

# OPzV12-80(12V80Ah)



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.

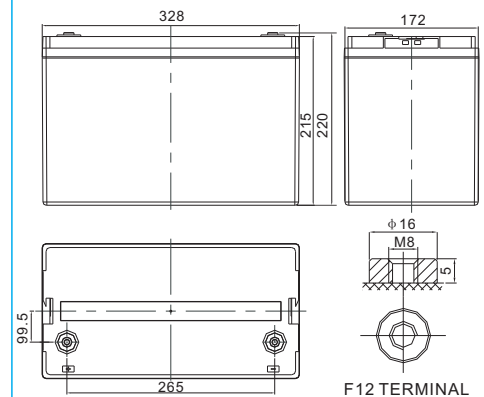
## Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Nominal Capacity</b>	80Ah@10hr-rate to 1.80V per cell @25°C
<b>Weight</b>	Approx. 30.0 Kg (Tolerance±2%)
<b>Internal Resistance</b>	Approx. 10 mΩ
<b>Terminal</b>	F5(M8)/F12(M8)
<b>Max. Discharge Current</b>	800A (5 sec)
<b>Design Life</b>	18 years (floating charge)
<b>Maximum Charging Current</b>	16.0 A
<b>Reference Capacity</b>	C24 80.56AH C48 85.12AH C72 89.38AH C100 91.20AH C120 93.02AH C240 98.50AH
<b>Float Charging Voltage</b>	13.5 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
<b>Normal Operating Temperature Range</b>	25°C±5°C
<b>Self Discharge</b>	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.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.



## Dimensions

Unit: mm



Length	328±1mm (12.9 inches)
Width	172±1mm (6.77 inches)
Height	215±1mm (8.46 inches)
Total Height	220±1mm (8.66 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	39.36	31.20	22.01	16.68	13.68	11.82	10.64	8.304	7.120	3.739
1.87V	44.00	34.40	23.61	17.69	14.44	12.44	11.28	8.692	7.440	3.906
1.83V	50.40	38.40	25.60	18.86	15.20	12.97	11.68	9.079	7.760	4.075
1.80V	56.00	41.60	26.56	19.40	15.50	13.28	12.00	9.312	8.000	4.201
1.75V	62.40	44.57	27.77	20.18	15.76	13.60	12.24	9.467	8.160	4.284
1.70V	68.80	46.01	28.57	20.57	16.04	13.76	12.40	9.545	8.240	4.325
1.65V	70.97	48.89	29.53	21.12	16.26	13.92	12.56	9.623	8.320	4.368
1.60V	74.01	50.56	30.65	22.01	16.72	14.16	12.72	9.700	8.400	4.411

### Constant Power Discharge Characteristics : WPC(25°C)

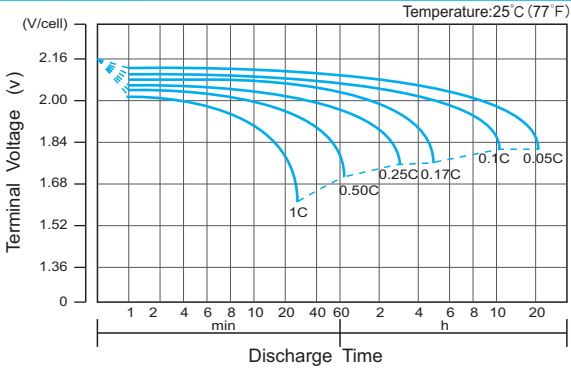
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	75.35	59.91	42.52	32.33	26.79	23.28	21.04	16.61	14.51	7.618
1.87V	82.90	65.04	45.10	33.87	28.21	24.40	22.24	17.30	15.13	7.944
1.83V	92.86	70.90	48.00	35.61	29.60	25.36	22.96	17.93	15.67	8.228
1.80V	101.5	75.64	49.60	36.41	30.16	25.92	23.52	18.31	16.06	8.433
1.75V	110.1	79.02	51.20	37.54	30.55	26.56	23.92	18.55	16.30	8.554
1.70V	118.0	79.85	52.50	38.16	31.02	26.80	24.16	18.70	16.45	8.637
1.65V	120.0	83.38	53.96	39.02	31.44	27.04	24.40	18.86	16.53	8.679
1.60V	121.5	85.96	55.23	40.30	32.24	27.28	24.56	18.93	16.61	8.717

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

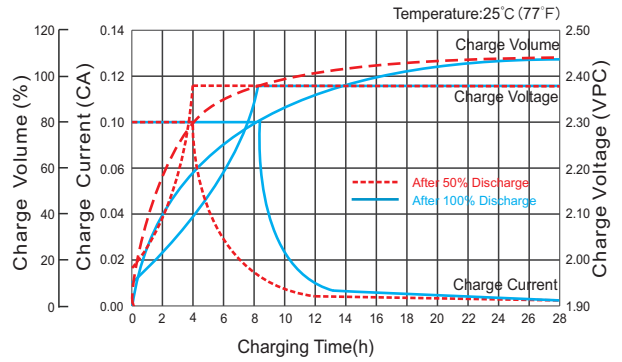
# OPzV12-80(12V80Ah)



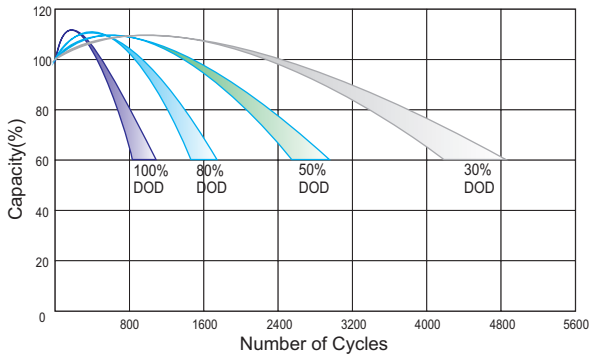
## Discharge Characteristics Curve



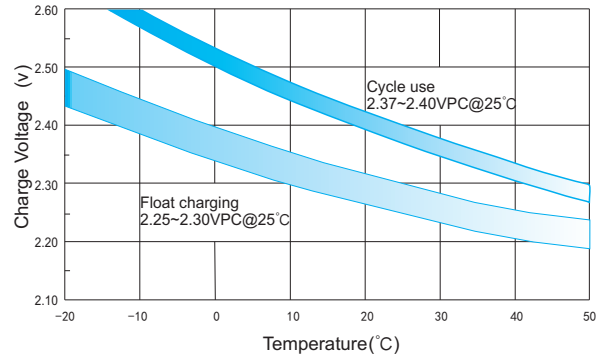
## Charge Characteristic Curve for Cycle Use(IU)



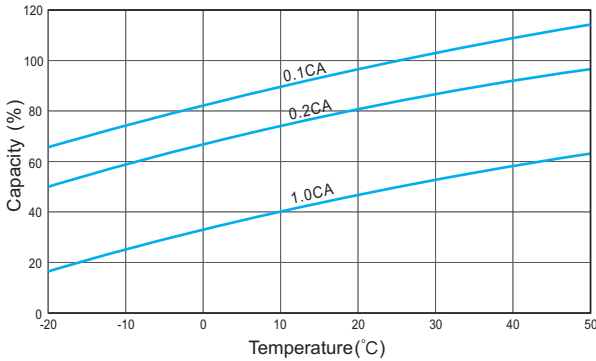
## Cycle Life in Relation to Depth of Discharge



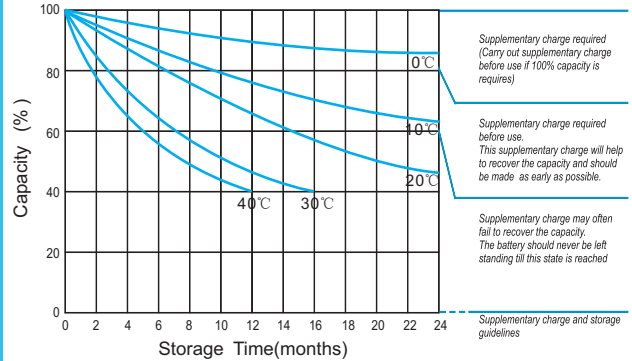
## Relationship Between Charging Voltage and Temperature



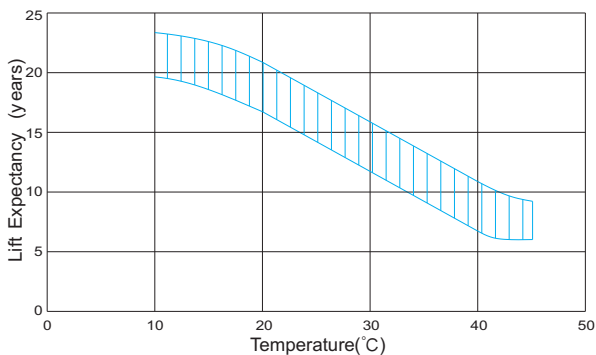
## Temperature Effects on Capacity



## Storage Characteristics



## Effect of Temperature on Long Term Life



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

