

Renewable Energy Storage Batteries

Features & Benefits

- Long life design for both cyclic and float applications
- Superb security and reliability
- Robust design inside and out
- Excellent deep discharge recovery fast recharge performance
- Extra long back-up times
- More cost effective than nearest equivalent



Narada's REX battery is designed for Renewable Energy Sources such as Solar and Wind Power. REX protects our environment using Green Technology and benefits the World's Urban and Rural Population by Generating Power Economically from a Clean Source of Energy. REX is a product developed by Narada's R&D with an "eXtra" in Performance and Life Span.

Standards

Test standards
IEC60896-21/-22, IEC61427, YD/T 799 etc.
Safety standard, ventilation
EN 50272-2
Manufactured under system
ISO9001/TL9000 & ISO14001 by Narada

Technical specifications

Electrical data	
Nominal voltage	2 V
Number of cells	1
Rated capacity(25°C)	2000 Ah - 200A for 10h to 1.80V/cell 2400 Ah - 20A for 120h to 1.85V/cell
Internal resistance	0.10 mΩ (acc. to IEC 60896-21)
Short circuit current	20660 A (acc. to IEC60896-21)
Self discharge(25°C)	less than 2% per month
Design life at 25°C	20 years
Mechanical data	
Weight ready for use	155 kg (341.7 lbs)
Length	232 mm (9.14 in)
Width	456 mm (17.95 in)
Height of monobloc	502 mm (19.76 in)
Total height	514 mm (20.24 in)
Terminal	M8 female
Terminal hardware torque	10 - 12 Nm

Constant Current Discharge Data Units: Amperes (25°C, 77°F)

End Voltage	Time (minutes)		Time (hours)										
	15	30	1	3	5	8	10	12	20	24	48	72	120
1.70V	2175	1655	1173	548	371	254	211	180	111	95.1	48.6	33.2	21.1
1.75V	2047	1526	1107	536	365	251	209	180	110	94.2	48.2	33.0	20.9
1.80V	1909	1428	1051	524	357	246	206	178	108	92.2	47.5	32.5	20.6
1.83V	1757	1333	992	508	351	245	205	176	108	92.2	47.3	32.4	20.5
1.85V	1624	1256	928	480	334	236	198	170	105	89.6	45.6	31.2	20.0
1.90V	1282	1044	768	429	303	214	180	157	97.3	83.6	41.5	28.4	18.0

Constant Power Discharge Data Units: Watts per cell (25°C, 77°F)

End Voltage	Time (minutes)		Time (hours)										
	15	30	1	2	3	4	5	6	7	8	10	12	24
1.70V	3918	3192	2333	1466	1128	910	769	675	606	554	461	384	213
1.75V	3749	3001	2200	1402	1106	894	755	655	589	542	457	381	211
1.80V	3535	2805	2026	1350	1072	880	735	641	578	530	449	374	208
1.83V	3307	2621	1895	1301	1049	856	715	624	566	516	441	367	204
1.85V	3088	2423	1736	1251	1013	832	695	606	547	500	425	354	197
1.90V	2502	1981	1472	1128	923	771	649	572	510	469	400	333	185

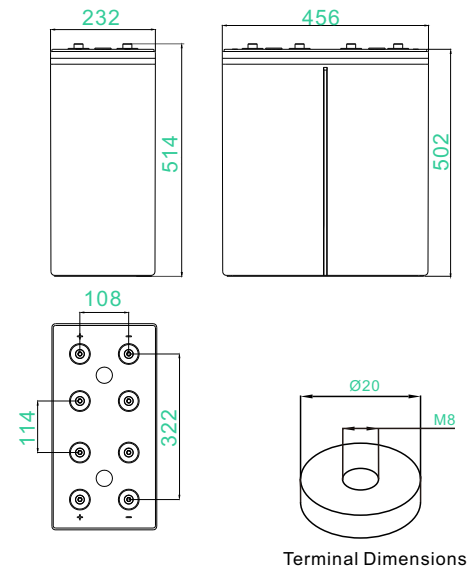
Construction

Positive plate	Reinforced grids in a corrosion-resistant pure lead, high tin, low calcium alloy
Negative plate	Lead-calcium alloy grid
Separator	High density microporous glass mat with low electrical resistance
Container & lid	High strength ABS(HB). Optional flame retardant versions available (UL94 FV-0 with L.O.I. of 28%)
Electrolyte	Sulphuric acid with a density of 1.28g/ml absorbed in AGM
Terminal design	Patented leak resistant seal configuration with brass insert
Safety valve	Calibrated opening pressure, the valve equipped with flame arrestors for increased operational safety and service life.

Installation and operation

· Recommended float charge voltage compensation in function of temperature	2.27V per cell at 25°C -3mV/°C/cell
· Cycle and equalize charge voltage: compensation in function of temperature	2.35V per cell at 25°C -5mV/°C/cell
· CC-CV charge current	unlimited, otherwise 500A max. if T>25°C
· Preferred operating temperature range	15°C to 25°C (68°F to 77°F)
· Maximum operating temperature range	-40°C to 50°C (-40°F to 122°F)
· A separate battery room	is not necessary
· Reduced maintenance	no water addition required.

Dimensions (mm)

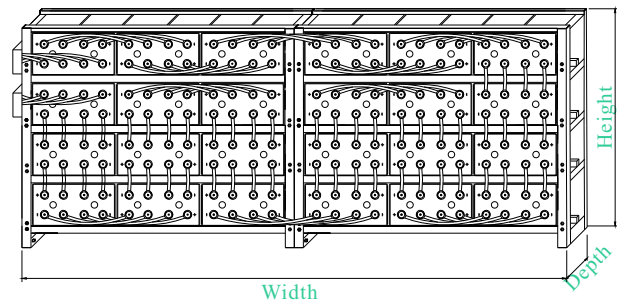


Racking (optional)

Narada racks are constructed using strong, easy to assemble, powder-coated steel tubing and come complete with sliding cover terminal (take-off) plates.

Cell model:	REX-2000		
Number of cells:	24		
System Voltage:	48		
Cell Configuration	2 high 12 wide	4 high 6 wide	In outdoor cabinet
Rack width* (mm)	3304	3096	Cabinet width (1520)
Rack depth (mm)	511.5	511.5	Cabinet depth (1710)
Rack height (mm)	1102	1208	Cabinet height (1520)
System weight (kg)	3746	3809	3670

* Please allow 100mm for terminal boxes



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