

## Technical data

Electrical Data	
Operating voltage	12 V or 24 V; automatic recognition
Voltage range 12 V	6.9 V – 17.2 V
Voltage range 24 V	17.3 V – 43.0 V
Permitted operating temperature range	-10 °C to +50 °C
Permitted storage temperature range	-20 °C to +80 °C
Power consumption mA	12,5 mA
PWM-Frequency	30 Hz
Maximum input voltage	< 47 V
Minimum battery voltage	6.9 V

Currents				
	PR 1010	PR 1515	PR 2020	PR 3030
Max. continuous module current at 25 °C	10 A	15 A	20 A	30 A
Max. continuous load current at 25 °C	10 A	15 A	20 A	30 A
Excess Temperature Protection				
Disconnect load >85 °C				
Reconnect load <75 °C				
Data for final charging voltage				
Depends on set battery type	Gel – storage battery (GEL)		Liquid electrolyte (Li)	
Float charge	14.1 V / 28.2 V		13.9 V / 27.8 V	
Boost charge; for 2:00 h	14.4 V / 28.8 V		14.4 V / 28.8 V	
Equalization charging; for 2:00 h	---		14.7 V / 29.4V	
30 day maintenance charge, if necessary	14.4 V (28.8 V) (for 2:00 h)		14.7 V (28.8 V) (for 2:00 h)	
Temperature compensation	-4 mV per °K and cells (internal sensor present, optional external sensor possible)			

Charge controller activation		
Activation threshold of the charge type	SOC Control	Voltage control
Float charge	SOC $\geq 70\%$	$\geq 12.7\text{ V}$ resp. $\geq 25.4\text{ V}$
Boost charge	SOC 40 % - 69 %	11.7 V - 12.4 V; resp. 23.4 V - 24.8 V
Equalization charge	SOC $< 40\%$	$< 11.7\text{ V}$ resp. 23.4 V
30 day maintenance charge	if within 30 days no equalization or boost charge was active.	
Load disconnection		
	SOC Control	Voltage control
Early warning load disconnection	SOC $< 40\%$	$< 11.7\text{ V} / 23.4\text{ V}$
Load disconnection	SOC $< 30\%$	$< 11.1\text{ V} / 22.2\text{ V}$
Load reconnection	SOC $> 50\%$	$> 12.6\text{ V} / 25.2\text{ V}$
Mechanical Data		
Protection type	IP 32	
Installation	wall installation	
Weight	350 g	
Housing	recycledable, plastic housing	
Dimensions L x B x H	187 x 96 x 44 mm	
Fastening hole clearance	vertical 60 mm; horizontal 177 mm	
Terminals (fine / strand)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> /     AWG: 6 / 4 mm <sup>2</sup>	