

| | 6V Lead Acid | 12V Lead Acid | 24V Lead Acid | 36V Lead Acid |
|--|---|--|---|---|
| Available versions | x | | | |
| Input voltage: / Line frequency | 90-264Vac 47-63Hz | | | |
| Active power factor correction | Yes | | | |
| Max output power | 60W | 80W | 80W | 80W |
| Step 0 < 30min Yellow | CC 700mA, when batt voltage < 10.5V. | CC 700mA, when batt voltage < 10.5V. | CC 350mA, when batt voltage < 21V. | CC 200mA, when batt voltage < 42V. |
| Step 0 > 30min Red (4 blinks) | 0A / 0V | | | |
| Step 1 (Constant Current) Yellow | CC 8.0A +0.15/-0.3A, when 5.25V <Vbat <7.35V. | CC 5.4A +0.15/-0.3A, when 10.5V <Vbat <14.7V. | CC 2.70A +0.1/-0.3A, when 21V < Vbat < 29.4V. | CC 1.8A +0.1/-0.3A, when 31.5V <Vbat < 44.1V. |
| Step 2A (Constant Voltage) Flashing Yellow | CV 7.35V ± 0.1V when 8.0A > Ich > 5.6A CV. | CV 14.7V ± 0.2V when 5.4A > Ich > 3.8A CV. | CV 29.4V ± 0.2V when 2.7A > Ich > 2.0A CV. | CV 44.1V ± 0.2V when 1.8A > Ich > 1.4A CV. |
| Step 2B (Constant Voltage) Flashing Yellow | 7.35V ± 0.2V 5.6A > Ich > 1.3A or max. 4h. | 14.7V ± 0.2V 3.8A > Ich > 1.0A or max. 4h. | CV 29.4V ± 0.2V 2.0A > Ich > 0.5A or max. 4h. | 44.1V ± 0.2V 1.4A > Ich > 0.35A or max. 4h. |
| Enter float charge criteria: Current or timer | Ich < 1.3A or 4h in step 2B. | Ich < 1.0A or 4h in step 2B. | Ich < 0.5A or 4h in step 2B. | Ich < 0.35A or 4h in step 2B |
| Safety timer (all steps) Red (5 blinks) | 72h | | | |
| Step 3 Float Charge voltage Green | 6.85V | 13.7V | 27.4V | 41.1V |
| Restart voltage | 6.5V | 13.0V | 26.0V | 39.0V |
| Formation Charge (Step 0) | Low current start-up of deeply discharged battery. | | | |
| Float charge | CC pulses at safe float voltage level for maximum topping of battery capacity. | | | |
| 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) | | | |
| Temperature compensation of charge voltage | -3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell) | | | |
| Ripple | < 100mV p-p | | | |
| Efficiency (at 230V 100% load) approx. | > 87% | > 90% | > 90% | > 90% |
| Switch frequency approx. | 65kHz | | | |
| Leakage current from battery with mains switched off | < 1 mA at nominal battery voltage (< 0.72 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 after 30min.(see step 0). 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 +40oC. Transport and short time storage: -25 to +85oC | | | |
| Derating at 40oC approx. | 6.0A | 4.2A | 2.2A | 1.7A |
| Safety | Medical EN 60601-1 / Home Health care EN 60601-1-11/ Battery Charger EN 60335-2-29. A/V and Comm. tech: IEC 62368-1 | | | |
| Insulation class | Class II. (Class I on request) | | | |
| Insulation voltage: Primary – secondary | 4000VAC / 5700VDC | | | |
| EMC standards | EN 55014-1 and –2, Emission EN 61000-6-3, Immunity EN 61000-6-1, EN 60601-1-2. | | | |
| Input terminal | 2-pins IEC 320 connector, C8. (3pins IEC 320 connector, C6 on request) or mains cable | | | |
| Output terminals | DC connector, Battery clips, Push-on terminals or open ends. | | | |
| IP-Grade | IP4X (IP44 on request) | | | |
| Rec. battery capacity | 40Ah (5x1ch) to 74Ah (< 1.3A as EoC) or up to 400Ah (utilizing the 4h CV timer as EoC) | 27Ah (5x1ch) to 50Ah (< 1A as EoC) or up to 270Ah (utilizing the 4h CV timer as EoC) | 3.5Ah (5x1ch) to 25Ah (< 0.5A as EoC) or up to 135Ah (utilizing the 4h CV timer as EoC) | 9Ah (5x1ch) to 17.5Ah (< 0.35A as EoC) or up to 90Ah (utilizing the 4h CV timer as EoC) |
| Dimensions | 172.5 × 73 × 42 mm | | | |
| Weight | 460g | | | |

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|--|---|
| | 48V Lead Acid |
| Available versions | x |
| Input voltage: / Line frequency | 90-264Vac 47-63Hz |
| Active power factor correction | Yes |
| Max output power | 80W |
| Step 0 < 30min Yellow | CC 200mA, when batt voltage < 31.5V. |
| Step 0 > 30min Red (4 blinks) | 0A / 0V |
| Step 1 (Constant Current) Yellow | CC 1.35A +0.05/-0.2A, when 42V < Vbat < 58.8V. |
| Step 2A (Constant Voltage) Flashing Yellow | CV 58.8V ± 0.2V when 1.35A > Ich > 1.0A CV. |
| Step 2B (Constant Voltage) Flashing Yellow | 58.8V ± 0.2V 1.0A > Ich > 0.27A or max. 4h. |
| Enter float charge criteria: Current or timer | Ich < 0.27A or 4h in step 2B |
| Safety timer (all steps) Red (5 blinks) | 72h |
| Step 3 Float Charge voltage Green | 54.8.4V |
| Restart voltage | 52.0V |
| Formation Charge (Step 0) | Low current start-up of deeply discharged battery. |
| Float charge | CC pulses at safe float voltage level for maximum topping of battery capacity. |
| 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) |
| Temperature compensation of charge voltage | -3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell) |
| Ripple | < 100mV p-p |
| Efficiency (at 230V 100% load) approx. | > 91% |
| Switch frequency approx. | 65kHz |
| Leakage current from battery with mains switched off | < 1 mA at nominal battery voltage (< 0.72 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 after 30min.(see step 0). 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 +40oC. Transport and short time storage: -25 to +85oC |
| Derating at 40oC approx. | 1.2A |
| Safety | Medical EN 60601-1 / Home Health care EN 60601-1-11/ Battery Charger EN 60335-2-29. A/V and Comm. tech: IEC 62368-1 |
| Insulation class | Class II. (Class I on request) |
| Insulation voltage: Primary – secondary | 4000VAC / 5700VDC |
| EMC standards | EN 55014-1 and –2, Emission EN 61000-6-3, Immunity EN 61000-6-1, EN 60601-1-2. |
| Input terminal | 2-pins IEC 320 connector, C8. (3pins IEC 320 connector, C6 on request) or mains cable |
| Output terminals | DC connector, Battery clips, Push-on terminals or open ends. |
| IP-Grade | IP4X (IP44 on request) |
| Rec. battery capacity | 6.8Ah (5xIch) to 13.5Ah (< 0.27A as EoC) or up to 68Ah (utilizing the 4h CV timer as EoC) |
| Dimensions | 172.5 × 73 × 42 mm |
| Weight | 460g |
| Other | CBC functionality: Configurable Battery Charger. Charging history: Log of 10 latest charge cycles. |