

Narada

stored energy solutions for a demanding world

12NPL210

The Narada Telecom Pure Lead range of VRLA batteries are well suited to provide battery backup in outdoor application long duration or outside plant application.

All Narada Telecom series batteries use CCPP plate technology and a patented post design offering exceptional service life.



Technical Features:

- Flame Retardant ABS Cover and Container, UL94 V-0, LOI>28%
- Patented copper alloy terminal design with epoxy TPS design for high reliability
- Low pressure one-way flame arresting valve(s) UL1989
- Specialized Absorbent Glass Mat (AGM) Sealed Technology, Recombination efficiency of 99.9%
- Up to 24 months of storage at 77°F (25°C)
- Initial capacity at 100%

Compliance and Safety:

- **ISO 9001:2000, ISO 14001:2004 and TL9000 certified facilities**
- UL Recognized Component 924, for use in or with listed UL1778, UL1989 and UL924 systems
- Compliant to SR-4228 & VZ.TPR.9802
- Compliant with EN 50272-2

Certified:

- VZ.TPR.9205, Issue 4, August 2009
- NEBS Version 4, Level 3 2012, Telcordia SR-3580, Issue 5, June 2012, Level 3
- VZ.NEBS.TE.NPI.2004.015
- Telcordia GR-1089-CORE, Issue 6
- Telcordia GR-63-CORE, Issue 4
- NEBS Earthquake Risk Seismic Zone 4
- IEC 60896-21:2004, IEC 60896-22:2004/BS6290 part 4

Transportation:

- Classified as Nonspillable UN 2800 and meets the Nonspillable criteria listed in DOT-CFR Title 49, 171-189 (d) (3) (i) and (ii) and exempt from CFR 49, Subchapter C requirements
- Meets transportation conditions of IMDG exemption 238, IATA/ICAO Special Provision A67 (Not Restricted)

| | |
|-------------------------------------|--------|
| Ah @ 8hr 1.75 vpc / 77°F (25°C) | 202 Ah |
| Ah @ 10hr 1.80 vpc / 77°F (25°C) | 210 Ah |

| | |
|--|-------------|
| Nominal Voltage | 12V |
| Float Charge Voltage @25°C (2.23 – 2.27vpc) | 13.4 – 13.6 |
| Max. Charge Current (A) (5 hour rate @ 1.75vpc) | 50.0 Amps |

| | |
|--|-------|
| Electrolyte Absorbed H ₂ SO ₄ | 1.300 |
|--|-------|

| | |
|---------------------------|-----------|
| Short Circuit Current (A) | 2990 Amps |
| Internal Resistance (mΩ) | 4.25 |

| Terminal Type | Torque |
|------------------------|---------------------|
| M6-M (Front L Bracket) | 78 in-lbs (8 ±1 Nm) |
| M6-F (Top Insert) | 78 in-lbs (8 ±1 Nm) |

| Dimension | In | mm |
|----------------|------|-----|
| Length | 21.8 | 554 |
| Length Base | 20.9 | 530 |
| Width | 4.9 | 125 |
| Overall Height | 12.4 | 316 |

| | Lbs. | Kg |
|--------|------|------|
| Weight | 132 | 60.0 |

| | | | |
|------|---------|-----|---------|
| CLEI | Pending | CPR | Pending |
|------|---------|-----|---------|

NPL-Series

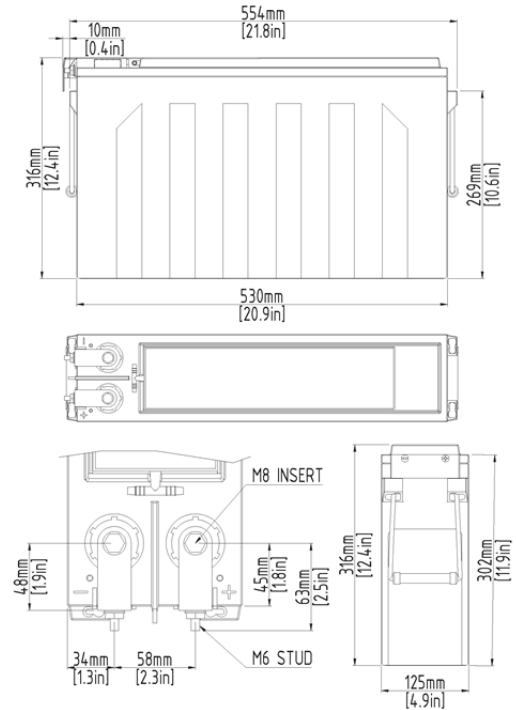
Operating Parameters

| | |
|--|---|
| Float Charging Voltage | 13.5V / 2.25vpc @ 77°F (25°C) |
| Equalize /Cycle | 14.0V – 14.3V 2.33Vpc to 2.38Vpc @ 77°F (25°C) |
| See Operations and Maintenance Manual for specific guidelines and recharge times | |

| | |
|-----------------------------------|---|
| Charging Temperature Compensation | -2 mV/cell/°F > 77°F (-3.6 mV/cell /°C > 25°C) |
| | +2 mV/cell/°F < 77°F (+3.6 mV/cell/°C < 25°C) |

| | |
|-----------------------------|---|
| Maximum AC Ripple (Charger) | 0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results |
|-----------------------------|---|

| Operating Temperature Range | |
|-----------------------------|--------------------------------|
| Nominal | +74°F (24°C) to 80°F (27°C) |
| Charge | -20°F (-28°C) to +122°F (50°C) |
| Discharge | -40°F (-40°C) to +140°F (60°C) |
| Storage Temperature Range | -4°F (-20°C) to +104°F (40°C) |



Constant Current Discharge (Amps) @ 77°F/25°C

| End vpc | 5m | 15m | 30m | 45m | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 1.67 | 546 | 333 | 219 | 166 | 136 | 79.4 | 57.0 | 44.7 | 37.0 | 31.6 | 25.5 | 22.0 | 18.7 | 13.3 | 11.4 |
| 1.70 | 504 | 324 | 216 | 165 | 134 | 78.7 | 56.4 | 44.3 | 36.6 | 31.4 | 25.3 | 21.9 | 18.7 | 13.1 | 11.2 |
| 1.75 | 488 | 315 | 212 | 163 | 133 | 78.5 | 56.4 | 44.3 | 36.6 | 31.3 | 25.2 | 21.7 | 18.5 | 12.9 | 11.0 |
| 1.80 | 445 | 286 | 200 | 157 | 131 | 78.3 | 56.3 | 44.2 | 36.5 | 31.1 | 25.0 | 21.0 | 17.5 | 11.1 | 9.03 |
| 1.83 | 369 | 257 | 188 | 152 | 129 | 78.2 | 56.2 | 44.0 | 36.4 | 30.9 | 24.3 | 20.1 | 17.2 | 10.8 | 8.99 |
| 1.85 | 344 | 244 | 180 | 146 | 124 | 78.0 | 55.8 | 43.8 | 36.2 | 30.7 | 23.8 | 19.7 | 17.0 | 10.4 | 8.74 |
| 1.86 | 326 | 231 | 171 | 139 | 118 | 74.8 | 55.0 | 43.3 | 35.6 | 30.0 | 23.5 | 19.6 | 16.2 | 9.64 | 7.93 |

Constant Power Discharge (Watt/Cell) @ 77°F/25°C

| End vpc | 5m | 15m | 30m | 45m | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| 1.67 | 947 | 623 | 422 | 325 | 265 | 157 | 113 | 89.3 | 74.9 | 63.4 | 49.6 | 44.5 | 38.1 | 24.7 | 21.1 |
| 1.70 | 891 | 597 | 410 | 318 | 262 | 157 | 113 | 89.3 | 74.7 | 63.3 | 49.4 | 44.2 | 37.6 | 23.9 | 20.4 |
| 1.75 | 862 | 580 | 403 | 314 | 259 | 156 | 113 | 89.2 | 74.6 | 63.2 | 49.4 | 44.0 | 37.3 | 23.4 | 19.8 |
| 1.80 | 796 | 539 | 383 | 303 | 253 | 155 | 113 | 89.0 | 74.4 | 63.1 | 49.1 | 43.2 | 36.3 | 21.8 | 18.0 |
| 1.83 | 671 | 481 | 358 | 292 | 248 | 155 | 113 | 88.9 | 74.2 | 62.9 | 48.0 | 41.4 | 34.0 | 19.9 | 17.0 |
| 1.85 | 631 | 459 | 346 | 282 | 241 | 155 | 112 | 88.7 | 74.1 | 62.7 | 47.4 | 40.8 | 33.5 | 18.5 | 15.8 |
| 1.86 | 603 | 439 | 332 | 272 | 232 | 150 | 111 | 88.1 | 72.6 | 61.6 | 46.7 | 40.5 | 33.4 | 17.3 | 14.8 |

China: **Narada**
 NARADA POWER SOURCE CO.,LTD.
 No.459 Wensan Road, Hangzhou, Zhejiang, P.R.China
 Tel:+86-571-28827013 Fax:+86-571-85126942
 Website:www.en.naradabattery.com E-mail: intl@narada.biz

MPiNarada MPI-Narada
 44 Oak St
 Newton, MA 02464
 Tel: 800-982-4339
 sales@mpinarada.com www.mpinarada.com

