

# Orion IP67 24/12 and 12/24 DC-DC Converters

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

Non-isolated

### Completely encapsulated: waterproof, shockproof and ignition protected

Water, oil or dirt will not damage the Orion IP67 DC-DC Converter. The casing is made of cast aluminium and the electronics are moulded in resin.

### Extra-long input and output cables

Thanks to the cables of 1.8 meters in length, intermediate cable interconnections to increase length even more will in most cases not be needed. This is an important reliability increasing feature in an area where IP67 protection grade is needed.

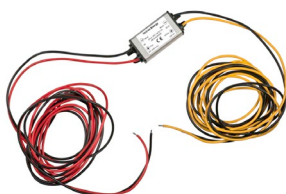
### Wide input voltage range

With 15 to 40 Volts input range, a stable output is ensured during surges or sags due to other equipment connected to same battery.

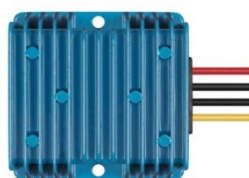
### Protected against overheating

It can be used in a hot environment such as a machine room.

Orion IP67	24/12-5	24/12-10	24/12-20	24/12-100	12/24-50
Input voltage range	15-40VDC			18-35VDC	10-15VDC
Under voltage shutdown	13V			15V	8V
Under voltage restart	14V			16V	9V
No load current at 24V	1mA	20mA	50mA	85mA	45mA
DC output voltage	12V +/- 3%	12V +/- 3%	12V +/- 3%	12V +/- 3%	24V +/- 3%
Maximum continuous output current	5A	10A	20A	100A	50A
Efficiency	93%	93%	95%	96%	96%
Ripple & Noise	75mVpp			150mVpp	
Operating temperature range (derate 3% per °C above 40°C)	-40 to +70°C (full rated output up to 40°C)				
Overload protection	Hiccup mode, recovers automatically after fault condition is removed				
Short circuit proof	Yes				
Protection against reverse polarity connection	With external fuse or circuit breaker (not included)				
ENCLOSURE					
Material & Colour	Aluminium (blue RAL 5012)				
Protection category	IP67				
DC connection	Two input and two output cables, length 1,8m			Bolts M6	
Cable cross section, input	0,8mm <sup>2</sup> (18 AWG)	1,5mm <sup>2</sup> (15 AWG)	2,6mm <sup>2</sup> (13 AWG)	n.a.	n.a.
Cable cross section, output	0,8mm <sup>2</sup> (18 AWG)	1,5mm <sup>2</sup> (15 AWG)	2,6mm <sup>2</sup> (13 AWG)	n.a.	n.a.
Weight (kg)	50 g	300 g	300 g	2,15 kg	3 kg
Dimensions (h x w x d in mm)	25 x 43 x 20	74 x 74 x 32	74 x 74 x 32	265 x 127 x 63	340 x 127 x 63
STANDARDS					
Safety	EN 60950				
Emission	EN 61000-6-3, EN 55014-1				
Immunity	EN 55014-2, EN 61000-6-1, EN 61000-6-2				
Vibration	IEC 68-2-6: 10-150 Hz / 1.0 G				



Orion IP67 24/12-5  
with 1,8 m cables



Orion IP67 24/12-10  
Orion IP67 24/12-20



Orion IP67 24/12-100  
Orion IP67 12/24-50