

	12V	24V
Available versions	x	
Input voltage: / Line frequency	198 - 264VAC / 47 - 63Hz	
Max output power	588W	
Power factor	0.95 typ.	
Step 0 < 30min Yellow	5A ± 1A, when battery voltage < 10.5V	2.5A ± 0.5A, when battery voltage < 21V
Step 0 > 30min Red (Error-mode)	< 0.2A	
Step 1 Yellow	(until Vbat = 14.7V) 40A ± 0.5A, when battery voltage >10.5V.	(until Vbat = 29.4V) 20A ± 0.5A, when battery voltage >21V.
Step 2 Flashing Yellow	(until I charge < 5A or > 4h) 14.7V ± 0.1V and charge current is tapering.	(until I charge < 2.5A or > 4h) 29.4V ± 0.1V and charge current is tapering
Step 3 Green	(until I charge > 40A) 13.7V ± 0.2V, supply current up to maximum 40A for possible parallel load.	(until I charge > 20A) 27.4V ± 0.2V, supply current up to maximum 20A for possible parallel load.
Charge timer (step2)	4h	
Safety timer	72h	
Restart charge current	40A	20A
Formation Charge	Low current start up of deeply discharged battery.	
Float charge	40A pulses at safe float voltage level for maximum topping of battery capacity.	20A pulses at safe float voltage level for maximum topping of battery capacity.
Indication when "Battery not connected"	Flashing Green (1s/1s)	
Ripple	< 100mV p-p	
Efficiency (at 100% load, 230V) approx.	> 81%	> 85%
Switch frequency approx.	67kHz	
Leakage current from battery with mains switched off	< 0.6mA at 13V battery voltage (0.43Ah/month)	
Protection	Protected against reversed polarity and short circuit proof. Safety timer. Charging of wrong lower voltage battery pack (e.g. 6V) will be limited to 5A and terminated after 30min.	Protected against reversed polarity and short circuit proof. Safety timer. Charging of wrong lower voltage battery pack (e.g. 12V) will be limited to 2.5A and terminated after 30min.
Temperature range	Operating: ±25 to +40°C. Storage: ±25 to +85°C	
Safety	EN 60335-2-29	
Insulation class	Class I	
Insulation voltage: Primary – secondary	3750VAC / 5300 VDC	
EMC standards	EN 55014-1 and –2, Emission EN 61000-6-3, Immunity EN 61000-6-1	
Input terminal	3-pins IEC 320 connector	
Output terminals	Screw terminal	
IP-Grade	20 (PCB with components are protected with coating)	
Rec. battery capacity	200 - 2000Ah	100 - 1000Ah
Smart temperature control	* Silent temperature controlled fan operating at low speed during full 40A charge. * More cooling (fan speed) available at higher ambient temperatures. * Emergency current derating if max fan speed is insufficient for safe operating component temperatures.	* Silent temperature controlled fan operating at low speed during full 20A charge. * More cooling (fan speed) available at higher ambient temperatures. * Emergency current derating if max fan speed is insufficient for safe operating component temperatures.
Dimensions	330 x 186 x 63.5 mm	
Weight	3.15kg	