

# Orion-Tr DC-DC converters isolated: 250 Watt series

[www.victronenergy.com](http://www.victronenergy.com)



**Orion-Tr 24/12-20 (240W)**

### Remote on-off

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 for example the engine run/stop switch (see manual).

### Adjustable output voltage: can also be used as a battery charger

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

### All models are short circuit proof and can be paralleled to increase output current

An unlimited number of units can be connected in parallel.

### IP43 protection

When installed with the screw terminals oriented downwards

### Screw terminals

No special tools needed for installation

### Input fuse (not replaceable)

On 12V and 24V input models only



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Isolated converters	Orion-Tr 12/12-18 (220W)	Orion-Tr 12/24-10 (240W)	Orion-Tr 24/12-20 (240W)	Orion-Tr 24/24-12 (280W)	Orion-Tr 24/48-6 (280W)	Orion-Tr 48/12-20 (240W)	Orion-Tr 48/24-12 (280W)	Orion-Tr 48/48-6 (280W)
Input voltage range	8-17V	8-17V	16-35V	16-35V	16-35V	32-70V	32-70V	32-70V
Under voltage shut down	7V	7V	14V	14V	14V	28V	28V	28V
Under voltage restart	7,5V	7,5V	15V	15V	15V	30V	30V	30V
Nominal output voltage	12,2V	24,2V	12,2V	24,2V	48,2V	12,2V	24,2V	48,2V
Output voltage adjust range	10-15V	20-30V	10-15V	20-30V	40-60V	10-15V	20-30V	40-60V
Output voltage tolerance	+/- 0,2V	+/- 0,2V	+/- 0,2V	+/- 0,2V	+/- 0,2V	+/- 0,2V	+/- 0,2V	+/- 0,2V
Output noise	2mV rms	2mV rms	2mV rms	2mV rms	2mV rms	2mV rms	2mV rms	2mV rms
Cont. output current at nominal output voltage and 40°C	18A	10A	20A	12A	6A	20A	12A	6A
Maximum output current (10 s) at nominal output voltage	25A	15A	25A	15A	8A	15A	15A	8,0A
Short circuit output current	40A	25A	50A	30A	25A	50A	30A	25A
Cont. output power at 25°C	280W	280W	300W	320W	320W	280W	320W	320W
Cont. output power at 40°C	220W	240W	240W	280W	280W	240W	280W	280W
Efficiency	87%	88%	88%	89%	89%	87%	89%	89%
Galvanic isolation	200V dc between input, output and case							
Operating temperature range	-20 to +55°C (derate 3% per °C above 40°C)							
Humidity	Max. 95% non-condensing							
DC connection	Screw terminals							
Maximum cable cross-section	13mm <sup>2</sup> AWG6							
Weight	1,3kg (3 lb)							
Dimensions hwxwd	130 x 186 x 70mm (5.1 x 7.3 x 2.8 inch)							
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 EN 50498							