## DC Switching Power Supplies. M 8310: 0-30V DC 20A M 8312: 0-30V DC 30A



# Operating Instructions 

## POWERTRAN ${ }^{\ominus}$ M 8310 \& M 8312 Power Supplies

Thank you for purchasing the M 8310/M 8312 DC switching power supply.
Please read this manual before using. Keep the manual for reference.

## General

These DC switching power supplies are fitted with a 3-digit LCD meter for precise measurement. The output voltage can be adjusted from 0 to 30V and the output current is from 0 to 20A (M 8310) and 0 to 30A (M 8312). These compact and light weight desktop units are highly efficient and reliable. They also boast a ripple and noise level that is very close to linear.

## Front Panel:


(7)

9


1. Power switch:

Turns unit on and off
2. Output positive terminal:

Red positive (+)
3. Output negative terminal:

Black positive (-)
4. Voltage adjustment:

Adjustment for the output voltage
5. Current adjustment:

Adjustment for the current limiting protection point
6. Voltage value:

3-Digit LCD meter
7. Current value:

3-Digit LCD meter
8. Voltage regulator indication
9. Current regulator indication

Rear Panel:

10. Output terminal:
20A/30A max; Red positive; black negative
11. Cooling fan
13. Grounding terminal

## Operation Method

Connect a load (electrical equipment, etc.) to the power supply output, and pay attention to the polarity. Do not reverse the polarity.
Plug AC input power cord into a suitable AC power mains socket.
Switch the power to the "ON" position. The power indicator light will glow and the LCD will illuminate.
Keep the load current under the rated output current of the power supply. $80 \%$ of rated output current is recommended to be the maximum current used for normal operations.

## Cautions:

Place unit in a dry and well-ventilated area.
If a short circuit occurs whilst in use, the unit will be protected by a short circuit protection function. Turn the unit off, remove the cause of the short circuit and switch power supply back on.
Do not use the unit for devices that require high current input for start up, such as motorised equipment.
Do not use the unit to charge a car battery.

## WARNING:

DO NOT BLOCK THE AIR CONVECTION SLOTS OR COOLING FAN. THESE PREVENT OVER-HEATING.

| Specifications: |  |  |
| :--- | :---: | :---: |
| Model: | M 8310 | M 8312 |
| Input voltage: | a.c. $220-240 \mathrm{~V} @ 50 \mathrm{~Hz}$ | a.c. $220-240 \mathrm{~V} @ 50 \mathrm{~Hz}$ |
| Output voltage: | $0-30 \mathrm{~V}$ d.c. | $0-30 \mathrm{~V}$ d.c. |
| Output current max: | 20 A | 30 A |
| Supply regulation: | $\mathrm{CV} \leq 1 \%+10 \mathrm{mV}$ | $\mathrm{CV} \leq 1 \%+10 \mathrm{mV}$ |
| Load regulation: | $\mathrm{CV} \leq 1 \%+5 \mathrm{mV}$ | $\mathrm{CV} \leq 1 \%+5 \mathrm{mV}$ |
| Ripple: | $100 \mathrm{mVp}-\mathrm{p}$ | $100 \mathrm{mVp}-\mathrm{p}$ |
| Protection: | Current limiting | Current limiting |
| Meters |  |  |
| Voltmeter: | $\mathrm{LCD} \pm 2 \%+3$ counts | $\mathrm{LCD} \pm 2 \%+3$ counts |
| Ammeter: | $\mathrm{LCD} \pm 2 \%+3$ counts | $\mathrm{LCD} \pm 2 \%+3$ counts |
| Operation ambient |  |  |
| Temperature: | $0^{\circ} \mathrm{C}-40^{\circ} \mathrm{C}$ | $0^{\circ} \mathrm{C}-40^{\circ} \mathrm{C}$ |
| Humidity: | $<\mathrm{RH9} \%$ | $<\mathrm{RH} 90 \%$ |
| Operating time: | 8 hrs | 8 hrs |
| Dimensions: | $87 \times 214 \times 336 \mathrm{~mm}$ | $87 \times 214 \times 336 \mathrm{~mm}$ |

Operating Guidelines: This unit is primarily designed for domestic use. This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure they do not play with the appliance.

For repair or service please contact your place of purchase.
Note: Under no circumstances should you attempt to repair this unit yourself or by a non-authorised Altronics service centre.

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