

VHL95-12FR (Flame Retardant) 12 Volt, 95Watt/Cell High Rate Industrial Battery



Features

- High Rate Industrial Battery 30% better high power discharge performance compared to conventional batteries
- Pure Lead Battery Technology improves battery theoretical lifetime
- UL 94-V0 Grade Flame Retardant Material

Specifications

Rated Voltage	12V	
Nominal Capacity	95 watt/cell	
Dimension	Length	181mm (7.13 inches)
	Width	77mm (3.03 inches)
	Container Height	167mm (6.57 inches)
	Total Height	167mm (6.57 inches)
Approx Weight	6.5 Kg (14.3 lbs)	
Terminal	M6	
Container Material	VL 94-V0	
Max. Discharge Current	310A (5s)	
Internal Resistance (25°C)	Approx 5.0mΩ	
Operating Temp.Range	Discharge	-20~60°C
	Charge	-10~60°C
	Storage	-20~60°C
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	14.4V-14.7V. Maximum Charging Current 8.4A Temperature Compensation -30mV/°C	
Standby Use	13.4V-13.8V. Temperature Compensation -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	VHLseries batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Constant Power Discharge (Watts/cell) at 25 °C (77 °F)

End Voltage Per cell / V	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60	167	116	90.8	72.0	60.7	53.2	46.9	42.2	38.6	35.5	32.9	30.8	21.6	17.0	14.2	12.3	9.62	8.00	6.77	5.89	5.23	4.71	4.30	3.66	1.93
1.65	160	112	87.6	69.6	58.7	51.5	45.4	40.9	37.4	34.4	32.0	30.0	21.0	16.5	13.8	12.0	9.40	7.82	6.62	5.76	5.12	4.62	4.22	3.59	1.90
1.70	153	107	84.4	67.1	56.7	49.8	44	39.6	36.2	33.4	31.1	29.1	20.4	16.1	13.5	11.7	9.17	7.64	6.47	5.63	5.01	4.52	4.13	3.53	1.87
1.75	146	103	81.3	64.7	54.7	48.0	42.5	38.3	35.1	32.3	30.1	28.3	19.8	15.6	13.1	11.4	8.94	7.46	6.32	5.51	4.90	4.42	4.05	3.46	1.83
1.80	139	98.6	78.1	62.2	52.7	46.3	41.0	37.0	33.9	31.3	29.2	27.4	19.3	15.2	12.7	11.1	8.71	7.28	6.17	5.38	4.79	4.33	3.96	3.40	1.80

VHL95-12FR (Flame Retardant) 12 Volt, 95Watt/Cell High Rate Industrial Battery

HALLE Industrial Battery

Applications

- UPS
- For standard power cabinet
- Network connection equipment of communication system
- Power system of special network of local area network
- Power station systems

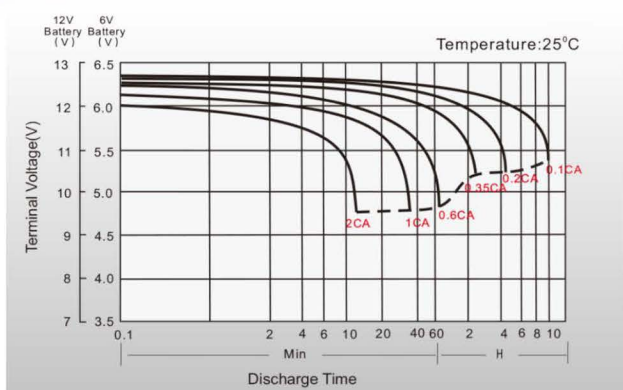
General Features

- 12 years design life(20°C)
- Unique vent valve design: reduce water losing and prevent air/spark going inside

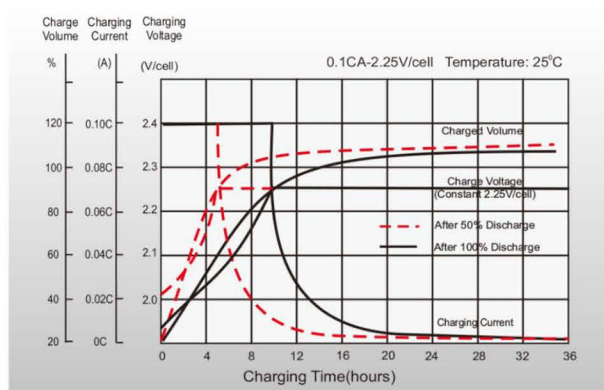
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

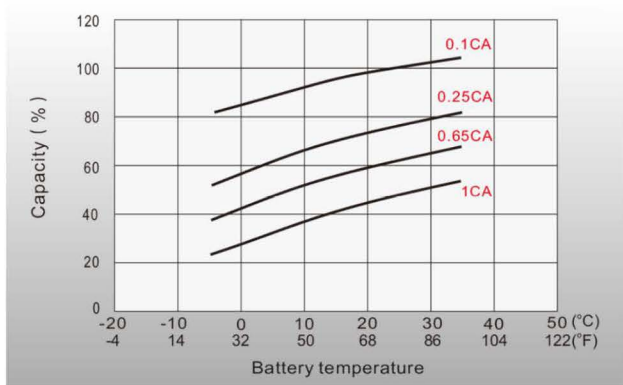
Discharge Characteristics



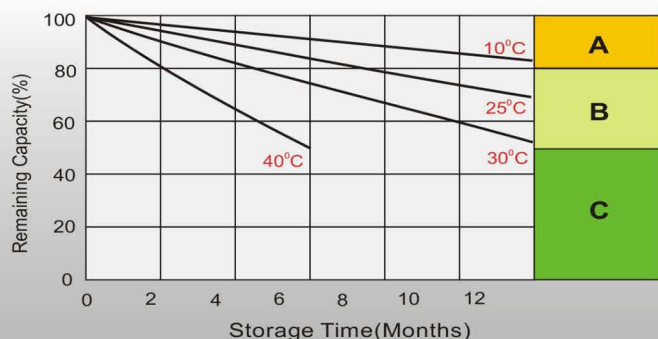
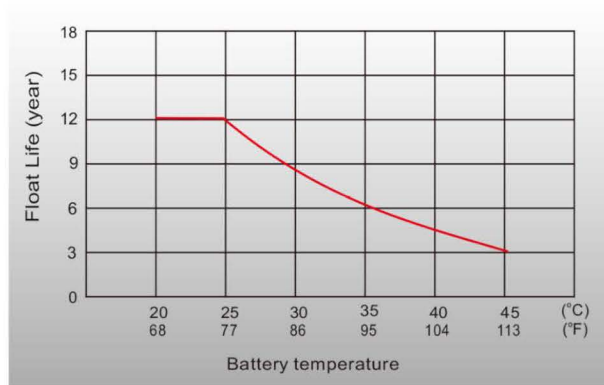
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.