MASCOT ELECTRONICS AS

SPECIFICATIONS FOR TYPE 3743 LA Chargers

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(versions in grey are on request only)

| MASCOT type 3743 Lead acid:   | 6 V  | 12 V  | 24 V   | 36 V   |  |  |
|---|--|---|--|--|--|--|
| Input voltage: / Line frequency   | 90 - 264VAC / 47 - 63Hz  | 90 - 264VAC / 47 - 63Hz   | 90 - 264VAC / 47 - 63Hz  | 90 - 264VAC / 47 - 63Hz  |  |  |
| Max output power  | 11 W   | 14.7 W  | 16.5 W   | 17.6 W   |  |  |
| Charge control: Step 0 < 30min Step 0 > 30min Step 1 (Constant Current) Step 2 (Constant Voltage) Charge timer (step2, CV) Safety timer (all steps) Step 3 (Maintenance voltage) Restart voltage Efficiency (at 100% load) approx.:  Charge indication: Yellow Red (4 blinks) Yellow Flashing Yellow Flashing Yellow Green  Green | CC 1.5A ± 5%, 5V < Vbat < 7.35V. CV 7.35V ±0.1V, Ich<400mA or 4h. 4h 72h 6.85V 6.5V 80 % < 0,5 W   | CC 100mA ± 25mA, Vbat < 10.5V. 0A / 0V CC 1A ± 5%, 10.5V < Vbat < 14.7V. CV 14.7V ±0.1V, Ich<250mA or 4h. 4h 72h 13.7V 13.0V 82 % < 0,5 W | CC 100mA ± 25mA, Vbat < 21V. 0A / 0V CC 0.56A ± 5%, 21V < Vbat < 29.4V. CV 29.4V ±0.1V, Ich<150mA or 4h. 4h 72h 27.4V 26.0V 84 % < 0,5 W | CC 100mA ± 25mA, Vbat < 31.5V. 0A / 0V CC 0.4A ± 10%, 31.5V < Vbat < 44.1V. CV 44.1V ±0.1V, Ich<100mA or 4h. 4h 72h 41.1V 39.0V 84 % < 0,5 W |  |  |
| Switch frequency approx.:   | 56kHz  | 56kHz   | 56kHz  | 56kHz  |  |  |
| Ripple:   | < 100mV p-p  | < 100mV p-p   | < 100mV p-p  | < 100mV p-p  |  |  |
| Formation Charge (Step 0)   | Low current start-up of deeply discharged battery.   |   |  |  |  |  |
| Float charge:   | Pulses at safe float voltage level for maximum topping of battery capacity.  |   |  |  |  |  |
| Indication when "Battery not connected"   | Flashing Green (1s/1s)   |   |  |  |  |  |
| 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 30min. 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 <sub>NOM</sub> ≥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   |   |  |  |  |  |
| Rec. battery capacity:  | 7.5Ah (C/5) to 20Ah (<400mA charge current as EoC detection) or up to 75Ah (utilizing the 4h CV timer as EoC detection)  | 5Ah (C/5) to 12.5Ah (<250mA charge<br>current as EoC detection)<br>or up to 50Ah (utilizing the 4h CV<br>timer as EoC detection)          | 2.8Ah (C/5) to 7.5Ah (<150mA<br>charge current as EoC detection)<br>or up to 28Ah (utilizing the 4h CV<br>timer as EoC detection)        | 2.0Ah (C/5) to 5Ah (<100mA charge current as EoC detection) or up to 20Ah (utilizing the 4h CV timer as EoC detection)                       |  |  |
| Dimensions:   | $108,5 \times 49 \times 29,3 \text{ mm}$   |   |  |  |  |  |
| Weight:   | 150g   |   |  |  |  |  |

## MASCOT ELECTRONICS AS SPECIFICATIONS FOR TYPE 3743 LA Chargers PAGE 2(2)

DATE 03.10.23 (versions in grey are on request only)

| MASCOT type 3743 Lead acid:                           | 48 V   |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Input voltage: / Line frequency                       | 90 - 264VAC / 47 - 63Hz  |  |  |  |  |  |
| Max output power                                      | 17.6 W   |  |  |  |  |  |
| Charge control: Charge indication:                    |  |  |  |  |  |  |
| Step 0 < 30min Yellow                                 | CC 100mA ± 25mA, Vbat < 42V.   |  |  |  |  |  |
|   | 0A / 0V  |  |  |  |  |  |
|   | CC 0.3A ± 5%, 42V < Vbat < 58.8V.<br>CV 58.8V ±0.1V, lch<100mA or 4h.  |  |  |  |  |  |
| Charge timer (step2, CV)                              | 4h   |  |  |  |  |  |
| Safety timer (all steps) Red (5 blinks)               | 72h  |  |  |  |  |  |
|   | 54.8V  |  |  |  |  |  |
| riodian voltage                                       | 52.0V  |  |  |  |  |  |
|   | 84 %   |  |  |  |  |  |
| No load consumption                                   | < 0,5 W  |  |  |  |  |  |
| Switch frequency approx.:                             | 56kHz  |  |  |  |  |  |
| Ripple:   | < 100mV p-p  |  |  |  |  |  |
| Formation Charge (Step 0)                             | Low current start-up of deeply discharged battery.   |  |  |  |  |  |
| Float charge:   | Pulses at safe float voltage level for maximum topping of battery capacity.  |  |  |  |  |  |
| Indication when "Battery not connected"               | Flashing Green (1s/1s)   |  |  |  |  |  |
| Leakage current from battery with mains switched off: | < 300 μA at nominal battery voltage (< 0.22 Ah/month)  |  |  |  |  |  |
|   | Protected against reversed polarity. Error Indication: Red (2 blinks)  |  |  |  |  |  |
| Protection:   | Short circuit proof. Error Indication: Red (3 blinks) Charging of wrong lower voltage battery pack will be limited to 100mA and terminated after 30min. Indication: Red (4 blinks) |  |  |  |  |  |
| Flotection.   | Charging of wrong lower voltage battery pack will be limited to 100mA and terminated after 30min. 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 <sub>NOM</sub> ≥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   |  |  |  |  |  |
| Rec. battery capacity:                                | 1.5Ah (C/5) to 5Ah (<100mA charge  |  |  |  |  |  |
|   | current as EoC detection)  |  |  |  |  |  |
|   | or up to 15Ah (utilizing the 4h CV timer as EoC detection)   |  |  |  |  |  |
| Dimensions:   | 108,5 × 49 × 29,3 mm   |  |  |  |  |  |
| Weight:   | 150g   |  |  |  |  |  |
|   |  |  |  |  |  |  |