

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)	200 Ah - 20A for 10h to 1.80V/cell
	240 Ah - 2A for 120h to 1.85V/cell
Internal resistance	0.55 mΩ (acc. to IEC 60896-21)
Short circuit current	3700 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	18 kg (39.7 lbs)
Length	227 mm (8.94 in)
Width	96 mm (3.78 in)
Height of monobloc	291 mm (11.46 in)
Total height	303 mm (11.93 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	245	183	119	53.6	37.1	25.6	21.4	18.1	11.1	9.51	4.93	3.37	2.14
1.75V	231	170	113	52.0	36.1	25.3	21.1	17.9	11.0	9.39	4.85	3.32	2.11
1.80V	218	159	106	50.4	35.3	24.8	20.6	17.4	10.8	9.24	4.74	3.25	2.06
1.83V	205	151	99.2	48.8	34.4	24.4	20.2	17.1	10.6	9.04	4.64	3.18	2.02
1.85V	194	142	95.6	47.8	34.1	24.1	20.0	17.0	10.4	8.93	4.62	3.16	2.00
1.90V	164	121	84.9	44.8	32.8	23.2	19.4	16.5	10.2	8.74	4.46	3.05	1.94

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	441	350	238	155	111	89.6	76.4	65.7	57.4	50.9	41.8	38.0	19.3
1.75V	424	338	228	150	107	87.7	74.5	64.1	55.8	49.1	41.2	37.5	19.1
1.80V	404	326	223	147	103	84.9	72.4	62.3	54.0	47.8	40.6	36.9	18.8
1.83V	386	307	215	141	101	83.6	70.9	60.4	52.8	46.9	39.8	36.2	18.4
1.85V	368	290	203	135	97.7	81.6	69.1	59.0	51.5	46.2	39.0	35.5	18.0
1.90V	319	244	175	117	90.6	76.0	64.5	55.1	48.9	43.2	36.2	32.9	16.7

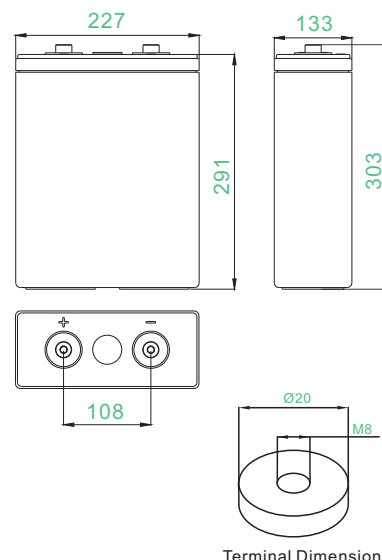
Construction

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: 2.35V per cell at 25°C -5mV/°C/cell
- CC-CV charge current: unlimited, otherwise 50A 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)



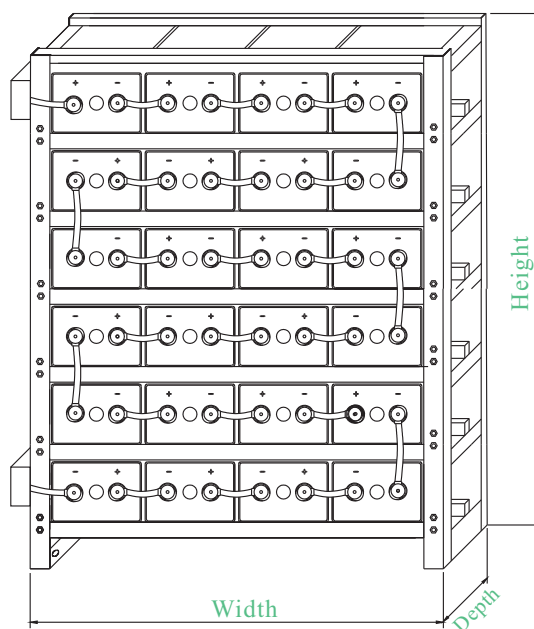
Racking (optional)

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-200
 Number of cells: 24
 System Voltage: 48

Cell Configuration	2 high 12 wide	4 high 6 wide	6 high 4 wide
Rack width (mm)	3110	1590	1120
Rack depth (mm)	360	360	360
Rack height (mm)	382	664	946
System weight (kg)	505	495	500

* Please allow 100mm for terminal boxes



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