EV & MOBILITY · EVFJ SERIES

6-EVFJ-80



12V 80 Ah lead crystal battery

Built for golf carts, AGVs, and electric utility vehicles.

- 6,000+ cycles at 20% DoD
- 100Ah at the 10-hour rate
- EV-grade high-discharge design
- Operates from -40°C to +65°C
- 99% recyclable, non-hazardous

NOMINAL VOLTAGE	RATED CAPACITY	DIMENSIONS	WEIGHT
12 V	80 Ah	327 × 172 × 220 mm	31.5 kg
6 cells	3 h rate	L × W × total H	approximately

TERMINAL	MAX DISCHARGE	INTERNAL RESISTANCE	CHARGE VOLTAGE
F3	800 A	≤ 7.0 mΩ	13.6 to 13.7 V
standard	for 5 seconds	fully charged, 25 °C	float · cycle 14.6 to 14.7V

01 Specification

Manufacturer's data at 25 °C unless stated

ELECTRICAL

Nominal voltage	**12V** 6 × 2V cells
Rated capacity	**80 Ah** 3 hour rate
Chemistry	**Lead crystal** SiO_2 electrolyte, valve regulated
Internal resistance	**≤ 7.0 mΩ** fully charged, 25 °C
Max discharge current	**800 A (5 s)** 25 °C

CAPACITY AT 25 °C

10 h rate	**100 Ah** at 10 A
5 h rate	**88 Ah** at 17.6 A
2 h rate	**70 Ah** at 35 A

DIMENSIONS AND WEIGHT

Length	**327 mm** 12.87 in
Width	**172 mm** 6.77 in
Height	**220 mm** 8.66 in
Total height	**220 mm** top of terminal · 8.66 in
Weight	**31.5 kg** approx. 69.4 lb
Terminal	**F3** standard

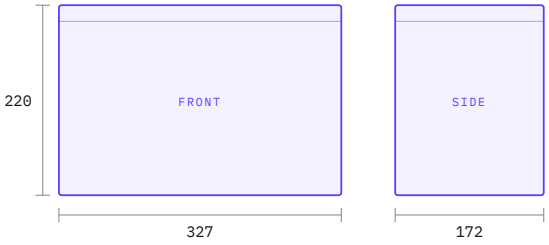
SELF-DISCHARGE AT 25 °C

After 3 months	**95%** capacity remaining
After 6 months	**85%** capacity remaining
After 12 months	**80%** capacity remaining

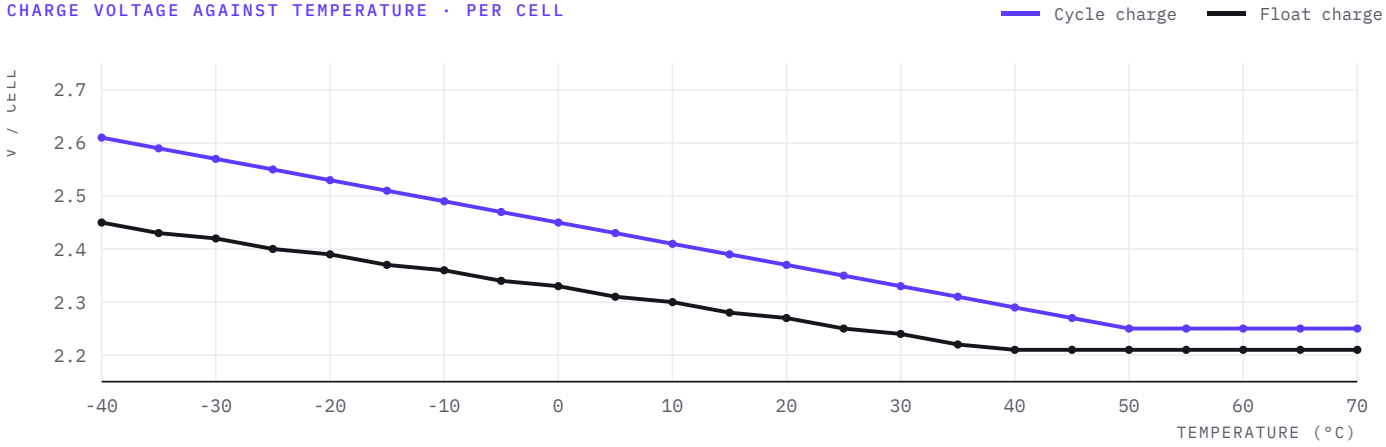
CHARGING · CONSTANT VOLTAGE

Cycle use	**14.6 to 14.7V** at 25 °C, initial current up to 16 A
Float / standby	**13.6 to 13.7V** at 25 °C

CASE, TO SCALE · MM



CHARGE VOLTAGE AGAINST TEMPERATURE · PER CELL



°C	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Cycle	2.61	2.59	2.57	2.55	2.53	2.51	2.49	2.47	2.45	2.43	2.41	2.39	2.37	2.35	2.33	2.31	2.29	2.27	2.25	2.25	2.25	2.25	2.25
Float	2.45	2.43	2.42	2.40	2.39	2.37	2.36	2.34	2.33	2.31	2.30	2.28	2.27	2.25	2.24	2.22	2.21	2.21	2.21	2.21	2.21	2.21	2.21

Volts per cell. Multiply by 6 for the 12V battery (at 25 °C: 14.10 V cycle, 13.50 V float).

02 Discharge performance

Manufacturer's data at 25 °C

Constant current discharge

AMPERES · BY END VOLTAGE PER CELL AND DURATION

END V PER CELL	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	252	161	106	79.9	60.1	36.9	28.0	22.3	18.7	17.1	12.8	10.5	8.64	5.37	4.33
1.67V	217	146	98.4	75.7	58.5	36.4	27.4	21.9	18.3	16.3	12.3	10.3	8.49	5.28	4.33
1.70V	207	141	95.3	74.8	56.0	35.9	27.1	21.4	18.0	15.7	12.0	10.2	8.41	5.23	4.32
1.75V	188	132	91.6	71.9	54.5	35.5	26.8	21.0	17.7	15.1	11.6	10.1	8.33	5.14	4.31
1.80V	166	121	88.1	69.2	53.2	35.0	26.1	20.6	17.3	15.0	11.4	10.0	8.18	5.04	4.29
1.83V	145	110	81.4	64.3	51.8	34.5	25.5	19.8	17.0	14.4	11.0	9.70	7.80	5.00	4.17
1.85V	124	100	74.8	59.5	50.4	34.1	24.6	19.0	16.6	14.0	10.6	9.43	7.58	4.95	4.04

Constant power discharge

WATTS PER CELL · BY END VOLTAGE PER CELL AND DURATION

END V PER CELL	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	416	280	192	146	106	74.0	52.1	41.9	35.7	31.3	23.7	20.8	16.1	10.0	8.42
1.67V	372	261	179	140	103	71.7	52.0	41.7	34.9	30.9	23.2	20.3	16.1	10.0	8.42
1.70V	360	254	174	138	102	69.8	50.7	41.4	34.4	30.7	23.1	20.1	16.1	10.0	8.41
1.75V	332	239	169	134	101	67.5	49.9	40.8	34.2	30.3	22.6	19.9	16.1	10.0	8.40
1.80V	301	220	163	130	100	65.3	49.5	40.0	33.7	29.8	22.3	19.7	15.7	9.95	8.39
1.83V	266	204	152	121	100	62.8	49.1	38.7	33.4	29.0	21.5	19.2	15.3	9.95	8.17
1.85V	231	188	141	113	98.8	60.4	48.7	37.3	33.0	28.1	20.8	18.7	14.9	9.86	7.97

WHY LEAD CRYSTAL

Performance

Discharges deeper and cycles more often, in extreme heat and cold too, and recovers to full rated capacity again and again for a longer service life.

Technology

Micro-porous absorbent glass mat, high-purity lead calcium selenium plates and an SiO_2 electrolyte that sets into a white crystalline powder.

Cleaner and safer

Less acid, no cadmium and no antimony. Up to 99% recyclable and classed as non-hazardous goods for transport.

Where it works

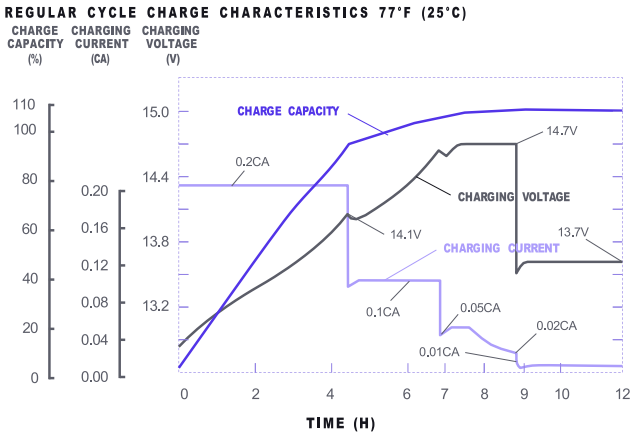
Telecoms, UPS, petrochemical and marine, defence, renewable energy, health care, manufacturing, transport and electric mobility.

ISO 9001 | ISO 14001 | CE | UL | IEC | 99% recyclable

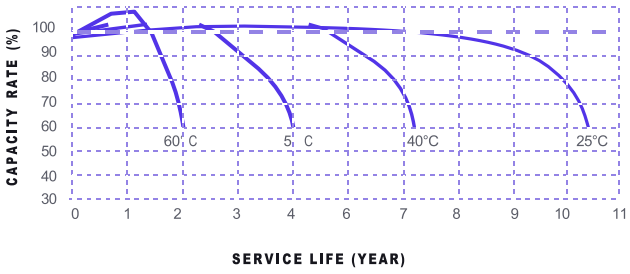
03 Performance curves

Manufacturer's test curves

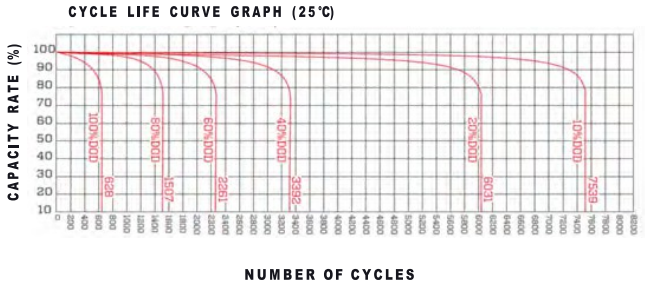
CHARGE CHARACTERISTIC 77°F (25°C)

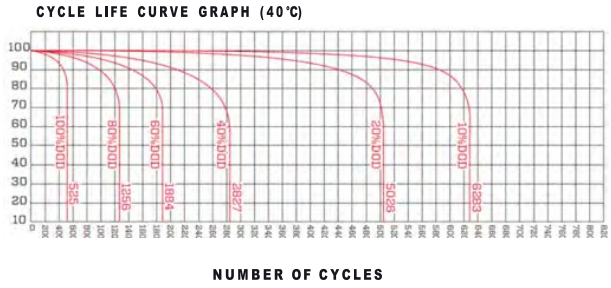


TEMPERATURE AND FLOAT SERVICE LIFE

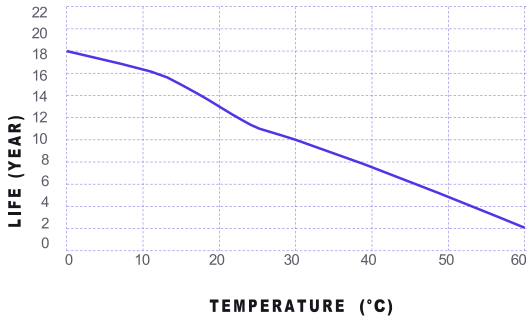


CYCLE LIFE CURVE GRAPH

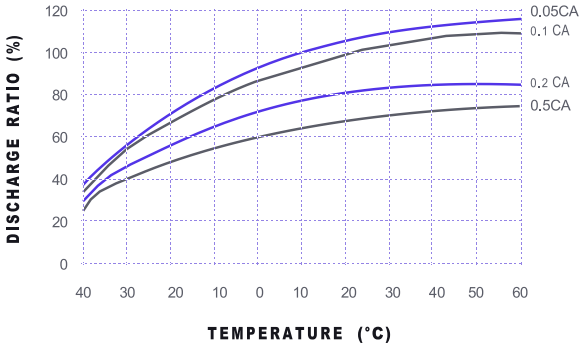




FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



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