

MASCOT type 3743 Li-Ion Chargers:	1-cell Li-Ion	2-cell Li-Ion	3-cell Li-Ion
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz
Max output power	6.3 W	12.6 W	15.1 W
Charge control: Step 0 < 10min Step 0 > 10min Step 1 (Constant Current) Step 2 (Constant Voltage) Charge timer (step2, CV) Safety timer (all steps) Step 3 (Charge Completed) Restart voltage	Charge indication: Yellow Red (4 blinks) Yellow Flashing Yellow Red (5 blinks) Green	CC 100mA ± 25mA, when battery voltage < 3V. 0A / 0V CC 1.5A ± 0.1A, when 3V < Vbat < 4.2V. CV 4.2V ± 0.05V, til I _{charge} < 100mA or max. 1h. 1h 72h 0A 4.1V	CC 100mA ± 25mA, when battery voltage < 6V. 0A / 0V CC 1.5A ± 0.1A, when 6V < Vbat < 8.4V. CV 8.4V ± 0.1V, til I _{charge} < 100mA or max. 1h. 1h 72h 0A 8.2V
Efficiency (at 100% load) approx.:	79 %	81 %	82 %
Average efficiency:	> 76 %	> 78 %	> 80 %
No load consumption	< 0,5 W	< 0,5 W	< 0,5 W
Switch frequency approx.:	56kHz	56kHz	56kHz
Ripple:	< 100mV p-p	< 100mV p-p	< 100mV p-p
Rec. battery capacity:	1,5Ah (1C) to 10Ah (cut off current as EoC) or up to 60Ah (CV Timer as EoC)	1,5Ah (1C) to 10Ah (cut off current as EoC) or up to 60Ah (CV Timer as EoC)	1,2Ah (1C) to 10Ah (cut off current as EoC) or up to 48Ah (CV Timer as EoC)
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.		
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)		
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.		
Leakage current from battery with mains switched off:	< 300 µA at nominal battery voltage (< 0.22 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 limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.		
Temperature range:	Operating: ±25 to +40°C. Storage: ±25 to +85°C		
Safety:	Medical EN 60601-1 / Home Healthcare EN 60601-1-11 (V _{NOM} ≥110VAC) / Battery Charger EN 60335-2-29		
Insulation class :	Class II		
Insulation voltage: Primary – secondary:	4000VAC / 5700VDC		
EMC standards:	EN 55014-1 and –2, EN 61000-6-3, EN 61000-6-1, EN 60601-1-2		
Input terminal:	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.		
Output terminals:	Cord with/without plug. Exchangeable plugs available.		
IP-Grade:	IP41		
Dimensions:	108,5 × 49 × 29,3 mm		
Weight:	150g		

MASCOT type 3743 Li-Ion Chargers:	4-cell Li-Ion	5-cell Li-Ion	6-cell Li-Ion
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz
Max output power	16.8 W	16.8 W	16.8 W
Charge control:	Charge indication:		
Step 0 < 10min	Yellow	CC 100mA ± 25mA, when battery voltage < 12V.	CC 100mA ± 25mA, when battery voltage < 15V.
Step 0 > 10min	Red (4 blinks)	0A / 0V	0A / 0V
Step 1 (Constant Current)	Yellow	CC 1A ± 0.1A, when 12V < Vbat < 16.8V.	CC 0.8A ± 0.1A, when 15V < Vbat < 21V.
Step 2 (Constant Voltage)	Flashing Yellow	CV 16.8V ± 0.1V, til I _{charge} < 100mA or max. 1h.	CV 21V ± 0.1V, til I _{charge} < 100mA or max. 1h.
Charge timer (step2, CV)		1h	1h
Safety timer (all steps)	Red (5 blinks)	72h	72h
Step 3 (Charge Completed)	Green	0A	0A
Restart voltage		16.4V	20.5V
			24.6V
Efficiency (at 100% load) approx.:	83 %	83 %	84 %
Average efficiency:	> 80 %	> 80 %	> 80 %
No load consumption	< 0,5 W	< 0,5 W	< 0,5 W
Switch frequency approx.:	56kHz	56kHz	56kHz
Ripple:	< 100mV p-p	< 100mV p-p	< 100mV p-p
Rec. battery capacity:	1Ah (1C) to 10Ah (cut off current as EoC) or up to 40Ah (CV Timer as EoC)	0,8Ah (1C) to 10Ah (cut off current as EoC) or up to 32Ah (CV Timer as EoC)	0,66Ah (1C) to 10Ah (cut off current as EoC) or up to 26,4Ah (CV Timer as EoC)
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.		
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)		
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.		
Leakage current from battery with mains switched off:	< 300 µA at nominal battery voltage (< 0.22 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 limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.		
Temperature range:	Operating: ±25 to +40°C. Storage: ±25 to +85°C		
Safety:	Medical EN 60601-1 / Home Healthcare EN 60601-1-11 (V _{NOM} ≥110VAC) / Battery Charger EN 60335-2-29		
Insulation class :	Class II		
Insulation voltage: Primary – secondary:	4000VAC / 5700VDC		
EMC standards:	EN 55014-1 and –2, EN 61000-6-3, EN 61000-6-1, EN 60601-1-2		
Input terminal:	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.		
Output terminals:	Cord with/without plug. Exchangeable plugs available.		
IP-Grade:	IP41		
Dimensions:	108,5 × 49 × 29,3 mm		
Weight:	150g		

MASCOT type 3743 Li-Ion Chargers:	7-cell Li-Ion	8-cell Li-Ion	9-cell Li-Ion																																				
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz																																				
Max output power	16.5 W	16.8 W	17 W																																				
Charge control:	<table border="0"> <tr> <td></td> <td><u>Charge indication:</u></td> <td></td> <td></td> </tr> <tr> <td>Step 0 < 10min</td> <td>Yellow</td> <td>CC 100mA ± 25mA, when battery voltage < 21V.</td> <td>CC 100mA ± 25mA, when battery voltage < 24V.</td> </tr> <tr> <td>Step 0 > 10min</td> <td>Red (4 blinks)</td> <td>0A / 0V</td> <td>0A / 0V</td> </tr> <tr> <td>Step 1 (Constant Current)</td> <td>Yellow</td> <td>CC 0.56A ± 0.1A, when 21V < Vbat < 29.4V.</td> <td>CC 0.5A ± 0.1A, when 24V < Vbat < 33.6V.</td> </tr> <tr> <td>Step 2 (Constant Voltage)</td> <td>Flashing Yellow</td> <td>CV 29.4V ± 0.1V, til I_{charge} < 100mA or max. 1h.</td> <td>CV 33.6V ± 0.1V, til I_{charge} < 100mA or max. 1h.</td> </tr> <tr> <td>Charge timer (step2, CV)</td> <td></td> <td>1h</td> <td>1h</td> </tr> <tr> <td>Safety timer (all steps)</td> <td>Red (5 blinks)</td> <td>72h</td> <td>72h</td> </tr> <tr> <td>Step 3 (Charge Completed)</td> <td>Green</td> <td>0A</td> <td>0A</td> </tr> <tr> <td>Restart voltage</td> <td></td> <td>28.7V</td> <td>36.9V</td> </tr> </table>				<u>Charge indication:</u>			Step 0 < 10min	Yellow	CC 100mA ± 25mA, when battery voltage < 21V.	CC 100mA ± 25mA, when battery voltage < 24V.	Step 0 > 10min	Red (4 blinks)	0A / 0V	0A / 0V	Step 1 (Constant Current)	Yellow	CC 0.56A ± 0.1A, when 21V < Vbat < 29.4V.	CC 0.5A ± 0.1A, when 24V < Vbat < 33.6V.	Step 2 (Constant Voltage)	Flashing Yellow	CV 29.4V ± 0.1V, til I _{charge} < 100mA or max. 1h.	CV 33.6V ± 0.1V, til I _{charge} < 100mA or max. 1h.	Charge timer (step2, CV)		1h	1h	Safety timer (all steps)	Red (5 blinks)	72h	72h	Step 3 (Charge Completed)	Green	0A	0A	Restart voltage		28.7V	36.9V
	<u>Charge indication:</u>																																						
Step 0 < 10min	Yellow	CC 100mA ± 25mA, when battery voltage < 21V.	CC 100mA ± 25mA, when battery voltage < 24V.																																				
Step 0 > 10min	Red (4 blinks)	0A / 0V	0A / 0V																																				
Step 1 (Constant Current)	Yellow	CC 0.56A ± 0.1A, when 21V < Vbat < 29.4V.	CC 0.5A ± 0.1A, when 24V < Vbat < 33.6V.																																				
Step 2 (Constant Voltage)	Flashing Yellow	CV 29.4V ± 0.1V, til I _{charge} < 100mA or max. 1h.	CV 33.6V ± 0.1V, til I _{charge} < 100mA or max. 1h.																																				
Charge timer (step2, CV)		1h	1h																																				
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Step 3 (Charge Completed)	Green	0A	0A																																				
Restart voltage		28.7V	36.9V																																				
Efficiency (at 100% load) approx.:	84 %	84 %	84 %																																				
Average efficiency:	> 80 %	> 80 %	> 80 %																																				
No load consumption	< 0,5 W	< 0,5 W	< 0,5 W																																				
Switch frequency approx.:	56kHz	56kHz	56kHz																																				
Ripple:	< 100mV p-p	< 100mV p-p	< 100mV p-p																																				
Rec. battery capacity:	0,56Ah (1C) to 10Ah (cut off current as EoC) or up to 22,4Ah (CV Timer as EoC)	0,5Ah (1C) to 10Ah (cut off current as EoC) or up to 20Ah (CV Timer as EoC)	0,45Ah (1C) to 10Ah (cut off current as EoC) or up to 18Ah (CV Timer as EoC)																																				
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.																																						
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)																																						
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.																																						
Leakage current from battery with mains switched off:	< 300 µA at nominal battery voltage (< 0.22 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 limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.																																						
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Input terminal:	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.																																						
Output terminals:	Cord with/without plug. Exchangeable plugs available.																																						
IP-Grade:	IP41																																						
Dimensions:	108,5 × 49 × 29,3 mm																																						
Weight:	150g																																						

MASCOT type 3743 Li-Ion Chargers:	10-cell Li-Ion	11-cell Li-Ion	12-cell Li-Ion
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz
Max output power	16.8 W	17.1 W	16.6 W
Charge control:	Charge indication:		
Step 0 < 10min	Yellow	CC 100mA ± 25mA, when battery voltage < 30V. 0A / 0V	CC 100mA ± 25mA, when battery voltage < 36V. 0A / 0V
Step 0 > 10min	Red (4 blinks)	CC 0.4A ± 0.1A, when 30V < Vbat < 42V. CV 42V ± 0.1V, til I _{charge} < 80mA or max. 1h.	CC 0.37A ± 0.1A, when 33V < Vbat < 46.2V. CV 46.2V ± 0.1V, til I _{charge} < 80mA or max. 1h.
Step 1 (Constant Current)	Yellow	1h	1h
Step 2 (Constant Voltage)	Flashing Yellow	72h	72h
Charge timer (step2, CV)		0A	0A
Safety timer (all steps)	Red (5 blinks)	41V	45.1V
Step 3 (Charge Completed)	Green		49.2V
Restart voltage			
Efficiency (at 100% load) approx.:	84 %	84 %	84 %
Average efficiency:	> 80 %	> 80 %	> 80 %
No load consumption	< 0,5 W	< 0,5 W	< 0,5 W
Switch frequency approx.:	56kHz	56kHz	56kHz
Ripple:	< 100mV p-p	< 100mV p-p	< 100mV p-p
Rec. battery capacity:	0,4Ah (1C) to 8Ah (cut off current as EoC) or up to 16Ah (CV Timer as EoC)	0,37Ah (1C) to 8Ah (cut off current as EoC) or up to 14,8Ah (CV Timer as EoC)	0,33Ah (1C) to 8Ah (cut off current as EoC) or up to 13,2Ah (CV Timer as EoC)
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.		
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)		
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.		
Leakage current from battery with mains switched off:	< 300 µA at nominal battery voltage (< 0.22 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 limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.		
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Input terminal:	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.		
Output terminals:	Cord with/without plug. Exchangeable plugs available.		
IP-Grade:	IP41		
Dimensions:	108,5 × 49 × 29,3 mm		
Weight:	150g		

MASCOT type 3743 Li-Ion Chargers:	13-cell Li-Ion	14-cell Li-Ion	
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	90 - 264VAC / 47 - 63Hz	
Max output power	16.38 W	17.6 W	
Charge control:	Charge indication:		
Step 0 < 10min	Yellow	CC 80mA ± 25mA, when battery voltage < 39V.	CC 80mA ± 25mA, when battery voltage < 42V.
Step 0 > 10min	Red (4 blinks)	0A / 0V	0A / 0V
Step 1 (Constant Current)	Yellow	CC 0.3A ± 0.1A, when 39V < Vbat < 54.6V.	CC 0.3A ± 0.1A, when 42V < Vbat < 58.8V.
Step 2 (Constant Voltage)	Flashing Yellow	CV 54.6V ± 0.1V, til I _{charge} < 56mA or max. 1h.	CV 58.8V ± 0.1V, til I _{charge} < 56mA or max. 1h.
Charge timer (step2, CV)		1h	1h
Safety timer (all steps)	Red (5 blinks)	72h	72h
Step 3 (Charge Completed)	Green	0A	0A
Restart voltage		53.3V	57.4V
Efficiency (at 100% load) approx.:	84 %	84 %	
Average efficiency:	> 80 %	> 80 %	
No load consumption	< 0,5 W	< 0,5 W	
Switch frequency approx.:	56kHz	56kHz	
Ripple:	< 100mV p-p	< 100mV p-p	
Rec. battery capacity:	0,3Ah (1C) to 5,6Ah (cut off current as EoC) or up to 12Ah (CV Timer as EoC)	0,3Ah (1C) to 5,6Ah (cut off current as EoC) or up to 12Ah (CV Timer as EoC)	
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.		
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)		
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.		
Leakage current from battery with mains switched off:	< 300 µA at nominal battery voltage (< 0.22 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 limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.		
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Input terminal:	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.		
Output terminals:	Cord with/without plug. Exchangeable plugs available.		
IP-Grade:	IP41		
Dimensions:	108,5 × 49 × 29,3 mm		
Weight:	150g		