

OPzV12-180(12V180Ah)



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.

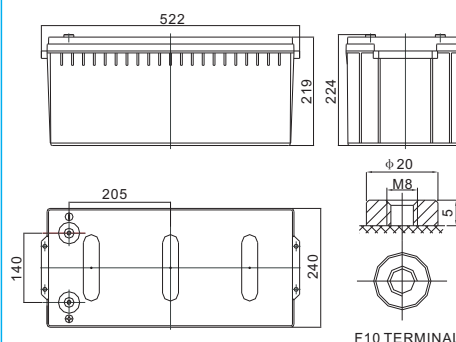


Specification

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	180Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 65.0Kg (Tolerance±5%)
Internal Resistance	≤6.0 mΩ (Full Charge Condition @25°C)
Terminal	Default F10(M8)
Max. Discharge Current	1800A (5 sec)
Design Life	20 years
Max. Charging Current	36.0 A
Reference Capacity	C ₃ 135.0Ah C ₅ 153.0Ah C ₁₀ 180.0Ah C ₂₀ 192.8Ah
Float Charging Voltage	13.6 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: 0°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 20°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions

Unit: mm



Length	522±1mm (20.6 inches)
Width	240±1mm (9.45 inches)
Height	219±1mm (8.62 inches)
Total Height	224±1mm (8.82 inches)
Torque Value	10~12 N*m

Constant Current Discharge Characteristics : A(25°C)

F.V/ Time	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	138.3	114.0	97.8	65.0	48.4	38.5	32.6	22.5	18.9	9.92
1.65V	133.3	111.1	96.2	64.1	47.9	38.1	32.2	22.3	18.7	9.83
1.70V	127.4	107.3	93.8	63.0	47.0	37.4	31.7	22.0	18.5	9.73
1.75V	119.0	101.5	89.9	61.4	46.1	36.9	31.3	21.8	18.4	9.64
1.80V	110.7	96.1	86.4	59.4	45.0	36.0	30.6	21.4	18.0	9.45
1.85V	98.6	85.8	77.2	54.2	41.4	33.3	28.4	20.0	16.9	8.88

Constant Power Discharge Characteristics : W/Cell(25°C)

F.V/ Time	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	243.6	204.4	177.4	121.9	92.3	74.0	62.9	43.9	37.0	19.6
1.65V	238.0	201.3	176.2	120.9	91.6	73.4	62.4	43.6	36.7	19.4
1.70V	230.5	196.5	173.3	119.4	90.2	72.4	61.6	43.0	36.4	19.3
1.75V	218.1	188.0	167.5	116.9	88.9	71.6	61.1	42.8	36.2	19.1
1.80V	205.4	179.8	162.5	113.8	87.1	70.2	59.9	42.2	35.6	18.7
1.85V	185.3	162.1	146.6	104.3	80.4	65.1	55.8	39.5	33.5	17.6

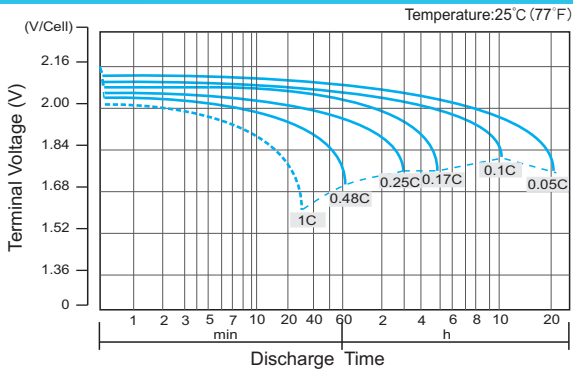
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

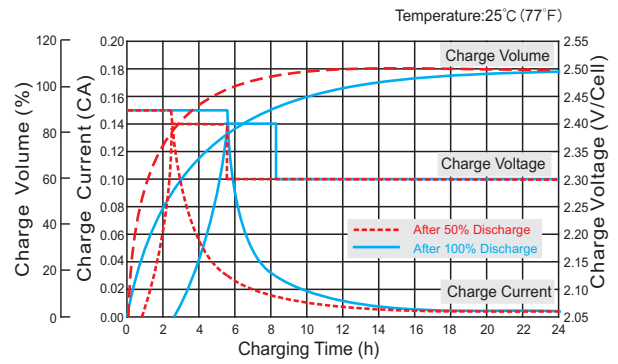
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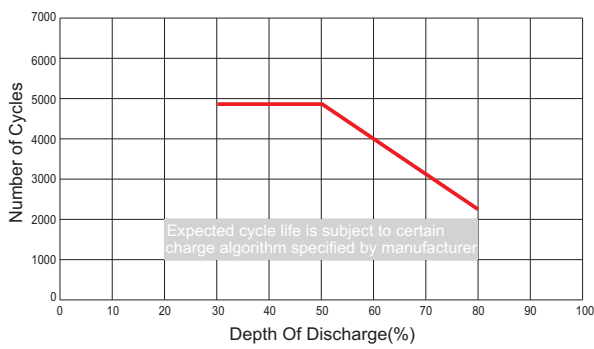
Discharge Characteristics Curve



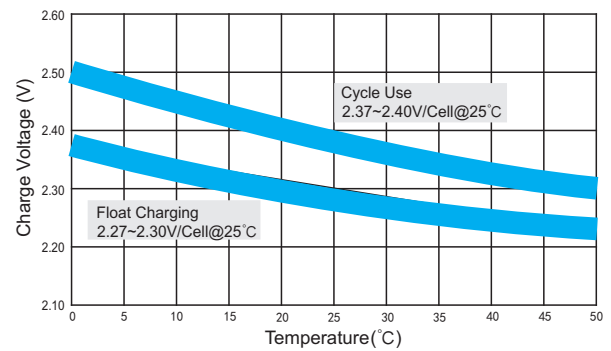
Charge Characteristic Curve for Cycle Use(IUU)



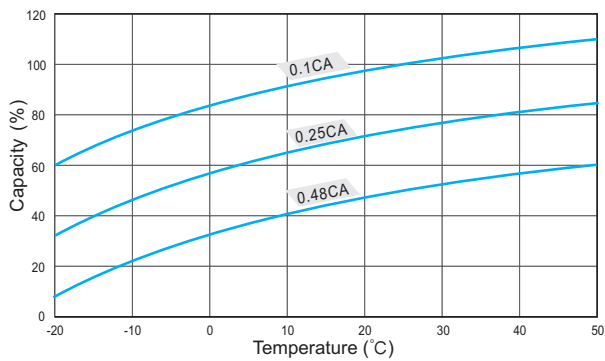
Cycle Life in Relation to Depth of Discharge



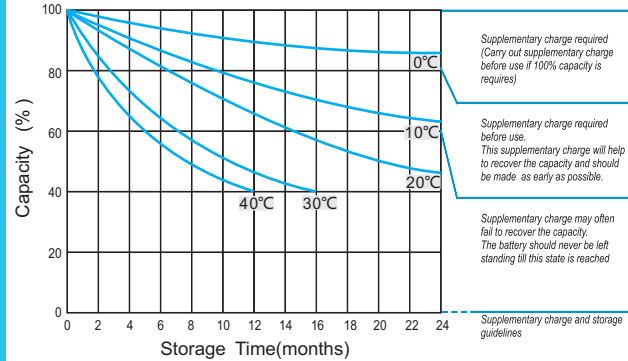
Relationship Between Charging Voltage and Temperature



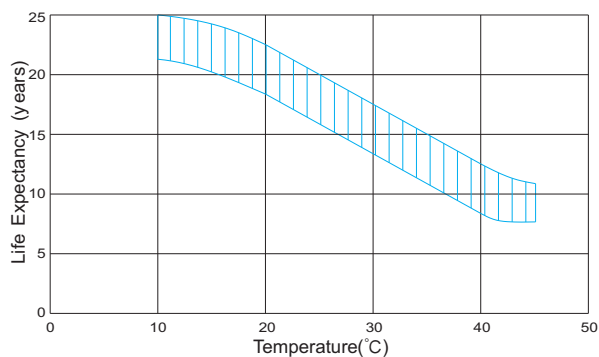
Temperature Effects on Capacity



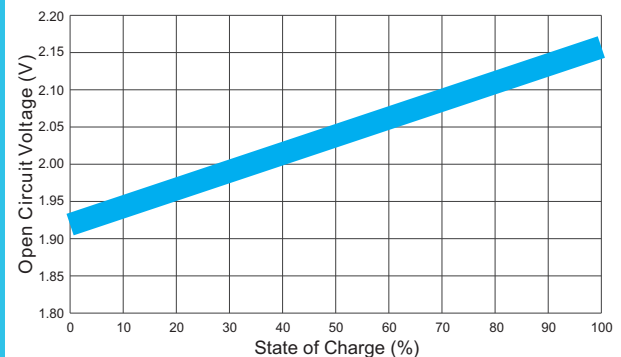
Storage Characteristics



Effect of Temperature on Long Term Life



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



(Note) All above information shall be changed without prior notice, RITAR reserves the right to explain and update the latest information.