

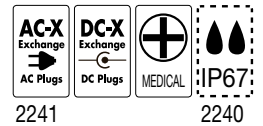
# 2240-2241 LI Max. 1,3 A

Chargers for Li-Ion batteries - switch mode



## 2241 LI - exchangeable AC plugs

- 3-step charge control with current detection as charge termination
- Universal input voltage (90-264 VAC)
- Charging 1-7 battery cells
- 2-pin IEC 320 mains connector
- Mounting bracket available
- Order plugs/cord separately
- Exchangeable AC and DC plugs
- Waterproof (IP67) version available
- Custom specifications on request
- ECO-design compliance: DoE and CEC
- Approvals:
  - Medically certified
  - Safety: EN 60601-1 ed 3.1
  - EMC: EN 60601-1-2-ed. 4
  - UL approved



For updates: see [www.mascot.no](http://www.mascot.no)

## TECHNICAL SPECIFICATIONS

### GENERAL INPUT/OUTPUT

Input voltage:	90-264 VAC
Line frequency:	47 – 63Hz
Switch frequency, approx.:	40kHz
Leakage current from battery with mains switched off:	≈ 0
Temperature range	
• Operating:	-25 °C - +40 °C
• Storage:	-25 °C - +85 °C
Ripple:	< 100 mV p-p
Dimensions (LxWxH):	90 × 45 × 32mm (2240)
Weight:	115g (215g IP67 vers.)

### SAFETY PROTECTION EMC

Protection:	Protected against reversed polarity and short circuit proof II
Insulation class:	
Insulation voltage	
• Primary – secondary:	4000VAC / 5640VDC
Electrical safety:	EN 60601-1, EN 60950, EN 60335-2-29
EMC standards	
• Medical:	EN 60601-1-2
• Emission:	EN 61000-6-3
• Immunity:	EN 61000-6-1
Reliability (MIL-HDBK-217F):	MTBF > 250.000h at 30°C and full load
Output terminals:	Cord with/without plug
IP-code:	4X

## CHARGE CONTROL

Cells	Max. output power (W)	Efficiency at 100% load, 230VAC	Step 1	Step 2	Step 3	Charge start Vbat<	
			Charge current (orange)	Charge voltage (orange)	Charge termination I< (green)		
1	5,5	58 %	1,3A +5/-7%	4,2V +-0,05V	100mA +-25%	4,05V+0,05-0,15V	Or mains turned on
2	10,9	72 %	1,3A +5/-7%	8,4V +-0,1V		8,1V+0,1-0,15V	
3	15,1	77 %	1,2A +5/-7%	12,6V +-0,1V		12,3V+0,1-0,15V	
4	15,1	80 %	0,9A +5/-7%	16,8V +-0,1V		16,4V+0,1-0,15V	
5	14,7	82 %	0,7A +5/-7%	21,0V +-0,1V		20,5V+0,1-0,15V	
6	15,1	82 %	0,6A +5/-7%	25,2V +-0,1V		24,6V+0,1-0,15V	
7	16,4	82 %	0,56A +5/-7%	29,4V +-0,1V		28,7V+0,1-0,15V	



For 2241Li only:  
Exchangeable AC plug models



**2-pin IEC 320 C7 mains cord**  
1800 mm EU part no. 131306  
UK part no. 131148, US part no. 131147, AU part no. 013108

