

	6V Lead Acid	12V Lead Acid	18V Lead Acid	24V Lead Acid
Available versions	X	X		X
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz			
Max output power	36,75W	42W	42W	42W
Step 0 < 30min Yellow	CC 340mA when batt voltage < 5.25V.	CC 360mA when batt voltage < 10.5V.	CC 240mA when batt voltage < 15.75V.	CC 180mA when batt voltage < 21V.
Step 0 > 30min Red (4 blinks)	0A / 0V			
Step 1 (Constant Current) Yellow	CC 5A $\pm$ 0.4A, when 5.25V < Vbat < 7.35V.	CC 2.86A $\pm$ 0.1A, when 10.5V < Vbat < 14.7V.	CC 1.9A $\pm$ 0.1A, when 15.75V < Vbat < 22.05V.	CC 1.43A $\pm$ 0.1A, when 21V < Vbat < 29.4V.
Step 2 (Constant Voltage) Flashing Yellow	CV 7.35V $\pm$ 0.1V, until I charge < 1A or max. 4h.	CV 14.7V $\pm$ 0.1V, until I charge < 571mA or max. 4h.	CV 22.05V $\pm$ 0.2V, until I charge < 381mA or max. 4h.	CV 29.4V $\pm$ 0.2V, until I charge < 286mA or max. 4h.
Charge timer (step2, CV)	4h			
Safety timer (all steps) Red (5 blinks)	72h			
Step 3 (Maintenance voltage) Green	6.85V	13.7V	20.55V	27.4V
Restart voltage	6.5V	13.0V	19.5V	26.0V
Efficiency (at 100% load) approx.	0.85	0.87	0.87	0.87
No load consumption	< 0,5 W			
Switch frequency approx.	65kHz			
Ripple	< 100mV p-p			
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.			
Float charge	CC pulses at safe float voltage level for maximum topping of battery capacity.			
Indication when "Battery not connected"	Flashing Green (1s/1s)			
Leakage current from battery with mains switched off	<0.3 mA			
Temperature compensation of charge voltage (optional)	-3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell)			
Protection	Error indications: LED off: Battery voltage too high. Check battery voltage 2 red blinks: Battery is connected to charger with reverse polarity. 3 red blinks: Charger output is shorted. Check cable/connectors. 4 red blinks: Battery voltage is low after start timer has run out, 10 min. 5 red blinks: Timeout safety timer. 6 red blinks: Defect battery. Abnormal voltage changes 7 red blinks: Temperature too high, disconnect mains to reset 8 red blinks: Thermistor open or short (if mandatory)			
Temperature range	Operating: -25 to +40oC. Transport and short time storage: -25 to +85oC			
Safety	Medical IEC 60601-1 / Home Health care IEC 60601-1-11, Household IEC60335-1 / Battery Charger IEC 60335-2-29, A/V and Comm. tech: IEC 62368-1,			
Insulation class	Class II			
Insulation voltage: Primary – secondary	4000VAC / 5700VDC			
EMC standards	Household IEC 55014-1 and –2, Emission IEC 61000-6-3, Immunity IEC 61000-6-1, Medical IEC 60601-1-2			
Input terminal	2-pins IEC 320 connector, C8.			
Output terminals	DC connector, Battery clips, Push-on terminals or open ends.			
IP-Grade	IP41 (IP67 on Request)			
Rec. battery capacity	25Ah (C/5) to 50Ah (<1.0A charge current as EoC detection) or up to 250Ah (utilizing the 4h CV timer as EoC detection)	14,3Ah (C/5) to 28.6Ah (<567mA charge current as EoC detection) or up to 143Ah (utilizing the 4h CV timer as EoC detection)	9,52Ah (C/5) to 19Ah (<382mA charge current as EoC detection) or up to 95Ah (utilizing the 4h CV timer as EoC detection)	7.14Ah (C/5) to 14.2Ah (<284mA charge current as EoC detection) or up to 71.4Ah (utilizing the 4h CV timer as EoC detection)
Dimensions	131× 57,5 × 36 mm			

Weight	230g
Other	CBC functionality: Configurable Battery Charger. Charging history: Log of latest charge cycles.

	36V Lead Acid	48V Lead Acid
Available versions		X
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	
Max output power	42W	
Step 0 < 30min Yellow	CC 120mA when batt voltage < 31,5V.	CC 90mA when batt voltage < 42V.
Step 0 > 30min Red (4 blinks)	0A / 0V	
Step 1 (Constant Current) Yellow	CC 0,95A $\pm$ 0.1A, when 31,5V < Vbat < 44,1V.	CC 0.71A $\pm$ 0.1A, when 42V < Vbat < 58,8V.
Step 2 (Constant Voltage) Flashing Yellow	CV 44,1V $\pm$ 0.2V, until I charge < 190mA or max. 4h.	CV 58,8V $\pm$ 0.3V, until I charge < 143mA or max. 4h.
Charge timer (step2, CV)	4h	
Safety timer (all steps) Red (5 blinks)	72h	
Step 3 (Maintenance voltage) Green	41.1V	54.8V
Restart voltage	39.0V	52.0V
Efficiency (at 100% load) approx.	0.87	
No load consumption	< 0,5 W	
Switch frequency approx.	65kHz	
Ripple	< 100mV p-p	
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.	
Float charge	CC pulses at safe float voltage level for maximum topping of battery capacity.	
Indication when "Battery not connected"	Flashing Green (1s/1s)	
Leakage current from battery with mains switched off	<0.3 mA	
Temperature compensation of charge voltage (optional)	-3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell)	
Protection	Error indications: LED off: Battery voltage too high. Check battery voltage 2 red blinks: Battery is connected to charger with reverse polarity. 3 red blinks: Charger output is shorted. Check cable/connectors. 4 red blinks: Battery voltage is low after start timer has run out, 10 min. 5 red blinks: Timeout safety timer. 6 red blinks: Defect battery. Abnormal voltage changes 7 red blinks: Temperature too high, disconnect mains to reset 8 red blinks: Thermistor open or short (if mandatory)	
Temperature range	Operating: -25 to +40oC. Transport and short time storage: -25 to +85oC	
Safety	Medical IEC 60601-1 / Home Health care IEC 60601-1-11, Household IEC60335-1 / Battery Charger IEC 60335-2-29, A/V and Comm. tech: IEC 62368-1,	
Insulation class	Class II	
Insulation voltage: Primary – secondary	4000VAC / 5700VDC	
EMC standards	Household IEC 55014-1 and –2, Emission IEC 61000-6-3, Immunity IEC 61000-6-1, Medical IEC 60601-1-2	
Input terminal	2-pins IEC 320 connector, C8.	
Output terminals	DC connector, Battery clips, Push-on terminals or open ends.	
IP-Grade	IP41 (IP67 on Request)	
Rec. battery capacity	4.76Ah (C/5) to 9.5Ah (<189mA charge current as EoC detection) or up to 47.6Ah (utilizing the 4h CV timer as EoC detection)	3.57Ah (C/5) to 7.1Ah (<143mA charge current as EoC detection) or up to 35.7Ah (utilizing the 4h CV timer as EoC detection)
Dimensions	131× 57,5 × 36 mm	
Weight	230g	
Other	CBC functionality: Configurable Battery Charger. Charging history: Log of latest charge cycles.	