



# Product Data Sheet

## IM Series: IM-1270F1(UT-1270F1)

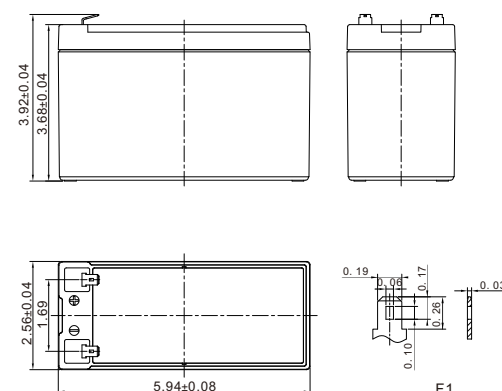
### 12 Volt, 6.0 Amp. Hour

#### Specifications

|                                |                                                          |                                       |
|--------------------------------|----------------------------------------------------------|---------------------------------------|
| Rated Voltage                  |                                                          | 12V                                   |
| Nominal Capacity               | 6.0Ah                                                    | (C <sub>20</sub> , 1.75V/cell, 20hrs) |
| Dimensions                     | Length                                                   | 5.95 inches ( 151 mm)                 |
|                                | Width                                                    | 2.56 inches ( 65 mm)                  |
|                                | Container Height                                         | 3.68 inches (93.5 mm)                 |
|                                | Total Height                                             | 3.92 inches (99.5 mm)                 |
| Approx Weight                  |                                                          | 3.99 lbs (1.81 Kg)                    |
| Terminal                       |                                                          | F1                                    |
| Container Material             |                                                          | ABS                                   |
| Rated Capacity (25°C)          | 6.00 Ah                                                  | (20hr, 0.300A, 1.75V/cell)            |
|                                | 5.59 Ah                                                  | (10hr, 0.559A, 1.75V/cell)            |
|                                | 5.15 Ah                                                  | (5hr, 1.03A, 1.75V/cell)              |
|                                | 4.59 Ah                                                  | (3hr, 1.53A, 1.75V/cell)              |
|                                | 3.94 Ah                                                  | (1hr, 3.94A, 1.60V/cell)              |
| Max. Discharge Current         |                                                          | 90A (5s)                              |
| Internal Resistance (25°C)     |                                                          | Approx 27mΩ                           |
| Operating Temp.Range           | Discharge                                                | 5 ~ 122°F (-15 ~ 50°C)                |
|                                | Charge                                                   | -4 ~ 104°F (-20 ~ 40°C)               |
|                                | Storage                                                  | 5 ~ 104°F (-15 ~ 40°C)                |
| Nominal Operating Temp. Range  |                                                          | 77±5°F (25±3°C)                       |
| Standby/Float Use              | Initial Charging Current less than 1.8A. Voltage         |                                       |
|                                | 13.5V~13.8V at 77°F(25°C)Temp. Coefficient -10mV/°F      |                                       |
| Temperature Effect on Capacity | 104°F (40°C)                                             | 103%                                  |
|                                | 77°F (25°C)                                              | 100%                                  |
|                                | 32°F ( 0°C)                                              | 86%                                   |
| Self Discharge                 | IM series batteries may be stored for up to 6 months     |                                       |
|                                | at 77°F(25°C) and then a freshening charge is required.  |                                       |
|                                | For higher temperatures - time interval will be shorter. |                                       |



#### Layout



#### Constant Current Discharge (Amperes) at 77°F(25 °C)

| F. V/Time  | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h    | 8h    | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|
| 1.85V/cell | 16.7 | 12.3  | 9.93  | 8.10  | 6.02  | 4.42  | 3.61 | 2.64 | 2.07 | 1.49 | 1.18 | 1.01 | 0.860 | 0.676 | 0.546 | 0.294 |
| 1.80V/cell | 18.1 | 12.9  | 10.3  | 8.35  | 6.18  | 4.51  | 3.68 | 2.68 | 2.10 | 1.51 | 1.20 | 1.02 | 0.871 | 0.684 | 0.552 | 0.297 |
| 1.75V/cell | 19.6 | 13.6  | 10.7  | 8.60  | 6.32  | 4.60  | 3.75 | 2.73 | 2.13 | 1.53 | 1.21 | 1.03 | 0.882 | 0.692 | 0.559 | 0.300 |
| 1.70V/cell | 21.1 | 14.2  | 11.1  | 8.86  | 6.47  | 4.69  | 3.81 | 2.77 | 2.17 | 1.55 | 1.23 | 1.05 | 0.894 | 0.701 | 0.566 | 0.303 |
| 1.67V/cell | 21.9 | 14.6  | 11.3  | 9.01  | 6.56  | 4.74  | 3.85 | 2.80 | 2.19 | 1.57 | 1.24 | 1.05 | 0.900 | 0.706 | 0.570 | 0.305 |
| 1.60V/cell | 23.9 | 15.5  | 11.8  | 9.36  | 6.76  | 4.87  | 3.94 | 2.86 | 2.23 | 1.60 | 1.26 | 1.07 | 0.916 | 0.718 | 0.579 | 0.309 |

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV

#### Constant Power Discharge (Watts/cell) at 77°F(25 °C)

| F. V/Time  | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 31.8 | 23.5  | 19.1  | 15.6  | 11.6  | 8.58  | 7.03 | 5.15 | 4.05 | 2.92 | 2.33 | 1.98 | 1.70 | 1.34 | 1.08 | 0.588 |
| 1.80V/cell | 34.3 | 24.6  | 19.7  | 16.0  | 11.9  | 8.72  | 7.14 | 5.22 | 4.10 | 2.96 | 2.36 | 2.01 | 1.72 | 1.35 | 1.10 | 0.594 |
| 1.75V/cell | 36.8 | 25.7  | 20.3  | 16.4  | 12.1  | 8.86  | 7.24 | 5.29 | 4.15 | 3.00 | 2.39 | 2.03 | 1.74 | 1.37 | 1.11 | 0.600 |
| 1.70V/cell | 39.3 | 26.7  | 20.9  | 16.8  | 12.3  | 8.99  | 7.34 | 5.37 | 4.21 | 3.03 | 2.41 | 2.06 | 1.76 | 1.39 | 1.12 | 0.606 |
| 1.67V/cell | 40.7 | 27.3  | 21.3  | 17.1  | 12.5  | 9.07  | 7.40 | 5.41 | 4.24 | 3.06 | 2.43 | 2.07 | 1.77 | 1.40 | 1.13 | 0.610 |
| 1.60V/cell | 43.9 | 28.8  | 22.1  | 17.6  | 12.8  | 9.26  | 7.54 | 5.50 | 4.31 | 3.11 | 2.47 | 2.10 | 1.80 | 1.42 | 1.15 | 0.619 |

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# Product Data Sheet

## IM Series: IM-1270F1(UT-1270F1)

### 12 Volt, 6.0 Amp. Hour

#### Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

#### General Features

- 5 years design life(77°F)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- High purity PbCaSn raw material alloy is used for plate grids, assuring less gassing & low self-discharge rate
- High quality AGM separator: extend cycle life and prevent micro short circuit

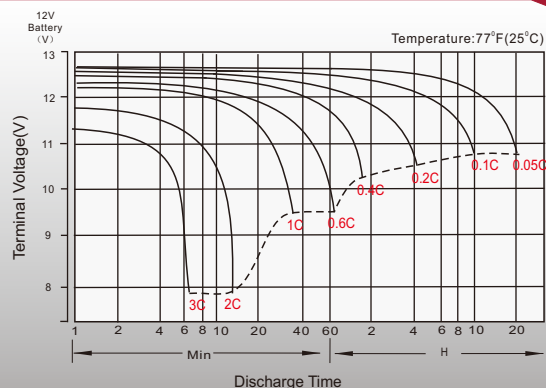
#### Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in IATF16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities



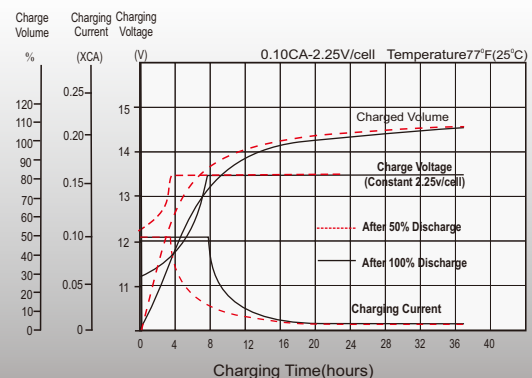
VdS

#### Discharge Characteristics

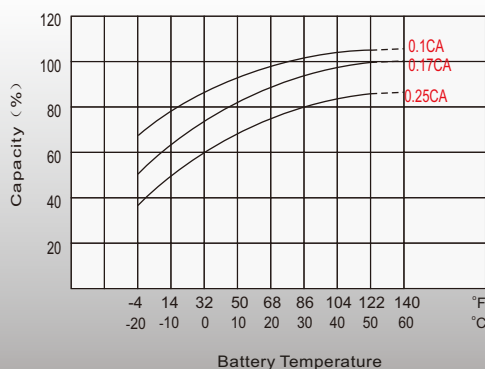


Curves represent Constant Current draw (Amp.)  
1C curve = 1 x Nominal capacity = 6amp. constant draw    0.05C curve = 0.05 x Nominal capacity = 0.30amp. draw

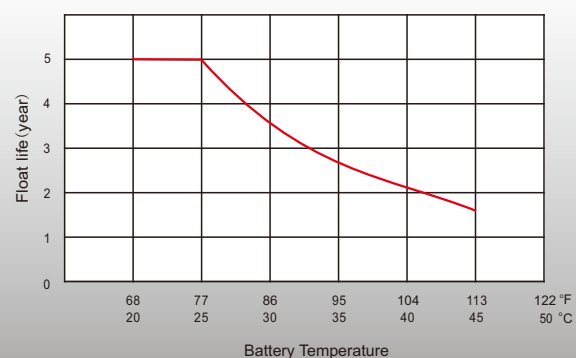
#### Standby/Float Charging Characteristics



#### Temperature Effectes on Battery Capacity



#### Temperature Effectes on Long Term Float Life



#### Sales Offices

Sales: 1.800.233.6261

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