Celltech

# CT SERIES-UPS Purpose

## CT12-480W/V0 (12V129.4AH)

## Specification

Code:460-8640

| | | |
|---|---|---|
| Nominal Voltage | 12V | |
| Watts(15min Rate) | 483.8 Watts at 1.67V/cell | |
| Dimension | Length | 408±3mm (16.06 inches) |
| | Width | 177±2mm (6.97 inches) |
| | Container Height | 225±3mm (8.86 inches) |
| | Total Height (with Terminal) | 225±3mm (8.86 inches) |
| Approx Weight | Approx 37.3kg (82.2lbs) | |
| Terminal | T11 | |
| Container Material | ABS: UL94HB-V0 | |
| Rated Capacity | 124.0 AH/12.4A | (10hr ,1.80V/cell,25°C/77°F) |
| | 120.0 AH/15.0A | (8hr,1.80V/cell,25°C/77°F) |
| | 105.0 AH/21.0A | (5hr,1.75V/cell,25°C/77°F) |
| | 93.9 AH/31.3A | (3hr,1.75V/cell,25°C/77°F) |
| | 85.3 AH/85.3A | (1hr,1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 1300A (5s) | |
| Internal Resistance | Approx 3.6mΩ | |
| Operating Temp.Range | Discharge : -15～50°C (5～122°F) | |
| | Charge : -20～40°C (-4～104°F ) | |
| | Storage : -15～40°C (5～104°F) | |
| Nominal Operating Temp. Range | 25±3°C (77±5°F ) | |
| Cycle Use | Initial Charging Current less than38.82A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Capacity affected by Temperature | 40°C (104°F) | 103% |
| | 25°C ( 77°F ) | 100% |
| | 0°C ( 32°F ) | 86% |
| Self Discharge | CT series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter | |

## Applications

- *UPS (High rate)*
- *High power backup supply*
- *Emergency power supply*
- *Starting system*
- *Power tools*
- *Emergency lighting Electric starting*

## Standards

- *Compliance with IEC60896 standards,EU Battery Directive*
- *UL,CE*
- *IATF16949,ISO45001,ISO9001and ISO14001 certified production facilities*

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

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 250.6 | 205.2 | 182.4 | 156.2 | 118.1 | 88.0 | 69.6 | 39.8 | 29.0 | 23.3 | 19.6 | 17.1 | 14.4 | 11.9 | 6.22 |
| 1.80V/cell | 315.4 | 242.6 | 207.8 | 175.3 | 129.6 | 94.4 | 74.4 | 42.0 | 30.5 | 24.4 | 20.4 | 17.8 | 15.0 | 12.4 | 6.47 |
| 1.75V/cell | 361.4 | 271.4 | 229.9 | 189.4 | 136.1 | 97.6 | 77.4 | 43.4 | 31.3 | 24.9 | 21.0 | 18.3 | 15.2 | 12.5 | 6.53 |
| 1.70V/cell | 393.1 | 295.9 | 244.8 | 199.4 | 142.6 | 101.6 | 80.3 | 44.8 | 32.2 | 25.5 | 21.5 | 18.7 | 15.4 | 12.6 | 6.60 |
| 1.67V/cell | 427.7 | 315.4 | 263.0 | 209.2 | 148.1 | 105.3 | 83.3 | 46.2 | 33.1 | 26.3 | 22.0 | 19.1 | 15.6 | 12.8 | 6.66 |
| 1.60V/cell | 466.6 | 335.5 | 271.7 | 216.7 | 152.9 | 108.0 | 85.3 | 47.5 | 33.8 | 26.8 | 22.4 | 19.6 | 15.8 | 12.9 | 6.74 |

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

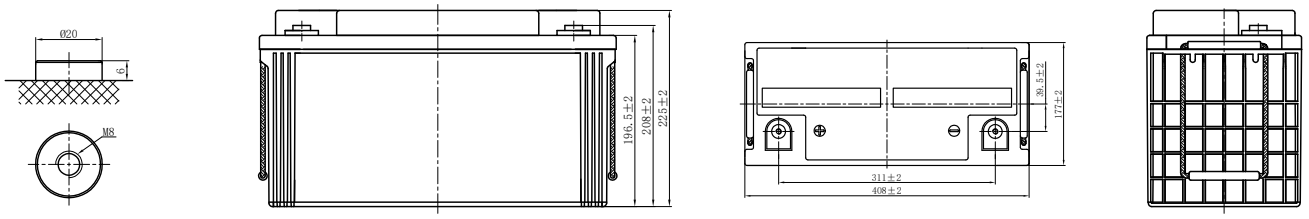
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 470.0 | 388.8 | 348.9 | 301.2 | 229.2 | 171.7 | 136.4 | 78.5 | 57.3 | 46.3 | 39.1 | 34.1 | 28.9 | 23.9 | 12.5 |
| 1.80V/cell | 586.2 | 456.4 | 395.0 | 336.1 | 250.4 | 183.4 | 145.4 | 82.5 | 60.2 | 48.3 | 40.5 | 35.5 | 29.9 | 24.8 | 13.0 |
| 1.75V/cell | 665.7 | 506.8 | 434.3 | 361.3 | 261.8 | 189.1 | 150.9 | 84.9 | 61.4 | 49.0 | 41.4 | 36.3 | 30.1 | 24.8 | 13.0 |
| 1.70V/cell | 713.7 | 545.2 | 457.0 | 376.5 | 271.7 | 195.2 | 155.2 | 86.9 | 62.7 | 49.9 | 42.2 | 36.8 | 30.3 | 25.0 | 13.1 |
| 1.67V/cell | 763.7 | 572.1 | 483.8 | 389.9 | 279.1 | 200.3 | 159.5 | 88.9 | 64.0 | 51.0 | 42.8 | 37.3 | 30.4 | 25.0 | 13.1 |
| 1.60V/cell | 813.4 | 595.7 | 490.1 | 396.1 | 282.8 | 202.0 | 160.9 | 90.0 | 64.5 | 51.3 | 43.1 | 37.7 | 30.5 | 25.0 | 13.1 |

Specifications subject to change without notice.

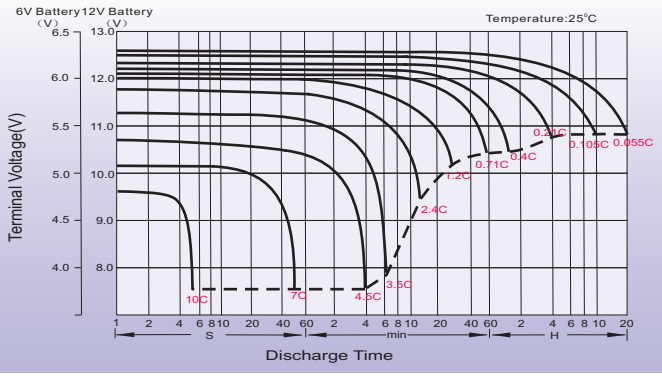
## Dimensions

### T11 Terminal

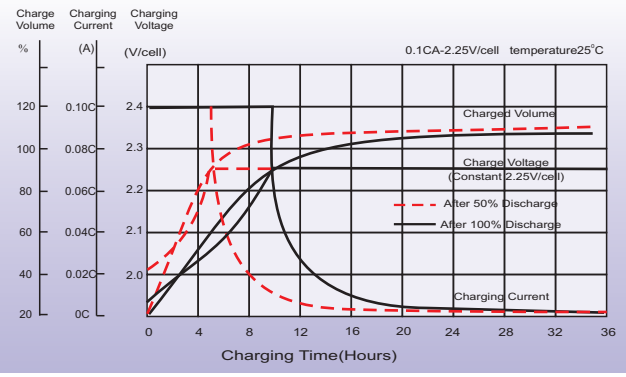
Unit: mm [inches]



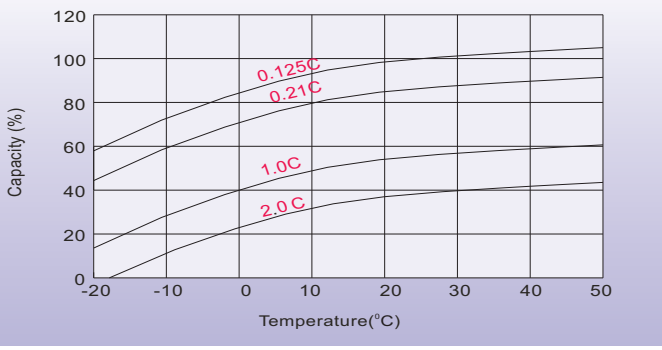

## Discharge Characteristics



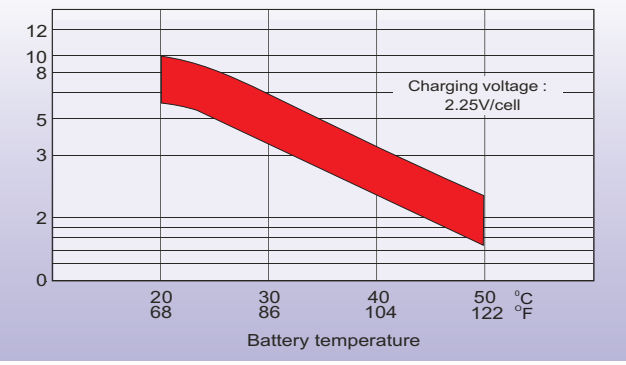

## Float Charging Characteristics

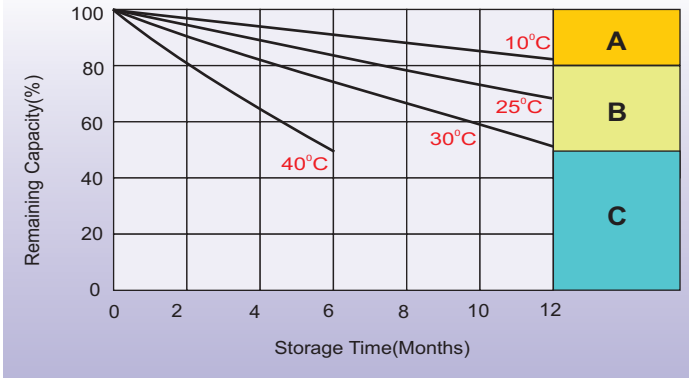



## Temperature Effects in Relation to Battery Capacity




## Effect of Temperature on Long Term Float Life




## Self Discharge Characteristics

**A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

**B** Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

**C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

## Sales Office

For more information and the contact details of the local suppliers,
please visit CELLTECH-GROUP.COM

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