

EXIDE

POWERSAFE

2V UPST RANGE

Sealed
Maintenance
Free 2V VRLA
Batteries



Exide Power safe VRLA Batteries have been developed by Exide R&D center, in close collaboration with Shin Kobe Electric Machinery Co. Ltd., Japan, the manufacturers of Hitachi batteries, and are suitable for stationary applications in Indian conditions. The overall battery package is essentially directed towards attending to the inevitable rigorous environmental factors under which batteries are expected to perform in India. These include prolonged elevated temperature operation, frequent charge/ discharge cycles and occasionally deep discharges. Power safe Batteries use a proprietary composition of lead calcium and tin alloy for the positive grid. Alloys based on calcium are inherently of low float current characteristics. The grid alloy per se leads to low float current and hence low water loss and oxygen recombination. This inherently means that heat evolution in lead Calcium system is low. This, together with better thermal management, allows the Exide VRLA batteries to perform better in extreme temperatures.

FEATURES

- Sealed Maintenance-Free VRLA
- Less than 0.5% weekly self-discharge
- Eco-friendly and ready to use
- Cadmium-free
- Flame arrestor safety valve
- Low footprint

2V VRLA UPST RANGE

An ISO 9001 and ISO 14001 certified company, Exide is the only eco-friendly manufacturer to offer lead acid batteries from 2.5Ah to 20400 Ah. With technical assistance from Shin Kobe Electric Machinery Co., Japan, Exide Powersafe UPST is built on an experience of over 65 years in R&D manufacturing and field operations. Also, the company's large network ensures easy accessibility and service in zero down time.

FEATURES OF UPST RANGE

Superior Performance

- Enhanced plate length for high power density
- Excellent recovery from deep discharge
- Low self-discharge (less than 0.5% per week)

Safety

- Better Thermal Management in the system
- Resistant to thermal runaway due to calcium tin alloy
- Flame Arrestor fitted safety valve

Life

- Service life comparable with the best of the international makes
- Design life is 20 years at 27°C under ideal float condition
- 4000 cycles at 20% DOD
- 1800 cycles at 50% DOD
- 1400 cycles at 70% DOD

Low Self Discharge

- Antimony free alloy and hence self-discharge less than 0.5% per week at C10 capacity at 27°C
- Low self-discharge allows the battery to be stored for 3-6 months depending on the ambient temperature and with occasional freshening charges, there is no subsequent loss of performance

Performance Conforming to

- IS 15549:2005
- TEC: GR/BAT - 01/01 MAR 2004 with latest amendments
- JIS: C 8704 - 2:1999
- IEC: 60896 - 21&22
- ANSI: T1 330 (US specification for Telecom battery)
- RDSO: IRS S93-96 with latest amendments

APPLICATIONS

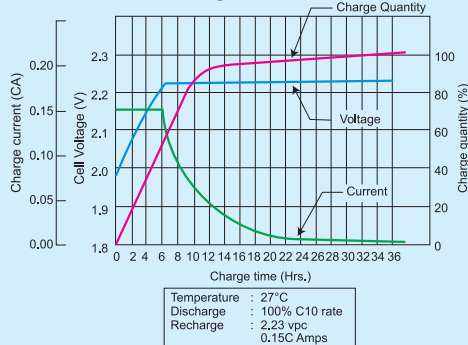
- Off shore Platform
- Power Plant
- Switchgear operation
- Uninterrupted Power supply System
- Transmission and Distribution Substations
- Railway Signalling

TECHNICAL SPECIFICATIONS

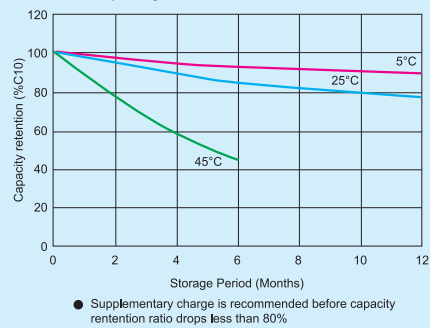
| SL. No. | Cell Type | Capacity @ C10 (at 1.75 ECV 27°) | No. of Terminals | No. of cell / Module | Overall Module dimension (with base member) | | | Single Module Weight ± 5% (Kg) | Single Module Weight with Cell ± 5% (Kg) |
|---------|-----------|-------------------------------------|---------------------|-------------------------|--|-------|-------|--------------------------------------|--|
| | | | | | L ± 5 | D ± 5 | H ± 5 | | |
| 1 | UPST 80 | 80 | 2 | 12 | 758 | 450 | 235 | 14.85 | 89.9 |
| 2 | UPST 100 | 100 | | | | | | | |
| 3 | UPST 120 | 120 | | | | | | | |
| 4 | UPST 125 | 125 | | | | | | | |
| 5 | UPST 100 | 100 | 2 | 12 | 769 | 243 | 247.5 | 13.2 | 82.2 |
| 6 | UPST 120 | 120 | | | | | | | |
| 7 | UPST 165 | 165 | 2 | 6 | 588 | 452 | 230 | 13.5 | 75.0 |
| 8 | UPST 200 | 200 | | | | | | | |
| 9 | UPST 240 | 240 | 2 | 6 | 588 | 460 | 288 | 16 | 100.0 |
| 10 | UPST 250 | 250 | | | | | | | |
| 11 | UPST 300 | 300 | | | | | | | |
| 12 | UPST 320 | 320 | | | | | | | |
| 13 | UPST 360 | 360 | 2 | 6 | 619 | 445 | 388 | 15 | 124.9 |
| 14 | UPST 400 | 400 | | | | | | | |
| 15 | UPST 415 | 415 | | | | | | | |
| 16 | UPST 425 | 425 | | | | | | | |
| 17 | UPST 440 | 440 | 2 | 6 | 634 | 580 | 420 | 21.8 | 147.0 |
| 18 | UPST 500 | 500 | | | | | | | |
| 19 | UPST 600 | 600 | | | | | | | |
| 20 | UPST 650 | 650 | | | | | | | |
| 21 | UPST 720 | 720 | 2 | 2 | 462 | 527 | 363 | 14.5 | 156.3 |
| 22 | UPST 800 | 800 | | | | | | | |
| 23 | UPST 850 | 850 | | | | | | | |
| 24 | UPST 900 | 900 | | | | | | | |
| 25 | UPST 1000 | 1000 | 2 | 2 | 436 | 527 | 511 | 31 | 237.8 |
| 26 | UPST 1100 | 1100 | | | | | | | |
| 27 | UPST 1250 | 1250 | | | | | | | |
| 28 | UPST 1335 | 1335 | | | | | | | |
| 29 | UPST 1350 | 1350 | 2 | 2 | 462 | 527 | 363 | 14.5 | 249.8 |
| 30 | UPST 1380 | 1380 | | | | | | | |
| 31 | UPST 1500 | 1500 | | | | | | | |
| 32 | UPST 1670 | 1670 | | | | | | | |
| 33 | UPST 2000 | 2000 | 2 | 2 | 436 | 527 | 511 | 31 | 263.0 |
| 34 | UPST 2500 | 2500 | | | | | | | |
| 35 | UPST 3000 | 3000 | | | | | | | |
| 36 | UPST 4000 | 4000 | | | | | | | |
| 37 | UPST 5000 | 5000 | 2 | 2 | 462 | 527 | 363 | 14.5 | 118.5 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 142.1 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 148.5 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 188.0 |
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| | | | 2 | 2 | 462 | 527 | 363 | 14.5 | 208.95 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 219.00 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 224.34 |
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| | | | 2 | 2 | 462 | 527 | 363 | 14.5 | 142.1 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 219.0 |
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| | | | 2 | 2 | 462 | 527 | 363 | 14.5 | 284.2 |
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| | | | 2 | 2 | 436 | 527 | 511 | 31 | 352.0 |
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Characteristics of VRLA Batteries

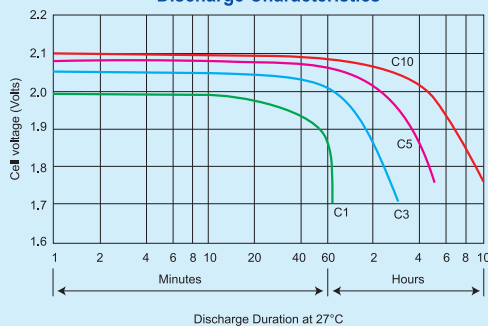
Charge Characteristics



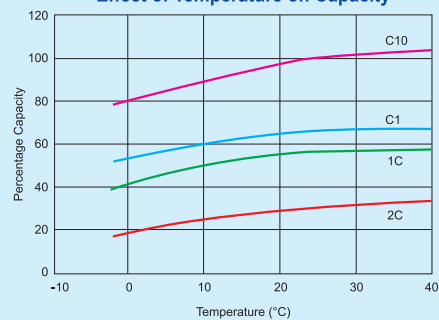
Capacity Retention Characteristics



Discharge Characteristics



Effect of Temperature on Capacity





EXIDE

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