

TECHNICAL DATA SHEET

DLC12-100EV

Applications



CYCLIC



STATIONARY



SOLAR



MARINE

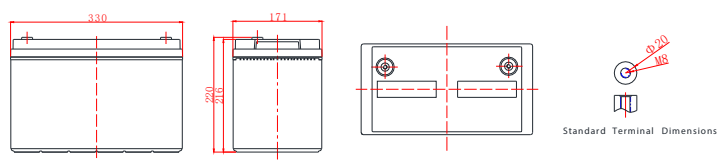
Application

- › Renewable Energy Storage
- › Solar/wind generating storage cyclic
- › Hybrid Energy Power Storage
- › New Energy Vehicle
- › Hybrid Electric Vehicle
- › Backup power supply
- › Other Standby, Cyclic Power Systems

Specification

Nominal Voltage	12V
Nominal Capacity	100Ah
Design life	12 years
Terminal	M8
Approx. Weight	Approx 32.5 kg (71.7lbs)
Container Material	ABS
Rated Capacity	100Ah 10Hour Rate (10.0A to 10.8V)
	81Ah 3Hour Rate (27.0A to 10.8V)
	62Ah 1Hour Rate (62.0A to 10.5V)
Internal resistance	Full charged at 25 °C: 4.8 Ohm
Max. Discharge Current	1000.0A(5S)
Operating Temperature	Discharge: -40 ~60°C (-40~ 140°F)
	Charge: -20 ~50°C (-4~ 122°F)
	Storage: -20 ~50°C (-4~ 122°F)
Charge Method (25 °C)	Max. charge Current: 30A
	Cycle use: 14.7-15.0V(-3mV/ °C)
	Float use : 13.7-13.9V(-3mV/ °C)
Self discharge	3% of capacity declined per month at 20 °C

Unit: mm Dimension: 330(L)×174(W) ×216(H)×220(TH)



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Constant Current Discharge (Amperes) at 25 °C (77 F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	241	152	144	115	96.2	66.8	57.3	35.0	25.9	19.9	16.9	14.0	11.5	9.70	5.26
1.80V/cell	270	168	162	123	105	68.6	59.1	36.8	27.0	20.2	17.7	14.3	12.0	10.0	5.35
1.75V/cell	302	180	174	130	110	69.6	62.0	37.5	27.3	20.6	18.2	14.5	12.1	10.1	5.38
1.70V/cell	328	192	180	138	111	71.8	65.5	38.1	27.6	21.0	18.4	14.7	12.2	10.2	5.40
1.65V/cell	342	212	184	146.6	113	74.3	66.4	38.4	27.9	22.1	18.6	15.0	12.3	10.3	5.43
1.60V/cell	352	220	189	154.8	115	78.8	67.3	38.6	28.4	22.8	18.8	15.2	12.4	10.4	5.46

Constant Power Discharge (Watts) at 25 °C 77 F)

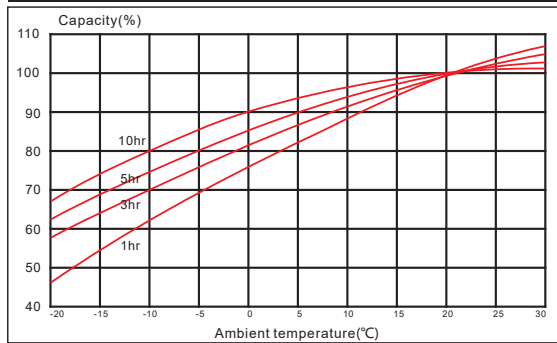
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	441	274	277	225	188	126	117	70.0	50.0	39.3	33.7	21.4	22.8	18.9	10.5
1.80V/cell	494	312	310	236	205	132	126	73.0	53.0	39.9	35.3	22.9	23.6	19.2	10.6
1.75V/cell	538	344	328	241	210	137	127	74.0	53.0	41.0	35.7	23.4	23.8	19.4	10.7
1.70V/cell	577	366	330	252	211	143	128	74.0	53.0	41.3	35.9	23.9	24.0	19.6	10.7
1.65V/cell	580	391	334	260	212	147	129	74.0	54.0	42.2	36.2	24.3	24.1	19.8	10.8
1.60V/cell	603	418	340	270	213	152	130	75.0	54.0	43.1	36.4	24.8	24.3	20.0	10.8

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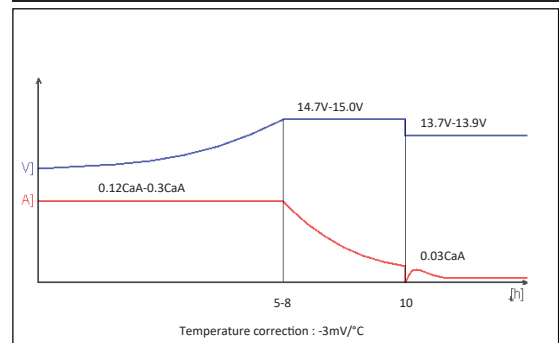
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Model Performance Diagrams

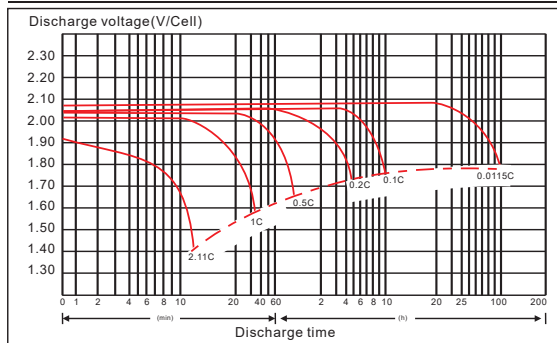
Curves of discharge capacity and ambient temperature



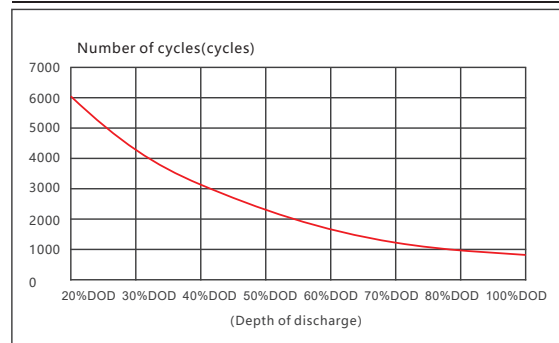
Curves of charging characteristics



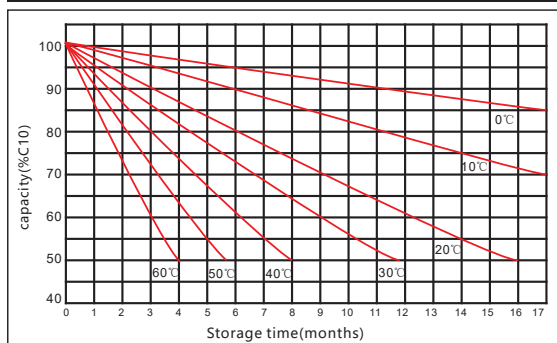
Discharge characteristics at different discharge rate(20°C)



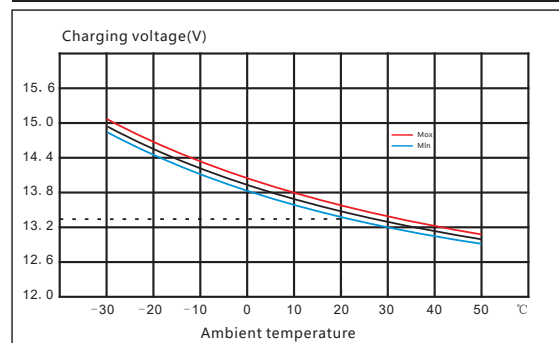
Curves of cycle life



Curves of self-discharge and storage time



Curves of float voltage and ambient temperature



Charging procedures

Application type	Charge Voltage(V)			Max charge current (A)
	Temp (°C)	Set point	Temperature compensation	
Cycle use	25	14.70	-3mV/°C/cell	0.3C
Float use	25	13.70	-3mV/°C/cell	

The relationship between discharge current and voltage

Discharge rate	1hr	3hr	8hr	10hr
End voltage (V)	10.5	10.8	10.8	10.8
Discharge current (A)	0.55C	0.25C	0.12C	0.10C

