

Orion DC-DC Converters, high power

Non-isolated

www.victronenergy.com



Orion 24/12-25



Orion 24/12-40

Remote on-off connector

The remote on-off eliminates the need for a high current switch in the input wiring. The remote on-off can be operated with a low power switch or by the engine run/stop switch (see manual).

All models with adjustable output can also be used as a battery charger

For example to charge a 12 Volt starter or accessory battery in an otherwise 24V system.

All models with adjustable output can be paralleled to increase output current

Up to five units can be connected in parallel.

The Orion 12/27,6-12: a 24V battery charger (see page 2)

To charge a 24V battery from a 12V system.

The output voltage of this model can be adjusted with a potentiometer

A super wide input range buck-boost regulator: the Orion 7-35/12-3 (see page 2)

The Orion 7-35/12-3 is an isolated converter with a very wide input range, suitable for both 12V and 24V systems, and a fixed 12,6V output.

Easy to install

Delivery includes four Insulated Fastons Female Crimp 6.3mm (eight Fastons in case of the Orion 24/12-40).

Low power models: please see Orion-Tr series



Orion 24/12-70



Orion 24/12-70 with binding posts

| Non isolated converters | Orion 24/12-25 | Orion 24/12-40 | Orion 24/12-70 | Orion 12/24-8 | Orion 12/24-10 | Orion 12/24-20 |
|---|---|---------------------------|----------------------------------|-------------------------|----------------------------------|----------------------------------|
| Input voltage range (V) | 18-35 | 18-35 | 18-35 | 9-18 | 9-18 | 9-18 |
| Under voltage shutdown (V) | 14 | 14 | 14 | 8 | 8 | 8 |
| Under voltage restart (V) | 18 | 18 | 18 | 10 | 10 | 10 |
| Output voltage adjustable with potentiometer | yes | no | yes | no | yes | yes |
| Output voltage (V) | Adjustable 10-15V F set 13,2V | 13,2 | Adjustable 10-15V F set 13,2V | 24 | Adjustable 20-30V F set 26,4V | Adjustable 20-30V F set 26,4V |
| Efficiency (%) | 96 | 95 | 92 | 95 | 95 | 93 |
| Suitable to buffer-charge a battery | yes | no | yes | no | yes | yes |
| Can be connected in parallel | yes | no | yes | no | yes | yes |
| Continuous output current (A) | 25 | 40 | 70 | 8 | 10 | 20 |
| Max. Output current (A) | 35 | 55 | 85 | 20 | 20 | 30 |
| Fan assisted cooling (temp. controlled) | no | yes | yes | no | no | yes |
| Galvanic isolation | no | no | no | no | no | no |
| Off load current | < 15mA | < 20mA | < 20mA | < 10mA | < 15mA | < 30mA |
| Remote on-off | yes | yes | yes | no | no | yes |
| Operating temperature range (derate 3% per °C above 40°C) | -20 to +55°C | -20 to +55°C | -20 to +55°C | -20 to +55°C | -20 to +55°C | -20 to +55°C |
| DC connection | Faston tabs 6.3 mm | Double Faston tabs 6.3 mm | M6 bolts | Faston tabs 6.3 mm | Faston tabs 6.3 mm | M6 bolts |
| Weight kg (lbs) | 0,7 (1.55) | 0,85 (1.9) | 0,9 (2.0) | 0,4 (0.8) | 0,4 (0.9) | 0,9 (2.0) |
| Dimensions hxxwxd in mm (hxxwxd in inches) | 65x88x160 (2.6x3.5x6.3) | 65x88x185 (2.6x3.5x7.3) | 65x88x195 (2.6x3.5x7.7) | 45x90x115 (1.8x3.5x4.5) | 45x90x125 (1.8x3.5x4.5) | 65x88x195 (2.6x3.5x7.7) |
| Standards: Safety Emission Immunity Automotive Directive | EN 60950 EN 61000-6-3, EN 55014-1 EN 61000-6-2, EN 61000-6-1, EN 55014-2 ECE R10-4 | | | | | |