



# PLX-Pure Lead High Rate

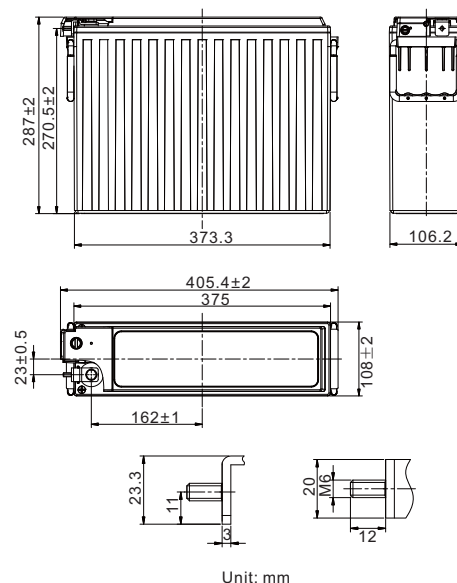
## PLX12-400FT(A) (12V405W)

### Specifications

|  |  |                           |
|--|--|---------------------------|
| Rated Voltage                            | 12V  |                           |
| Nominal Rate ( $W_{15}, 1.67V/cell$ )    | 405W   |                           |
| Nominal Capacity( $C_{10}, 1.80V/cell$ ) | 100Ah  |                           |
| Dimension                                | Length   | 405.4±2mm (15.96 inches)  |
|  | Width  | 108±2mm (4.25 inches)     |
|  | Container Height   | 287±2mm (11.30 inches)    |
|  | Total Height   | 287±2mm (11.30 inches)    |
| Approx. Weight                           | 31.5 Kg (69.4 lbs)   |                           |
| Terminal                                 | M6   |                           |
| Container Material                       | PC-ABS flame retardant jar and cover to UL94 V-0   |                           |
| Rated Capacity (25°C)                    | 104.0 Ah   | (20hr, 5.20A, 1.80V/cell) |
|  | 100.0 Ah   | (10hr, 10.0A, 1.80V/cell) |
|  | 87.5 Ah  | (5hr, 17.5A, 1.75V/cell)  |
|  | 77.7 Ah  | (3hr, 25.9A, 1.75V/cell)  |
|  | 70.0 Ah  | (1hr, 70.0A, 1.67V/cell)  |
| Max. Discharge Current                   | 1200A  |                           |
| Internal Resistance (25°C)               | Approx. 4.4mΩ(Fully charged)   |                           |
| Operating Temp. Range                    | Discharge  | -40 ~ 65°C (-40 ~ 149°F)  |
|  | Charge   | 0 ~ 40°C (32 ~ 104°F)     |
|  | Storage  | -20 ~ 40°C (-4 ~ 104°F)   |
| Nominal Operating Temp. Range            | 25±3°C (77±5°F)  |                           |
| Max. Charging Current(25°C)              | 30.0A  |                           |
| Charge voltage(25°C)                     | Float  | 13.62V                    |
|  | Temp. Coefficient  | -3mV/cell/°C              |
|  | Equalization   | 14.1~14.4V                |
| Effect of temp. to Capacity              | 40°C (104°F)   | 103%                      |
|  | 25°C (77°F)  | 100%                      |
|  | 0°C (32°F)   | 86%                       |
| Self Discharge                           | <p>PLX series batteries can be stored up to 24 months at 25°C(77°F), For higher temperatures the time interval will be shorter.</p> <p>Battery needs to be given a freshening charge when the OCV approach 2.10V/cell or when the maximum storage time is reached, whichever occurs first.</p> |                           |



### Layout



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

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 303.6 | 228.6 | 184.3 | 153.9 | 113.6 | 80.0  | 61.9 | 34.1 | 24.7 | 19.8 | 16.7 | 11.7 | 9.79 | 5.10 |
| 1.80V/cell | 329.6 | 242.8 | 193.4 | 159.9 | 118.4 | 82.7  | 63.9 | 35.2 | 25.4 | 20.4 | 17.2 | 11.9 | 10.0 | 5.20 |
| 1.75V/cell | 350.9 | 255.6 | 200.4 | 166.2 | 122.4 | 85.2  | 65.8 | 36.1 | 25.9 | 20.7 | 17.5 | 12.1 | 10.1 | 5.24 |
| 1.70V/cell | 373.3 | 263.7 | 207.5 | 171.6 | 126.6 | 88.0  | 67.7 | 36.9 | 26.4 | 21.0 | 17.7 | 12.2 | 10.1 | 5.28 |
| 1.67V/cell | 390.0 | 274.8 | 213.0 | 177.3 | 132.0 | 91.3  | 70.0 | 37.9 | 26.9 | 21.4 | 17.9 | 12.3 | 10.2 | 5.31 |
| 1.60V/cell | 410.0 | 279.4 | 225.0 | 185.1 | 135.0 | 93.7  | 71.7 | 38.6 | 27.3 | 21.7 | 18.1 | 12.4 | 10.3 | 5.35 |

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

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 569.0 | 438.9 | 357.7 | 299.5 | 222.7 | 158.3 | 122.8 | 68.0 | 49.4 | 39.7 | 33.6 | 23.7 | 19.9 | 10.4 |
| 1.80V/cell | 611.0 | 461.2 | 372.9 | 309.2 | 230.6 | 162.3 | 126.0 | 69.9 | 50.6 | 40.7 | 34.5 | 24.1 | 20.3 | 10.6 |
| 1.75V/cell | 642.4 | 480.1 | 382.6 | 318.4 | 236.4 | 166.1 | 128.9 | 71.4 | 51.3 | 41.2 | 34.9 | 24.3 | 20.4 | 10.6 |
| 1.70V/cell | 667.2 | 491.6 | 392.2 | 325.7 | 242.5 | 170.5 | 131.8 | 72.5 | 52.1 | 41.7 | 35.2 | 24.5 | 20.4 | 10.7 |
| 1.67V/cell | 670.0 | 501.2 | 405.0 | 333.0 | 245.0 | 176.0 | 135.5 | 74.1 | 52.9 | 42.2 | 35.6 | 24.6 | 20.5 | 10.7 |
| 1.60V/cell | 710.0 | 506.1 | 410.0 | 343.9 | 250.0 | 178.8 | 137.7 | 75.0 | 53.5 | 42.6 | 35.7 | 24.7 | 20.6 | 10.7 |



# PLX-Pure Lead High Rate

## PLX12-400FT(A) (12V405W)



### Applications

- UPS
- Emergency lighting
- Emergency power supply
- Electrical starting
- Power tools

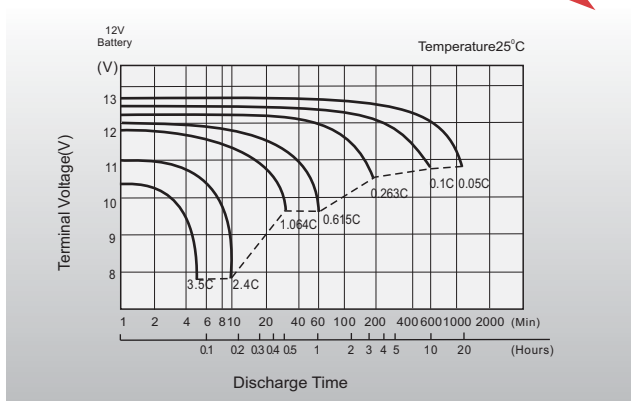
### General Features

- 15 years design life(25°C)
- Premium ABS+PC jar & covers, Flame Retardant to UL94 V-0
- High-rate performance, high energy density
- High quality AGM separators minimize electrical resistance to allow high current discharging properties

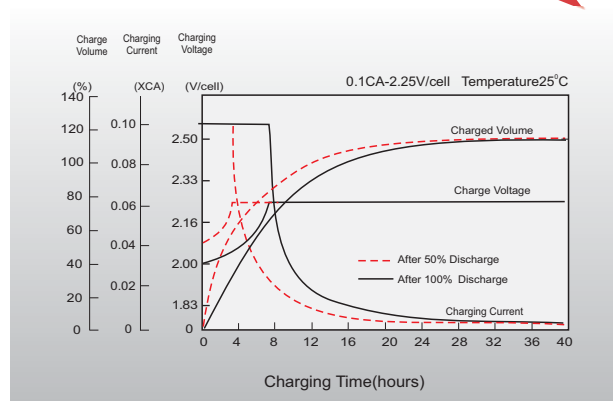
### Standards

- Compliance with IEC 60896 standard
- Classified as "Very Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch® IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

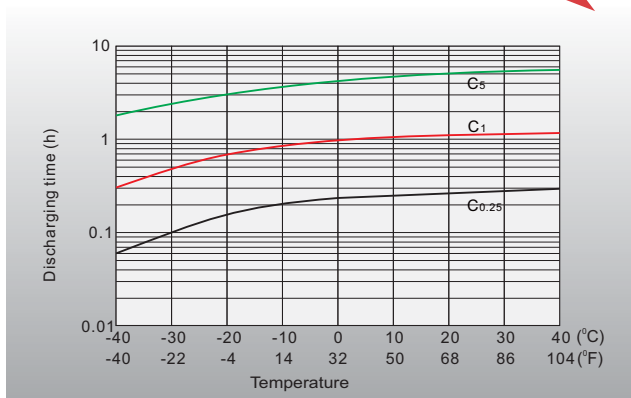
### Discharge Characteristics



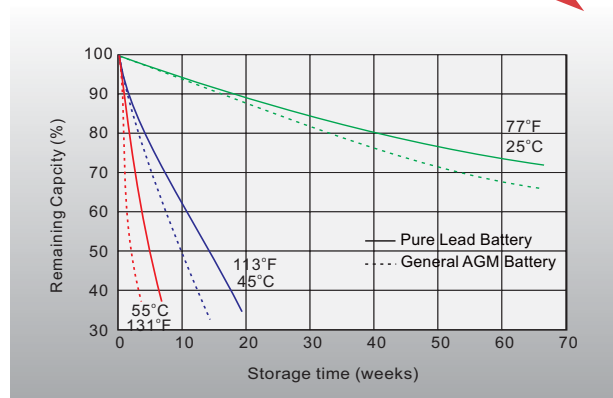
### Float Charging Characteristics



### Effects of Temperature on Discharging Time



### Self-discharge Characteristics



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