



**EnerRocket™**  
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

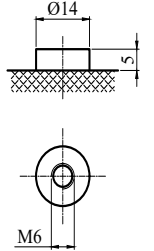
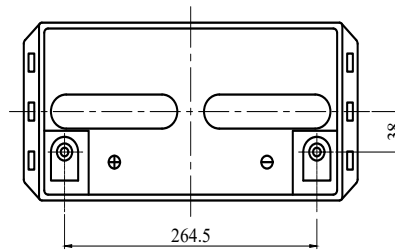
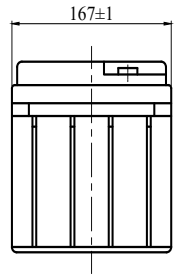
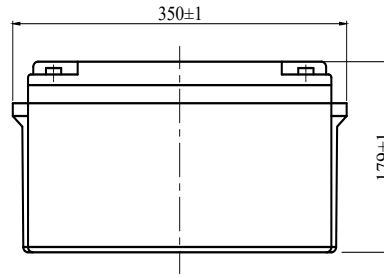
## TECHNICAL FEATURES



- 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<br>(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<br>(25°C) - Cycle use   | 14.4 to 14.7V                  |                        |
|  | Temp. Compensation<br>-30mV/°C |                        |
| Charge methods<br>Constant Voltage Charge 77°F<br>(25°C) - Standby Use | 13.4 to 13.8V                  |                        |
|  | Temp. Compensation<br>-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<br>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<br>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 |



## ES 80-12

SMF VRLA RECHARGEABLE BATTERY

