

# LC-P1228P/AP

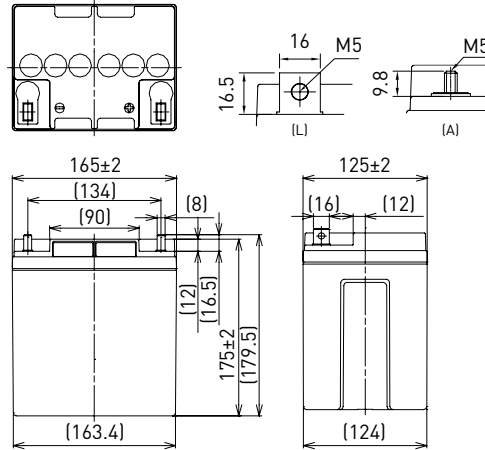
FOR STANDBY POWER SUPPLIES.  
 EXPECTED TRICKLE DESIGN LIFE: 10 – 12 YEARS AT 20°C  
 ACCORDING TO EUROBAT.

## DIMENSIONS (MM)



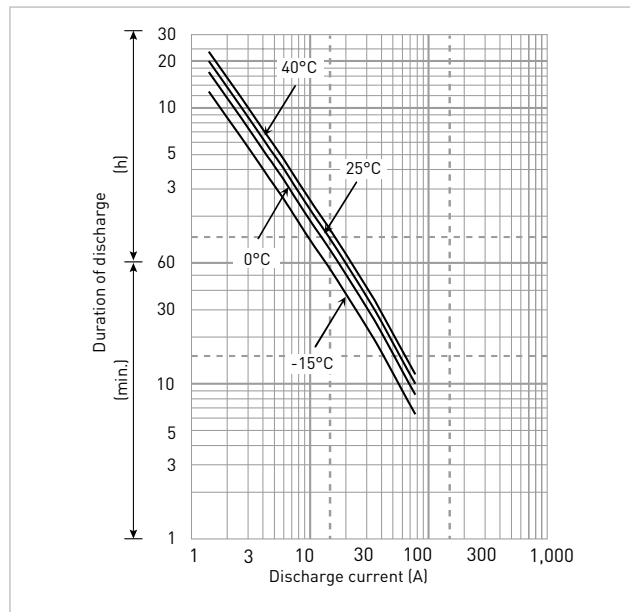
Contents indicated (including the recycle marking, etc.) are subject to change without notice. Battery case resin: flame-retardant (UL94 V-0)

Terminal type (option)



Specifications		LC-P1228P/AP
<b>Nominal voltage (V)</b>		12
<b>Nominal capacity</b>	<b>20 hours rate (Ah)</b>	28.0
<b>Dimensions</b>	<b>Length (mm)</b>	125
	<b>Width (mm)</b>	165
	<b>Total height (mm)</b>	179.5/175
<b>Approx. mass (kg)</b>		9.40
<b>Terminal type</b>		M5 bolt/nut & threaded post
<b>Capacity (25°C)</b>	<b>20 hours rate (Ah)</b>	28.0
	<b>10 hours rate (Ah)</b>	26.0
	<b>3 hours rate (Ah)</b>	22.0
	<b>1 hour rate (Ah)</b>	21.0
<b>Impedance (mΩ) Fully charged battery (25°C)</b>		11
<b>Temperature dependency of capacity (%) – 20 hours rate</b>	<b>40°C</b>	102
	<b>25°C</b>	100
	<b>0°C</b>	85
	<b>-15°C</b>	65
<b>Remaining capacity (25°C)</b>	<b>After 3 months (%)</b>	91
	<b>After 6 months (%)</b>	82
	<b>After 12 months (%)</b>	64

## DURATION OF DISCHARGE VS. DISCHARGE CURRENT



## WATT TABLE (25°C)

(Wattage/battery)

Cut-off	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	1,160	865	664	585	410	304	260	159	129	91.6	74.1	61.1	50.8	31.8	16.8
9.9V	1,093	849	654	579	404	294	254	156	128	90.4	72.9	60.8	50.4	31.8	16.8
10.2V	1,026	818	643	567	397	288	251	155	127	89.3	71.7	60.5	49.9	31.8	16.8
10.5V	976	784	621	545	386	282	247	154	126	88.1	71.1	60.2	49.5	31.8	16.8
10.8V	903	773	610	539	374	255	218	149	118	84.5	70.5	59.9	49.0	31.8	16.8

## AMPERE TABLE (25°C)

(Ampere/battery)

Cut-off	5min.	10min.	15min.	20min.	30min.	45min.	1h	1.5h	2h	3h	4h	5h	6h	10h	20h
9.6V	104	77.2	57.7	50.4	35.0	25.9	22.1	13.5	10.9	7.70	6.20	5.10	4.30	2.60	1.40
9.9V	98.0	75.8	56.9	49.9	34.5	25.0	21.6	13.2	10.8	7.60	6.10	5.06	4.28	2.60	1.40
10.2V	92.0	73.0	55.9	48.9	33.9	24.5	21.3	13.1	10.7	7.50	6.00	5.03	4.25	2.60	1.40
10.5V	87.5	70.0	54.0	47.0	33.0	24.0	21.0	13.0	10.6	7.40	5.95	4.99	4.23	2.60	1.40
10.8V	81.0	69.0	53.0	46.5	32.0	21.7	18.5	12.6	10.0	7.10	5.90	4.95	4.20	2.60	1.40

All mentioned values are average values

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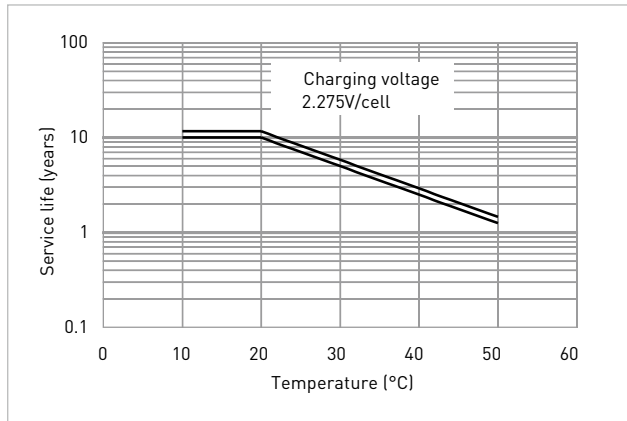
## CHARGING METHOD (25°C)

<b>Cycle use</b>	Control voltage: 13.6V - 13.8V Initial current: 4.20A or smaller
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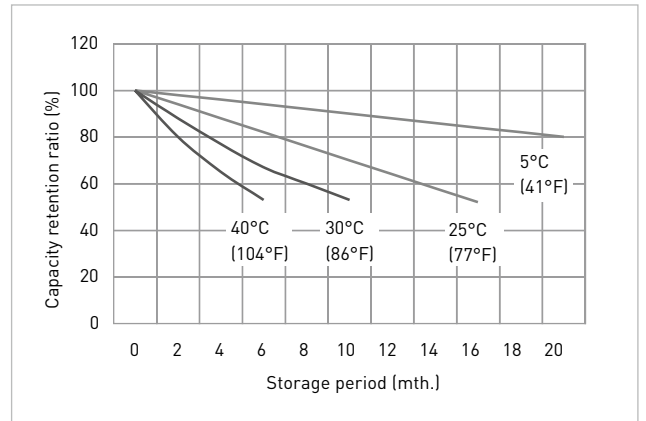
## CUT-OFF VOLTAGE

<b>Discharge current</b>	1.40A - 5.60A	5.60A - 14.0A	14.0A - 28.0A	28.0A - 56.0A	56.0A - 84A
<b>Cut-off voltage</b>	10.5V	10.2V	9.9V	9.3V	8.7V

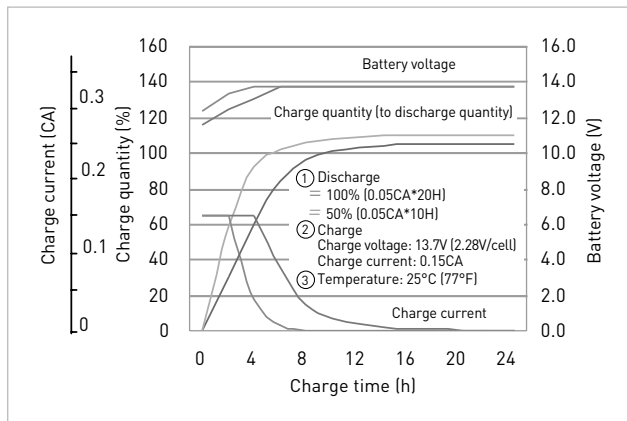
## INFLUENCE OF TEMPERATURE ON TRICKLE LIFE



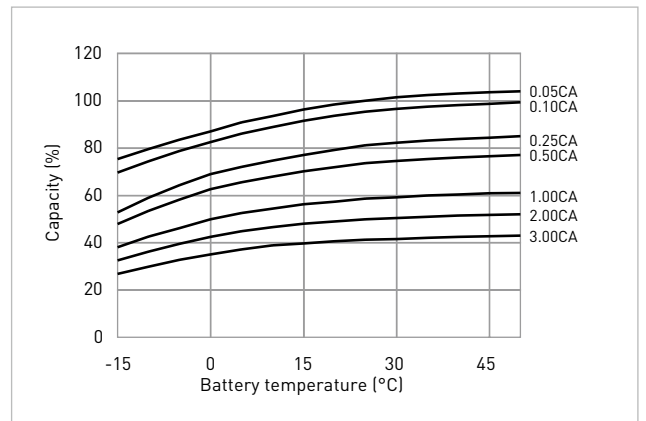
## RESIDUAL CAPACITY TEST RESULT



## CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR TRICKLE USE



## DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



## DISCHARGE CHARACTERISTICS

