

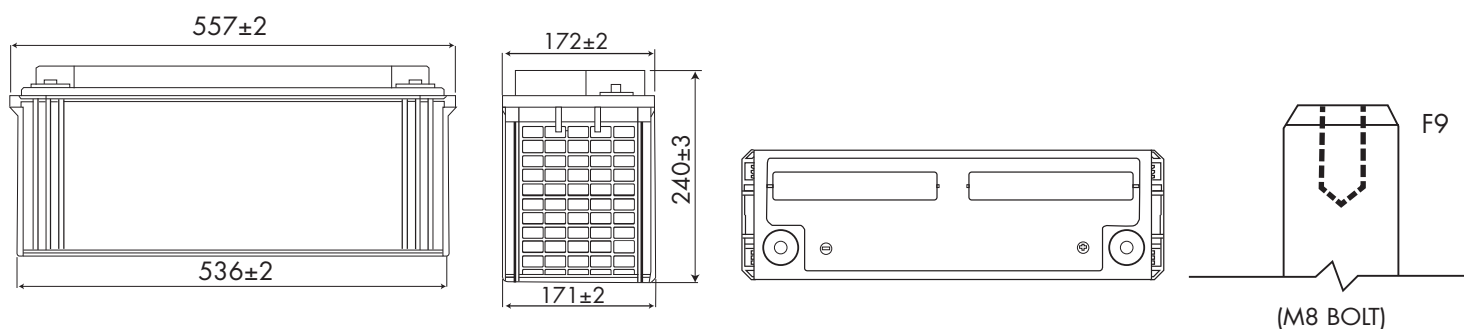


CHADHA POWER



**TECHNICAL DATA SHEET FOR NXT 150-12 (12V 150AH)
AGM VRLA SEALED MAINTENANCE FREE BATTERY**

BATTERY OUTLINE & DIMENSIONS



CONSTRUCTION

- Positive and negative plates in lead-tin-calcium alloy
- Separator - low resistance micro porous glass fiber
- The electrolyte is absorbed within this material, preventing acid leakage in case of accidental damage
- Terminals with a large surface area with brass insert to provide maximum conductivity
- Self regulating pressure relief valve
- 100% ensured capacity (through Data-logger) during manufacturing
- Stronger, sturdier & attractive packaging
- Specially suited for UPS & Power Application

FEATURES

- Sealed Maintenance Free
- Eco Friendly
- Easy Handling – Easy Installation
- Extended Cycle Life
- Excellent Charge Retention & Recovery
- High Reliability
- Performance Characteristics confirming to JISC8702
- Free from Orientation Constraints
- Minimal Voltage Drop
- Ready To Use
- Low Self Discharge
- Superior High Rate Discharge
- Deep Cycle Application

SPECIFICATION CHART

| Battery Type | Nominal Voltage (V) | Rated Capacity (Ah) at 27°C | | | | | | Dimensions (mm) | | | | Weight (Kg) (±5%) |
|--------------|---------------------|-----------------------------|-------------------------|-----------------------|-------------------------|-----------------------|--------------------------|----------------------|-------------------------------|--------------|-------------|-------------------|
| | | 20 hr 1.75V/ cell | 10 hr 1.75V/ cell | 3 hr 1.7V/ cell | 1.5 hr 1.7V/ cell | 1 hr 1.6V/ cell | 30 mins 1.6V/ cell | Overall Height ±3 | Height up to lid top ±3 | Length ±2 | Width ±2 | |
| NXT150-12 | 12 | 150.0 | 136.5 | 112.5 | 108.0 | 90.0 | 75.0 | 240.0 | 240.0 | 557.0 | 172.0 | 45.8 |

NOTES ON OPERATION

| Mode of Operation | Voltage setting per 12V unit for ambient Temp. 20-30°C | Current setting |
|-------------------|--|----------------------------------|
| FLOAT | 13.7V +/-0.1V | Maximum: 0.3CA Minimum: 0.1CA |
| BOOST | 14.1V +/-0.1V | |
| CYCLE | 14.7V +/-0.1V | |

CONSTANT POWER DISCHARGE RATING IN WATTS PER BATTERY FOR NXT RANGE AT 27°C

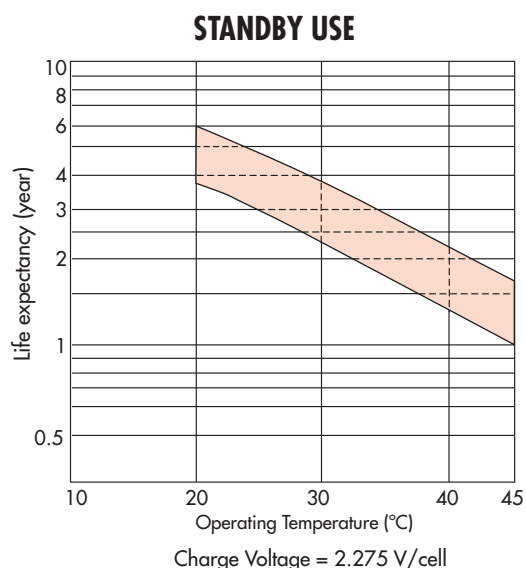
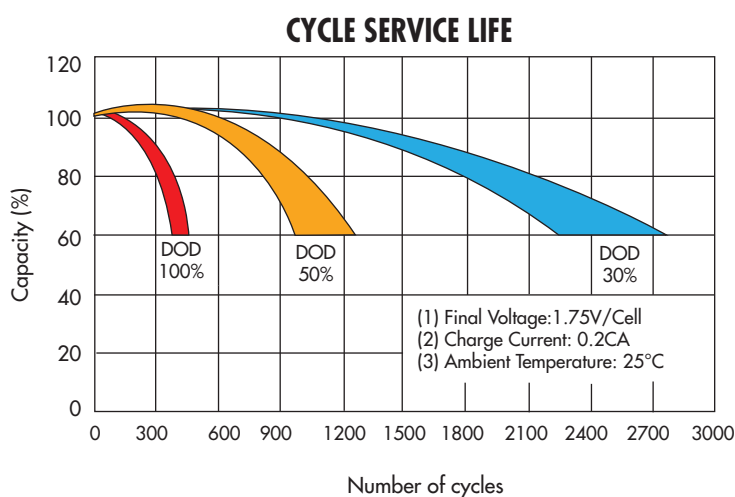
| | AH | 5 min | 10 min | 15 min | 20 min | 30 min | 60 min |
|-----------------------|-------|-------|--------|--------|--------|--------|--------|
| Watt/Battery at 1.60V | 150AH | 5751 | 3854 | 3023 | 2427 | 1810 | 1124 |
| Watt/Battery at 1.70V | | 5490 | 3624 | 2922 | 2375 | 1800 | 1086 |
| Watt/Battery at 1.80V | | 4961 | 3485 | 2715 | 2237 | 1688 | 1023 |

DISCHARGE CURRENT & RECOMMENDED FINAL DISCHARGE VOLTAGE

| Discharge Current (A) | Final Discharge Voltage (V/Cell) |
|---------------------------------------|----------------------------------|
| 0.2 C > (A) or intermittent discharge | 1.75 |
| 0.2 C < or = (A) < 0.5 C | 1.70 |
| 0.5 C < or = (A) < 1.0 C | 1.55 |
| 1.0 C < or = (A) | 1.30 |

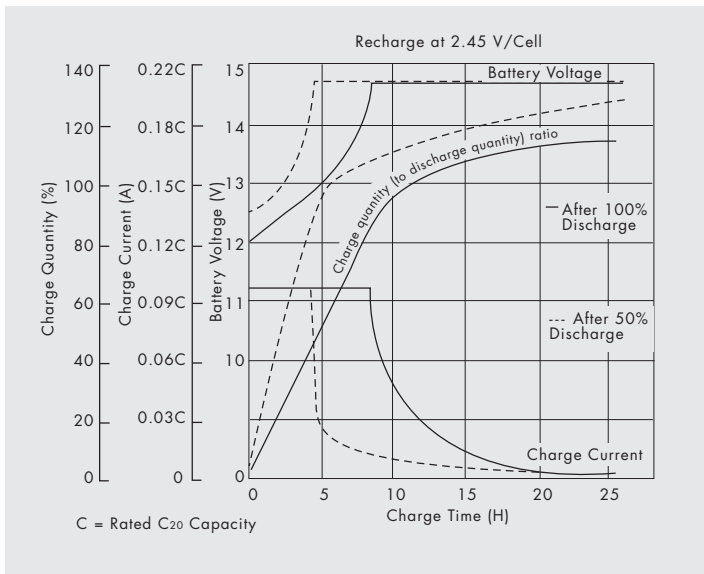
CHARACTERISTIC CURVES

SERVICE LIFE

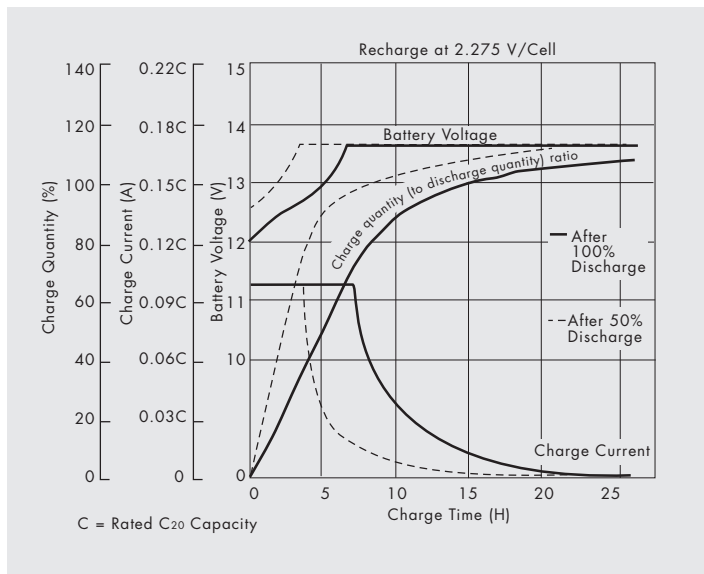


CHARGE CHARACTERISTICS

CYCLIC USE

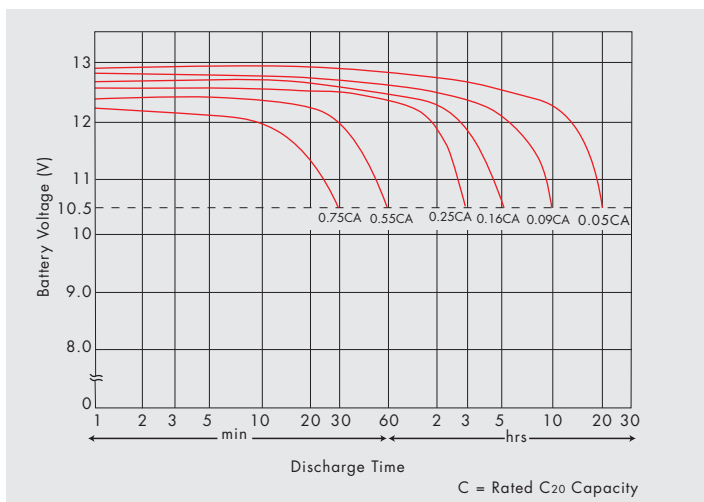


STANDBY USE

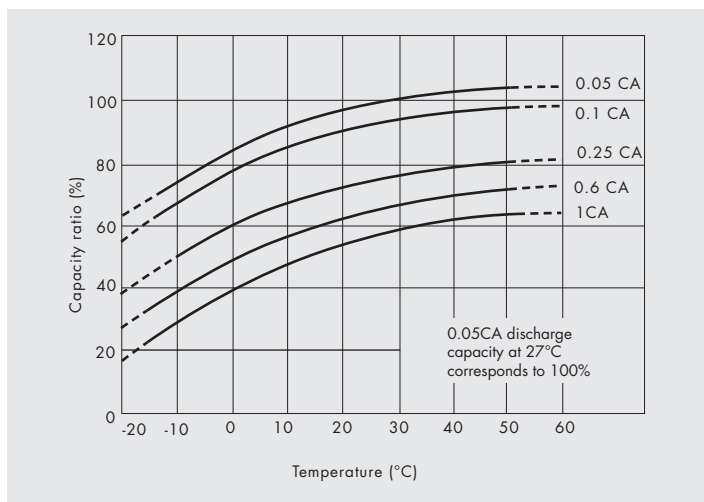


OTHER CURVES

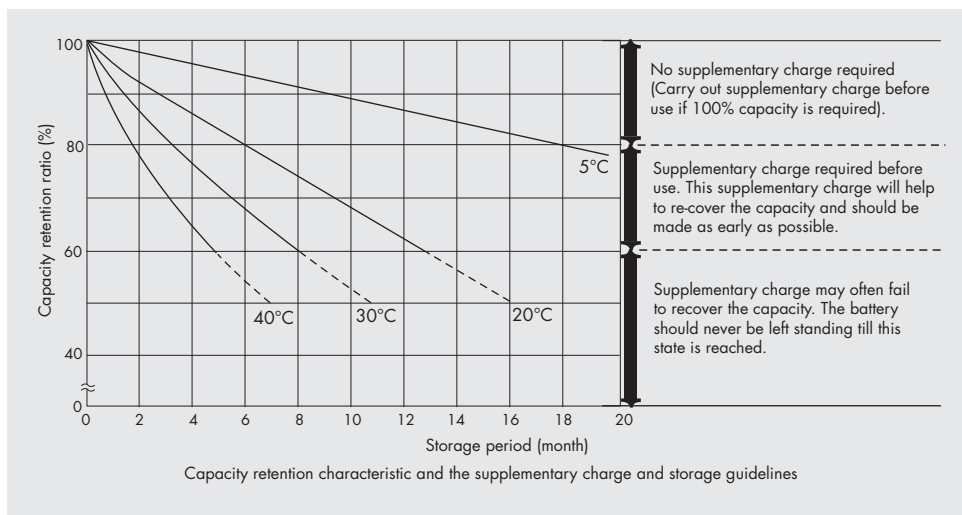
DISCHARGE CHARACTERISTICS



EFFECT OF TEMPERATURE ON CAPACITY



CAPACITY RETENTION



PRODUCT DETAILS

| | |
|------------------------------|-----------------------|
| AH Efficiency | >90% |
| WH Efficiency | >80% |
| Internal Resistance | 5 mΩ max at 27°C |
| Short Circuit Current | 3432 Amps |
| Operating Temperature Range | 0°C to 45°C |
| Self Discharge/Month at 27°C | <3% of Rated Capacity |
| Material of container | PPCP |
| Type of +ve & -ve plate | Flat Pasted |
| Recommended Terminal Torque | 12.3 N-m |

MAXIMUM DISCHARGE CURRENT FOR VARIOUS DURATION & CUT-OFF VOLTAGE

| END VOLTAGE / CELL | TEMP (C) | DISCHARGE TIME | | | | | | | | | | | | |
|--------------------|----------|----------------|-------|-------|-------|-------|---------|-------|--------|--------|--------|--------|--------|--------|
| | | 10min | 15min | 20min | 30min | 1 hr | 1.5 hrs | 2 hrs | 3 hrs | 4 hrs | 5 hrs | 6 hrs | 8 hrs | 10 hrs |
| 1.80 | 25 | 2.0C | 1.65C | 1.4C | 1.1C | 0.64C | 0.42C | 0.36C | 0.27C | 0.210C | 0.17C | 0.145C | 0.11C | 0.090C |
| | 5 | 1.65C | 1.3C | 1.1C | 0.95C | 0.59C | 0.34C | 0.29C | 0.230C | 0.182C | 0.147C | 0.129C | 0.098C | 0.080C |
| | -5 | 1.3C | 1.0C | 0.86C | 0.76C | 0.48C | 0.28C | 0.24C | 0.198C | 0.154C | 0.125C | 0.115C | 0.087C | 0.071C |
| 1.75 | 25 | 2.15C | 1.72C | 1.45C | 1.12C | 0.65C | 0.45C | 0.38C | 0.28C | 0.22C | 0.180C | 0.15C | 0.12C | 0.099C |
| | 5 | 1.72C | 1.40C | 1.15C | 0.97C | 0.60C | 0.36C | 0.30C | 0.24C | 0.190C | 0.150C | 0.130C | 0.100C | 0.088C |
| | -5 | 1.45C | 1.10C | 0.93C | 0.81C | 0.50C | 0.30C | 0.25C | 0.20C | 0.160C | 0.130C | 0.119C | 0.090C | 0.078C |
| 1.70 | 25 | 2.3C | 1.8C | 1.5C | 1.15C | 0.67C | 0.48C | 0.40C | 0.29C | 0.230C | 0.19C | 0.165C | 0.13C | 0.108C |
| | 5 | 1.8C | 1.5C | 1.2C | 1.0C | 0.62C | 0.39C | 0.32C | 0.250C | 0.199C | 0.164C | 0.143C | 0.116C | 0.096C |
| | -5 | 1.6C | 1.2C | 1.0C | 0.86C | 0.53C | 0.32C | 0.27C | 0.213C | 0.168C | 0.139C | 0.123C | 0.103C | 0.086C |
| 1.65 | 25 | 2.35C | 1.85C | 1.55C | 1.2C | 0.69C | 0.50C | 0.41C | 0.300C | 0.240C | 0.200C | 0.170C | 0.135C | 0.110C |
| | 5 | 1.9C | 1.6C | 1.3C | 1.05C | 0.64C | 0.40C | 0.33C | 0.260C | 0.208C | 0.173C | 0.147C | 0.120C | 0.098C |
| | -5 | 1.6C | 1.25C | 1.05C | 0.88C | 0.54C | 0.34C | 0.27C | 0.220C | 0.176C | 0.147C | 0.125C | 0.107C | 0.087C |
| 1.60 | 25 | 2.4C | 1.9C | 1.6C | 1.25C | 0.7C | 0.51C | 0.42C | 0.310C | 0.250C | 0.210C | 0.180C | 0.140C | 0.115C |
| | 5 | 2.0C | 1.7C | 1.4C | 1.10C | 0.66C | 0.41C | 0.34C | 0.270C | 0.216C | 0.182C | 0.156C | 0.125C | 0.102C |
| | -5 | 1.65C | 1.3C | 1.1C | 0.9C | 0.55C | 0.34C | 0.28C | 0.227C | 0.183C | 0.154C | 0.132C | 0.111C | 0.091C |

*Note: C represents the C20 rated capacity.

Technical specifications are subject to change without prior notice.
Battery image shown is indicative and may vary from the actual.



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