

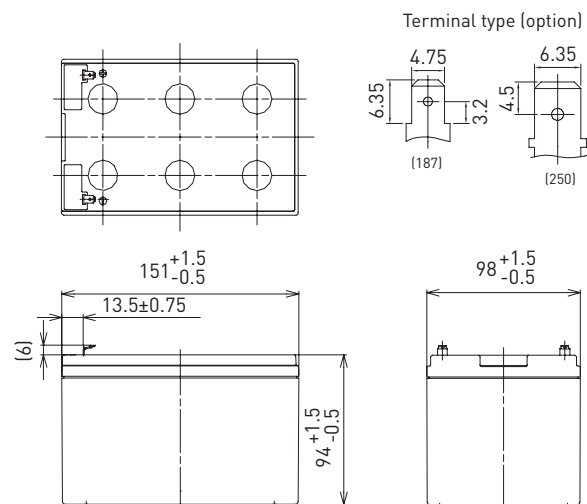
LC-CA1212P

DIMENSIONS (MM)



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

FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE

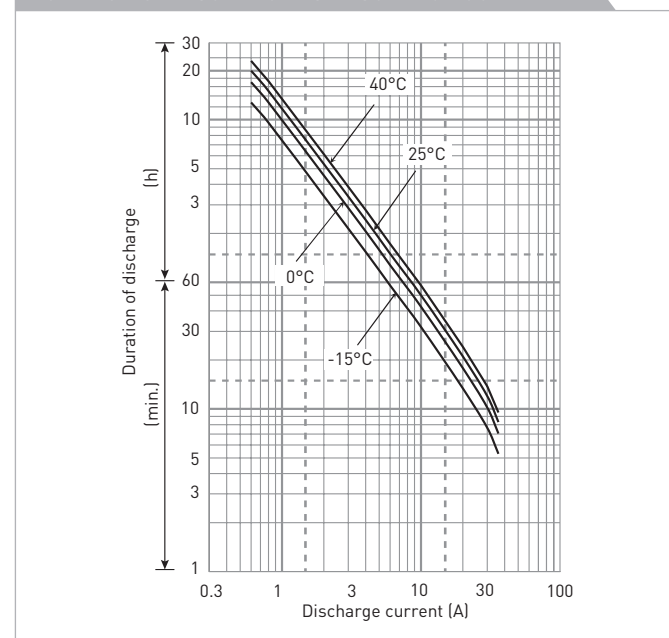


Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-CA1212P/P1	
Nominal voltage	12V	
Nominal capacity (20 hour rate)	12Ah	
Dimensions	Length	151mm
	Width	98mm
	Height	100mm
Approx. mass	3.80kg	
Terminal	Faston 187/250	
Capacity (25°C)	20 hour rate	12.0Ah
	10 hour rate	11.0Ah
	3 hour rate	9.3Ah
	1 hour rate	8.5Ah
Impedance	Fully charged battery (25°C)	15mΩ
	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 month	91%
	After 6 month	82%
	After 12 month	64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	[Wattage/battery]															
	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	28.8	24.1	21.7	13.3	7.22
10.2V	607	506	363	282	235	177	134	102	69.1	53.9	37.5	28.8	24.0	21.6	13.2	7.21
10.5V	556	475	343	271	231	172	133	100	68.5	53.3	36.9	28.7	24.0	21.6	13.2	7.20
10.8V	495	434	321	261	225	166	123	98	66.1	52.1	36.3	28.4	23.8	21.5	13.1	7.18

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]															
	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	2.41	2.01	1.81	1.11	0.602
10.2V	54.6	45.4	32.4	24.5	20.3	15.1	11.4	8.70	5.85	4.55	3.15	2.41	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	2.40	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	2.38	1.99	1.79	1.09	0.598

All mentioned values are average values

LC-CA1212P

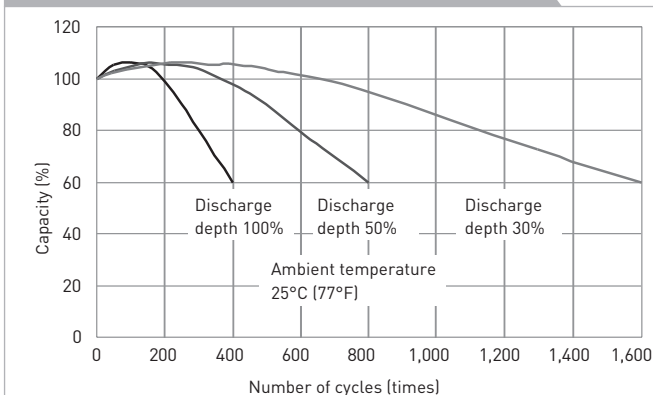
CHARGING METHOD (25°C)

Cycle use
Control voltage 14.5V - 14.9V
Initial current 4.8A or smaller

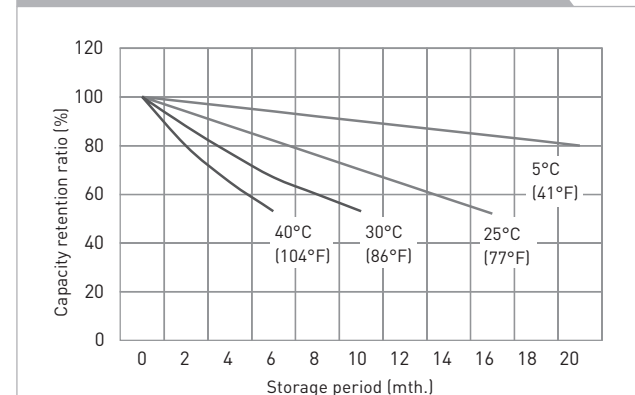
CUT-OFF VOLTAGE

Discharge current	0.6A - 2.4A	2.4A - 6A	6A - 12A	12A - 24A	24A - 36A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

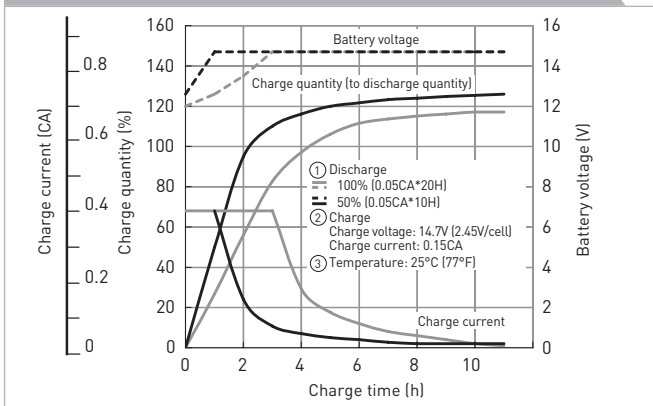
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



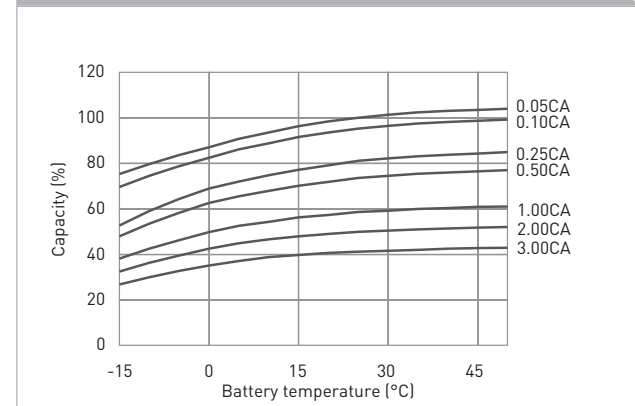
RESIDUAL CAPACITY TEST RESULT



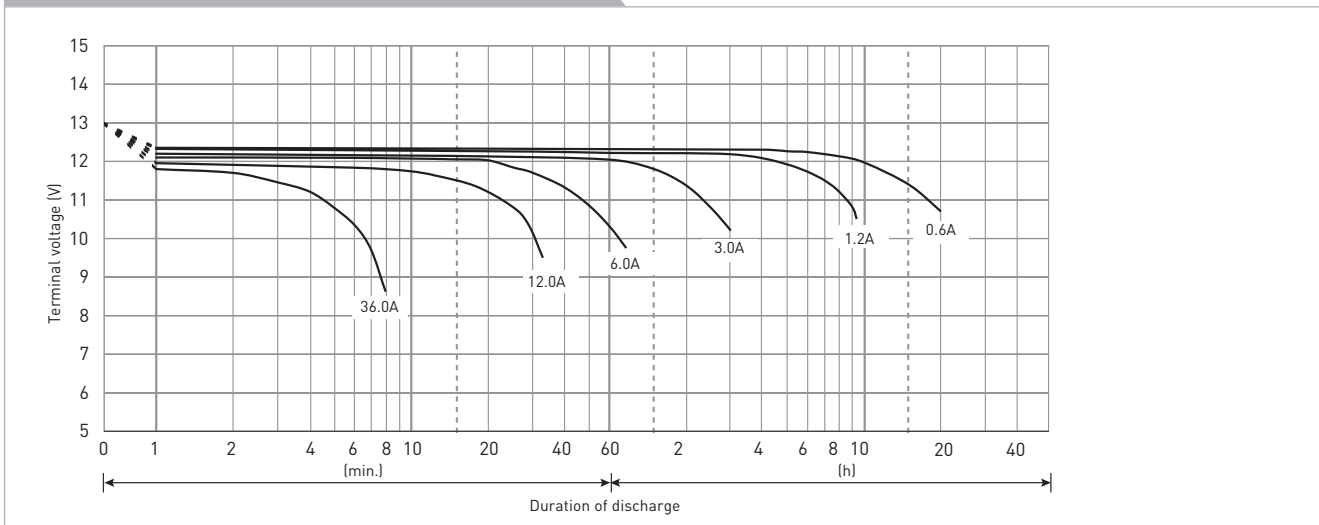
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



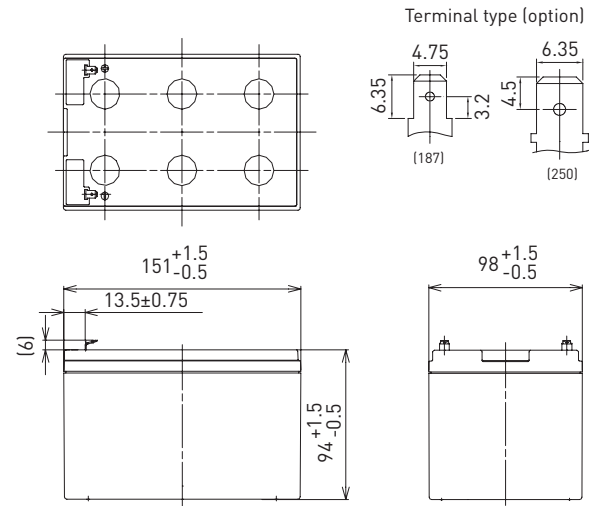
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LC-CA1215P

DIMENSIONS (MM)



FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE



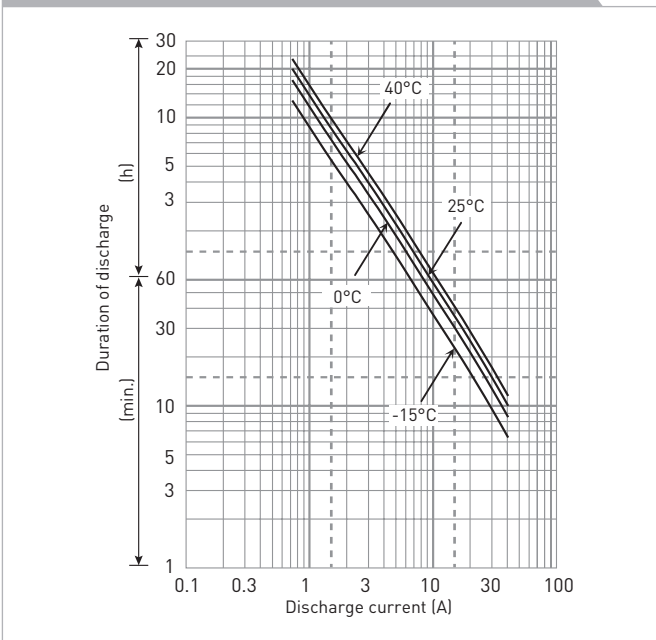
Battery case resin: standard (UL94 HB)

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

SPECIFICATIONS

Name	LC-CA1215P/P1
Nominal voltage	12V
Nominal capacity (20 hour rate)	15Ah
Dimensions	Length 151mm
	Width 98 mm
	Height 100mm
Approx. mass	4.20kg
Terminal	Faston 187/250
Capacity (25°C)	20 hour rate 15Ah
	10 hour rate 13Ah
	3 hour rate 12Ah
	1 hour rate 10Ah
Impedance	Fully charged battery (25°C) 15mΩ
	Temperature dependency of capacity (20 hour rate)
Self-discharge (25°C)	40°C 102%
	25°C 100%
	0°C 85%
	-15°C 65%
Self-discharge (25°C)	After 3 month 91%
	After 6 month 82%
	After 12 month 64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	(Wattage/battery)															
	3min.	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	850	682	455	350	292	217	157	123	83.9	65.0	47.1	36.0	29.9	25.2	16.2	8.75
9.9V	799	646	444	343	286	213	156	122	82.8	64.6	46.9	35.8	29.7	25.1	16.1	8.74
10.2V	741	607	433	336	281	211	154	121	81.4	63.4	46.4	35.7	29.5	24.9	15.9	8.72
10.5V	667	555	404	318	270	206	152	118	80.1	61.9	45.7	35.5	29.4	24.8	15.8	8.70
10.8V	576	497	368	300	263	199	146	116	77.7	59.6	44.8	35.1	28.9	24.5	15.7	8.66

AMPERE TABLE (25°C)

Cut-off	(Ampere/battery)															
	3min.	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	76.5	61.2	40.6	30.4	25.2	18.5	13.4	10.5	7.11	5.49	3.96	3.01	2.49	2.10	1.35	0.755
9.9V	71.8	58.0	39.7	29.9	24.7	18.2	13.3	10.4	7.01	5.45	3.94	3.00	2.48	2.09	1.34	0.753
10.2V	66.6	54.5	38.6	29.2	24.2	18.1	13.1	10.3	6.89	5.36	3.90	2.99	2.46	2.08	1.33	0.752
10.5V	59.9	49.8	36.1	27.6	23.3	17.6	13.0	10.0	6.78	5.22	3.84	2.97	2.45	2.07	1.32	0.750
10.8V	51.8	44.6	32.9	26.1	22.7	17.0	12.5	9.82	6.58	5.03	3.77	2.94	2.41	2.04	1.31	0.747

All mentioned values are average values

LC-CA1215P

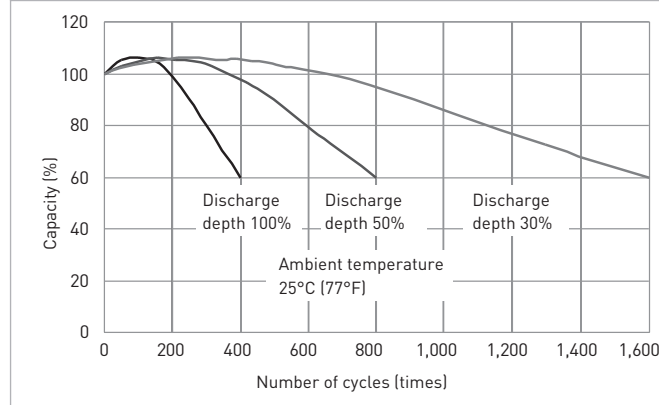
CHARGING METHOD (25°C)

Cycle use Control voltage: 14.5V - 14.9V
Initial current: 6.00A or smaller

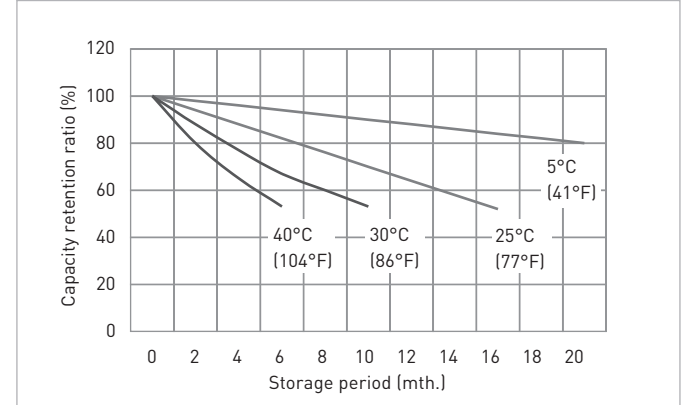
CUT-OFF VOLTAGE

Discharge current	0.750A - 3.00A	3.00A - 7.50A	7.50A - 15.0A	15.0A - 30.0A	30.0A - 45.0A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

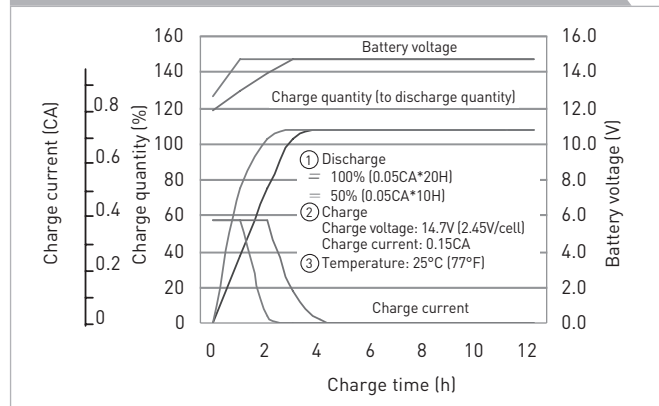
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



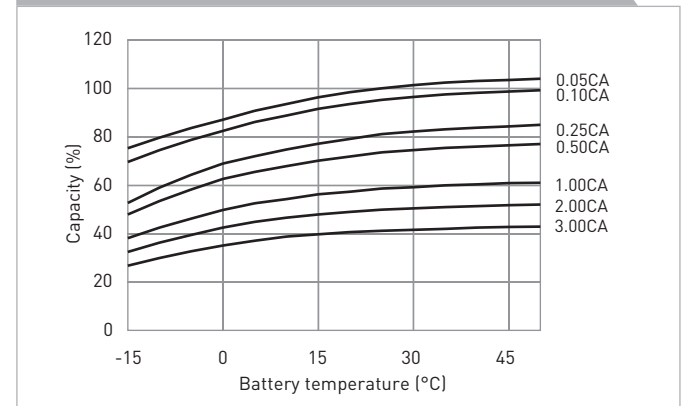
RESIDUAL CAPACITY TEST RESULT



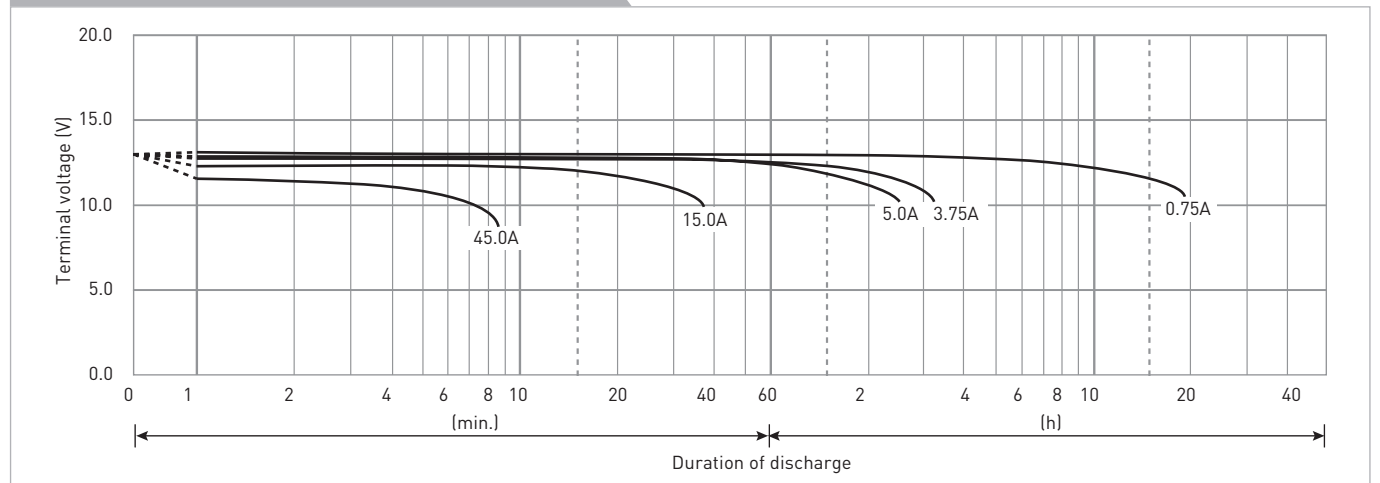
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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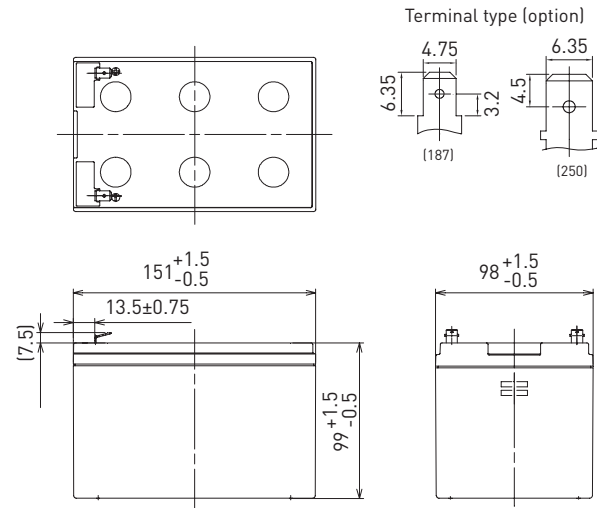
LC-CA1216P

DIMENSIONS (MM)



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

FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE

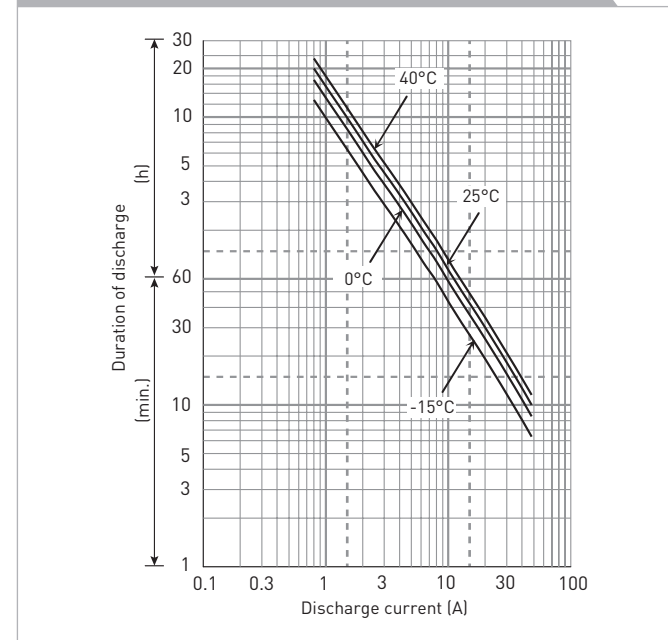


Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-CA1216P/P1
Nominal voltage	12V
Nominal capacity (20 hour rate)	16Ah
Dimensions	Length 151mm
	Width 98mm
	Height 105mm
Approx. mass	4.70kg
Terminal	Faston 187/250
Capacity (25°C)	20 hour rate 16Ah
	10 hour rate 15Ah
	3 hour rate 13Ah
	1 hour rate 11Ah
Impedance	Fully charged battery (25°C) 11mΩ
	40°C 102%
Temperature dependency of capacity (20 hour rate)	25°C 100%
	0°C 85%
	-15°C 65%
	After 3 month 91%
Self-discharge (25°C)	After 6 month 82%
	After 12 month 64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	3min.	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	879	721	517	381	308	225	165	132	94.2	74.7	53.1	40.5	33.0	28.1	17.8	9.54
9.9V	825	683	505	374	302	220	163	131	92.9	74.2	52.8	40.4	32.9	28.0	17.8	9.52
10.2V	766	642	491	366	296	219	162	129	91.3	72.9	52.3	40.2	32.7	27.8	17.6	9.50
10.5V	689	586	459	346	285	213	160	126	89.9	71.1	51.5	40.0	32.5	27.6	17.5	9.48
10.8V	595	526	418	327	277	206	153	123	87.2	68.5	50.6	39.5	32.0	27.3	17.4	9.43

AMPERE TABLE (25°C)

Cut-off	3min.	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	83.3	68.7	48.0	35.0	28.1	20.5	14.9	11.6	8.07	6.70	4.64	3.47	2.84	2.35	1.51	0.800
9.9V	77.3	64.4	46.9	34.3	27.6	20.1	14.8	11.5	7.96	6.66	4.61	3.45	2.83	2.34	1.50	0.800
10.2V	71.4	60.4	45.6	33.6	27.0	19.9	14.6	11.3	7.83	6.54	4.57	3.44	2.81	2.33	1.49	0.800
10.5V	63.4	54.1	42.6	31.8	26.0	19.5	14.5	11.1	7.71	6.38	4.49	3.42	2.80	2.32	1.48	0.800
10.8V	53.6	47.8	38.8	30.0	25.3	18.8	13.9	10.8	7.47	6.15	4.41	3.38	2.75	2.29	1.47	0.800

All mentioned values are average values

LC-CA1216P

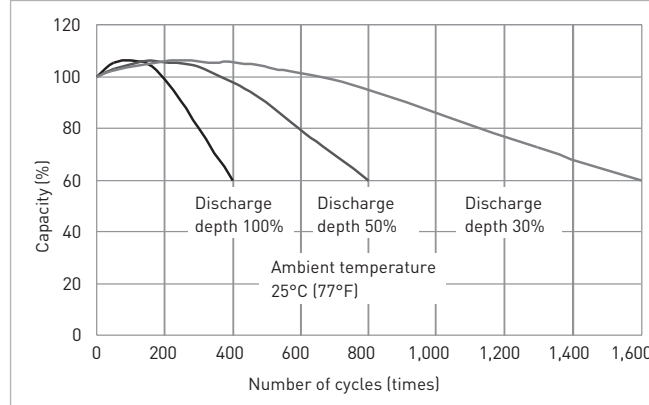
CHARGING METHOD (25°C)

Cycle use Control voltage: 14.5V - 14.9V
Initial current: 6.40A or smaller

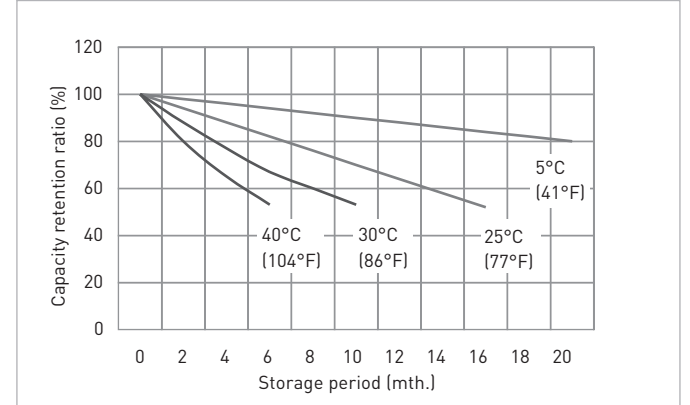
CUT-OFF VOLTAGE

Discharge current	0.800A - 3.20A	3.20A - 8.00A	8.00A - 16.0A	16.0A - 32.0A	32.0A - 48.0A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

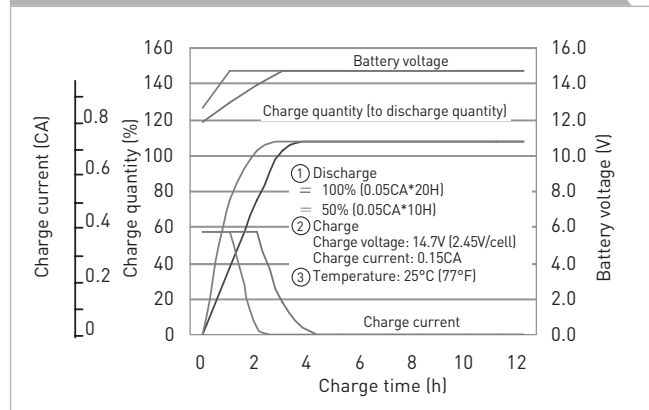
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



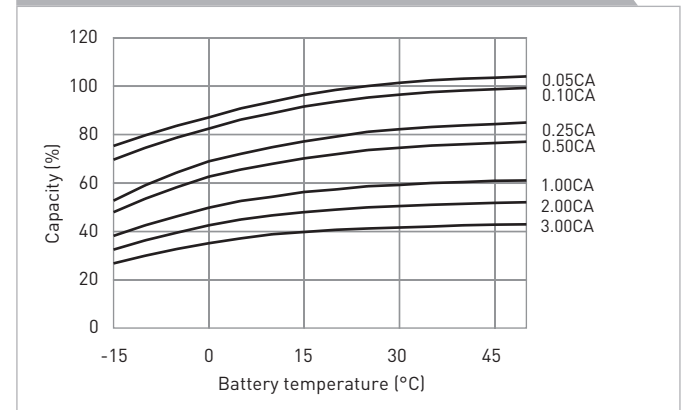
RESIDUAL CAPACITY TEST RESULT



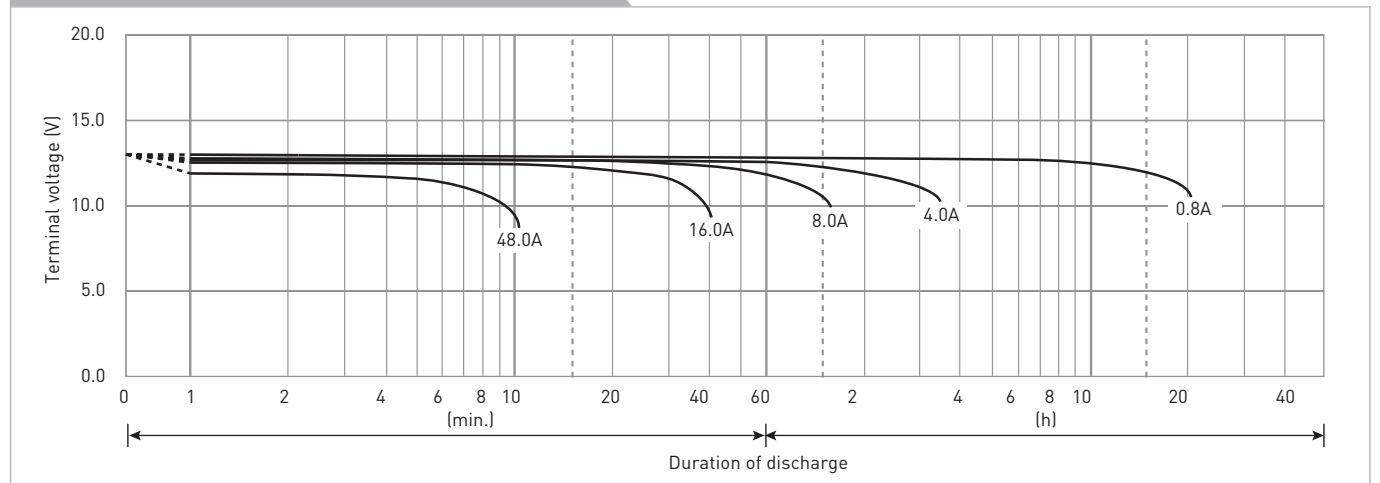
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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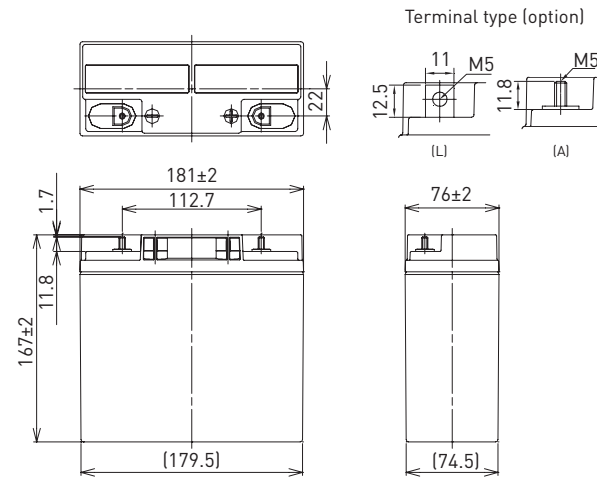
LC-XC1222P

DIMENSIONS (MM)



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

FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE

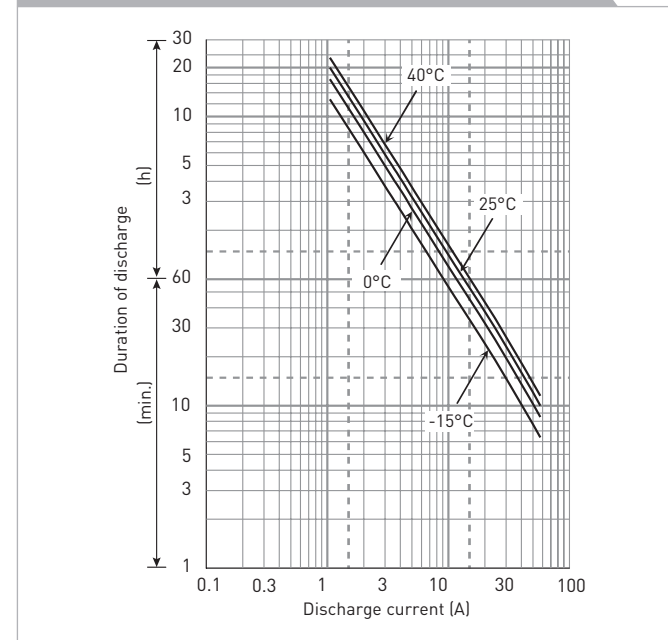


Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-XC1222P/AP	
Nominal voltage	12V	
Nominal capacity (20 hour rate)	22Ah	
Dimensions	Length	181mm
	Width	76mm
	Height	167mm
Approx. mass	6.55kg	
Terminal	M5 bolt/nut & threaded post	
	20 hour rate	22Ah
	10 hour rate	20Ah
Capacity (25°C)	3 hour rate	17Ah
	1 hour rate	14Ah
	Impedance	Fully charged battery (25°C)
12mΩ		
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 month	91%
	After 6 month	82%
	After 12 month	64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	[Wattage/battery]															
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	
9.6V	803	618	472	396	295	213	172	117	93.2	69.4	53.3	44.0	35.4	24.0	13.0	
9.9V	787	605	469	389	292	211	170	115	92.5	69.0	53.0	43.7	35.2	23.9	13.0	
10.2V	767	590	459	383	289	209	167	112	90.1	68.3	52.6	43.3	35.0	23.6	12.9	
10.5V	710	546	427	363	282	206	163	110	87.0	67.3	52.3	43.0	34.5	23.5	12.9	
10.8V	633	487	399	354	272	203	160	107	82.8	65.9	51.6	41.9	34.0	23.3	12.8	

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]															
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	
9.6V	77.2	59.4	43.0	36.7	25.4	18.8	14.9	9.79	7.55	5.85	4.48	3.69	2.96	2.04	1.11	
9.9V	75.7	58.2	42.7	36.1	25.1	18.7	14.5	9.59	7.49	5.82	4.45	3.66	2.95	2.04	1.11	
10.2V	73.7	56.7	41.8	35.5	24.8	18.5	14.2	9.40	7.30	5.76	4.42	3.63	2.93	2.02	1.10	
10.5V	68.4	52.6	38.9	33.7	24.3	18.2	13.9	9.20	7.05	5.58	4.39	3.60	2.89	2.01	1.10	
10.8V	61.0	46.9	36.3	32.8	23.4	17.9	13.6	8.95	6.71	5.56	4.33	3.51	2.84	1.99	1.09	

All mentioned values are average values

LC-XC1222P

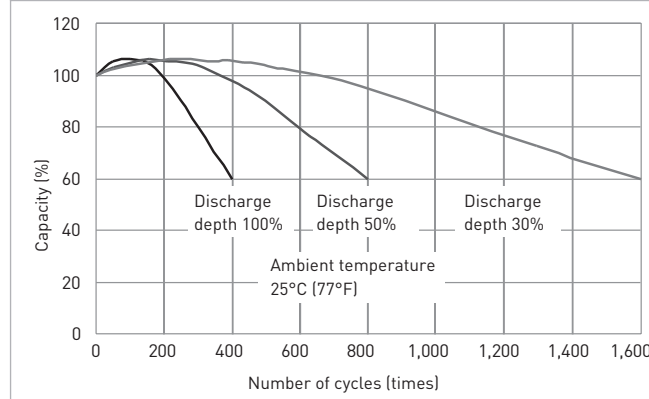
CHARGING METHOD (25°C)

Cycle use
Control voltage: 14.5V - 14.9V
Initial current: 8.80A or smaller

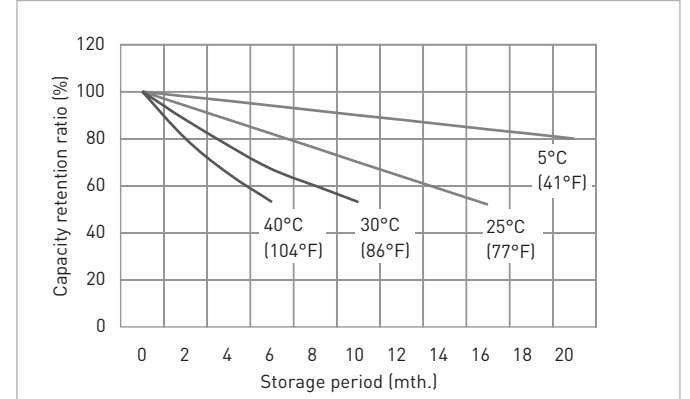
CUT-OFF VOLTAGE

Discharge current	1.10A - 5.50A	5.50A - 11.0A	11.0A - 22.0A	22.0A - 44.0A	44.0A - 66.0A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

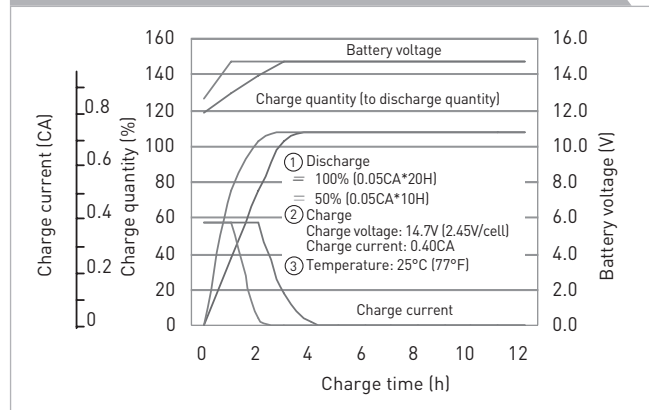
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



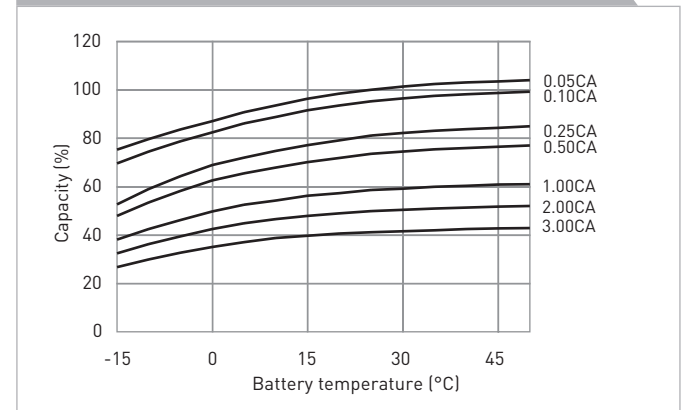
RESIDUAL CAPACITY TEST RESULT



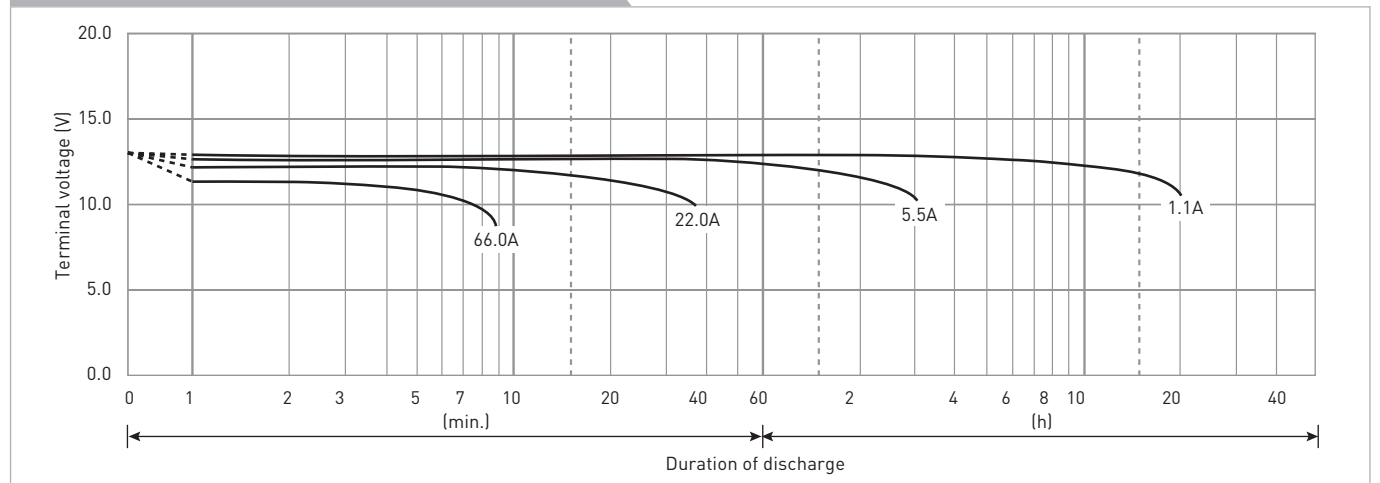
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



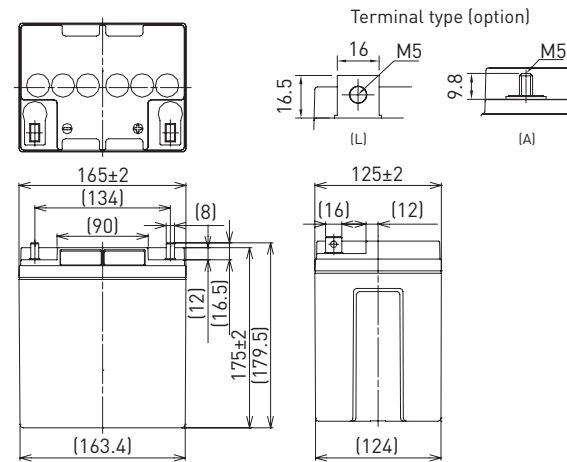
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LC-XC1228P

DIMENSIONS (MM)



FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE



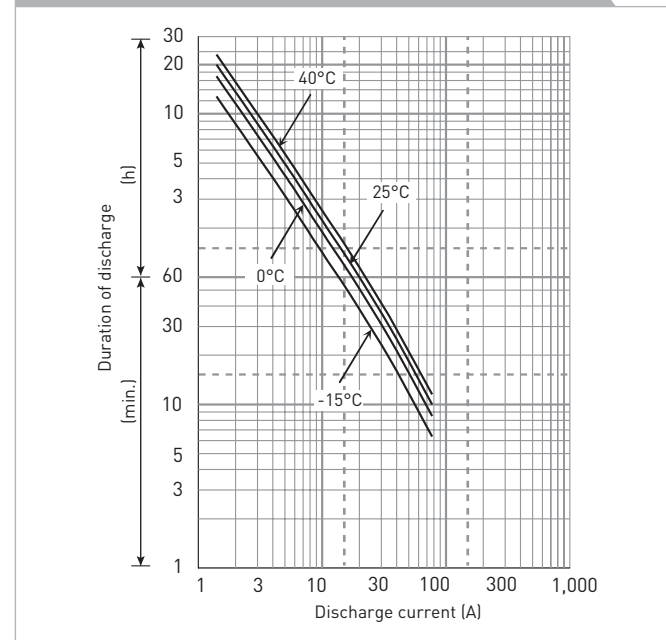
Contents indicated (including the recycle marking, etc.) are subject to change without notice.

Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-XC1228P/AP
Nominal voltage	12V
Nominal capacity (20 hour rate)	28Ah
Dimensions	Length 165mm
	Width 125mm
	Height 175mm/179.5mm
Approx. mass	10.5kg
Terminal	M5 bolt/nut & threaded post
	20 hour rate 28Ah
Capacity (25°C)	10 hour rate 26Ah
	3 hour rate 22Ah
	1 hour rate 21Ah
Impedance	Fully charged battery (25°C) 10mΩ
	40°C 102%
Temperature dependency of capacity (20 hour rate)	25°C 100%
	0°C 85%
	-15°C 65%
Self-discharge (25°C)	After 3 month 91%
	After 6 month 82%
	After 12 month 64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	[Wattage/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	1,160	865	664	585	410	304	260	159	129	91.6	74.1	61.1	50.8	31.8	16.8
9.9V	1,093	849	654	579	404	294	254	156	128	90.4	72.9	60.8	50.4	31.8	16.8
10.2V	1,026	818	643	567	397	288	251	155	127	89.3	71.7	60.5	49.9	31.8	16.8
10.5V	976	784	621	545	386	282	247	154	126	88.1	71.1	60.2	49.5	31.8	16.8
10.8V	903	773	610	539	374	255	218	149	118	84.5	70.5	59.9	49.0	31.8	16.8

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	104	77.2	57.7	50.4	35.0	25.9	22.1	13.5	10.9	7.70	6.20	5.10	4.30	2.60	1.40
9.9V	98.0	75.8	56.9	49.9	34.5	25.0	21.6	13.2	10.8	7.60	6.10	5.06	4.28	2.60	1.40
10.2V	92.0	73.0	55.9	48.9	33.9	24.5	21.3	13.1	10.7	7.50	6.00	5.03	4.25	2.60	1.40
10.5V	87.5	70.0	54.0	47.0	33.0	24.0	21.0	13.0	10.6	7.40	5.95	4.99	4.23	2.60	1.40
10.8V	81.0	69.0	53.0	46.5	32.0	21.7	18.5	12.6	10.0	7.10	5.90	4.95	4.20	2.60	1.40

All mentioned values are average values

LC-XC1228P

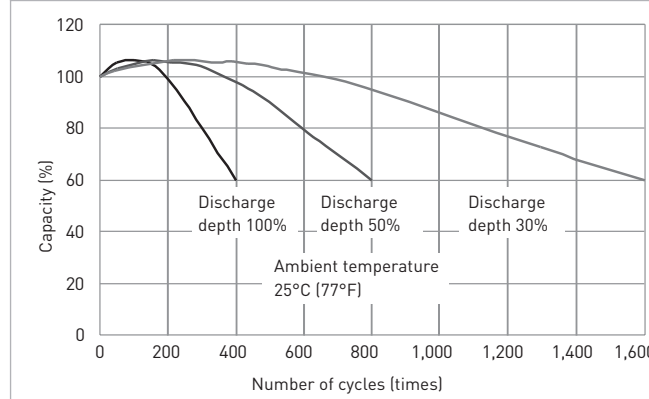
CHARGING METHOD (25°C)

Cycle use Control voltage: 14.5V - 14.9V
Initial current: 11.2A or smaller

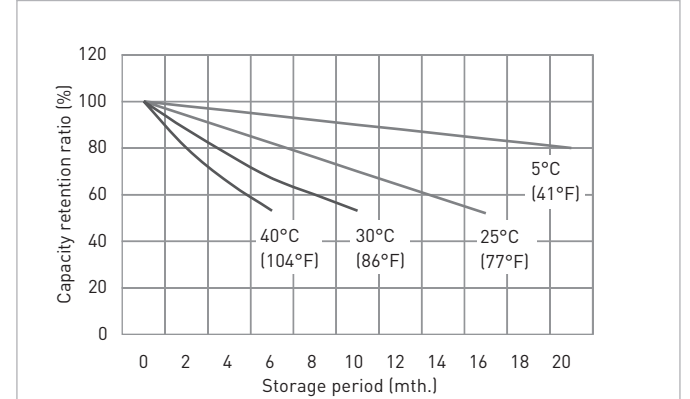
CUT-OFF VOLTAGE

Discharge current	1.40A - 5.60A	5.60A - 14.0A	14.0A - 28.0A	28.0A - 56.0A	56.0A - 84.0A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

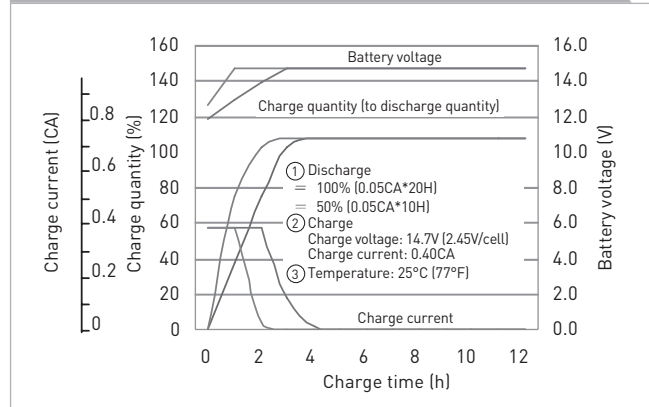
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



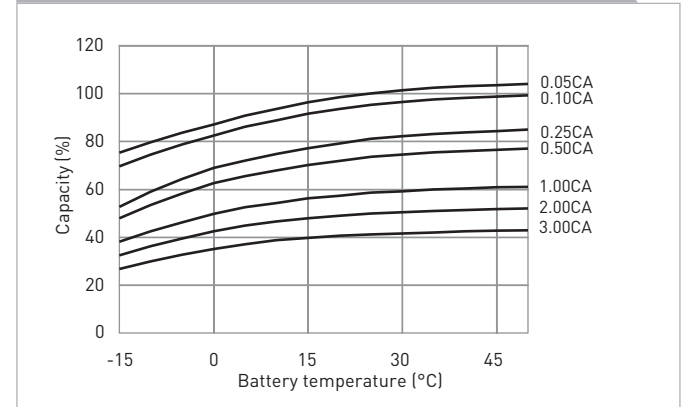
RESIDUAL CAPACITY TEST RESULT



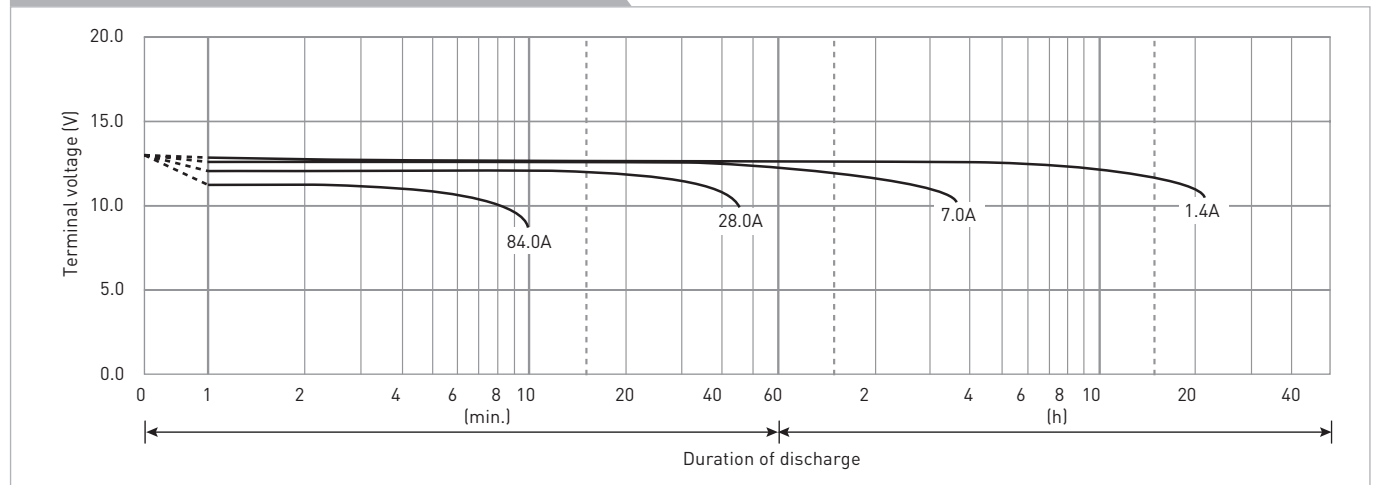
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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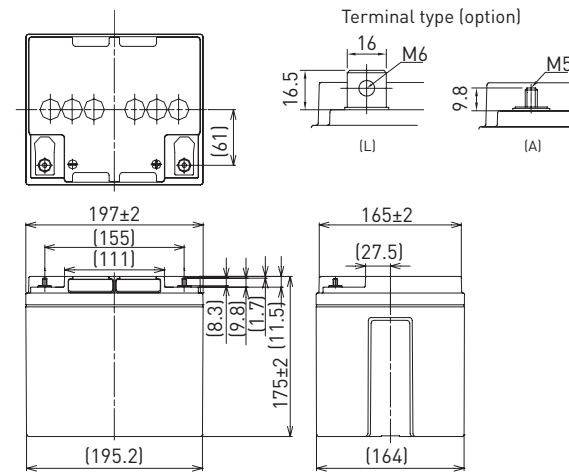
LC-XC1238P

DIMENSIONS (MM)



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

FOR MAIN POWER SUPPLIES.
CYCLE LONG-LIFE TYPE

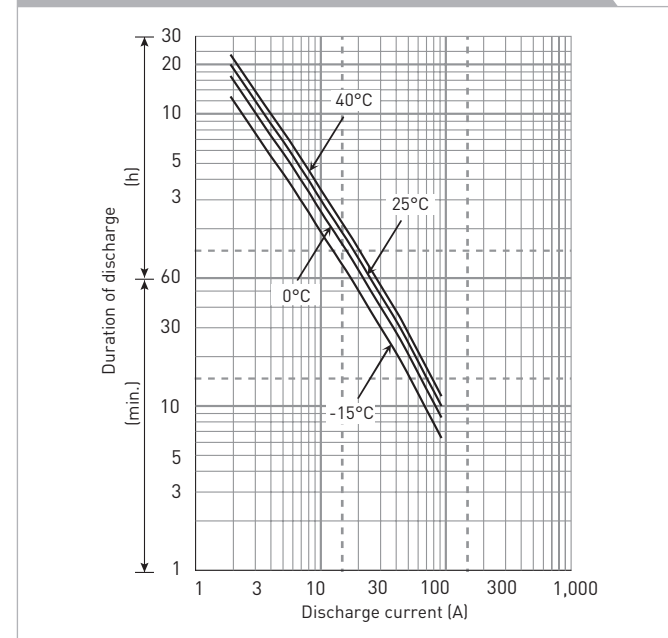


Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-XC1238P/AP
Nominal voltage	12V
Nominal capacity (20 hour rate)	38Ah
Dimensions	Length 197mm
	Width 165mm
	Height 175mm/180mm
Approx. mass	15.0kg
Terminal	M6 bolt/nut & M5 threaded post
Capacity (25°C)	20 hour rate 38Ah
	10 hour rate 36Ah
	3 hour rate 29Ah
	1 hour rate 23Ah
Impedance	Fully charged battery (25°C) 8mΩ
	Temperature dependency of capacity (20 hour rate)
Self-discharge (25°C)	40°C 102%
	25°C 100%
	0°C 85%
	-15°C 65%
Self-discharge (25°C)	After 3 month 91%
	After 6 month 82%
	After 12 month 64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	[Wattage/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	1,349	1,030	800	686	505	351	276	214	169	123	99.2	77.9	68.3	42.0	22.8
9.9V	1,271	1,008	788	682	500	350	269	209	168	120	98.0	76.7	68.0	42.0	22.8
10.2V	1,204	980	768	672	489	349	267	185	167	119	96.8	75.5	67.7	42.0	22.8
10.5V	1,126	952	748	661	480	346	265	183	166	117	95.6	74.9	67.4	42.0	22.8
10.8V	1,098	874	716	640	468	308	247	175	155	114	94.4	74.3	67.1	42.0	22.8

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	121	92.0	69.6	59.1	43.2	29.9	23.4	18.1	14.3	10.3	8.30	6.50	5.70	3.60	1.90
9.9V	114	90.0	68.5	58.8	42.7	29.8	22.8	17.7	14.2	10.1	8.20	6.40	5.68	3.60	1.90
10.2V	108	87.5	66.8	57.9	41.8	29.7	22.7	15.7	14.1	10.0	8.10	6.30	5.66	3.60	1.90
10.5V	101	85.0	65.0	57.0	41.0	29.5	22.5	15.5	14.0	9.80	8.00	6.25	5.64	3.60	1.90
10.8V	98.5	78.0	62.3	55.2	40.0	26.2	21.0	14.8	13.1	9.60	7.90	6.20	5.60	3.60	1.90

All mentioned values are average values

LC-XC1238P

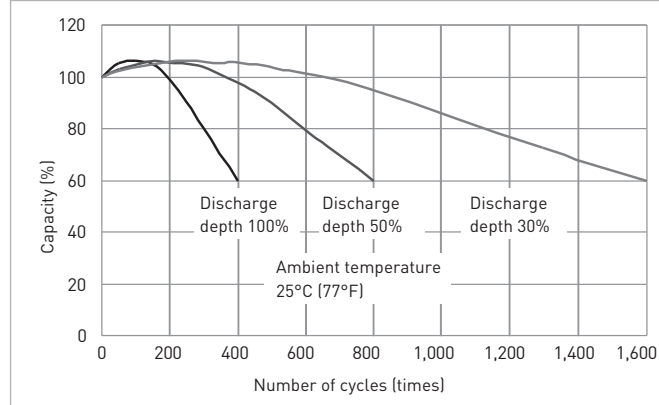
CHARGING METHOD (25°C)

Cycle use Control voltage: 14.5V - 14.9V
Initial current: 15.2A or smaller

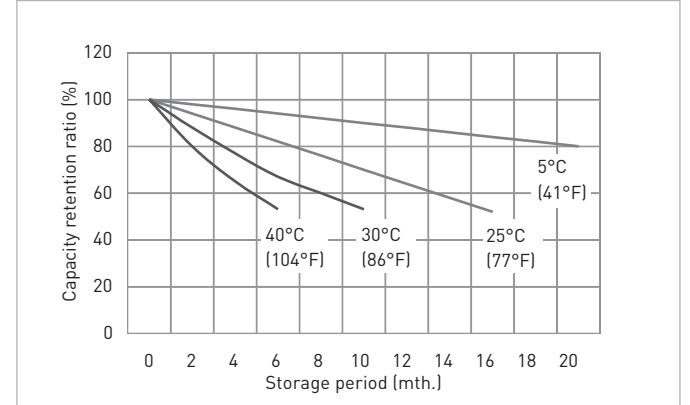
CUT-OFF VOLTAGE

Discharge current	1.90A - 7.60A	7.60A - 19.0A	19.0A - 38.0A	38.0A - 76.0A	76.0A - 114A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V

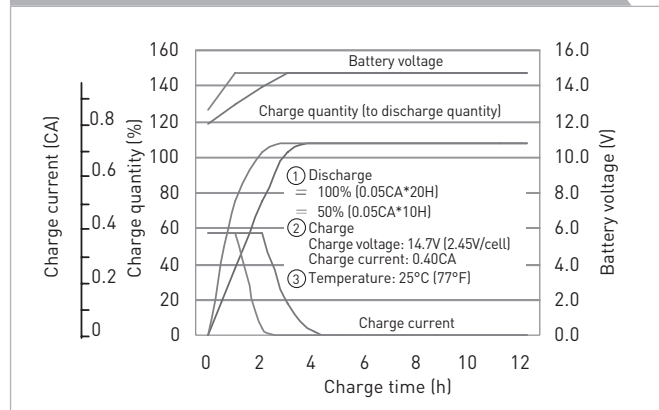
CYCLE LIFE VS. DEPTH OF DISCHARGE (ACC. IEC 61056)



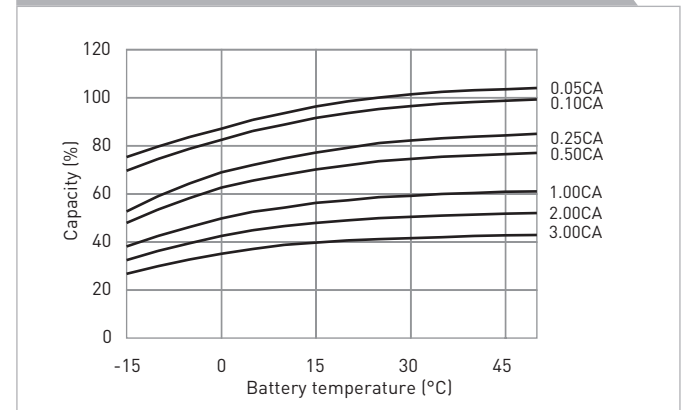
RESIDUAL CAPACITY TEST RESULT



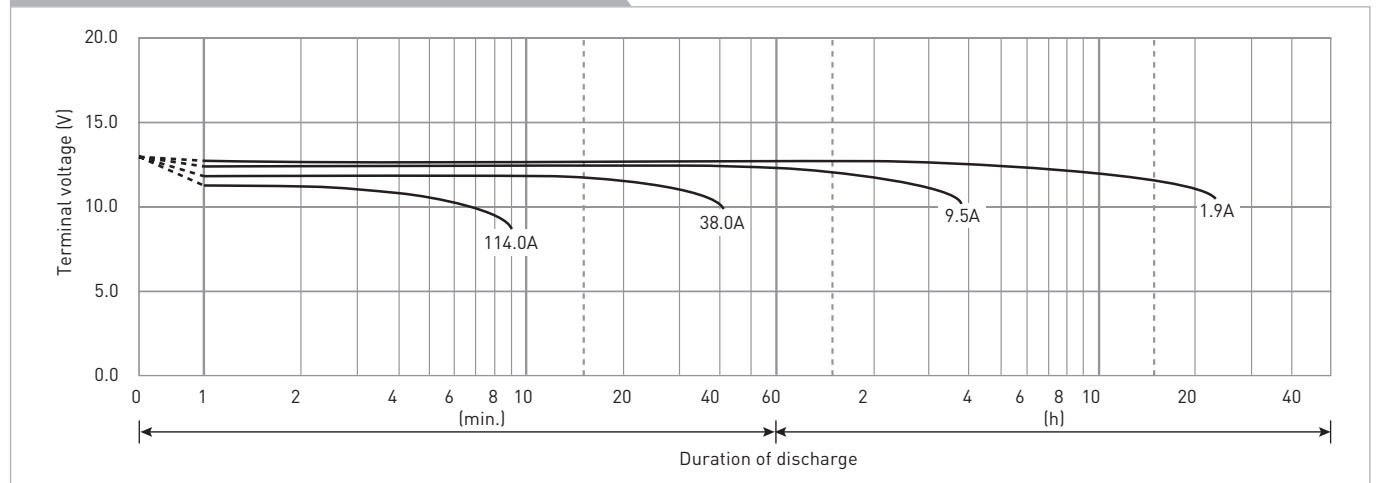
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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LC-T1270P

DIMENSIONS (MM)



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

SPECIFICATIONS

Name		LC-T1270P
Nominal voltage		12V
Nominal capacity (20 hour rate)		70Ah
Dimensions	Length	350mm
	Width	166mm
	Height	175mm
Approx. mass		24.5kg
Terminal		M6 bolt/nut
Capacity (25°C)	20 hour rate	70Ah
	10 hour rate	66Ah
	3 hour rate	56Ah
	1 hour rate	43Ah
Impedance	Fully charged battery (25°C)	6mΩ
	40°C	102%
Temperature dependency of capacity (20 hour rate)	25°C	100%
	0°C	85%
	-15°C	65%
	After 3 month	91%
Self-discharge (25°C)	After 6 month	82%
	After 12 month	64%

WATT TABLE (25°C)

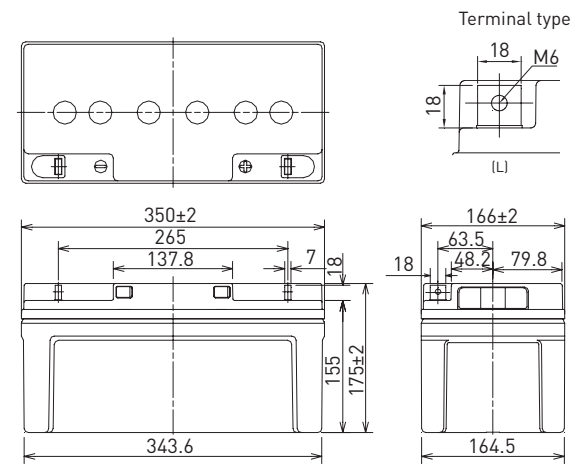
Cut-off	[Wattage/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	2,312	1,815	1,391	1,078	855	662	504.0	387.0	303.0	241.9	170.0	142.0	126.0	80.90	43.70
9.9V	2,245	1,779	1,364	1,073	846	651	491.0	379.0	295.0	237.2	166.0	138.0	122.0	78.10	43.40
10.2V	2,179	1,745	1,337	1,055	836	639	477.0	368.4	287.0	230.3	163.0	134.0	118.0	75.50	43.20
10.5V	2,116	1,710	1,311	1,002	817	621	464.0	361.1	283.0	217.0	159.0	130.0	115.0	75.20	40.50
10.8V	2,054	1,677	1,285	956	774	609	458.0	350.6	276.0	210.7	155.0	128.0	113.0	73.70	39.80

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	251	175	130	105	79.2	59.6	47.3	36.5	27.4	20.3	15.0	12.6	10.5	6.65	3.56
9.9V	244	172	127	102	77.6	58.4	45.9	35.5	27.3	19.7	14.9	12.2	10.2	6.63	3.53
10.2V	239	167	125	101	76.1	56.7	44.5	34.6	27.2	19.1	14.8	11.9	10.1	6.62	3.52
10.5V	229	162	123	98	74.9	55.1	43.3	33.9	26.5	18.6	14.7	11.8	10.0	6.55	3.50
10.8V	203	159	119	95	72.3	54.2	42.0	33.0	25.2	18.2	14.5	11.5	9.80	6.50	3.49

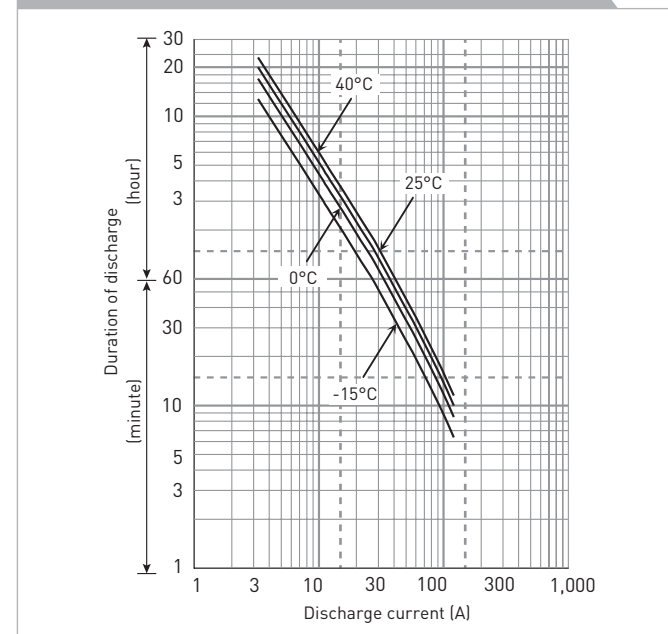
All mentioned values are average values

FOR ENERGY STORAGE APPLICATIONS.
CYCLE LONG-LIFE TYPE



Battery case resin: standard (UL94 HB)

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



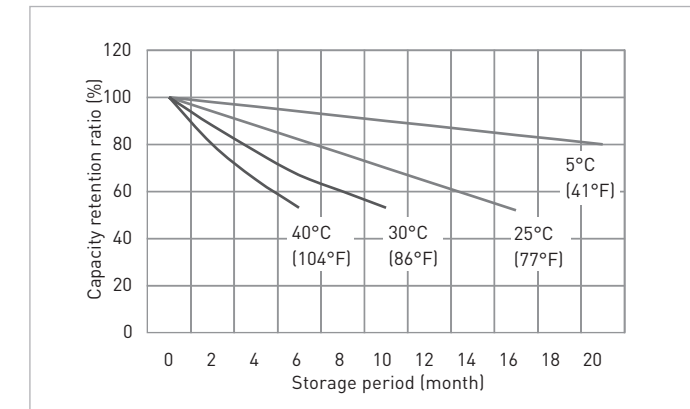
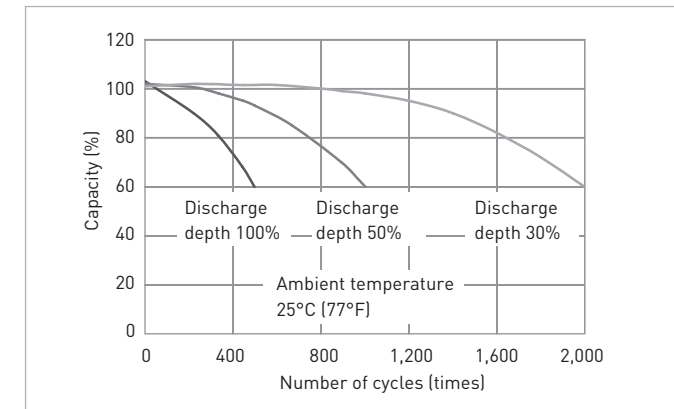
LC-T1270P

CHARGING METHOD (25°C)

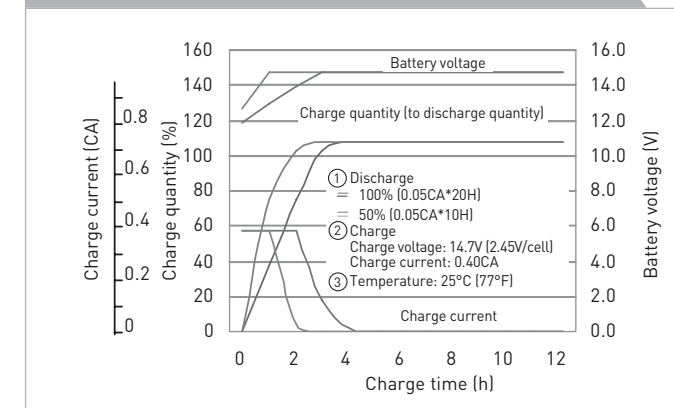
Cycle use Control voltage: 14.5V - 14.9V
Initial current: 28.0A or smaller

CUT-OFF VOLTAGE

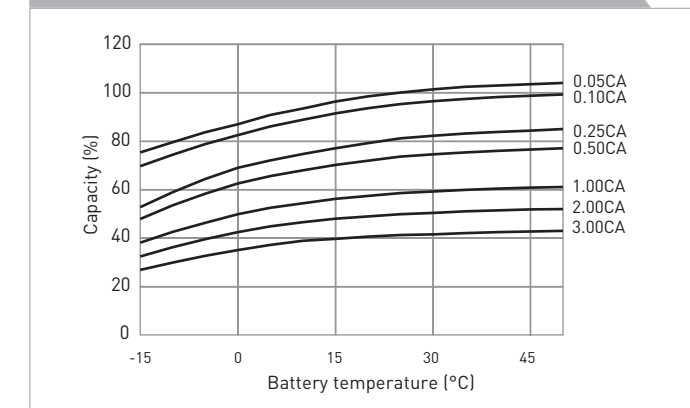
Discharge current	3.5A - 14.0A	14.0A - 35A	35A - 70.0A	70A - 140A	140A - 210A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V



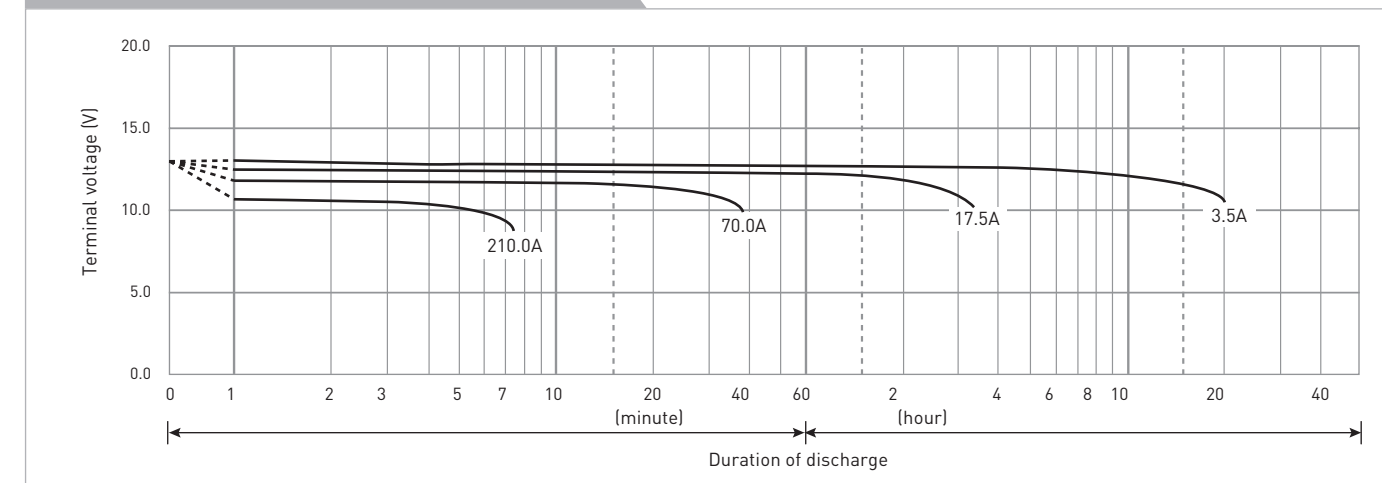
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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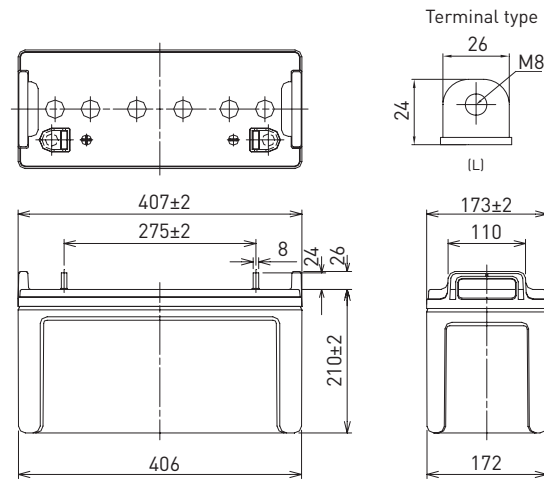
LC-T12105P

DIMENSIONS (MM)



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

FOR ENERGY STORAGE APPLICATIONS.
CYCLE LONG-LIFE TYPE

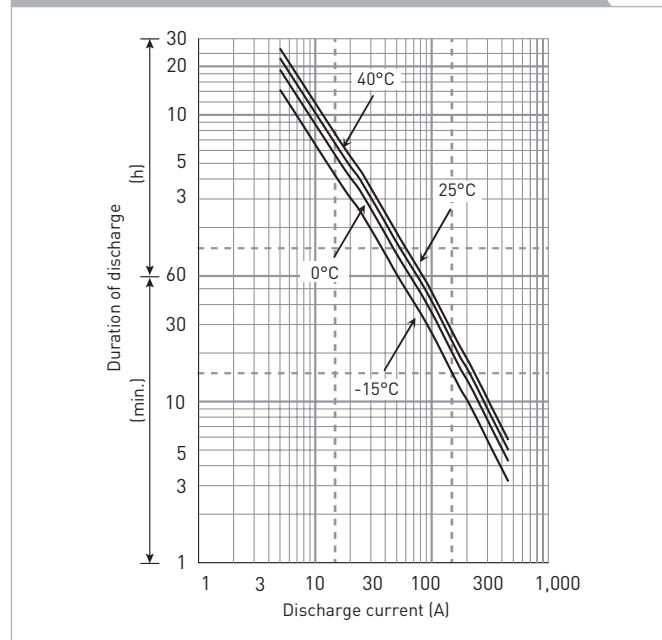


Battery case resin: standard (UL94 HB)

SPECIFICATIONS

Name	LC-T12105P	
Nominal voltage	12V	
Nominal capacity (20 hour rate)	105Ah	
Dimensions	Length	407mm
	Width	173mm
	Height	236mm
Approx. mass	34.0kg	
Terminal	M8 bolt/nut	
Capacity (25°C)	20 hour rate	105Ah
	10 hour rate	101Ah
	3 hour rate	84Ah
	1 hour rate	70Ah
Impedance	Fully charged battery (25°C)	5mΩ
	40°C	102%
Temperature dependency of capacity (20 hour rate)	25°C	100%
	0°C	85%
	-15°C	65%
	Self-discharge (25°C)	After 3 month
	After 6 month	82%
	After 12 month	64%

DURATION OF DISCHARGE VS. DISCHARGE CURRENT



WATT TABLE (25°C)

Cut-off	[Wattage/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	3,400	2,600	2,300	1,949	1,710	1,136	1,005.7	897.9	748.3	354.0	316.1	279.7	248.4	133.94	68.17
9.9V	3,301	2,524	2,233	1,892	1,660	1,103	976.4	871.8	726.5	343.7	306.9	271.6	241.2	130.03	66.19
10.2V	3,205	2,451	2,168	1,837	1,612	1,071	948.0	846.4	705.3	333.7	298.0	263.7	234.2	126.25	64.89
10.5V	3,111	2,379	2,105	1,784	1,565	1,040	920.4	821.7	684.8	324.0	289.3	256.0	227.4	122.57	63.00
10.8V	3,021	2,310	2,044	1,732	1,519	1,010	893.5	797.8	664.8	314.6	280.9	248.5	220.7	119.00	61.17

AMPERE TABLE (25°C)

Cut-off	[Ampere/battery]														
	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	350	270	215	172	137	96	75.8	60.2	47.7	29.7	23.6	18.7	14.9	10.30	5.38
9.9V	340	262	209	167	133	94	73.6	58.4	46.4	29.1	22.9	18.2	14.4	10.15	5.28
10.2V	330	255	203	162	129	92	71.4	56.7	45.0	28.6	22.2	17.6	14.0	10.20	5.26
10.5V	320	247	197	157	125	90	70.0	55.1	43.7	28.0	21.6	17.1	13.6	10.10	5.25
10.8V	311	240	191	153	121	88	68.6	53.5	42.4	27.5	21.0	16.6	13.2	10.00	5.17

All mentioned values are average values

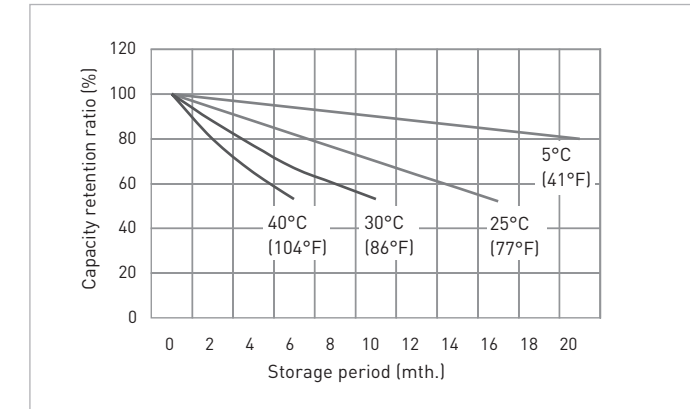
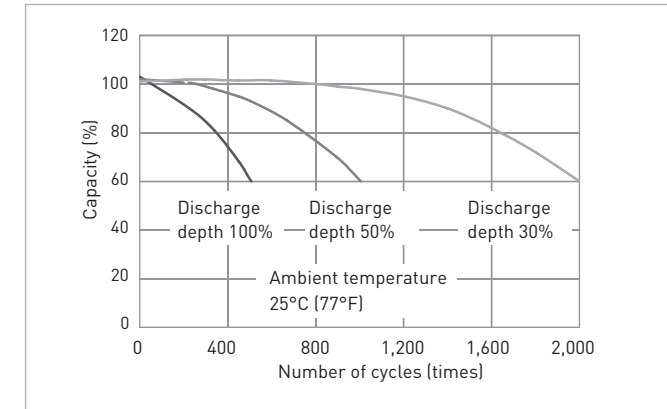
LC-T12105P

CHARGING METHOD (25°C)

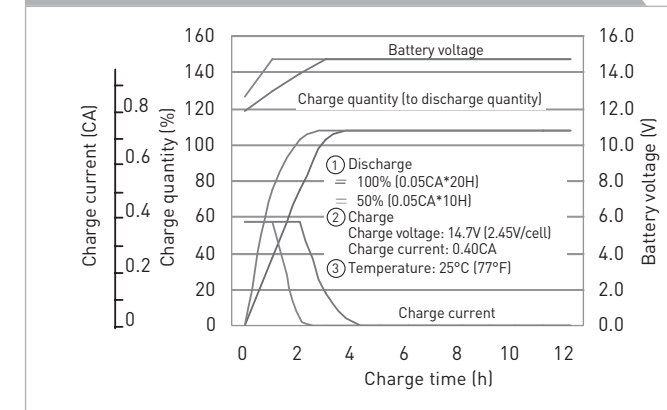
Cycle use
Control voltage: 14.5V - 14.9V
Initial current: 42.0A or smaller

CUT-OFF VOLTAGE

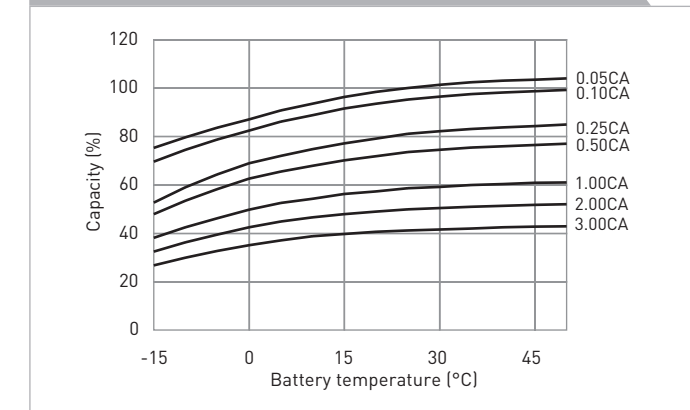
Discharge current	5.25A - 21.0A	21.0A - 52.50A	52.5A - 105A	105A - 210A	210A - 315A
Cut-off voltage	10.5V	10.2V	9.9V	9.3V	8.7V



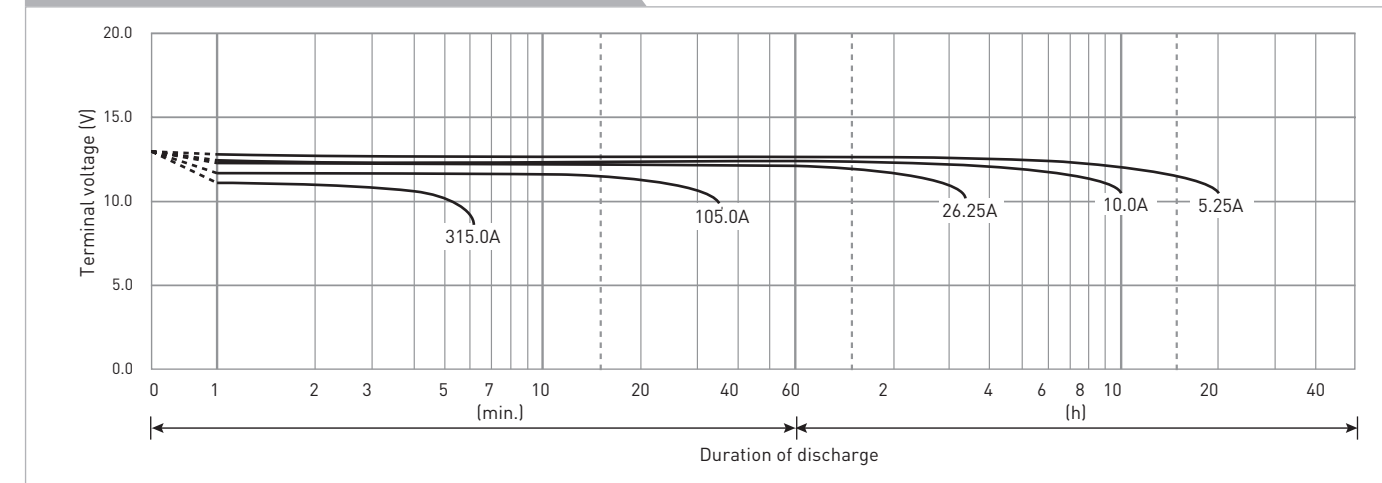
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR CYCLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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