

# DCEV SERIES

DEEP CYCLE GEL BATTERIES

## DATASHEET

### DCEV 80-12

12V 80AH



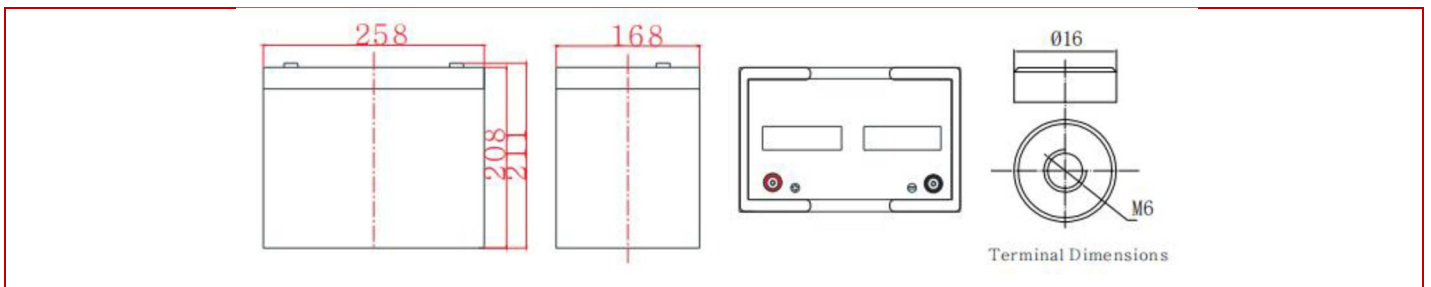
**GEL SEALED VRLA BATTERY**

**EUROBAT 2022 CLASSIFICATION: 12 Years – Long Life**

**Designed in accordance with IEC 60896-21/22**

### SPECIFICATIONS

Nominal Voltage	Nominal Capacity	Dimension ±3mm				Weight	Short-Circuit Current	Internal Resistance	Standard Terminal	Container Material
		L	W	H	TH					
12V	80AH	258mm	168mm	208mm	211mm	24kg	1.818A	≈6.6 mΩ	M6	ABS UL94-V0



### CONSTANT-VOLTAGE CHARGE

Rated Capacity	
10 hour rate (8.0A)	80.0AH
3 hour rate (21.9A)	65.7AH
1 hour rate (53.9A)	53.9AH
Capacity affected by temperature	
40°C (104°F)	103%
25°C (77°C)	100%
0°C (32°F)	86%

Charge Method (25°C)
Charge current: Max. 20.0A; Recom. 8.0A
Float Charge Voltage: 13.5-13.8V, recom. 13.8V (-18mV/°C)
Equalize charge: 13.8-14.1V, recom. 14.1V (-24mV/°C)
Cycle charge: 14.4-15.0V, recom. 14.7V (-30mV/°C)
Operating Temperature
Discharge: -20÷50°C
Charge: -20÷50°C
Storage: -20÷50°C

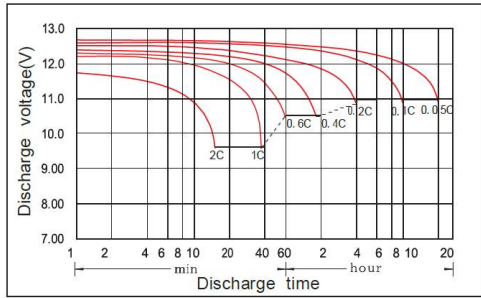
Nominal Operating Temp. Range
25±3°C (77±5°F)

Self Discharge
3% of capacity declined per month at 25°C

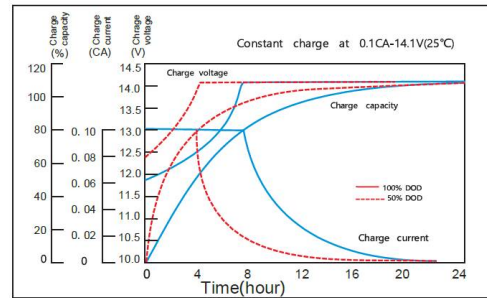
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation.

# DC EV 80-12 DATASHEET

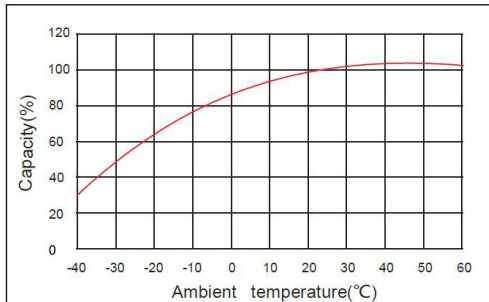
## DISCHARGE CHARACTERISTIC



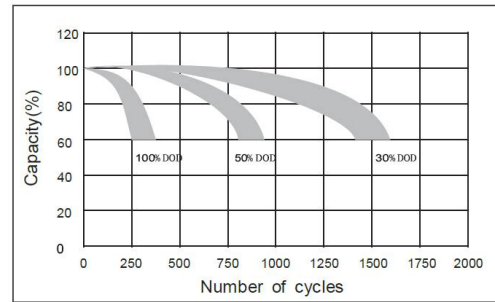
## CHARGING CHARACTERISTIC



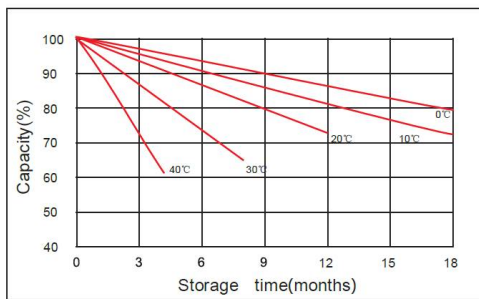
## THE EFFECT OF TEMPERATURE ON CAPACITY



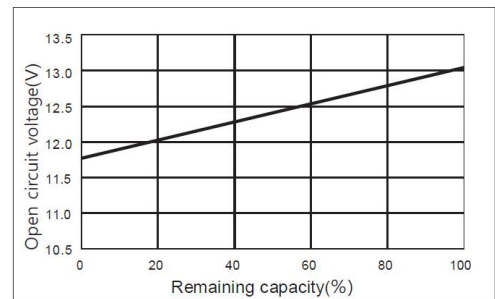
## THE EFFECT OF DISCHARGE DEPTH ON CYCLE LIFE



## CURVES OF SELF-DISCHARGE



## CURVES OF OPEN CIRCUIT VOLTAGE VS. CAPACITY



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

F.V/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1,60V / cell	282	188	151	92.1	66.1	53.9	33.8	30.9	22.4	16.2	15.1	12.0	9.88	8.32	4.37
1,65V / cell	273	186	147	90.6	65.6	53.5	33.5	30.7	22.2	16.1	14.9	11.9	9.80	8.24	4.34
1,70V / cell	262	185	144	89.0	65.3	53.2	33.2	30.5	21.9	15.9	14.7	11.8	9.72	8.16	4.32
1,75V / cell	241	182	139	88.2	64.3	52.4	32.9	30.0	21.6	15.8	14.6	11.6	9.64	8.08	4.30
1,80V / cell	216	177	130	84.4	62.6	51.0	32.5	29.5	21.5	15.6	14.2	11.5	9.56	8.00	4.28
1,85V / cell	193	165	116	77.0	58.0	47.3	31.6	28.0	20.2	15.1	13.5	11.2	9.17	7.76	4.21

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

F.V/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1,60V / cell	473	318	267	167	122	102	67.5	58.4	42.6	32.0	28.5	23.5	19.2	16.0	8.64
1,65V / cell	455	315	262	165	121	101	66.7	58.3	42.1	31.6	28.4	23.2	19.0	15.8	8.60
1,70V / cell	452	312	259	165	120	100	66.3	58.0	41.9	31.4	28.1	23.0	19.0	15.7	8.56
1,75V / cell	422	310	257	164	119	100	65.4	57.7	41.6	31.0	28.0	22.7	18.8	15.5	8.52
1,80V / cell	387	308	243	160	118	98.7	65.0	57.5	41.5	30.8	27.7	22.6	18.7	15.4	8.48
1,85V / cell	346	286	217	147	110	91.6	63.7	55.0	39.4	30.2	26.4	22.1	18.0	15.1	8.40