

OPzV12-140(12V140Ah)

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.

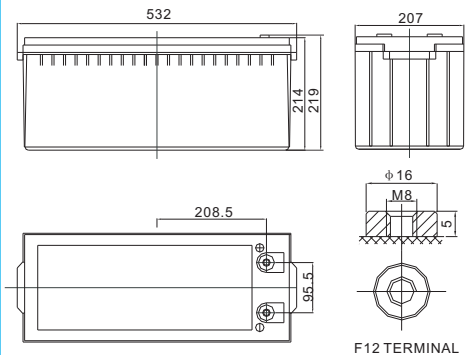
Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	140Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 53.5 Kg (Tolerance± 1.5%)
Internal Resistance	Approx. 7.0 mΩ
Terminal	F16(M8)/F12(M8)
Max. Discharge Current	1400A (5 sec)
Design Life	18 years (floating charge)
Maximum Charging Current	28.0 A
Reference Capacity	C24 141.0AH C48 149.0AH C72 156.4AH C100 159.6AH C120 162.8AH C240 172.4AH
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	532±1mm (20.9 inches)
Width	207±1mm (8.15 inches)
Height	214±1mm (8.43 inches)
Total Height	219±1mm (8.62 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	68.88	54.60	38.52	29.20	23.94	20.69	18.62	14.53	12.46	6.543
1.87V	77.00	60.20	41.32	30.96	25.27	21.76	19.74	15.21	13.02	6.835
1.83V	88.20	67.20	44.80	33.01	26.60	22.70	20.44	15.89	13.58	7.131
1.80V	98.00	72.80	46.48	33.94	27.13	23.24	21.00	16.30	14.00	7.352
1.75V	109.2	78.00	48.60	35.31	27.58	23.80	21.42	16.57	14.28	7.498
1.70V	120.4	80.52	50.00	36.00	28.06	24.08	21.70	16.70	14.42	7.569
1.65V	124.2	85.56	51.68	36.96	28.46	24.36	21.98	16.84	14.56	7.644
1.60V	129.5	88.48	53.64	38.52	29.26	24.78	22.26	16.97	14.70	7.719

Constant Power Discharge Characteristics : WPC(25°C)

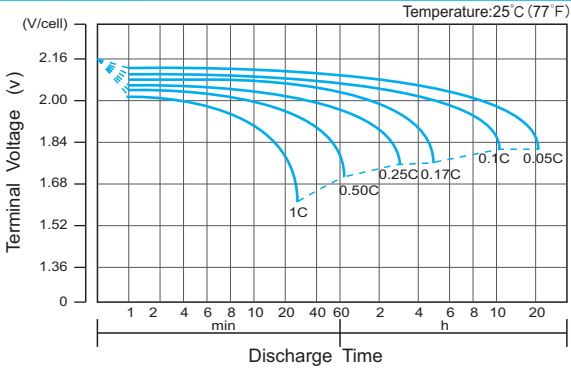
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	131.9	104.8	74.41	56.57	46.87	40.74	36.82	29.06	25.40	13.33
1.87V	145.1	113.8	78.92	59.27	49.36	42.70	38.92	30.28	26.48	13.90
1.83V	162.5	124.1	84.00	62.33	51.80	44.38	40.18	31.37	27.43	14.40
1.80V	177.5	132.4	86.80	63.73	52.79	45.36	41.16	32.05	28.11	14.76
1.75V	192.6	138.3	89.60	65.70	53.46	46.48	41.86	32.45	28.52	14.97
1.70V	206.5	139.7	91.88	66.79	54.29	46.90	42.28	32.73	28.79	15.11
1.65V	210.1	145.9	94.42	68.29	55.01	47.32	42.70	33.00	28.92	15.19
1.60V	212.6	150.4	96.65	70.52	56.41	47.74	42.98	33.13	29.06	15.25

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

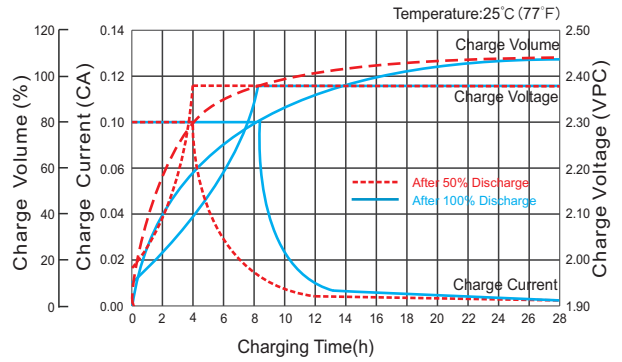
OPzV12-140(12V140Ah)



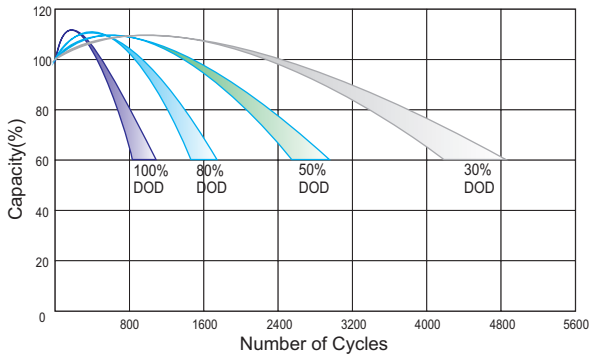
Discharge Characteristics Curve



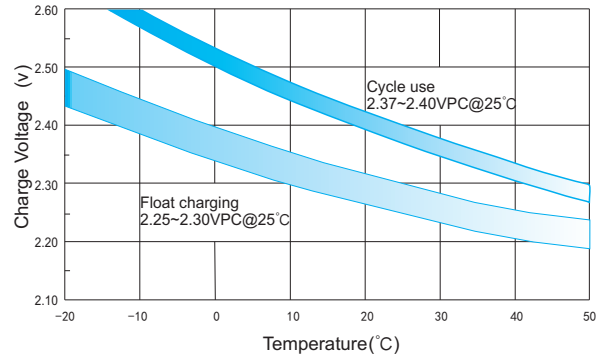
Charge Characteristic Curve for Cycle Use(IU)



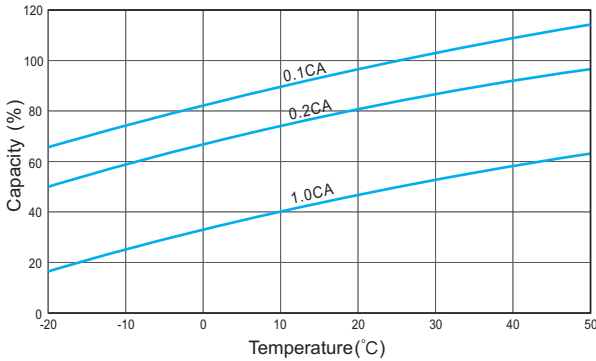
Cycle Life in Relation to Depth of Discharge



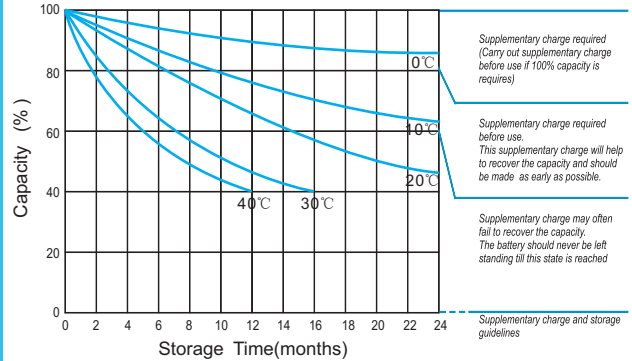
Relationship Between Charging Voltage and Temperature



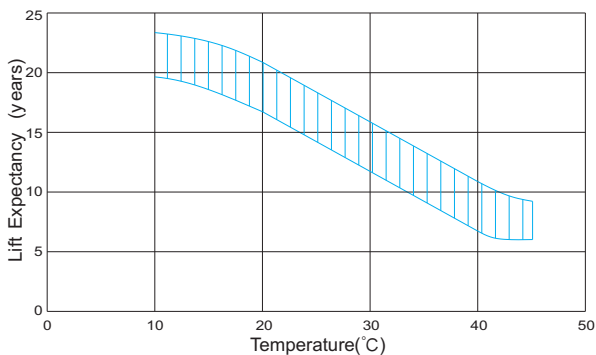
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

