

HP12-90 (12V90Ah)



Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	90Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 28.5 Kg (Tolerance ±2.0%)
Internal Resistance	Approx. 5.2 mΩ
Terminal	F12(M8)/F15(M6)
Max. Discharge Current	900A (5 sec)
Short Circuit Current	1940A
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	27 A
Reference Capacity	C3 69.8AH C5 80.4AH C10 90.0AH C20 95.2AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ±5°C
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



HP is a general purpose battery with **12 years** design life (**EUROBAT CLASSIFICATION**) in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the HP series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.



Dimensions

Technical drawing of a battery pack showing top, front, and side views with dimensions.

- Top View:** Length 306.5, Width 168.5.
- Front View:** Height 210, Total Height 215.
- Side View:** Length 238, Height 24.
- Terminal Detail:** F12 Terminal, M8, $\Phi 16$.

Length	306.5±2mm (12.1 inches)
Width	168.5±2mm (6.63 inches)
Height	210±2mm (8.27 inches)
Total Height	215±2mm (8.46 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F12 Terminal

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	221.1	164.8	95.38	55.97	33.53	24.62	20.00	16.88	11.28	9.59	4.92
1.65V	214.5	160.5	93.28	54.94	33.04	24.30	19.75	16.69	11.17	9.50	4.88
1.70V	205.9	154.8	90.52	53.56	32.39	23.86	19.42	16.43	11.02	9.38	4.83
1.75V	194.7	147.4	86.89	51.76	31.53	23.28	18.98	16.08	10.81	9.22	4.76
1.80V	180.4	137.9	82.19	49.40	30.39	22.52	18.40	15.63	10.55	9.00	4.67
1.85V	162.5	125.9	76.19	46.36	28.91	21.53	17.64	15.03	10.19	8.72	4.54

Constant Power Discharge Characteristics : WPC (25°C)

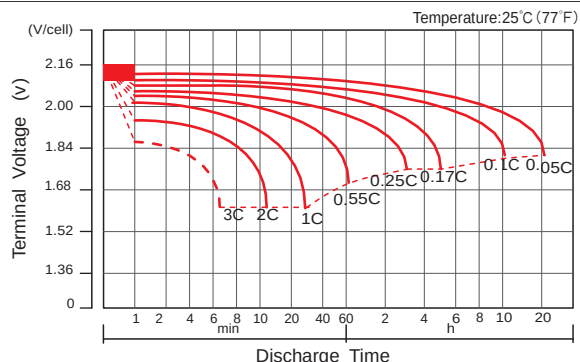
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	381.4	292.5	175.8	106.2	64.51	47.73	38.97	33.03	22.36	19.14	9.83
1.65V	379.9	290.8	174.5	105.4	64.03	47.39	38.69	32.82	22.20	19.00	9.77
1.70V	368.7	282.9	170.3	103.1	62.96	46.65	38.13	32.37	21.93	18.77	9.68
1.75V	354.9	273.4	165.2	100.1	61.56	45.72	37.41	31.80	21.57	18.47	9.55
1.80V	334.6	259.3	157.8	96.01	59.64	44.40	36.40	31.01	21.09	18.06	9.37
1.85V	306.8	240.1	147.8	90.75	57.05	42.63	35.03	29.92	20.43	17.52	9.14

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

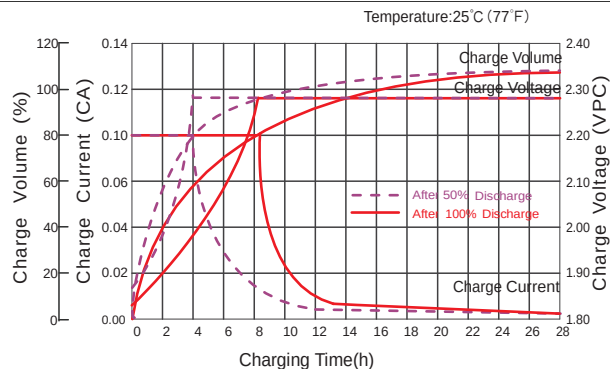
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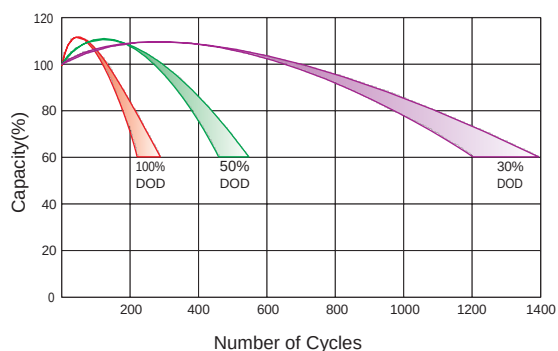
Discharge Characteristics Curve



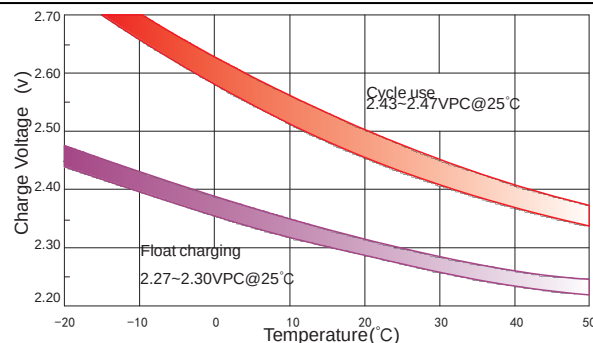
Charge Characteristic Curve For Standby Use



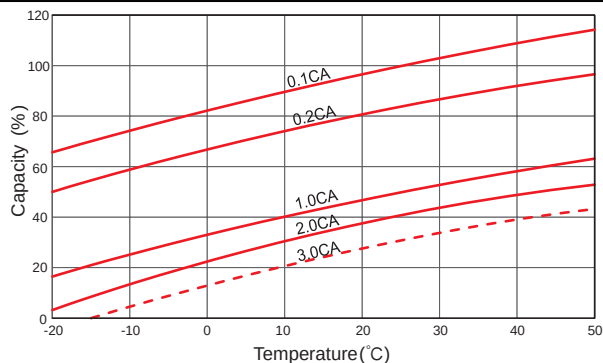
Cycle Life In Relation To Depth Of Discharge



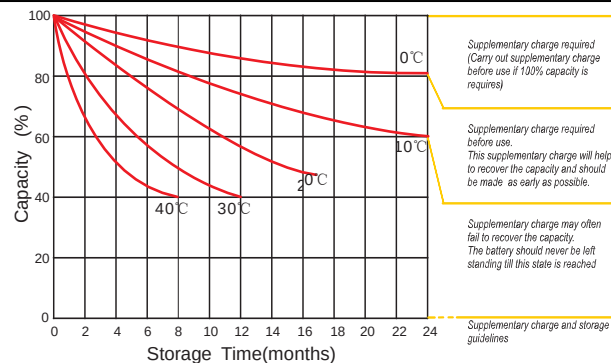
Relationship Between Charging Voltage And Temperature



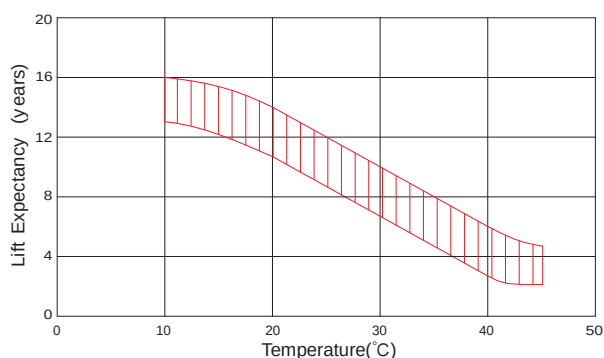
Temperature Effects On Capacity



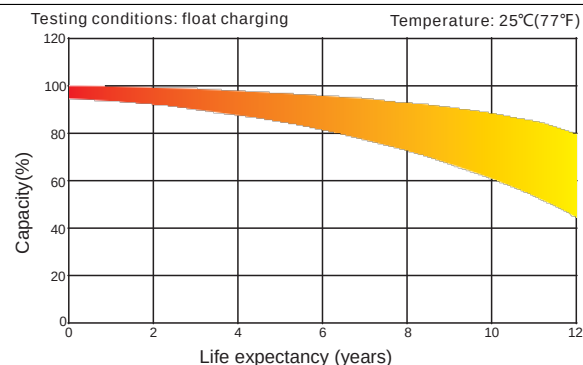
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, We reserves the right to explain and update the latest information.