

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)	500 Ah - 50A for 10h to 1.80V/cell
	600 Ah - 5A for 120h to 1.85V/cell
Internal resistance	0.28 mΩ (acc. to IEC 60896-21)
Short circuit current	7211 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	40 kg (88.2 lbs)
Length	231 mm (9.09 in)
Width	155 mm (6.10 in)
Height of monobloc	395 mm (15.55 in)
Total height	407 mm (16.02 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	611	456	297	134	92.8	64.0	53.5	45.3	28.5	23.8	12.3	8.43	5.35
1.75V	579	424	283	130	90.3	63.2	52.7	44.6	28.3	23.5	12.1	8.30	5.27
1.80V	546	397	265	126	88.2	62.0	51.5	43.5	27.8	23.1	11.9	8.12	5.20
1.83V	512	378	248	122	86.1	60.9	50.4	42.9	27.2	22.6	11.6	7.94	5.10
1.85V	484	354	239	120	85.2	60.2	50.1	42.6	26.9	22.3	11.5	7.90	5.01
1.90V	409	304	212	112	82.0	57.9	48.4	41.4	26.3	21.8	11.2	7.63	4.84

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	9	10	12
1.70V	1101	874	594	388	278	224	191	164	143	127	113	105	95.1
1.75V	1060	844	571	374	267	219	186	160	140	123	111	103	93.7
1.80V	1010	814	558	367	258	212	181	156	135	120	109	101	92.3
1.83V	964	768	538	353	252	209	177	151	132	117	108	99.4	90.5
1.85V	920	724	507	338	244	204	173	147	129	116	105	97.5	88.7
1.90V	799	611	437	293	226	190	161	138	122	108	99.0	90.4	82.3

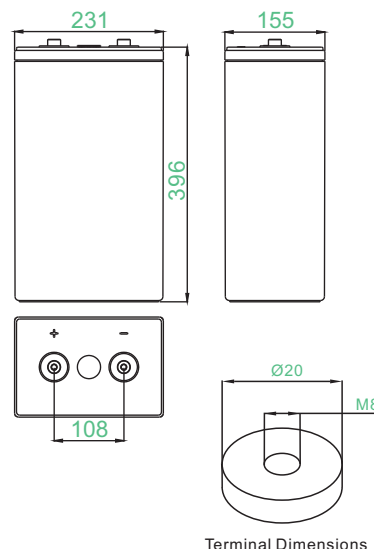
Construction

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 125A 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)



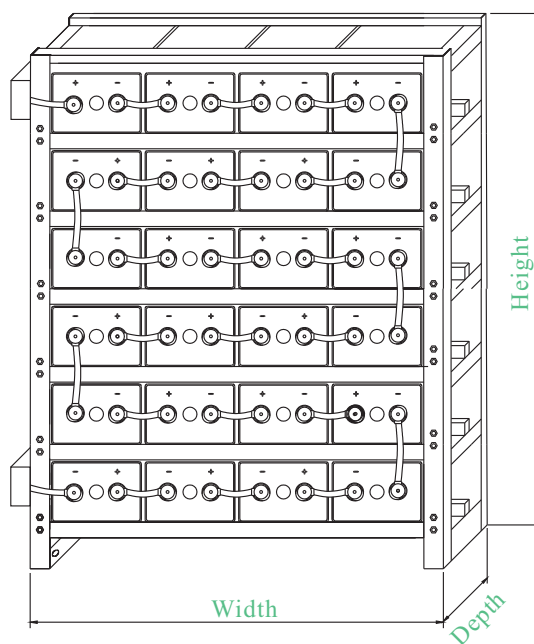
Racking (optional)

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-500
Number of cells: 24
System Voltage: 48

Cell Configuration	2 high 12 wide	4 high 6 wide	6 high 4 wide
Rack width (mm)	3160	1615	1135
Rack depth (mm)	460	460	460
Rack height (mm)	500	900	1300
System weight (kg)	1030	1025	1035

* Please allow 100mm for terminal boxes



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