# 10. Technical specifications

## 10.1. Specifications 150/70, 150/85 and 150/100

| | 150/70 | 150/85[7] | 150/100[7] |
|---|---|---|---|
| Battery Voltage | 12/24/48V[7] auto select, 36V: manual select | | |
| Maximum battery current [1a,b] | 70A | 85A | 100A |
| Nominal PV power, 12V [1a,b] | 1000W | 1200W | 1450W |
| Nominal PV power, 24V [1a,b] | 2000W | 2400W | 2900W |
| Nominal PV power, 36V [1a,b] | 3000W | 3600W | 4350W |
| Nominal PV power, 48V [1a,b] | 4000W | 4900W | 5800W |
| Max. PV short circuit current [2,3] | 50A | 70A | |
| Max. PV Open circuit Voltage | 150V absolute maximum coldest conditions<br>145V start-up and operating maximum | | |
| Peak efficiency | 98% | | |
| Self-consumption | 12V: less than 35mA / 48V: less than 20mA | | |
| Charge voltage 'absorption' | Default setting: 14.4V / 28.8V / 57.6V (adjustable) | | |
| Charge voltage 'float' | Default setting: 13.8V / 27.6V / 55,2V (adjustable) | | |
| Charge voltage 'equalize' [4] | Default setting: 16.2V / 32.4V / 64.8V (adjustable) | | |
| Charge algorithm | multi-stage adaptive (eight pre-programmed algorithms) or user defined algorithm | | |
| Temperature compensation | -16mV/°C / -32 mV/°C / -48 mV/°C / -64 mV/°C | | |
| Protection | PV reverse polarity / Output short circuit / Over temperature | | |
| Operating temperature | -30°C to +60°C (full rated output up to 40°C) | | |
| Humidity | 95%, non-condensing | | |
| Maximum altitude | 5000m (full rated output up to 2000m) | | |
| Environmental condition | Indoor, unconditioned | | |
| Pollution degree | PD3 | | |
| Data communication | VE.Can ports [5]<br>VE.Direct port [5]<br>Bluetooth, via the VictronConnect app | | |
| Remote on/off | Yes, 2 pole terminal | | |
| Programmable relay | DPST AC rating: 4A up to 240Vac / DC rating: 4A up to 35Vdc, 1A up to 60Vdc | | |
| Parallel operation | Yes, parallel synchronised operation via VE.Can (max. 25 units) or via Bluetooth, (max. 10 units). | | |
| **ENCLOSURE** | | | |
| Colour | Blue (RAL 5012) | | |
| PV terminals | Tr models: 35 mm² / AWG2<br>MC4 models: 2 pairs of MC4 connectors [3,6] | Tr models: 35 mm² / AWG2<br>MC4 models: 3 pairs of MC4 connectors [3,6] | |
| Battery terminals | 35 mm² / AWG2 | | |
| Protection category | IP43 (electronic components), IP22 (connection area) | | |

| | 150/70 | 150/85[7] | 150/100[7] |
|---|---|---|---|
| Weight | 3kg | 4.5kg | |
| Dimensions (h x w x d) | Tr models: 185 x 250 x 95mm<br>MC4 models: 215 x 250 x 95mm | Tr models: 216 x 295 x 103mm<br>MC4 models: 246 x 295 x 103mm | |
| **STANDARDS** | | | |
| Safety | EN/IEC 62109-1, UL 1741, CSA C22.2 | | |

1a) The solar charger will limit input power if more PV power is connected.

1b) The PV voltage must exceed Vbat + 5V for the controller to start. Thereafter the minimum PV voltage is Vbat + 1V.

2) A higher short circuit current may damage the solar charger in case of reverse polarity connection of the PV array.

3) Maximum current per MC4 connector is 30A.

4) Equalization is by default disabled.

5) For more information on data communication see the data communication paper in the Technical information section on our website.

6) MC4 models: several splitter pairs may be needed to parallel the strings of solar panels. The MC4 connectors are internally parallel connected to a single MPPT tracker.

7) Note that below list of part numbers are 12/24V only. Not for 36/48V. And even if VictronConnect allows selecting 36 or 48V, they are still not to be sold or used as such. As per labels on the unit which indicate 12/24V only.

| Model | Part number |
|---|---|
| SmartSolar 150/85-Tr VE.Can | SCC115085412 |
| SmartSolar 150/85-MC4 VE.Can | SCC115085512 |
| SmartSolar 150/100-Tr VE.Can | SCC115110412 |
| SmartSolar 150/100-MC4 VE.Can | SCC115110512 |