12HRL700

HRL Series

MH27487

The Narada High Rate range of VRLA batteries 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
- Manufactured under system ISO9001(TUV)
- 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)	751 watts
WPC @ 5 min 1.60 VPC / 77°F (25°C)	1301 watts
Ah @ 20hr 1.75 VPC / 77°F (25°C)	193 Ah

Nominal Voltage	12V
Float Charge Voltage @25°C (2.23 – 2.27vpc)	13.5 – 13.62
Max. Charge Current (A) (5 hour rate @ 1.75vpc)	39 Amps

Electrolyte Absorbed H_2SO_4	1.300

Short Circuit Current (A)	4250 Amps
Internal Resistance (mΩ)	2.9

Terminal Type	Torque
M6-M (Front L Bracket)	78±9 in-lbs (8 ±1 Nm)
M6-F (Top Insert)	89±9 in-lbs (10 ±1 Nm)

Dimension	In	mm
Length	21.97	558
Length Base	20.87	530
Width	5.0	127
Overall Height	12.4	316

Weight	Lbs.	Kg
	130	59

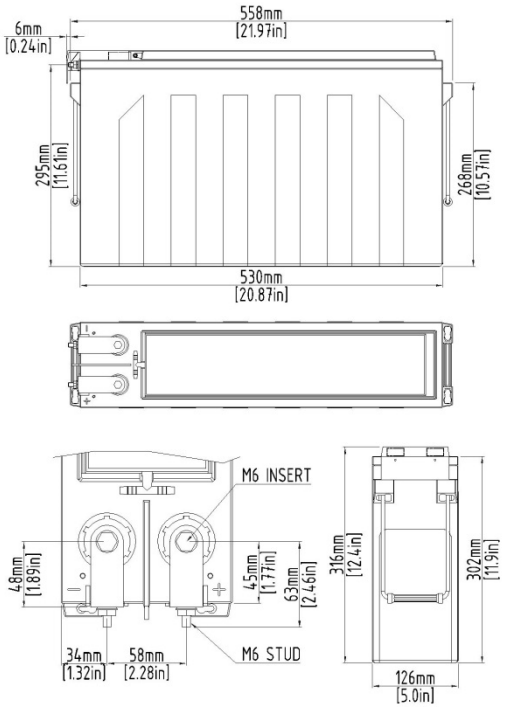
OPERATING PARAMETERS

Float Charging Voltage	13.5V / 2.25vpc @ 77ºF (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 Power Discharge Watts per cell (25°C, 77°F)								
End vpc	5min	10min	15min	20min	30min	45min	1h	2h
1.6	1301	984	790					
1.63	1280	964	780					
1.67	1167	913	751	641	465	347	275	152
1.7	1147	901	744	633	460	346	275	151
1.75	1057	841	715	625	450	337	270	150
1.8	991	779	654	566	442	315	252	149
1.83	846	663	557	484	388	311	249	146
1.85	792	631	535	468	378	305	244	143

Constant Current Discharge Amperes (25°C, 77°F)								
End vpc	5min	10min	15min	20min	30min	40min	50min	1h	2h
1.60V	793	382.0	231.0						
1.67V	662	362.0	226.0	134					
1.70V	602	350.0	223.0	133					
1.75V	517	328.0	216.0	131	75.1	41.5	23.6	18.4	9.66
1.80V	453	299.0	202.0	126	73.3	40.8	23.2	18.0	9.45
1.83V	420	277.0	190.0	120	71.4	40.2	22.7	17.6	9.24
1.85V	395	254.0	177.0	116	70.6	40.1	22.2	16.9	8.87

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