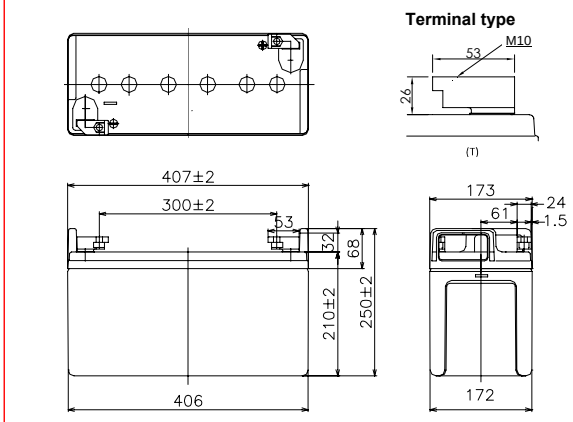
LC-QA06210

For standby power supplies
Expected trickle life:Approx.10 years at 25℃,approx.15 years at 20℃

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

■Dimensions(mm)



Battery case resin:Flame-retardant(UL94V-0)

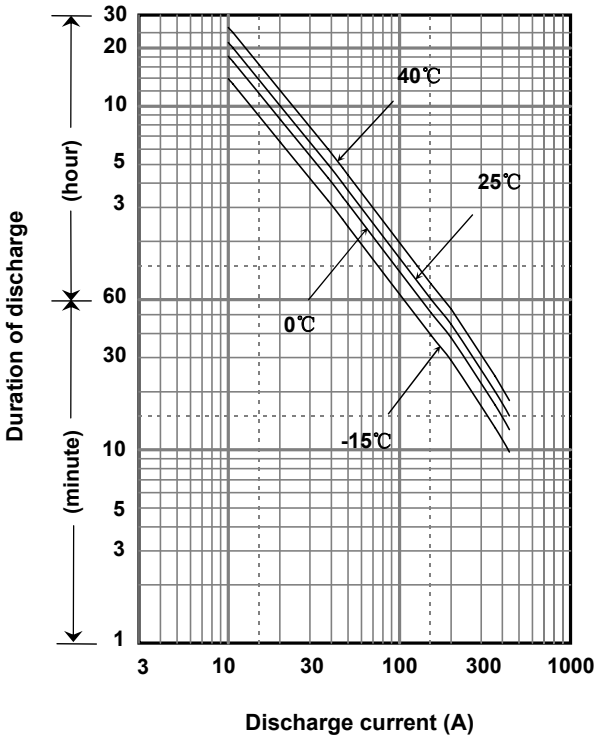
■Specification

Nominal Voltage		6V
Rated Capacity(20HR)		210Ah
Dimensions	Length	407 mm
	Width	173 mm
	Height	210 mm
	Total height	250 mm
Approx. Mass		36.5 kg
Terminal		M10 Bolt and Nut type

■Characteristics

Capacity (25 ℃)	20 hour rate	210 Ah
	10 hour rate	200 Ah
	5 hour rate	190 Ah
	1 hour rate	150 Ah
Internal Resistance	Fully charged battery (25 ℃)	1.5 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 ℃	102%
	25 ℃	100%
	0 ℃	85%
	-15 ℃	65%
Self Discharge (25 ℃)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■Duration of discharge vs. discharge current



■Watt Table(25℃)

(Wattage/Battery)

Cut-off V	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
4.8V	2220	1816	1349	986	769	561	467	343	274	222	191	121	61.8	52.3
4.95V	2167	1773	1317	964	749	546	454	337	268	215	185	117	61.8	52.3
5.1V	2089	1709	1274	954	729	531	448	331	262	209	180	115	61.1	51.7
5.25V	2063	1696	1264	939	708	517	439	325	260	209	180	114	61.1	51.7
5.4V	1966	1687	1223	905	698	509	428	319	254	203	177	113	59.8	50.6

■Ampere Table(25℃)

(Ampere/Battery)

Cut-off V	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
4.8V	440	364	274	200	153	107	88.1	61.5	47.6	39.5	32.3	20.5	10.6	9.12
4.95V	438	362	272	195	153	105	87.5	60.4	47.1	38.8	32.3	20.5	10.6	9.12
5.1V	436	358	268	193	152	104	86.4	60.0	46.7	38.2	32.1	20.3	10.6	9.12
5.25V	412	341	263	191	151	103	85.4	60.0	46.7	38.2	32.1	20.3	10.6	9.12
5.4V	398	333	259	165	131	92.3	81.1	57.3	45.6	37.8	31.0	20.1	10.4	9.12

■Charging Method

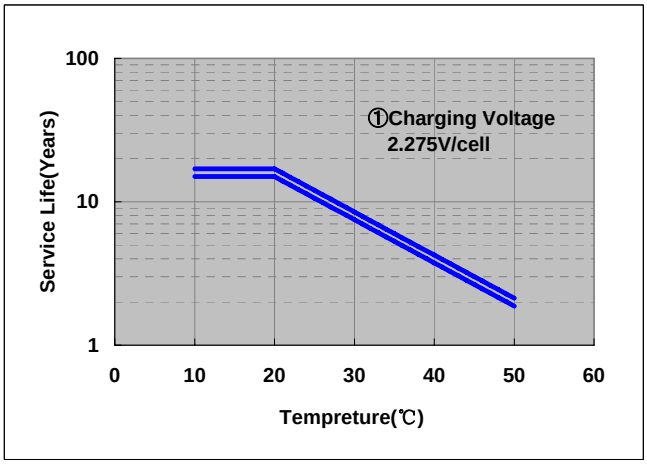
(25℃)

Trickle use	Control voltage 6.80-6.90V;Initial current 31.5A or smaller

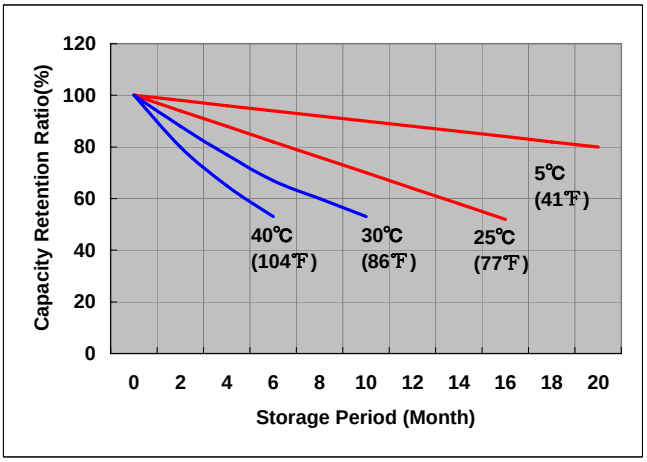
■Cut off voltage

Discharge current	10.5A-42A	42A-105A	105A-210A	210A-420A
Cut off voltage(V)	5.25	5.1	4.95	4.65

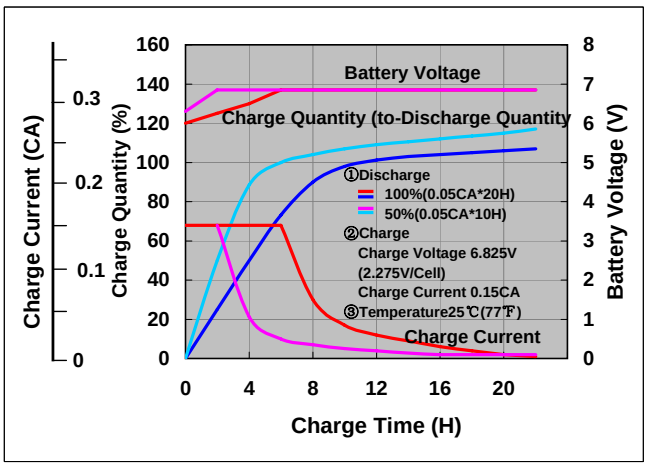
■Influence of Temperature on Trickle life



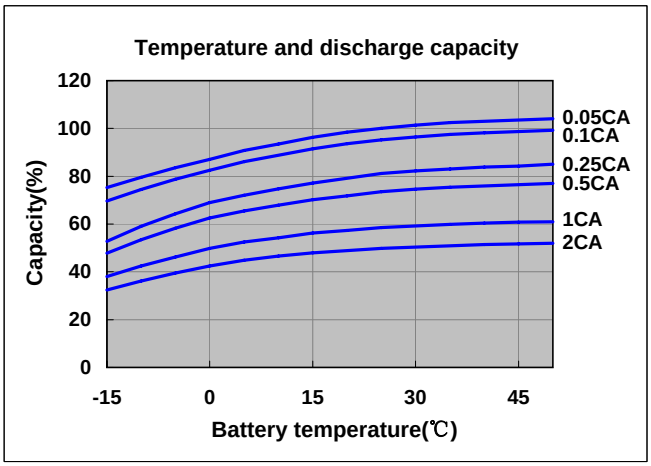
■Residual capacity test result



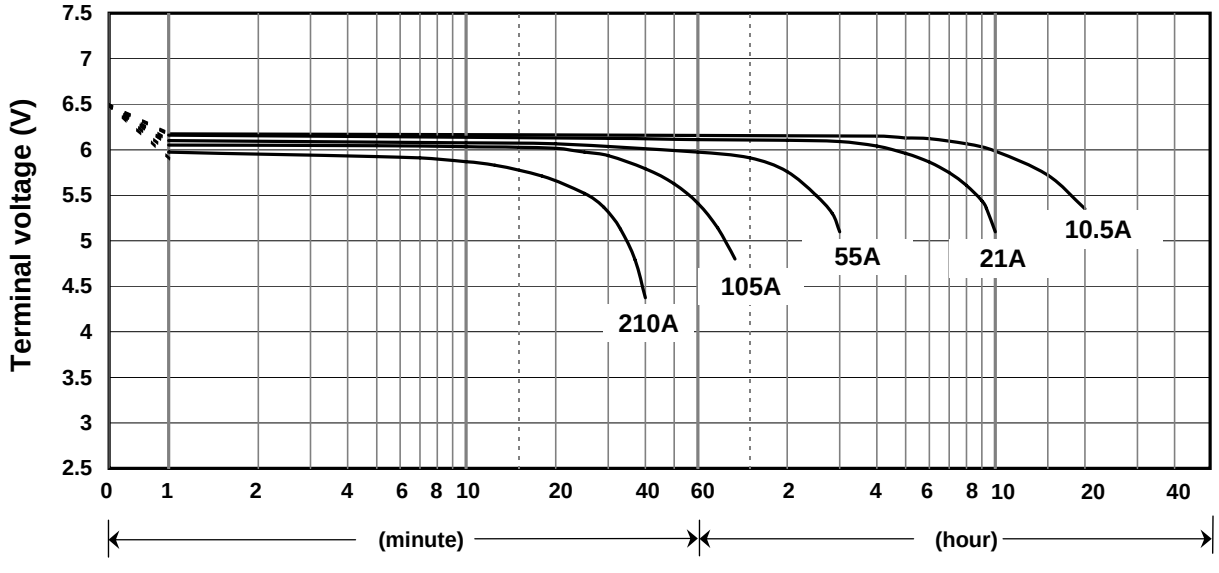
■Constant-voltage and constant-current charge characteristics



■Discharge capacity by temperature and by discharge current



■Discharge characteristics(25℃)



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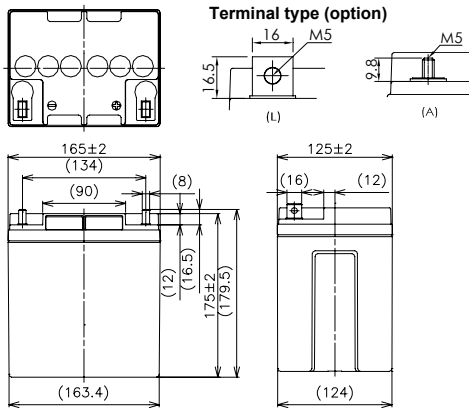
LC-QA1224

For standby power supplies
Expected trickle life:Approx.10 years at 25℃,approx.15 years at 20℃

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

■Dimensions(mm)



Battery case resin:Flame-retardant(UL94V-0)

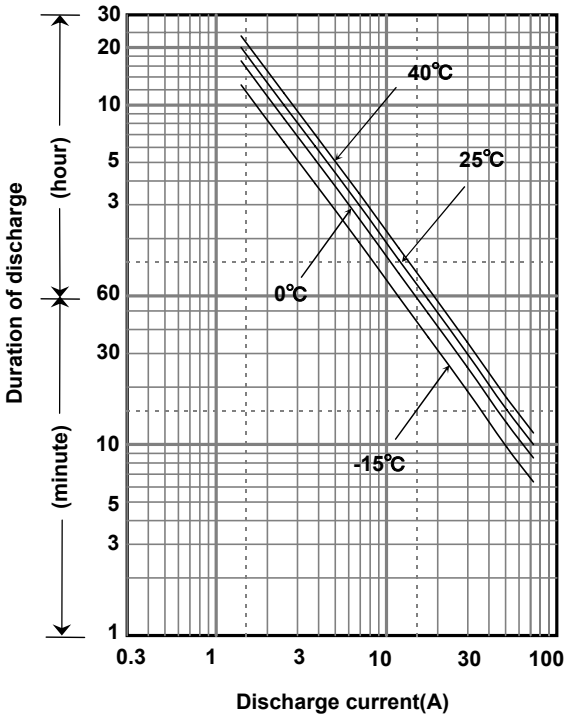
■Specification

Nominal Voltage		12V
Rated Capacity(20HR)		24Ah
Dimensions	Length	165 mm
	Width	125 mm
	Height	175 mm
	Total height	175mm
Approx. Mass		9.90 kg
Terminal		M5 Bolt and Nut type

■Characteristics

Capacity (25 ℃)	20 hour rate	24Ah
	10 hour rate	22Ah
	5 hour rate	19Ah
	1 hour rate	14Ah
Internal Resistance	Fully charged battery (25 ℃)	8 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 ℃	102%
	25 ℃	100%
	0 ℃	85%
	-15 ℃	65%
Self Discharge (25 ℃)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■Duration of discharge vs. discharge current



■Watt Table(25℃)

(Wattage/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	773	605	521	401	280	215	167	113	79.9	65.8	51.8	46.8	27.0	13.5	11.5
9.9V	760	600	512	396	274	210	163	113	79.7	65.3	50.9	46.0	26.8	13.5	11.5
10.2V	746	591	503	390	268	205	159	111	79.3	64.7	50.1	45.3	26.4	13.4	11.5
10.5V	724	575	479	372	261	200	155	107	78.2	64.0	49.7	44.8	26.1	13.3	11.5
10.8V	701	558	456	344	256	196	152	104	77.1	63.2	49.5	44.3	25.9	13.3	11.5

■Ampere Table(25℃)

(Ampere/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	72.6	51.2	42.8	30.5	22.4	17.4	11.3	9.90	6.98	5.51	4.50	3.83	2.48	1.35	1.13
9.9V	70.3	50.1	42.3	30.3	21.8	17.0	11.1	9.79	6.86	5.40	4.39	3.71	2.48	1.35	1.13
10.2V	67.7	49.2	41.3	30.0	21.4	16.7	11.1	9.68	6.75	5.40	4.28	3.71	2.48	1.35	1.13
10.5V	64.9	47.3	39.5	29.3	20.3	15.8	11.0	9.56	6.64	5.29	4.28	3.71	2.48	1.35	1.13
10.8V	63.8	46.4	38.8	28.2	18.0	13.8	10.3	9.00	6.41	5.18	4.28	3.60	2.48	1.35	1.13

■Charging Method

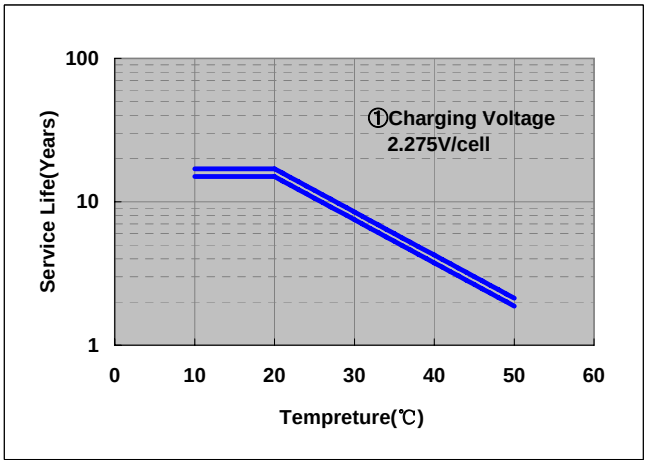
(25℃)

Trickle use	Control voltage 13.6-13.8V;Initial current 3.6A or smaller

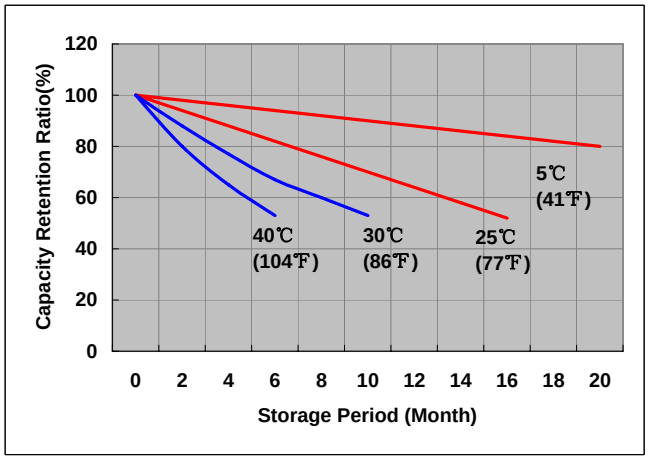
■Cut off voltage

Discharge current	1.2A-4.8A	4.8A-12A	12A-24A	24A-48A	48A-72A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

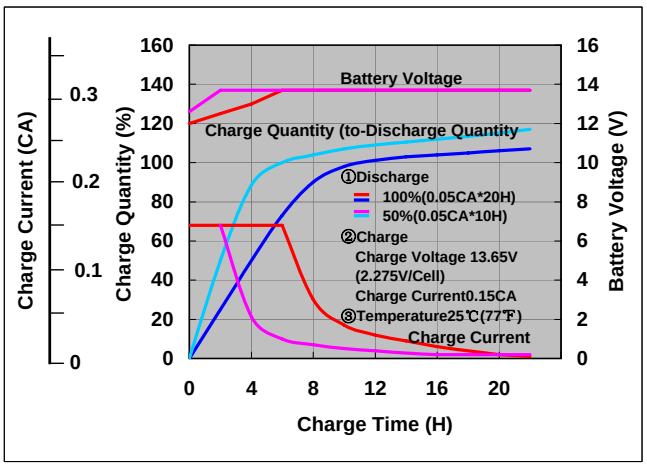
■Influence of Temperature on Trickle life



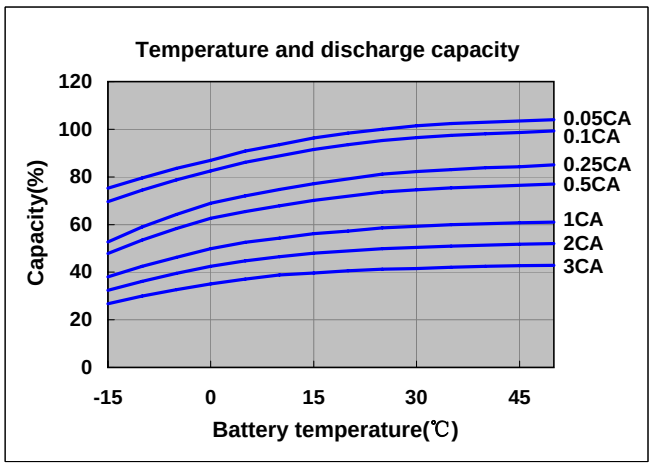
■Residual capacity test result



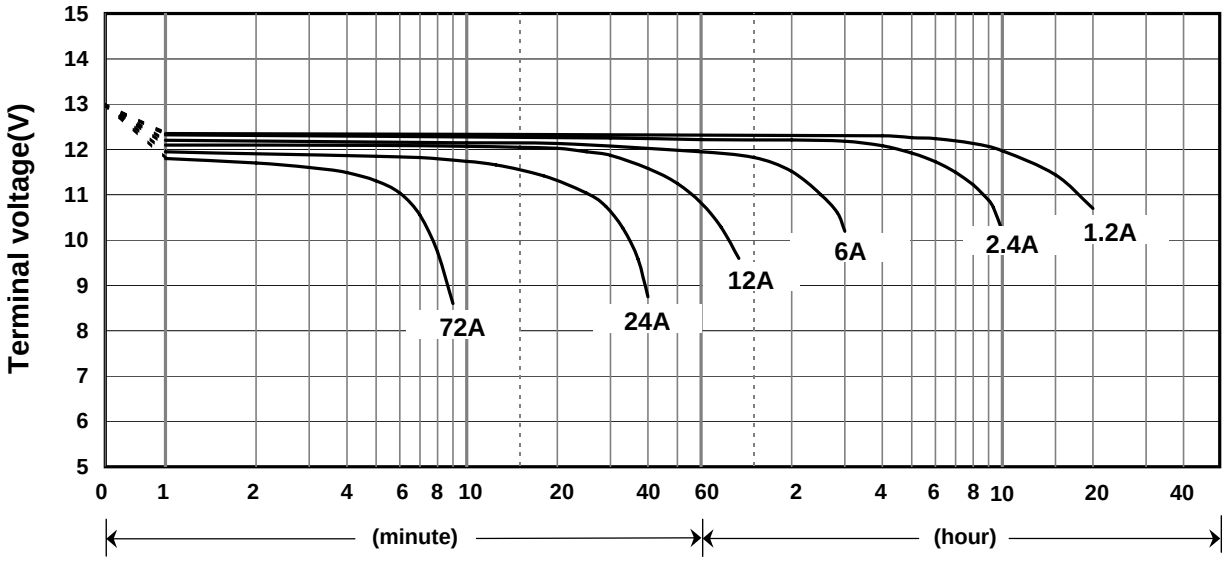
■Constant-voltage and constant-current charge characteristics



■Discharge capacity by temperature and by discharge current



■Discharge characteristics(25℃)



Duration of discharge

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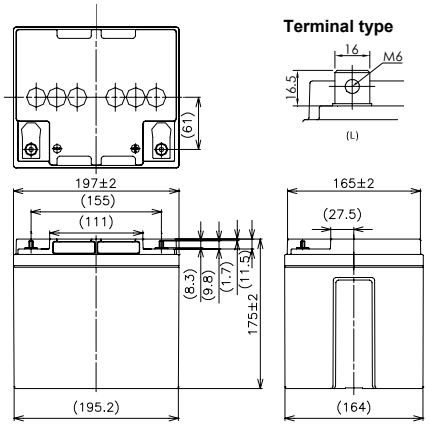
LC-QA1242

For standby power supplies
Expected trickle life:Approx.10 years at 25℃,approx.15 years at 20℃

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

■Dimensions(mm)



Battery case resin:Flame-retardant(UL94V-0)

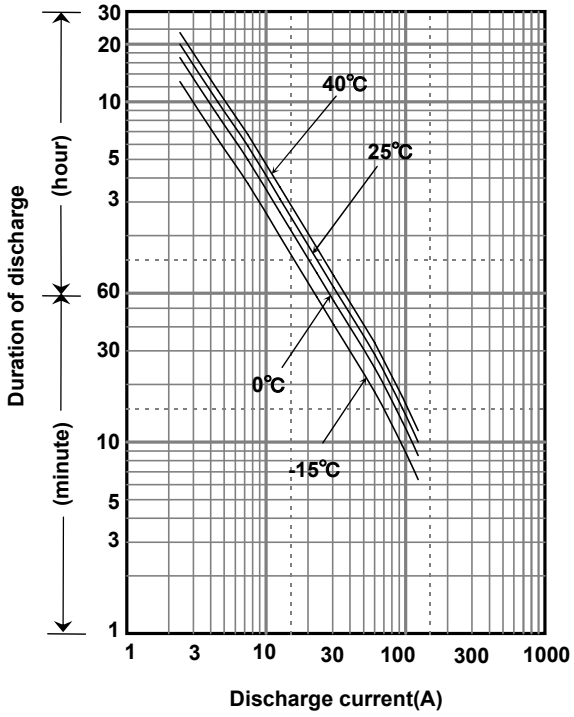
■Specification

Nominal Voltage		12V
Rated Capacity(20HR)		42Ah
Dimensions	Length	197 mm
	Width	165 mm
	Height	175 mm
	Total height	180mm
Approx. Mass		15.5 kg
Terminal		M6 threaded post Bolt and Nut type

■Characteristics

Capacity (25 ℃)	20 hour rate	42Ah
	10 hour rate	40Ah
	5 hour rate	37Ah
	1 hour rate	26Ah
Internal Resistance	Fully charged battery (25 ℃)	8 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 ℃	102%
	25 ℃	100%
	0 ℃	85%
	-15 ℃	65%
Self Discharge (25 ℃)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■Duration of discharge vs. discharge current



■Watt Table(25℃)

(Wattage/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	1202	1015	862	655	486	393	284	230	156	128	100	90.1	49.2	25.1	20.7
9.9V	1146	951	829	630	476	387	279	224	152	124	98.4	88.5	48.4	25.1	20.7
10.2V	1087	887	775	606	465	382	276	214	148	123	97.1	87.2	48.0	25.1	20.7
10.5V	1072	866	743	575	453	363	262	210	145	119	92.9	83.3	44.9	24.0	20.7
10.8V	1077	844	720	546	444	355	256	203	142	116	89.8	80.6	43.8	22.4	20.7

■Ampere Table(25℃)

(Ampere/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	123	94.5	81.0	60.1	39.3	29.8	23.0	17.8	12.5	10.4	8.44	7.43	4.50	2.36	1.97
9.9V	121	94.5	79.9	58.4	39.0	29.6	22.3	17.7	12.3	10.2	8.33	7.43	4.50	2.36	1.97
10.2V	119	92.3	78.8	57.3	38.9	29.4	20.7	17.4	12.0	10.1	8.33	7.31	4.50	2.36	1.97
10.5V	116	90.0	77.6	56.3	38.8	29.3	20.1	17.4	11.9	10.1	8.33	7.31	4.50	2.36	1.97
10.8V	107	86.6	75.4	55.1	37.4	28.1	19.1	16.4	11.5	9.9	8.21	7.09	4.50	2.36	1.95

■Charging Method

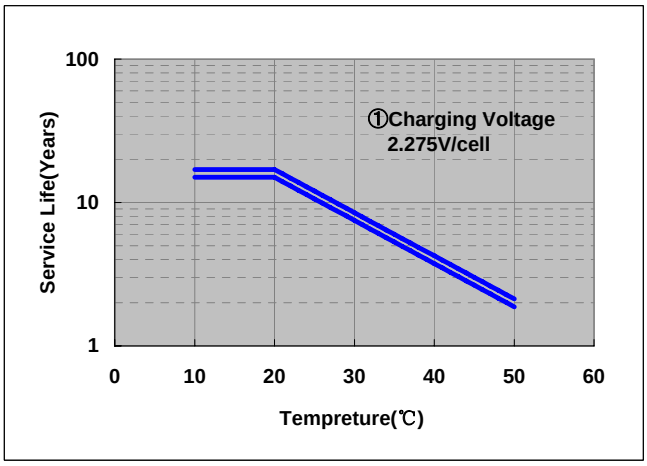
(25℃)

Trickle use	Control voltage 13.6-13.8V;Initial current 6.3A or smaller

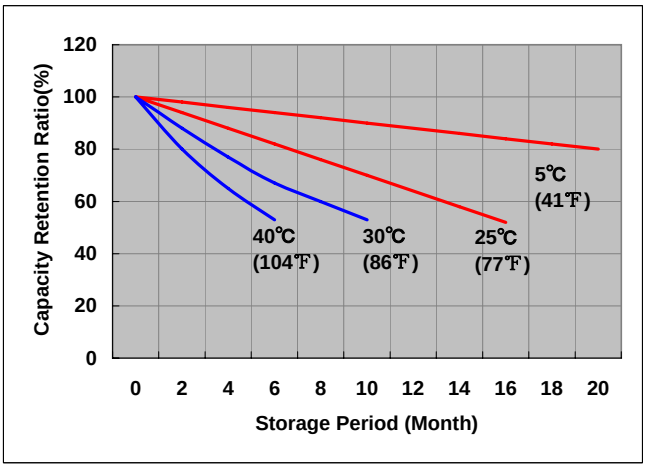
■Cut off voltage

Discharge current	2.1A-8.4A	8.4A-21A	21A-42A	42A-84A	84A-126A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

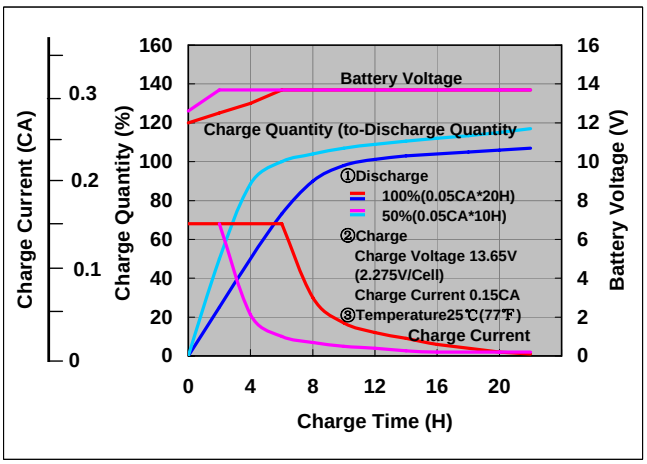
■Influence of Temperature on Trickle life



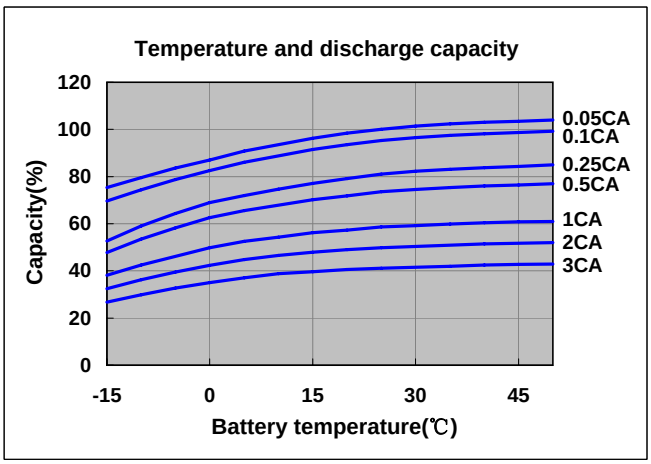
■Residual capacity test result



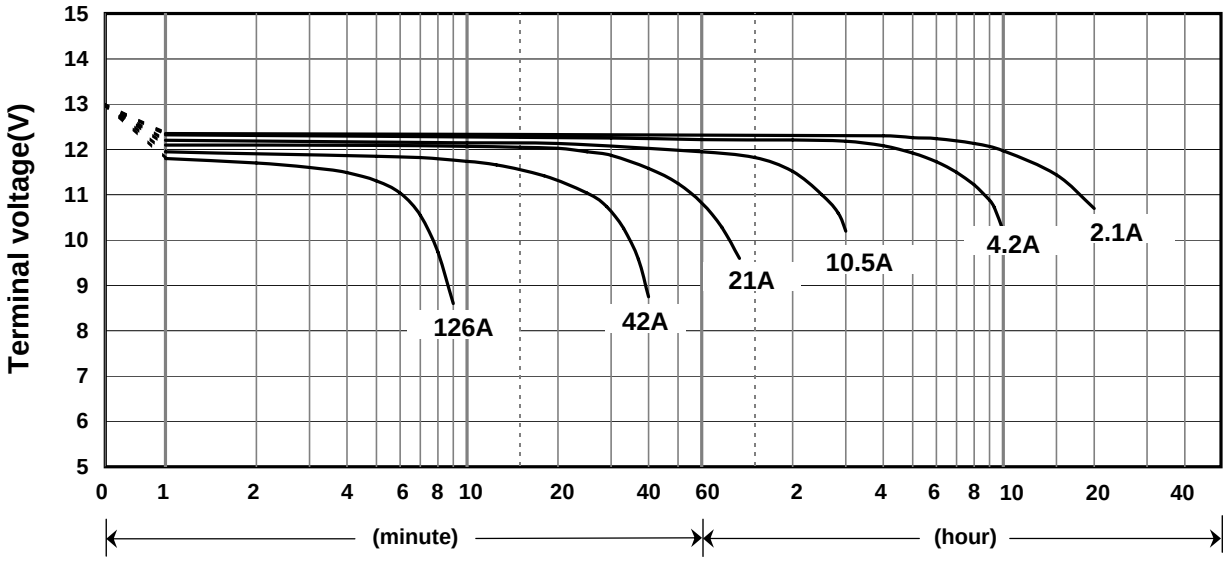
■Constant-voltage and constant-current charge characteristics



■Discharge capacity by temperature and by discharge current



■Discharge characteristics(25℃)



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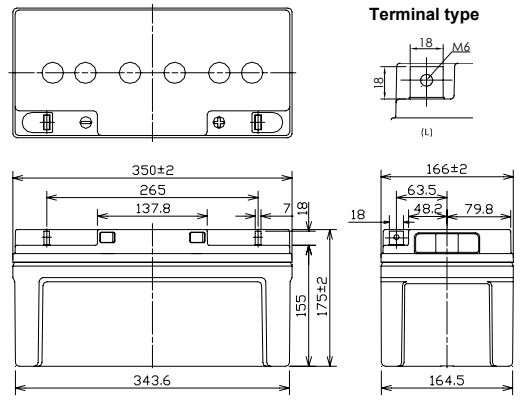
LC-QA1270

For standby power supplies
Expected trickle life:Approx.10 years at 25℃,approx.15 years at 20℃

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

■Dimensions(mm)



Battery case resin:Flame-retardant(UL94V-0)

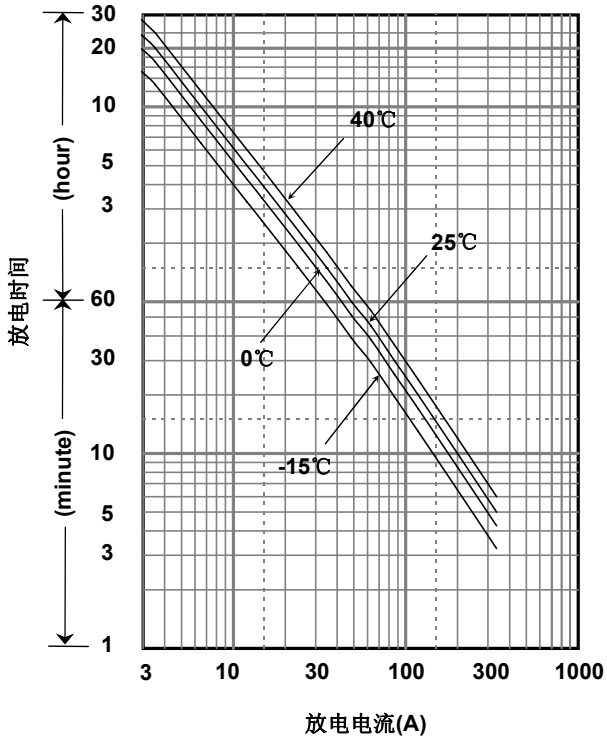
■Specification

Nominal Voltage		12V
Rated Capacity(20HR)		70Ah
Dimensions	Length	350 mm
	Width	166 mm
	Height	175 mm
	Total height	175mm
Approx. Mass		23.5kg
Terminal		M6 Bolt and Nut type

■Characteristics

Capacity (25 ℃)	20 hour rate	70Ah
	10 hour rate	65Ah
	5 hour rate	60Ah
	1 hour rate	45Ah
Internal Resistance	Fully charged battery (25 ℃)	5 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 ℃	102%
	25 ℃	100%
	0 ℃	85%
	-15 ℃	65%
Self Discharge (25 ℃)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■Duration of discharge vs. discharge current



■Watt Table(25℃)

(Wattage/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	1977	1504	1234	916	676	549	386	333	240	181	148	130	75.5	41.7	34.7
9.9V	1947	1491	1227	909	660	520	367	323	234	177	146	127	74.0	41.5	34.7
10.2V	1867	1463	1197	899	655	519	365	311	224	168	138	122	73.1	41.2	34.3
10.5V	1814	1436	1173	884	641	509	358	306	221	166	135	119	73.0	39.8	33.8
10.8V	1704	1357	1153	865	626	499	351	299	219	165	135	119	73.0	39.4	33.6

■Ampere Table(25℃)

(Ampere/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	200	146	118	85.9	62.8	48.4	34.8	27.1	19.4	15.0	12.5	10.4	6.50	3.53	2.94
9.9V	199	144	118	85.0	61.2	47.7	33.9	27.0	19.1	14.8	12.1	10.4	6.50	3.53	2.94
10.2V	197	146	116	83.8	60.9	47.3	33.7	26.8	18.9	14.8	12.1	10.3	6.50	3.53	2.94
10.5V	187	136	110	82.7	59.5	45.6	33.3	26.7	18.9	14.7	12.1	10.3	6.50	3.53	2.94
10.8V	177	132	108	81.4	51.1	41.0	29.4	24.9	17.8	14.4	12.0	10.1	6.50	3.47	2.94

■Charging Method

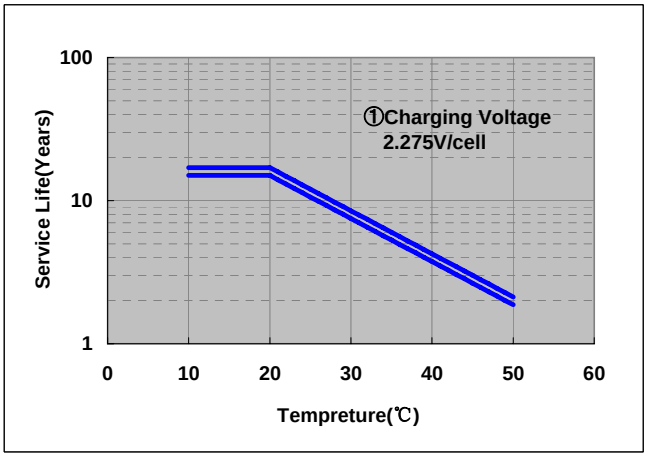
(25℃)

Trickle use	Control voltage 13.6-13.8V;Initial current 10.5A or smaller

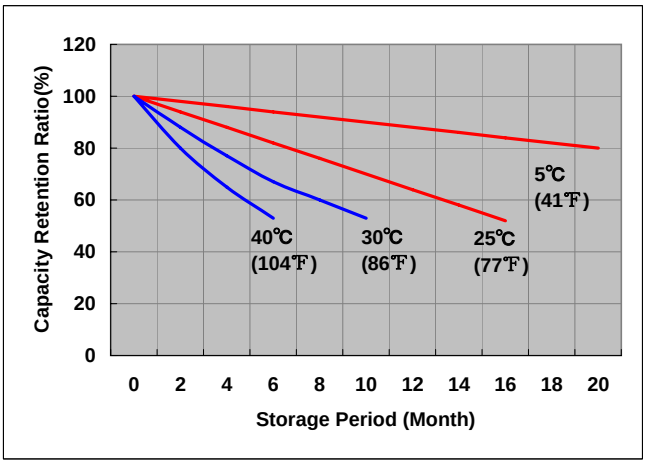
■Cut off voltage

Discharge current	3.5A-14A	14A-35A	35A-70A	70A-140A	140A-210A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

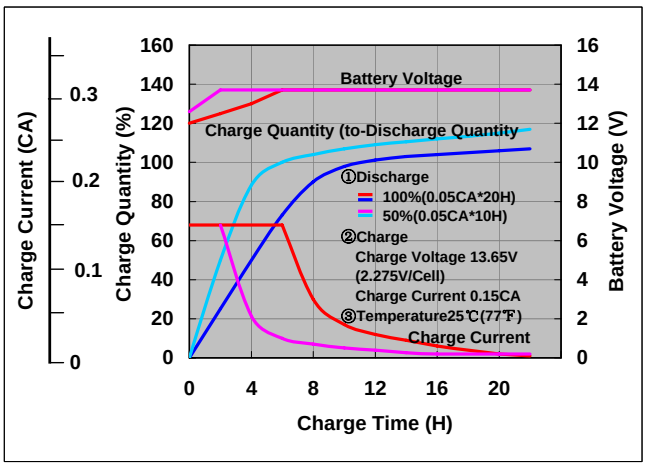
■Influence of Temperature on Trickle life



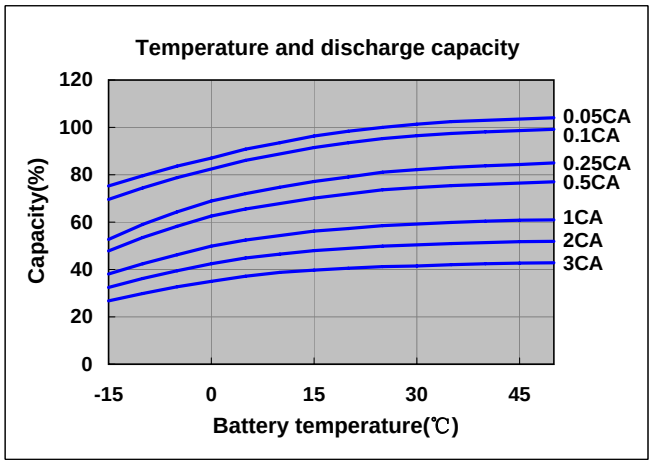
■Residual capacity test result



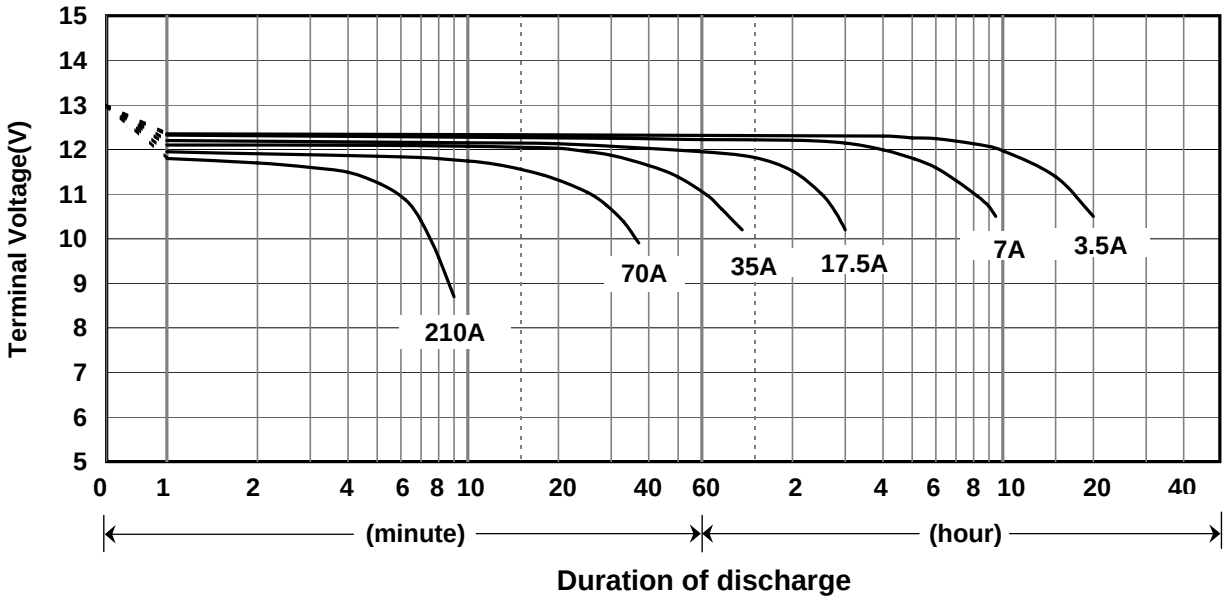
■Constant-voltage and constant-current charge characteristics



■Discharge capacity by temperature and by discharge current



■Discharge characteristics(25℃)



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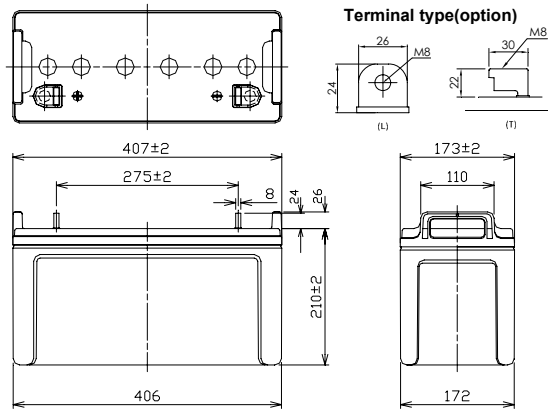
LC-QA12110

For standby power supplies
Expected trickle life:Approx.10 years at 25℃,approx.15 years at 20℃

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

■Dimensions(mm)



Battery case resin:Flame-retardant(UL94V-0)

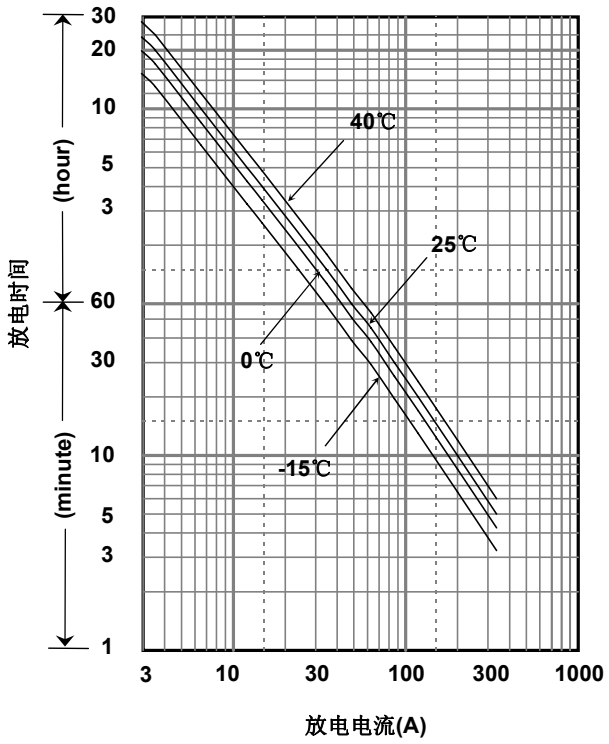
■Specification

Nominal Voltage		12V
Rated Capacity(20HR)		110Ah
Dimensions	Length	407 mm
	Width	173 mm
	Height	210 mm
	Total height	236mm
Approx. Mass		36.0kg
Terminal		M8 Bolt and Nut type

■Characteristics

Capacity (25 ℃)	20 hour rate	110Ah
	10 hour rate	100Ah
	5 hour rate	95Ah
	1 hour rate	75Ah
Internal Resistance	Fully charged battery (25 ℃)	4 mΩ
Temperature Dependency of Capacity (20 hour rate)	40 ℃	102%
	25 ℃	100%
	0 ℃	85%
	-15 ℃	65%
Self Discharge (25 ℃)	After 3 months	91%
	After 6 months	82%
	After 12 months	64%

■Duration of discharge vs. discharge current



■Watt Table(25℃)

(Wattage/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	2987	2270	1872	1391	1017	793	578	482	353	279	232	197	124	63.7	54.4
9.9V	2920	2215	1827	1358	995	772	563	469	346	273	225	192	120	63.7	54.4
10.2V	2855	2136	1761	1314	984	751	548	463	340	267	218	186	118	63.0	53.7
10.5V	2764	2110	1748	1303	968	730	532	453	334	264	218	186	117	63.0	53.7
10.8V	2522	2010	1739	1261	933	720	525	442	328	258	212	183	116	61.6	52.6

■Ampere Table(25℃)

(Ampere/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	272	212	175	133	96.7	76.7	53.6	43.2	30.2	23.3	19.7	16.1	10.2	5.50	4.51
9.9V	269	211	174	132	94.0	76.4	52.6	42.8	29.6	23.1	19.4	16.1	10.2	5.50	4.51
10.2V	268	210	172	130	93.5	75.9	52.1	42.3	29.4	22.9	19.1	16.0	10.1	5.50	4.51
10.5V	245	198	164	128	92.5	75.4	51.5	41.8	29.4	22.9	19.1	16.0	10.1	5.50	4.51
10.8V	232	192	160	126	79.9	65.4	46.4	39.7	28.1	22.3	18.9	15.5	9.99	5.39	4.51

■Charging Method

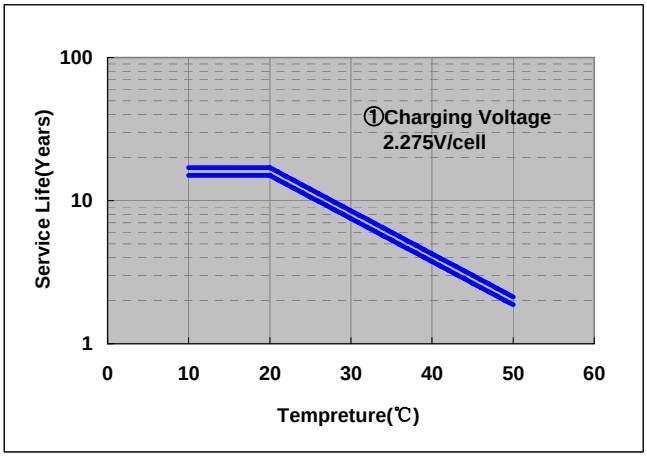
(25℃)

Trickle use	Control voltage 13.6-13.8V;Initial current 16.5A or smaller

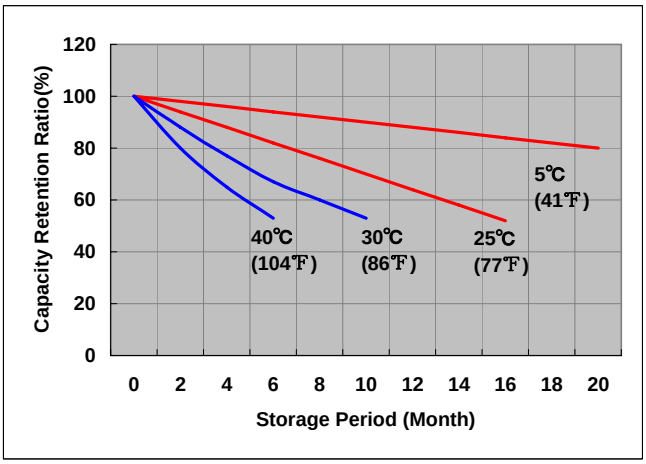
■Cut off voltage

Discharge current	5.5A-22A	22A-55A	55A-110A	110A-220A	220A-330A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

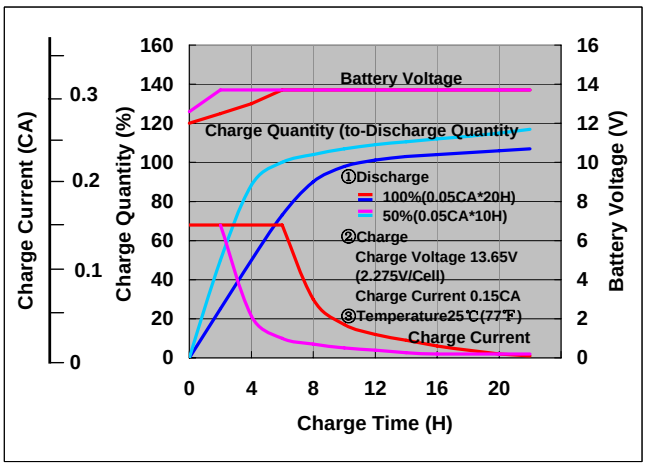
■Influence of Temperature on Trickle life



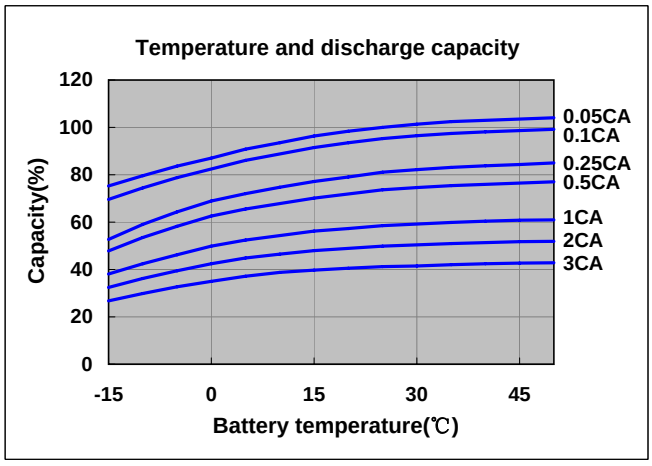
■Residual capacity test result



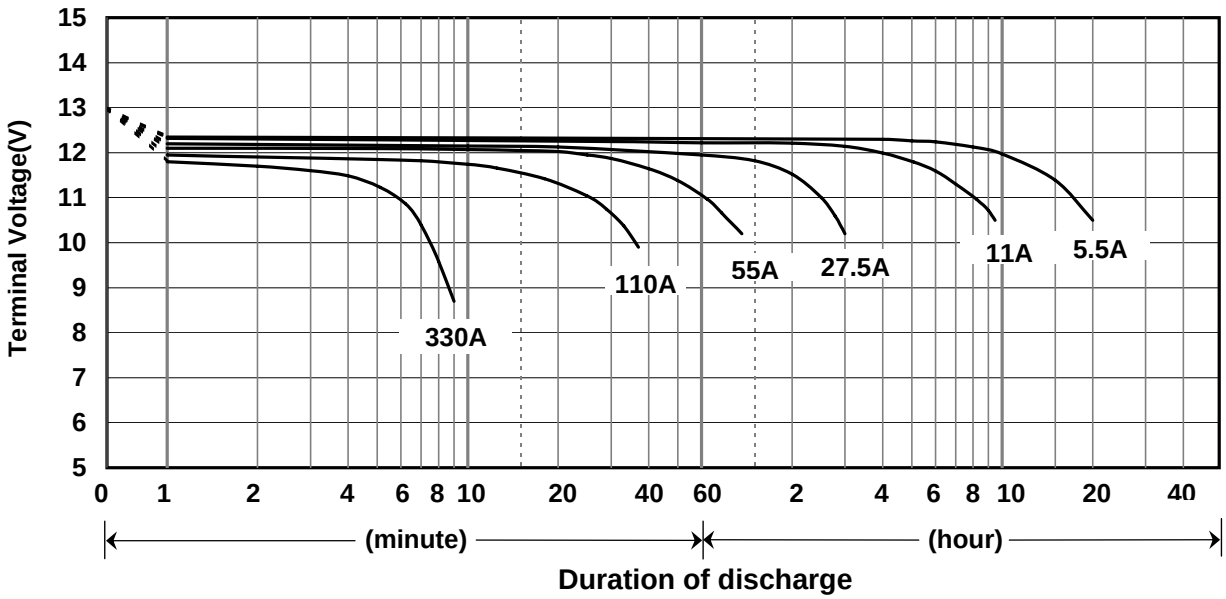
■Constant-voltage and constant-current charge characteristics



■Discharge capacity by temperature and by discharge current



■Discharge characteristics(25℃)



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