

stored energy solutions for a demanding world

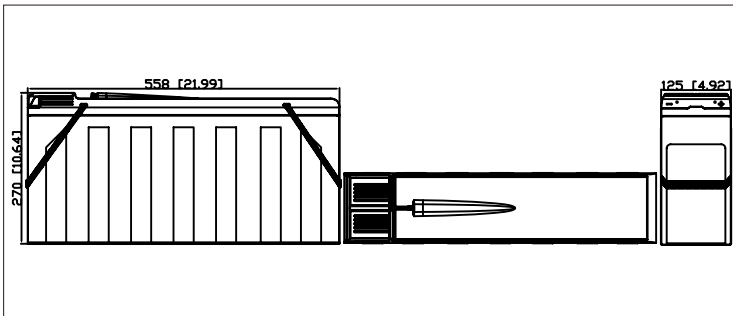
Narada

Model: **12NDF125**

Acme-F

The Acme F range of front access VRLA batteries has been specifically designed for applications using 19" and 23" cabinets, especially telecoms. Reliability is assured with the patented post seal and a state-of-the-art AGM design developed to comply with the latest IEC, British and Telcordia standards. A 12+ years design life and centralised venting system add to the suitability and flexibility of this superior range.

Dimensions—mm [inch]



Specifications

| Battery Model | 12NDF125 |
|--|---|
| Nominal Voltage | 12V |
| Rated Capacity | 125Ah (10 hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 45kg |
| Internal Resistance | Approx 5.7mΩ |
| Temperature Ranges | Operation (maximum): -40°C to 50°C(-40°F to 122°F) |
| | Operation (recommended): 15°C to 25°C(59°F to 77°F) |
| | Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 31.25A |
| Equalize and Cycle Service | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 8 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

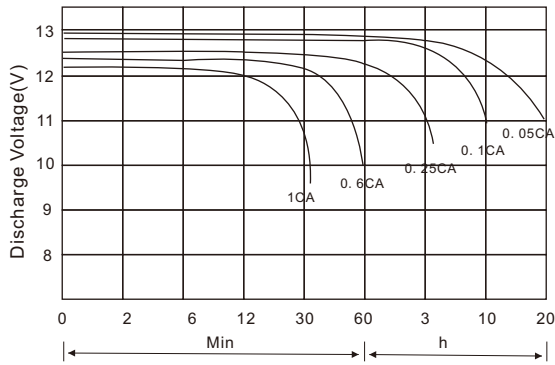
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5MIN | 15MIN | 30MIN | 45MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 12HR | 20HR | 24HR |
|----------------------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.60V | 410 | 220 | 133 | 96.7 | 78.2 | 44.8 | 32.5 | 26.9 | 23.5 | 20.3 | 15.8 | 13.0 | 11.0 | 6.85 | 5.73 |
| 1.67V | 385 | 212 | 131 | 96.0 | 77.7 | 44.6 | 31.9 | 26.8 | 23.3 | 20.2 | 15.6 | 12.8 | 10.9 | 6.79 | 5.67 |
| 1.70V | 381 | 209 | 129 | 95.3 | 77.1 | 44.2 | 31.8 | 26.6 | 23.8 | 20.2 | 15.6 | 12.8 | 10.8 | 6.78 | 5.67 |
| 1.75V | 350 | 202 | 128 | 94.6 | 76.0 | 43.1 | 31.4 | 26.3 | 23.4 | 20.1 | 15.4 | 12.7 | 10.8 | 6.76 | 5.67 |
| 1.80V | 314 | 188 | 123 | 90.7 | 74.0 | 42.7 | 31.2 | 26.3 | 22.8 | 19.7 | 15.3 | 12.6 | 10.7 | 6.70 | 5.66 |
| 1.83V | 299 | 173 | 120 | 87.7 | 70.8 | 42.2 | 30.1 | 25.0 | 22.1 | 19.0 | 15.0 | 12.1 | 10.2 | 6.68 | 5.57 |
| 1.85V | 281 | 167 | 112 | 84.2 | 68.6 | 40.6 | 29.3 | 24.7 | 21.5 | 18.6 | 14.5 | 12.0 | 10.2 | 6.55 | 5.52 |

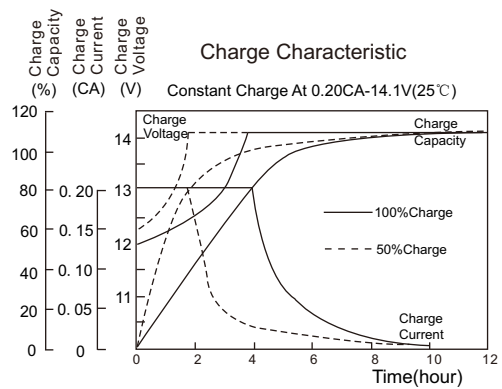
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5MIN | 15MIN | 30MIN | 45MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 12HR | 20HR | 24HR |
|----------------------|------|-------|-------|-------|-----|------|------|------|------|------|------|------|------|------|------|
| 1.60V | 685 | 387 | 241 | 181 | 147 | 84.6 | 61.8 | 51.7 | 45.1 | 39.0 | 30.6 | 25.2 | 21.3 | 13.6 | 11.4 |
| 1.67V | 659 | 380 | 239 | 180 | 146 | 84.4 | 61.0 | 51.6 | 45.0 | 39.0 | 30.3 | 25.0 | 21.2 | 13.5 | 11.4 |
| 1.70V | 655 | 376 | 239 | 180 | 146 | 84.0 | 61.0 | 51.4 | 46.0 | 39.0 | 30.2 | 24.8 | 21.0 | 13.5 | 11.3 |
| 1.75V | 612 | 373 | 238 | 180 | 144 | 83.6 | 60.3 | 51.4 | 45.5 | 38.9 | 29.9 | 24.7 | 21.0 | 13.5 | 11.3 |
| 1.80V | 561 | 352 | 233 | 175 | 143 | 83.3 | 60.2 | 51.2 | 44.4 | 38.5 | 29.9 | 24.6 | 20.9 | 13.5 | 11.3 |
| 1.83V | 536 | 323 | 230 | 170 | 137 | 82.3 | 58.8 | 49.3 | 43.5 | 37.4 | 29.6 | 24.0 | 20.3 | 13.4 | 11.2 |
| 1.85V | 501 | 315 | 213 | 163 | 133 | 79.6 | 57.2 | 48.7 | 42.4 | 36.6 | 28.7 | 23.8 | 20.4 | 13.2 | 11.1 |

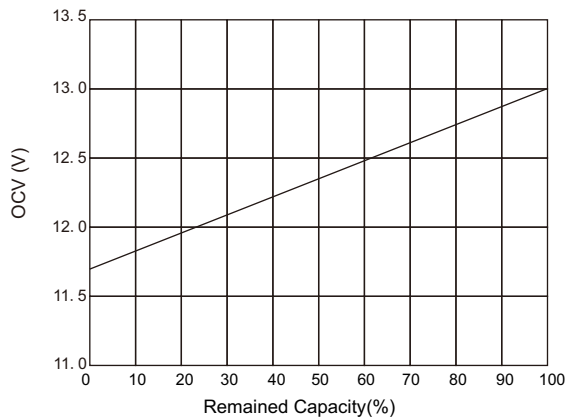
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



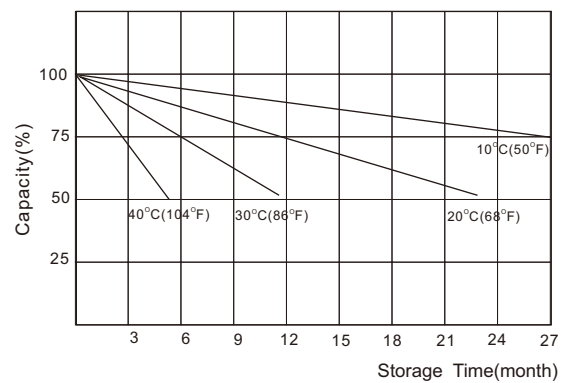
Battery Voltage Vs. Charge Time



Relationship of OCV Vs. State of Charge



Capacity Retention Characteristic



Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|-------------|-------------------------|-----------|-----------------|---------------------|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.40 | 0.25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|--------------------------------|------------|-------------------|-------------------|------------|
| Discharge Current (A) | 0.2C ≥ (A) | 0.2C < (A) < 0.5C | 0.5C < (A) < 1.0C | (A) > 1.0C |

NARADA POWER SOURCE CO.,LTD.
 9F, Building A, No. 50 Zijinghua Road, Hangzhou, China
 Tel:+86-571-28827013 Fax:+86-571-28828290
 Website:www.naradabattery.com E-mail:intl@narada.biz

NARADA ASIA PACIFIC PTE.LTD.
 65 Ubi Crescent #07-05 HOLA centre, Singapore
 Tel: +65-6848 1191 Fax: +65-6749 3498
 E-mail: sales@narada.com.sg

NARADA EUROPE (UK) LIMITED
 Spectrum House, Dunstable Road, Redbourn,
 St. Albans, Herts AL3 7PR
 Tel: +44 (0)845 371 7095 Fax:+44 (0)845 612 2031
 E-mail: sales@naradaeurope.com

