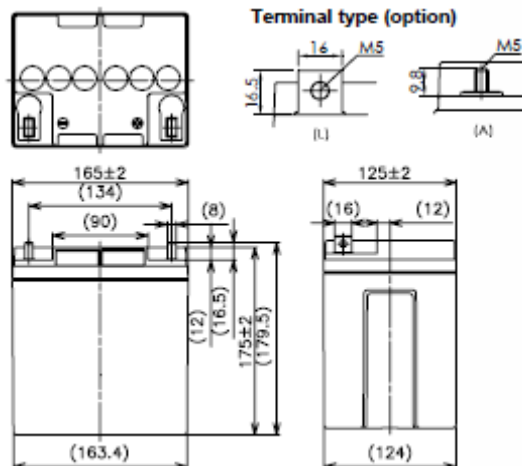


Panasonic LC-X1224APG

12V 24Ah Lead Acid Battery

CoolPower
Solutions



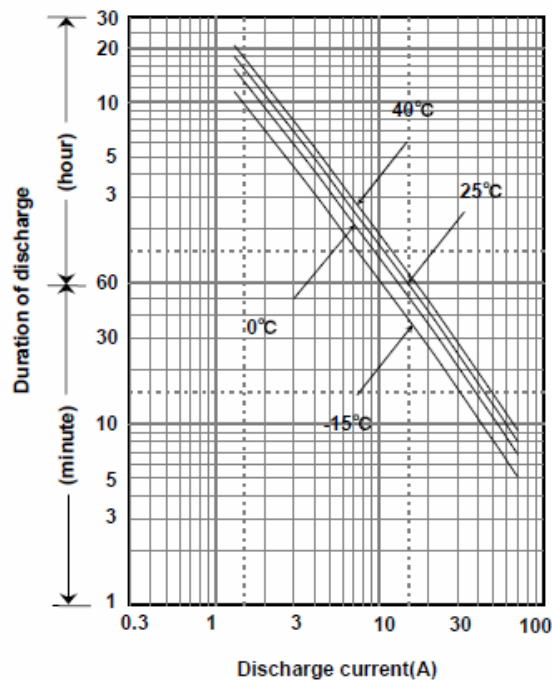
■ Specification

Nominal Voltage		12V
Rated Capacity(20HR)		24Ah
Dimensions	Length	165 mm
	Width	125 mm
	Height	175 mm
	Total height	175 mm/179.5 mm
Approx. Mass		8.25 kg
Terminal		M5 threaded post Bolt and Nut type

■ Characteristics

Capacity (25 °C)	20 hour rate	24Ah
	10 hour rate	22Ah
	5 hour rate	19Ah
	1 hour rate	14Ah
Internal Resistance	Fully charged battery (25 °C)	11 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)

Cut-off v	(Wattage/Battery)																
	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	1290	992	739	523	441	317	234	183	118	104	73.8	58.6	47.9	40.8	26.4	14.6	12.0
9.9V	1197	931	724	520	434	314	232	183	116	103	73.4	58.2	47.5	40.6	26.3	14.6	12.0
10.2V	1104	872	706	509	426	310	230	179	113	101	72.7	57.8	47.2	40.3	26.0	14.6	11.9
10.5V	982	782	654	474	405	303	226	175	111	97.2	71.6	57.4	46.8	39.8	25.9	14.4	11.9
10.8V	829	691	583	442	394	293	223	172	108	92.6	70.1	56.6	45.6	39.2	25.6	14.3	11.8

■ Ampere Table(25°C)

Cut-off v	(Ampere/Battery)																
	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	116	89.0	66.0	45.5	38.0	27.1	19.9	15.5	10.0	8.80	6.20	4.90	4.00	3.40	2.20	1.22	1.000
9.9V	108	83.5	64.7	45.2	37.4	26.8	19.8	15.5	9.80	8.73	6.17	4.87	3.97	3.39	2.19	1.22	0.997
10.2V	99.3	78.2	63.0	44.3	36.8	26.5	19.6	15.2	9.60	8.51	6.11	4.84	3.94	3.36	2.17	1.21	0.993
10.5V	88.3	70.1	58.4	41.2	34.9	25.9	19.3	14.9	9.40	8.21	6.01	4.80	3.90	3.32	2.16	1.20	0.990
10.8V	74.6	62.0	52.1	38.4	34.0	25.0	19.0	14.6	9.14	7.82	5.89	4.74	3.81	3.27	2.13	1.19	0.983

Charging Method

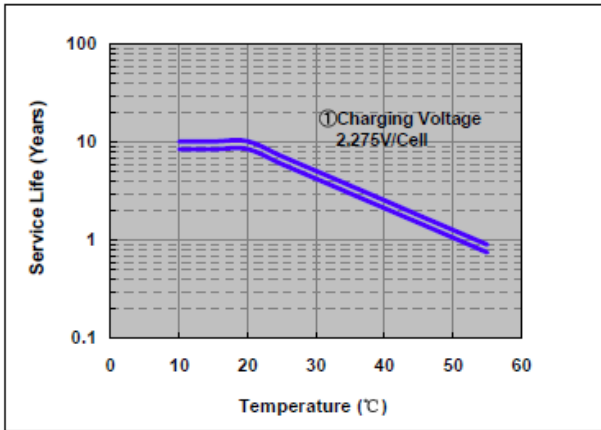
(25°C)

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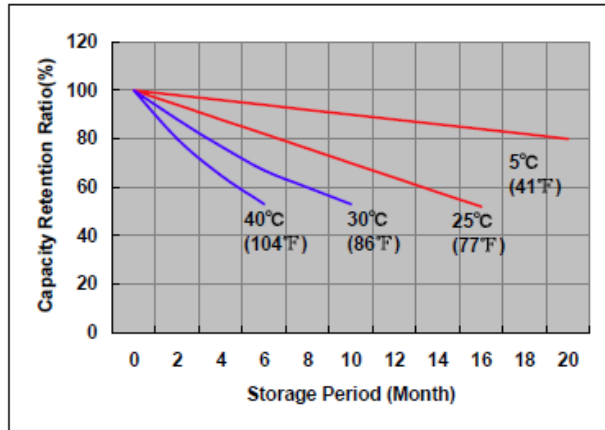
Cut off voltage

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

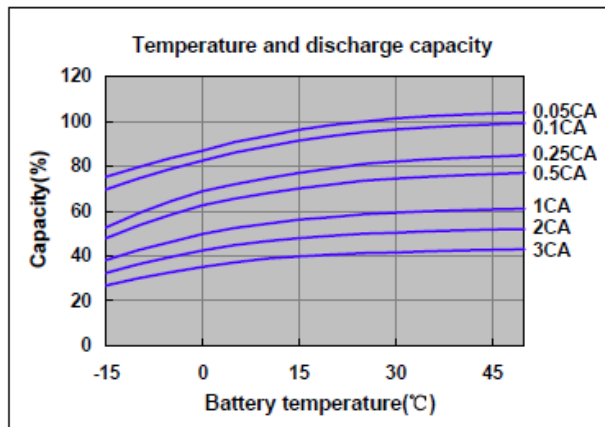
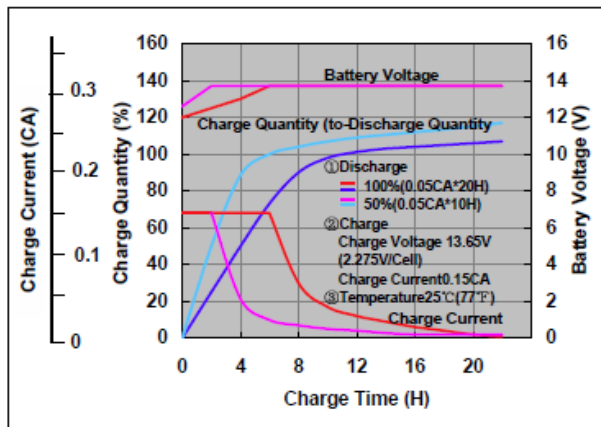


Residual capacity test result



Constant-voltage and constant-current charge characteristics

Discharge capacity by temperature and by discharge current



Discharge characteristics(25°C)

