

# Narada

stored energy solutions for a demanding world

## 12NPL190

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
- ◆ Epoxy TPS design for high reliability post seal
- ◆ 24 months of storage at 68°F (20°C)
- ◆ 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 facilities**
- UL Recognized Component 924, for use in or with listed UL1778, UL1989 and UL924 systems
- IEC60896-21/22 / BS6290 part 4
- Certified to NEBS Version 8, Level 3
- Telcordia GR-1089-CORE, Issue 6
- Telcordia GR-63-CORE, Issue 4
- **Manufactured under system ISO9001(TUV)**
- Battery installation compliant with: EN 50272-2 or local equivalents
- NEBS Earthquake Risk Seismic Zone 4 Compliant

### 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 1.75 vpc / 77°F (25°C)	191 Ah
Ah @ 10hr 1.80 vpc / 77°F (25°C)	199 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)	48 Amps

Electrolyte Absorbed H <sub>2</sub> SO <sub>4</sub>	1.300
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Short Circuit Current (A)	2978 Amps
Internal Resistance (mΩ)	4.26

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

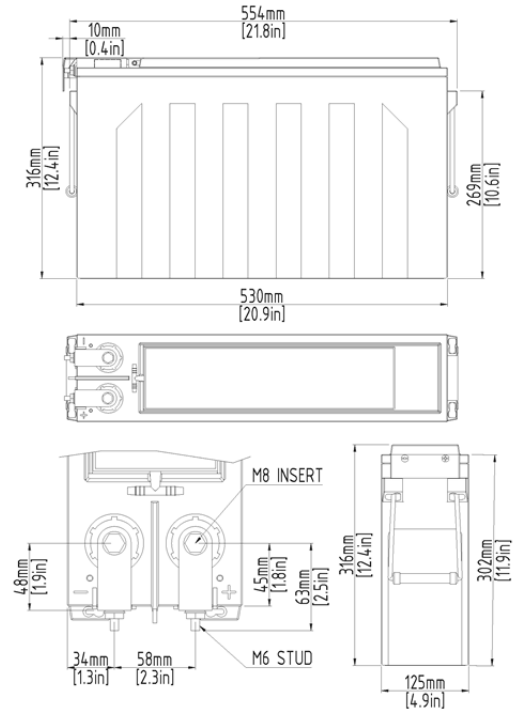
	Lbs.	Kg
Weight	131	59.3

CLEI	PBMYAGGSRA	CPR	217346
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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	481	309	206	157	127.6	74.8	53.6	42.1	34.8	29.7	23.2	20.8	17.8	11.4	9.7
1.70	465	302	203	155	126.6	74.6	53.6	42.1	34.8	29.6	23.1	20.6	17.5	11.2	9.5
1.75	425	273	191	150	124.6	74.4	53.5	42.0	34.7	29.5	22.9	20.0	16.6	9.5	7.8
1.80	352	246	180	145	121.6	74.3	53.4	41.8	34.6	29.3	22.3	19.1	15.6	8.5	6.7
1.83	328	233	172	140	117.6	74.1	53.1	41.6	34.4	29.1	21.8	18.7	15.3	8.5	6.7
1.85	312	220	163	133	112.6	71.1	52.2	41.1	33.8	28.5	21.5	18.6	15.3	8.3	6.6
1.86	304	214	158	129	110	69.5	51.7	40.9	33.5	28.2	21.4	18.5	15.1	8.21	6.48

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	847	568	390	303	248.2	148.7	107.5	84.9	71.1	60.2	46.9	42.0	35.8	22.7	19.40
1.70	819	552	383	298	246.2	148.7	107.5	84.8	71.0	60.1	46.9	41.8	35.5	22.2	18.79
1.75	757	513	364	288	240.1	147.7	107.5	84.6	70.8	60.0	46.6	41.1	34.5	20.70	17.09
1.80	638	457	341	277	236.1	147.7	107.5	84.5	70.6	59.8	45.6	39.4	32.4	18.89	16.18
1.83	600	436	329	268	229.1	146.7	106.5	84.3	70.5	59.6	45.0	38.8	31.9	17.59	14.97
1.85	573	417	316	258	221.1	142.7	105.5	83.7	69.0	58.6	44.4	38.5	31.8	16.48	14.07
1.86	559	408	309	253	217	141	105	83.4	68.3	58.1	44.1	38.3	31.7	15.9	13.6

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