

## CEL9025 = 36V Li-ion 70W Charger with double 1A USB



ACMG



ATP

- Reverse Protection
- Double 1A USB output
  - High Efficiency with Low consumed
  - Charger Outputs 36V
  - MCU manager charger
  - Universal Input
  - OT,OC,OV,SC Protection
  - CE,FCC, Certification Qualified
  - Little Cubage



### SPECIFICATION

	ITEM	UNIT	SPECIFICATION	REMARK
<b>1. INPUT</b>				
1,1	Rating Input Voltage	ACV	100-240Vac 50/60Hz	
1,2	Input Voltage Range	ACV	90-264Vac	
1,3	Input Frequency	Hz	47-63	
1,4	Input Current	ACA	see tables	
1,5	Power Consumption in Stand By Mode	W	<1	Input:230Vac
1,6	Max.input power	W	see tables	
1,7	PFC		NC	Input:230Vac,Full laod
<b>2. OUTPUT</b>				
2,1	Charging battery type	-	Li_ion	
2,2	Charge voltage	DCV	42	
2,3	Charge current(max)	DCA	1-2	
2,4	USB1 output	/	5V1A	
2,5	USB2 output	/	5V1A	
2,6	Charge time	hour	Approx. 1.5Hr	Result is based on 3AH battery.
2,7	LED color	-	Red:charging Green:finish/idle	
2,8	Max.ourput power	W	70	
2,9	Hold-on time	ms	NC	
2,10	Ripple Voltage	mV	100	input: 230VAC Output: Full loading
2,11	Fully Charged Condition	-	Charging current <0.3A	
2,12	Output protection	-	Over temperatruue &Over current & Over voltage &Short circuit	
2,13	Efficiency	%	>85%	Output: Full loading
<b>3. REQUIREMENT</b>				
3,1	Operate temperature	℃	-10~+45	Output: Full loading
3,2	Operate humidity	%RH	30~90	Relative humidity,non-condensing.
3,3	Storage temperature	℃	-40~+80	
3,4	Storage humidity	%RH	5~95	Relative humidity,non-condensing.
3,5	Cooling	-	Natural convection	
3,6	Vibration	-	0.35mm/10-50HZ/600s	
3,7	Impact	-	Drop test 3 times (X,Y,Z),height at 1m	
<b>4. MECHANICAL</b>				
4,1	Charger Weight	g	Approx. 710	
4,2	Charger Dimension	mm	175*160*80	
4,3	Connectors	-	Selectable,see tabel	
<b>5. SAFETY</b>				
5,1	Max.temperature increment	℃	<50 on casing	Output: Full loading
5,2	Safety standares	-	EN60335	
5,3	EMC standards	-	EN55014,EN55022	
5,4	MTBF	hrs	5000	
5,5	ESD	KV	10	
5,6	Hi-Pot Insulation	V	I/P to O/P:3000Vac(1min) <5mA	For final unit,cut-off current=5mA

## 6.Models and Ratings

电压ID	
ID1 (Kohm)	Vmax
1.50	25.20
2.32	29.40
4.00	33.60
4.97	35.00
/	42.00

电流ID	
ID2 (Kohm)	I <sub>max</sub>
1.2	0.9
2.2	1.2
4.7	1.5
/	2

电池类型ID			
ID1 (Kohm)	Bat. Type	Vmax	Cells
12	NICD/NIMH	35	6-20节
2	LI	25.2	6
3	LI	29.4	7
4.3	LI	33.6	8
5.6	LI	42	10

## 7.CHARGING METHOD INTRODUCTION

### 7.1 Lithium-ion Battery Charging Method:

When the charger detected the voltage of the Li-ion battery mounted onto the charger is less than 3.0V/cell, it will use 450mA current test charged the battery. Should the voltage of the battery can not increased to over 3.0V after 30 minutes of continuous trickle charging, the charger will consider this battery a bad one. For normal battery charging, the charger will use 3A/2A/1.5A to charge the battery and it will continuously monitor the battery's temperature / current / voltage. Once the preset quick charge time is up or the preset current value is reached, the charger will automatically reduce it charging current to 0.3A and its LED indicator will switched to FULL CHARGE state. But it will not stop slow charging until the preset 30 minutes time have lapse or the charging current is reduced to less than 100mA, then the battery is considered as fully charged and the charging is terminated.

Max. Charging Time: 4 hours

Voltage Error Detection: Less than 4V or higher than 42V

Trickle Charging: when <3.0V/cell, charging current approx 450mA

Trickle Charging Time: 30 minutes

### 8. LED Description:

- 1: Standby...green LED flashing @ 2HZ
- 2: Trickle charging...red LED flashing @ 2HZ
- 3: Quick charging... red LED glow steady
- 4: Fully charged...green LED glow steady
- 5: Reversed-polarity battery, Bad Battery...red LED flashing @ 1Hz