

# ML12-80<sub>(12V80AH)</sub>

## Features

Maintenance-free operation  
Compact design

Stable quality and high reliability  
10years design time (at 25°C)



## Application

- Telecommunication system
- Alarm and security system
- Backup power for testing and measuring instruments
- UPS
- Emergency lighting
- Fire alarm and security systems
- Auto control system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply

## Specifications

Nominal Voltage	12V (6 cells)	Operating Temp.Range	Discharge: -15 - 50°C (5 -122°F)
Nominal Capacity	85AH (20hr, 1.80V/cell, 25 °C/76°F)		Charge : 0 - 40 °C (32 -104°F)
	80AH (10hr, 1.80V/cell, 25 °C/77°F)	Storage : -15 - 40°C (5 -104°F)	
	68AH (5hr, 1.75V/cell, 25 °C/77°F)	Nominal Operating Temp.Range	25 ± 3°C ( 77 ±5 °F)
Dimension	48AH (1hr, 1.60V/cell, 25 °C/77°F)	Cycle Use	14.4~14.8V (25°C/77°F) Temp.Coefficient -30mV/°C
	Length 259 ± 2mm	Standby Use	Initial Charging Current Less than 24A
	Width 168 ± 2mm		13.5~13.8V (25°C/77°F) Temp.Coefficient -20mV/°C
	Container Height 208 ± 2mm		No limit on Initial Charging Current
Total Height(with Terminal) 212 ± 2mm	Capacity affected by Temperature	40°C (104°F) 103%	
Approx Weight Approx 24.3Kg		25°C (77°F) 100%	
Terminal T3 or F5		0°C (32°F) 86%	
Container Material ABS	Self Discharge	SunstoneML series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required.	
Max. Discharge Current 800A (5S)		For higher temperatures the time interval will be shorter.	
Internal Resistance Approx 6.0mΩ			

### 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	200.51	144.32	117.71	73.37	56.44	45.96	26.85	20.16	13.87	8.14	4.28
1.75V/cell	218.99	158.52	127.66	76.43	58.58	47.41	27.61	20.66	14.19	8.29	4.35
1.70V/cell	236.84	169.31	137.87	79.01	60.47	48.78	28.38	21.12	14.45	8.40	4.39
1.65V/cell	255.31	180.57	145.71	83.35	62.99	50.71	29.18	21.73	14.74	8.48	4.45
1.60V/cell	272.95	192.95	152.38	87.07	65.31	52.41	29.99	22.09	15.01	8.57	4.49

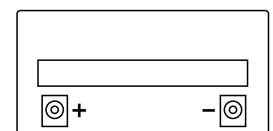
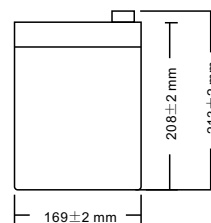
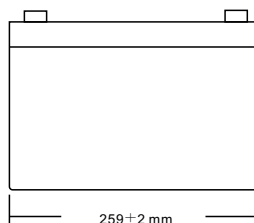
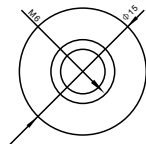
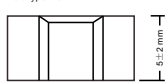
### Constant Power Discharge (Watts per cell at 25°C/77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	20h
1.80V/cell	374.96	264.45	223.33	137.87	107.23	89.49	51.68	39.10	27.41	16.17	8.44
1.75V/cell	398.56	283.45	234.53	143.49	111.69	91.52	53.08	39.93	27.82	16.38	8.57
1.70V/cell	421.57	298.31	246.71	148.35	115.29	92.80	54.34	40.72	28.14	16.50	8.65
1.65V/cell	454.46	312.21	255.82	156.42	118.63	95.85	55.49	41.47	28.73	16.61	8.73
1.60V/cell	480.39	324.92	266.87	161.25	121.74	98.85	56.60	42.25	29.14	16.73	8.82

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

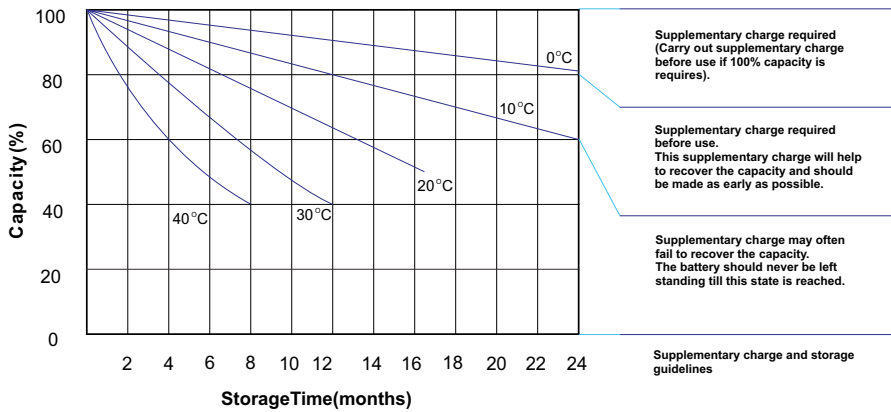
## Dimensios unitimm[inches]

Bolt-and-nut terminal  
Bolt Type:M6

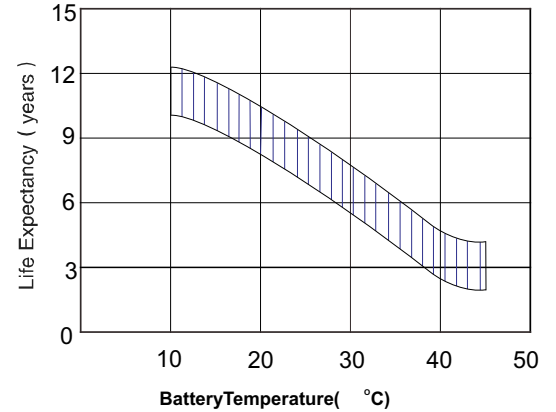


# ML12-80<sub>(12V80AH)</sub>

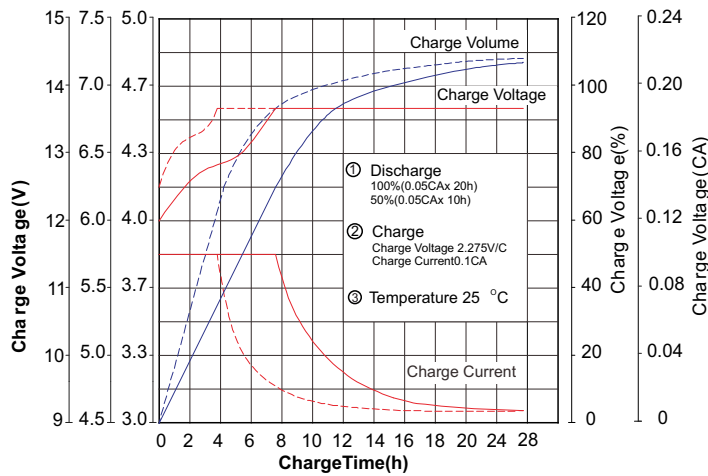
## Storage characteristics



## Effect of temperature on long term float life

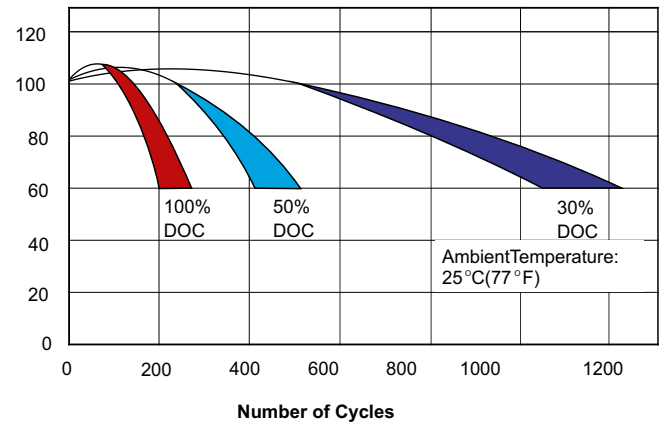


## Charge characteristic Curve for standby use

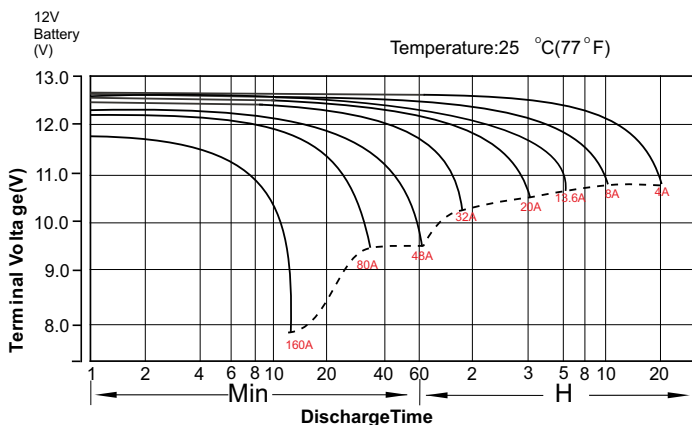


## Cycle Life in Relation to Depth of Discharge

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.



## Discharge characteristic Curve



## Temperature Effects in Relation to Battery Capacity

