



General Purpose MA12-100 (12V100AH)

Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	100.0AH
Dimension	Length 330 ± 3mm (12.99 inches)
	Width 173 ± 2mm (6.81 inches)
	Container Height 212 ± 2mm (8.35 inches)
	Total Height (with Terminal) 220 ± 2mm (8.66 inches)
Approx Weight	Approx 30.0 kg (66.15lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	104.0 AH/5.20A (20hr, 1.80V/cell, 25 °C/77 °F)
	100.0 AH/10.0A (10hr, 1.80V/cell, 25 °C/77 °F)
	88.0 AH/17.6A (5hr, 1.75V/cell, 25 °C/77 °F)
	76.2 AH/25.4A (3hr, 1.75V/cell, 25 °C/77 °F)
	65.1 AH/65.1A (1hr, 1.60V/cell, 25 °C/77 °F)
Max. Discharge Current	1200A (5s)
Internal Resistance	Approx 4.9m Ω
Operating Temp. Range	Discharge : -15 ~ 50°C (5 ~ 122°F)
	Charge : 0 ~ 40°C (32 ~ 104°F)
	Storage : -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 30.0A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Standby Use	
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	Leoch LP series batteries may be stored for up to 6 months at 25°C (77°F) and then a refreshing charge is required. For higher temperatures the time interval will be shorter.



Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	208.8	161.4	136.4	117.0	88.4	65.7	53.0	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	246.0	180.0	150.8	126.6	94.2	69.6	55.9	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	278.4	197.4	162.0	134.7	99.0	72.7	58.0	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	318.0	214.8	174.4	143.4	104.6	76.0	60.4	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	356.4	232.2	185.6	151.5	110.0	79.2	63.0	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	405.6	254.4	197.2	159.9	115.8	82.4	65.1	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

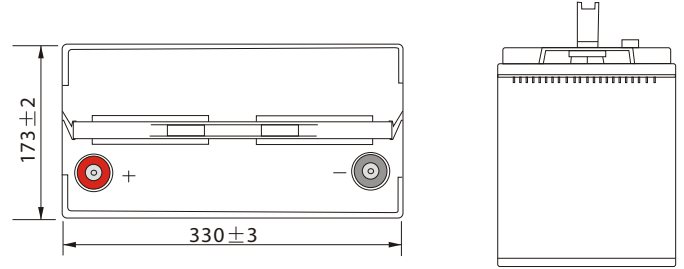
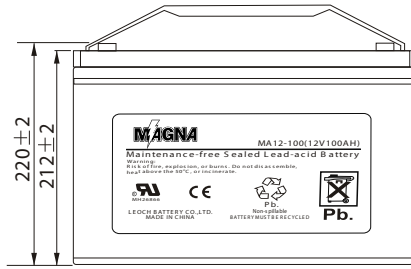
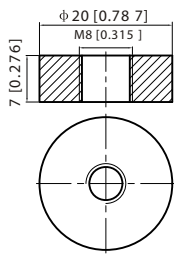
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	381.8	298.1	254.5	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.15
1.80V/cell	445.0	328.6	277.6	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.29
1.75V/cell	492.9	354.6	294.6	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.45
1.70V/cell	547.4	377.1	312.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.54
1.65V/cell	604.8	403.9	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.64
1.60V/cell	672.4	432.4	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.73

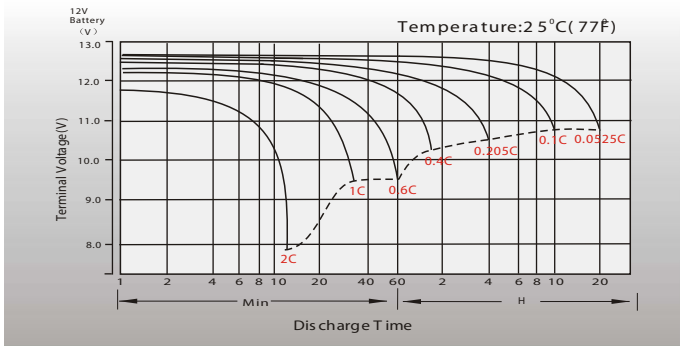
Dimensions

T11 Terminal

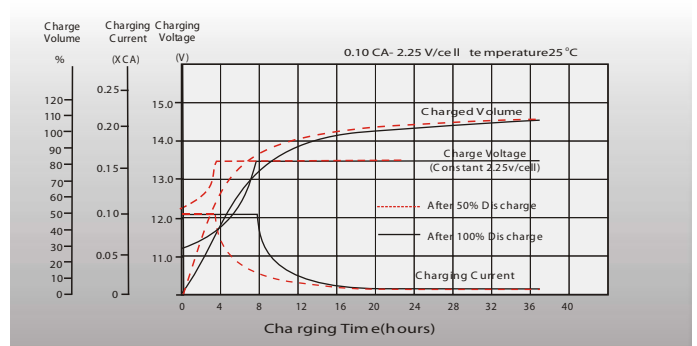
Unit: mm [inches]



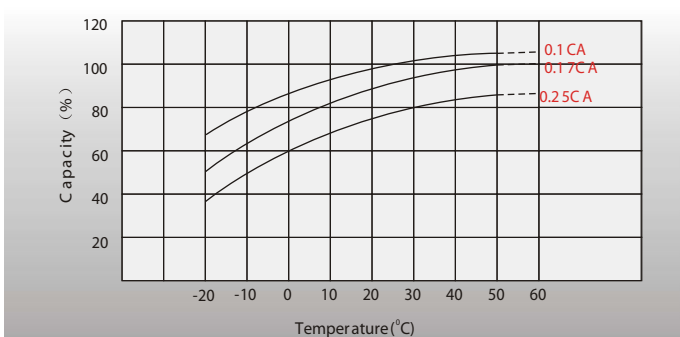
Discharge Characteristics



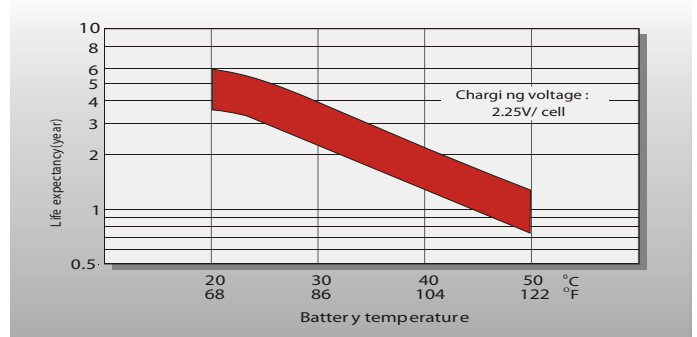
Float Charging Characteristics



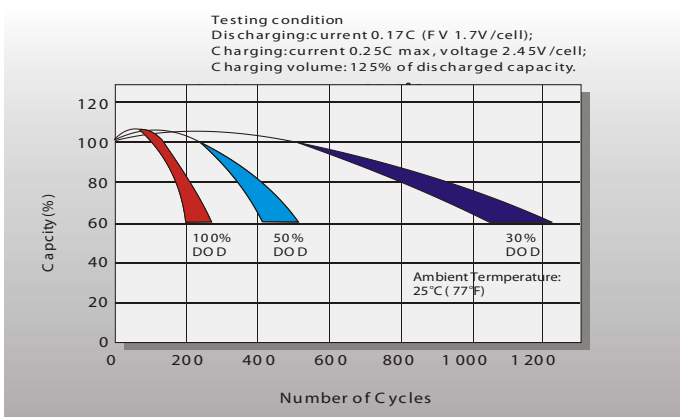
Temperature Effects in Relation to Battery Capacity



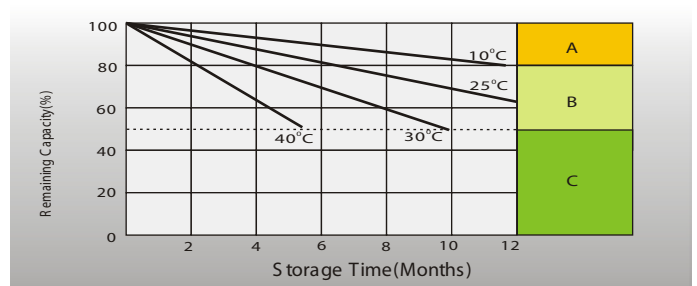
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. Optional charging ways as below:
 1. Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for a above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8 ~10 hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Sales Office

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