





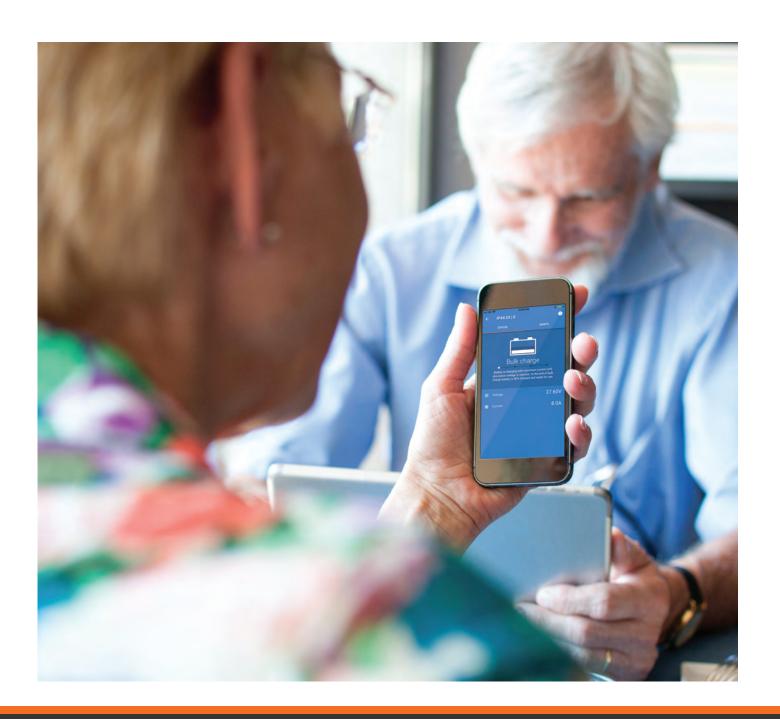
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Mobility and independence are the keywords when it comes to using an electric wheelchair or scooter; the freedom to decide for yourself where to go. So of course, it's important to be able to take your mobility scooter with you. To this end, you can rely on smart solutions from Victron Energy

- **Impulse II battery charger:** a reliable battery charger with a long service life. This charger is also available with built-in Bluetooth: the Impulse II Smart. The Smart model can be operated from your smartphone.
- XLR Charger Tester: a smart and quick solution for testing your battery.

Products supplied by Victron Energy are reliable and easy-to-use. A fully charged battery will ease your mind when travelling. Our solutions give you the energy to go where you want.





#### The Impulse II charger

#### Impulse II charger

The multifunctional Impulse II battery charger is suitable for mobility scooters and electric wheelchairs. Most mobility scooters are fitted with two 12-volt batteries which are connected in series.

Together they generate a current of 24 volts. The Impulse II is suitable for 24 volts and a variety of batteries, such as GEL batteries, AGM batteries and wet batteries.

The Impulse II combines versatility with safety. For example, the battery charger has double insulation and is protected against reversed polarity, overvoltage and overheating. The Impulse II's compact and lightweight design allows you to store it without any problem in a shed or storage space. The charger can be quite easily moved or taken with you.



#### **XLR plug**

The Impulse II comes with a so-called "XLR plug" which is the universal standard for mobility scooters and electric wheelchairs.



The Impulse II is a battery to set your mind at ease. It has a fully automated charging programme which optimises battery recharging. This 4-phase charging curve guarantees the best possible service life for your battery.

During the charging process, the charger goes through three different phases. The first sees high-power charging of the battery up to approx. 80% capacity. The last 20% or so is charged at lower power as part of the second phase. The third and final phase ensures that the batteries stay fully charged. During the last phase you can disconnect the charger from the mobility scooter.



#### **Built-in Bluetooth**

The Impulse II Smart is the charger model that has built-in Bluetooth. The VictronConnect app allows you to read the charger remotely and operate it using a smartphone, tablet or laptop. This can be ideal for different purposes, such as service and maintenance.





**VictronConnect App**VictronConnect is an easy-to-use app that allows you to check the charging status. The Impulse Smart charger can be connected to your smartphone, tablet or laptop by means of built-in Bluetooth\*.

\* Only the Impulse II Smart models have built-in Bluetooth.



### Impulse II mobility charger



#### Adaptive 4-stage charge algorithm: bulk – absorption – float – storage

The Impulse II charger features a microprocessor controlled 'adaptive' battery management system. The adaptive feature will automatically optimize the charging process relative to the way the battery is being used.

#### Storage mode: less maintenance and aging when the battery is not in use

The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours. In the storage mode float voltage is reduced to 2,2V/cell (26,4V for a 24V battery) to minimize corrosion of the positive plates and loss of liquid due to gassing. Once a week the voltage is raised back to the absorption level to 'equalize' the battery. This feature prevents stratification of the electrolyte and sulfation, a major cause of early battery failure.

#### **Protected against overheating**

Output current will reduce as ambient temperature increases up to more than 30°C, but the charger will not be disabled.

#### Two LED's for status indication

Red LED: bulk, absorption

Green LED: float, storage en repeated absorption (refresh)

Both LEDs flashing: connected with reverse polarity, short circuit, over voltage

#### Adjustable en readable (Smart version)

The Impulse II Smart is equipped with Bluetooth Smart wireless communication. With this you can get a read out of the state and settings can be changed with a smart phone, tablet or laptop.

Imput voltage   24/6 Smart   24/8 Smart     Input voltage   230 VAC (range 180-265 VAC)     Frequency   50/60 Hz (range 45-65 Hz)     Efficiency   95%     Power consumption in no-load operation   0.5 W     Charge voltage 'absorption'   28.8 V     Charge voltage 'float'   27.6 V     Charge voltage 'storage'   26.4 V     Temperature compensation   -32 mV/°C     Charge support   6 A	Inspector II	24/6	24/8
Frequency 50/60 Hz (range 45-65 Hz)  Efficiency 95%  Power consumption in no-load operation Charge voltage 'absorption' Charge voltage 'float' Charge voltage 'storage' 26.4 V  Temperature compensation Charge algorithm 32 m/° C  Charge algorithm 4-stage adaptive Charge algorithm 40 Ah 50 Ah  Back current drain Protection Reverse polarity Output short circuit Over temperature  Temperature range 3-30 to +60°℃ (rated output current up to 30°ℂ)  Cooling Temperature range 3-30 to +60°ℂ (rated output current up to 30°ℂ)  Samrt version only  ENCLOSURE  Material and colour Battery connection Black cable with XLR connector, length 1.9 meter  230 V AC connection Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight 13 kg Dimensions (h x w x d) EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14 Emission EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Impulse II	24/6 Smart	24/8 Smart
Efficiency 95% Power consumption in no-load operation Charge voltage 'absorption' Charge voltage 'float' Charge voltage 'float' Charge voltage 'storage' Charge voltage 'storage' Charge voltage 'storage' Charge algorithm Charge current 6 A Minimum battery capacity Au Ah So Ah Minimum battery capacity Au Ah Seak current drain Reverse polarity Output short circuit Over temperature Temperature range Autoric Created output current up to 30°C) Cooling Natural convection Bluetooth communication FNCLOSURE Material and colour PC-ABS, dark grey (RAL7021) Battery connection Black cable with XLR connector, length 1.9 meter 230 V AC connection Cable of 1,9 meter with CEE 7/17 plug Protection category Weight Autoric Cable of 1,9 meter with CEE 7/17 plug Protection category FOCABS, Cark Strey (RAL7021) Safety EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14 Emission EN 5014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Input voltage	230 VAC (range 180-265 VAC)	
Power consumption in no-load operation  Charge voltage 'absorption'  Charge voltage 'float'  Charge voltage 'storage'  Charge voltage 'storage'  Charge voltage 'storage'  Charge voltage 'storage'  Charge algorithm  Charge algorithm  Charge algorithm  Charge current  6 A  8 A  Minimum battery capacity  40 Ah  So Ah  Back current drain  Reverse polarity  Output short circuit  Over temperature  Temperature range  30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  FUNCLOSURE  Material and colour  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  Weight  1.3 kg  Dimensions (h x w x d)  60 x 105 x 190 mm  STANDARDS  Safety  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Frequency	50/60 Hz (range 45-65 Hz)	
Operation  Charge voltage 'absorption'  Charge voltage 'float'  Charge voltage 'storage'  Charge voltage 'storage'  Charge adaptive  Charge adaptive  Charge adaptive  Charge current  6 A  Minimum battery capacity  40 Ah  So Ah  Back current drain  Protection  Reverse polarity  Output short circuit  Over temperature  Temperature range  30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  FINCLOSURE  Material and colour  PC-ABS, dark grey (RAL7021)  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  Dimensions (h x w x d)  FINCLOSURE  STANDARDS  Safety  EN 60335-1, EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Efficiency	95%	
Charge voltage 'float' Charge voltage 'storage' Charge voltage 'storage' Charge voltage 'storage' Charge algorithm Charge algorithm Charge algorithm Charge current Charge adaptive Cha		0.5 W	
Charge voltage 'storage'  Temperature compensation  Charge algorithm  Charge aurrent  6 A  Minimum battery capacity  40 Ah  Frotection  Reverse polarity  Output short circuit  Over temperature  Temperature range  -30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  FUCLOSURE  Material and colour  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Charge voltage 'absorption'	28.8 V	
Temperature compensation  Charge algorithm  Charge current  6 A  Minimum battery capacity  40 Ah  So Ah  Back current drain  Protection  Reverse polarity  Output short circuit  Over temperature  Temperature range  -30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  ENCLOSURE  Material and colour  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Charge voltage 'float'	27.6 V	
Charge algorithm  Charge current  6 A  Minimum battery capacity  40 Ah  Back current drain  Protection  Reverse polarity  Output short circuit Over temperature  Temperature range  -30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  ENCLOSURE  Material and colour  PC-ABS, dark grey (RAL7021)  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  60 x 105 x 190 mm  STANDARDS  Safety  EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Charge voltage 'storage'	26.4 V	
Charge current  6 A  Minimum battery capacity  40 Ah  Back current drain  Protection  Reverse polarity  Output short circuit Over temperature  Temperature range  -30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  ENCLOSURE  Material and colour  PC-ABS, dark grey (RAL7021)  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  60 x 105 x 190 mm  STANDARDS  Safety  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Temperature compensation	-32 mV/°C	
Minimum battery capacity  40 Ah  Back current drain  1 mA (0,7 Ah/month)  Protection  Reverse polarity  Output short circuit Over temperature  Temperature range  -30 to +60°C (rated output current up to 30°C)  Cooling  Natural convection  Bluetooth communication  ENCLOSURE  Material and colour  PC-ABS, dark grey (RAL7021)  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  60 x 105 x 190 mm  STANDARDS  Safety  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Charge algorithm	4-stage adaptive	
Back current drain Protection Reverse polarity Output short circuit Over temperature Temperature range -30 to +60°C (rated output current up to 30°C) Cooling Natural convection Bluetooth communication  ENCLOSURE  Material and colour PC-ABS, dark grey (RAL7021) Battery connection Black cable with XLR connector, length 1.9 meter 230 V AC connection Cable of 1,9 meter with CEE 7/17 plug Protection category IP44 Weight 1.3 kg Dimensions (h x w x d)  STANDARDS Safety EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14 Emission EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Charge current	6 A	8 A
Protection Reverse polarity Output short circuit Over temperature  Temperature range -30 to +60°C (rated output current up to 30°C)  Cooling Natural convection  Bluetooth communication Smart version only  ENCLOSURE  Material and colour PC-ABS, dark grey (RAL7021)  Battery connection Black cable with XLR connector, length 1.9 meter  230 V AC connection Cable of 1,9 meter with CEE 7/17 plug  Protection category IP44  Weight 1.3 kg  Dimensions (h x w x d) 60 x 105 x 190 mm  STANDARDS  Safety EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Minimum battery capacity	40 Ah	50 Ah
Temperature range -30 to +60°C (rated output current up to 30°C)  Cooling Natural convection  Bluetooth communication Smart version only  ENCLOSURE  Material and colour PC-ABS, dark grey (RAL7021)  Battery connection Black cable with XLR connector, length 1.9 meter  230 V AC connection Cable of 1,9 meter with CEE 7/17 plug  Protection category IP44  Weight 1.3 kg  Dimensions (h x w x d) 60 x 105 x 190 mm  STANDARDS  Safety EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Back current drain	1 mA (0,7 Ah/month)	
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Bluetooth communication  Smart version only  ENCLOSURE  Material and colour  PC-ABS, dark grey (RAL7021)  Battery connection  Black cable with XLR connector, length 1.9 meter  230 V AC connection  Cable of 1,9 meter with CEE 7/17 plug  Protection category  IP44  Weight  1.3 kg  Dimensions (h x w x d)  STANDARDS  Safety  EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14  Emission  EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Temperature range	-30 to +60°C (rated output current up to 30°C)	
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Battery connection         Black cable with XLR connector, length 1.9 meter           230 V AC connection         Cable of 1,9 meter with CEE 7/17 plug           Protection category         IP44           Weight         1.3 kg           Dimensions (h x w x d)         60 x 105 x 190 mm           STANDARDS           Safety         EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14           Emission         EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26		ENCLOSURE	
230 V AC connection     Cable of 1,9 meter with CEE 7/17 plug       Protection category     IP44       Weight     1.3 kg       Dimensions (h x w x d)     60 x 105 x 190 mm       STANDARDS       Safety     EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14       Emission     EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Material and colour	PC-ABS, dark grey (RAL7021)	
Protection category         IP44           Weight         1.3 kg           Dimensions (h x w x d)         60 x 105 x 190 mm           STANDARDS           Safety         EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14           Emission         EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	Battery connection	Black cable with XLR connector, length 1.9 meter	
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Emission EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26		STANDARDS	
	Safety	EN 60335-1, EN 60335-2-29, EN 12184, ISO 7176-14	
Immunity EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3	Emission	EN 55014-1, EN 61000-6-3, EN 61000-3-2, ISO 7176-26	
	Immunity	EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3	

With over 43 years of experience, Victron Energy enjoys an unrivalled reputation for technical innovation, reliability and quality. Victron is a world leader in the supply of self-supporting electrical power. Our products have been designed to meet the most demanding situations faced by a diversity of craft, recreational and commercial alike. Victron's ability to meet the demand for customized off-grid systems is unprecedented. Our product range includes sine wave inverters and inverter/chargers, battery chargers, DC/DC converters, transfer switches, gel and AGM batteries, alternators, battery monitors, solar charge regulators, solar panels, complete network solutions and many other innovative solutions.

#### **World-wide service and support**

Having served the off-grid, industrial and vehicle markets as well as both the commercial and leisure marine sectors for over 43 years, Victron has an established network of dealers and distributors covering the whole world. Our customer base is such that providing prompt and competent local service is essential.

This is reflected in the capabilities of our support network. Our flexible approach to service support and our commitment to quick turnaround for repairs is marketleading. There are countless examples of Victron products that have provided for decades of reliable service in the most demanding applications. This level of reliability combined with the highest level of technical know-how results in Victron Energy power systems that offer the very best value available.













SAL064132020 REV 01 2018-04

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