



**EnerRocket**<sup>™</sup>  
CONTINUOUSLY SAFEGUARDING

# ES 80-12

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
- BS6290-4

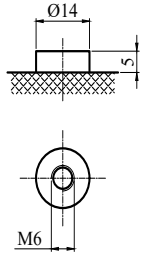
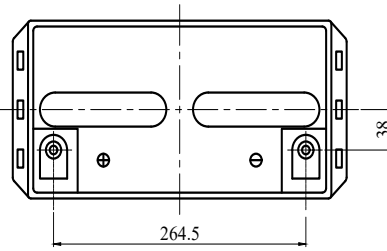
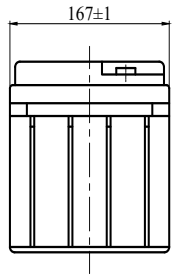
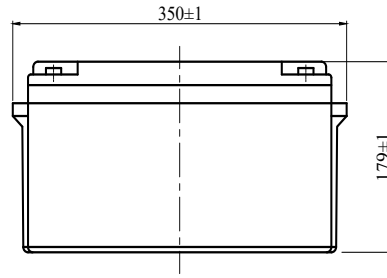
## TECHNICAL FEATURES



- Non-Spillable Sealed Construction
- Seal Lead Acid Battery
- Absorbent Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) construction (FR optional)
- Gas Recombination
- Venting System for low internal pressure
- Low Self-Discharge
- Heavy-Duty, Highly Optimized Grids
- High Power Output
- Wide Operating Temperature
- Maintenance-Free Operation

## CHARACTERISTICS

|   |                             |                        |
|---|-----------------------------|------------------------|
| Nominal Voltage   | 12 V                        |                        |
| Design Life   | 10 Years                    |                        |
| Capacity 25°C (77°F)  | 10 Hour rate                | 80Ah                   |
|   | 5 Hour rate                 | 72Ah                   |
|   | 1 Hour rate                 | 53.7Ah                 |
| Internal Resistance (25°C, 100% Charge)                             | 6.5mΩ                       |                        |
| 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 ± 3°C                  |                        |
| Maximum Discharge current (25°C)                                    | 750A (5sec)                 |                        |
| Maximum Charging current  | 24A                         |                        |
| Short Circuit Current   | 1900A                       |                        |
| Charge Methods<br>Constant Voltage Charge 77°F (25°C) - Cycle use   | 14.4 to 14.7V               |                        |
|   | Temp. Compensation -30mV/°C |                        |
| Charge methods<br>Constant Voltage Charge 77°F (25°C) - Standby Use | 13.4 to 13.8V               |                        |
|   | Temp. Compensation -20mV/°C |                        |



## SPECIFICATIONS

| Length | Width  | Height | Total Height | Weight (kg) |
|--------|--------|--------|--------------|-------------|
| 350 mm | 167 mm | 179mm  | 179 mm       | 22.5 ± 5%   |

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

| End Voltage Volts/Cell | 5min | 10min | 15min | 30min | 1h    | 3h   | 5h   | 10h  | 24h  |
|------------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60                   | 247  | 188   | 149   | 87.3  | 53.70 | 22.7 | 15.0 | 8.20 | 3.72 |
| 1.65                   | 233  | 178   | 137   | 83.0  | 51.60 | 22.5 | 14.7 | 8.15 | 3.70 |
| 1.70                   | 218  | 168   | 132   | 80.3  | 49.80 | 22.4 | 14.7 | 8.1  | 3.65 |
| 1.75                   | 204  | 159   | 126   | 77.6  | 47.10 | 21.8 | 14.4 | 8.05 | 3.63 |
| 1.80                   | 190  | 149   | 118   | 75.0  | 46.30 | 20.7 | 14.1 | 8.00 | 3.61 |

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

| End Voltage Volts/Cell | 5min | 10min | 15min | 30min | 1h    | 3h   | 5h   | 10h  | 24h  |
|------------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60                   | 433  | 323   | 258   | 165   | 98.60 | 42.5 | 27.9 | 16.1 | 7.30 |
| 1.65                   | 420  | 310   | 250   | 157   | 97.80 | 41.1 | 27.4 | 15.7 | 7.20 |
| 1.70                   | 390  | 299   | 246   | 151   | 93.80 | 40.4 | 27   | 15.4 | 7.10 |
| 1.75                   | 368  | 287   | 232   | 149   | 92.30 | 39.9 | 26.8 | 15.1 | 7.00 |
| 1.80                   | 349  | 275   | 218   | 146   | 88.50 | 39.0 | 26.4 | 14.8 | 6.90 |



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