

HP12-55 (12V-55 Ah/200W)



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	200W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 18.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.7 mΩ
Terminal	F11(M6)
Max. Discharge Current	550A (5 sec)
Short Circuit Current	1350A
Design Life	Could Reach 15 years
Recommended Maximum Charging Current	16.5 A
Reference Capacity	C10 51.9AH C20 55.0AH
Standby Use Voltage	13.6 V~13.8 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 15 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

Technical drawing of the battery showing top, side, and front views with dimensions:

- Top View:** Length 229±1mm (9.02 inches), Width 138±1mm (5.43 inches).
- Side View:** Height 211±1mm (8.31 inches), Total Height 216±1mm (8.50 inches).
- Front View:** Shows the battery terminals and mounting points. Dimensions include 132mm for the terminal spacing and 18mm for the terminal height.
- Terminal Detail:** Shows the terminal type (F11 TERMINAL) and dimensions: Φ14, M6, and 5mm.

Length	229±1mm (9.02 inches)	
Width	138±1mm (5.43 inches)	
Height	211±1mm (8.31 inches)	
Total Height	216±1mm (8.50 inches)	
Terminal	Value	
M5	6~7	N*m
M6	8~10	N*m
M8	10~12	N*m

F11 TERMINAL

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	194.4	166.5	149.7	119.0	95.6	70.0	40.3	29.8
1.67V	179.9	156.2	140.5	112.8	89.1	66.8	38.4	28.4
1.70V	172.4	150.7	135.4	109.3	85.7	64.9	37.3	27.5
1.75V	162.9	143.2	127.2	104.2	83.4	63.1	36.7	26.9
1.80V	153.2	135.6	118.8	98.9	80.9	61.1	35.9	26.3
1.85V	142.9	127.5	110.2	93.3	78.1	58.9	35.1	25.5

Constant Power Discharge Characteristics : WPC (25°C)

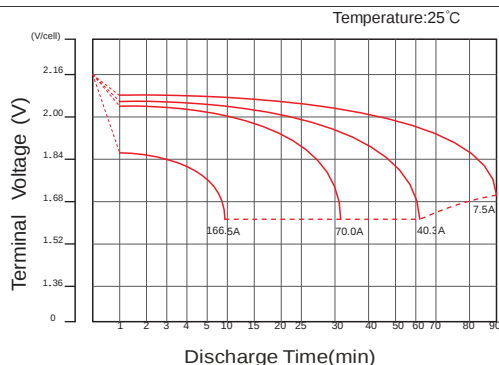
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	347	301	273	218	176	129	74.5	55.4
1.67V	324	285	258	209	165	124	71.7	53.2
1.70V	314	279	252	204	161	122	70.4	52.2
1.75V	300	268	239	197	159	120	70.1	51.7
1.80V	287	258	227	190	156	118	69.8	51.2
1.85V	273	247	215	183	154	116	69.5	50.7

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

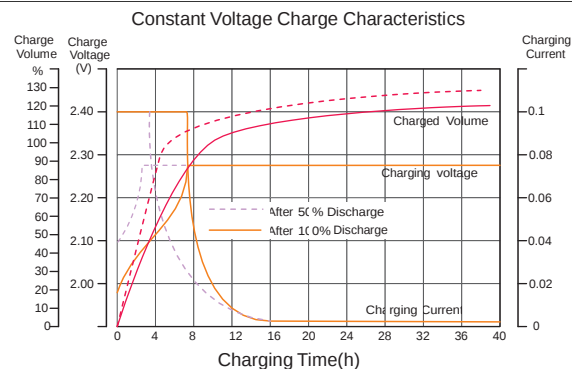
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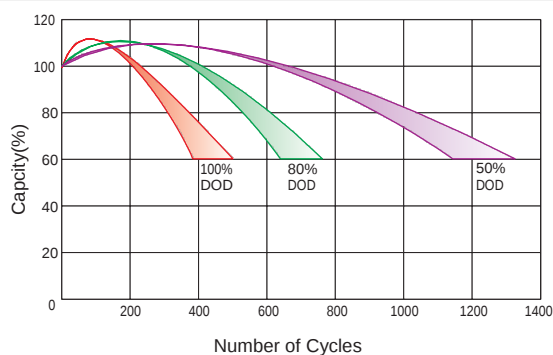
Discharge Characteristics Curve



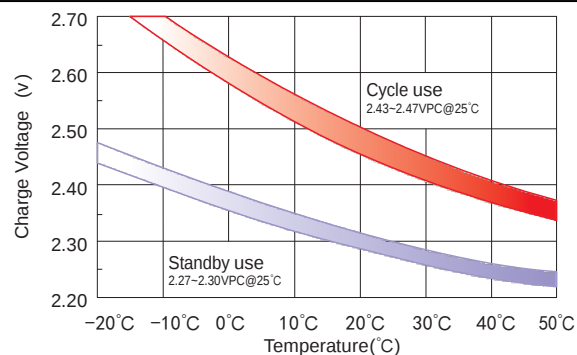
Charge Characteristic Curve For Standby Use



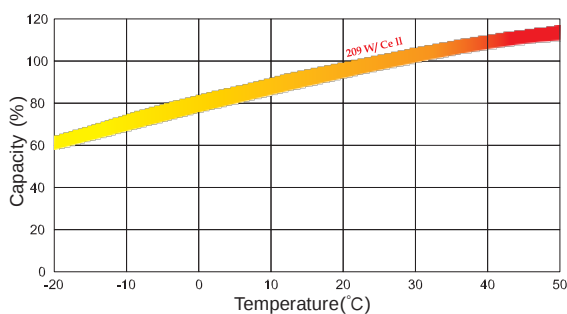
Cycle Life In Relation To Depth Of Discharge



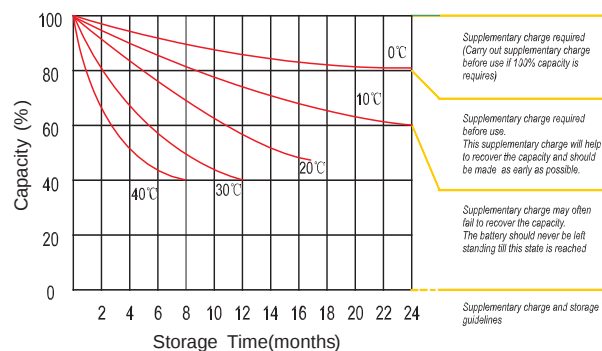
Relationship Between Charging Voltage And Temperature



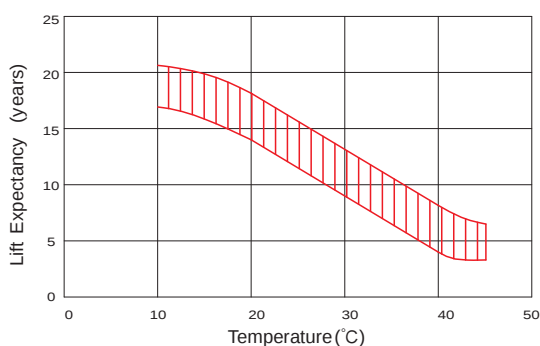
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

