

## EXP1245 (12V 4.5Ah)

### Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	4.5Ah@20hour-rate to 1.75V per cell @77°F
Weight	Approx. 2.87 lbs (Tolerance±3.0%)
Internal Resistance	Approx. 12 m Ω
Terminal	F1
Max. Discharge Current	45A (5 sec)
Short Circuit Current	234A
Design Life	6~8 years (Float charging)
Max. Charging Current	1.35 A
Reference Capacity	C3 3.48AH C5 3.93AH C10 4.21AH C20 4.50AH
Standby Use Voltage	13.7V~13.9V @ 77°F Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8V @ 77°F Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -4°F~140°F Charge: 32°F~122°F Storage: -4°F~140°F
Normal Operating Temperature Range	77°F±41°F
Self Discharge	EXP Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 77°F, after which recharging is recommended. The monthly self-discharge ratio is less than 3% at 77°F. Please ensure that you charge the batteries before using them.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



The EXP series is a general-purpose battery with a designed life of 6~8 years in float service. It meets the standards of IEC, JIS, BS, GB/T, and YD/T. With advanced AGM valve-regulated technology and high-purity raw materials, the EXP series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPs, medical equipment, emergency lighting, and security system applications.



ISO 9001



ISO 14001



OHSAS 18001

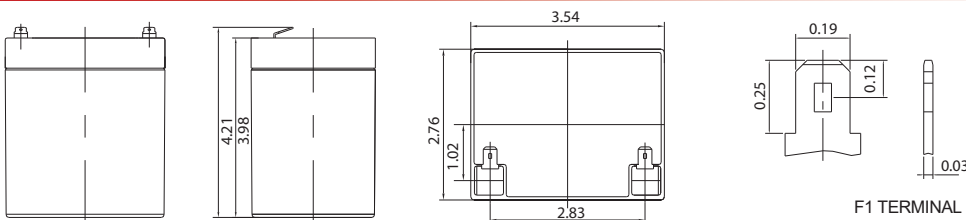


MH 61046



G4M20206-0910-E-16

### Dimensions



Length	3.54 ± 0.06in
Width	2.76 ± 0.06in
Height	3.98 ± 0.06in
Total Height	4.21 ± 0.06in
Terminal	Value

Unit: inch

### Constant Current Discharge Characteristics : A (77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	75.88	53.63	38.77	22.27	12.22	7.503	5.640	4.553	3.773	2.428	1.972	1.041
1.65V	70.56	50.68	37.06	21.38	11.80	7.263	5.466	4.430	3.675	2.401	1.948	1.025
1.70V	63.67	46.65	34.71	20.43	11.42	7.024	5.317	4.310	3.579	2.364	1.919	1.012
1.75V	57.04	42.70	32.30	19.53	11.00	6.778	5.159	4.199	3.489	2.331	1.893	1.000
1.80V	50.09	38.66	29.83	18.67	10.58	6.536	4.999	4.079	3.399	2.291	1.869	0.990
1.85V	39.75	31.59	24.75	16.08	9.488	5.988	4.621	3.791	3.170	2.151	1.760	0.940

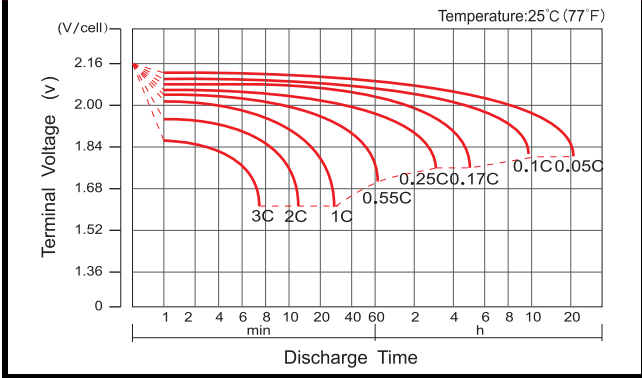
### Constant Power Discharge Characteristics : WPC (77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	125.8	91.16	67.77	40.44	22.96	14.22	10.77	8.742	7.272	4.742	3.877	2.050
1.65V	118.3	87.80	65.75	39.23	22.30	13.83	10.48	8.537	7.110	4.699	3.835	2.021
1.70V	109.2	82.32	62.51	37.88	21.71	13.45	10.24	8.336	6.949	4.637	3.782	1.999
1.75V	100.0	76.71	59.01	36.58	21.04	13.04	9.981	8.154	6.798	4.582	3.737	1.977
1.80V	89.68	70.65	55.26	35.31	20.36	12.64	9.710	7.948	6.646	4.514	3.694	1.960
1.85V	72.68	58.76	46.51	30.72	18.37	11.64	9.016	7.415	6.218	4.247	3.482	1.863

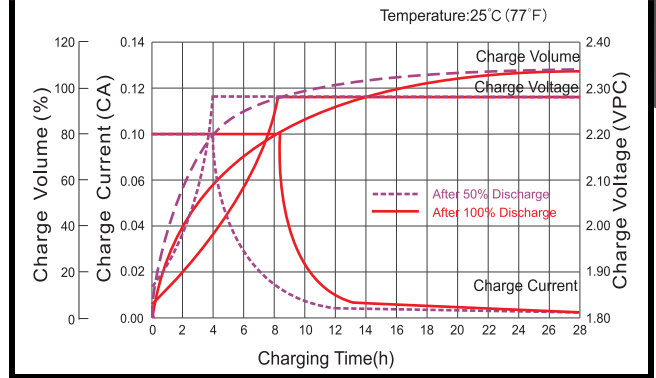
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C20 should reach 95% after the first cycle and 100% after the third cycle.

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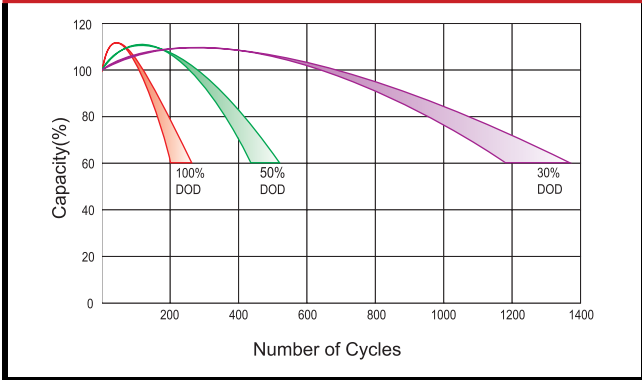
### Discharge Characteristics Curve



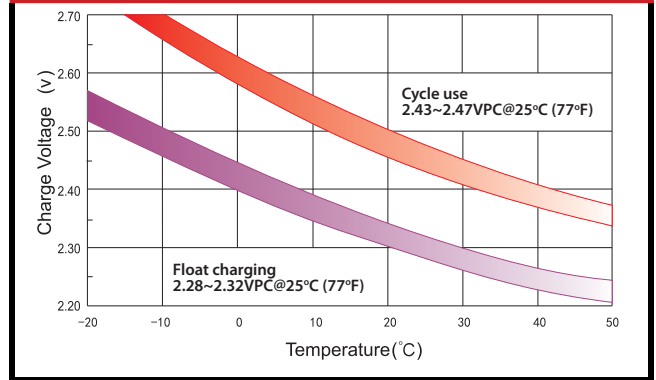
### Charge Characteristic Curve For Standby Use



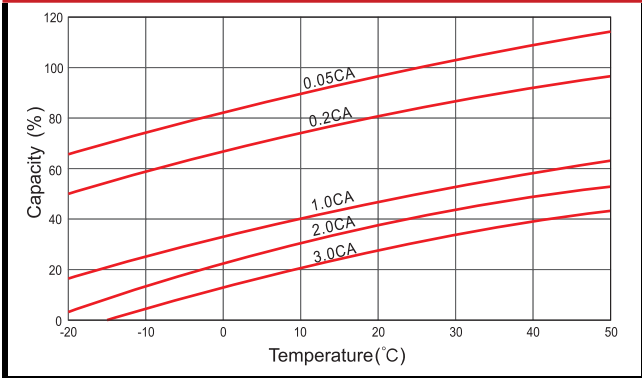
### Cycle Life In Relation To Depth Of Discharge



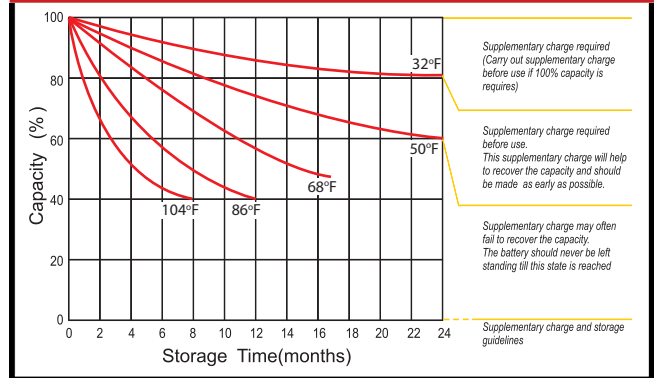
### Relationship Between Charging Voltage And Temperature



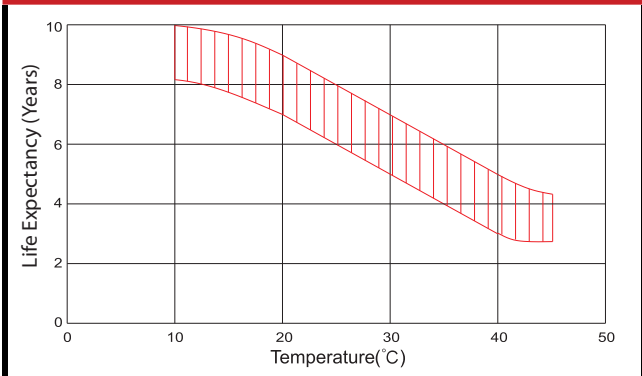
### Temperature Effects On Capacity



### Storage Characteristics



### Effect Of Temperature On Long Term Life



### Life Characteristics Of Standby Use

