

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)	300 Ah - 30A for 10h to 1.80V/cell 360 Ah - 3A for 120h to 1.85V/cell
Internal resistance	0.39 mΩ(acc. to IEC 60896-21)
Short circuit current	4752 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	24.5 kg (54.0 lbs)
Length	227 mm (8.94 in)
Width	133 mm (5.24 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	367	274	178	80.5	55.7	38.4	32.1	27.2	16.6	14.3	7.39	5.06	3.21
1.75V	347	254	170	78.0	54.2	37.9	31.6	26.8	16.5	14.1	7.28	4.98	3.16
1.80V	327	238	159	75.6	52.9	37.2	30.9	26.1	16.2	13.9	7.12	4.87	3.09
1.83V	307	227	149	73.1	51.7	36.5	30.2	25.7	15.8	13.6	6.97	4.77	3.02
1.85V	290	212	143	71.7	51.1	36.1	30.1	25.5	15.7	13.4	6.92	4.74	3.01
1.90V	245	182	127	67.3	49.2	34.8	29.0	24.8	15.3	13.1	6.69	4.58	2.90

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	661	524	356	233	166	134	115	98.5	86.0	76.4	62.7	57.1	29.0
1.75V	636	506	343	225	160	132	112	96.2	83.7	73.6	61.8	56.2	28.6
1.80V	606	489	335	220	155	127	109	93.4	80.9	71.7	60.8	55.4	28.1
1.83V	578	461	323	212	151	125	106	90.6	79.2	70.3	59.7	54.3	27.6
1.85V	552	434	304	203	146	122	104	88.4	77.3	69.3	58.5	53.2	27.0
1.90V	479	366	262	176	136	114	96.8	82.6	73.3	64.9	54.2	49.4	25.1

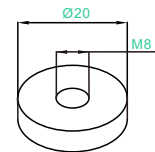
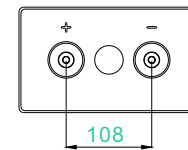
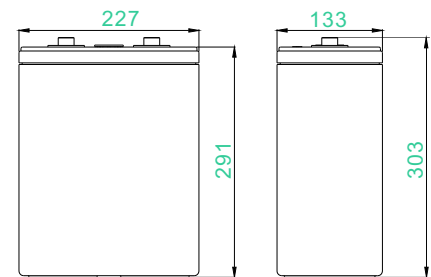
Construction

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 75A 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)



Terminal Dimensions

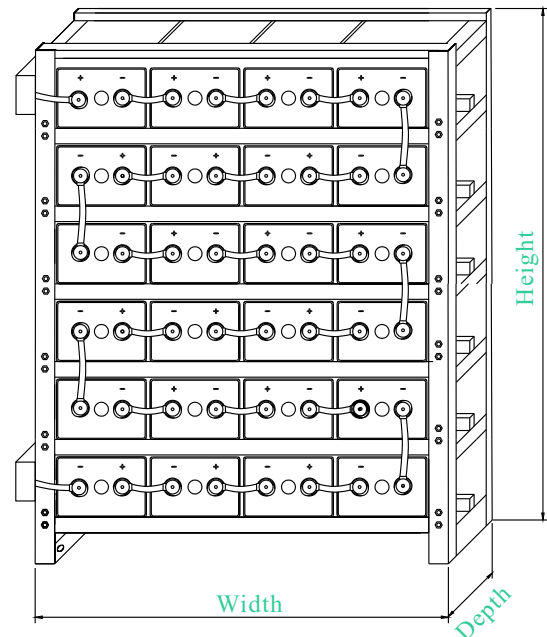
Racking (optional)

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-300
 Number of cells: 24
 System Voltage: 48

Cell Configuration	4 high 6 wide	6 high 4 wide	In coolstar cabinet
Rack width (mm)	1622	1048	Cabinetwidth (1200)
Rack depth (mm)	300	300	Cabinetdept (1450)
Rack height (mm)	642	1108	Cabinetheigh (1500)
System weight (kg)	672	662	825

* Please allow 100mm for terminal boxes



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