

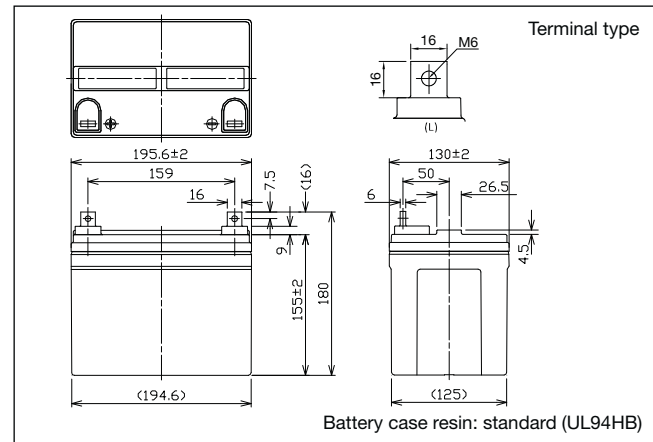
LC-R1233P



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

For main and standby power supplies.
Expected trickle design life: 6 – 9 years at 20°C according to Eurobat.

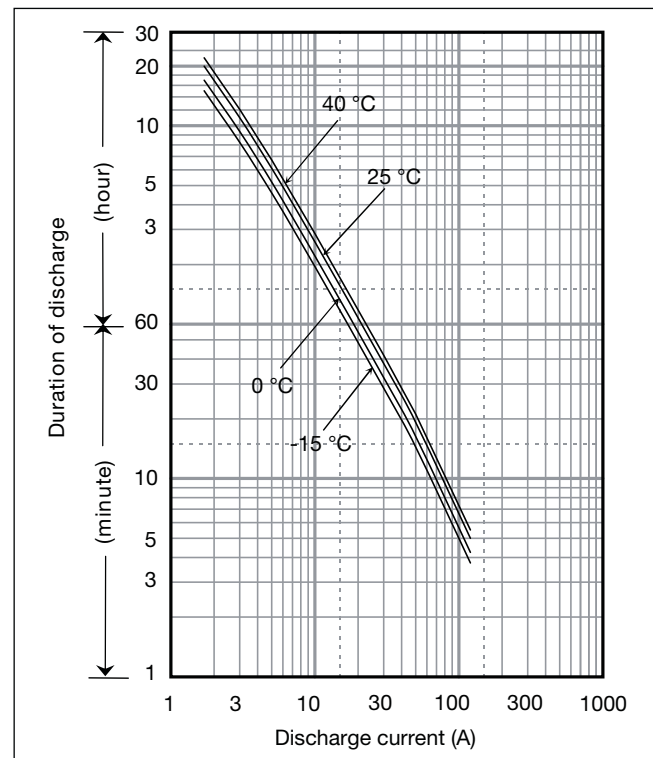
Dimensions (mm)



Specifications

Nominal voltage	12V	
Nominal capacity (20 hour rate)	33Ah	
Dimensions	Length	195.6mm
	Width	130mm
	Height	155mm
	Total Height	180mm
Approx. mass	12kg	
Terminal	M6 Bolt and Nut type	

Duration of discharge vs Discharge current



Characteristics

Capacity (25°C)	20 hour rate	33Ah
	10 hour rate	30Ah
	5 hour rate	27Ah
	1 hour rate	20Ah
Internal resistance	Fully charged battery (25°C)	7mΩ
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%

Watt Table

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	1546	1254	948	732	635	457	328	268	187	149	107	86.6	69.5	60.5	36.9	19.8	16.5	
9.9V	1446	1182	928	721	630	452	322	262	182	148	105	85.4	68.3	60.0	36.9	19.8	16.5	
10.2V	1379	1115	899	706	619	443	321	259	170	147	104	84.2	67.7	60.0	36.9	19.8	16.5	
10.5V	1323	1051	868	684	603	433	314	256	168	146	104	84.2	67.7	60.0	36.9	19.8	16.5	
10.8V	1182	1001	823	663	590	421	281	233	162	137	99	82.5	67.1	58.8	36.9	19.8	16.3	

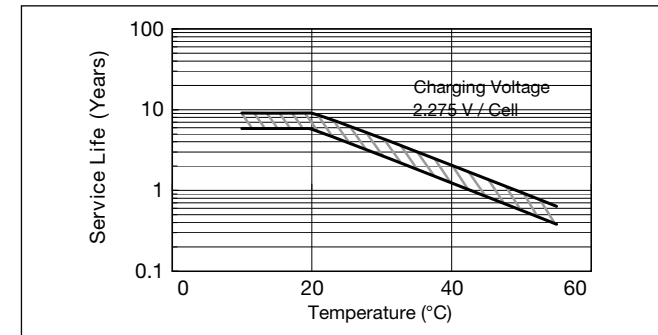
Ampere Table

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	139	113	84.6	63.7	54.8	39.1	27.9	22.8	15.8	12.6	9.00	7.25	5.80	5.10	3.08	1.65	1.38	
9.9V	130	106	82.9	62.7	54.4	38.6	27.4	22.2	15.5	12.5	8.85	7.15	5.70	5.00	3.08	1.65	1.38	
10.2V	124	100	80.3	61.4	53.4	37.9	27.4	22.0	14.4	12.4	8.75	7.05	5.65	5.00	3.08	1.65	1.38	
10.5V	119	94	77.5	59.5	52.0	37.0	26.8	21.8	14.3	12.3	8.70	7.05	5.65	5.00	3.08	1.65	1.38	
10.8V	106	90	73.5	57.7	50.9	36.0	24.0	19.8	13.7	11.6	8.35	6.90	5.60	4.90	3.08	1.65	1.36	

Charging Method

Cycle use	Control voltage: 14.5 - 14.9V; Initial current: 13.2A or smaller
Trickle use	Control voltage: 13.6 - 13.8V; Initial current: 4.95A or smaller

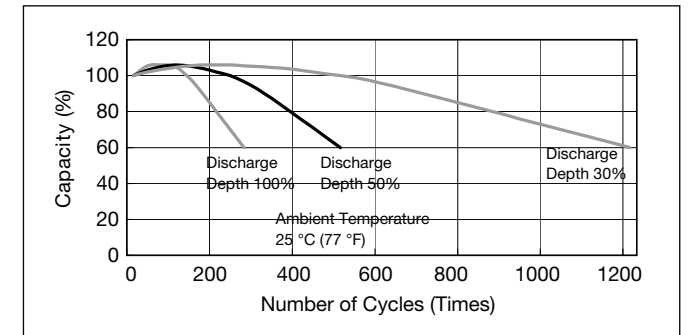
Influence of Temperature on Trickle life



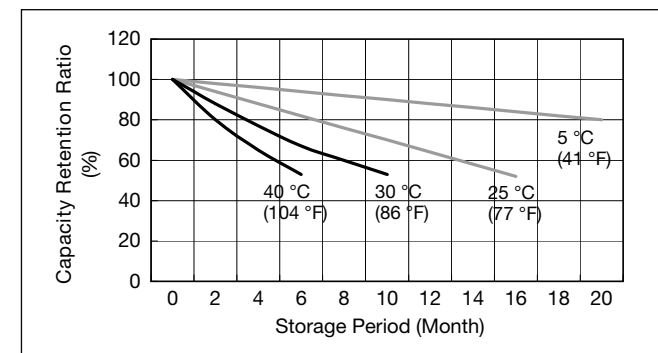
Cut off voltage

Discharge current	1.65A - 6.6A	6.6A - 16.5A	16.5A - 33A	33A - 66A	66A - 99A
Cut off voltage (V)	10.5	10.2	9.9	9.3	8.7

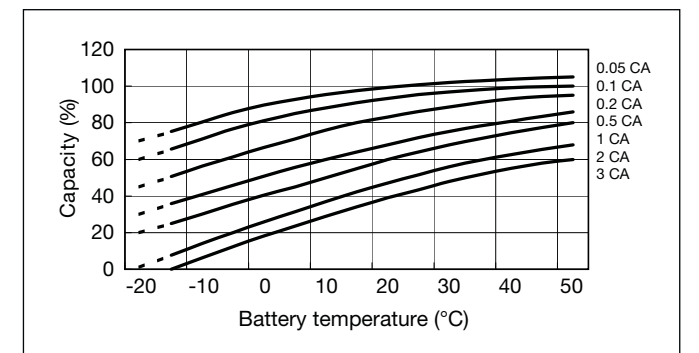
Cycle life vs Depth of discharge



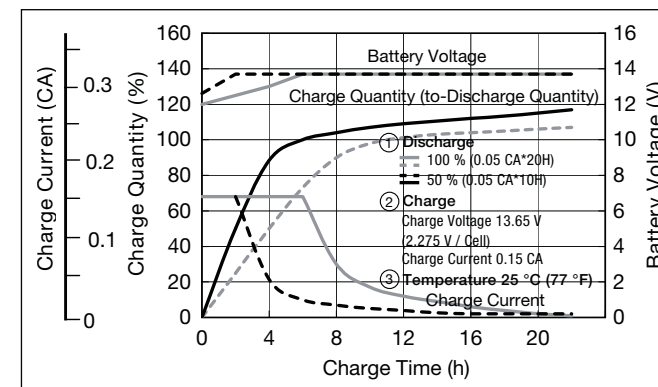
Residual capacity vs storage period



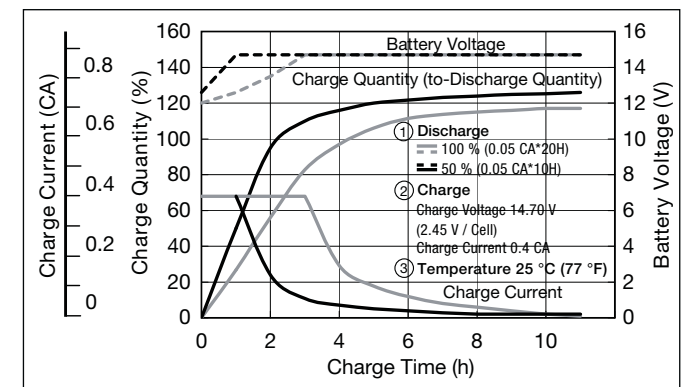
Discharge capacity by temperature and by discharge current



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



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



Discharge characteristics

