



Description

The ICS charger is a single, bay stand-alone battery charger with the versatility to accommodate a broad array of cell chemistries and configurations. Typical applications include lithium-ion (1 to 4 cells), nickle metal-hydride (2 to 12 cells), nickle cadmium (2 to 12 cells), and lead acid (2 to 9 cells). The maximum charge current is easily adjustable from 500mA to 3000mA. The unit may be ordered without its plastic housing and output cable for use as a component.

The ICS charger uses an external power supply. Depending on the application, this may be either a universal input switching supply or an inexpensive iron-core wall adapter. Since the current sensing occurs in the negative battery lead, there must not be a common ground connection established between the battery and the external power supply.

Target Battery Chemistry

- Lithium Ion
- Nickle Metal Hydride
- Nickle Cadmium
- Lead Acid

Absolute Maximum Ratings

Input Voltage 30VDC

General

Adjustable charge current 500mA to 3000mA
 Current tolerance ± 6%
 Voltage limit 4V to 20V
 Voltage limit tolerance ±0.2%
 Operating temperature 0°C to 50°C

Standard Output Cable

Length 8", stripped and tinned
 Red wire Positive battery lead
 Black wire Negative battery lead
 Green wire Thermistor lead (used only with NiMH and NiCd)

Lithium Ion Chemistry

Termination algorithm CCCV
 Termination point Current falls to limit value/8
 Top-off 1 hour or current falls to limit value/20
 Charge current limit Customer specified
 Voltage limit Customer specified
 Override timer None
 Number of cells 1 to 4

Specifications

NiMH Chemistry

Termination algorithm
Termination value
Top-off charge
Trickle charge
Charge current limit
Voltage limit
Override timer
Number of cells

(Requires presence of 10K, NTC thermistor)
dT/dt
1.0°C/minute \pm 0.1°C/minute
30 minutes at C/10
Continuous at C/300
Customer specified
Disabled
4 hours
2 to 12

NiCd Chemistry

Termination algorithm
Termination value
Top-off charge
Trickle charge
Charge current limit
Voltage limit
Override timer
Number of cells

Negative delta V
12mV/cell \pm 2mV/cell
30 minutes at C/10
Continuous at C/300
Customer specified
Disabled
4 hours
2 to 12

Lead Acid Chemistry

Termination algorithm
Termination point
Top-off
Charge current limit
Voltage limit
Override timer
Number of cells

CCCV
Current falls to limit value/8
1 hour or current falls to limit value/20
Customer specified
Customer specified
None
2 to 9

LED Indications

Off
Power up
Green flashing
Green solid
Yellow solid
Red/green flashing
Red flashing

No battery detected
Red-yellow-green-off
Fast charging
Fully charged
Out of temperature range
Shorted terminals
Error

Physical and Environmental

Dimensions
Weight
Material
Input connector
Storage temperature
Humidity
Drop

3.63" x 2.27" x 1.85" (92mm x 58mm x 47mm)
6oz (171g)
Black ABS GSM
2.5mm center positive
-20°C to 80°C
15% - 95% non-condensing
36" onto concrete, six faces

Agency Testing

Approvals

CE, FCC class B, Cispr 22, TUV

Accessories

Desktop power supply
Automotive

PS2524, Universal input, 24VDC output
VA2524, 12VDC input, 24V output