



LP SERIES-General Purpose

491460202 (6V4.5AH)

Specification

Nomial Voltage	6V	
Nomial Cap acity(20HR)	4.5AH	
Dimension	Length	70±1mm (2.76 inches)
	Width	47±1mm (1.85 inches)
	Container Height	100±2mm (3.94 inches)
	Total Height (with Terminal)	106±2mm (4.17 inches)
Approx Weight	Approx 0.76 kg	
Terminal	T1	
Container Ma terial	ABS	
Rated Cap acity	4.50 AH/0.225A	(20hr ,1.80V/cell,25 °C/77 °F)
	4.19 AH/0.419A	(10hr,1.80V/cell,25 °C/77 °F)
	3.85 AH/0.77A	(5hr,1.75V/cell,25 °C/77 °F)
	3.45 AH/1.15A	(3hr,1.75V/cell,25 °C/77 °F)
	2.83 AH/2.83A	(1hr,1.60V/cell,25 °C/77 °F)
Max. Discharge C urrent	67.5A (5s)	
Internal Re sistance	Approx 25m Ω	
Operating Temp.Ra nge	Discharge : -15 ~50°C (5 ~122°F)	
	Charge : 0 ~40°C (32 ~104°F)	
	Storage : -15 ~40°C (5 ~104°F)	
Nominal Operating Temp. R ange	25 ±3°C (77 ±5°F)	
Cycle Use	Initial Charging C urrent less than 1.35A.Voltage 7.2V~7.5V at 25°C (77°F)Temp. C oefficient -15mV/°C	
Standby Use	No limit on Initial C harging C urrent Voltage 6.75V~6.9V at 25°C (77°F)Temp. C oefficient -10mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch LP se ries batteries may be stored for up to 6 months at 25°C(7 7°F) and then a freshening charge is required. For higher temperatures the time interval will be s horter.	



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

VdS	Intertek ETL SEMKO	MN20866
ISO14001	ISO9001	EMC tested

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

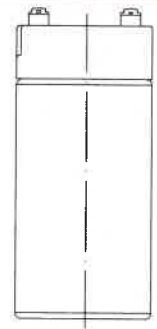
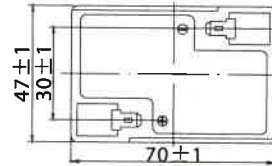
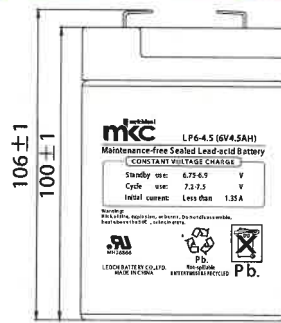
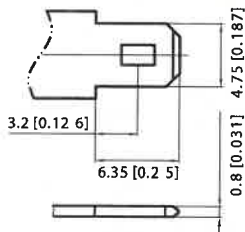
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	8.57	6.58	5.45	4.71	3.64	2.68	2.26	1.34	1.05	0.85	0.69	0.60	0.486	0.406	0.223
1.80V/cell	11.5	8.41	6.59	5.57	4.30	3.12	2.53	1.46	1.13	0.91	0.75	0.65	0.515	0.419	0.225
1.75V/cell	13.0	9.24	7.19	5.99	4.46	3.24	2.65	1.51	1.15	0.93	0.77	0.66	0.524	0.430	0.227
1.70V/cell	14.3	10.1	7.68	6.30	4.65	3.37	2.74	1.55	1.18	0.95	0.78	0.68	0.532	0.438	0.231
1.65V/cell	15.7	10.9	8.17	6.69	4.90	3.45	2.80	1.58	1.23	0.99	0.81	0.69	0.540	0.447	0.234
1.60V/cell	17.4	11.8	8.73	7.13	5.18	3.60	2.83	1.64	1.27	1.02	0.83	0.71	0.545	0.452	0.236

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

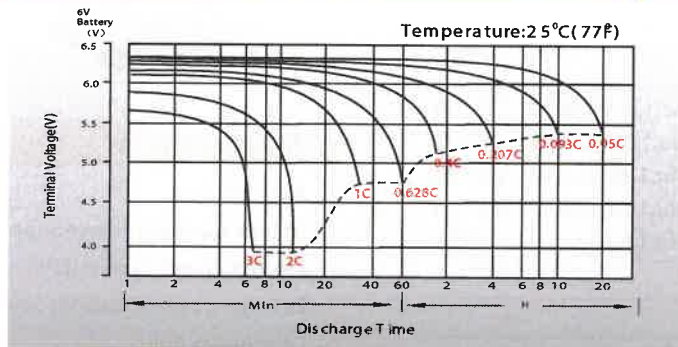
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	15.7	12.2	10.2	8.88	6.95	5.16	4.37	2.60	2.04	1.66	1.36	1.18	0.959	0.803	0.441
1.80V/cell	20.8	15.4	12.1	10.3	8.07	5.96	4.86	2.82	2.18	1.77	1.45	1.27	1.014	0.827	0.445
1.75V/cell	23.0	16.6	13.1	11.0	8.31	6.12	5.06	2.91	2.22	1.80	1.49	1.30	1.030	0.848	0.449
1.70V/cell	24.6	17.7	13.8	11.5	8.60	6.34	5.21	2.98	2.27	1.85	1.52	1.32	1.043	0.864	0.457
1.65V/cell	26.7	18.9	14.5	12.1	9.00	6.44	5.29	3.00	2.36	1.90	1.56	1.35	1.057	0.881	0.462
1.60V/cell	28.8	20.1	15.3	12.8	9.43	6.68	5.31	3.12	2.42	1.96	1.61	1.37	1.065	0.889	0.464

Dimensions

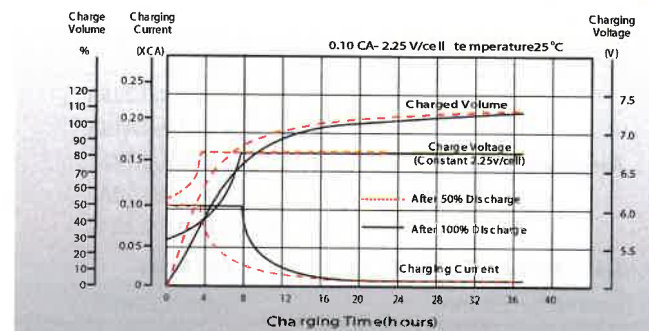
T1 Terminal Unit: mm [inches]



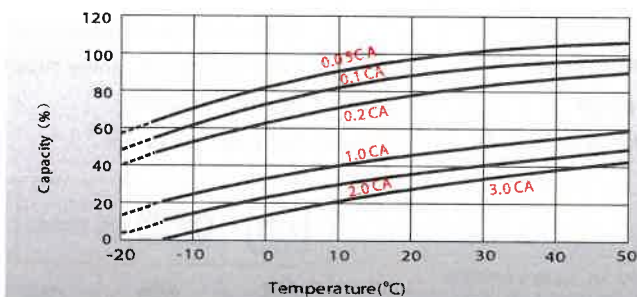
Discharge Characteristics



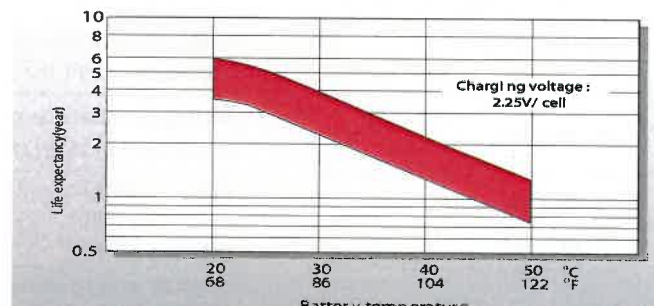
Float Charging Characteristics



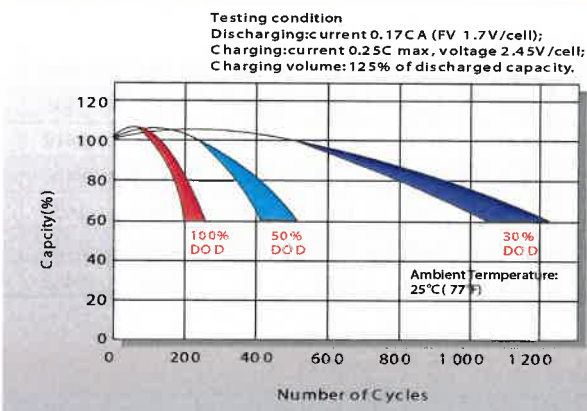
Temperature Effects in Relation to Battery Capacity



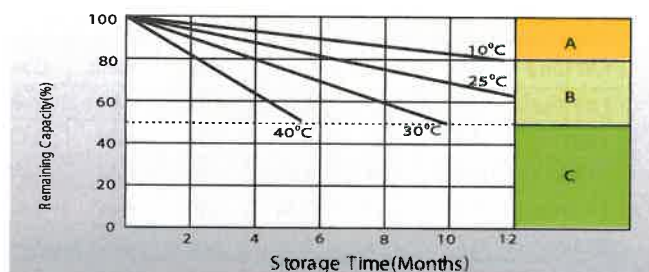
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary charging required (Carry out supplementary charging before use if 100% capacity is required.)
- B** Supplementary charging required before use. Optimal 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 0.05 CA.
- C** Supplementary charging may often fail to recover the capacity. The battery should never be left standing till this is reached.