

MP-1250-AT

Features:

- >> 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
- >> Auto controlsystem



Technical Specifications

Model	MP-1250-AT	
Nominal Voltage	12V	
Nominal Capacity(20HR)	5AH	
Dimension	Length	90 ± 1mm (3.54 inches)
	Width	70 ± 1mm (2.76 inches)
	Container Height	101± 2mm (3.98 inches)
	Total Height (with Terminal)	107±2mm (4.21 inches)
Approx. Weight	Approx. 1.55 kg (3.42lbs)	
Terminal	T1	
Container Material	ABS	
Rated Capacity	5.50 AH/0.28A	(20hr ,1.80V/cell,25°C/77°F)
	5.00 AH/0.50A	(10hr,1.80V/cell,25°C/77°F)
	3.70 AH/0.74A	(5hr,1.75V/cell,25°C/77°F)
	3.40 AH/1.13A	(3hr,1.75V/cell,25°C/77°F)
	3.10 AH/3.10A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	60A (5s)	
Internal Resistance	Approx. 45mΩ	
Operating Temp. Range	Discharge: -15 ~50°C (5 ~122°F)	
	Charge: -5 ~50°C (23 ~122°F)	
	Storage: -15 ~40°C (5 ~104°F)	
Nominal Operating Temp. Range	25 ± 3°C (77± 5°F)	
Cycle Use	Initial Charging Current less than1.5A. Voltage 14.4V~14.9V 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	MEDAL POWER batteries may be stored for up to 6 months at 25C (77°F) and battery should be recharge before use for higher temperatures the time interval will be shorter.	

LEAVE POWER FOR MEDAL POWER

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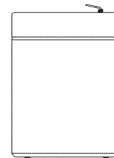
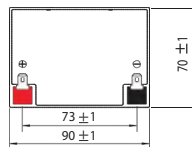
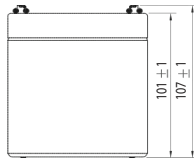
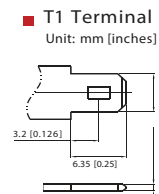
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	13.9	10.8	9.04	7.90	6.17	4.59	3.88	2.31	1.81	1.48	1.21	1.05	0.853	0.714	0.392
1.80V/cell	18.5	13.6	10.8	9.20	7.17	5.29	4.32	2.50	1.94	1.57	1.29	1.12	0.902	0.735	0.396
1.75V/cell	20.4	14.8	11.6	9.80	7.39	5.44	4.50	2.59	1.97	1.60	1.32	1.15	0.915	0.754	0.399
1.70V/cell	21.9	15.7	12.2	10.2	7.65	5.64	4.63	2.65	2.02	1.64	1.35	1.17	0.927	0.768	0.406
1.65V/cell	23.8	16.8	12.9	10.8	8.00	5.73	4.70	2.67	2.10	1.69	1.39	1.20	0.939	0.783	0.411
1.60V/cell	25.6	17.8	13.6	11.4	8.39	5.94	4.72	2.77	2.15	1.74	1.43	1.22	0.947	0.790	0.413

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

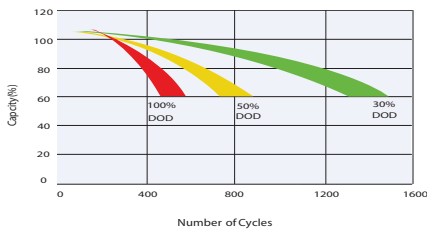
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	7.62	5.85	4.85	4.19	3.24	2.39	2.01	1.19	0.93	0.76	0.62	0.54	0.432	0.362	0.198
1.80V/cell	10.2	7.47	5.85	4.95	3.82	2.78	2.25	1.30	1.00	0.81	0.66	0.57	0.458	0.372	0.200
1.75V/cell	11.5	8.21	6.39	5.33	3.97	2.88	2.36	1.35	1.02	0.83	0.68	0.59	0.466	0.382	0.202
1.70V/cell	12.7	8.95	6.83	5.6	4.13	3.00	2.43	1.38	1.05	0.85	0.70	0.60	0.473	0.39	0.206
1.65V/cell	14.0	9.66	7.26	5.95	4.36	3.07	2.49	1.40	1.09	0.88	0.72	0.62	0.480	0.398	0.208
1.60V/cell	15.4	10.5	7.76	6.34	4.60	3.20	2.51	1.46	1.13	0.90	0.74	0.63	0.485	0.402	0.210

Dimensions

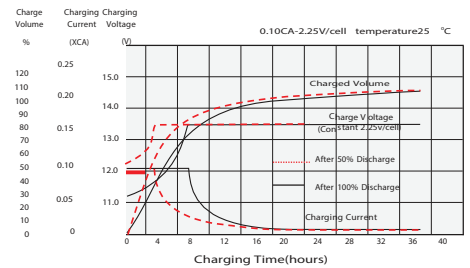


Cycle Life in Relation to Depth of Discharge

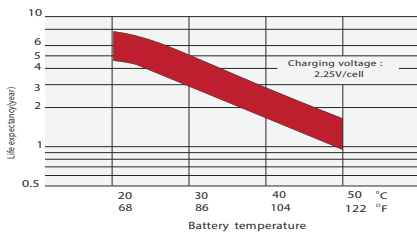
Testing condition
Discharging current 0.17 C (FV 1.7V/cell);
Charging current 0.25 C max, voltage 2.45V/cell;
Charging volume: 125 % of discharged capacity.



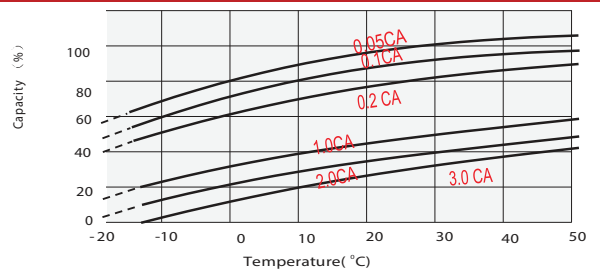
Float Charging Characteristics



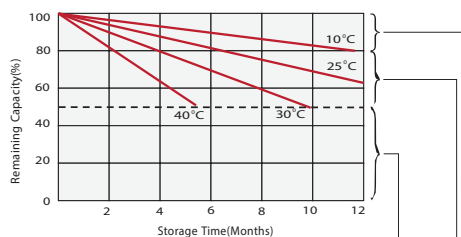
Effect of Temperature on Long Term Float Life



Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics



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

Supplementary charge required before use. Optional charging way as below:
1.Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2.Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3.Charged for 8-10 hours at limited current 0.05CA.

No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

Discharge Characteristics

