OPzV12-120(12V120Ah)

RITAR®

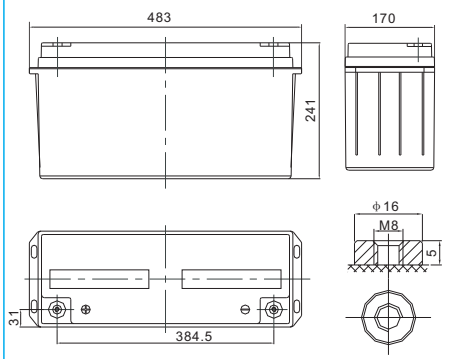
Ritar OPzV series is Valve Regulated Lead Acid battery that adopts immobilized GEL and Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to DIN standards and with die-casting positive grid and patented formula of active material OPzV series exceeds DIN standard values with more than 18 years floating design life at 25 ℃ ,and It is the best solution for cyclic use under extreme operating conditions.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	120Ah@10hr-rate to 1.80V per cell @25℃
Weight	Approx. 45.9 Kg (Tolerance±1.5%)
Internal Resistance	Approx. 7.5 mΩ
Terminal	F5(M8)/F12(M8)
Max. Discharge Current	1200A (5 sec)
Design Life	18 years (floating charge)
Maximum Charging Current	24.0 A
Reference Capacity	C24 120.8AH C48 127.7AH C72 134.1AH C100 136.8AH C120 139.5AH C240 147.7AH
Float Charging Voltage	13.5 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -40℃~60℃ Charge: -20℃~50℃ Storage: -40℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 2% at 25℃.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions

Unit: mm



F12 TERMINAL

Length	483±1mm (19.0 inches)
Width	170±1mm (6.69inches)
Height	241±1mm (9.49 inches)
Total Height	241±1mm (9.49 inches)
Torque Value	10~12 N*m

Constant Current Discharge Characteristics :A(25℃)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	59.04	46.80	33.01	25.03	20.52	17.73	15.96	12.46	10.68	5.608
1.87V	66.00	51.60	35.41	26.54	21.66	18.65	16.92	13.04	11.16	5.859
1.83V	75.60	57.60	38.40	28.29	22.80	19.46	17.52	13.62	11.64	6.112
1.80V	84.00	62.40	39.84	29.09	23.26	19.92	18.00	13.97	12.00	6.301
1.75V	93.60	66.85	41.65	30.27	23.64	20.40	18.36	14.20	12.24	6.427
1.70V	103.2	69.01	42.85	30.85	24.05	20.64	18.60	14.32	12.36	6.488
1.65V	106.5	73.33	44.29	31.68	24.40	20.88	18.84	14.43	12.48	6.552
1.60V	111.0	75.84	45.97	33.01	25.08	21.24	19.08	14.55	12.60	6.616

Constant Power Discharge Characteristics : WPC(25℃)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	113.0	89.87	63.78	48.49	40.18	34.92	31.56	24.91	21.77	11.43
1.87V	124.4	97.56	67.64	50.80	42.31	36.60	33.36	25.96	22.70	11.92
1.83V	139.3	106.4	72.00	53.42	44.40	38.04	34.44	26.89	23.51	12.34
1.80V	152.2	113.5	74.40	54.62	45.24	38.88	35.28	27.47	24.09	12.65
1.75V	165.1	118.5	76.80	56.31	45.82	39.84	35.88	27.82	24.44	12.83
1.70V	177.0	119.8	78.76	57.24	46.53	40.20	36.24	28.05	24.68	12.96
1.65V	180.0	125.1	80.93	58.53	47.16	40.56	36.60	28.28	24.79	13.02
1.60V	182.2	128.9	82.84	60.44	48.36	40.92	36.84	28.40	24.91	13.08

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

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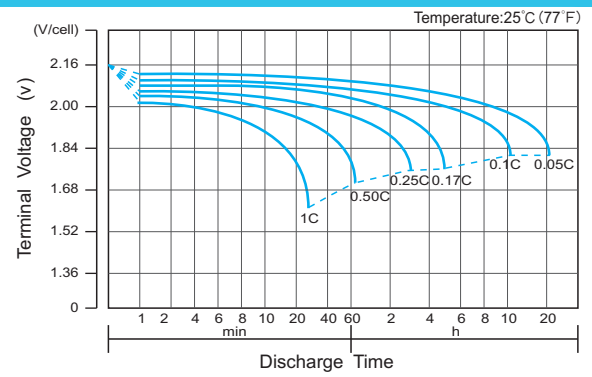
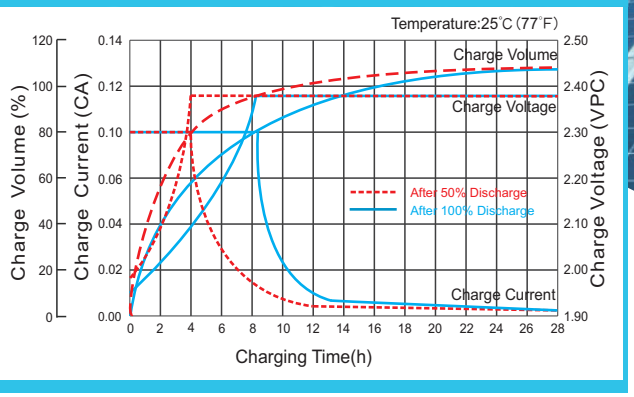
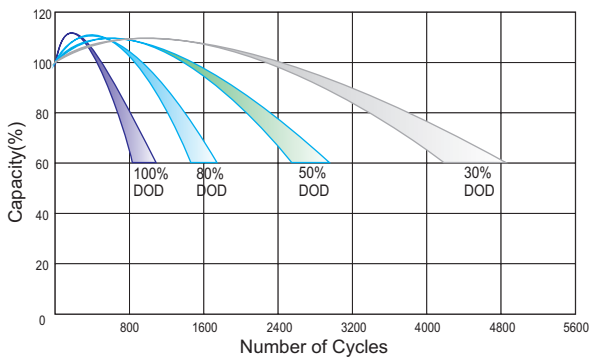
Discharge Characteristics Curve



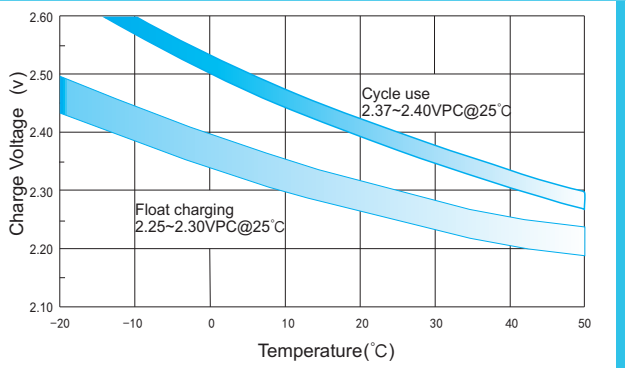
Charge Characteristic Curve for Cycle Use(IU)



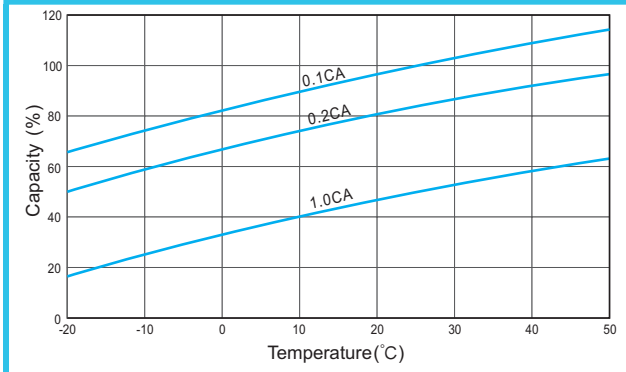
Cycle Life in Relation to Depth of Discharge



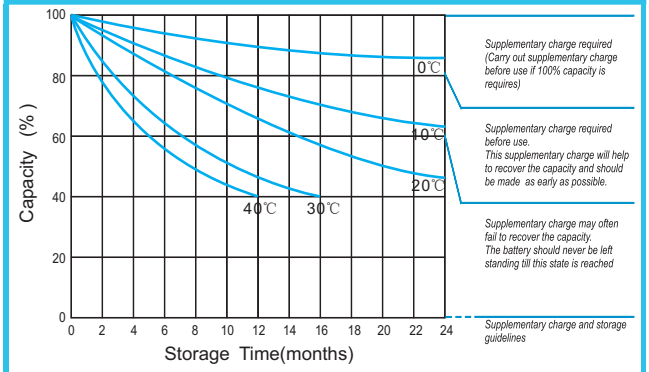
Relationship Between Charging Voltage and Temperature



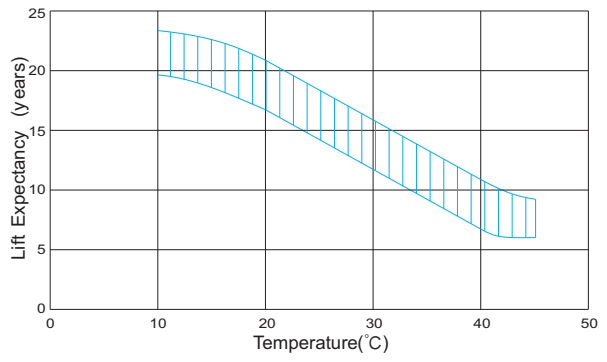
Temperature Effects on Capacity



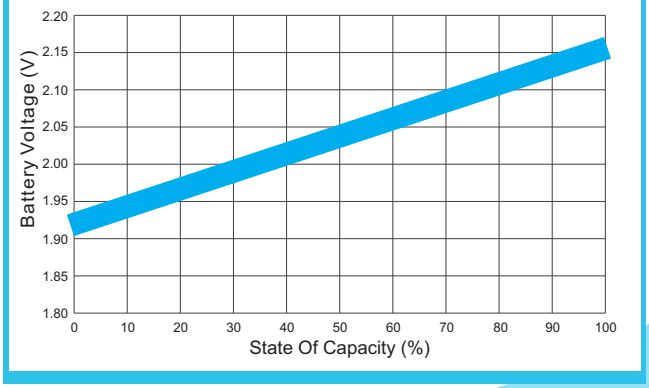
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)



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