

**NARADA Sets a New Standard for
Energy Savings in Renewables Industry**



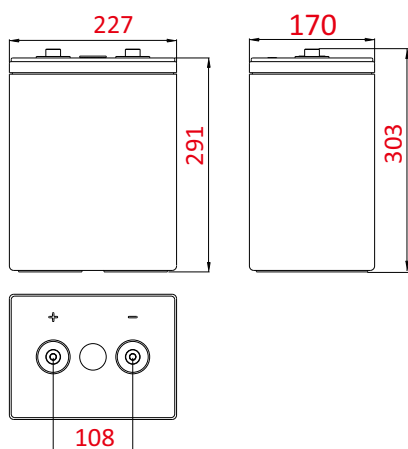
REXC series

REXC-400

Narada®



Dimension (mm)



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	400Ah (10hr to 1.80V/cell @25°C) 480Ah (120hr to 1.85V/cell @25°C)
Typical Weight	32kg
Internal Resistance	Approx 0.30mΩ
Short-Circuit Current	6107A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	120A
Max. constant charging current	80A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V (25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

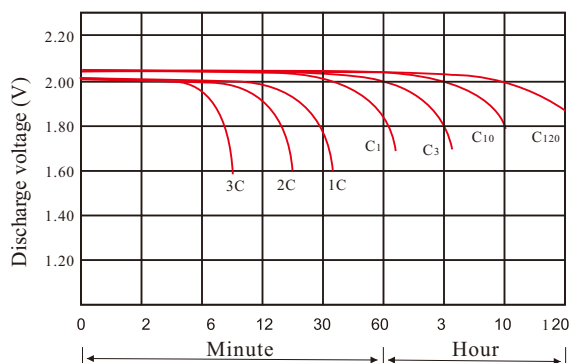
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	226.2	104.0	72.2	50.6	42.1	18.8	9.70	6.60	4.20
1.80V	211.9	100.8	70.5	49.6	41.2	18.5	9.50	6.50	4.10
1.83V	198.4	97.5	68.9	48.7	40.3	18.1	9.30	6.40	4.00
1.85V	191.3	95.6	68.2	48.2	40.1	17.9	9.20	6.30	4.00
1.88V	183.2	93.6	67.5	47.6	39.8	17.7	9.20	6.10	4.00

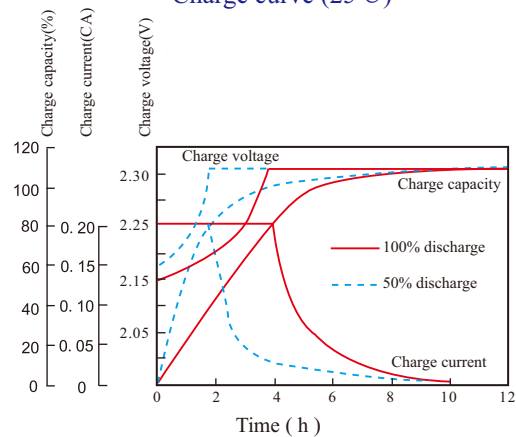
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	986.5	717.2	456.8	299.5	231.8	175.5	149.0	128.3	98.1	82.4
1.80V	922.9	693.4	446.2	293.9	206.3	169.8	144.9	124.5	95.6	81.1
1.83V	886.5	656.3	430.3	282.2	201.2	167.3	141.9	120.7	93.7	79.6
1.85V	843.9	621.2	405.8	270.1	195.3	163.3	138.1	117.9	92.4	78.0
1.88V	636.9	580.6	381.3	251.0	188.7	157.7	133.6	113.7	89.9	76.1

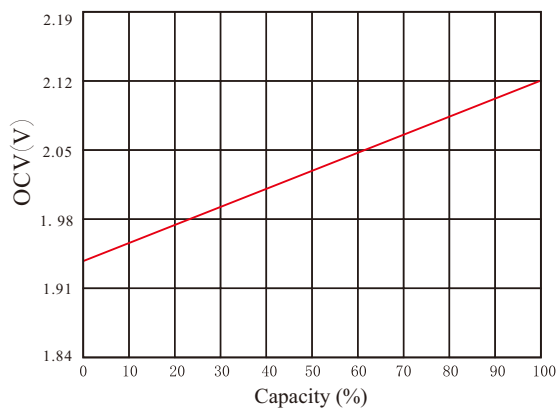
Discharge curve at different rate (25°C)



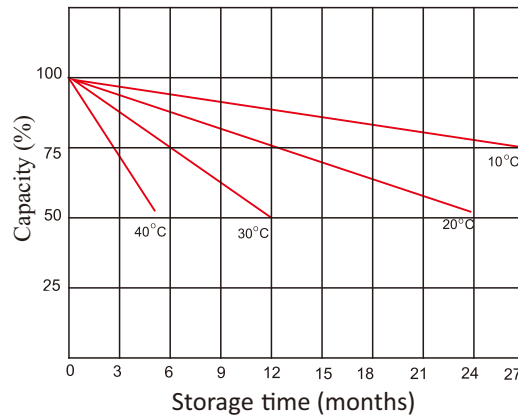
Charge curve (25°C)



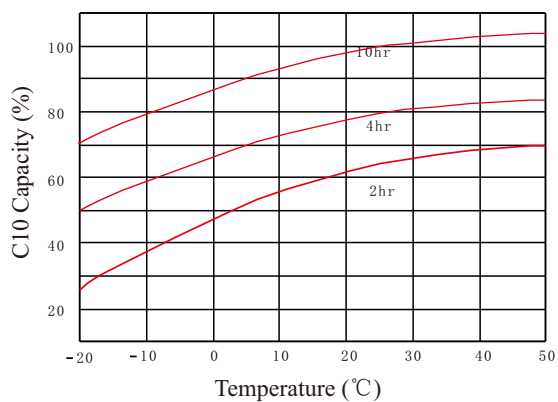
Capacity vs OCV curve



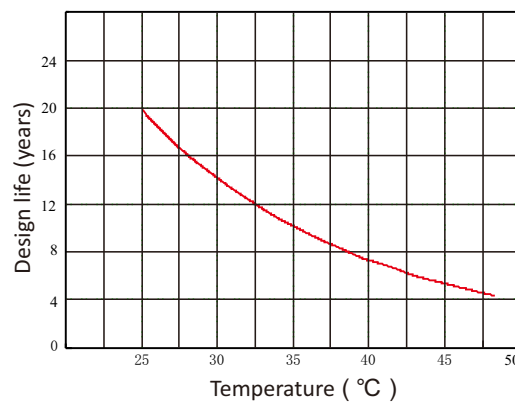
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com

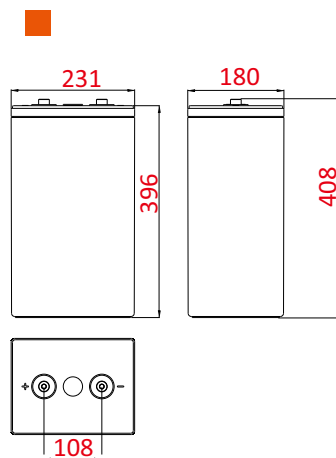


Subject to revision without prior notice

REXC series

REXC-600

Narada®



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	600Ah (10hr to 1.80V/cell @25°C) 720Ah (120hr to 1.85V/cell @25°C)
Typical Weight	46kg
Internal Resistance	Approx 0.23mΩ
Short-Circuit Current	8614A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	180A
Max. constant charging current	120A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V(25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

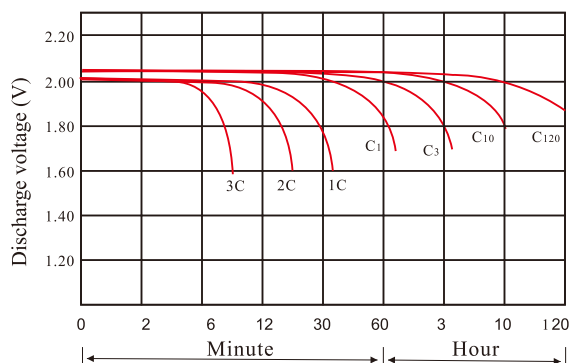
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	339.3	155.9	108.3	75.8	63.2	28.2	14.6	10.0	6.30
1.80V	317.8	151.2	105.8	74.4	61.8	27.7	14.2	9.70	6.20
1.83V	297.6	146.3	103.3	73.1	60.5	27.1	13.9	9.50	6.10
1.85V	286.9	143.4	102.3	72.3	60.1	26.8	13.8	9.50	6.00
1.88V	274.8	140.5	101.2	71.4	59.6	26.6	13.7	9.40	5.90

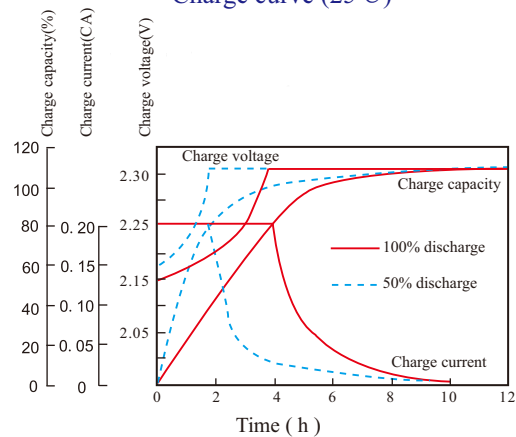
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	1480	1033.1	698.8	453.7	323.9	263.2	223.6	192.4	147.2	123.6
1.80V	1392	996.6	682.7	445.3	312.5	254.7	217.3	186.8	143.4	121.7
1.83V	1311	939.9	658.3	427.2	304.9	250.9	212.8	181.1	140.6	119.3
1.85V	1224	886.2	620.9	409.2	295.9	244.9	207.2	176.9	138.7	117.0
1.88V	1138	824.1	583.4	380.3	285.8	236.5	200.4	170.6	134.9	114.1

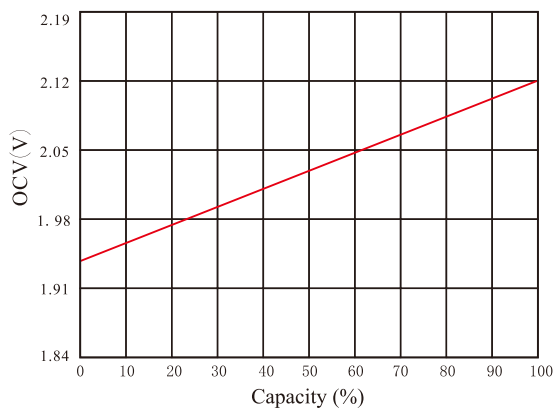
Discharge curve at different rate (25°C)



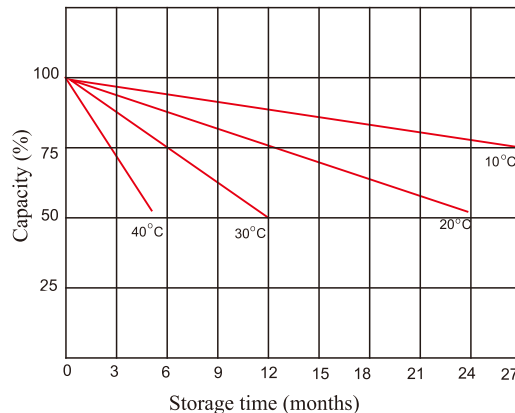
Charge curve (25°C)



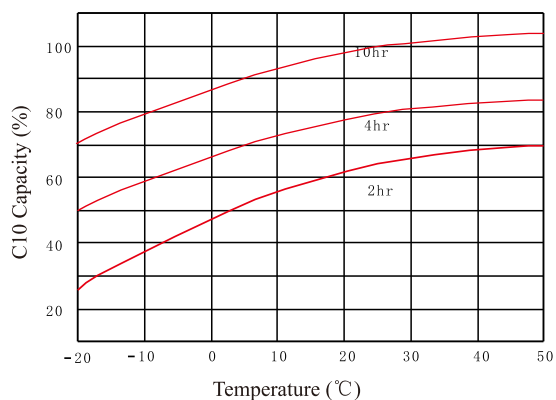
Capacity vs OCV curve



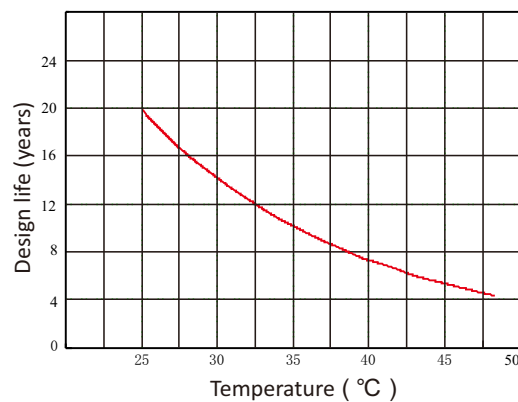
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com

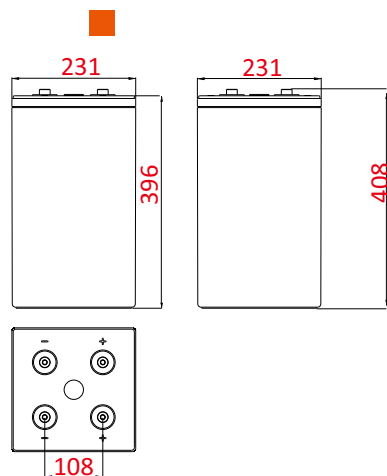


Subject to revision without prior notice

REXC series

REXC-800

Narada®



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	800Ah (10hr to 1.80V/cell @25°C) 960Ah (120hr to 1.85V/cell @25°C)
Typical Weight	60kg
Internal Resistance	Approx 0.18mΩ
Short-Circuit Current	10873A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	240A
Max. constant charging current	160A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V(25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

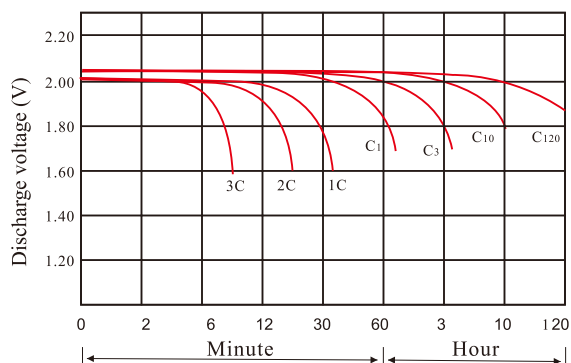
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	442.8	214.3	146.0	100.3	83.6	37.7	19.3	13.2	8.40
1.80V	420.6	209.5	142.7	98.4	82.5	36.9	19.0	13.0	8.30
1.83V	396.8	203.2	140.5	97.8	82.1	36.9	18.9	12.9	8.20
1.85V	371.4	192.2	133.7	94.4	79.2	35.8	18.2	12.5	8.00
1.88V	337.3	181.2	127.4	91.0	76.2	34.8	17.6	12.0	7.60

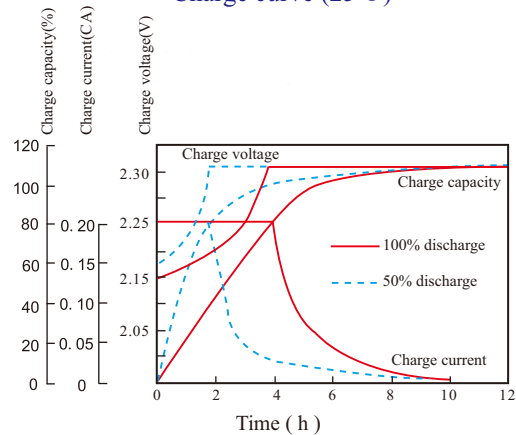
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	1973	1224.5	897.8	566.4	446.9	357.5	301.9	262.1	216.9	182.7
1.80V	1856	1144.5	826.5	545.6	433.3	351.9	293.9	256.6	212.1	179.5
1.83V	1748	1069.6	773.0	525.5	423.6	342.4	286.0	249.4	206.5	176.4
1.85V	1632	988.5	708.2	505.5	409.2	332.8	278.0	242.3	200.0	170.0
1.88V	1517	891.3	648.2	479.8	386.7	319.3	270.1	236.7	194.6	165.2

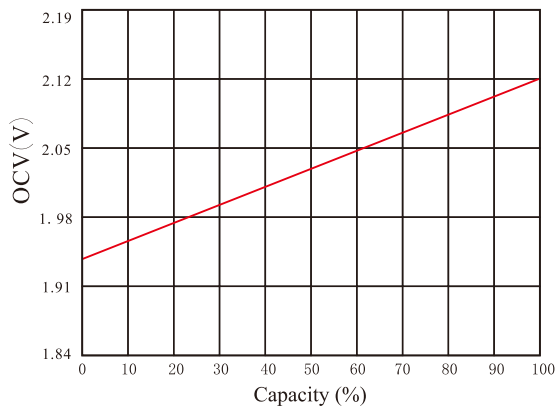
Discharge curve at different rate (25°C)



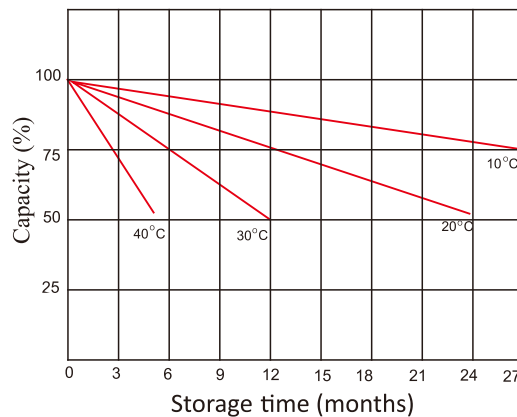
Charge curve (25°C)



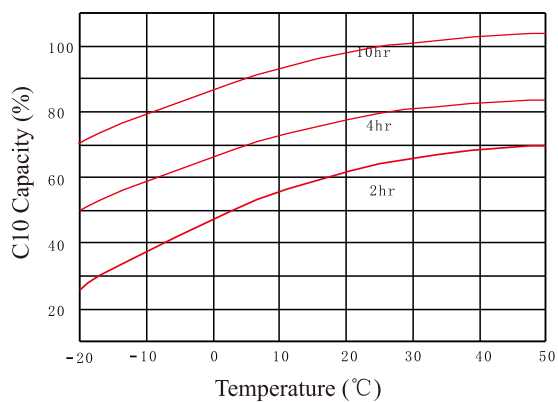
Capacity vs OCV curve



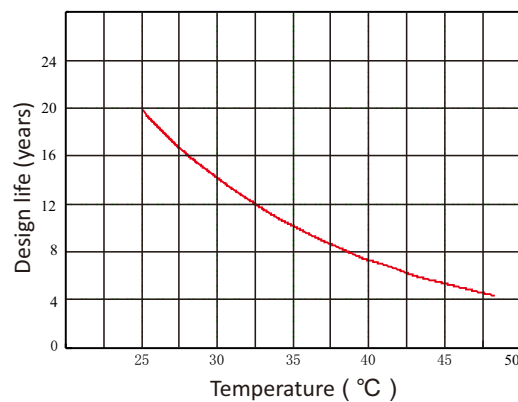
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com



Subject to revision without prior notice

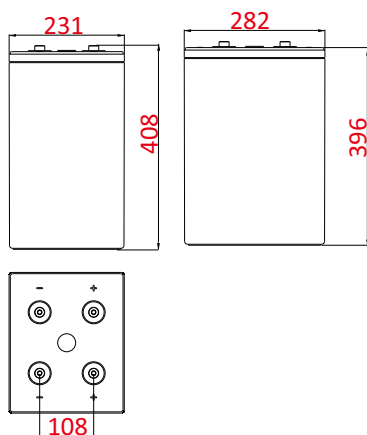
REXC series

REXC-1000

Narada®



Dimension (mm)



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	1000Ah (10hr to 1.80V/cell @25°C) 1200Ah (120hr to 1.85V/cell @25°C)
Typical Weight	75kg
Internal Resistance	Approx 0.15mΩ
Short-Circuit Current	12835A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended):15°C~25°C Operation(maximum):-40°C~50°C
Max. charging current	300A
Max. constant charging current	200A
Charge Voltage	Floating:2.25V (25°C) Equalizing/Cycle: 2.30V(25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

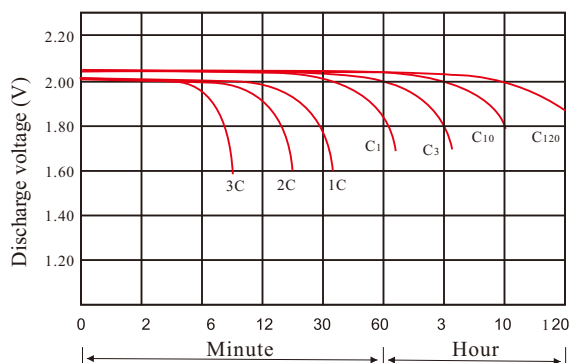
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	553.5	267.8	182.5	125.4	104.6	47.1	24.1	16.5	10.5
1.80V	525.7	261.9	178.4	123.0	103.2	46.1	23.8	16.3	10.3
1.83V	496.0	253.9	175.6	122.3	102.7	46.1	23.7	16.2	10.3
1.85V	464.2	240.2	167.1	118.0	99.0	44.8	22.8	15.6	10.0
1.88V	421.6	226.5	159.3	113.7	95.2	43.5	21.9	15.0	9.5

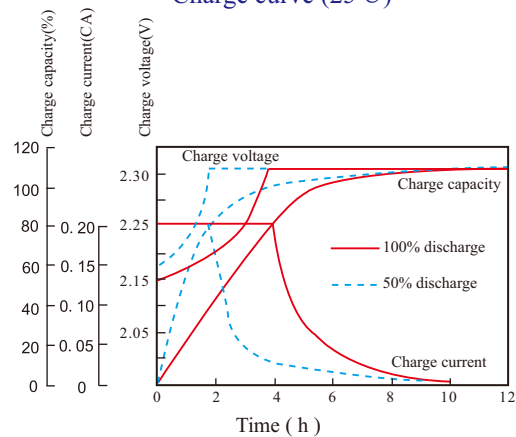
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	2466	1530.6	1122.2	708.0	558.6	446.8	377.3	327.7	271.1	228.4
1.80V	2320	1430.7	1033.1	682.0	541.6	439.9	367.4	320.7	265.1	224.4
1.83V	2185	1336.9	966.2	656.9	529.5	428.0	357.5	311.8	258.2	220.4
1.85V	2040	1235.6	885.3	631.9	511.5	416.1	347.5	302.9	250.0	212.5
1.88V	1896	1114.1	810.3	599.7	483.4	399.2	337.6	295.9	243.3	206.5

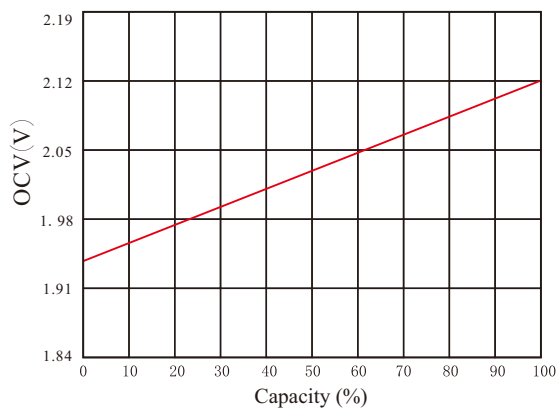
Discharge curve at different rate (25°C)



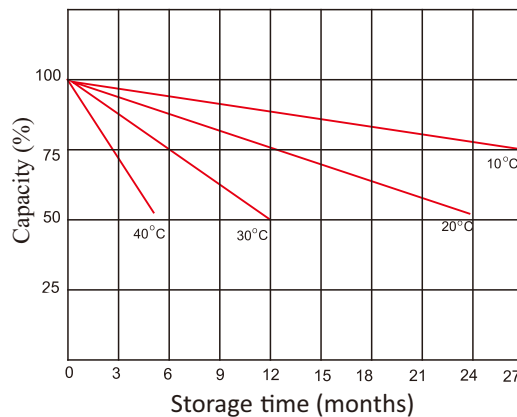
Charge curve (25°C)



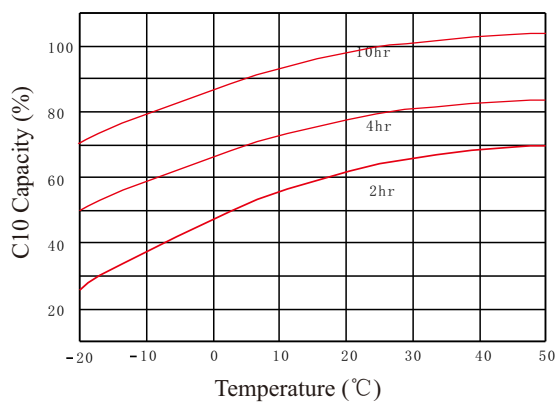
Capacity vs OCV curve



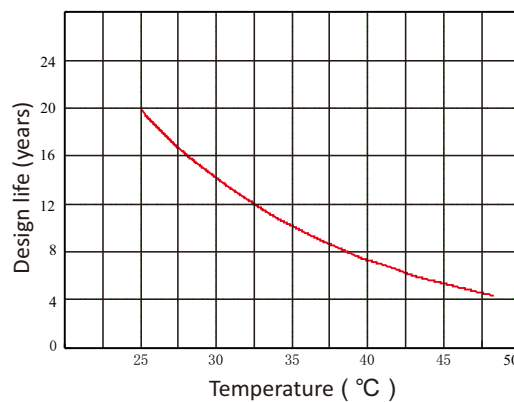
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com



Subject to revision without prior notice

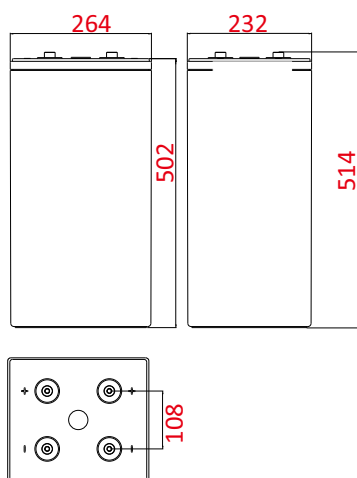
REXC series

REXC-1200

Narada®



Dimension (mm)



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	1200Ah (10hr to 1.80V/cell @25°C) 1440Ah (120hr to 1.85V/cell @25°C)
Typical Weight	90kg
Internal Resistance	Approx 0.14mΩ
Short-Circuit Current	13874A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	360A
Max. constant charging current	240A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V (25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

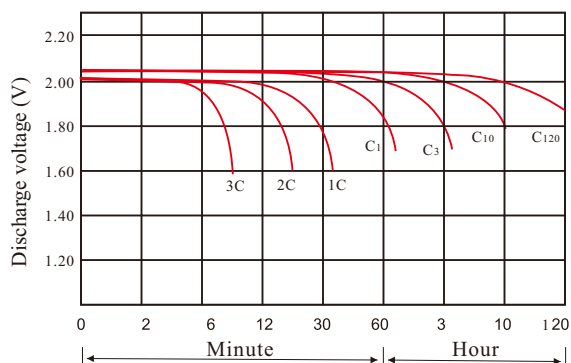
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	664.2	321.4	219.0	150.4	125.5	56.5	28.9	19.8	12.5
1.80V	630.9	314.3	214.0	147.6	123.8	55.3	28.5	19.5	12.4
1.83V	595.2	304.7	210.7	146.7	123.2	55.3	28.4	19.4	12.3
1.85V	557.1	288.3	200.6	141.7	118.7	53.7	27.4	18.7	12.0
1.88V	505.9	271.8	191.2	136.4	114.3	52.2	26.3	18.0	11.4

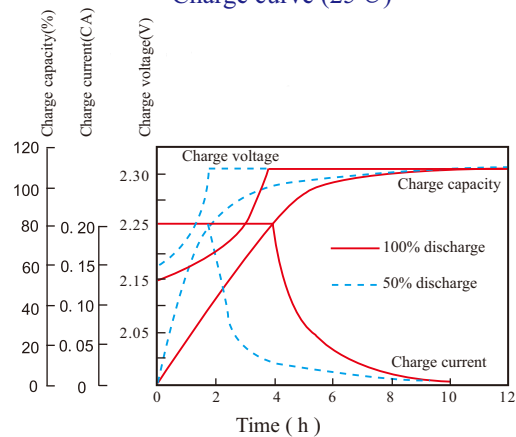
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	2959	1836.8	1346.7	849.6	670.3	536.2	452.8	393.2	325.3	274.1
1.80V	2785	1716.8	1239.7	818.4	649.8	527.9	440.9	384.9	318.1	269.3
1.83V	2622	1604.4	1159.5	788.3	635.4	513.6	429.0	374.2	309.8	264.5
1.85V	2448	1482.8	1062.2	758.2	613.8	499.3	417.0	363.4	300.0	255.0
1.88V	2275	1336.9	972.4	719.7	580.0	479.0	405.1	355.1	291.9	247.8

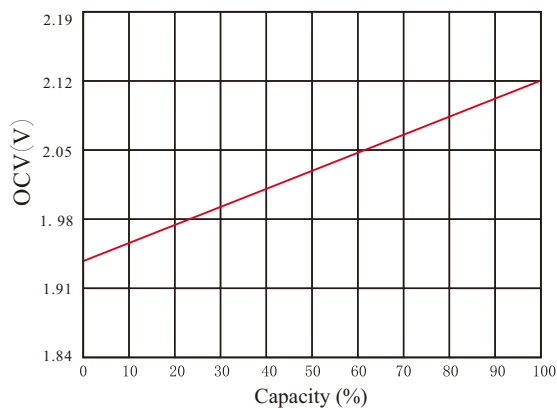
Discharge curve at different rate (25°C)



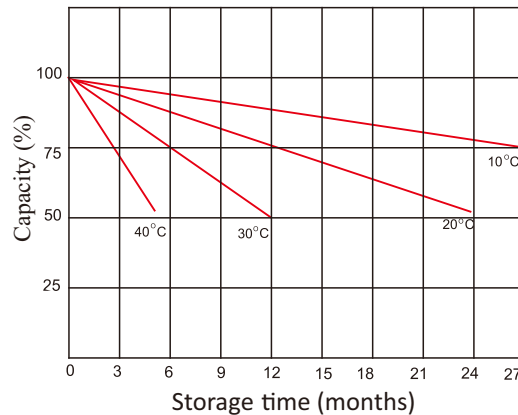
Charge curve (25°C)



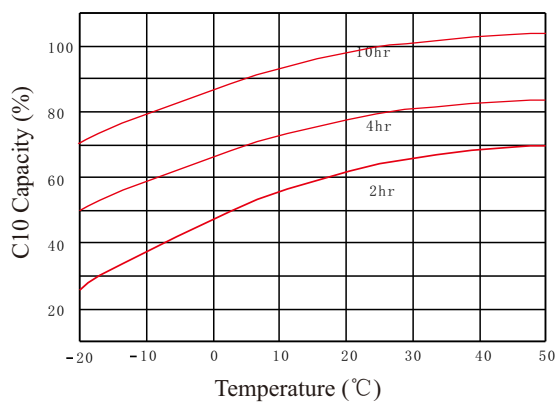
Capacity vs OCV curve



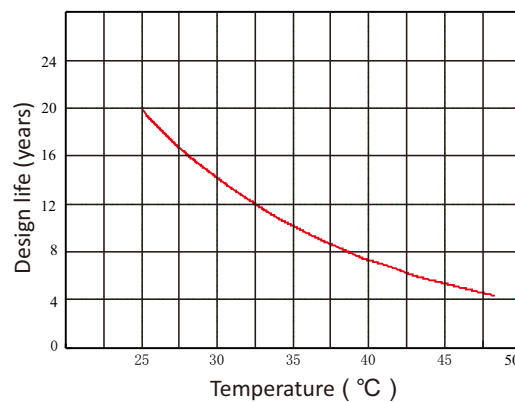
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com



Subject to revision without prior notice

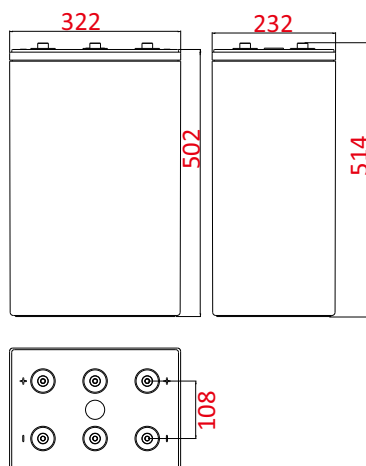
REXC series

REXC-1500

Narada®



Dimension (mm)



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	1500Ah (10hr to 1.80V/cell @25°C) 1800Ah (120hr to 1.85V/cell @25°C)
Typical Weight	110kg
Internal Resistance	Approx 0.12mΩ
Short-Circuit Current	16882A
Self Discharge	The residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	450A
Max. constant charging current	300A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V (25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

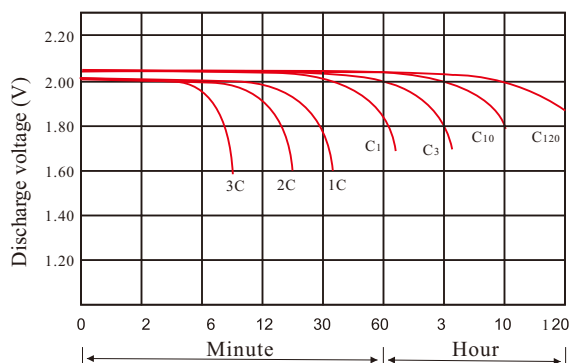
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	830.3	401.8	273.8	188.0	156.8	70.7	36.1	24.7	15.7
1.80V	788.6	392.8	267.5	184.5	154.7	69.2	35.7	24.4	15.5
1.83V	744.0	380.9	263.4	183.4	154.0	69.2	35.5	24.3	15.4
1.85V	696.4	360.3	250.7	177.1	148.4	67.2	34.2	23.4	15.0
1.88V	632.4	339.8	239.0	170.6	142.8	65.2	32.9	22.5	14.3

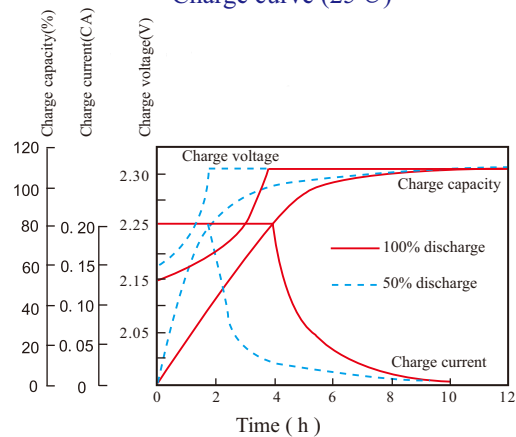
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	3699	2295.9	1683.3	1062.1	837.9	670.3	566.0	491.5	406.6	342.6
1.80V	3480	2146.0	1549.6	1022.9	812.3	659.8	551.1	481.1	397.7	336.6
1.83V	3277	2005.4	1449.3	985.4	794.3	642.0	536.2	467.7	387.3	330.7
1.85V	3060	1853.9	1327.8	947.8	767.2	624.1	521.3	454.3	375.0	318.7
1.88V	2844	1671.2	1215.4	899.6	725.1	598.8	506.4	443.9	364.9	309.8

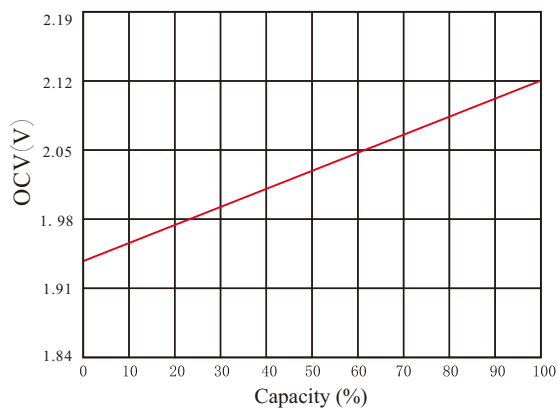
Discharge curve at different rate (25°C)



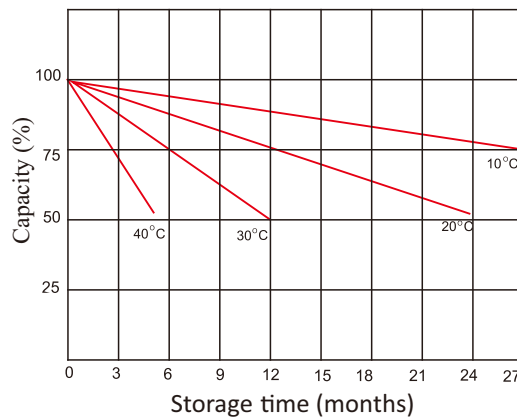
Charge curve (25°C)



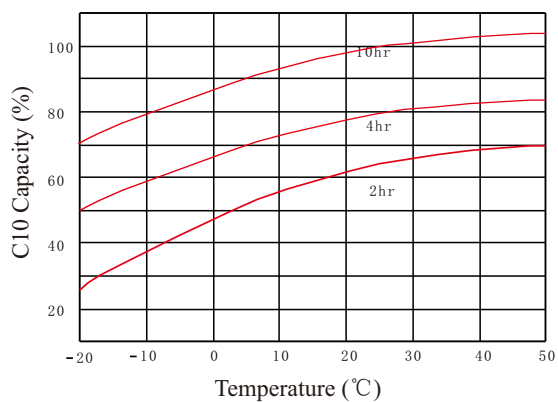
Capacity vs OCV curve



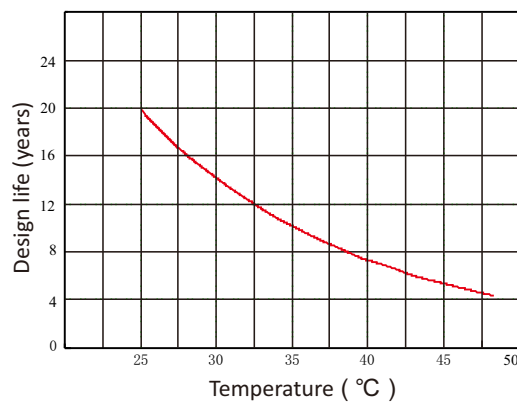
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
Add: Building A, No.822 Wen'er West Road, Hangzhou, China
Tel: (86 571)56975980 Fax: (86 571)56975955
Email: intl@narada.biz Website: www.naradapower.com



Subject to revision without prior notice

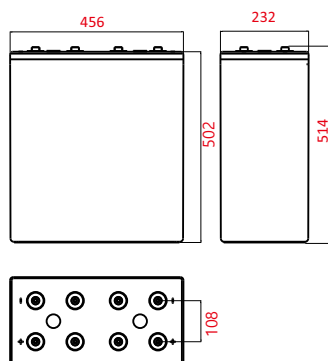
REXC series

REXC-2000

Narada®



Dimension (mm)



Feature

- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

Application

- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

Parameter

Nominal Voltage	2V
Capacity	2000Ah (10hr to 1.80V/cell @25°C) 2400Ah (120hr to 1.85V/cell @25°C)
Typical Weight	155kg
Internal Resistance	Approx 0.10mΩ
Short-Circuit Current	20660A
Self Discharge	Residual capacity is above 90% after 90 days storage (25°C)
Temperature Ranges	Operation(recommended): 15°C~25°C Operation(maximum): -40°C~50°C
Max. charging current	500A
Max. constant charging current	400A
Charge Voltage	Floating: 2.25V (25°C) Equalizing/Cycle: 2.30V(25°C)
Terminal	M8 embedded copper
Terminal Hardware Torque	>10N·m

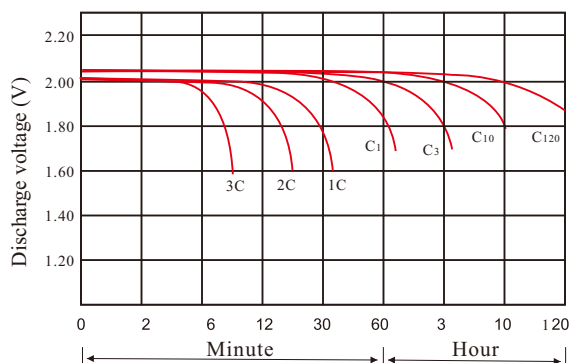
Constant Current Discharge Characteristics Units: Amperes(25°C)

End voltage per cell	1hr	3hr	5hr	8hr	10hr	24hr	48hr	72hr	120hr
1.75V	1107.0	535.7	365.0	250.7	209.1	94.2	48.2	33.0	20.9
1.80V	1051.5	523.8	356.7	246.0	206.3	92.2	47.5	32.5	20.6
1.83V	992.0	507.9	351.2	244.5	205.3	92.2	47.3	32.4	20.5
1.85V	928.5	480.4	334.3	236.1	197.9	89.6	45.6	31.2	20.0
1.88V	843.2	453.0	318.6	227.4	190.5	86.9	43.9	30.0	19.0

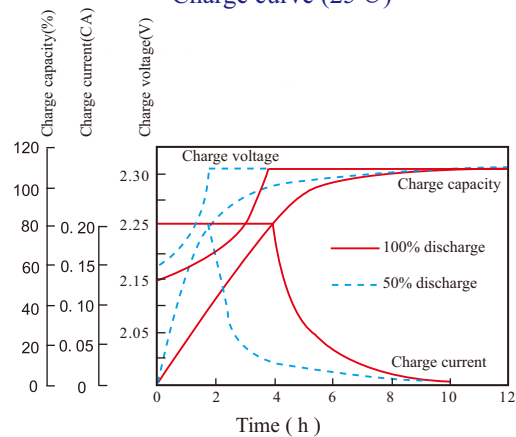
Discharge Data with Constant Power Units: Watts per cell(25°C)

End voltage per cell	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.75V	4932	3201.3	2200.4	1402.1	1106.2	893.7	754.7	655.4	542.2	456.8
1.80V	4640	3005.1	2025.7	1350.4	1072.4	879.8	734.8	641.5	530.2	448.8
1.83V	4370	2821.4	1894.6	1300.8	1048.6	855.9	714.9	623.6	516.3	440.9
1.85V	4080	2622.8	1735.8	1251.1	1012.8	832.1	695.1	605.7	500.1	425.0
1.88V	3792	2384.5	1588.8	1187.6	957.2	798.3	675.2	591.8	486.6	413.1

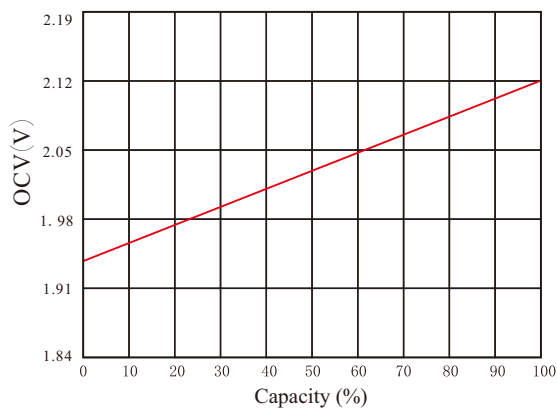
Discharge curve at different rate (25°C)



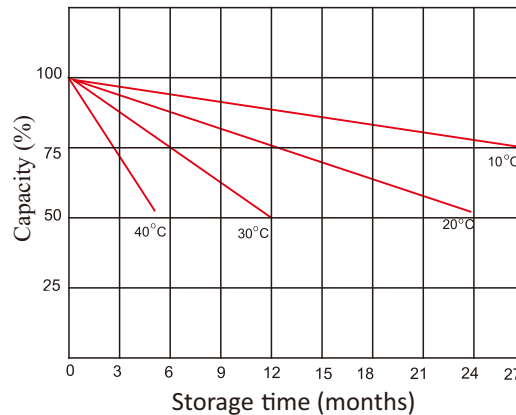
Charge curve (25°C)



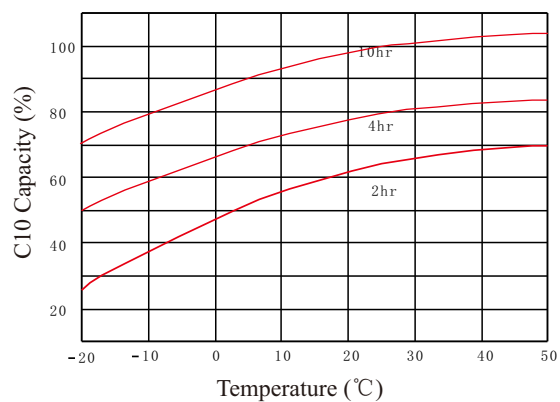
Capacity vs OCV curve



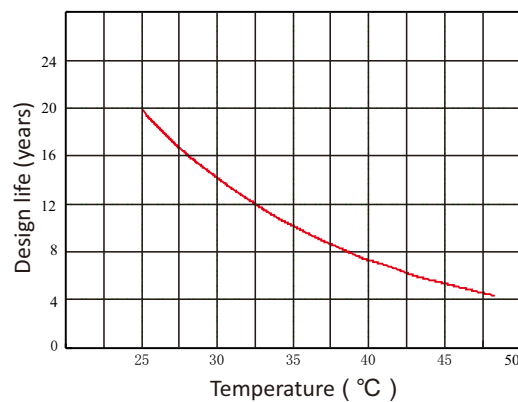
Residue capacity vs storage time



Capacity vs temperature curve



Design life vs temperature



Zhejiang Narada power source Co., Ltd.
 Add: Building A, No.822 Wen'er West Road, Hangzhou, China
 Tel: (86 571)56975980 Fax: (86 571)56975955
 Email: intl@narada.biz Website: www.naradapower.com



Subject to revision without prior notice