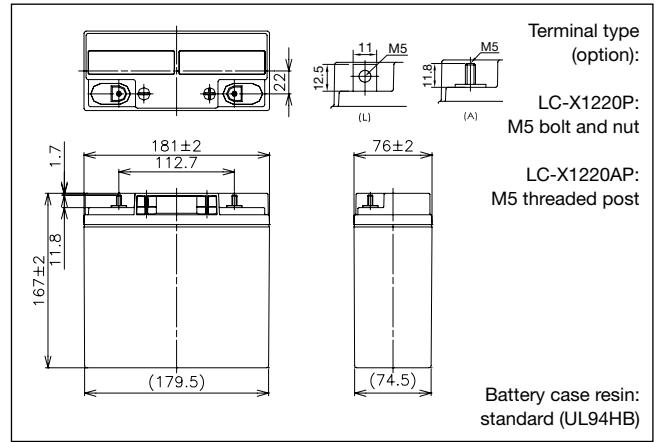


LC-X1220P/AP*

For standby power supplies.
Expected trickle design life: 10 – 12 years at 20 °C according to Eurobat.



Dimensions (mm)



Specifications

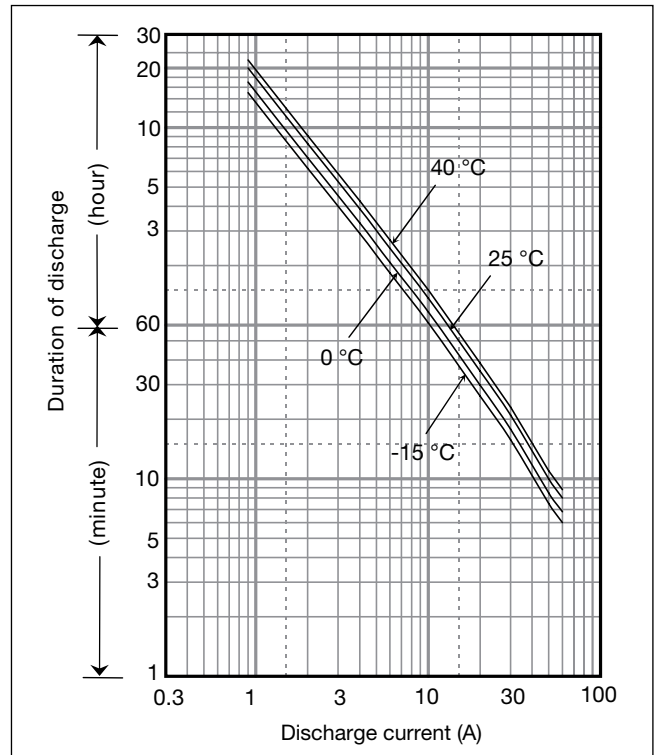
Nominal voltage	12 V	
Nominal capacity (20 hour rate)	20 Ah	
Dimensions	Length	181 mm
	Width	76 mm
	Height	167 mm
	Total Height	167 mm
Approx. mass	6.6 kg	
Terminal	M5 Bolt and Nut type/ M5 threaded post	

* This battery is also available with a flame retardant battery case resin (UL94V-0).

Characteristics

Capacity (25 °C)	20 hour rate	20 Ah
	10 hour rate	18 Ah
	5 hour rate	16 Ah
	1 hour rate	12 Ah
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

(Wattage/Battery)

Cut-off V	3min	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	10h	20h	24h
9.6V	1202	948	619	473	396	296	209	167	115	88.8	66.1	50.8	41.9	33.7	22.3	12.1	10.1
9.9V	1115	889	607	470	390	293	207	167	113	88.1	65.8	50.5	41.6	33.6	22.2	12.1	10.1
10.2V	1029	833	591	460	383	289	205	164	110	85.8	65.1	50.1	41.3	33.3	22.0	12.0	10.0
10.5V	914	746	548	428	364	283	202	160	108	82.9	64.1	49.8	40.9	32.9	21.9	12.0	10.0
10.8V	772	660	488	399	354	273	199	157	105	78.9	62.8	49.1	39.9	32.4	21.7	11.9	9.93

Ampere Table

(Ampere/Battery)

Cut-off V	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	41.1	34.2	25.3	17.8	14.2	9.72	7.50	5.56	4.25	3.50	2.81	1.86	1.01	0.84
9.9V	100	79.7	54.2	40.8	33.6	25.0	17.7	14.2	9.53	7.44	5.53	4.22	3.47	2.80	1.85	1.01	0.84
10.2V	92.5	74.7	52.8	40.0	33.1	24.7	17.5	13.9	9.33	7.25	5.47	4.19	3.44	2.78	1.83	1.00	0.84
10.5V	82.2	66.9	48.9	37.2	31.4	24.2	17.2	13.6	9.14	7.00	5.39	4.17	3.42	2.74	1.83	1.00	0.83
10.8V	69.4	59.2	43.6	34.7	30.6	23.3	16.9	13.3	8.89	6.67	5.28	4.11	3.33	2.70	1.81	0.99	0.83

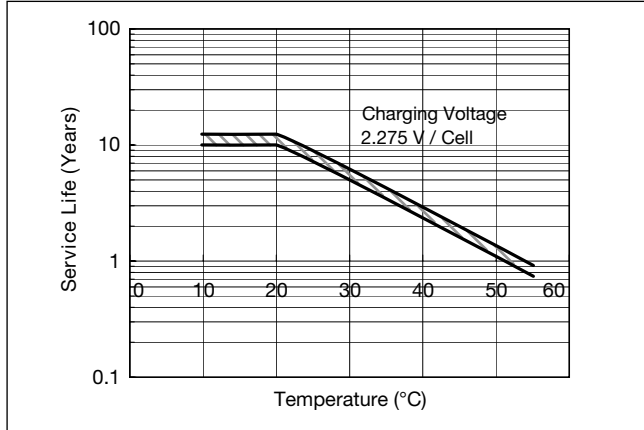
Charging Method

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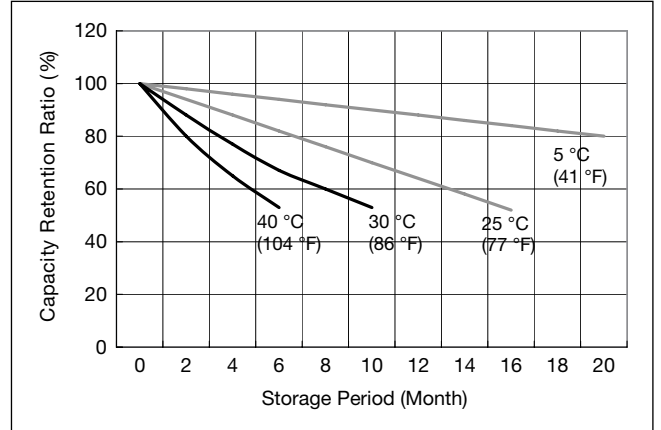
Cut off voltage

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

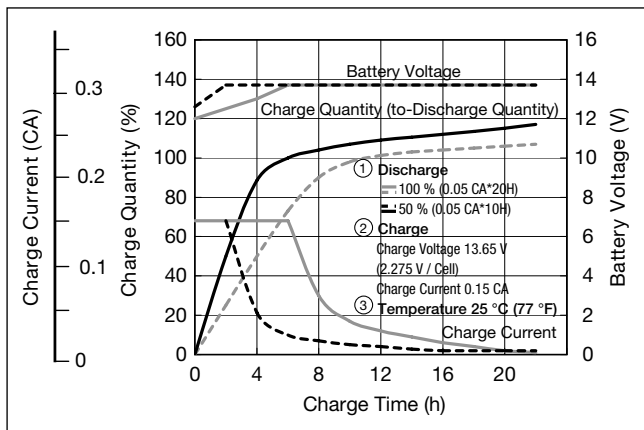
Influence of Temperature on Trickle life



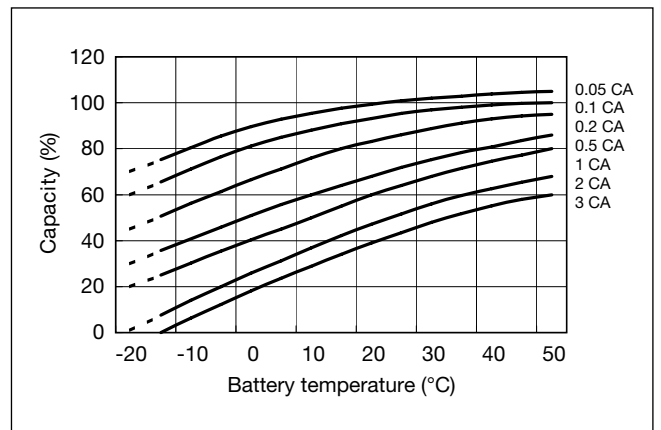
Residual capacity vs storage period



Constant-voltage and constant-current charge characteristics for Trickle use



Discharge capacity by temperature and by discharge current



Discharge characteristics

