DCS Series

DCS12-50 12V50Ah

DCS series deep cycle battery is made of special high-tin corrosion-resistant alloy, It has optimized positive grid structure design and special negative active material improving charge acceptance ability and reducing negative plate sulphation. It is optimal battery for a wide range of household energy storage systems and suitable for partial state of charge (PSOC) applications.

Benefits

- Very long life according to EUROBAT Classification
- More than 3000 cycles at 70% DOD
- Special negative active material formula, improve the charge acceptance ability, reduce the negative plate sulphation, more suitable for the partial state of charge (PSOC) application
- Modular design and horizontal installation, compact structure, saving the installation area and space, easy installation, convenient maintenance

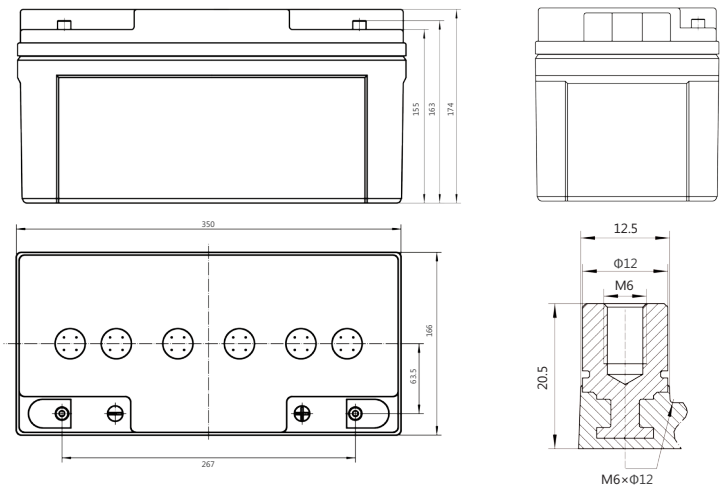
Applications

- Household energy storage system
- Solar and wind energy system
- Emergency system
- Other cycling systems

Standards

- IEC 60896-21/22
- IEC61427
- EUROBAT guide

Drawing



Specifications

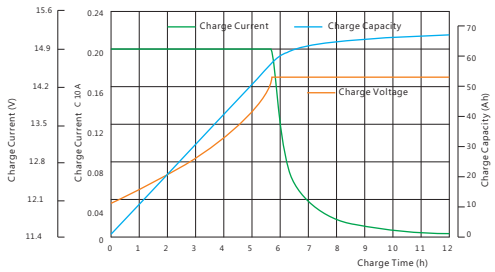
Battery Model	DCS12-50			
Design Life (years, 25℃)	15			
Capacity (Ah, 25℃)	10HR (5.0A, 1.80V)	5HR (8.5A, 1.80V)	3HR (12.5A, 1.80V)	100HR(0.627A, 1.80V)
	50.0	42.5	37.5	62.7
Dimensions (mm)	Length	Width	Height	Total Height
	350	166	174	174
Approx. Weight (kg)	25.5			
Reference Internal Resistance (mΩ)	4.8 (full charged @ 25℃)			
Short Circuit Current (A)	1500			
Self-Discharge (25℃)	⩽1% per month			
Charge Voltage (V/cell, 25℃)	Cycle use		Float use	
	2.40 (-3.5mV/℃/cell), max charge current: 20A		2.25 (-3.5mV/℃/cell)	

Discharge Data

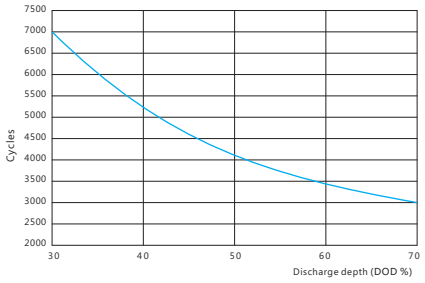
Constant Current Discharge Data (25℃, A)											
End Voltage (V/cell)	h										
	1	2	3	5	8	10	20	50	100	120	240
1.70	28.3	20.8	13.6	9.2	7.02	5.30	3.14	1.26	0.651	0.561	0.297
1.75	27.5	20.2	13.0	9.0	6.84	5.24	3.09	1.24	0.639	0.555	0.295
1.80	26.9	19.6	12.5	8.5	6.50	5.00	2.96	1.19	0.627	0.545	0.291
1.85	26.0	18.7	12.0	8.0	6.00	4.80	2.80	1.14	0.601	0.528	0.281
1.90	24.0	17.2	10.9	7.2	5.44	4.36	2.55	1.04	0.563	0.491	0.258
1.95	21.6	15.2	9.3	6.2	4.66	3.75	2.04	0.83	0.452	0.402	0.215

Constant Power Discharge Data (25℃, W/cell)											
End Voltage (V/cell)	h										
	1	2	3	5	8	10	20	50	100	120	240
1.70	54.7	39.4	28.5	20.3	14.0	10.7	5.82	2.37	1.26	1.10	0.587
1.75	54.0	38.9	28.1	20.0	13.8	10.6	5.76	2.34	1.24	1.09	0.583
1.80	53.1	38.1	27.5	19.6	13.5	10.4	5.66	2.29	1.22	1.07	0.574
1.85	51.9	37.0	26.8	19.1	12.9	10.0	5.48	2.23	1.17	1.04	0.556
1.90	50.0	35.2	25.0	17.8	12.0	8.98	5.02	2.04	1.11	0.969	0.511
1.95	45.6	31.6	21.9	15.1	10.5	7.96	4.16	1.68	0.926	0.826	0.449

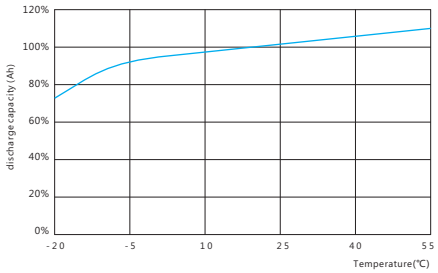
Performance Curve



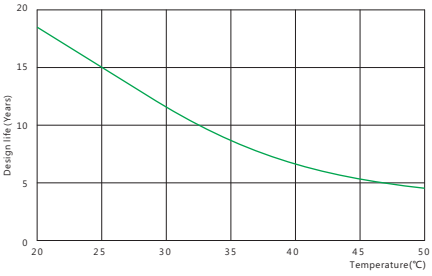
Charging characteristic



Cycle life vs. discharge depth



Discharge capacity vs. temperature



Design life vs. temperature

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