

SmartSolar Charge Controller	150/45	150/60	150/70
Battery voltage	12 / 24 / 48V Auto Select (software tool needed to select 36V)		
Rated charge current	45A	60A	70A
Nominal PV power, 12V 1a,b)	650W	860W	1000W
Nominal PV power, 24V 1a,b)	1300W	1720W	2000W
Nominal PV power, 36V 1a,b)	1950W	2580W	3000W
Nominal PV power, 48V 1a,b)	2600W	3440W	4000W
Max. PV short circuit current 2)	50A (max 30A per MC4 conn.)		
Maximum PV open circuit voltage	150V absolute maximum coldest conditions 145V start-up and operating maximum		
Maximum efficiency	98%		
Self-consumption	Less than 35mA @ 12V / 20mA @ 48V		
Charge voltage 'absorption'	Default setting: 14,4 / 28,8 / 43,2 / 57,6V (adjustable with: rotary switch, display, VE.Direct or Bluetooth)		
Charge voltage 'float'	Default setting: 13,8 / 27,6 / 41,4 / 55,2V (adjustable: rotary switch, display, VE.Direct or Bluetooth)		
Charge voltage 'equalization'	Default setting: 16,2V / 32,4V / 48,6V / 64,8V (adjustable)		
Charge algorithm	multi-stage adaptive (eight pre-programmed algorithms) or user defined algorithm		
Temperature compensation	-16 mV / -32 mV / -64 mV / °C		
Protection	PV reverse polarity / Output short circuit / Over temperature		
Operating temperature	-30 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 port	VE.Direct or Bluetooth		
Remote on/off	Yes (2 pole connector)		
Programmable relay	DPST	AC rating: 240VAC / 4A	DC rating: 4A up to 35VDC, 1A up to 60VDC
Parallel operation	Yes: up to 10 units can be synchronized with Bluetooth		
ENCLOSURE			
Colour	Blue (RAL 5012)		
PV terminals 3)	35 mm ² / AWG2 (Tr models) Two pairs of MC4 connectors (MC4 models)		
Battery terminals	35mm ² / AWG2		
Protection category	IP43 (electronic components), IP22 (connection area)		
Weight	3 kg		
Dimensions (h x w x d)	Tr models: 185 x 250 x 95 mm MC4 models: 215 x 250 x 95 mm		
STANDARDS			
Safety	EN/IEC 62109-1, UL 1741, CSA C22.2		
1a) If more PV power is connected, the controller will limit input power. 1b) The PV voltage must exceed Vbat + 5V for the controller to start. Thereafter the minimum PV voltage is Vbat + 1V. 2) A PV array with a higher short circuit current may damage the controller. 3) MC4 models: several splitter pairs may be needed to parallel the strings of solar panels Maximum current per MC4 connector: 30A (the MC4 connectors are parallel connected to one MPPT tracker)			