



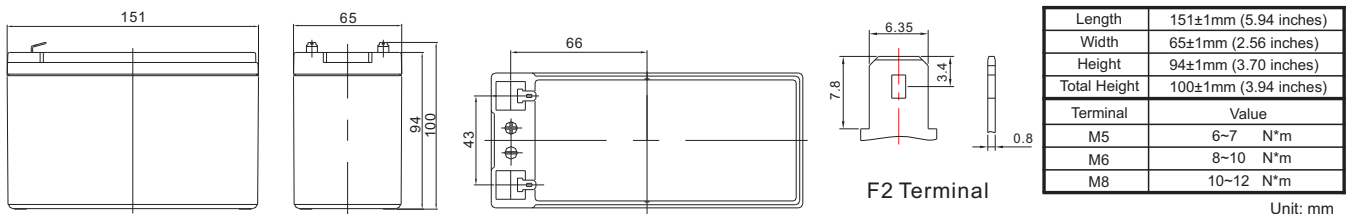
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	48W@10 min-rate to 1.60 V per cell @25°C
Weight	Approx. 2.60 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 18 mΩ
Terminal	F2
Max. Discharge Current	90A (5 sec)
Short Circuit Current	450A
Design Life	Could Reach 8 years
Recommended Maximum Charging Current	2.7 A
Reference Capacity	C10 8.5AH C20 9.0AH
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	KAISE 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 HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 8 years design life in float service. By using strong grids and specially designed active material the HR series is with lower I.R, lower self discharge rate, high power, and longer service life performance. Generally the HR series offers 30% more power output than the standard range. Suitable for high power standby and cycling situation, such as UPS, datacenter, electric tools et al.



Dimensions



Constant Current Discharge Characteristics : A (25°C)

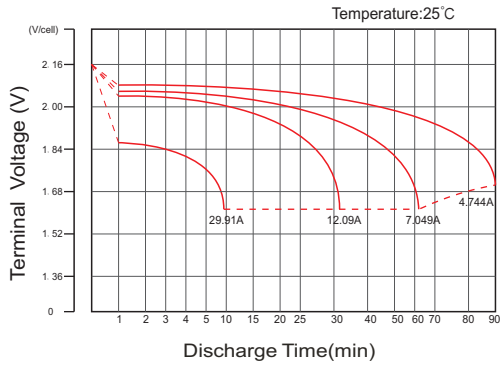
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	41.37	35.97	29.91	26.39	20.40	16.51	11.73	6.686	4.873
1.67V	38.28	33.29	28.05	24.76	19.33	15.40	11.18	6.372	4.639
1.70V	36.69	31.90	27.07	23.86	18.74	14.81	10.86	6.189	4.499
1.75V	34.65	30.13	25.71	22.41	17.86	14.41	10.56	6.087	4.399
1.80V	32.59	28.34	24.36	20.94	16.97	13.98	10.23	5.967	4.292
1.85V	30.41	26.45	22.91	19.42	16.00	13.49	9.854	5.824	4.163

Constant Power Discharge Characteristics : WPC (25°C)

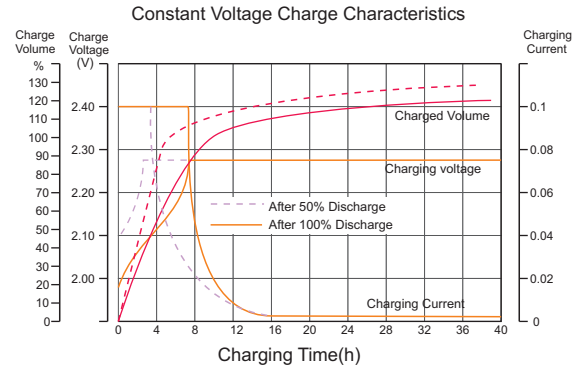
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	74.92	65.15	54.96	48.78	37.94	30.35	21.60	12.37	9.046
1.67V	70.00	60.87	52.05	46.22	36.31	28.58	20.79	11.90	8.696
1.70V	67.89	59.03	50.83	45.07	35.61	27.82	20.44	11.69	8.534
1.75V	64.93	56.46	48.90	42.86	34.37	27.40	20.12	11.65	8.449
1.80V	61.95	53.87	46.99	40.64	33.12	26.97	19.78	11.58	8.364
1.85V	58.98	51.29	45.08	38.44	31.87	26.56	19.44	11.53	8.278

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

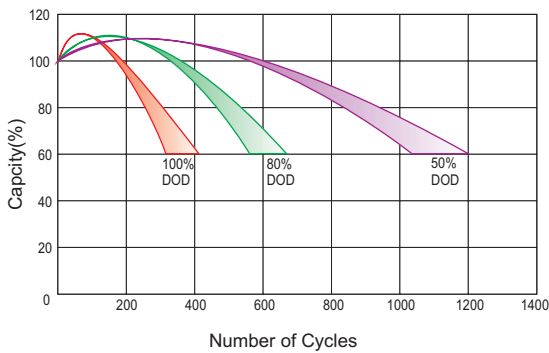
Discharge Characteristics Curve



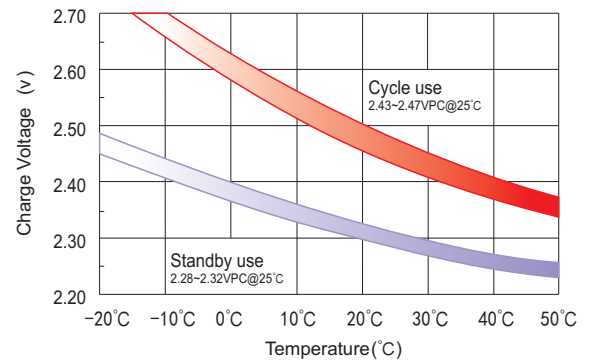
Charge Characteristic Curve For Standby Use



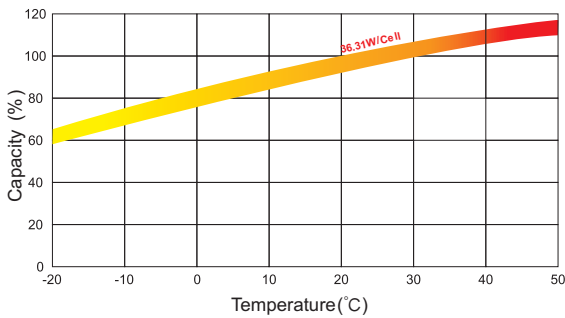
Cycle Life In Relation To Depth Of Discharge



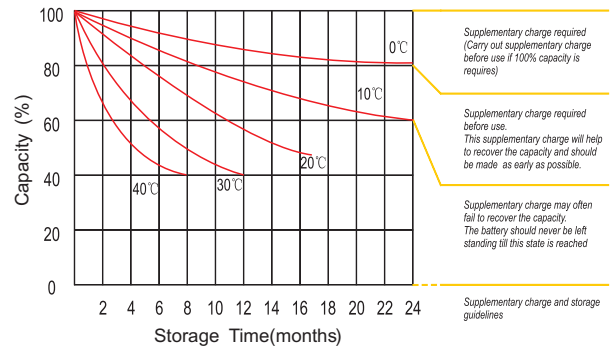
Relationship Between Charging Voltage And Temperature



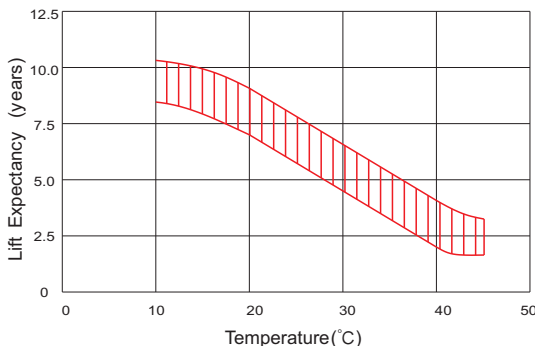
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

