

The Narada High Temperature Front Access VRLA batteries provide superior battery life in applications with a nominal operating temperature of 35°C.

Advanced and proprietary case and cover materials, catalyst vent, grid alloy contribute to the enhanced performance characteristics at elevated Temperatures.

Narada HTB-Series make this range of product ideal for elevated temperature Float and Cyclic applications.



#### Technical Features:

- Flame Retardant HT-ABS Cover and Container, UL94 V-0, LOI>28%
- Patented copper alloy terminal design
- 12 months of storage at 68°F (20°C)
- Initial capacity at 100%
- Low pressure one-way flame arresting Catalyst vent(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
- Certified NEBS Version 4, Level 3 2012, Telcordia SR-3580, Issue 5, June 2012, Level 3
  - Telcordia GR-1089-CORE, Issue 6
  - Telcordia GR-63-CORE, Issue 4
  - Telcordia GR-3108-4.2 Class 3
- Compliant to SR-4228 & VZ.TPR.9802
- **Manufactured under system ISO9001(TUV)**
- Battery installation compliant with: EN 50272-2 or local equivalents
- NEBS Earthquake Risk Seismic Zone 4 Compliant
- Exceeds 1997 UBC Zone 4 Seismic requirements for at or below grade installations
- Exceeds 2007 IBC requirements for 125% g level

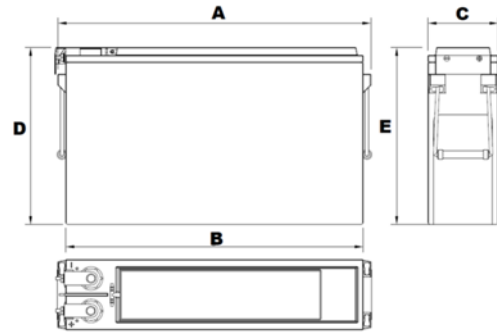
#### Transportation:

- 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)

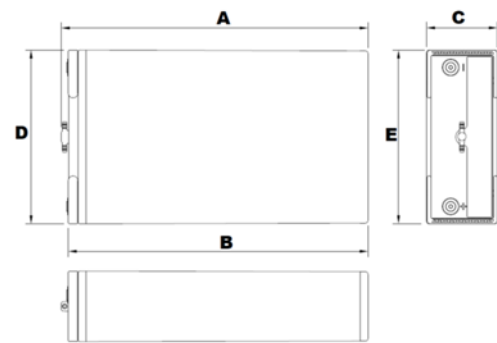
### Operating Parameters

Float Charging Voltage	2.24Vpc @ 35°C
Equalize Charging Voltage	2.30Vpc @ 35°C
See Operations and Maintenance Manual for specific guidelines and recharge times	
Charging Temperature Compensation	-5 mV/cell /°C > 35°C +5 mV/cell/°C < 35°C
Maximum AC Ripple (Charger)	0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results
Maximum Charge Current	C <sub>5</sub> Rate Amps (5 hour rate @ 1.75vpc) 0.25C > 25°C
Electrolyte	Absorbed 1.300 s.g. H <sub>2</sub> SO <sub>4</sub>
Self-discharge Rate	<2% per month at 77°F (25°C)
Relief Valve	Self-resealing; Operates at 2 to 3 psi and is complete with integral flame arrestor
Terminal Type	Torque
M6-M / M6-F	8 ± 1Nm
M8-F	10 ± 1Nm
Operating Temperature Range	
Nominal	15°C to 35°C
Charge	-28°C to 50°C
Discharge	-40°C to 80°C
Storage Temperature Range	-20°C to +40°C

### Dimensions & Specifications



HTBxxxF



HTBxxx

Model	V	Ah 8hr 1.75 vpc 77°F	Ah10hr 1.75 vpc 25°C	Total Length (A)		Base Length (B)		Width (C)		Height (D)		Terminal Height (E)		Weight	
				mm	in	mm	in	mm	in	mm	in	mm	in	Kg	Lbs.
12HTB100F	12	96	102	395	15.56	368	14.49	108	4.25	287	11.30	274	10.79	31.2	69
12HTB100	12	103	105	390	15.40	377	14.84	108	4.25	287	11.30	-	-	35	78
12HTB150F	12	153	158	550	21.66	528	20.79	125	4.93	283	11.15	272	10.71	48.2	107
12HTB170F	12	173	178	550	21.66	528	20.79	125	4.93	283	11.15	272	10.71	51.8	114
12HTB190F	12	191	200	558	21.97	530	20.87	125	4.93	316	12.45	305	12.01	59.3	131
12HTB210F	12	202	210	558	21.97	530	20.87	125	4.93	316	12.45	305	12.01	60.0	132
12HTB150	12	151	157	546	21.50	534	21.03	125	4.93	310	12.20	-	-	56.0	116
12HTB170	12	165	172	546	21.50	534	21.03	125	4.93	310	12.20	-	-	58.0	128

Note: F represents float service front access batteries

### Constant Current Discharge, 1.75vpc, 77°F/25°C

Model	5m	15m	30m	45m	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h
12HTB100F	308	179	115	85	68	39.2	27.8	21.7	17.9	15.3	12.0	10.2	8.7	5.61
12HTB100	286	165	104	77	62	34.9	27.4	21.3	19.0	16.2	12.3	10.3	8.7	5.48
12HTB150F	342	217	144	110	90	54.8	40.0	32.7	27.3	23.4	18.5	15.1	13.1	8.63
12HTB170F	372	236	159	132	108	65.2	47.7	37.8	31.3	26.9	21.1	17.5	14.9	9.35
12HTB190F	425	273	191	150	125	74.4	53.5	42.0	34.7	29.5	22.9	20.0	16.6	9.55
12HTB210F	488	315	212	163	133	78.5	56.4	44.3	36.6	31.3	25.2	21.7	18.5	12.9
12HTB150	425	246	153	112	93.2	52.8	41.5	33.0	28.7	24.1	18.9	15.7	13.1	8.24
12HTB170	472	273	170	125	102	58.1	45.7	35.6	31.6	27.1	20.6	17.2	14.4	9.12

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