

BATTERIA SIGILLATA AGM DEEP-CYCLE (USO CICLICO)
DEEP-CYCLE AGM MAINTENANCE FREE BATTERY

ZL120185



CHARACTERISTIC / CARATTERISTICHE

| | | |
|--|----------------------------------|--|
| Volt | 12V | |
| Capacity / Capacità | 20h | 110Ah |
| | 5h | 90Ah |
| Internal Resistance | Full Charged Battery 25°C ≤5.3mΩ | |
| Capacity affected by Temperature / Effetti delle temperature sulla capacità | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| Self-Discharge 25°C Capacity / Autoscarica a 25°C | after 3 month storage | 90% |
| | after 6 month storage | 80% |
| | after 12 month storage | 62% |
| Charge cycle / Ciclo di carica | IU + h | "In" max. 20Amp; "V1" 2.43V/cell |
| | IUIa | "In" max. 20Amp; "V1" 14.4Volt; "If" 1Amp. |

CHARACTERISTIC / CARATTERISTICHE

| | | | |
|--|---------|-----|-----------|
| Battery dimensions / Dimensioni batteria | | | |
| L/L | W/P | H/A | Tot - H/A |
| 306 | 170 | 210 | 215 |
| Box Dimensions / Dimensioni scatola | | | |
| L/L | W/P | H/A | |
| 322 | 184 | 251 | |
| USA Type | 27 | | |
| Weight / Peso | 30,5 Kg | | |
| Terminal / Terminali | M8 | | |
| Case / Contenitore | ABS | | |

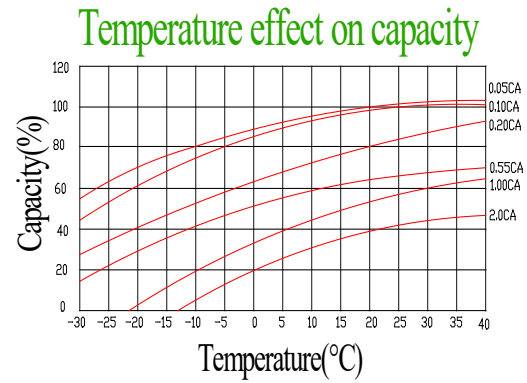
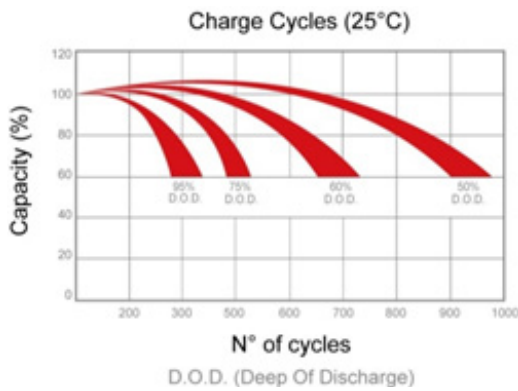
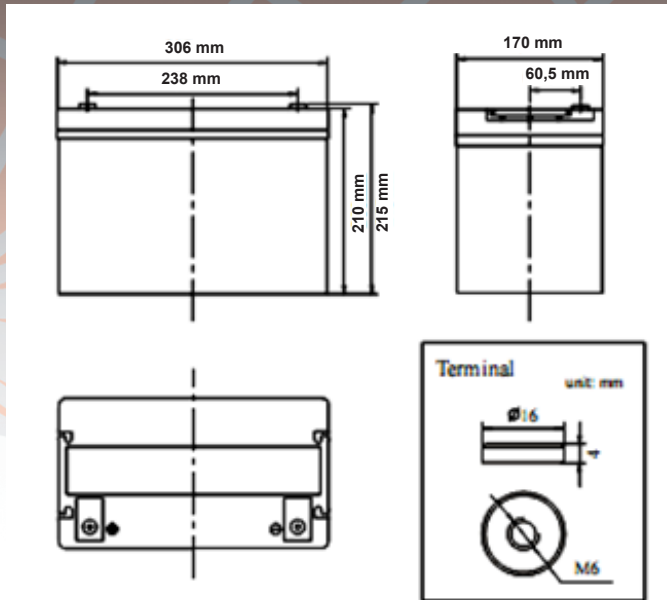
Amp. (25°C)

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-------|------|------|------|------|------|-----|------|
| 1.60V | 237.6 | 151.5 | 128.7 | 82.2 | 60.4 | 55.4 | 35.2 | 24.8 | 16.8 | 11.1 | 9.9 | 5.5 |
| 1.65V | 233.3 | 148.7 | 126.4 | 80.7 | 59.3 | 54.4 | 34.6 | 24.3 | 16.5 | 10.9 | 9.7 | 5.4 |
| 1.70V | 229.0 | 146.0 | 124.0 | 79.2 | 58.2 | 53.4 | 34.0 | 23.9 | 16.2 | 10.7 | 9.5 | 5.3 |
| 1.75V | 224.6 | 143.2 | 121.7 | 77.7 | 57.1 | 52.4 | 33.3 | 23.4 | 15.9 | 10.5 | 9.4 | 5.2 |
| 1.80V | 216.0 | 137.7 | 117.0 | 74.7 | 54.9 | 50.4 | 32.0 | 22.5 | 15.3 | 10.1 | 9.0 | 5.00 |

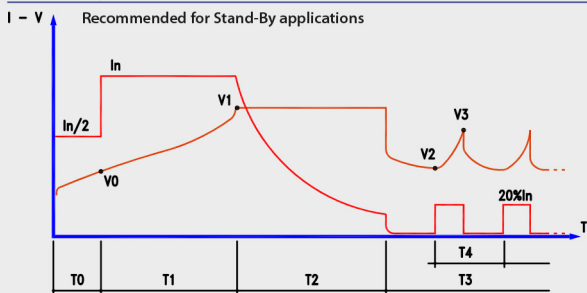
Watts (25°C)

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.60V | 457.4 | 291.6 | 247.7 | 158.2 | 116.3 | 106.7 | 67.8 | 47.6 | 32.4 | 21.3 | 19.1 | 10.6 |
| 1.65V | 449.1 | 286.3 | 243.2 | 155.3 | 114.1 | 104.8 | 66.6 | 46.8 | 31.8 | 21.0 | 18.7 | 10.4 |
| 1.70V | 440.7 | 281.0 | 238.7 | 152.4 | 112.0 | 102.8 | 65.4 | 45.9 | 31.2 | 20.6 | 18.4 | 10.2 |
| 1.75V | 432.4 | 275.7 | 234.2 | 149.5 | 109.9 | 100.9 | 64.1 | 45.0 | 30.6 | 20.2 | 18.0 | 10.0 |
| 1.80V | 415.8 | 265.1 | 225.2 | 143.8 | 105.7 | 97.0 | 61.7 | 43.3 | 29.5 | 19.4 | 17.3 | 9.6 |

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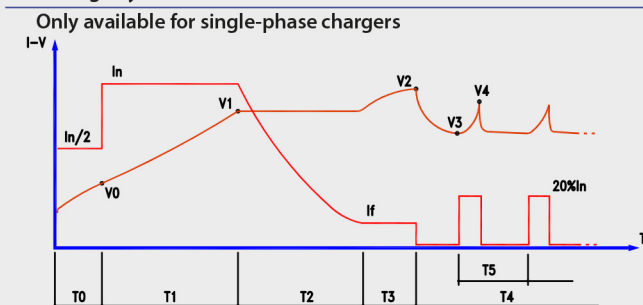
Charge cycle for sealed batteries (GEL/AGM): IU + holding



- I_n = PROGRAMMED CAPACITY/10
- V_0 = 1,90 V/CELL
- V_1 = PROGRAMMED VALUE
- V_2 = 2.10 V/CELL
- V_3 = 2.30 V/CELL
- T_0 = MAX. 1 HR
- T_1 = MAX. 12 HRS
- T_2 = T_1 (MIN. 2-MAX. 5 HRS)
- T_3 = UNLIMITED

"IUIa" charge cycle is always recommended in case of more than 2 batteries in series
Ciclo di carica "IUIa" è sempre necessario qualora ci siano più di 2 batterie collegate in serie.

IUIa charge cycle



- I_n = PROGRAMMED VALUE (CHARGE I)
- I_f = PROGRAMMED VALUE (FINAL I)
- V_0 = 1,90 V/CELL
- V_1 = PROGRAMMED VALUE (THRESHOLD V)
- V_2 = PROGRAMMED VALUE (LOCK V)
- V_3 = 2.10 V/CELL
- V_4 = 2.30 V/CELL
- T_0 = MAX. 1 HR
- T_1 = MAX. 12 HRS
- T_2 = MAX. T_1+6 HRS OR $I = I_f$
- T_3 = MAX. 4 HRS
- T_4 = UNLIMITED
- T_5 = MAX. 6 HRS

BlueSolar PWM-Light Charge Controllers 12/24V

www.victronenergy.com



BlueSolar PWM-Light 10A

Features

- Load output with low battery voltage disconnect function.
- Lighting control function, one timer only.
- Two digit seven segment display for quick and easy setting of the load output functionality, including timer setting.
- Three stage battery charging (bulk, absorption, float), not programmable.
- Load output protected against over load and short circuit.
- Protected against reverse polarity connection of the solar array and/or battery.

Day/night timing options

See manual for details

| BlueSolar PWM-Light | 12/24-5 | 12/24-10 | 12/24-20 | 12/24-30 |
|--|---|--|------------------|----------|
| Battery Voltage | 12/24 V with automatic system voltage detection | | | |
| Rated charge current | 5A | 10A | 20A | 30A |
| Automatic load disconnect | Yes | | | |
| Maximum solar voltage | 28V / 55V (1) | | | |
| Self-consumption | < 10 mA | | | |
| Load output | Manual control + low voltage disconnect | | | |
| Protection | Battery reverse polarity (fuse) | Output short circuit | Over temperature | |
| Overload protection | Shut down after 60 s in case of 130% load | | | |
| | Shut down after 5 s in case of 160% load | | | |
| | Short circuit: immediate shut down | | | |
| Grounding | Common positive | | | |
| Operating temp. range | -20 to +50°C (full load) | | | |
| Humidity (non-condensing) | Max 95% | | | |
| BATTERY | | | | |
| Charge voltage 'absorption' | 14,2V / 28,4V | | | |
| Charge voltage 'float' | 13,8V / 27,6V | | | |
| Low voltage load disconnect | 11,2V / 22,4V | | | |
| Low voltage load reconnect | 12,6V / 25,2V (manual) | | | |
| | 13,1V / 26,2V (automatic) | | | |
| ENCLOSURE | | | | |
| Protection class | IP20 | | | |
| Terminal size | 5 mm ² / AWG10 | | | |
| Weight | 0,15kg | | | 0,2kg |
| Dimensions (h x w x d) | 70 x 133 x 33,5 mm (2.8 x 5.3 x 1.3 inch) | | | |
| STANDARDS | | | | |
| Safety | IEC 62109-1 | | | |
| EMC | EN 61000-6-1, EN 61000-6-3, ISO 7637-2 | | | |
| 1) For 12V use 36 cell solar panels For 24V use 72 cell solar panels or 2x 36 cell in series | | 2) The controller switches to the lower float voltage level 2 hours after the absorption voltage has been reached. Whenever the battery voltage becomes lower than 13V, a new charge cycle is triggered. | | |