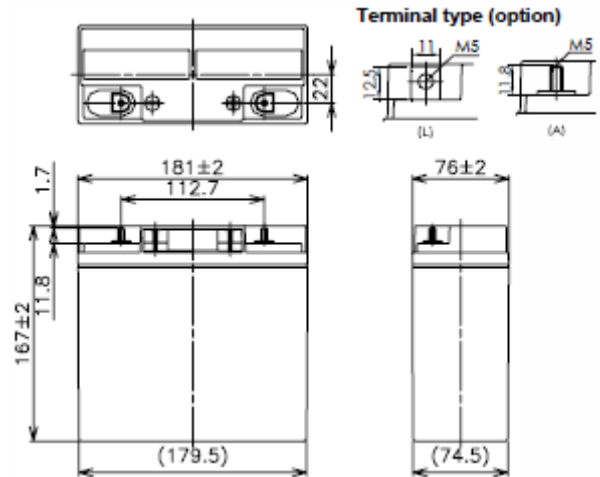


Panasonic LC-X1220P

12V 20Ah Lead Acid Battery

CoolPower
Solutions



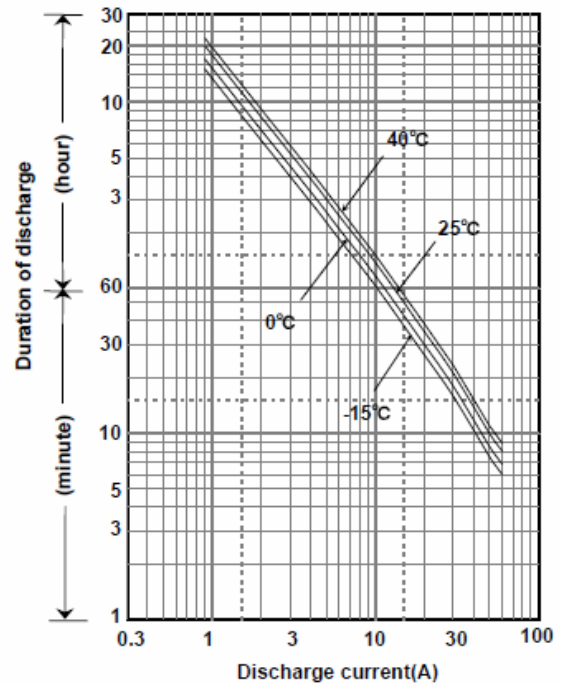
■ Specification

Nominal Voltage	12V	
Rated Capacity(20HR)	20Ah	
Dimensions	Length	181 mm
	Width	76 mm
	Height	167 mm
	Total height	167 mm
Approx. Mass	6.20kg	
Terminal	M5 threaded post Bolt and Nut type	

■ Characteristics

Capacity (25 °C)	20 hour rate	20Ah
	10 hour rate	18Ah
	5 hour rate	16Ah
	1 hour rate	12Ah
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	1081	853	557	425	357	266	188	150	103	83.1	61.9	47.5	39.2	31.5	21.6	11.7	9.77
9.9V	1003	800	546	423	351	263	186	150	101	82.5	61.5	47.2	38.9	31.4	21.5	11.7	9.74
10.2V	926	750	532	414	345	260	185	147	99.1	80.3	60.9	46.9	38.6	31.2	21.3	11.6	9.71
10.5V	823	672	493	385	328	254	182	144	97.0	77.5	60.0	46.6	38.3	30.8	21.2	11.6	9.68
10.8V	695	594	440	359	319	246	179	141	94.3	73.9	58.8	46.0	37.4	30.3	21.0	11.5	9.61

■ 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	108	85.0	55.3	40.0	34.2	24.0	16.9	12.7	9.04	6.98	5.17	3.95	3.26	2.61	1.86	1.01	0.842
9.9V	100	79.7	54.2	39.7	33.6	23.7	16.8	12.7	8.86	6.92	5.14	3.93	3.23	2.60	1.85	1.01	0.839
10.2V	92.5	74.7	52.8	38.9	33.1	23.5	16.6	12.5	8.68	6.74	5.09	3.90	3.20	2.58	1.83	1.00	0.836
10.5V	82.2	66.9	48.9	36.2	31.4	22.9	16.4	12.2	8.50	6.51	5.01	3.88	3.18	2.55	1.83	1.00	0.833
10.8V	69.4	59.2	43.6	33.8	30.6	22.2	16.1	12.0	8.27	6.20	4.91	3.82	3.10	2.51	1.81	0.99	0.828

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Charging Method

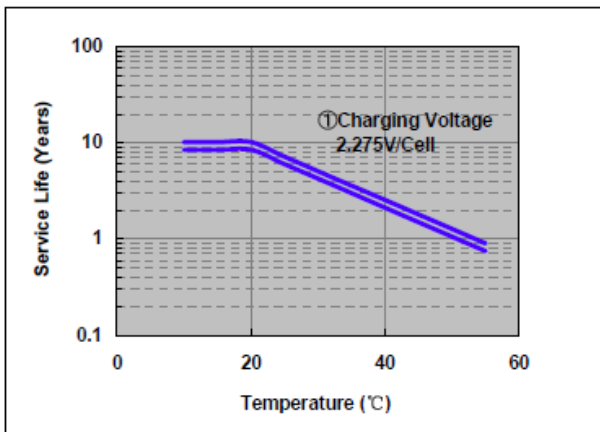
(25°C)

Trickle use	Control voltage 13.6-13.8V; Initial current 3A or smaller
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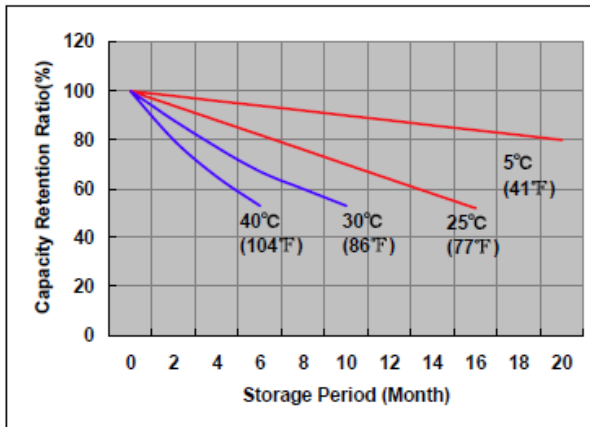
Cut off voltage

Discharge current	1A-4A	4A-10A	10A-20A	20A-40A	40A-60A
Cut off voltage(V)	10.5	10.2	9.9	9.3	8.7

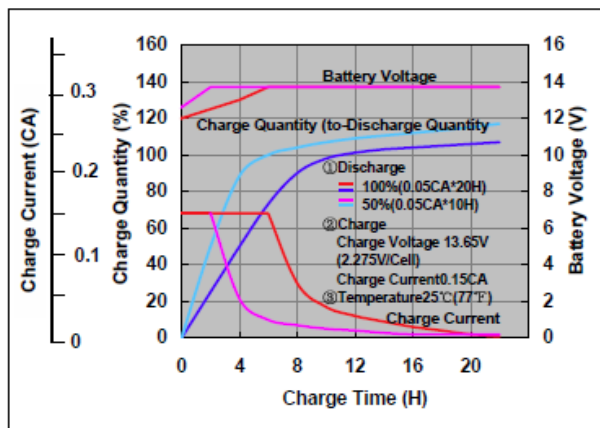
Influence of Temperature on Trickle life



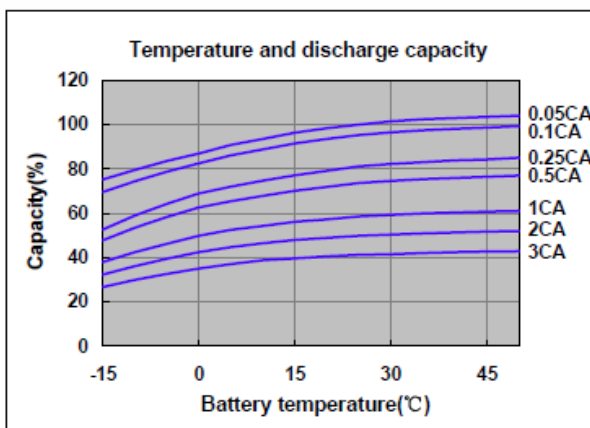
Residual capacity test result



Constant-voltage and constant-current charge characteristics



Discharge capacity by temperature and by discharge current



Discharge characteristics(25°C)

