

BATTERY CHARGER, 452116-N, NiMH

SPECIFICATIONS	2	3-6	4-8	5-10	6-12	10-20
Cell-Con part number:	452116-NZ	452116-NA	452116-NB	452116-NC	452116-ND	452116-NE
Input voltage:	90-265VAC					
Line frequency:	50-60Hz					
No-load voltage:	6.3V ±0.7V	12.8V ±0.7V	16.5V ±1V	21V ±1.2V	24.7V ±1.5V	41V ±2V
Max output power:	8.2W	16W				
Min. output voltage for -ΔV detection:	2.5V (min 2 cells x min 1.25V pr. cell)	3.7V (min 3 cells x min 1.25V pr. cell)	5.0V (min 4 cells x min 1.25V pr. cell)	6.2V (min 5 cells x min 1.25V pr. cell)	7.5V (min 6 cells x min 1.25V pr. cell)	12V (min 10 cells x min 1.25V pr. cell)
Max. output voltage for -ΔV detection:	5.4V (max 2 cells x max 1.8V pr. cell)	10.8V (max 6 cells x max 1.8V pr. cell)	14.4V (max 8 cells x max 1.8V pr. cell)	18V (max 10 cells x max 1.8V pr. cell)	21.6V (max 12 cells x max 1.8V pr. cell)	36V (max 20 cells x max 1.8V pr. cell)
-ΔV sensitivity mV/cell:	10mV/0.6%		8mV/0.5%			
Fast charge current:	1.3A ±100mA		1.0A ±100mA	0.8A ±100mA	0.7A ±100mA	400mA ±50mA
Top off charge (duration 1h after -dV detection):	160mA ±30mA		130mA ±30mA	110mA ±30mA	100mA ±30mA	65mA ±20mA
Trickle charge current:	30mA ±15mA (continuously)					
Leakage current from battery with mains switch off:	<1mA					
Start time:	3 min, no -ΔV detection in this period.					
Top-off timer:	1 hour					
Safety timer - The charger switch to trickle charge if no ΔV is detected before the safety timer has run out:	2 hours					
Switch frequency:	40kHz					
Temperature range:	-20 to +40°C (these values are only for the charger, not for the batteries).					
Charge control:	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.					
Voltage changes during charging:	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.					
Battery analyzing:	Max. 20 sec after mains connection/battery connection (yellow LED).					
Efficiency:	Appr. 80%					
Fuses:	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.					
Insulation class:	Class II					
Electrical safety:	EN 60601-1, EN 60950, EN 60335-2-29					
EMC-standards:	EN 61000-6-3, EN 61000-6-1, EN 60601-1-2					
Insulation voltage (primary-secondary):	4000V AC/5700V DC					
Mains connection:	2-pins IEC 320 connector for changeable mains plug (EU, US and UK).					
Output terminals:	Secondary cable with exchangeable plug.					
LED-indication:	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low					
Resetting:	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the main voltage.					
IP-grade:	IP4X					
Dimensions:	103.5×46.8×38.7mm					
Weight:	150g					
Other:	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.					

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Battery & Charger Solutions

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