

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	2V
Number of cells	1
Rated capacity(25°C)	1200Ah-120A for 10h to 1.80V/cell
	1440 Ah- 12A for 120h to 1.85V/cell
Internal resistance	0.14 mΩ(acc. to IEC 60896-21)
Short circuit current	13874 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	89 kg (196.2 lbs)
Length	232 mm (9.13 in)
Width	264 mm (10.40 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	1305	993	704	329	223	153	127	108	66.6	57.0	29.2	19.9	12.7
1.75V	1228	915	664	321	219	150	125	108	66.1	56.5	28.9	19.8	12.5
1.80V	1145	857	631	314	214	148	124	107	64.9	55.3	28.5	19.5	12.4
1.83V	1054	800	595	305	211	147	123	106	64.8	55.3	28.4	19.4	12.3
1.85V	974	754	557	288	201	142	119	102	62.7	53.7	27.4	18.7	12.0
1.90V	769	626	461	258	182	128	108	93.9	58.4	50.2	24.9	17.1	10.8

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	2351	1915	1400	880	677	546	461	405	363	332	276	230	128
1.75V	2250	1801	1320	841	664	536	453	393	353	325	274	228	127
1.80V	2121	1683	1215	810	643	528	441	385	347	318	269	224	125
1.83V	1984	1573	1137	780	629	514	429	374	340	310	265	220	122
1.85V	1853	1454	1041	751	608	499	417	363	328	300	255	212	118
1.90V	1501	1189	883	677	554	462	390	343	306	281	240	200	111

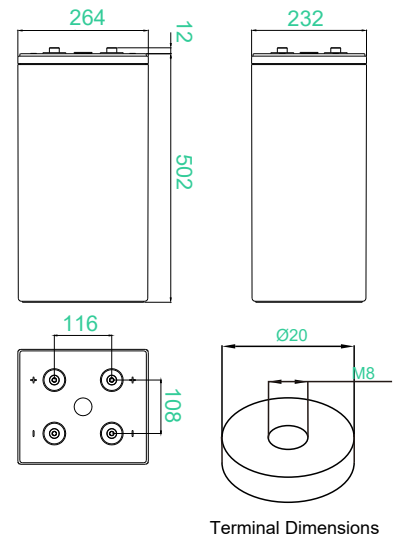
Construction

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 200A 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-1200
Number of cells: 24
System Voltage: 48

Cell Configuration	4 high 6 wide	In coolstar cabinet
Rack width (mm)	1650	Cabinet width (1520)
Rack depth (mm)	511.5	Cabinet depth (1710)
Rack height (mm)	1336	Cabinet height (1520)
System weight (kg)	2236	2560

* Please allow 100mm for terminal boxes

