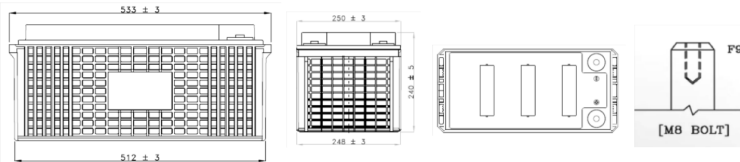


TECHNICAL DATA SHEET FOR MD-200 Premium (12V 200AH) VRLA BATTERY



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 copper insert to provide maximum conductivity.
- ▶ Self regulating pressure relief valve with integral flame arrestor.
- ▶ 100% ensured capacity (through Data-logger) during manufacturing.
- ▶ Stronger, sturdier & attractive packaging.
- ▶ Specially suited for UPS & Power Application

FEATURES: -

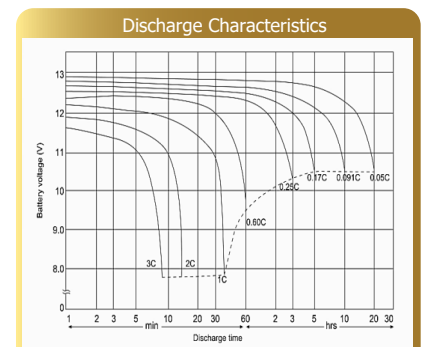
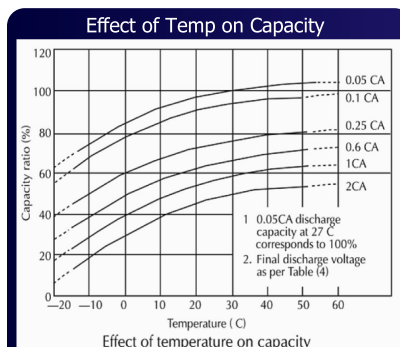
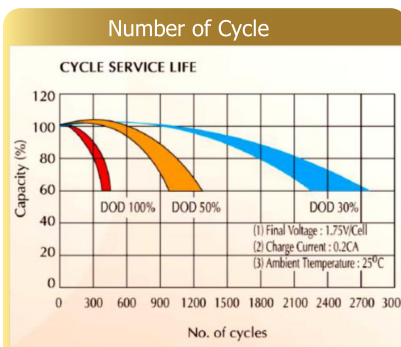
- ▶ Sealed Maintenance Free
 - ▶ Free from Orientation Constraints.
 - ▶ Eco Friendly.
 - ▶ Minimal Voltage Drop.
 - ▶ Easy Handling -Easy Installation.
 - ▶ Ready To Use.
 - ▶ Extended Cycle Life.
 - ▶ Low Self Discharge.
 - ▶ Charge Retention & Recovery.
 - ▶ Superior High Rate Discharge.
 - ▶ High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

SPECIFICATION CHART

| Type of Battery | Nominal Voltage (V) | 20 hrs 1.75 V/cell | 10 hrs 1.75 V/cell | 3 hrs 1.70 V/cell | 1.5 hrs 1.70 V/cell | 1 hrs 1.60 V/cell | 30 mins 1.60 V/cell | Overall Height (±5) | Height up to Lid (±5) | Length (±1) | Width (±1) | Weight ±5% (Kg) |
|-----------------|---------------------|--------------------|--------------------|-------------------|---------------------|-------------------|---------------------|---------------------|-----------------------|-------------|------------|-----------------|
| MD-200 Premium | 12 | 200 | 182.0 | 150.0 | 144.0 | 120.0 | 100 | 240.0 | 240.0 | 533.0 | 250.0 | 63.6 |

NOTES ON OPERATION

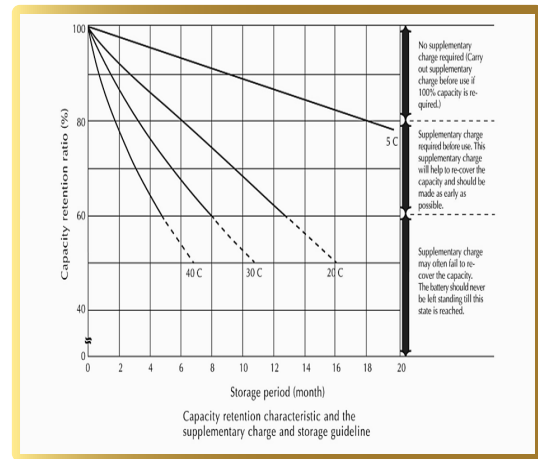
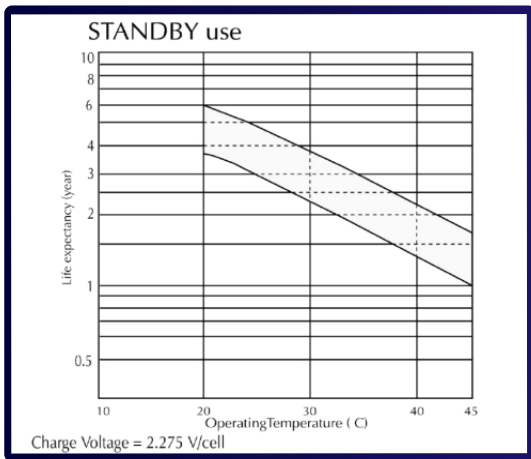
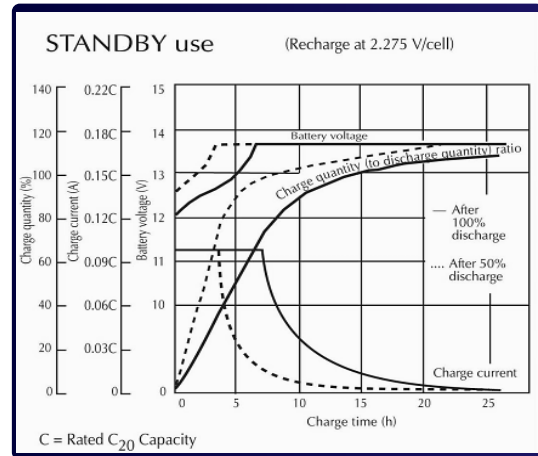
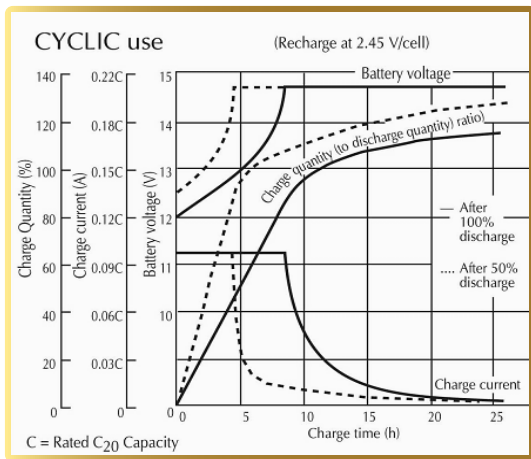
| Mode of Operation | Voltage setting per 12V unit for ambience Temp. 20 -30 @C | Current setting |
|-------------------|---|-----------------|
| FLOAT | 13.7V+/-0.1V | Maximum :0.3CA |
| CYCLE | 14.7V +/-0.1V | Minimum: 0.1CA |



| Constant Power Discharge Rating in Watts per Battery for | | POWERSAFE NXT Range @27°C | | | | | |
|--|--------|---------------------------|--------|--------|--------|--------|--------|
| | AH | 5 min | 10 min | 15 min | 20 min | 30 min | 60 min |
| Watt/Battery @ 1.6 0V | 200 AH | 7668 | 5138 | 4030 | 3226 | 2414 | 1498 |
| Watt/Battery @ 1.7 0V | | 7320 | 4832 | 3896 | 3166 | 2400 | 1448 |
| Watt/Battery @ 1.80V | | 6614 | 4646 | 3620 | 2982 | 2250 | 1364 |

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 |



| Product Details | |
|--------------------------------|---|
| AH Efficiency | >95% |
| WH Efficiency | >84% |
| Operating Temperature Range | (-)5°C to 40°C |
| Self Discharge/Month @ 27deg C | 5% of Rated Capacity |
| Recommended period of storage | 3 months from the date of dispatch and to be stored in a covered place at 27 °C |
| 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 | | | | | | | | | | | | | | |
|----------------------|---------|----------------|-------|-------|-------|-------|-------|-------|-------|---------|-------|--------|--------|--------|--------|--------|
| | | 0.5min | 1 min | 5min | 10min | 15min | 20min | 30min | 1 hrs | 1.5 hrs | 2 hrs | 3 hrs | 4 hrs | 6 hrs | 8 hrs | 10 hrs |
| 1.80 | 25 | 3.2C | 3.15C | 2.6C | 2.0C | 1.65C | 1.4C | 1.1C | 0.64C | 0.42C | 0.36C | 0.270C | 0.210C | 0.145C | 0.110C | 0.090C |
| | 5 | 2.55C | 2.4C | 2.0C | 1.65C | 1.3C | 1.1C | 0.95C | 0.59C | 0.34C | 0.29C | 0.230C | 0.182C | 0.129C | 0.098C | 0.080C |
| | -5 | 2.1C | 2.05C | 1.6C | 1.3C | 1.0C | 0.86C | 0.76C | 0.48C | 0.28C | 0.24C | 0.198C | 0.154C | 0.115C | 0.087C | 0.071C |
| 1.70 | 25 | 4.3C | 4.2C | 3.2C | 2.3C | 1.8C | 1.5C | 1.15C | 0.67C | 0.48C | 0.40C | 0.290C | 0.230C | 0.165C | 0.130C | 0.108C |
| | 5 | 3.8C | 3.65C | 2.5C | 1.8C | 1.5C | 1.2C | 1.0C | 0.62C | 0.39C | 0.32C | 0.250C | 0.199C | 0.143C | 0.116C | 0.096C |
| | -5 | 2.9C | 2.7C | 2.0C | 1.6C | 1.2C | 1.0C | 0.86C | 0.53C | 0.32C | 0.27C | 0.213C | 0.168C | 0.123C | 0.103C | 0.086C |
| 1.65 | 25 | 4.85C | 4.7C | 3.35C | 2.35C | 1.85C | 1.55C | 1.2C | 0.69C | 0.50C | 0.41C | 0.300C | 0.240C | 0.170C | 0.135C | 0.110C |
| | 5 | 3.9C | 3.8C | 2.6C | 1.9C | 1.6C | 1.3C | 1.05C | 0.64C | 0.40C | 0.33C | 0.260C | 0.208C | 0.147C | 0.120C | 0.098C |
| | -5 | 3.1C | 3.0C | 2.1C | 1.6C | 1.25C | 1.05C | 1.88C | 0.54C | 0.34C | 0.27C | 0.220C | 0.176C | 0.125C | 0.107C | 0.087C |
| 1.60 | 25 | 5.4C | 5.2C | 3.5C | 2.4C | 1.9C | 1.6C | 1.25C | 0.7C | 0.51C | 0.42C | 0.310C | 0.250C | 0.180C | 0.140C | 0.115C |
| | 5 | 4.0C | 3.9C | 2.75C | 2.0C | 1.7C | 1.4C | 1.10C | 0.66C | 0.41C | 0.34C | 0.270C | 0.216C | 0.156C | 0.125C | 0.102C |
| | -5 | 3.3C | 3.2C | 2.2C | 1.65C | 1.3C | 1.1C | 0.9C | 0.55C | 0.34C | 0.28C | 0.227C | 0.183C | 0.132C | 0.111C | 0.091C |

Note: C represents the C20 rated capacity