

Durable Battery *Choose* CSBattery



OPzV Deep Cycle Tubular GEL Battery

OPzV12-100

CSBattery OPzV series Tubular GEL battery is with 25 years floating design life. It is a Valve Regulated Tubular gel 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 casting positive grid and sinter formula of active material. OPzV series exceeds DIN standard values with more than 25 years floating design life at 25°C and is even more suitable for cyclic use under extreme operating conditions.

12V 100Ah GEL Technology Tubular Plate



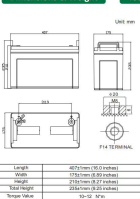
Applications

- Solar & Wind Power system
- Nuclear power station
- Telecom backup power supply
- energy saving requirements
- Emergency Power System

General features

- It can discharge at -40°C, Charge at 0-50°C
- Long life expectancy of 20+ years in floating condition
- Adopts quality silicon nano gel electrolyte
- Excellent deep discharge recovery capability
- Deep cycle performance up to 3000

Dimensions & Weight



Technical Specifications

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	100Ah@20-rate to 1.80V per cell @25°C
Weight	Approx. 30.5kg (Reference 25°C)
Internal Resistance	Approx. 3 mΩ
Terminal	EN60135 (DIN)
Max. Discharge Current	1000A (5-sec)
Design Life	25 years (floating charge)
Maximum Charging Current	20A
Reference Capacity	C100: 100Ah C80: 106.4Ah C70: 111.8Ah C50: 118.2Ah C20: 124.6Ah
Float Charging Voltage	13.8V ± 0.1V @ 25°C Temperature Compensation: -0.005V/°C/Cell
Cycle Use Voltage	12.8V ± 0.1V @ 25°C Temperature Compensation: -0.005V/°C/Cell
Operating Temperature Range	Discharge: -40°C~50°C Charge: -20°C~50°C Storage: -40°C~50°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	3% per month (25°C) 5% per month (15°C) 8% per month (5°C)
Container Material	ABS (UL94HB, UL94V0 Optional)

Battery Discharge Table

F.V.I Time	Discharge Constant Current per Cell (Amperes at 25° C)									
	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	49.20	39.00	27.51	20.86	17.10	14.78	13.30	10.38	8.00	4.673
1.87V	55.00	43.00	29.61	22.12	18.06	15.54	14.10	10.86	8.300	4.882
1.83V	63.00	49.00	33.00	23.98	19.00	16.22	14.60	11.30	8.700	5.000
1.80V	70.00	52.00	33.20	24.24	19.38	16.60	15.00	11.64	10.00	5.251
1.75V	78.00	55.21	33.71	24.52	19.70	17.00	15.30	11.83	10.20	5.356
1.70V	86.00	57.41	33.71	24.52	19.70	17.00	15.30	11.83	10.30	5.407
1.65V	88.71	61.11	38.51	28.40	20.33	17.40	15.70	12.03	10.40	5.460
1.60V	92.51	63.20	38.31	27.91	20.90	17.70	15.90	12.12	10.50	5.513

F.V.I Time	Discharge Constant Power per Cell (Watts at 25° C)									
	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	94.19	74.80	63.16	40.41	33.48	29.10	26.30	20.76	18.14	9.522
1.87V	103.6	81.30	68.37	42.33	35.20	30.50	27.80	21.63	18.91	9.930
1.83V	116.1	88.63	69.00	44.52	37.00	31.70	28.70	22.41	19.59	10.29
1.80V	126.8	94.58	69.00	45.52	37.70	32.40	29.40	22.89	20.06	10.54
1.75V	137.6	99.78	69.00	46.52	38.15	33.20	29.90	23.18	20.37	10.69
1.70V	147.5	99.81	65.63	47.70	38.78	33.50	30.20	23.38	20.56	10.80
1.65V	159.0	104.21	67.44	48.78	39.30	33.60	30.50	23.57	20.66	10.85
1.60V	151.9	107.4	69.04	50.37	40.30	34.10	30.70	23.87	20.76	10.90

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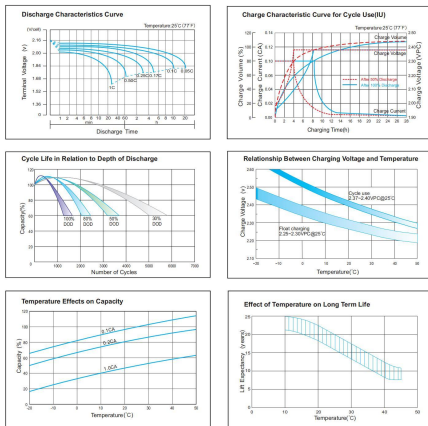
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Performance Characteristics



Battery Discharge Capacity

Capacity	Long time discharge capacity for solar/wind application				
	C24(Ah)	C48(Ah)	C72(Ah)	C100(Ah)	C120(Ah)
Model	F=1.85VPC				
OPzV12-100	111.3	125.0	125.8	122.0	129.6

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery design specifications are subject to modification without notice. Contact CSBattery for the latest information.
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