

# TECHNICAL DATA SHEET

## DLC12-80EV

### Applications



**CYCLIC**



**STATIONARY**



**SOLAR**



**MARINE**

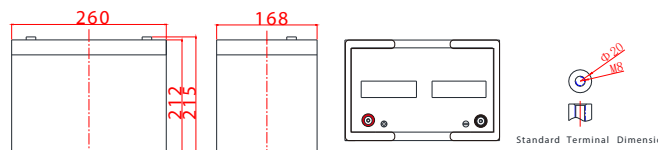
### Application

- › 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	80Ah
Design life	12 years
Terminal	M8
Approx. Weight	Approx 26.0 kg (53.3lbs)
Container Material	ABS
Rated Capacity	<b>80.0Ah</b> 10Hour Rate (8.00A to 10.8V)
	<b>62.4Ah</b> 3Hour Rate (20.8A to 10.8V)
	<b>47.1Ah</b> 1Hour Rate (47.1A to 10.5V)
Internal resistance	Full charged at 25°C: 6.6 Oh
Max. Discharge Current	800.0A(5S)
Operating Temperature	Discharge: -40 ~60°C (-40~ 140
	Charge: -20 ~50°C (-4~ 122°F)
	Storage: -20 ~50°C (-4~ 122°F)
Charge Method (25 °C)	Max. charge Current: 24I
	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

Unit: mm Dimension: 260(L)×168(W)×212(H)×215(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	169	107	101	76.6	68.4	46.1	43.4	25.5	18.7	15.5	12.8	10.9	9.02	7.91	3.58
1.80V/cell	189	137	113	90.5	74.8	53.6	45.7	26.8	20.8	16.6	13.4	11.7	9.37	7.97	3.65
1.75V/cell	211	151	122	97.4	77.2	55.6	47.1	27.3	21.6	16.9	13.6	12.0	9.44	8.03	3.67
1.70V/cell	230	164	128	102	79.9	57.8	49.5	28.8	22.1	17.4	13.9	12.2	9.51	8.09	3.68
1.65V/cell	239	177	135	108.7	81.2	59.3	51.2	29.5	22.4	18.0	14.0	12.5	9.58	8.15	3.70
1.60V/cell	247	193	143	115.8	84.3	61.8	53.1	30.0	22.6	18.5	14.2	12.8	9.65	8.20	3.72

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

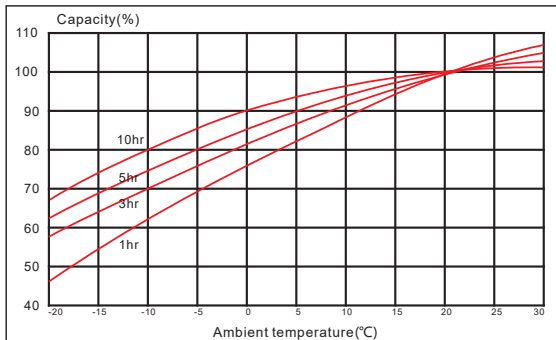
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	313	198	197	144	139	88.5	85.2	48.1	37.5	30.3	23.1	21.4	16.2	14.2	6.8
1.80V/cell	349	251	218	168	146	102	87.4	50.4	38.3	32.2	24.2	22.9	16.7	14.8	6.9
1.75V/cell	368	271	232	179	149	105	89.1	51.5	39.4	32.8	25.5	23.4	17.1	15.1	7.0
1.70V/cell	390	289	246	186	151	108	93.7	53.8	40.1	33.6	26.6	23.9	17.6	15.4	7.1
1.65V/cell	420	309	250	197	157	110	96.4	55.0	41.2	34.7	26.8	24.3	18.1	15.7	7.2
1.60V/cell	433	328	258	207	165	114	98.1	56.1	42.3	35.6	27.0	24.8	18.8	16.0	7.3

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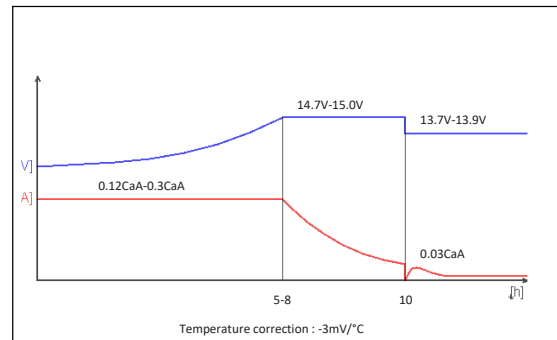
## DLC12-80EV

### Model Performance Diagrams

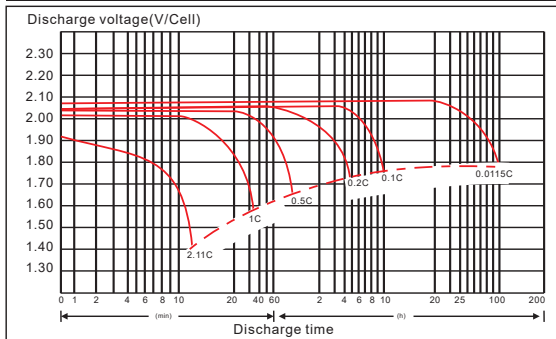
Curves of discharge capacity and ambient temperature



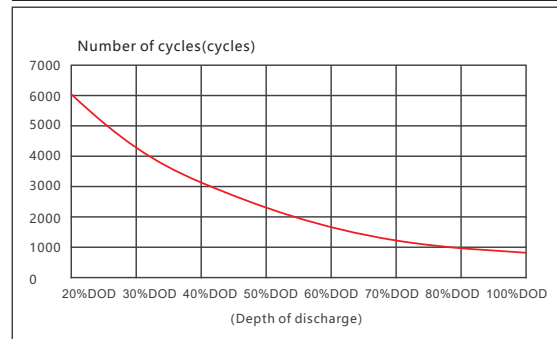
Curves of charging characteristics



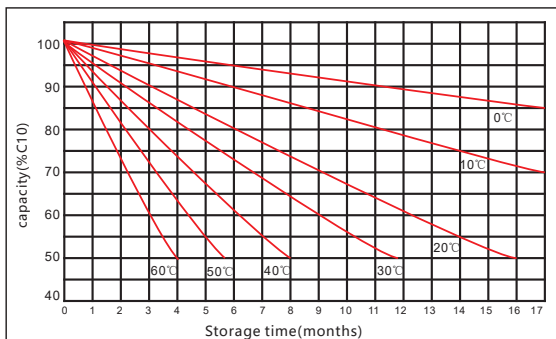
Discharge characteristics at different discharge rate(20°C)



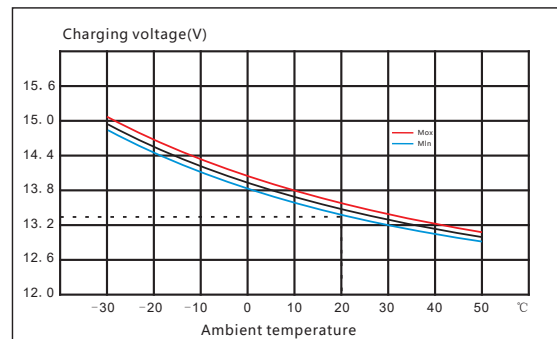
Curves of cycle life



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	14.40	-5mV/°C/cell	0.5C
Float use	25	13.65	-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

