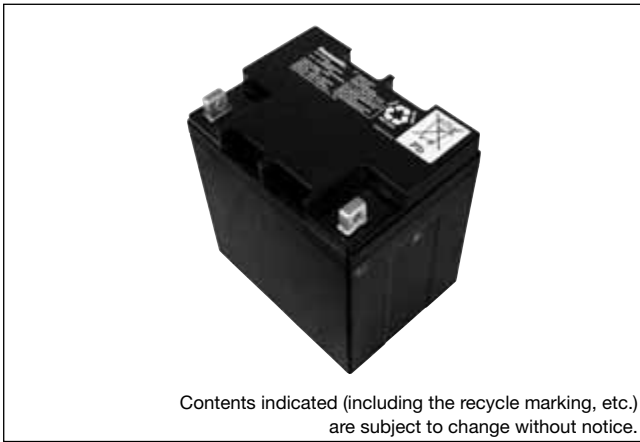


**LC-X1224PG/APG**

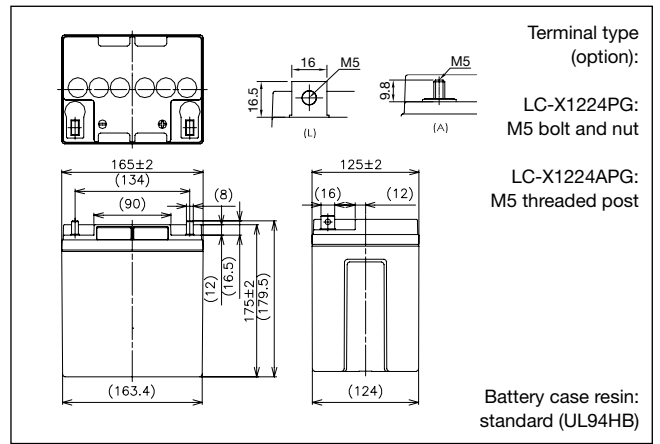
For standby power supplies. Expected trickle design life:  
10 – 12 years at 20 °C according to Eurobat.

VdS

G198049



**Dimensions (mm)**



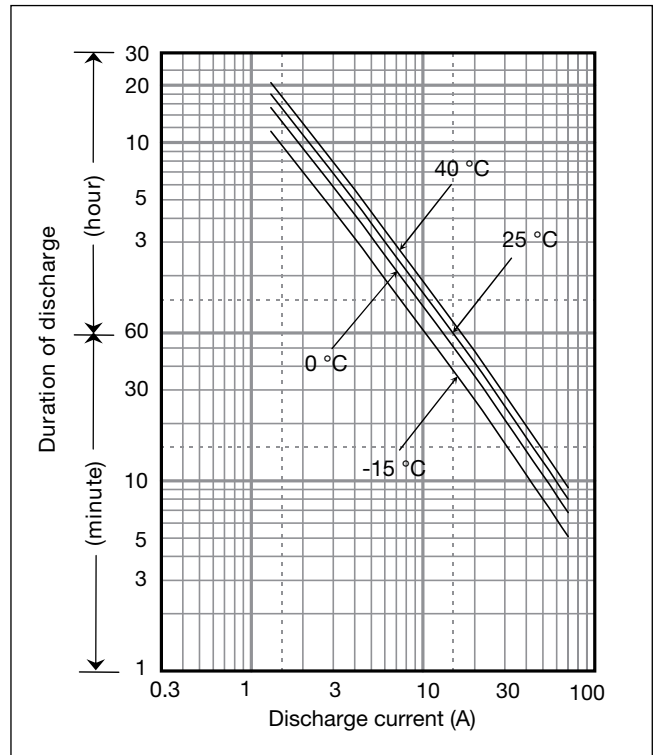
**Specifications**

Nominal voltage	12 V	
Nominal capacity (20 hour rate)	24 Ah	
Dimensions	Length	165 mm
	Width	125 mm
	Height	175 mm
	Total Height	LC-X1224PG: 179.5 mm LC-X1224APG: 175 mm
Approx. mass	9 kg	
Terminal	M5 Bolt and Nut type/ M5 threaded post	

**Characteristics**

Capacity (25 °C)	20 hour rate 10 hour rate 5 hour rate 1 hour rate	24 Ah 22 Ah 19 Ah 14 Ah
Internal resistance	Fully charged battery (25 °C)	11 mΩ
Temperature dependency of capacity (20 hour rate)	40 °C 25 °C 0 °C -15 °C	102 % 100 % 85 % 65 %
Self discharge (25 °C)	After 3 months After 6 months After 12 months	91 % 82 % 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	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**

(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	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	1.00
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	1.00
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	0.99
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	0.99
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	0.98

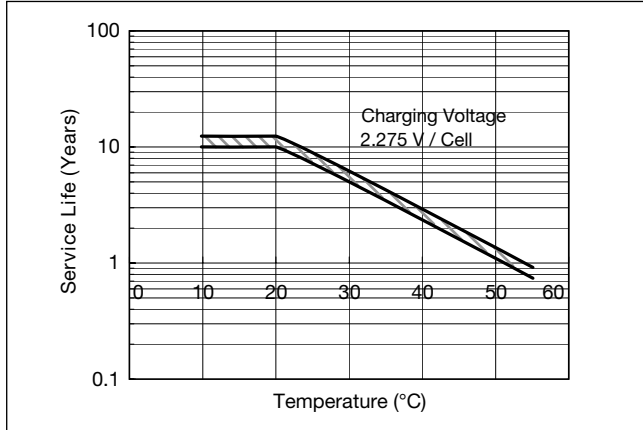
**Charging Method**

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

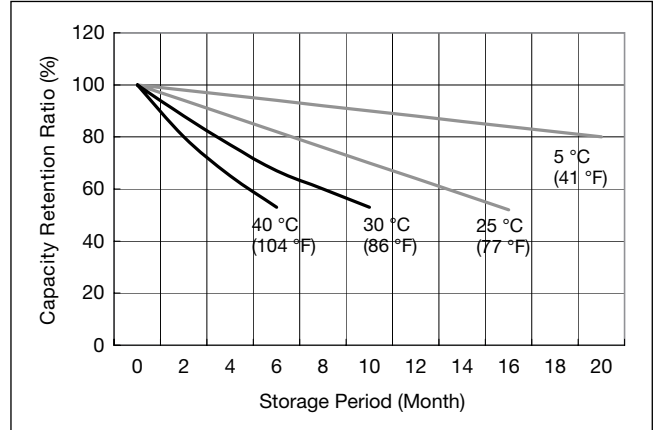
**Cut off voltage**

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

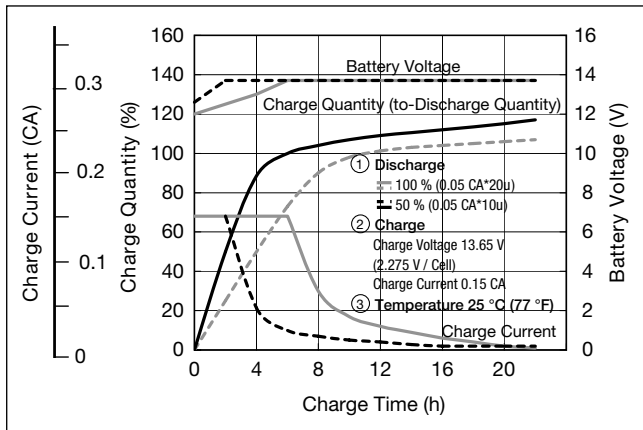
**Influence of Temperature on Trickle life**



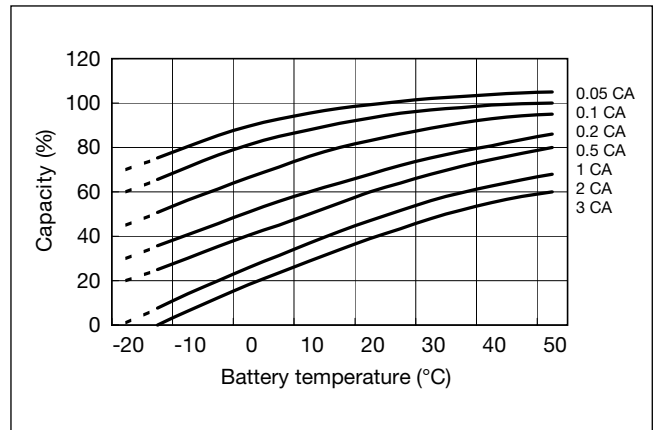
**Residual capacity vs storage period**



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



**Discharge capacity by temperature and by discharge current**



**Discharge characteristics**

