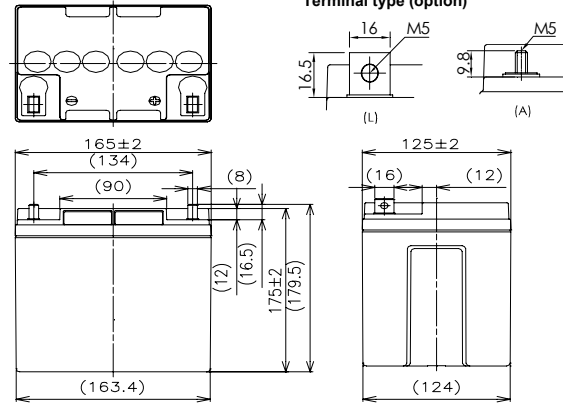


For standby power supplies
 Expected trickle life: 10 years at 25°C
 15 years at 20°C



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

■ Dimensions(mm)



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

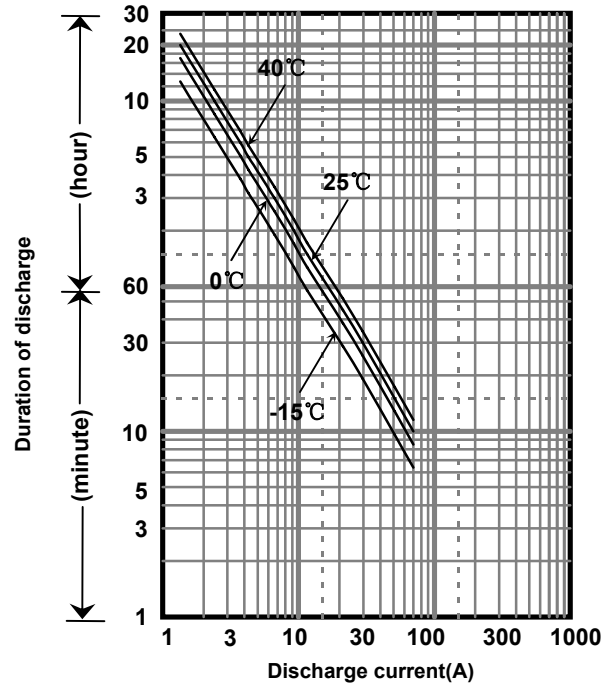
■ Specifications

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

■ Characteristics

Capacity (25 °C)	20 hour rate	24Ah
	10 hour rate	22Ah
	1 hour rate	19Ah
	1 hour rate	15Ah
Internal Resistance (25 °C)	Fully charged battery	8 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)

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

(Wattage/Battery)

Cut-off V	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	773	605	521	401	280	215	167	113	79.9	65.8	51.8	46.8	27.0	13.5
9.9V	760	600	512	396	274	210	163	112	79.7	65.3	50.9	46.0	26.8	13.5
10.2V	746	591	503	390	268	205	159	111	79.3	64.7	50.1	45.3	26.4	13.4
10.5V	724	575	479	372	261	200	155	107	78.2	64.0	49.7	44.8	26.1	13.3
10.8V	701	558	456	344	256	196	152	104	77.1	63.2	49.5	44.3	25.9	13.3

■ 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	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	73.0	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
9.9V	70.3	50.1	42.3	30.3	21.8	17.0	11.2	9.79	6.86	5.46	4.41	3.71	2.48	1.35
10.2V	67.7	49.2	41.3	30.0	21.4	16.7	11.1	9.68	6.75	5.40	4.36	3.69	2.48	1.35
10.5V	64.9	47.3	39.5	29.3	20.3	15.8	11.0	9.56	6.64	5.29	4.32	3.65	2.48	1.35
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

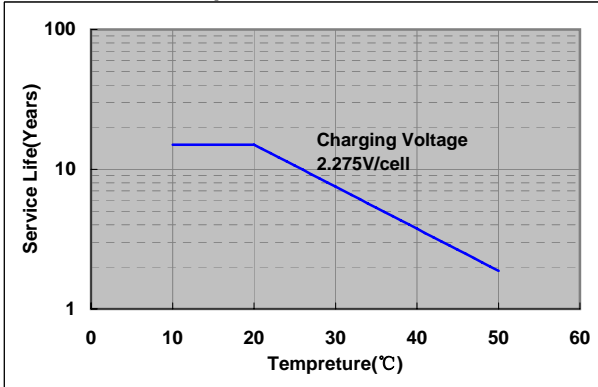
Charging Method (25°C)

Trickle use	Control voltage:13.6-13.8V Initial current:3.60A or smaller
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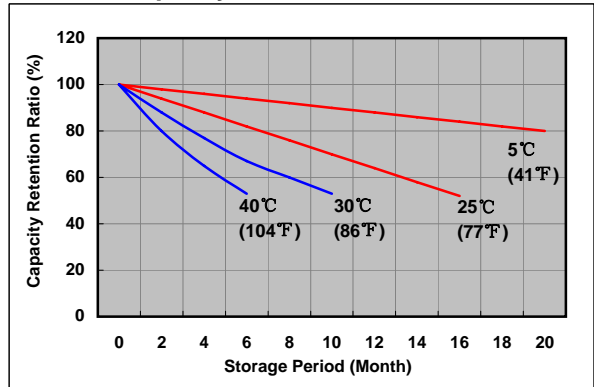
Cut off voltage

Discharge current	1.20A-4.80A	4.80A-12.0A	12.0A-24.0A	24.0A-48.0A	48.0A-72.0A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

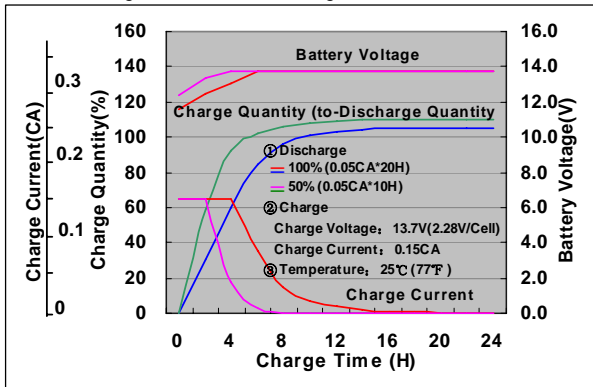
Influence of Temperature on Trickle life



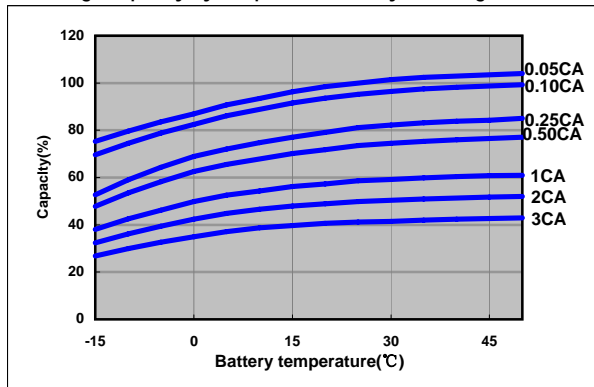
Residual capacity test result



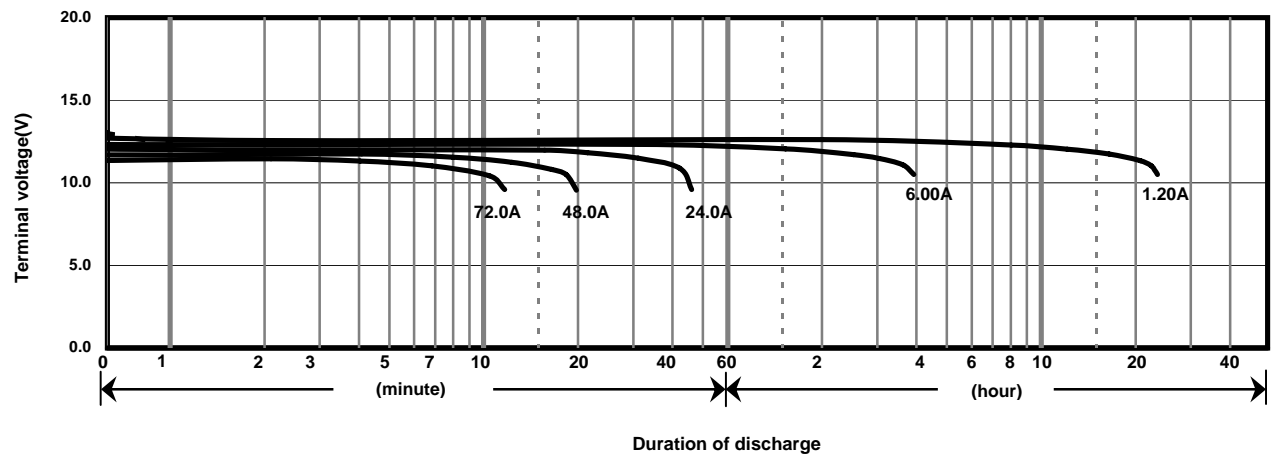
Constant-voltage constant-current charge characteristics for Trickle use



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.

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2017.09