

OPzV2-400C(2V400Ah)



Feature

OPzV-C series tubular GEL lead-carbon batteries use functional activated carbon and graphene as carbon materials, which are added to the negative plate of the battery to make lead carbon batteries have the advantages of both lead-acid batteries and super capacitors. It not only improves the ability of rapid charge and discharge, but also greatly prolongs the battery life, more than 3000 cycles at 80%DOD. It is more suitable for the application of PSOC.

Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	400Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 32.5 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 0.75 mΩ
Terminal	F10 (M8)
Max. Discharge Current	1650A (5 sec)
Design Life	20 years
Maximum Charging Current	80.0 A
Cycle Use Voltage	2.37 V~2.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	The batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 4% at 25°C. Please charged batteries before using.
Container Material	A.B.S. White/Red. UL94-HB/UL94-V0.



Application

- ◆ Home energy storage system
- ◆ Smart power grid and micro-grid system
- ◆ Distributed energy storage system
- ◆ Solar and wind energy storage system
- ◆ Solar power generation grid or off-grid energy storage system
- ◆ Generation and battery hybrid energy storage system
- ◆



ISO 9001



ISO 14001



OHSAS 18001

Constant Current Discharge Characteristics :A(25°C)

F.V/ Time	30min	1h	2h	4h	6h	8h	10h	20h	24h	48h	72h	100h	120h	240h
1.90	196.8	156.0	110.0	68.40	53.20	41.51	35.60	18.69	15.73	8.31	5.81	4.27	3.63	1.92
1.87	220.0	172.0	118.0	72.20	56.40	43.45	37.20	19.53	16.43	8.68	6.07	4.47	3.79	2.01
1.83	252.0	192.0	128.0	76.00	58.40	45.39	38.80	20.37	17.14	9.05	6.33	4.65	3.96	2.09
1.80	280.0	208.0	132.8	77.53	60.00	46.56	40.00	21.00	17.67	9.33	6.53	4.80	4.08	2.16
1.75	312.0	222.8	138.8	78.80	61.20	47.33	40.80	21.42	18.02	9.52	6.66	4.89	4.16	2.20
1.70	344.0	230.0	142.8	80.20	62.00	47.73	41.20	21.63	18.20	9.61	6.73	4.95	4.20	2.23
1.65	354.8	244.4	147.6	81.33	62.80	48.11	41.60	21.84	18.37	9.71	6.79	4.99	4.24	2.25
1.60	370.0	252.8	153.2	83.60	63.60	48.50	42.00	22.05	18.55	9.80	6.85	5.04	4.29	2.27

Constant Power Discharge Characteristics : WPC(25°C)

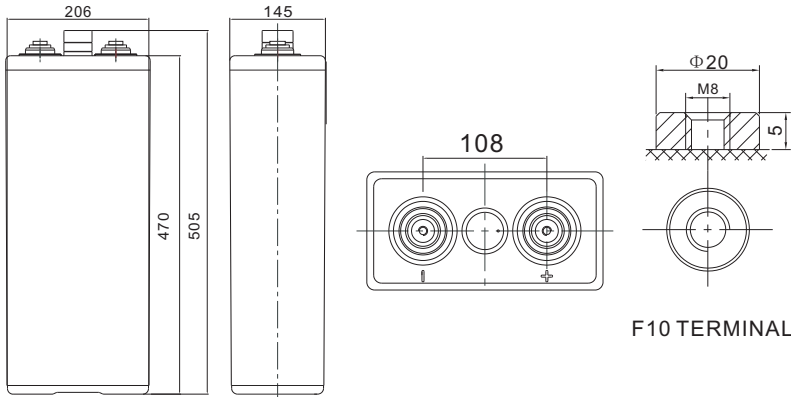
F.V/ Time	30min	1h	2h	4h	6h	8h	10h	20h	24h	48h	72h	100h	120h	240h
1.90	376.7	299.5	212.7	133.9	105.2	83.00	72.53	38.09	32.05	16.93	11.84	8.71	7.40	3.92
1.87	414.5	325.2	225.5	141.1	111.2	86.53	75.67	39.72	33.41	17.65	12.35	9.08	7.72	4.09
1.83	464.3	354.5	240.0	147.9	114.8	89.60	78.40	41.15	34.61	18.29	12.79	9.41	7.99	4.23
1.80	507.3	378.3	248.1	150.7	117.6	91.60	80.33	42.17	35.47	18.74	13.11	9.64	8.19	4.34
1.75	550.3	395.1	256.1	152.7	119.6	92.73	81.47	42.78	35.99	19.01	13.30	9.78	8.31	4.40
1.70	590.1	399.2	262.5	155.2	120.8	93.53	82.27	43.19	36.33	19.19	13.43	9.87	8.39	4.44
1.65	600.2	416.9	269.7	157.2	122.0	94.27	82.67	43.39	36.50	19.29	13.49	9.92	8.43	4.46
1.60	607.4	429.7	276.2	161.2	122.8	94.67	83.00	43.59	36.67	19.37	13.55	9.97	8.47	4.49

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

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Dimensions



Unit: mm

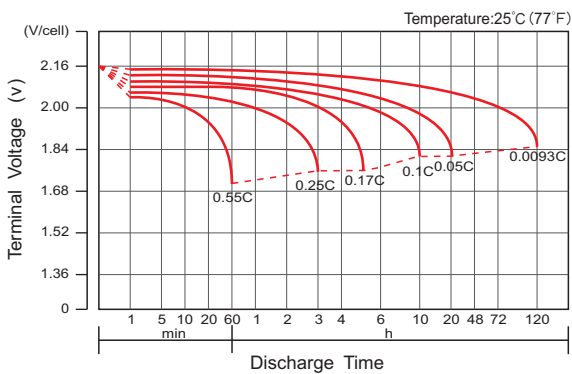
Length	145±2mm (5.71 inches)
Width	206±2mm (8.11 inches)
Height	470±2mm (18.5 inches)
Total Height	505±2mm (19.9 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Reference Capacity

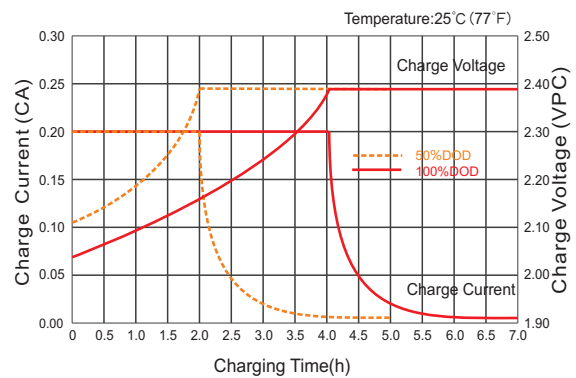
Hour Rate	C20 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)
F.V (V/Cell)	1.75	1.85	1.85	1.85
Capacity (Ah)	428.4	446.4	456.0	465.3

Characteristic Curve

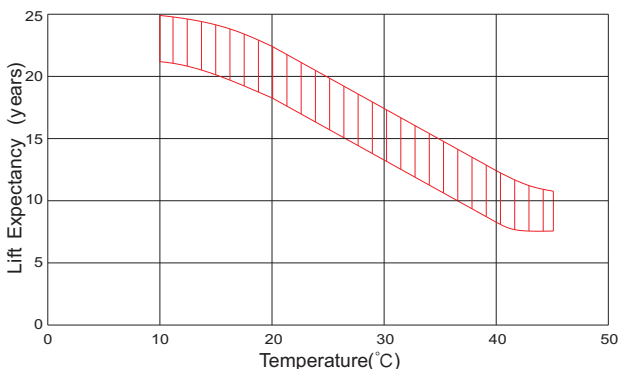
Discharge Characteristics Curve



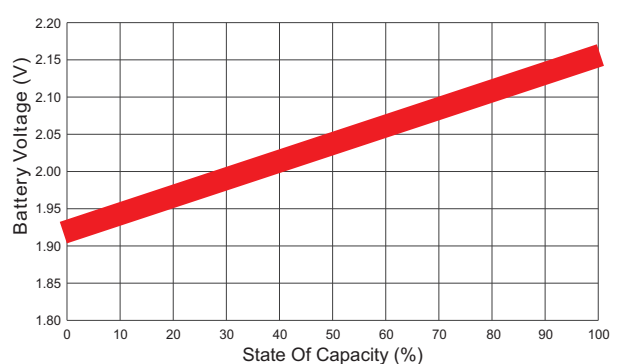
Charge Characteristic Curve for Cycle Use(IU)



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.