

OPzV12-180(12V180Ah)

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 °C ,and It is the best solution for cyclic use under extreme operating conditions.

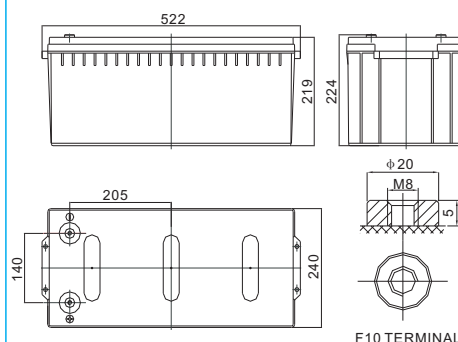
Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	180Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 66.5 Kg (Tolerance±1.5%)
Internal Resistance	Approx. 6.0 mΩ
Terminal	F16(M8)/F10(M8)
Max. Discharge Current	1800A (5 sec)
Design Life	18 years (floating charge)
Maximum Charging Current	36.0 A
Reference Capacity	C24 181.3AH C48 191.5AH C72 201.1AH C100 205.2AH C120 209.3AH C240 221.6AH
Float Charging Voltage	13.5 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	RITAR 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 2% at 25°C.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



Dimensions

Unit: mm



Length	522±1mm (20.6 inches)
Width	240±1mm (9.45 inches)
Height	219±1mm (8.62 inches)
Total Height	224±1mm (8.82 inches)
Torque Value	10~12 N*m

Constant Current Discharge Characteristics : A(25°C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	88.56	70.20	49.52	37.54	30.78	26.60	23.94	18.68	16.02	8.412
1.87V	99.00	77.40	53.12	39.81	32.49	27.98	25.38	19.56	16.74	8.788
1.83V	113.4	86.40	57.60	42.44	34.20	29.19	26.28	20.43	17.46	9.168
1.80V	126.0	93.60	59.76	43.64	34.88	29.88	27.00	20.95	18.00	9.452
1.75V	140.4	100.3	62.48	45.40	35.46	30.60	27.54	21.30	18.36	9.640
1.70V	154.8	103.5	64.28	46.28	36.08	30.96	27.90	21.48	18.54	9.732
1.65V	159.7	110.0	66.44	47.52	36.60	31.32	28.26	21.65	18.72	9.828
1.60V	166.5	113.8	68.96	49.52	37.62	31.86	28.62	21.82	18.90	9.924

Constant Power Discharge Characteristics : WPC(25°C)

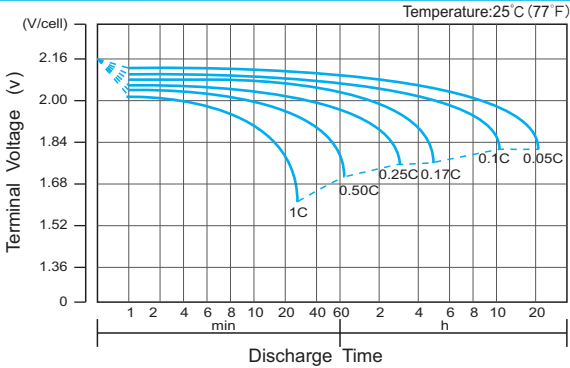
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	169.5	134.8	95.67	72.73	60.27	52.38	47.34	37.37	32.65	17.14
1.87V	186.5	146.3	101.5	76.20	63.47	54.90	50.04	38.93	34.05	17.87
1.83V	208.9	159.5	108.0	80.13	66.60	57.06	51.66	40.33	35.27	18.51
1.80V	228.3	170.2	111.6	81.93	67.87	58.32	52.92	41.21	36.14	18.97
1.75V	247.7	177.8	115.2	84.47	68.73	59.76	53.82	41.73	36.67	19.25
1.70V	265.5	179.7	118.1	85.87	69.80	60.30	54.36	42.08	37.01	19.43
1.65V	270.1	187.6	121.4	87.80	70.73	60.84	54.90	42.43	37.19	19.53
1.60V	273.3	193.4	124.3	90.67	72.53	61.38	55.26	42.60	37.37	19.61

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

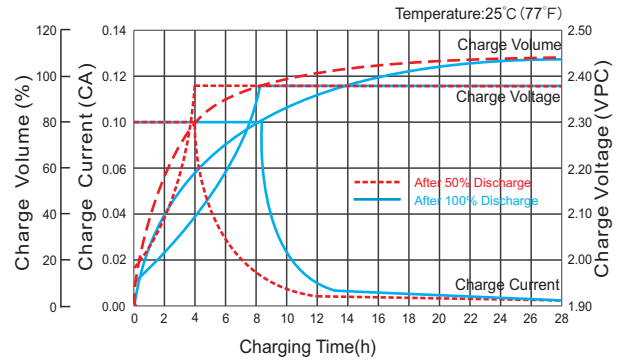
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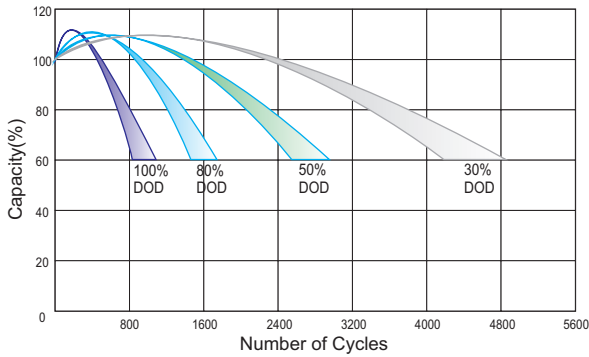
Discharge Characteristics Curve



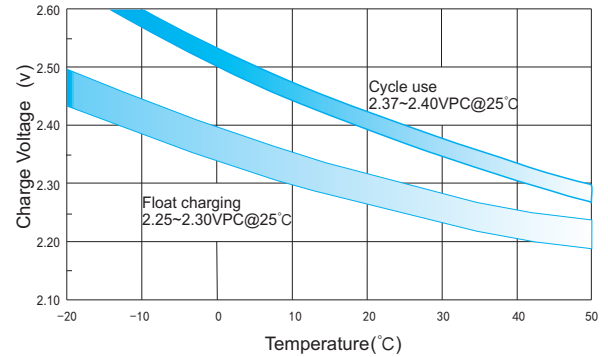
Charge Characteristic Curve for Cycle Use(IU)



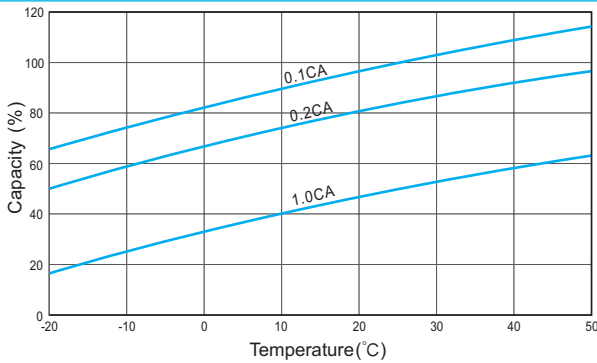
Cycle Life in Relation to Depth of Discharge



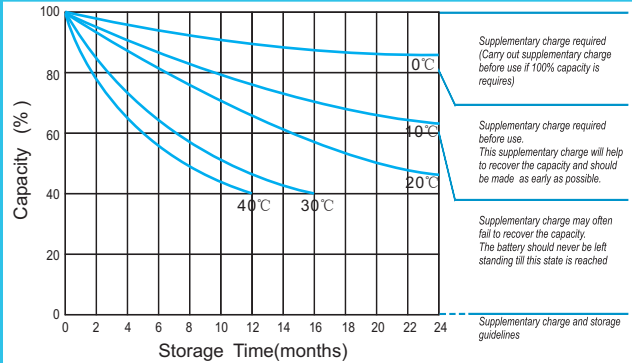
Relationship Between Charging Voltage and Temperature



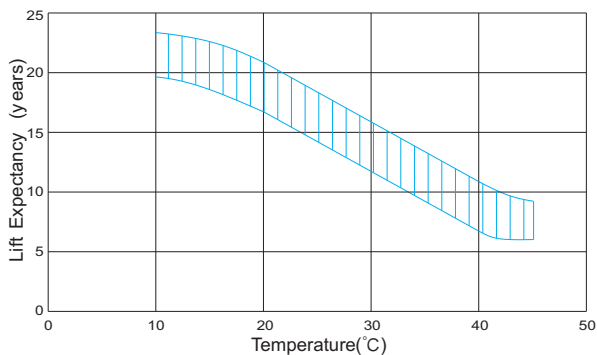
Temperature Effects on Capacity



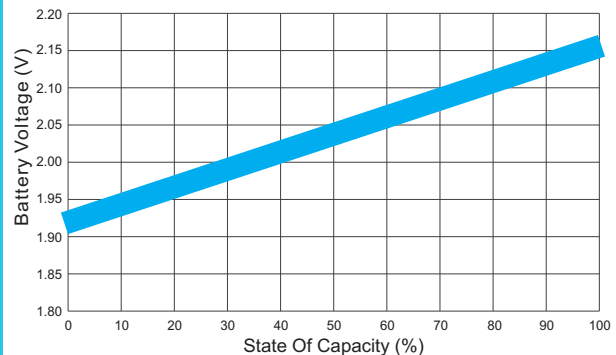
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20°C)



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