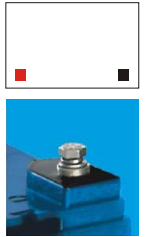


### Overview

The new VISION UNA series batteries are designed for UPS Standby Power Applications requiring high power output. Computer designed grids and optimized plate paste formula produce high energy density and long lasting uninterrupted power for critical systems.

### Battery Construction

| Component    | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator  | Electrolyte   |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide   | Lead           | ABS       | ABS   | Rubber       | Copper   | Fiberglass | Sulfuric acid |



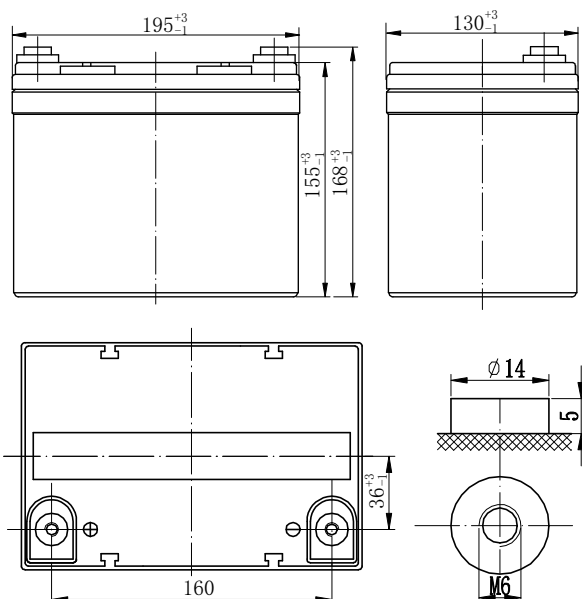
### General Features

- Positive and negative plates in lead-calcium-tin alloy;
- Superior energy density;
- Operate at a low internal pressure;
- Gas recombination;
- Special separator technology;
- A recognized component of ULJ EC,TLC.etc;
- Case and cover available in both standard and flame retardant ABS(UL 94-FV0);
- Very high power output for 5 to 15 minutes supply;
- Six months shelf life at 20 °C;
- Design life :12 years at 20 °C;
- Recommended loading 1h and below.

### Dimensions and Weight

|                          |             |
|--------------------------|-------------|
| Length(mm / inch)        | 195 / 7.68  |
| Width(mm / inch)         | 130 / 5.12  |
| Height(mm / inch)        | 155 / 6.10  |
| Total Height(mm / inch)  | 168 / 6.61  |
| Approx. Weight(Kg / lbs) | 11.5 / 25.4 |

\* Weight deviation:  $\pm 5\%$



### Battery Specification

| Performance Characteristics                                    |                  |
|----------------------------------------------------------------|------------------|
| Nominal Voltage                                                | 12V              |
| Number of cell                                                 | 6                |
| Design Life                                                    | 12 years         |
| Nominal Capacity 77°F ( 25°C)                                  |                  |
| 15 min wattage @1.67 VPC                                       | 150W/cell        |
| 20 hour rate (1.75A, 10.5V )                                   | 35.0Ah           |
| 10 hour rate (3.30A,10.8V )                                    | 33.0Ah           |
| Internal Resistance                                            |                  |
| Fully Charged battery 77°F ( 25°C)                             | $\leq 7.0$ mOhms |
| Self-Discharge                                                 |                  |
| 3% of capacity declined per month at 20°C ( average)           |                  |
| Operating Temperature Range                                    |                  |
| Discharge                                                      | -20~60°C         |
| Charge                                                         | -10~60°C         |
| Storage                                                        | -20~60°C         |
| Max. Discharge Current 77°F ( 25°C)                            | 330A(5s)         |
| Charge Methods: Constant Voltage Charge 77°F ( 25°C) Cycle use | 2.40-2.45VPC     |
| Maximum charging current                                       | 9.9 A            |
| Temperature compensation                                       | -30mV/°C         |
| Standby use                                                    | 2.23-2.30VPC     |
| Temperature compensation                                       | -20mV/°C         |

#### Discharge Constant Current (Amperes at 77°F25°C)

| End Point Vdts/Cell | 5min | 10min | 15min | 20min | 25min | 30min | 1h   | 1.5h | 2h   | 3h   | 5h   | 10h  | 20h  |
|---------------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60V               | 165  | 115   | 86.7  | 69.5  | 61.0  | 50.4  | 28.9 | 20.3 | 15.1 | 11.1 | 6.84 | 3.43 | 1.80 |
| 1.67V               | 150  | 106   | 82.1  | 66.1  | 58.4  | 48.4  | 28.5 | 19.8 | 14.6 | 10.7 | 6.64 | 3.40 | 1.78 |
| 1.70V               | 142  | 102   | 80.0  | 64.5  | 57.1  | 47.5  | 28.4 | 19.3 | 14.2 | 10.3 | 6.42 | 3.37 | 1.77 |
| 1.75V               | 130  | 96.5  | 76.0  | 62.0  | 54.8  | 45.7  | 27.8 | 18.8 | 13.8 | 10.1 | 6.25 | 3.33 | 1.75 |
| 1.80V               | 118  | 90.0  | 71.0  | 58.2  | 51.2  | 43.8  | 26.8 | 18.3 | 12.3 | 9.90 | 6.16 | 3.30 | 1.73 |

#### Discharge Constant Power (Watts at 77°F25°C)

| End Point Vdts/Cell | 5min | 10min | 15min | 20min | 25min | 30min | 1h   | 1.5h | 2h   | 3h   | 5h   | 10h  | 20h  |
|---------------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60V               | 298  | 210   | 152   | 131   | 113   | 96.0  | 55.7 | 35.5 | 27.2 | 21.1 | 12.3 | 6.53 | 3.51 |
| 1.67V               | 270  | 197   | 150   | 125   | 110   | 93.0  | 55.6 | 34.7 | 26.0 | 20.6 | 12.1 | 6.34 | 3.43 |
| 1.70V               | 258  | 190   | 146   | 122   | 108   | 91.1  | 55.3 | 33.8 | 25.4 | 20.1 | 11.9 | 6.27 | 3.40 |
| 1.75V               | 237  | 179   | 137   | 117   | 104   | 88.3  | 54.0 | 33.2 | 24.5 | 19.4 | 11.7 | 6.14 | 3.34 |
| 1.80V               | 215  | 167   | 131   | 112   | 100   | 85.2  | 52.1 | 32.0 | 23.1 | 18.5 | 11.5 | 6.01 | 3.28 |

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.All data shall be changed without notice,Vision reserves the right to explain and update the information contained hereinto.

