

Product Change Notification

Panasonic Batteries

Panasonic Industrial Devices Sales
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A Division of Panasonic
Corporation of North America
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Internet: na.industrial.panasonic.com/products/batteries

Nature of Change:

Product EOL/Replacement

Affected Model:

LC-RA1212P, LC-RA1212P1, LC-R127R2P, LC-R127R2P1, LC-R064R5P, LC-R123R4P, LC-R063R4P, LC-R122R2P, LC-R121R3P, LC-R061R3P

Date of Notice:

September 20th, 2016

Panasonic will introducing a new line of lead acid batteries to replace some of the current LC-R products. The new product will have improved cycle life. Panasonic will introduce the new product line over the next six months and phase out the current products by the end of 2017.

New Product Features

- Cycle Life Increases from 300 to 600 Cycles
- Trickle/Backup Life, Capacity remain the same
- There will be no change in pricing.
- The New and Current Part Numbers should not be used together in applications.

Please see the attachments for more performance details and the datasheets for the LC-RN127R2 and LC-RN1212 product. The other product datasheets will be released as they are provided.

Schedule

Please see attachment for the list of products and the schedule for introduction. The exact EOL dates, last time buys and shipments will be provided in a future product notice.

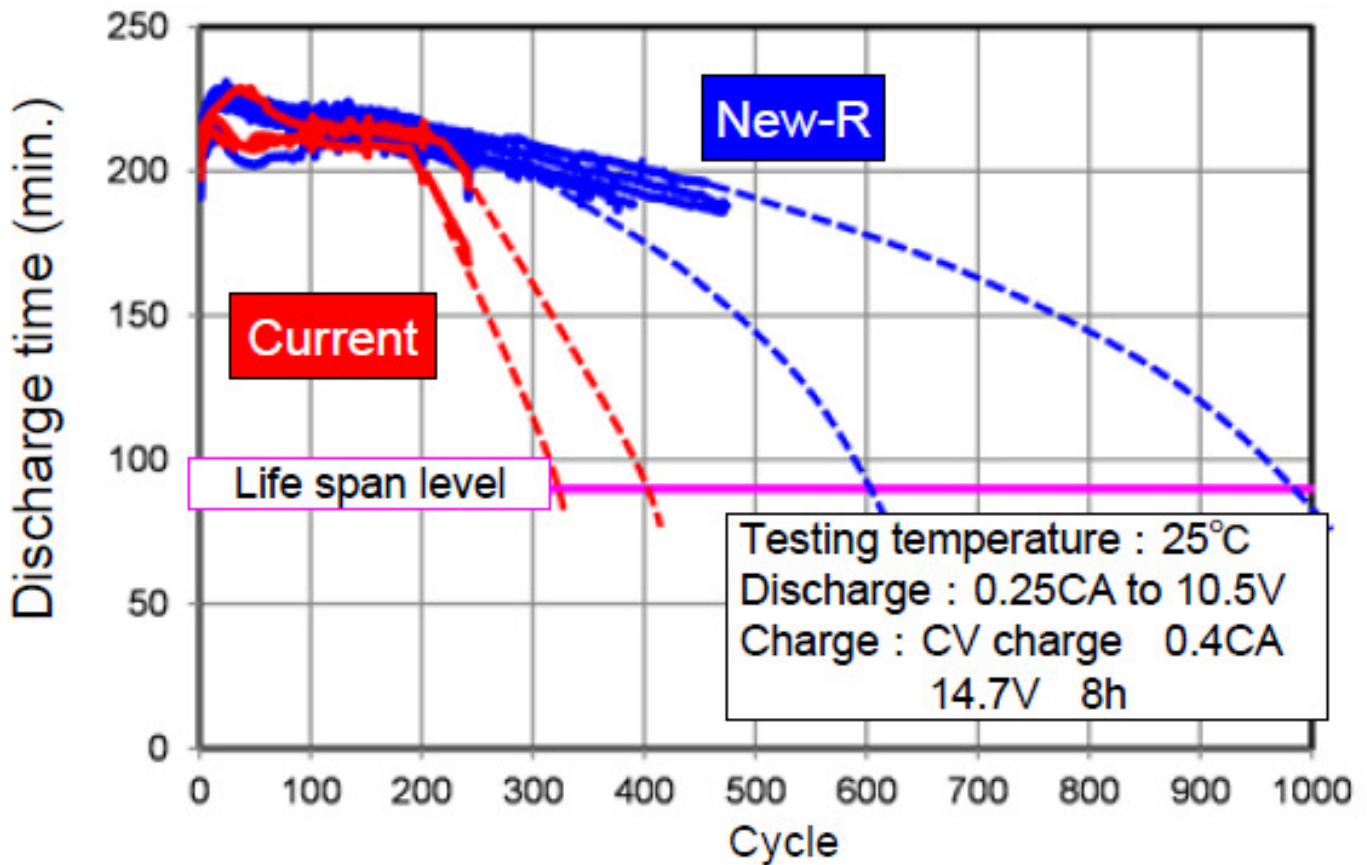
Please contact your account manager if you require samples for approval.

Michael R. Dvorak
Product Manager
OEM Battery Group

Product List

<i>New Part No.</i>	<i>Current Part No.</i>	<i>Voltage</i>	<i>Capacity</i>	<i>Introduction</i>
LC-RN1212P	LC-RA1212P	12 Volts	12 AH	October 2016
LC-RN1212P1	LC-RA1212P1	12 Volts	12 AH	October 2016
LC-RN127R2P	LC-R127R2P	12 Volts	7.2 AH	October 2016
LC-RN127R2P1	LC-R127R2P1	12 Volts	7.2 AH	October 2016
LC-RN064R5P	LC-R064R5P	6 Volts	4.5 AH	February 2017
LC-RN123R4P	LC-R123R4P	12 Volts	3.4 AH	February 2017
LC-RN063R4P	LC-R063R4P	6 Volts	3.4 AH	February 2017
LC-RN122R2P	LC-R122R2P	12 Volts	2.2 AH	April 2017
LC-RN121R3P	LC-R121R3P	12 Volts	1.3 AH	April 2017
LC-RN061R3P	LC-R061R3P	6 Volts	1.3 AH	April 2017

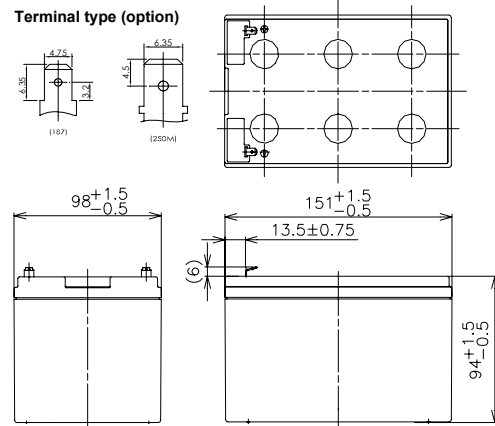
Cycle Life Testing





※Contents indicated (including the recycle marking, etc) are subject to change without notice.

■ Dimensions(mm)



Battery case resin: standard(UL94HB)

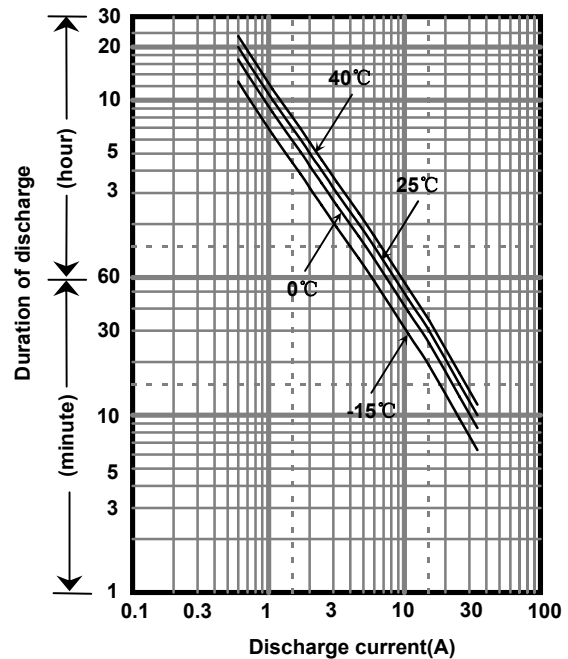
■ Specifications

Nominal Voltage		12V
Rated Capacity(20HR)		12Ah
Dimensions	Length	151 mm
	Width	98 mm
	Height	94 mm
	Total height	100 mm
Approx. Mass		3.75 kg
Terminal		Faston 187 & 250M

■ Characteristics

Capacity (25 °C)	20 hour rate	12Ah
	10 hour rate	10Ah
	3 hour rate	9.3Ah
	1 hour rate	8.5Ah
Internal Resistance (25 °C)	Fully charged battery	17.5 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 °C	102%
	25 °C	100%
	0 °C	85%
	-15 °C	65%
Self Discharge (25 °C)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■ Duration of discharge vs. discharge current



■ Watt Table(25°C)

Wattage values in the table are average instead of guaranteed value, please consider appropriate redundancy by application.

(Wattage/Battery)

Cut-off V	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	679	559	384	298	247	183	137	105	70.3	54.5	38.1	28.8	24.1	21.7	13.3	7.22
9.9V	649	537	373	288	241	177	135	104	69.9	54.2	37.8	28.7	24.0	21.7	13.3	7.22
10.2V	607	506	363	282	235	175	134	102	69.1	53.9	37.5	28.6	23.9	21.6	13.2	7.21
10.5V	556	475	343	271	231	172	133	100	68.5	53.3	36.9	28.5	23.8	21.6	13.2	7.20
10.8V	495	434	321	261	225	166	123	97.8	66.1	52.1	36.3	28.4	23.7	21.5	13.1	7.18

■ Ampere Table(25°C)

Ampere values in the table are average instead of guaranteed value, please consider appropriate redundancy by application.

(Ampere/Battery)

Cut-off V	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	61.1	50.1	34.3	25.9	21.3	15.6	11.7	8.90	5.95	4.60	3.20	2.41	2.01	1.81	1.11	0.602
9.9V	58.4	48.2	33.3	25.0	20.8	15.1	11.5	8.80	5.92	4.58	3.18	2.40	2.01	1.81	1.11	0.602
10.2V	54.6	45.4	32.4	24.5	20.3	14.9	11.4	8.70	5.85	4.55	3.15	2.39	2.00	1.80	1.10	0.601
10.5V	50.0	42.6	30.6	23.6	19.9	14.7	11.3	8.50	5.80	4.50	3.10	2.38	2.00	1.80	1.10	0.600
10.8V	44.5	38.9	28.7	22.7	19.4	14.2	10.5	8.30	5.60	4.40	3.05	2.37	1.99	1.79	1.09	0.598

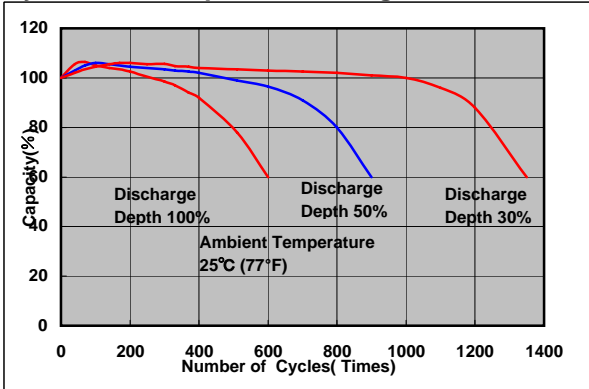
Charging Method (25°C)

Cycle use	Control voltage: 14.5-14.9V Initial current: 4.80A or smaller
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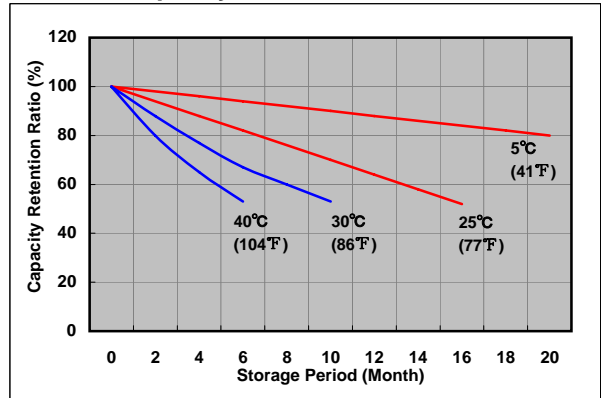
Cut off voltage

Discharge current	0.600A-2.40A	2.40A-6.00A	6.00A-12.0A	12.0A-24.0A	24.0A-36.0A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

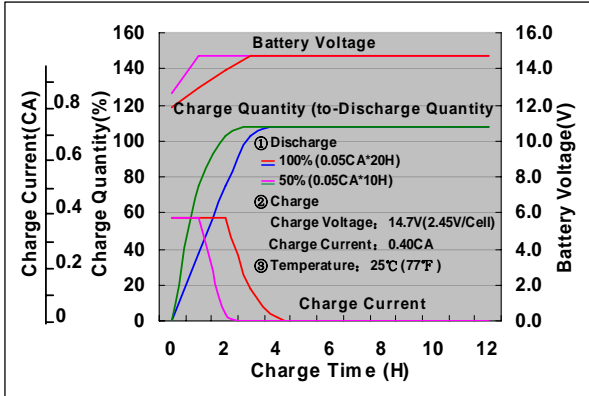
Cycle life vs. Depth of discharge



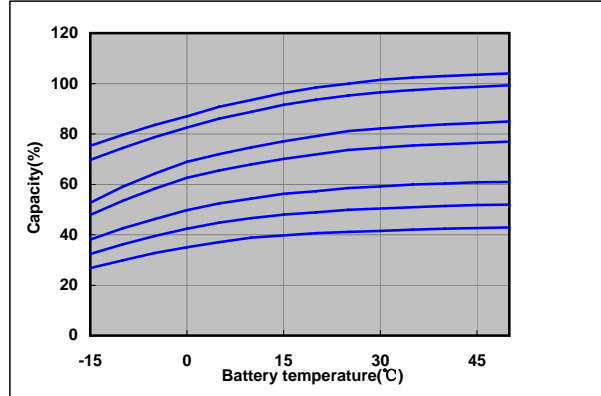
Residual capacity test result



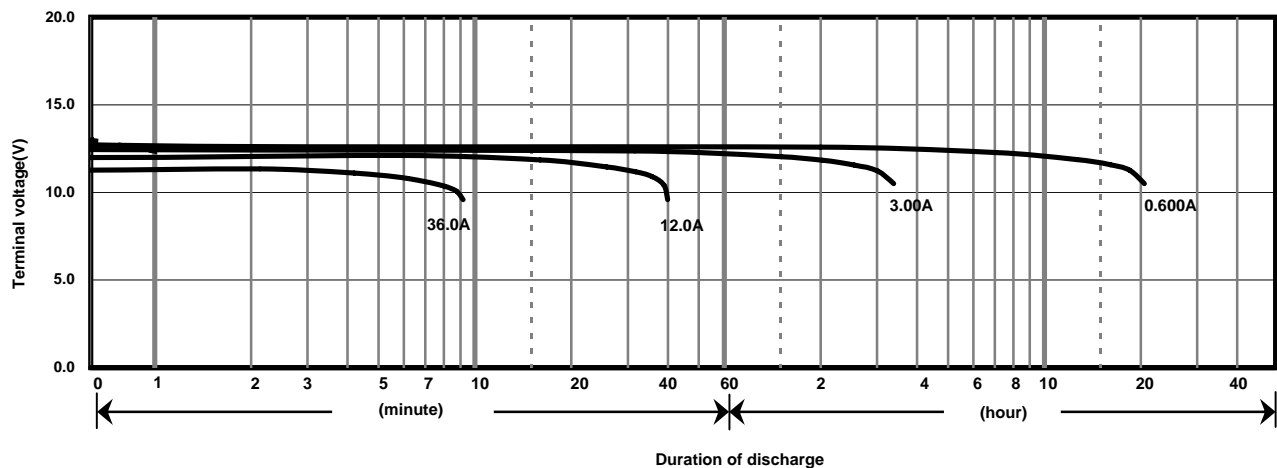
Constant-voltage constant-current charge characteristics for Cycle use



Discharge capacity by temperature and by discharge current



Discharge characteristics(25°C)



Caution

Due to the potential energy stored in the batteries, Please read 《Precautions for handling the Rechargeable Valve Regulated Lead Acid Batteries》 before using batteries. If improper handling or use of the batteries without understanding 《Precautions for handling the Rechargeable Valve Regulated Lead Acid Batteries》 may result in bodily injury caused by electrolyte leakage, heat generation, or explosion.

Panasonic Storage Battery (Shenyang) Co., Ltd

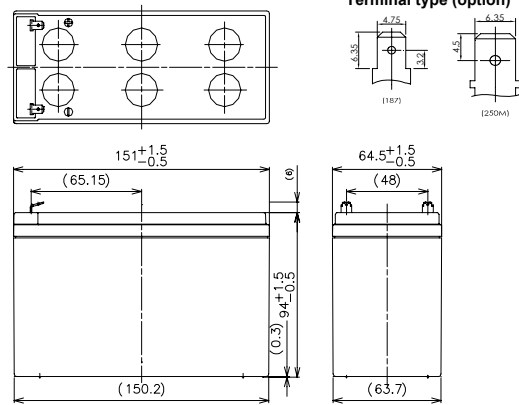
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Tel: 86 24 25818921
Fax: 86 24 62786318
Website: <http://www.panasonicbattery.cn>

2016.07

For main power supplies
Cycle life type



■ Dimensions(mm)



Battery case resin: standard(UL94HB)

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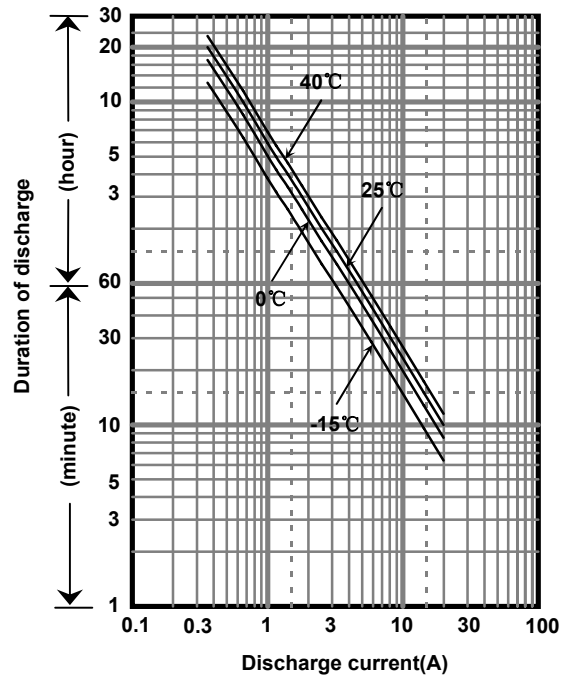
■ Specifications

Nominal Voltage		12V
Rated Capacity(20HR)		7.2Ah
Dimensions	Length	151 mm
	Width	64.5 mm
	Height	94 mm
	Total height	100 mm
Approx. Mass		2.45 kg
Terminal		Faston 187 & 250M

■ Characteristics

Capacity (25 °C)	20 hour rate	7.2Ah
	10 hour rate	6.5Ah
	3 hour rate	5.8Ah
	1 hour rate	4.9Ah
Internal Resistance (25 °C)	Fully charged battery	27.5 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 °C	102%
	25 °C	100%
	0 °C	85%
	-15 °C	65%
Self Discharge (25 °C)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■ Duration of discharge vs. discharge current



■ Watt Table(25°C)

Wattage values in the table are average instead of guaranteed value, please consider appropriate redundancy by application.

(Wattage/Battery)

Cut-off V	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	430	335	220	167	134	98.4	72.1	56.5	44.6	34.7	24.7	19.2	15.4	12.8	8.39	4.60
9.9V	405	287	187	159	130	96.4	71.6	55.1	43.7	34.4	24.5	19.1	15.3	12.5	8.35	4.59
10.2V	379	273	182	151	126	94.3	68.6	53.6	41.4	32.5	23.5	18.7	14.6	12.2	8.00	4.43
10.5V	343	248	174	144	120	90.8	66.8	52.4	39.8	31.5	23.0	18.3	14.5	12.1	7.96	4.42
10.8V	308	223	164	138	115	87.2	62.6	48.4	37.2	28.1	21.4	16.9	13.3	11.2	7.41	4.13

■ Ampere Table(25°C)

Ampere values in the table are average instead of guaranteed value, please consider appropriate redundancy by application.

(Ampere/Battery)

Cut-off V	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	38.9	30.6	19.9	14.8	12.3	9.10	6.40	5.10	3.50	2.70	2.00	1.53	1.26	1.02	0.670	0.363
9.9V	36.1	28.7	19.5	14.7	12.1	9.00	6.36	5.05	3.43	2.68	1.99	1.52	1.25	1.01	0.667	0.362
10.2V	34.2	26.9	19.0	14.4	11.9	8.90	6.30	5.00	3.36	2.61	1.97	1.51	1.24	1.00	0.660	0.361
10.5V	31.4	24.1	17.6	13.4	11.3	8.70	6.20	4.90	3.29	2.52	1.94	1.50	1.23	0.988	0.657	0.360
10.8V	29.0	22.3	15.7	12.5	11.0	8.40	6.10	4.80	3.20	2.40	1.90	1.48	1.20	0.972	0.650	0.358

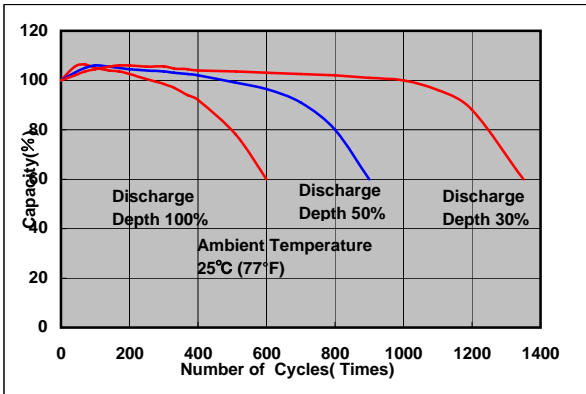
Charging Method (25°C)

Cycle use	Control voltage: 14.5-14.9V Initial current: 2.88A or smaller
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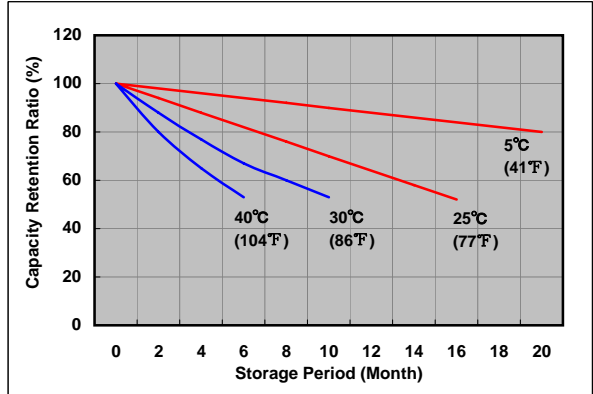
Cut off voltage

Discharge current	0.360A-1.44A	1.44A-3.60A	3.60A-7.20A	7.20A-14.4A	14.4A-21.6A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

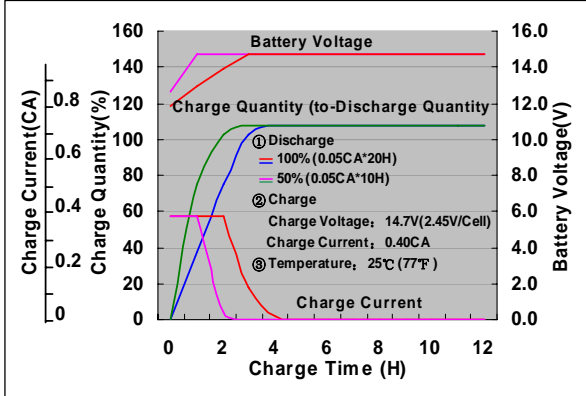
Cycle life vs. Depth of discharge



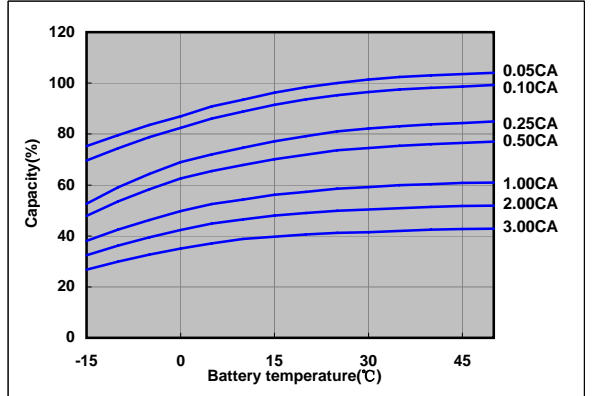
Residual capacity test result



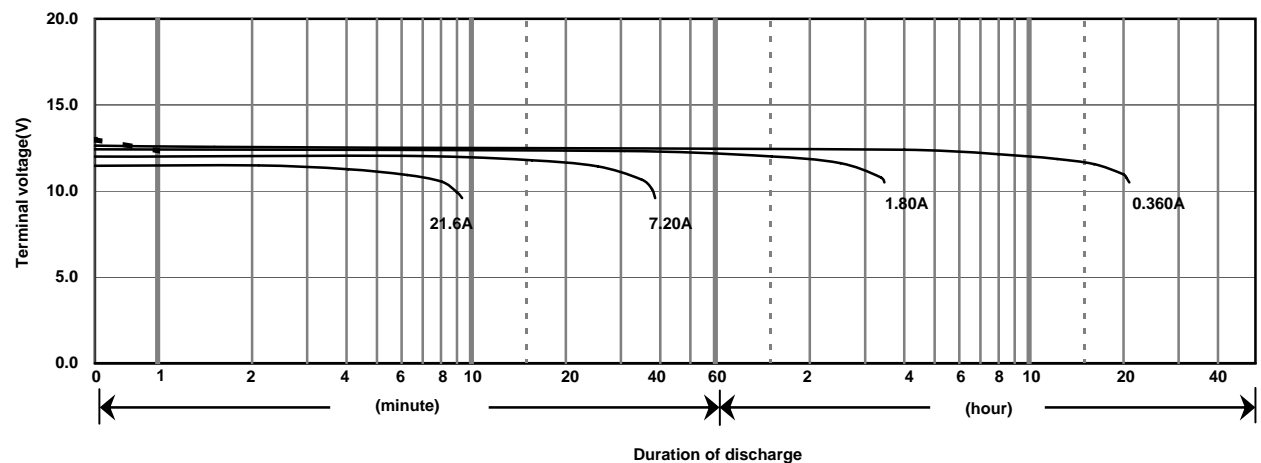
Constant-voltage constant-current charge characteristics for Cycle use



Discharge capacity by temperature and by discharge current



Discharge characteristics(25°C)



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2016.08