

DATE 24.10.23

| Specifications for MASCOT type 2440 | LiFePo ₄ versions | | | | | | | |
|---|---|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| | 1-Cell | 2-Cell | 3-Cell | 4-Cell | 5-Cell | 6-Cell | 7-Cell | 8-Cell |
| Input voltage: | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC |
| Line frequency: | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz |
| Max output power: | 15W | 29W | 44W | 58W | 71W | 72W | 72W | 73W |
| Ripple (measured on PCB): | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p |
| Efficiency (at 100% load, 230V) typical: | >60% | >77% | >80% | >81% | >85% | >85% | >85% | >87% |
| Leakage current from battery with mains switched off: | <0.4mA @3.2V | <0.4mA @6.4V | <0.7mA @9.6V | <0.7mA @12.8V | <0.7mA @16.0V | <0.7mA @19.2V | <0.7mA @22.4V | <0.8mA @25.6V |
| Charge control: Charge indication: | | | | | | | | |
| Step 1 Charge current: Orange | 4.0A ±0.2A | 4.0A ±0.2A | 4.0A ±0.2A | 4.0A ±0.2A | 3.9A ±0.2A | 3.3A ±0.1A | 2.8A ±0.1A | 2.5A ±0.1A |
| Step 2 Charge voltage: | 3.65V ±0.05V | 7.3V ±0.1V | 10.95V ±0.1V | 14.6V ±0.1V | 18.25V ±0.1V | 21.9V ±0.2V | 25.55V ±0.2V | 29.2V ±0.2V |
| - Charge current >: Orange | 1.8A ±0.2A | 1.8A ±0.1A | 1.8A ±0.1A | 1.6A ±0.1A | 1.6A ±0.1A | 1.6A ±0.1A | 0.8A ±0.1A | 0.8A ±0.1A |
| - Charge current <: Yellow | | | | | | | | |
| Step 3 Charge termination <: Green | 300mA | 300mA | 300mA | 300mA | 300mA | 300mA | 300mA ±25% | 300mA |
| Float charge voltage: | 3.5V ±0.05V | 7.0V ±0.1V | 10.5V ±0.1V | 14.0V ±0.1V | 17.5V ±0.2V | 21.0V ±0.2V | 24.5V ±0.2V | 28.0V ±0.2V |
| NTC input on request (10K): | 0-45°C normal charge <0 or >45°C reduced charge (LED indication is yellow) | | | | | | | |
| Switch frequency approx.: | 40kHz | | | | | | | |
| Protection: | Protected against reversed polarity and short circuit proof | | | | | | | |
| Temperature range: | Operating: ±25 to +40°C / Storage: ±25 to +85°C | | | | | | | |
| Safety: | Medical EN 60601-1 / Home Healthcare EN 60601-1-11 / Battery Charger EN 60335-2-29 | | | | | | | |
| Insulation class : | Class II. (Class I on request) | | | | | | | |
| Insulation voltage: Primary – secondary: | 4000VAC / 5700VDC | | | | | | | |
| EMC standards: | Medical EN 60601-1-2 / Emission EN 61000-6-3 / Immunity EN 61000-6-1 | | | | | | | |
| Mains connection: | 2-pins IEC 60320/C8 connector. (3-pins IEC 60320/C14 connector or non-detachable mains cord on request) | | | | | | | |
| Output terminals: | Battery clips or DC connector. | | | | | | | |
| IP-Grade: | IP4X (IP67 on request). | | | | | | | |
| Dimensions: | 135 x 80 x 44mm | | | | | | | |
| Weight: | 390g (890g IP67 version) | | | | | | | |

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|---|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 9-Cell | 10-Cell | 11-Cell | 12-Cell | 13-Cell | 14-Cell | 15-Cell | 16-Cell |
| Input voltage: | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC | 90 - 264VAC |
| Line frequency: | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz |
| Max output power: | 72W | 71W | 72W | 72W | 71W | 72W | 71W | 70W |
| Ripple (measured on PCB): | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p | <100mV p-p |
| Efficiency (at 100% load, 230V) typical: | >85% | >87% | >87% | >87% | >87% | >87% | >87% | >87% |
| Leakage current from battery with mains switched off: | <1.5mA @28.8V | <1.5mA @32.0V | <1.5mA @35.2V | <1.5mA @38.4V | <1.5mA @41.6V | <1.5mA @44.8V | <1.5mA @48.0V | <1.5mA @51.2V |
| Charge control: Charge indication: | | | | | | | | |
| Step 1 Charge current: Orange | 2.2A ±0.2A | 1.95A ±0.1A | 1.8A ±0.1A | 1.65A ±0.1A | 1.5A ±0.1A | 1.4A ±0.1A | 1.3A ±0.1A | 1.2A ±0.1A |
| Step 2 Charge voltage: | 32.85V ±0.2V | 36.5V ±0.2V | 40.15V ±0.2V | 43.8V ±0.3V | 47.45V ±0.3V | 51.1V ±0.3V | 54.75V ±0.3V | 58.4V ±0.3V |
| - Charge current >: Orange | | | | | | | | |
| - Charge current <: Yellow | 0.8A ±0.1A | 0.8A ±0.1A | 0.8A ±0.1A | 0.6A ±0.1A | 0.6A ±0.1A | 0.6A ±0.1A | 0.6A ±0.1A | 0.6A ±0.1A |
| Step 3 Charge termination <: Green | 200mA | 200mA | 200mA | 200mA | 100mA | 100mA | 100mA | 100mA |
| Float charge voltage: | 31.5V ±0.2V | 35.0V ±0.2V | 38.5V ±0.2V | 42.0V ±0.3V | 45.5V ±0.3V | 49.0V ±0.3V | 52.5V ±0.3V | 56.0V ±0.3V |
| NTC input on request (10K): | 0-45°C normal charge <0 or >45°C reduced charge (LED indication is yellow) | | | | | | | |
| Switch frequency approx.: | 40kHz | | | | | | | |
| Protection: | Protected against reversed polarity and short circuit proof | | | | | | | |
| Temperature range: | Operating: ±25 to +40°C / Storage: ±25 to +85°C | | | | | | | |
| Safety: | Medical EN 60601-1 / Home Healthcare EN 60601-1-11 / Battery Charger EN 60335-2-29 | | | | | | | |
| Insulation class : | Class II. (Class I on request) | | | | | | | |
| Insulation voltage: Primary – secondary: | 4000VAC / 5700VDC | | | | | | | |
| EMC standards: | Medical EN 60601-1-2 / Emission EN 61000-6-3 / Immunity EN 61000-6-1 | | | | | | | |
| Mains connection: | 2-pins IEC 60320/C8 connector. (3-pins IEC 60320/C14 connector or non-detachable mains cord on request) | | | | | | | |
| Output terminals: | Battery clips or DC connector. | | | | | | | |
| IP-Grade: | IP4X (IP67 on request). | | | | | | | |
| Dimensions: | 135 x 80 x 44mm | | | | | | | |
| Weight: | 390g (890g IP67 version) | | | | | | | |