# EKF12-125

12V 125AH

## EKF12-125

## Featur

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

## Dimensions

L:545±2mm

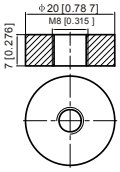
W:105±2mm

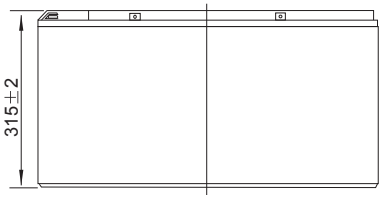
H:315 ±2mm

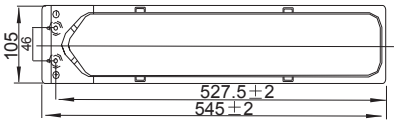
H:315 ±2mm

Weight:Approx 41.5kg

**E3 Terminal**



## Battery Construction

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

## Specifications

| | | |
|---|---|---|
| | Nominal Voltage | 12V |
| | Nominal Capacity (10HR) | 125AH |
| **Terminal Type** | E3 | |
| **Container Material** | Standard Option \| ABS | Flame Retardant Option (FR) \| UL94-V0 |
| **Rated Capacity** | 20hr, 1.80V/cell, 25°C | 137.4 AH/6.87A |
| | 10hr, 1.80V/cell, 25°C | 129.7 AH/12.98A |
| | 5hr, 1.75V/cell, 25°C | 108.5 AH/21.7A |
| | 1hr, 1.60V/cell, 25°C | 86.5 AH/86.5A |
| **Max Discharge Current** | 1100A (5s) | |
| **Internal Resistance** | Approx 3.2m Ω | |
| **Discharge Characteristics** | Operating Temp. Range | Discharge: -15 ~ 50°C |
| | | Charge: 0 ~ 40°C |
| | | Storage: -15 ~ 40°C |
| | Nominal Operating Temp. Range | 25 ± 3°C |
| | Cycle Use | Initial Charging Current less than 37.5A Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C |
| | Standby Use | No limit on Initial Charging Current Voltage 13.5V ~ 13.8V Temp. Coefficient -20mV/°C |
| | Capacity affect by Temperature | 40°C 103% |
| | | 25°C 100% |
| | | 0°C 86% |
| **Design Floating Life at 20°C** | 12+ Years | |
| **Self Discharge** | EK batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter. | |

*ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE*



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ISO9001 ISO14001
OHSAS18001 IEC Rohs

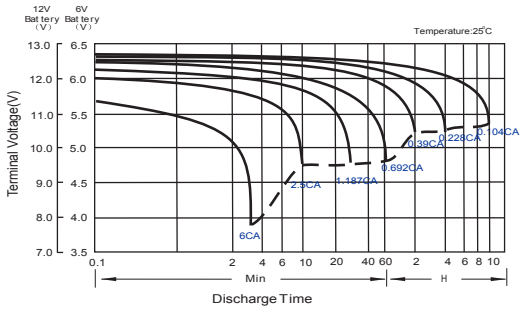
## Constant Current Discharge (Amperes) at 20°C

| F.V/ Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 219.0 | 182.8 | 156.7 | 123.2 | 95.8 | 76.9 | 46.2 | 33.3 | 26.8 | 21.9 | 19.11 | 14.88 | 12.41 | 6.57 |
| 1.80V/cell | 248.1 | 203.6 | 173.3 | 134.7 | 103.0 | 82.1 | 48.7 | 35.4 | 28.2 | 23.1 | 20.11 | 15.64 | 12.98 | 6.87 |
| 1.75V/cell | 272.1 | 220.2 | 184.9 | 141.5 | 106.9 | 85.0 | 49.6 | 36.0 | 28.9 | 23.6 | 20.41 | 15.82 | 13.13 | 6.98 |
| 1.70V/cell | 290.9 | 231.8 | 192.3 | 145.6 | 109.3 | 86.1 | 50.3 | 36.4 | 29.1 | 23.8 | 20.61 | 16.05 | 13.25 | 7.03 |
| 1.67V/cell | 301.0 | 237.6 | 196.2 | 147.4 | 109.7 | 86.5 | 50.4 | 36.6 | 29.3 | 24.0 | 20.91 | 16.26 | 13.38 | 7.06 |
| 1.60V/cell | 316.3 | 246.6 | 205.0 | 151.1 | 112.6 | 88.8 | 51.3 | 37.3 | 29.9 | 24.6 | 21.31 | 16.64 | 13.63 | 7.10 |

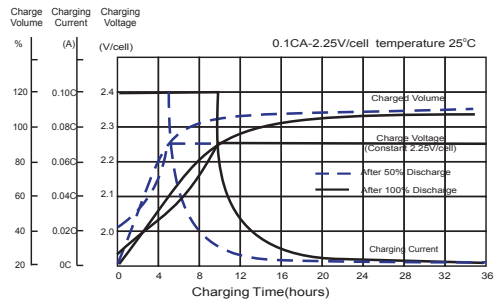
## Constant Power Discharge (Watts) at 20°C

| F.V/ Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 407.5 | 343.4 | 297.5 | 236.1 | 184.9 | 149.9 | 90.3 | 65.3 | 52.7 | 43.5 | 37.91 | 29.71 | 24.8 | 13.15 |
| 1.80V/cell | 456.4 | 377.4 | 324.6 | 254.4 | 197.3 | 159.1 | 94.6 | 69.1 | 55.1 | 45.5 | 39.71 | 31.11 | 25.9 | 13.73 |
| 1.75V/cell | 492.8 | 403.4 | 342.8 | 265.1 | 202.9 | 164.0 | 96.0 | 69.9 | 56.3 | 46.4 | 40.21 | 31.41 | 26.2 | 13.92 |
| 1.70V/cell | 515.3 | 419.0 | 353.9 | 271.3 | 206.8 | 165.7 | 97.2 | 70.5 | 56.6 | 46.5 | 40.61 | 31.81 | 26.4 | 14.01 |
| 1.67V/cell | 531.1 | 427.6 | 359.7 | 274.2 | 206.8 | 166.0 | 97.6 | 70.7 | 56.9 | 47.0 | 41.01 | 32.21 | 26.6 | 14.07 |
| 1.60V/cell | 542.9 | 435.2 | 370.5 | 277.4 | 210.0 | 168.6 | 98.1 | 71.7 | 57.8 | 48.0 | 41.61 | 32.81 | 27.1 | 14.12 |

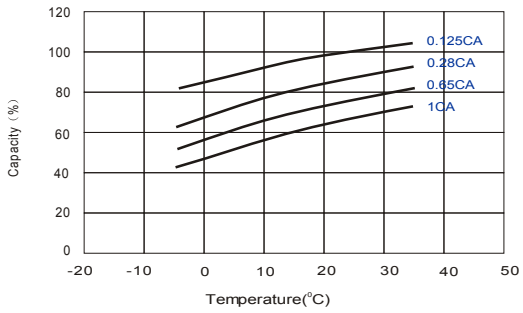
## Discharge Characteristics



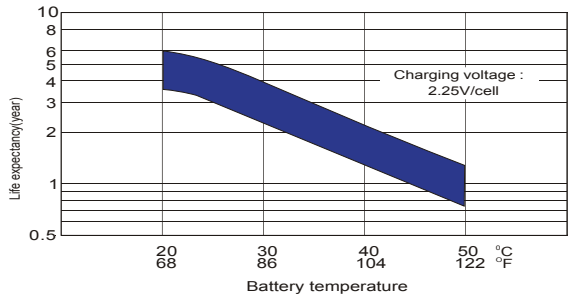

## Float Charging Characteristics



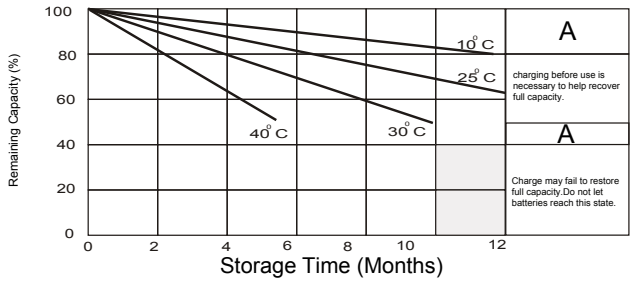

## Temperature Effects in Relation to Battery Capacity




## Effect of Temperature on Long Term Float Life




## Self Discharge Characteristics




A Charging is not necessary unless 100% of capacity is required.

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