MF SERIES-High Rate / UPS

MF250-12 (12V250AH)

Specification

Nominal Voltage	12V	
Watts(15min Rate)	783.3 Watts at 1.67V/cell	
Dimension	Length	522±3mm (20.55 inches)
	Width	268±2mm (10.55 inches)
	Container Height	220±2mm (8.66 inches)
	Total Height (with Terminal)	226±2mm (8.90 inches)
Approx Weight	Approx 73.0 kg (161.0lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	257.0 AH/25.7A	(10hr ,1.80V/cell,25°C/77°F)
	250.0AH/31.3A	(8hr,1.80V/cell,25°C/77°F)
	217.0 AH/43.4A	(5hr,1.75V/cell,25°C/77°F)
	200.4 AH/66.8A	(3hr,1.75V/cell,25°C/77°F)
	193.2 AH/193.2A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	2500A (5s)	
Internal Resistance	Approx 2.5mΩ	
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 75.0A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch LPX series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Applications

- *UPS (High rate)*
- *High power backup supply*
- *Emergency power supply*
- *Starting system*
- *Power tools*
- *Emergency lighting*
- *Electric starting*

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	324.7	302.5	270.4	252.7	192.4	153.7	86.8	62.2	49.2	41.7	35.7	30.0	24.3	13.2
1.80V/cell	402.8	354.9	310.4	281.0	211.1	167.2	92.0	65.6	51.0	42.3	37.2	31.3	25.7	13.5
1.75V/cell	442.7	387.7	334.0	291.8	219.0	175.0	95.4	66.8	52.2	43.4	38.2	31.8	26.0	13.6
1.70V/cell	/	414.0	351.0	303.7	227.8	180.5	99.2	68.7	53.5	44.5	39.0	32.3	26.2	13.9
1.67V/cell	/	440.3	373.0	320.5	233.5	186.6	102.0	71.6	55.4	45.8	39.9	32.8	26.8	14.0
1.60V/cell	/	470.9	397.3	338.3	243.4	193.2	105.4	73.8	57.1	47.2	40.6	33.1	27.1	14.1

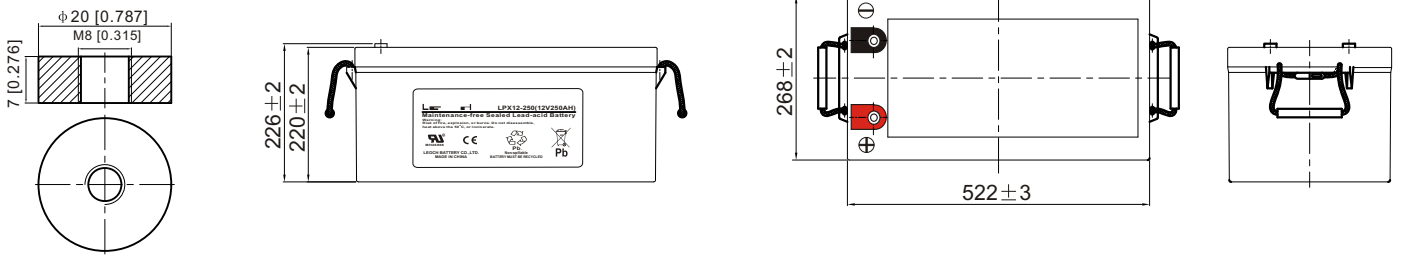
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	599.8	564.5	509.7	481.6	370.1	296.6	168.6	121.9	97.2	83.1	71.4	59.0	48.0	26.3
1.80V/cell	735.4	653.3	576.6	527.5	402.6	320.9	177.5	127.9	100.2	83.7	74.0	61.1	50.8	26.8
1.75V/cell	795.2	705.0	614.3	543.1	413.8	334.2	183.4	129.8	102.0	85.7	75.9	62.0	51.2	27.1
1.70V/cell	/	742.2	640.9	562.2	428.7	343.6	190.3	133.1	104.6	87.7	77.3	62.9	51.7	27.5
1.67V/cell	/	783.3	675.7	588.3	435.5	352.7	194.5	138.2	107.8	89.8	78.8	63.6	52.7	27.7
1.60V/cell	/	824.0	712.1	616.7	451.5	363.3	200.1	141.8	110.9	92.4	80.2	64.1	53.2	27.9

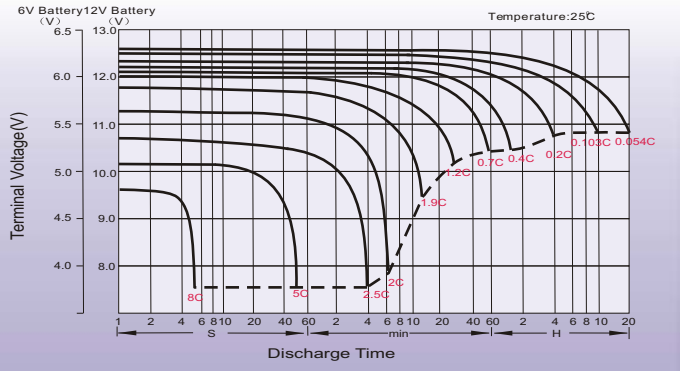
Dimensions

T11 Terminal

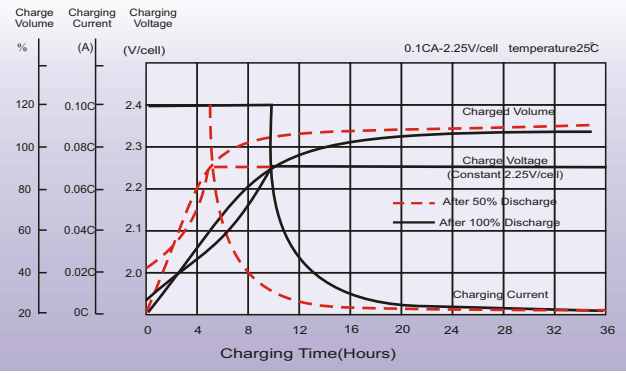
Unit: mm [inches]



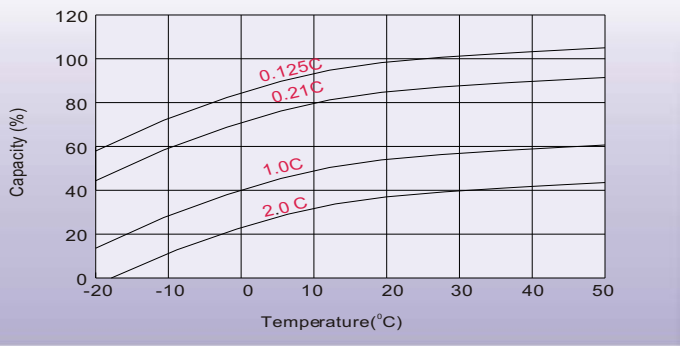
Discharge Characteristics



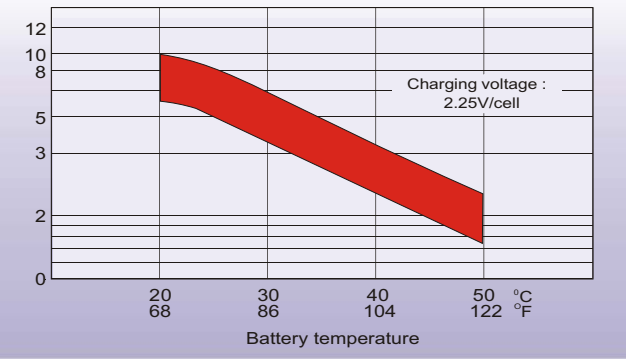
Float Charging Characteristics

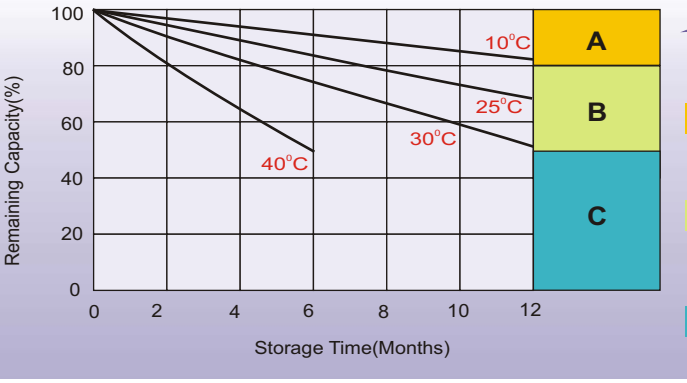


Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life





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 way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

C Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.