

# OPzS2-350(2V350Ah)



Ritar OPzS series is flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to standards and with DIN40736-2/IEC60896-11 positive spine and patent formula of die-casting active material. OPzS series exceeds standard values with more DIN40736-2/IEC60896-11 than 20 years floating design even more suitable for life at 25°C and is cyclic use(PV/solar, traction etc) under extreme operating conditions.

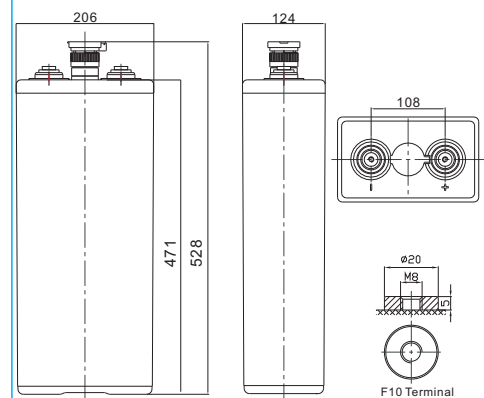


## Specification

<b>Cells Per Unit</b>	1
<b>Voltage Per Unit</b>	2
<b>Nominal Capacity</b>	350Ah@10hr-rate to 1.85V per cell @25°C
<b>Weight</b>	Without Electrolyte 20.5kg/With Electrolyte 26.7kg
<b>Internal Resistance</b>	Approx. 0.65 mΩ
<b>Terminal</b>	F10(M8)
<b>Max. Discharge Current</b>	1600A (5 sec)
<b>Design Life</b>	20 years (floating charge)
<b>Maximum Charging Current</b>	52.50 A
<b>Reference Capacity</b>	C24 419.0AH C48 437.5AH C72 455.0AH C100 472.5AH C120 490.0AH C240 507.5AH
<b>Float Charging Voltage</b>	2.23 V~2.25 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	2.40 V~2.45 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°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 3.5% at 25°C. Please charge batteries before using.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.

## Dimensions

Unit: mm



Length	124±1mm (4.88 inches)
Width	206±1mm (8.11 inches)
Height	471±1mm (18.5 inches)
Total Height	528±1mm (20.8 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	186.2	147.6	104.1	79.34	62.84	55.86	48.88	38.14	32.71	18.81
1.87V	208.2	162.8	111.7	84.47	66.33	59.08	51.82	39.93	34.18	19.65
1.83V	238.5	181.7	121.1	90.35	69.83	61.74	53.66	41.71	35.65	20.50
1.80V	265.0	196.8	125.7	93.00	71.22	63.17	55.13	42.78	36.75	21.13
1.75V	295.2	210.8	131.3	95.98	72.40	64.31	56.23	43.49	37.49	21.55
1.70V	325.5	217.7	135.1	98.25	73.67	65.31	56.96	43.85	37.85	21.77
1.65V	335.8	231.3	139.7	100.7	74.71	66.21	57.70	44.20	38.22	21.98
1.60V	350.1	239.2	145.0	104.1	76.81	67.62	58.43	44.56	38.59	22.19

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

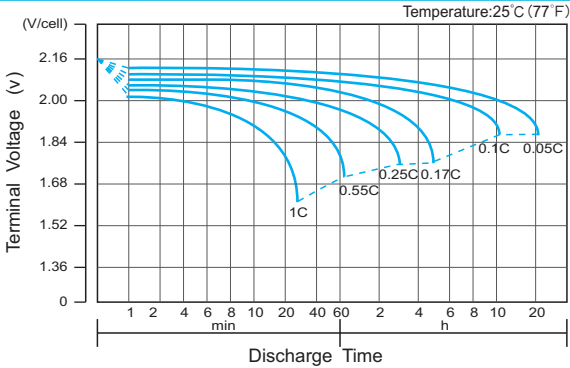
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	356.5	283.4	201.2	154.3	123.0	109.8	96.65	76.29	66.66	38.33
1.87V	392.2	307.8	213.4	163.1	129.6	115.9	102.2	79.49	69.51	39.97
1.83V	439.4	335.5	227.1	172.4	135.9	120.7	105.5	82.35	72.01	41.40
1.80V	480.1	358.0	234.7	177.0	138.5	123.3	108.0	84.13	73.79	42.43
1.75V	520.8	374.0	242.3	181.1	140.3	125.1	109.9	85.20	74.86	43.04
1.70V	558.5	377.8	248.4	184.9	142.6	126.8	111.0	85.91	75.57	43.45
1.65V	568.0	394.5	255.3	188.8	144.4	128.2	112.1	86.62	75.93	43.66
1.60V	574.8	406.7	261.3	193.4	148.1	130.5	112.8	86.98	76.29	43.86

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

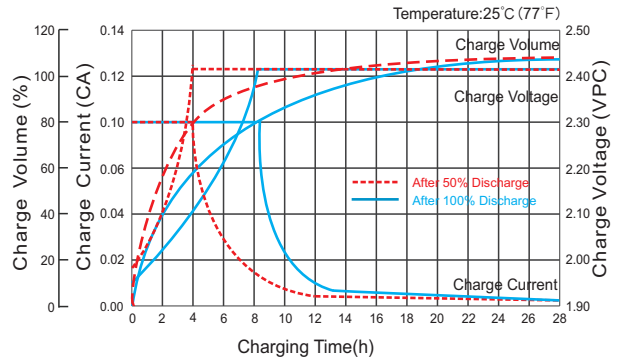
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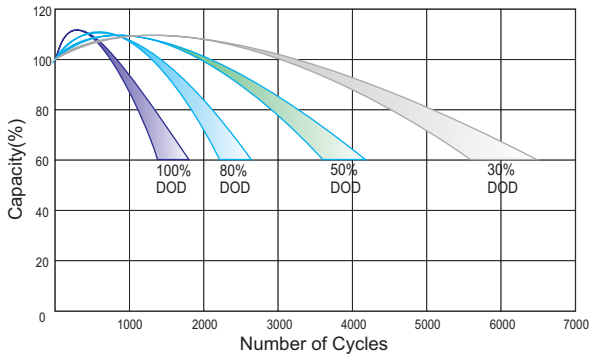
## Discharge Characteristics Curve



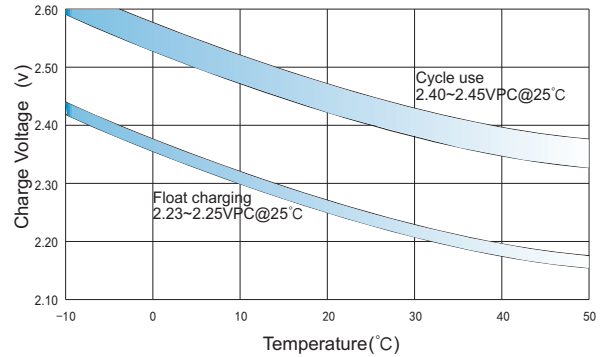
## Charge Characteristic Curve for Cycle Use(IU)



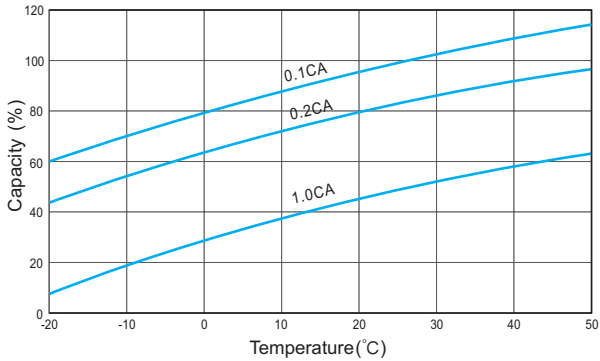
## Cycle Life in Relation to Depth of Discharge



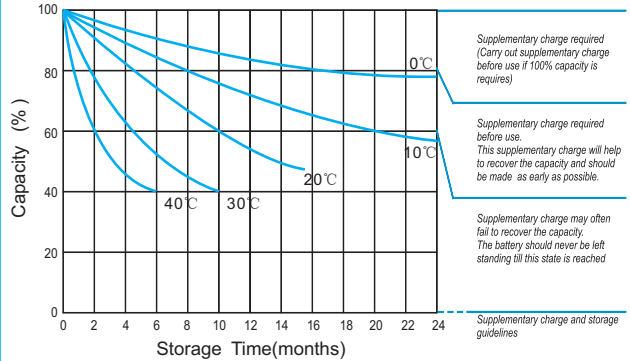
## Relationship Between Charging Voltage and Temperature



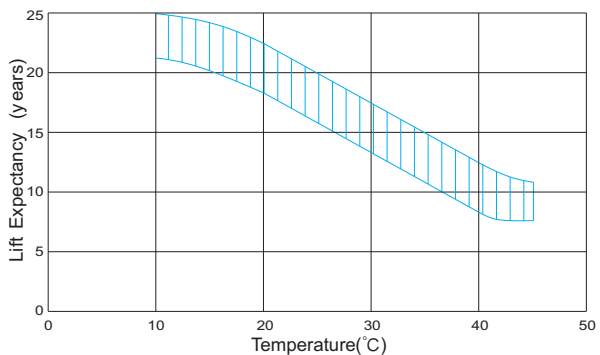
## Temperature Effects on Capacity



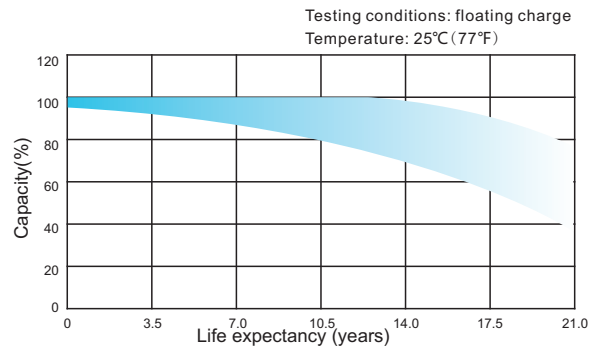
## Storage Characteristics



## Effect of Temperature on Long Term Life



## Life Characteristics Of Standby Use



For Battery Sales + EPA Battery Recycling and AC / DC Power Services, please contact:

**Moore & Moore Solutions, Inc.**  
**Phone: 484-302-7009**  
**Email: mr@mooreu.com**  
**www.MooreU.com**