

## 12HRL150



The Narada High Rate range of VRLA batteries and provide reliable battery backup to any High Rate UPS application.

All Narada High Rate series batteries use optimized 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)

wpc @ 15 min 1.67 vpc / 77°F (25°C)	150 watts
wpc @ 5 min 1.60 vpc / 77°F (25°C)	322 watts
Ah @ 20hr 1.75 vpc / 77°F (25°C)	42 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)	12 Amps

Electrolyte Absorbed H <sub>2</sub> SO <sub>4</sub>	1.300
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Short Circuit Current (A)	900 Amps
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Internal Resistance (mΩ)	8.0 mΩ
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Terminal Type	Torque
M6-F	78 in-lbs (8 ±1 Nm)

Dimension	in	mm
Length	7.72	196
Length Base	7.68	195
Width	6.50	165
Overall Height	6.68	170

	Lbs.	Kg
Weight	32	14.5

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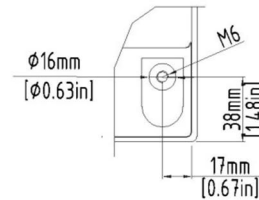
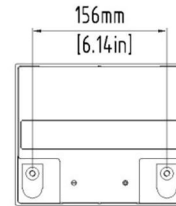
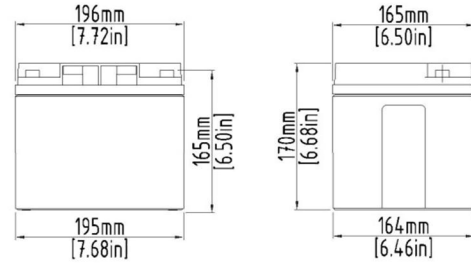
## Operating Parameters

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
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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 Power Discharge Watts per cell (25°C, 77°F)

End Cell Voltage	5min	10min	15min	30 min	1h	2h	3h	5h	10h
1.60V	322	205	153	90	51.0	28.0	20.6	13.2	8.2
1.67V	312	198	150	88	49.9	27.5	20.2	13.0	8.1
1.70V	299	195	148	88	50.0	27.6	20.3	13.0	8.1
1.75V	282	186	142	85	49.0	27.1	20.0	12.8	8.0
1.80V	263	176	135	82	47.5	26.6	19.7	12.6	7.9
1.85V	187	128	100	65	39.4	22.0	17.0	11.7	7.1

## Constant Current Discharge Amperes (25°C, 77°F)

End Cell Voltage	5min	15min	30min	1h	2h	4h	8h	10h	20h
1.60V	173	107	80	46.0	25.7	10.31	4.41	4.11	2.05
1.67V	163	104	78	45.4	25.3	10.17	4.39	4.08	2.10
1.70V	160	102	77	44.8	25.1	10.14	4.38	4.05	2.12
1.75V	151	97	74	43.5	24.6	10.00	4.35	4.00	2.15
1.80V	141	92	70	41.8	23.9	9.85	4.30	3.92	2.15
1.85V	100	63	60	37.0	21.5	8.61	4.22	3.65	2.15

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