

ML12-90 (12V90AH C10 @25°C)

Features

- § Maintenance-free operation
- § Compact design
- § ABS case, Flame Retardant V0 is available

- § Stable quality and high reliability
- § 10 years design life (at 25°C)



Application

- § Telecommunication system
- § Alarm and security system
- § Backup power

- § UPS
- § Emergency lighting
- § Auto control system

- § Electronic apparatus and equipment
- § Communication power supply
- § DC power supply

Specification

Nominal Voltage	12V (6 cells)	Operating Temp.Range	Discharge: -15-50°C (5-122°F)
Nominal Capacity	95AH (20hr, 1.80V/cell, 25°C/77°F)		Charge: 0-40°C (32-104°F)
	90AH (10hr, 1.80V/cell, 25°C/77°F)	Nominal Operating Temp.Range	Storage: -15-40°C (5-104°F)
	76AH (5hr, 1.75V/cell, 25°C/77°F)		25 ± 3°C (77 ± 5°F)
	54AH (1hr, 1.60V/cell, 25°C/77°F)	Cycle Use	14.4~14.8V (25°C/77°F) Temp.Coefficient -30mV/°C
Dimension	Length 307 ± 2mm	Standby Use	Initial Charging Current Less than 27A
	Width 169 ± 2mm		13.5~13.8V (25°C/77°F) Temp.Coefficient -20mV/°C
	Container Height 209 ± 2mm	Capacity affected by Temperature	No limit on Initial Charging Current
	Total Height(with Terminal) 214 ± 2mm		40°C (104°F) 103%
Approx Weight	Approx 26.5Kg		25°C (77°F) 100%
Terminal	T3 or F5	Self Discharge	0°C (32°F) 86%
Container Material	ABS		ML series batteries may be stored for up to 6 months
Max. Discharge Current	900A (5S)		at 25°C (77°F) and then a freshening charge is required.
Internal Resistance	Approx 5.4mΩ		For higher temperatures the time interval will be shorter.

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

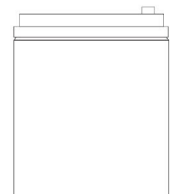
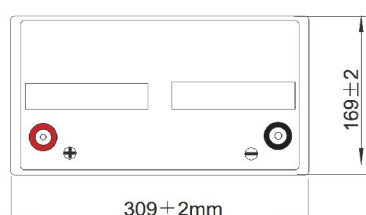
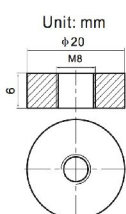
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	20h
1.80V/cell	220.4	158.7	129.4	82.7	62.4	50.8	29.8	22.4	15.4	9.02	4.69
1.75V/cell	240.8	174.2	140.3	84.0	64.7	52.4	30.7	23.0	15.7	9.17	4.74
1.70V/cell	260.4	186.1	151.6	86.8	66.8	53.9	31.5	23.5	16.0	9.28	4.79
1.65V/cell	280.7	198.5	160.2	91.6	69.6	56.0	32.4	24.2	16.3	9.36	4.83
1.60V/cell	300.1	212.2	167.5	94.7	72.2	57.9	33.3	24.6	16.6	9.43	4.88

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

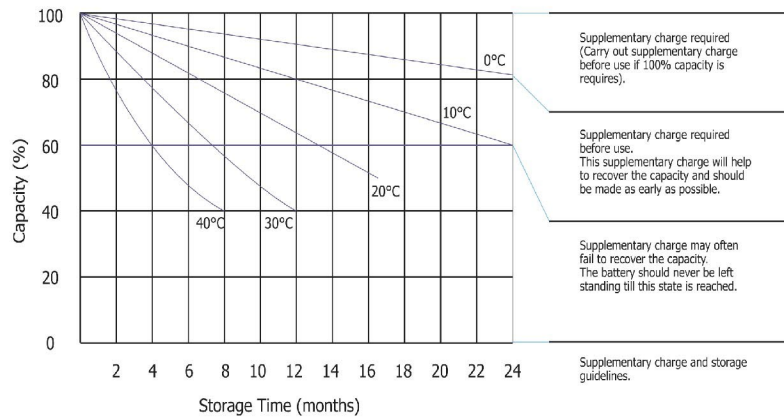
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	20h
1.80V/cell	412.2	295.1	249.2	155.8	120.3	100.4	58.3	44.1	30.9	18.17	9.41
1.75V/cell	438.2	316.3	261.7	160.1	125.3	102.7	59.8	45.0	31.4	18.38	9.54
1.70V/cell	463.4	332.8	275.3	165.5	129.3	104.1	61.3	45.9	31.8	18.56	9.66
1.65V/cell	496.6	348.3	285.5	174.6	133.1	107.5	62.6	46.7	32.4	18.68	9.78
1.60V/cell	528.1	362.6	297.8	180.0	136.6	110.9	63.8	47.6	32.9	18.84	9.92

Note: The above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.

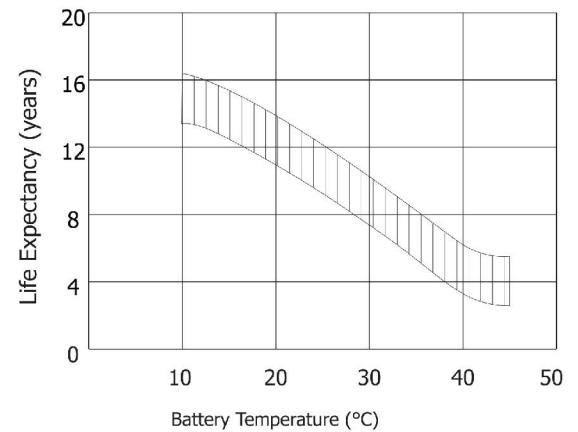
Dimension



Storage Characteristics



Effect Of Temperature On Float Life



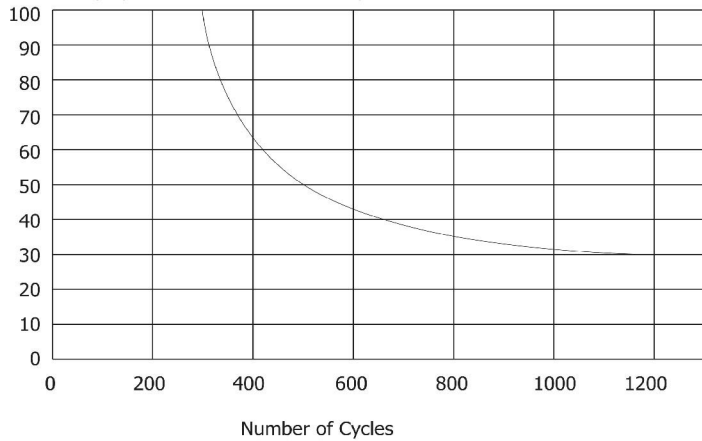
Cycle Life With Depth Of Discharge (D.O.D.)

Testing condition

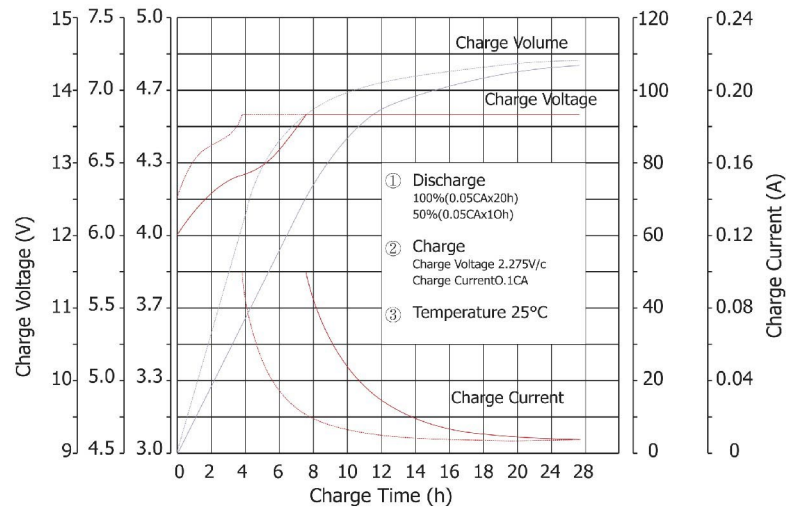
Discharging: current 0.17C (FV 1.7V/cell);

Charging: current 0.25C max, voltage 2.45V/cell;

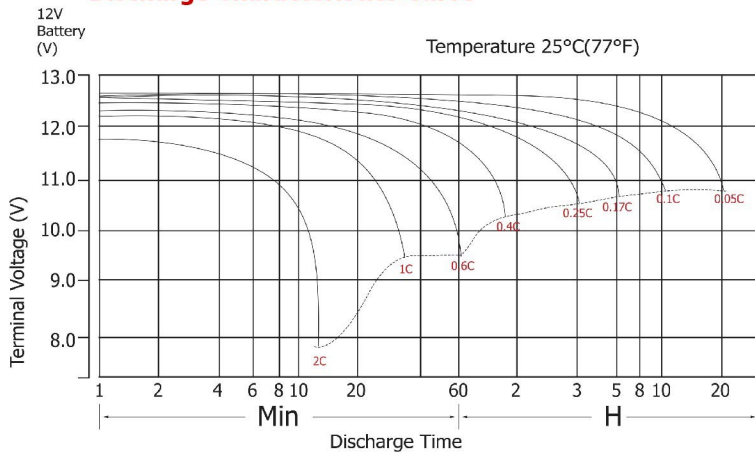
Charging volume: 125% of discharged capacity



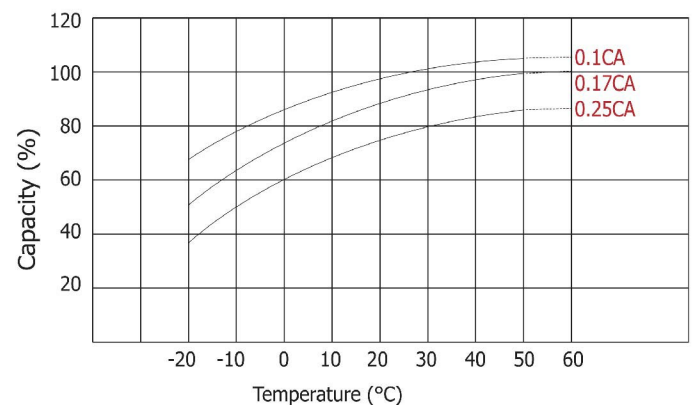
Charge Characteristics Curve For Standby Use



Discharge Characteristics Curve



Temperature Effects With Capacity



Certificates

