

Orion-Tr Smart DC-DC charger non-isolated

360/400 Watt With 3-stage battery charge algorithm

www.victronenergy.com



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12/12-30



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Bluetooth Smart enabled

Any Bluetooth enabled smart phone, tablet or other device can be used to monitor, to change settings and to update the charger when new software features become available.

Fully programmable

- Battery charge algorithm (configurable) or fixed output.
- Smart alternator compatibility: engine running detection mechanism.

Adaptive 3-stage charge algorithm: bulk – absorption – float

- For lead acid batteries it is important that during shallow discharges the absorption time is kept short in order to prevent overcharging of the battery. After a deep discharge the absorption time is automatically increased to make sure that the battery is completely recharged.
- For lithium batteries absorption time is fixed, default 2 hours.
- Alternatively, a fixed output voltage can be chosen.

Remote on-off

A remote on/off switch or relay contact can be connected to a two-pole connector. Alternatively, the H terminal (right) of the two-pole connector can be switched to battery plus, or the L terminal (left) of the two pole connector can be switched to battery minus (or the chassis of a vehicle, for example).

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

An unlimited number of units can be connected in parallel.

High temperature protected

The output current will reduce at high ambient temperature.

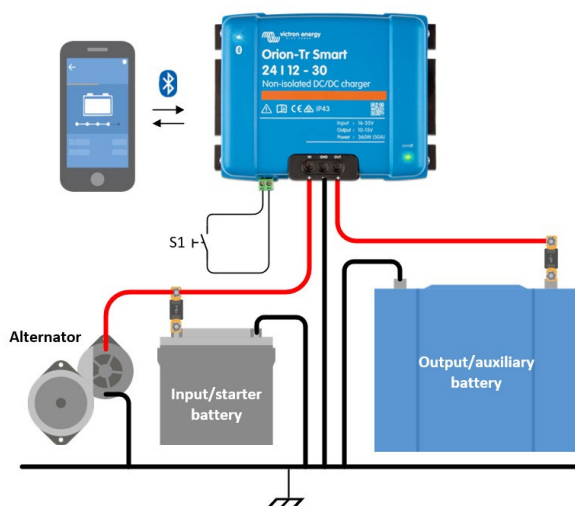
IP43 protection

When installed with the screw terminals oriented downwards.

Screw terminals

No special tools needed for installation.

Input fuse (not replaceable)



Orion-Tr Smart Chargers non-isolated 360 - 400 Watt				
			12/12-30 12/24-15 24/24-17 (360 W) (360 W) (360 W) (400 W)	12-30 24/24-17 (360 W) (400 W)
Input voltage range (1)			10-17 V 10-17 V	20-35 V 20-35 V
Under voltage shut down	7 V 7 V 14 V 14 V			
Under voltage restart		7,5 V 7,5 V 15 V 15 V		
Nominal output voltage		12,2 V 24,2 V 12,2 V 24,2 V		
Output voltage adjust range			10-15 V 20-30 V	10-15 V 20-30 V
Output voltage tolerance		+/- 0,2 V		
Output noise		2 mV rms		
Cont. output current at nominal output voltage and 40 °C		30 A 15 A 30 A 17 A		
Maximum output current (10 s) at nominal output voltage		40 A 25 A 45 A 25 A		
Short circuit output current		60 A 40 A 60 A 40 A		
Cont. output power at 25 °C		430 W 430 W 430 W 480 W		
Cont. output power at 40 °C		360 W 360 W 360 W 400 W		
Efficiency		87 % 88 % 88 % 89 %		
No load input current		< 80 mA < 100 mA < 100 mA < 80 mA		
Standby current		Less than 1 mA		
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		16 mm² (AWG6)		
Weight		12 V input and/or 12 V output models: 1,8 kg (3 lb) Other models: 1,6 kg (3.5 lb)		
Dimensions hxxxd		130 x 186 x 80 mm (5.1 x 7.3 x 3.2 inch)		
Protection category		IP43 (electronic components), IP22 (connection area)		
Standards: Safety		EN 60950		
Emission		EN 61000-6-3, EN 55014-1		
Immunity		EN 61000-6-2, EN 61000-6-1, EN 55014-2		
Automotive Directive		ECE R10-5		
<p>1) If set to nominal or lower than nominal, the output voltage will remain stable within the specified input voltage range (buck-boost function). If the output voltage is set higher than nominal by a certain percentage, the minimum input voltage at which the output voltage remains stable (does not decrease) increases by the same percentage.</p> <p>Note 1: The VictronConnect App will not display current in or current out.</p> <p>Note 2: The Orion-Tr Smart is not equipped with a VE.Direct port.</p>				