



# EnerRocket™

CONTINUOUSLY SAFEGUARDING

## ESC 100-12 FR

SMF VRLA RECHARGEABLE BATTERY

# LONG LIFE SERIES

## APPLICATIONS

UPS Systems  
Telecommunication Systems  
Fire Alarm Safety & Security Systems  
Medical Equipment

## COMPLIANCE STANDARDS

IEC 60896 PART 21 & 22  
Design Life as per Eurobat Standards

## TECHNICAL FEATURES



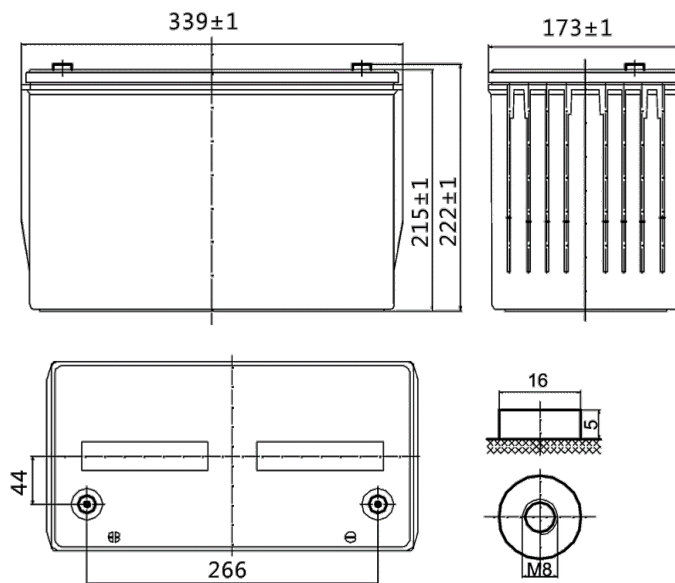
ABS



- Non-Spillable Sealed Construction
- Absorptive Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) Construction
- Gas Recombination
- Venting System for low internal pressure
- Low Self-Discharge
- Heavy-Duty, Highly Optimized Grids
- High Power Output

## CHARACTERISTICS

|                                                                     |              |                                              |
|---------------------------------------------------------------------|--------------|----------------------------------------------|
| Nominal Voltage                                                     | 12 V         |                                              |
| Design Life                                                         | 12 Years     |                                              |
| Capacity 25° (77°F)                                                 | 10 Hour rate | 100 Ah                                       |
| Internal Resistance (25°C, 100% Charge)                             |              | <5.7 mΩ                                      |
| Self Discharge (20°C)                                               | 1 Month      | Remaining Capacity 97%                       |
| Operating Temperature                                               | Discharge    | -20°C - 60°C                                 |
|                                                                     | Charge       | -10°C - 60°C                                 |
|                                                                     | Storage      | -20°C - 60°C                                 |
| Normal Operating Temperature                                        |              | 25°C ± 2°C                                   |
| Maximum Discharge current                                           |              | 900A (5sec)                                  |
| Maximum Charging current                                            |              | 30A                                          |
| Short Circuit Current                                               |              | 2500A                                        |
| Charge Methods<br>Constant Voltage Charge 77°F (25°C) – Cycle Use   |              | 14.4 to 14.7V<br>Temp. Compensation -30mV/°C |
| Charge Methods<br>Constant Voltage Charge 77°F (25°C) – Standby Use |              | 13.2 to 13.8V<br>Temp. Compensation -20mV/°C |



## SPECIFICATIONS

| Length | Width  | Height | Total Height | Weight (kg) |
|--------|--------|--------|--------------|-------------|
| 339 mm | 173 mm | 215 mm | 222 mm       | 28.0 Kg ±5% |

## CONSTANT CURRENT DISCHARGE (Amperes) AT 25 °C

| End Cell Voltage / Cell | 5 min | 10 min | 15 min | 20 min | 30 min | 60 min | 1.5 h | 2 h   | 3 h   | 4 h   | 5 h   | 10 h  |
|-------------------------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 1.60                    | 329   | 229    | 185    | 147    | 108    | 66.20  | 48.12 | 38.37 | 25.10 | 22.40 | 17.60 | 10.80 |
| 1.65                    | 318   | 221    | 178    | 142    | 104    | 62.50  | 45.43 | 36.23 | 24.60 | 21.80 | 17.30 | 10.60 |
| 1.70                    | 288   | 200    | 164    | 131    | 96     | 61.50  | 44.70 | 35.60 | 24.10 | 21.50 | 17.00 | 10.40 |
| 1.75                    | 269   | 187    | 153    | 122    | 93     | 60.5   | 43.98 | 35.07 | 23.50 | 21.00 | 16.50 | 10.20 |
| 1.80                    | 252   | 175    | 143    | 114    | 91     | 57.4   | 41.72 | 33.27 | 22.80 | 20.20 | 16.30 | 10.00 |

## CONSTANT POWER DISCHARGE (Watts) AT 25 °C

| End Cell Voltage / Cell | 5 min | 10 min | 15 min | 20 min | 30 min | 60 min | 1.5 h | 2 h   | 3 h   | 4 h   | 5 h   | 10 h  |
|-------------------------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 1.60                    | 552   | 392    | 321    | 263    | 199    | 124    | 84.40 | 68.20 | 48.40 | 41.90 | 33.80 | 17.70 |
| 1.65                    | 533   | 379    | 315    | 258    | 188    | 118    | 82.70 | 67.00 | 47.80 | 40.80 | 33.60 | 17.60 |
| 1.70                    | 506   | 360    | 299    | 245    | 183    | 116    | 80.20 | 65.80 | 47.30 | 40.00 | 33.30 | 17.40 |
| 1.75                    | 496   | 353    | 294    | 241    | 177    | 112    | 78.20 | 64.60 | 46.70 | 38.10 | 33.20 | 17.30 |
| 1.80                    | 462   | 329    | 279    | 228    | 171    | 109    | 76.30 | 63.90 | 45.90 | 37.40 | 32.90 | 17.20 |



# EnerRocket™

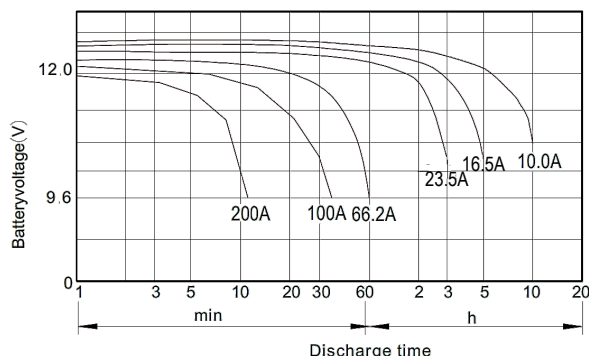
CONTINUOUSLY SAFEGUARDING

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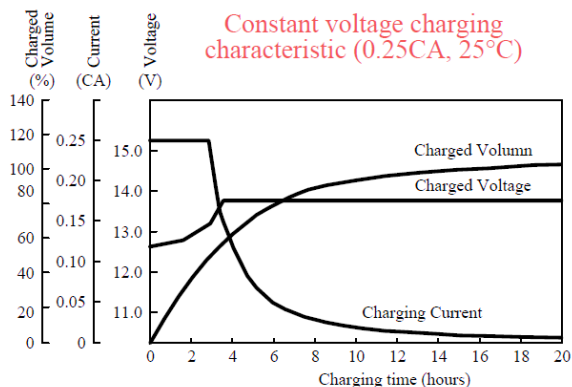
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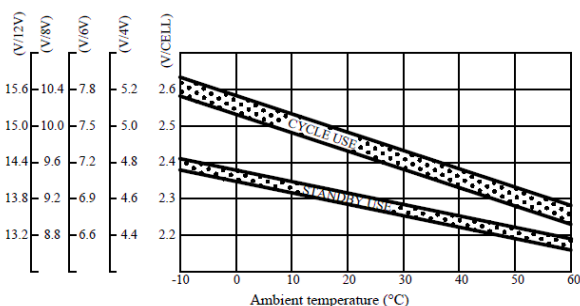
Discharge Characteristic (25°C)



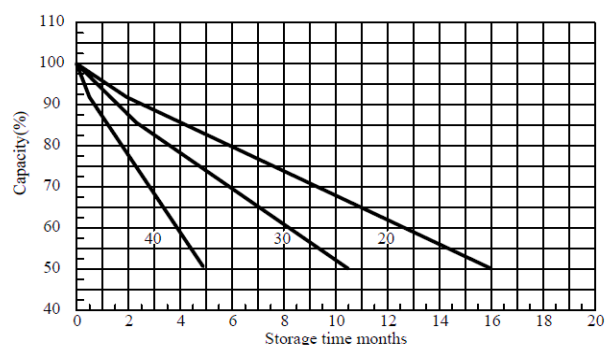
Constant voltage charging characteristic (0.25CA, 25°C)



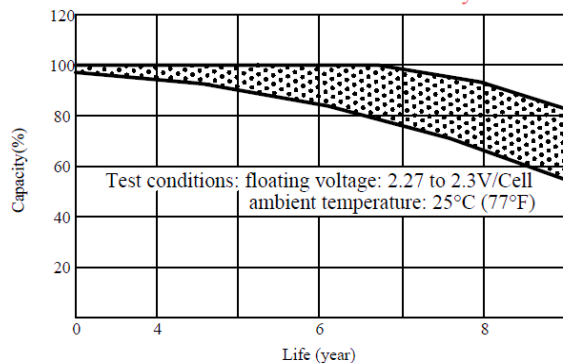
Relationship between charging voltage and temperature



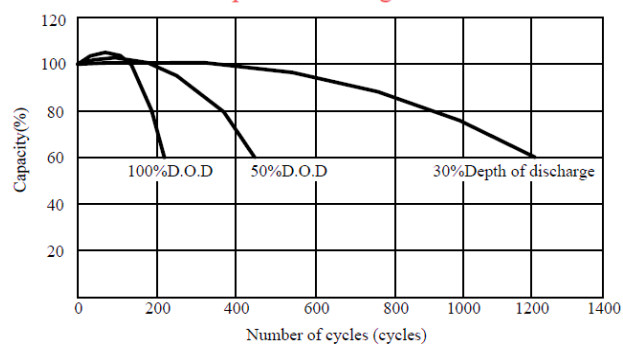
Self-discharge characteristic



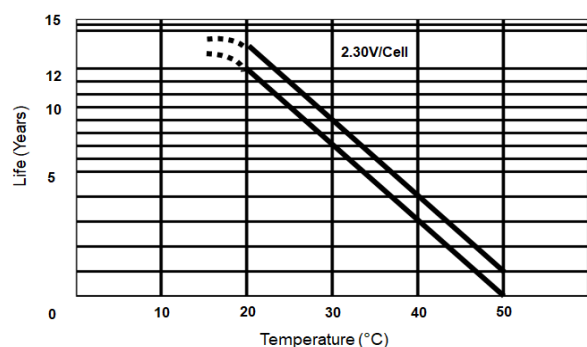
Life characteristics of Standby use



Cycle service life in relation to depth of discharge



Temperature effects on Float Life



Temperature effects on capacity

