x 3.2 inch | 227 x 154 x 81 mm 8.9 x 6.1 x 3.2 inch | 227 x 154 x 81 mm 8.9 x 6.1 x 3.2 inch |
| Weight | 1 kg / 2.2 lb | 1.8 kg / 4 lb | 1.8 kg / 4 lb | 1.8 kg / 4 lb |
| Approvals | CE | CE | CE | CE |
| TECHNICAL SPECS | | | | |
| 3-Step charge option | yes (DIP switch settings) | yes (DIP switch settings) | yes (DIP switch settings) | yes (DIP switch settings) |
| DC consumption | <30 mA | <115 mA | <115 mA | <115 mA |
| Connections input/output | screw terminals, maximum wire size 16 mm ² / AWG5 | screw terminals, maximum wire size 16 mm ² / AWG5 | screw terminals, maximum wire size 16 mm ² / AWG5 | screw terminals, maximum wire size 16 mm ² / AWG5 |
| Temperature range (ambient temp.) | -25 °C to 80 °C; > 40 °C derating power power | -25 °C to 80 °C; > 40 °C derating power power | -25 °C to 80 °C; > 40 °C derating power power | -25 °C to 80 °C; > 40 °C derating power power |
| Cooling | natural cooling | maintenance free vario fans | maintenance free vario fans | maintenance free vario fans |
| Sound level | < 30 dBA at 1 mtr | < 48 dBA at 1 mtr | < 48 dBA at 1 mtr | < 48 dBA at 1 mtr |
| Protection degree | IP21 | IP21 | IP21 | IP21 |
| MasterBus compatible | yes, in combination with a MasterBus Serial Interface | yes, in combination with a MasterBus Serial Interface | yes, in combination with a MasterBus Serial Interface | yes, in combination with a MasterBus Serial Interface |

* Adjustable with MasterAdjust software.

| OPTIONS | | | | |
|---|--|--------|--------|--------|
|  | PC-Link 21730300 | option | option | option |
| <i>Interface between Magic converter and PC, in combination with the MasterAdjust software (free to download). The PC-Link can be directly connected to a computer serial port.</i> | | | | |
|  | MasterView Easy 77010305 | option | option | option |
| <i>In combination with a MasterBus Serial Interface. Touch screen panel for reading status and dimmer function settings.</i> | | | | |
|  | MasterBus Serial Interface 77030450 | option | option | option |
| <i>Integrates the Mac & Magic converters in a MasterBus network.</i> | | | | |



Magic
12/24-10

81300300

12 V
11-16 V DC
12-16 V DC
10 V DC
30 sec.

27.2 V DC
20-28.5 V DC
8-26 V DC
2% at extremes of temperatures, load and input
max. 1% peak peak
300 / 300 W
10 A
8 A
yes, up to 10

yes
yes
>90% (at nom. input voltage, full load); 92% peak

yes
yes
yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting

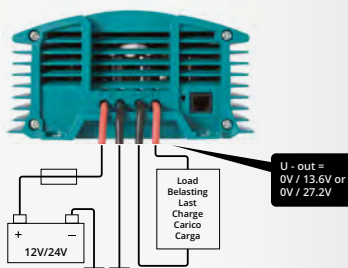
yes (fast-on connector)
227 x 154 x 81 mm
8.9 x 6.1 x 3.2 inch
1.8 kg / 4 lb
CE

yes (DIP switch settings)
<115 mA
screw terminals, maximum wire size 16 mm² / AWG5
-25 °C to 80 °C; > 40 °C derating power
maintenance free vario fans
< 48 dBA at 1 mtr
IP21
yes, in combination with a MasterBus Serial Interface

option

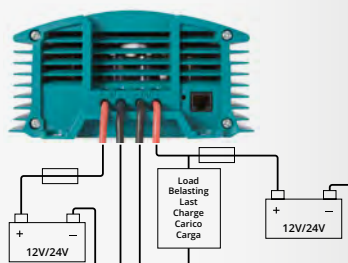
option

option



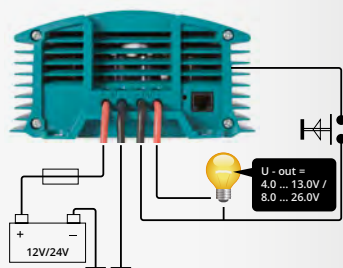
Magic as power supply

The Magic models can be fully used as a stabilised power supply: From 12 to 24 V, from 24 to 12 V or from 24 to 24 V. Inputs and outputs are galvanically isolated.



Mac & Magic as battery charger

A 12 V starter or emergency power battery can be charged as well as maintained by Mac or Magic units. The charging method is identical to the Mass 3-step with voltage levels adjustable by means of MasterBus PC-Link/MasterAdjust software.



Mac & Magic as dimmer

Light can be dimmed by means of a push button or plus switch, with a maximum load of 250 Watt for the Mac. A second Mac can be installed if there are multiple lamps.

