

|                                                       | 12V Lead Acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 18V Lead Acid                                                                                                           | 24V Lead Acid                                                                                                            | 6V Lead Acid                                                                                                              |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Available versions                                    | x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Input voltage: / Line frequency                       | 90 - 264VAC / 47 - 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Max output power                                      | 29.4W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 28.9W                                                                                                                   | 29.4W                                                                                                                    | 18.4W                                                                                                                     |
| Step 0 < 30min Yellow                                 | CC 100mA $\pm$ 25mA, when batt voltage < 10.5V.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CC 100mA $\pm$ 25mA, when batt voltage < 16V.                                                                           | CC 100mA $\pm$ 25mA, when batt voltage < 21V.                                                                            | CC 100mA $\pm$ 25mA, when batt voltage < 5.25V.                                                                           |
| Step 0 > 30min Red (4 blinks)                         | 0A / 0V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Step 1 (Constant Current) Yellow                      | CC 2.0A $\pm$ 0.1A, when 10.5V < Vbat < 14.7V.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CC 1.3A $\pm$ 0.1A, when 16V < Vbat < 22.05V.                                                                           | CC 1.0A $\pm$ 0.1A, when 21V < Vbat < 29.4V.                                                                             | CC 2.5A $\pm$ 0.2A, when 5.25V < Vbat < 7.35V.                                                                            |
| Step 2 (Constant Voltage) Flashing Yellow             | CV 14.7V $\pm$ 0.2V, until I charge < 500mA or max. 4h.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CV 22.05V $\pm$ 0.2V, until I charge < 300mA or max. 4h.                                                                | CV 29.4V $\pm$ 0.2V, until I charge < 250mA or max. 4h.                                                                  | CV 7.35V $\pm$ 0.1V, until I charge < 600mA or max. 4h.                                                                   |
| Charge timer (step2, CV)                              | 4h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Safety timer (all steps) Red (5 blinks)               | 72h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Step 3 (Maintenance voltage) Green                    | 13.7V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20.5V                                                                                                                   | 27.4V                                                                                                                    | 6.85V                                                                                                                     |
| Restart voltage                                       | 13.0V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 19.5V                                                                                                                   | 26.0V                                                                                                                    | 6.5V                                                                                                                      |
| Efficiency (at 100% load) approx.                     | 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.82                                                                                                                    | 0.84                                                                                                                     | 0.8                                                                                                                       |
| No load consumption                                   | < 0,5 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Switch frequency approx.                              | 35kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Ripple                                                | < 100mV p-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Indication when "Battery not connected"               | Flashing Green (1s/1s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Leakage current from battery with mains switched off  | <0.3 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Temperature compensation of charge voltage (optional) | -3.5mV/°C pr cell. Nominal charge voltage at 20°C. (min 2.2V/cell, max 2.67V/cell)                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Protection                                            | Error indications:<br>LED off: Battery voltage too high. Check battery voltage<br>2 red blinks: Battery is connected to charger with reverse polarity.<br>3 red blinks: Charger output is shorted. Check cable/connectors.<br>4 red blinks: Battery voltage is low after start timer has run out.<br>5 red blinks: Timeout safety timer.<br>6 red blinks: Defect battery. Abnormal voltage changes<br>7 red blinks: Temperature too high, disconnect mains to reset<br>8 red blinks: Thermistor open or short (if mandatory) |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Temperature range                                     | Operating: -25 to +40oC. Transport and short time storage: -25 to +85oC                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Safety                                                | Medical EN 60601-1 / Home Health care EN 60601-1-11/ Battery Charger EN 60335-2-29                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Insulation class                                      | Class II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Output terminals                                      | DC connector, Battery clips, Push-on terminals or open ends.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| IP-Grade                                              | 4X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Rec. battery capacity                                 | 10Ah (C/5) to 25Ah (<500mA charge current as EoC detection) or up to 100Ah (utilizing the 4h CV timer as EoC detection)                                                                                                                                                                                                                                                                                                                                                                                                      | 6.5Ah (C/5) to 15Ah (<300mA charge current as EoC detection) or up to 50Ah (utilizing the 4h CV timer as EoC detection) | 5Ah (C/5) to 12.5Ah (<250mA charge current as EoC detection) or up to 100Ah (utilizing the 4h CV timer as EoC detection) | 12.5Ah (C/5) to 30Ah (<600mA charge current as EoC detection) or up to 125Ah (utilizing the 4h CV timer as EoC detection) |
| Dimensions                                            | 123.5 $\times$ 49.5 $\times$ 37 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Weight                                                | 220g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                         |                                                                                                                          |                                                                                                                           |
| Other                                                 | CBC functionality: Configurable Battery Charger. Charging history: Log of latest charge cycles.                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                         |                                                                                                                          |                                                                                                                           |