

MPPT solar charge controller

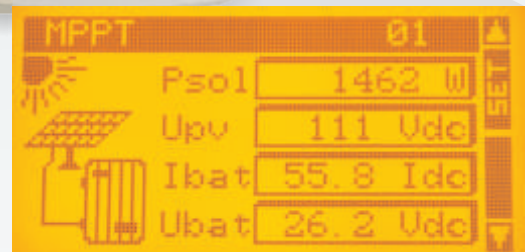
VarioTrack

Maximize the energy generated from solar panels by adding a **VarioTrack** solar charge controller with maximum power point tracker (MPPT) to any solar installation.

VT-80
VT-65

The solar charge controller, **VarioTrack**, contains the MPPT algorithm that continuously tracks the maximum power point and automatically charge the batteries in an optimal way with all the available solar power.

65 or 80A / Battery voltage: 12-24-48V
16-150V input PV voltage range



Product features

- Easy and safe commissioning with full protection against incorrect wiring
- Rugged and durable, this device is designed to perform in harsh environmental conditions (IP54)
- High conversion efficiency, 98%
- Up to 15 **VarioTrack** in parallel
- 4 step charger for longer battery life
- Low self-consumption : ON < 5W, standby < 1W (night time mode)
- Display with 6 LEDs showing status and current
- Comprehensive display, programming and datalogging with RCC-02/-03
- Optimal usage in an **Xtender** system with a synchronized battery management



VarioTrack

VT-80
VT-65

Model	VT-65			VT-80		
Electrical characteristics PV array side						
Maximum Solar power recommended (@STC)	12 V	24 V	48 V	12 V	24 V	48 V
	850 W	1700 W	3400 W	1050 W	2100 W	4200 W
Maximum Solar Open Circuit Voltage	80 Vdc		150 Vdc	80 Vdc	150 Vdc	
Maximum Solar functional circuit voltage	12 V	24 V	48 V	12 V	24 V	48 V
	75 Vdc	145 Vdc	145 Vdc	75 Vdc	145 Vdc	145 Vdc
Electrical characteristics Battery side						
Maximum Output Current	65 A			80 A		
Nominal Battery Voltages	automatic / manual set to 12, 24 or 48 Vdc					
Operating voltage range	7.5 – 68 V					
Performances of the device						
Power Conversion Efficiency (in a 48 V typical-system)	98 %					
Maximum Stand-By Self-consumption (48 V)	25 mA > 1.2 W					
Maximum Stand-By Self-consumption (24 V)	30 mA > 0.8 W					
Maximum Stand-By Self-consumption (12 V)	35 mA > 0.5 W					
Charging stages	4 stages : Bulk, Absorption, Float, Equalization					
Battery temperature compensation	-3 mV /°C /cell (25°C ref) default value adjustable -8 to 0 mV /°C					
Electronic protections						
PV reverse polarity	protected					
Battery reverse polarity	up to -150 Vdc					
Battery overvoltage	up to 150 Vdc					
Over temperature	protected					
Reverse current at night	prevented by relays					
Transient Surge Protection	3000 Watts / port					
Environment						
Operating Ambient Temperature Range	-20 to 55°C					
Humidity	100 %					
Ingress Protection of enclosures	IP54, IEC/EN 60529:2001					
Mounting location	indoor					
General data						
Warranty	5 years					
Weight	4.7 kg					
Dimensions h/w/l [mm]	110 / 210 / 310					
Parallel operation (separated PV arrays)	up to 15 devices					
Max wire size	35mm ²					
Glands	M 20 × 1,5					
Communication						
Network Cabling	STUDER communication BUS					
Remote Display and Controller	RCC-02/-03 / Xcom-232i					
Menu languages	English / French / German / Spanish					
Data Logging	With RCC-02/03 on SD card · One point every minute					
Accordance to standards						
CE compliant	EMC 2004/108/CE · LV 2006/95/CE · RoHS 2002/95/CE					
Safety	IEC/EN 62109-1:2010					
EMC (ElectroMagnetic Compatibility)	IEC/EN 61000-6-3:2011 · IEC/EN 61000-6-1:2005					

Accessories:



RCC -02
Remote control and
programming center



RCC -03
Remote control and
programming center



BTS -01
Battery temperature
sensor