

OPzV2-490(2V490Ah)



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.

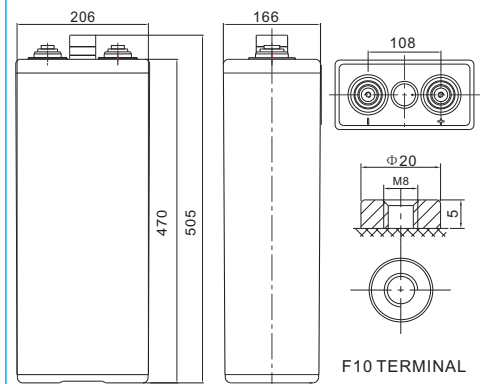


Specification

Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	490Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 38.5 Kg (Tolerance±2%)
Internal Resistance	Approx. 0.65 mΩ
Terminal	F10(M8)
Max. Discharge Current	2000A (5 sec)
Design Life	20 years (floating charge)
Maximum Charging Current	100.0 A
Reference Capacity	C24 552AH C48 613AH C72 615AH C100 625AH C120 642AH C240 653AH
Float Charging Voltage	2.25 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.37 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	166±1mm (6.54 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	246.0	195.0	137.5	104.3	85.50	73.90	66.50	51.90	44.50	23.36
1.87V	275.0	215.0	147.5	110.6	90.25	77.70	70.50	54.32	46.50	24.41
1.83V	315.0	240.0	160.0	117.9	95.00	81.10	73.00	56.75	48.50	25.46
1.80V	350.0	260.0	166.0	121.3	96.90	83.00	75.00	58.20	50.00	26.25
1.75V	390.0	278.5	173.5	126.1	98.50	85.00	76.50	59.17	51.00	26.78
1.70V	430.0	287.5	178.5	128.6	100.2	86.00	77.50	59.66	51.50	27.04
1.65V	443.5	305.5	184.5	132.0	101.7	87.00	78.50	60.14	52.00	27.30
1.60V	462.5	316.0	191.5	137.5	104.5	88.50	79.50	60.63	52.50	27.56

Constant Power Discharge Characteristics : WPC(25°C)

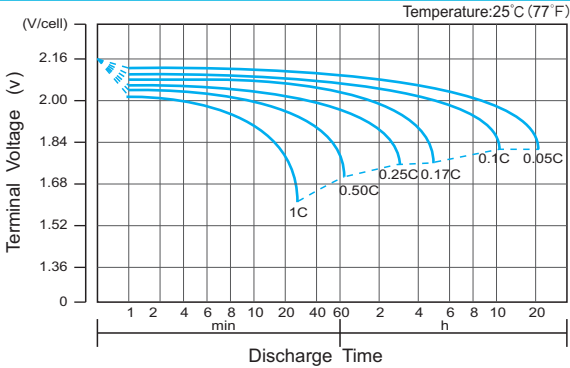
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	470.8	374.4	265.8	202.0	167.3	145.5	131.5	103.8	90.70	47.61
1.87V	518.1	406.5	281.9	211.6	176.4	152.5	139.0	108.2	94.58	49.65
1.83V	580.4	443.2	300.0	222.6	184.9	158.5	143.5	112.0	97.97	51.43
1.80V	634.2	472.9	310.0	227.7	188.4	162.0	147.0	114.5	100.4	52.71
1.75V	687.9	494.0	320.1	234.7	191.0	166.0	149.5	115.9	101.9	53.47
1.70V	737.7	499.0	328.1	238.7	194.0	167.5	151.0	116.9	102.8	53.98
1.65V	750.2	521.1	337.2	243.7	196.5	169.0	152.5	117.9	103.3	54.24
1.60V	759.3	537.2	345.2	251.8	201.5	170.5	153.5	118.3	103.8	54.49

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

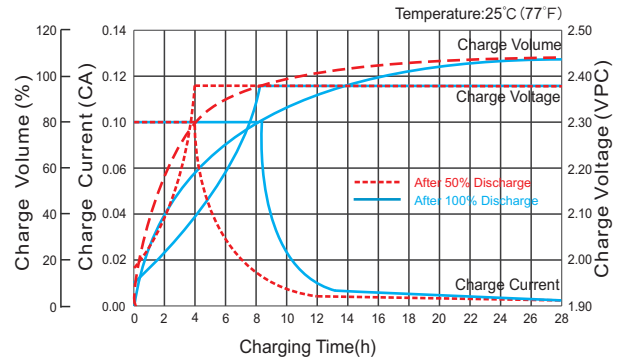
OPzV2-490(2V490Ah)



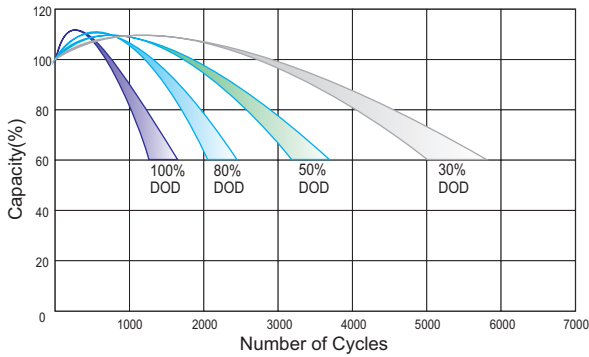
Discharge Characteristics Curve



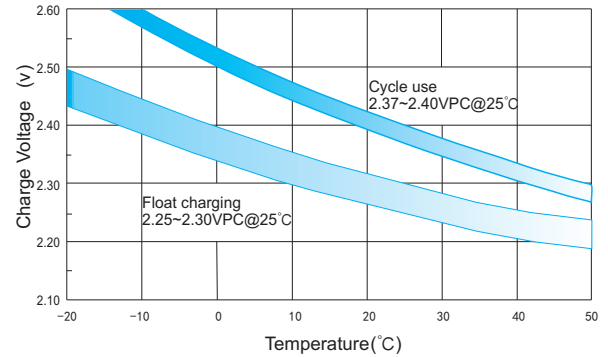
Charge Characteristic Curve for Cycle Use(IU)



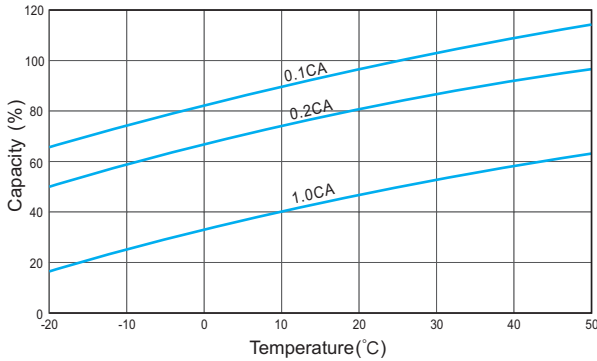
Cycle Life in Relation to Depth of Discharge



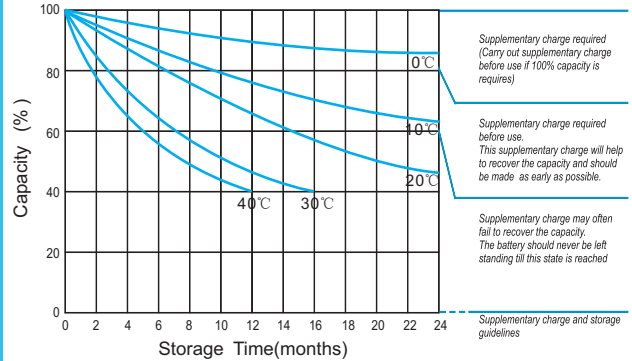
Relationship Between Charging Voltage and Temperature



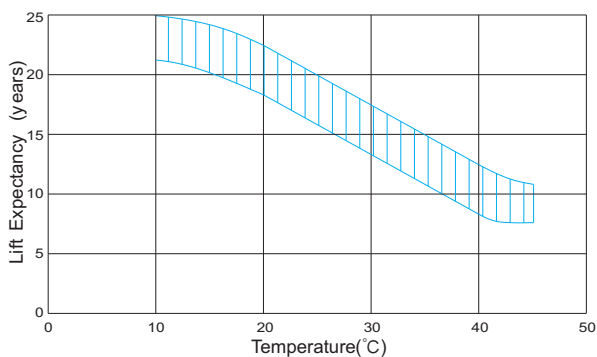
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

