

SPECIFICATIONS FOR 4040 LA	12V Lead Acid	24V Lead Acid	36V Lead Acid	48V Lead Acid
Available versions	x			
Input voltage: / Line frequency	90-264Vac 47-63Hz			
Active power factor correction:	Yes			
Max output power:	117.6W		117.2W	117.6W
Step 0 < 30min Yellow	CC 800mA ± 50mA, when batt voltage < 10.5V.	CC 500mA ± 25mA, when batt voltage < 21V.	CC 300mA ± 25mA, when batt voltage < 31.5V.	CC 200mA ± 25mA, when batt voltage < 42V.
Step 0 > 30min Red (4 blinks)	0A / 0V			
Step 1 (Constant Current) Yellow	CC 8.0A ± 0.2A, when 10.5V < Vbat < 14.7V.	CC 4.0A ± 0.2A, when 21V < Vbat < 29.4V.	CC 2.65A ± 0.2A, when 31.5V < Vbat < 44.1V.	CC 2.0A ± 0.2A, when 42V < Vbat < 58.8V.
Step 2 (Constant Voltage) Flashing Yellow	CV 14.7V ± 0.2V < 5.5A until I charge < 1.3A or max. 4h.	CV 29.4V ± 0.2V < 2.8A until I charge < 0.65A or max. 4h.	CV 44.1V ± 0.2V < 1.5A until I charge < 0.45A or max. 4h.	CV 58.8V ± 0.2V < 1.4A until I charge < 0.35A or max. 4h.
Charge timer (step2, CV)	4h			
Safety timer (all steps) Red (5 blinks)	72h			
Step 3 Float Charge voltage Green	13.7V	27.4V	41.1V	54.8.4V
Restart voltage	13.0V	26.0V	39.0V	52.0V
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.			
Wake-up of deeply discharged battery.	Yes, will apply voltage which deactivates deep discharge protection in battery pack.			
Indication when "Battery not connected"	Flashing Green (1s/1s)			
Temperature compensation of charge voltage:	-3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell)			
Ripple:	< 100mV p-p			
Efficiency (at 230V 100% load) approx.:	91%			
Switch frequency approx.:	45-75kHz			
Leakage current from battery with mains switched off:	< 1 mA at nominal battery voltage (< 0.72 Ah/month)			
Protection:	Protected against reversed polarity. Error Indication: Red (2 blinks) Short circuit proof. Error Indication: Red (3 blinks) Charging of wrong lower voltage battery pack will be terminated after 30min (See step 0). Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) Battery temperature too high >50°C: Error Red (7 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.			
Temperature range:	Operating: -25 to +40oC. Transport and short time storage: -25 to +85oC			
Derating at 40oC approx.:	5.5A	3.1A	1.8A	1.50A
Safety:	Medical EN 60601-1 / Home Health care EN 60601-1-11/ Battery Charger EN 60335-2-29. A/V and Comm. tech: IEC 62368-1			
Insulation class :	Class II. (Class I on request)			
Insulation voltage: Primary – secondary:	4000VAC / 5700VDC			
EMC standards:	EN 55014-1 and -2, Emission EN 61000-6-3, Immunity EN 61000-6-1, EN 60601-1-2.			
Input terminal:	2-pins IEC 320 connector, C8 or mains cable (3pins IEC 320 connector, C6 on request)			
Output terminals:	DC connector, Battery clips, Push-on terminals or open ends.			
IP-Grade:	41			
Rec. battery capacity:	40-400Ah	20-200Ah	13 -130Ah	10-100Ah
Dimensions:	203.5 × 87 × 43.5 mm			
Weight:	775g			
Other:	CBC functionality: Configurable Battery Charger. Charging history: Log of 10 latest charge cycles. Automatic detection of diode in series with battery.			