

OPzV2-420(2V420Ah)



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 20 years floating design life at 25 °C ,and It is the best solution for cyclic use under extreme operating conditions.

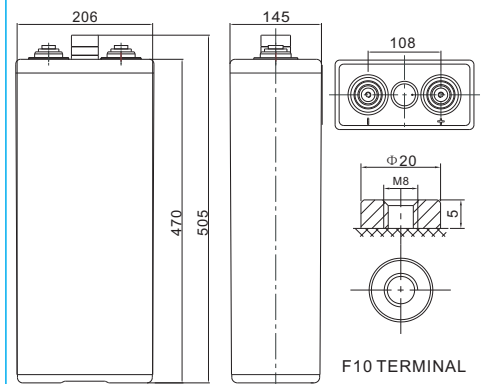


Specification

Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	420Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 33.0 Kg (Tolerance±2%)
Internal Resistance	Approx. 0.65 mΩ
Terminal	F10(M8)
Max. Discharge Current	1700A (5 sec)
Design Life	20 years (floating charge)
Maximum Charging Current	84.0 A
Reference Capacity	C24 472AH C48 525AH C72 530AH C100 540AH C120 550AH C240 559AH
Float Charging Voltage	2.25 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.35 V~2.40 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	145±1mm (5.71 inches)
Width	206±1mm (8.11 inches)
Height	470±1mm (18.5 inches)
Total Height	505±1mm (19.9 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	206.6	163.8	115.5	87.61	71.82	62.08	55.86	43.59	37.38	19.62
1.87V	231.0	180.6	123.9	92.90	75.81	65.27	59.22	45.63	39.06	20.51
1.83V	264.6	201.6	134.4	98.99	79.80	68.12	61.32	47.67	40.74	21.39
1.80V	294.0	218.4	139.4	101.9	81.40	69.72	63.00	48.89	42.00	22.05
1.75V	327.6	233.9	145.7	105.9	82.74	71.40	64.26	49.70	42.84	22.49
1.70V	361.2	241.5	149.9	108.0	84.19	72.24	65.10	50.11	43.26	22.71
1.65V	372.5	256.6	155.0	110.9	85.39	73.08	65.94	50.52	43.68	22.93
1.60V	388.5	265.4	160.9	115.5	87.78	74.34	66.78	50.93	44.10	23.15

Constant Power Discharge Characteristics : WPC(25°C)

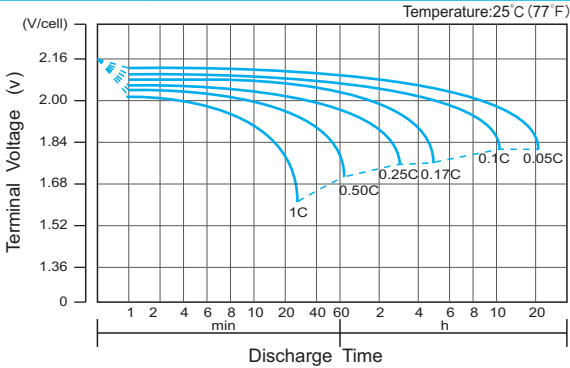
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	395.5	314.5	223.3	169.7	140.6	122.2	110.5	87.18	76.18	40.00
1.87V	435.2	341.5	236.8	177.7	148.2	128.1	116.8	90.85	79.44	41.71
1.83V	487.5	372.3	252.0	187.0	155.3	133.1	120.5	94.11	82.29	43.20
1.80V	532.7	397.2	260.4	191.2	158.3	136.1	123.5	96.15	84.33	44.27
1.75V	577.9	414.9	268.9	197.1	160.4	139.4	125.6	97.37	85.55	44.92
1.70V	619.6	419.1	275.6	200.5	162.9	140.7	126.8	98.18	86.37	45.34
1.65V	630.2	437.7	283.2	204.7	165.0	142.0	128.1	99.00	86.78	45.56
1.60V	637.8	451.2	290.0	211.5	169.3	143.2	128.9	99.41	87.18	45.77

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

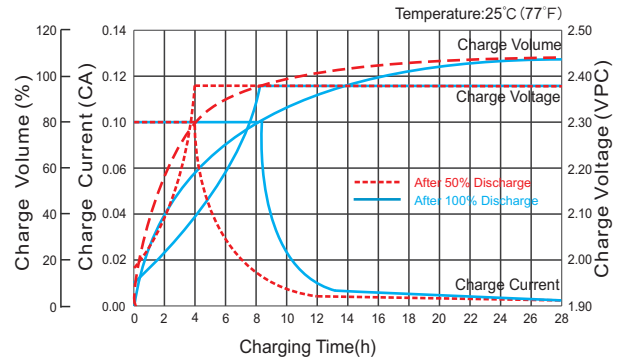
OPzV2-420(2V420Ah)



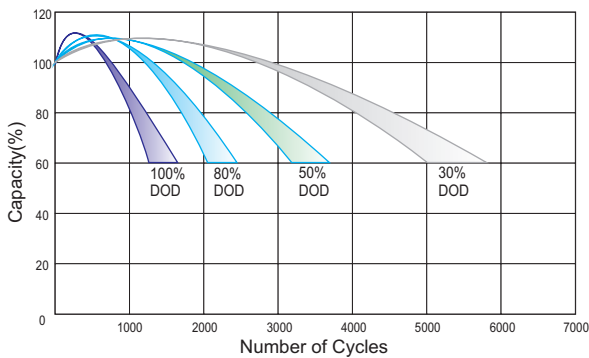
Discharge Characteristics Curve



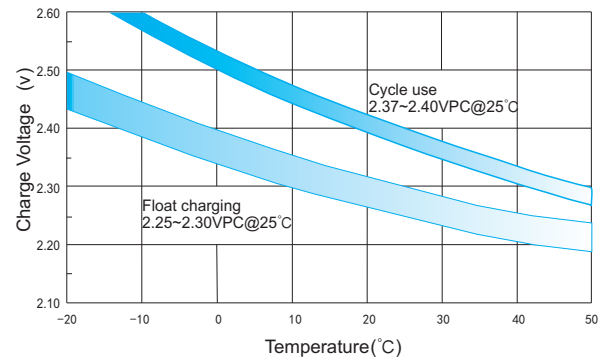
Charge Characteristic Curve for Cycle Use(IU)



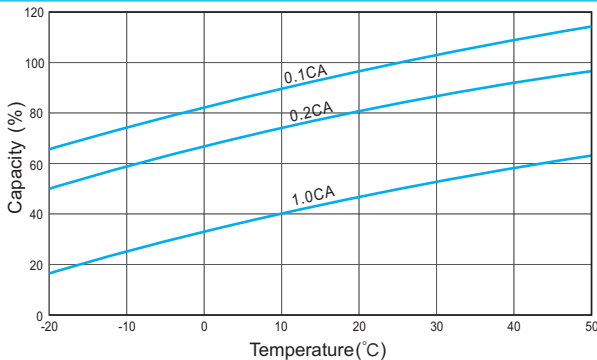
Cycle Life in Relation to Depth of Discharge



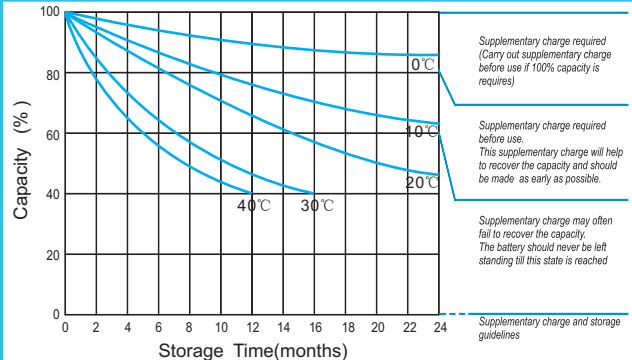
Relationship Between Charging Voltage and Temperature



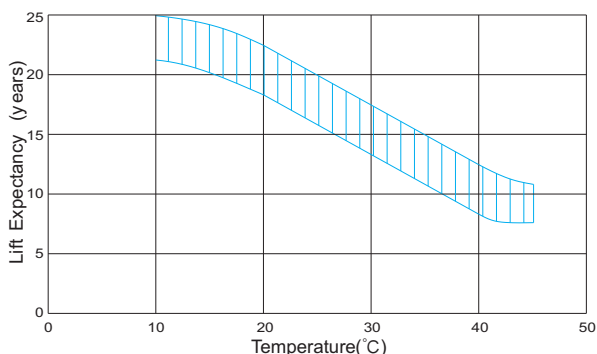
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

