

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP45-12

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(2.25A	to	10.50V)	45Ah
10 hour rate	(4.275A	to	10.50V)	42.75Ah
5 hour rate	(7.65A	to	10.20V)	38.25Ah
1 C	(45A	to	9.60V)	25.5Ah
3 C	(135A	to	9.60V)	18Ah

Weight Approx. 14.5kg(31.9Lbs.)

Internal Resistance (at 1KHz) Approx. 7 mΩ

Maximum Discharge Current for
5 seconds: 540A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.7 to 14.8V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current:	13.5A
Standby use:	
Float Charging Voltage	13.5 to 13.8V
Coefficient	-3.0mV/°C/cell

Operating Temperature Range

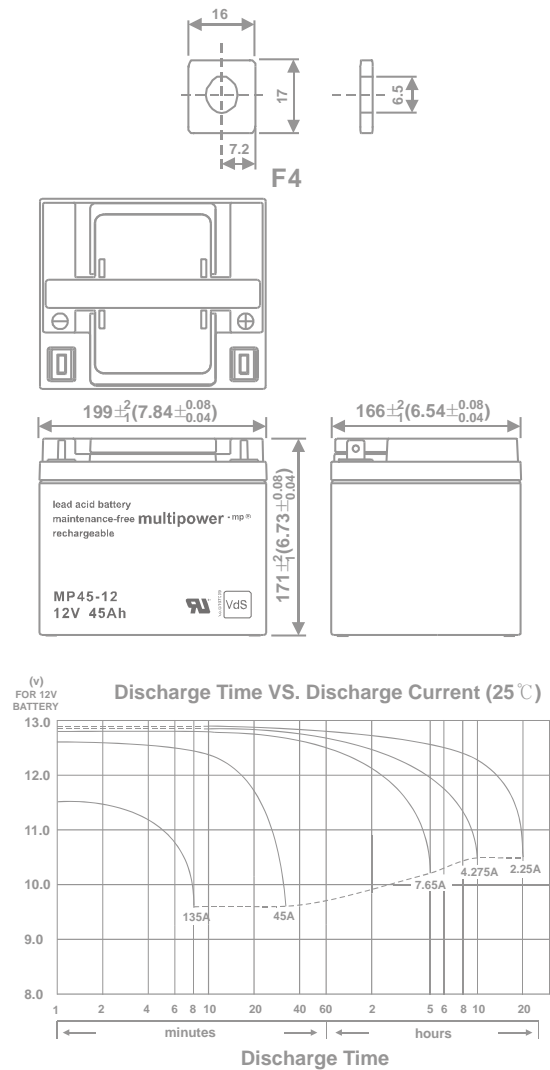
Charge	-15°C(5°F)	to	40°C(104°F)
Discharge	-15°C(5°F)	to	50°C(122°F)
Storage	-15°C(5°F)	to	40°C(104°F)

Charge Retention (shelf life) at 20°C(68°F)

1 month	92%
3 month	90%
6 month	80%

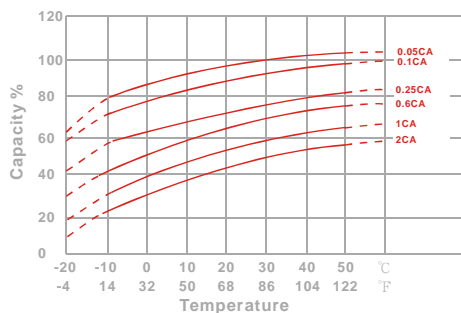
Case Material ABS
(UL94 HB flame retardant case / cover)

Terminal F4

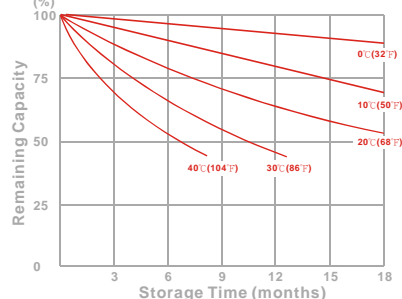


CHARACTERISTIC & PERFORMANCE DATA

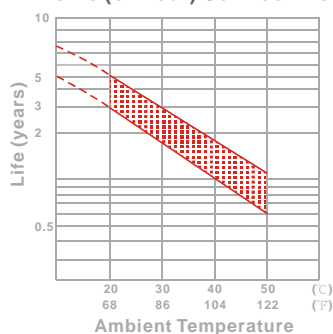
Effect of Temperature on Capacity 25°C(77°F)



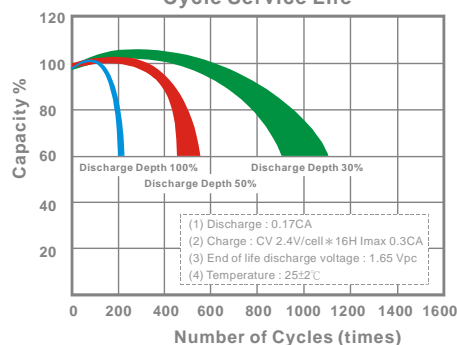
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25°C(77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	1399	1683	1884	2014	2048	2085	2122
10	min	890	1071	1199	1281	1303	1327	1350
15	min	694	816	901	955	969	985	1001
30	min	372	438	483	512	519	528	537
60	min	293	311	321	329	332	336	338
120	min	154	164	169	174	175	177	178
180	min	123	131	135	138	139	141	142
240	min	98.4	104	108	111	112	113	114
300	min	84.0	89.1	92.2	94.4	95.3	96.3	97.1
600	min	49.4	52.4	54.2	55.6	56.1	56.6	57.1
1200	min	26.0	27.6	28.6	29.3	29.6	29.9	30.1

- Discharge Rates in Amperes to Various End Voltages at 25°C(77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	127	153	171	183	186	190	193
10	min	79.5	95.6	107	114	116	118	121
15	min	60.3	71.0	78.3	83.1	84.2	85.6	87.0
30	min	31.7	37.3	41.1	43.6	44.2	45.0	45.7
60	min	24.6	26.1	27.0	27.7	27.9	28.2	28.4
120	min	12.9	13.7	14.2	14.6	14.7	14.8	14.9
180	min	10.3	10.9	11.3	11.5	11.6	11.8	11.9
240	min	8.20	8.70	9.00	9.22	9.31	9.40	9.48
300	min	6.97	7.40	7.65	7.84	7.91	7.99	8.06
600	min	4.10	4.35	4.50	4.61	4.65	4.70	4.74
1200	min	2.15	2.28	2.36	2.42	2.44	2.47	2.49

All data on the spec. sheet is an average value:

The tolerance range : $X < 6\text{min}$ (+15%~-15%), $6\text{min} \leq X < 10\text{min}$ (+12%~-12%), $10\text{min} \leq X < 60\text{min}$ (+8%~-8%), $X \geq 60\text{min}$ (+5%~-5%)