

Narada

stored energy solutions for a demanding world

REX-1500

Renewable Energy Storage Batteries

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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)	1500 Ah - 150A for 10h to 1.80V/cell 1800 Ah - 15A for 120h to 1.85V/cell
Internal resistance	0.12 mΩ (acc. to IEC 60896-21)
Short circuit current	16882 A (acc. to IEC60896-21)
Self discharge(25°C)	less than 2% per month
Design life at 20°C	20 years

Mechanical data

Weight ready for use	113 kg (249.1 lbs)
Length	235 mm (9.25 in)
Width	317 mm (12.48 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	1631	1241	879	411	279	191	158	135	83.3	71.3	36.4	24.9	15.8
1.75V	1535	1144	830	402	274	188	157	135	82.7	70.7	36.1	24.7	15.7
1.80V	1432	1071	789	393	268	185	155	133	81.2	69.2	35.7	24.4	15.5
1.83V	1318	1000	744	381	263	183	154	132	80.9	69.2	35.5	24.3	15.4
1.85V	1218	942	696	360	251	177	148	127	78.4	67.2	34.2	23.4	15.0
1.90V	961	783	576	322	227	161	135	117	73.0	62.7	31.2	21.3	13.5

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	2939	2394	1750	1100	846	682	576	506	454	416	346	288	160
1.75V	2812	2251	1650	1052	830	670	566	492	442	407	343	285	158
1.80V	2651	2104	1519	1013	804	660	551	481	433	398	337	281	156
1.83V	2480	1966	1421	976	786	642	536	468	424	387	331	276	153
1.85V	2316	1817	1302	938	760	624	521	454	410	375	319	266	147
1.90V	1877	1486	1104	846	693	578	487	429	383	352	300	250	139

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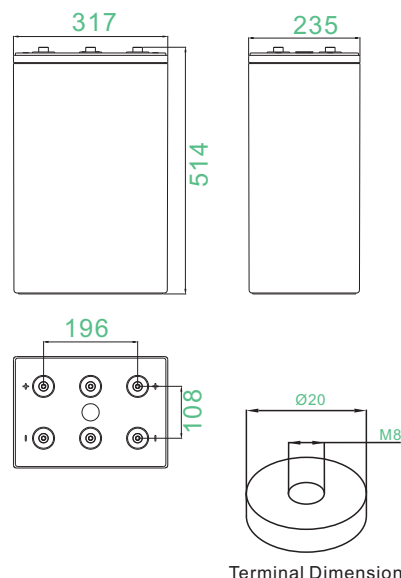
Construction

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 375A 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)



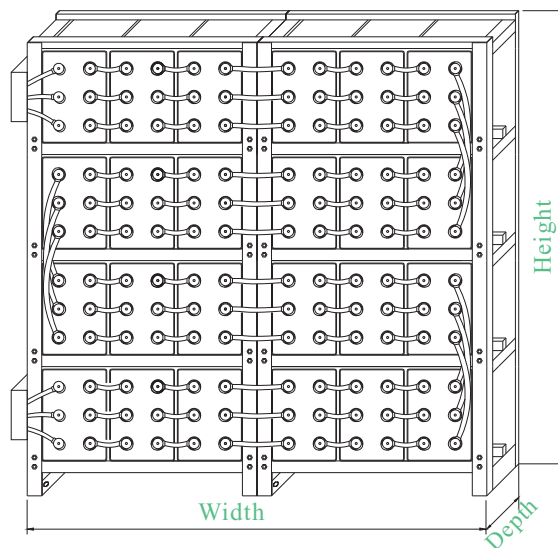
Racking (optional)

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-1500
Number of cells: 24
System Voltage: 48

Cell Configuration	2 high 12 wide	3 high 8 wide	4 high 6 wide
Rack width (mm)	3300	2575	1650
Rack depth mm	506	506	506
Rack height mm	835	1027	1568
System weight (kg)	2830	2830	2830

* Please allow 100mm for terminal boxes



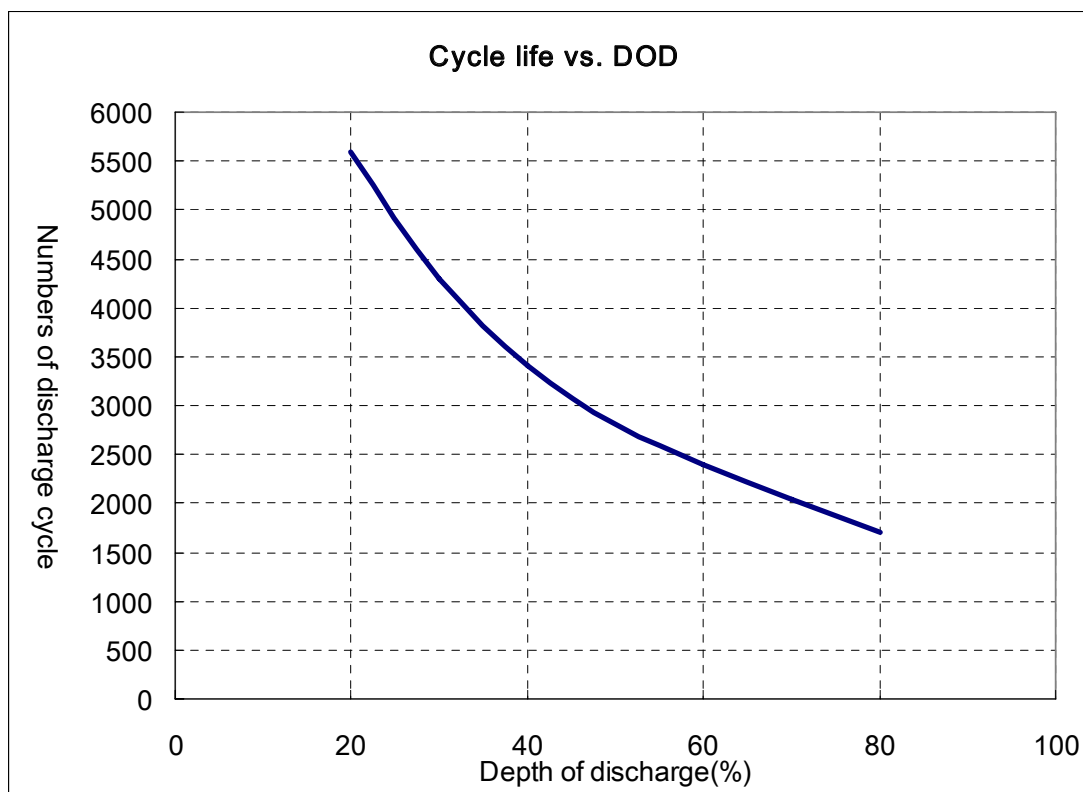
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REX Battery Cycle Life Performance



	Depth of discharge			
	20%	40%	60%	80%
Cycle life	5600	3400	2400	1700

For REX series with temperature of 20 – 25°C and proper charging.

