

Tubular Deep Cycle GEL Battery

TDC12-150

CSPower TDC 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 die-casting positive grid and patent formula of active material. TDC 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
150Ah**

**GEL
Technology**

**Tubular
Plate**



Applications

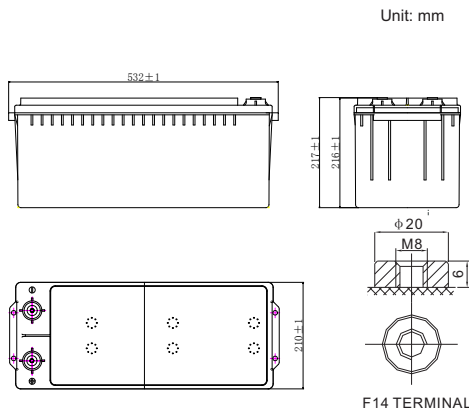
- Solar & Wind Power system
- Nuclear power station
- Telecom backup power supply
- energy saving requirements
Emergency Power System

General Features

- ✓ It can discharge at -40°C~70°C, Charge at 0-50°C
- ✓ Long life expectancy of 25+ 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



Length	532±1mm (20.9 inches)
Width	210±1mm (8.27 inches)
Height	216±1mm (8.50 inches)
Total Height	217±1mm (8.54 inches)
Torque Value	10~12 N*m

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	150Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 55.0 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 6.5 mΩ
Terminal	F14(M8)
Max. Discharge Current	1600A (5 sec)
Design Life	25 years (floating charge)
Maximum Charging Current	32.0 A
Reference Capacity	C24 161.1AH C48 170.2AH C72 178.8AH C100 182.4AH C120 186.0AH C240 197.0AH
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	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.

Complied Standards



Battery Discharge Table

Discharge Constant Current per Cell (Amperes at 25° C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	78.72	62.40	44.02	33.37	27.36	23.64	21.28	16.61	14.24	7.477
1.87V	88.00	68.80	47.22	35.38	28.88	24.87	22.56	17.38	14.52	7.812
1.83V	100.8	76.80	51.20	37.72	30.40	25.94	23.36	18.16	14.88	8.149
1.80V	112.0	83.20	53.12	38.79	31.01	26.56	24.00	18.62	15.00	8.402
1.75V	124.8	89.14	55.54	40.36	31.52	27.20	24.48	18.93	16.32	8.569
1.70V	137.6	92.02	57.14	41.14	32.07	27.52	24.80	19.09	16.48	8.651
1.65V	141.9	97.78	59.06	42.24	32.53	27.84	25.12	19.25	16.64	8.736
1.60V	148.0	101.1	61.30	44.02	33.44	28.32	25.44	19.40	16.80	8.821

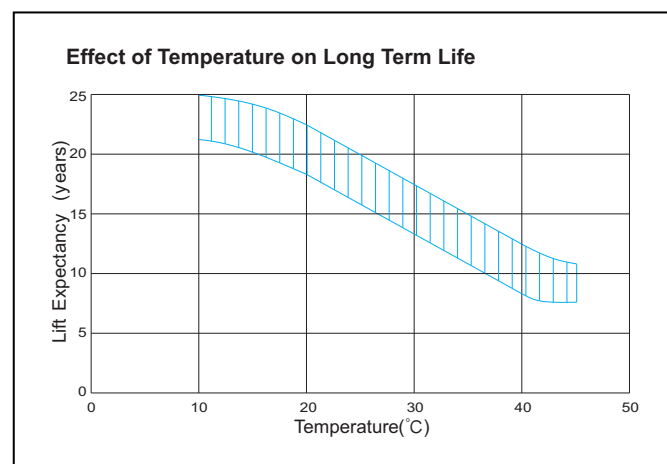
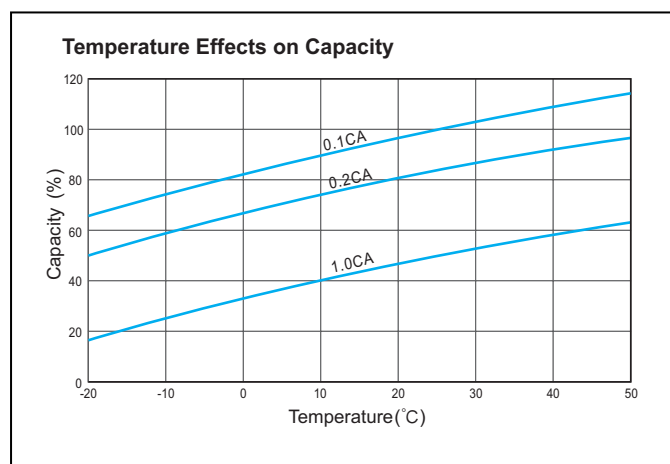
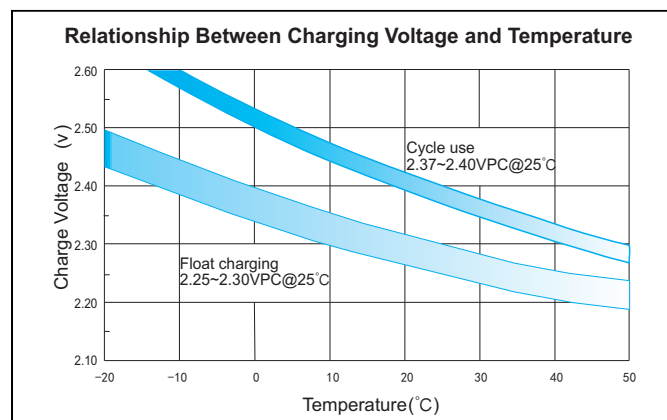
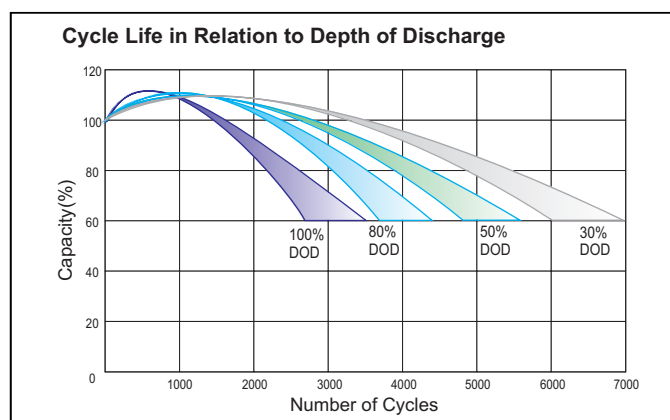
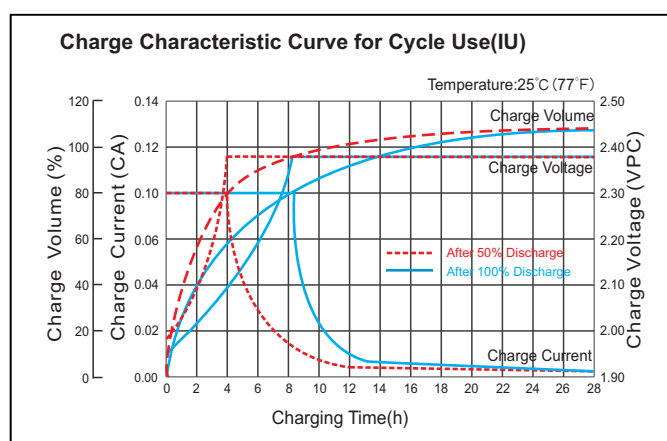
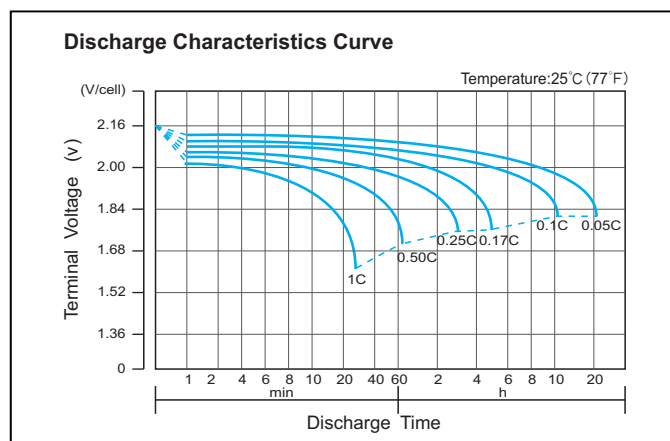
Discharge Constant Power per Cell (Watts at 25° C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	150.7	119.8	85.04	64.65	53.57	46.56	42.08	33.21	29.03	15.24
1.87V	165.8	130.1	90.19	67.73	56.41	48.80	44.48	34.61	30.26	15.89
1.83V	185.7	141.8	96.00	71.23	59.20	50.72	45.92	35.85	31.35	16.46
1.80V	202.9	151.3	99.20	72.83	60.33	51.84	47.04	36.63	32.12	16.87
1.75V	220.1	158.0	102.4	75.08	61.10	53.12	47.84	37.09	32.59	17.11
1.70V	236.0	159.7	105.0	76.33	62.04	53.60	48.32	37.40	32.90	17.27
1.65V	240.1	166.8	107.9	78.04	62.87	54.08	48.80	37.71	33.05	17.36
1.60V	243.0	171.9	110.5	80.59	64.47	54.56	49.12	37.87	33.21	17.43

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TDC12-150

Performance Characteristics



Battery Discharge Capacity

Long time discharge capacity for solar/wind application						
Capacity	C24(Ah)	C48(Ah)	C72(Ah)	C100(Ah)	C120(Ah)	C240(Ah)
Model	F.V=1.85VPC					
TDC12-150	161.1	170.2	178.8	182.4	186.0	197.0

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

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