

Narada

stored energy solutions for a demanding world

12HTB190F

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 CAPP plate technology and a patented post design offering exceptional service life.



Technical Features:

- Flame Retardant High Temperature ABS Cover and Container, UL94 V-0, LOI>28%
- Patented copper alloy terminal design with epoxy TPS design for high reliability seal
- Low pressure one-way catalyst 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)	191 Ah
Ah @ 10hr 1.80 vpc / 77°F (25°C)	200 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 ₂ SO ₄	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)
M8-F (Top Insert)	90 in-lbs (10 ±1 Nm)

Dimension	in	mm
Length	21.8	554
Length Base	20.9	530
Width	4.9	125
Overall Height	12.5	316

	Lbs.	Kg
Weight	131	59.3

CLEI	Pending	CPR	Pending
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HTB-Series

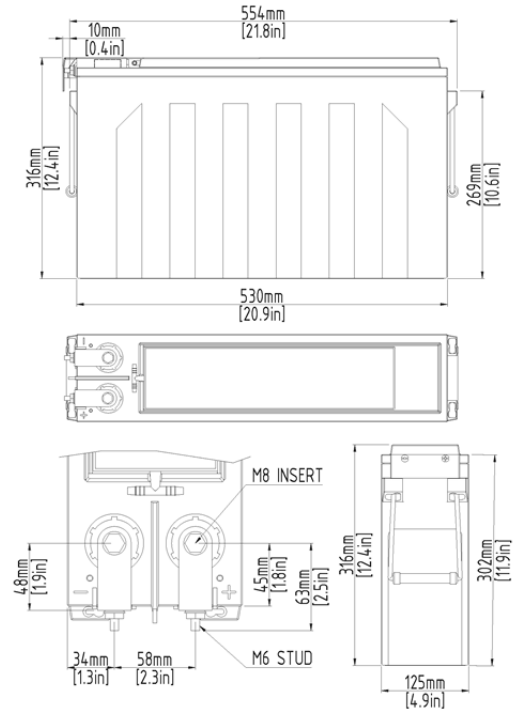
Operating Parameters

Float Charging Voltage	13.5V / 2.25vpc @ 77°F (35°C)
Equalize /Cycle	14.0V – 14.3V 2.33Vpc to 2.38Vpc @ 95°F (35°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
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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	481	309	206	157	128	74.8	53.6	42.1	34.8	29.7	23.2	20.8	17.8	11.4	9.69
1.70	465	302	203	155	127	74.6	53.6	42.1	34.8	29.6	23.1	20.6	17.5	11.2	9.51
1.75	425	273	191	150	125	74.4	53.5	42.0	34.7	29.5	22.9	20.0	16.6	9.55	7.77
1.80	352	246	180	145	122	74.3	53.4	41.8	34.6	29.3	22.3	19.1	15.6	8.50	6.73
1.83	328	233	172	140	118	74.1	53.1	41.6	34.4	29.1	21.8	18.7	15.3	8.45	6.73
1.85	312	220	163	133	113	71.1	52.2	41.1	33.8	28.5	21.5	18.6	15.3	8.29	6.56
1.86	304	214	158	129	110	69.5	51.7	40.9	33.5	28.2	21.4	18.5	15.2	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	149	108	84.9	71.1	60.2	46.9	42.0	35.8	22.7	19.4
1.70	819	552	383	298	246	149	108	84.8	71.0	60.1	46.9	41.8	35.5	22.2	18.8
1.75	757	513	364	288	240	148	108	84.6	70.8	60.0	46.6	41.1	34.5	20.7	17.1
1.80	638	457	341	277	236	148	108	84.5	70.6	59.8	45.6	39.4	32.4	18.9	16.2
1.83	600	436	329	268	229	147	107	84.3	70.5	59.6	45.0	38.8	31.9	17.6	15.0
1.85	573	417	316	258	221	143	106	83.7	69.0	58.6	44.4	38.5	31.8	16.5	14.1
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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