

HP12-18 (12V-18Ah/70W)



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	70W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 5.60 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 12 mΩ
Terminal	F3(M5)/F13(M5)
Max. Discharge Current	180A (5 sec)
Short Circuit Current	860A
Design Life	Could Reach 8~10
Recommended Maximum Charging Current	5.4 A
Reference Capacity	C10 17.0AH C20 18.0AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C
Cycle Use Voltage	14.6 V~14.8 V @ 25°C
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.
Constainer Material	A.B.S. UL94-HB, UL94-V0 Optional.

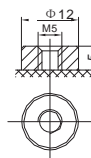
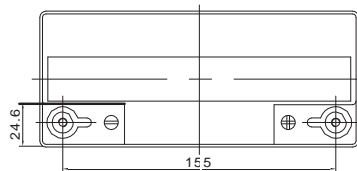
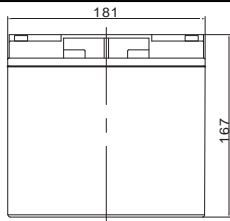


The **HP (High Rate)** series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 8~10 years design life in float service.

By using strong grids and specially designed active material the **HP** series is with lower I.R, lower self discharge rate, high power, and longer service life performance. Generally the **HP** series offers 30% more power output than the standard range. Suitable for high power standby and cycling situation, such as UPS, datacenter, electric tools, etc.



Dimensions



F13 TERMINAL

Length	181±1mm (7.13 inches)
Width	77±1mm (3.03 inches)
Height	167±1mm (6.57 inches)
Total Height	167±1mm (6.57 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	82.73	71.94	59.81	52.77	40.79	33.02	24.18	14.10	10.27
1.67V	76.56	66.57	56.11	49.52	38.67	30.80	23.05	13.44	9.78
1.70V	73.37	63.80	54.14	47.72	37.48	29.63	22.39	13.05	9.49
1.75V	69.30	60.26	51.43	44.81	35.72	28.82	21.76	12.83	9.28
1.80V	65.18	56.68	48.72	41.88	33.93	27.96	21.10	12.58	9.05
1.85V	60.83	52.89	45.81	38.83	32.00	26.99	20.32	12.28	8.78

Constant Power Discharge Characteristics : WPC (25°C)

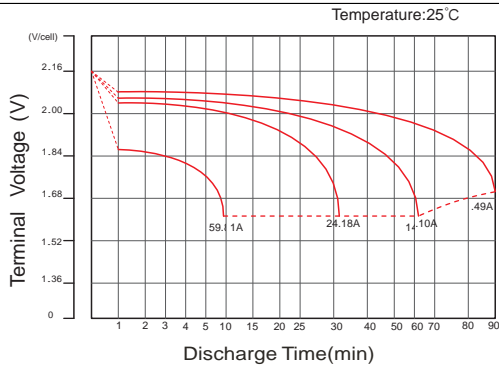
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	150	130	110	97.6	75.9	60.7	44.5	26.1	19.1
1.67V	140	122	104	92.4	72.6	57.2	42.9	25.1	18.3
1.70V	136	118	102	90.1	71.2	55.6	42.1	24.7	18.0
1.75V	130	113	97.8	85.7	68.7	54.8	41.5	24.6	17.8
1.80V	124	108	94.0	81.3	66.2	53.9	40.8	24.4	17.6
1.85V	118	103	90.2	76.9	63.7	53.1	40.1	24.3	17.5

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

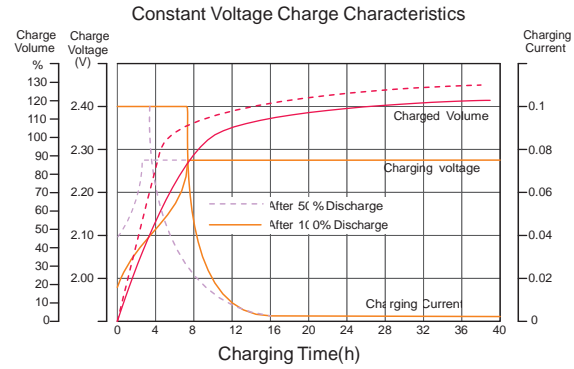
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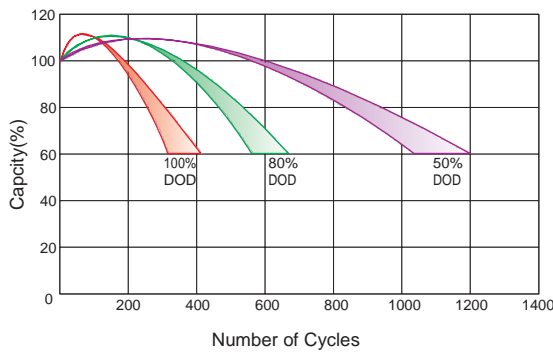
Discharge Characteristics Curve



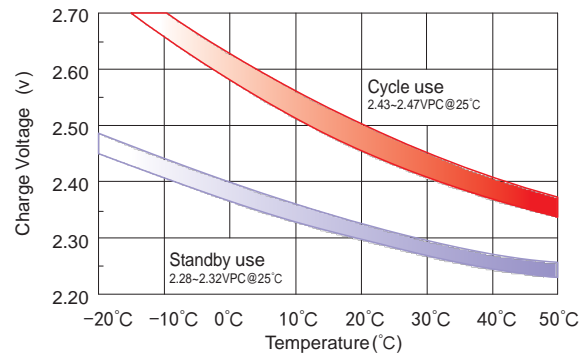
Charge Characteristic Curve For Standby Use



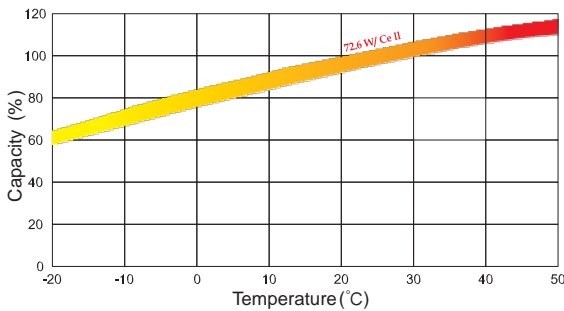
Cycle Life In Relation To Depth Of Discharge



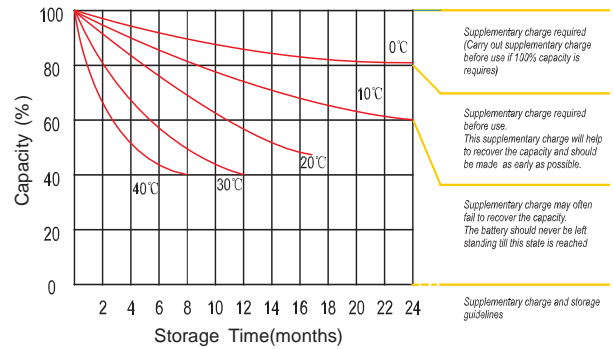
Relationship Between Charging Voltage And Temperature



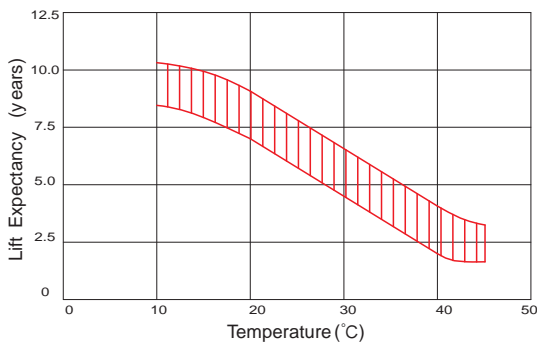
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

