

## 12HTB170F

The Narada High Temperature Telecom Pure Lead range of VRLA batteries are well suited to provide battery backup in outdoor application long duration or outside plant application with an operating temperature of 35°C/95°F.

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
- ◆ Epoxy TPS design for high reliability post seal
- ◆ 6 months of storage at 77°F (25°C) with a capacity > 80%
- ◆ Initial capacity at 100%
- ◆ Low pressure one-way flame arresting valve(s) UL1989
- ◆ Absorbent Glass Mat (AGM) Sealed Technology, Recombination efficiency of 99.9%

### Compliance and Safety:

- ◆ **ISO 9001:2000 and ISO 14001:2004 certified production facilities**
- ◆ UL Recognized Component 924, for use in or with listed UL1778, UL1989 and UL924 systems
- ◆ IEC60896-21/22
- ◆ BS6290 part 4 / Eurobatt guide
- ◆ **TL9001 / ISO9001(TUV) Quality System**
- ◆ Battery installation compliant with: EN 50272-2
- ◆ All batteries meet or exceed IEEE recommended practices

### Transportation:

- ◆ Classified as Nonspillable UN 2800 and meet 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<br>1.75 vpc / 77°F (25°C)  | 171 Ah |
| Ah @ 10hr<br>1.80 vpc / 77°F (25°C) | 170 Ah |

|  |             |
|--|-------------|
| Nominal Voltage                                    | 12V         |
| Float Charge Voltage @25°C<br>(2.23 – 2.27vpc)     | 13.4 – 13.6 |
| Max. Charge Current (A)<br>(5 hour rate @ 1.75vpc) | 43 Amps     |

|  |       |
|--|-------|
| Electrolyte<br>Absorbed H <sub>2</sub> SO <sub>4</sub> | 1.300 |
|--|-------|

|                           |           |
|---------------------------|-----------|
| Short Circuit Current (A) | 2758 Amps |
| Internal Resistance (mΩ)  | 4.6       |

| Terminal Type          | Torque               |
|------------------------|----------------------|
| M6-M (Front L Bracket) | 78 in-lbs (8 ±1 Nm)  |
| M8-F (Top Insert)      | 90 in-lbs (10 ±1 Nm) |

| Dimension      | in    | mm  |
|----------------|-------|-----|
| Length         | 21.66 | 550 |
| Length Base    | 20.79 | 528 |
| Width          | 4.93  | 125 |
| Overall Height | 11.15 | 283 |

|        | Lbs. | Kg   |
|--------|------|------|
| Weight | 114  | 51.8 |

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

## Operating Parameters

|   |   |
|---|---|
| Float Charging Voltage  | 13.5V / 2.25vpc @ 77°F (35°C)                     |
| Equalize /Cycle   | 14.0V – 14.3V<br>2.33Vpc to 2.38Vpc @ 95°F (35°C) |
| See Operations and Maintenance Manual<br>for specific guidelines and recharge times |   |

|                                   |  |
|-----------------------------------|--|
| Charging Temperature Compensation | -2 mV/cell/°F > 77°F<br>(-3.6 mV/cell/°C > 25°C) |
|                                   | +2 mV/cell/°F < 77°F<br>(+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                     | +75°F (25°C) to 95°F (35°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  | 424 | 245 | 162 | 135 | 112 | 66.4 | 48.4 | 38.4 | 32.0 | 27.4 | 21.4 | 17.7 | 15.2 | 9.41 | 7.96 |
| 1.70  | 404 | 242 | 161 | 134 | 111 | 66.0 | 48.1 | 38.1 | 31.8 | 27.2 | 21.3 | 17.6 | 15.1 | 9.36 | 7.93 |
| 1.75  | 372 | 236 | 160 | 133 | 109 | 65.2 | 47.7 | 37.8 | 31.4 | 26.9 | 21.1 | 17.5 | 15.0 | 9.35 | 7.87 |
| 1.80  | 335 | 217 | 151 | 129 | 107 | 65.1 | 47.4 | 37.6 | 31.3 | 26.8 | 20.9 | 17.1 | 14.6 | 9.19 | 7.68 |
| 1.83  | 312 | 214 | 147 | 125 | 103 | 63.2 | 46.6 | 37.0 | 30.8 | 26.3 | 20.7 | 16.9 | 14.4 | 8.88 | 7.43 |
| 1.85  | 287 | 198 | 140 | 121 | 102 | 62.8 | 46.0 | 36.7 | 30.6 | 26.2 | 20.3 | 16.5 | 13.8 | 8.19 | 6.73 |
| 1.86  | 275 | 190 | 136 | 119 | 101 | 62.6 | 45.7 | 36.5 | 30.5 | 26.1 | 20.1 | 16.3 | 13.5 | 7.84 | 6.39 |

| 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   | 739 | 473 | 321 | 267 | 221 | 134 | 96.5 | 76.4 | 63.5 | 54.5 | 42.6 | 35.2 | 30.0 | 19.3 | 16.4 |
| 1.70   | 719 | 468 | 320 | 266 | 220 | 133 | 96.4 | 76.3 | 63.4 | 54.4 | 42.5 | 35.1 | 29.9 | 19.2 | 16.3 |
| 1.75   | 682 | 456 | 315 | 264 | 217 | 132 | 95.9 | 76.0 | 63.1 | 54.2 | 42.2 | 34.9 | 29.8 | 19.0 | 16.2 |
| 1.80   | 605 | 416 | 295 | 254 | 213 | 131 | 95.1 | 75.3 | 62.6 | 53.8 | 41.8 | 33.8 | 28.2 | 17.2 | 14.4 |
| 1.83   | 559 | 407 | 289 | 248 | 207 | 130 | 94.6 | 74.9 | 62.1 | 53.1 | 41.1 | 33.6 | 28.1 | 16.6 | 13.6 |
| 1.85   | 549 | 388 | 280 | 243 | 204 | 129 | 94.3 | 74.8 | 61.9 | 52.7 | 40.3 | 32.5 | 27.0 | 15.7 | 12.8 |
| 1.86   | 544 | 378 | 276 | 241 | 203 | 128 | 94.1 | 74.7 | 61.8 | 52.5 | 39.9 | 31.9 | 26.5 | 15.2 | 12.4 |

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