Exponential® POWER

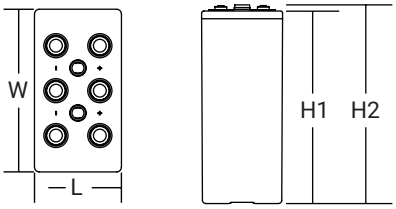
VRZ Series - Tubular Gel Batteries

16 OPzV-ET 2000

2V 2200Ah @ 10hr

Construction	
Nominal Voltage	2V
Number of Cells	1
Design Life	20 years
Nominal Capacity 20°C (68°F)	10 hour rate (220A, 1.8V) 2200Ah 5 hour rate (387A, 1.75V) 1935Ah 1 hour rate (1283A, 1.6V) 1283Ah
Internal Resistance	Fully Charged Battery 20°C (68°F) 0.18mOhm
Self-Discharge	2% of capacity declined per month at 20°C (average)
Operating Temperature Range	-20°C to +55°C
Maximum Discharge Current 20°C (68°F)	2069A
Charge Methods: Constant Voltage Charge 20°C (68°F)	Cycle use: 2.40V (time limited) Maximum charging current: 1100A Standby use: 2.25V ± 1% Temperature compensation: -3.5mV/°C /Cell Terminal torque: 23Nm

Battery Specifications				
Length (in.)	**Width (in.)**	**Height: H1 (in.)**	**Total Height: H2 (in.)**	**Approx. Weight (lb.)**
8.46	15.75	30.51	31.10	348.55



Features

- High capacity density
- Robust tubular positive electrode design, compliant with DIN 40742
- Low self discharge rate allows for up to 2 years shelf life
- Operating temperature -20°C to +55°C
- 20 year float life at 20°C (68°F)
- EUROBAT design life: Long Life > 12 years
- Fully recyclable with low CO_2 footprint

Applications

- Telecommunications/ Mobile Phone Stations
- Traffic Systems
- UPS Systems
- Emergency Lighting
- Electrical Switching

Recyclable

Compliant with: IEC60896-21/22

Discharge Constant Current (Amperes at 20°C)									
Cells (V)	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.60	2069.1	1880.4	1671.7	1283.2	750.4	610.5	406.3	255.3	222.0
1.65	1682.8	1616.2	1483.0	1225.5	732.6	599.4	401.8	255.3	222.0
1.70	1570.8	1491.6	1375.0	1157.2	726.0	596.2	398.2	250.8	220.0
1.75	1364.0	1322.2	1245.2	1018.6	657.8	569.8	387.2	250.8	220.0
1.80	1287.0	1205.6	1082.4	869.0	627.0	534.6	363.0	248.6	220.0
1.83	1133.3	1087.6	953.0	720.1	594.9	502.1	350.0	239.6	205.9
1.85	1035.0	975.6	819.3	653.1	558.1	457.1	320.6	227.6	197.9
1.87	838.0	822.4	799.0	635.3	537.9	440.4	306.0	220.2	194.9
1.90	695.2	673.9	643.7	585.0	473.0	382.3	279.2	204.5	177.8

Discharge Constant Power (Watts at 20°C)									
Cells (V)	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.60	3322.3	3019.3	2712.7	2143.0	1348.8	1122.1	765.3	488.6	427.2
1.65	2784.2	2674.0	2471.4	2080.8	1316.9	1101.7	756.9	488.6	427.2
1.70	2674.0	2539.1	2354.0	2006.8	1296.2	1097.2	750.0	480.0	423.3
1.75	2388.5	2315.3	2189.3	1808.4	1189.3	1047.0	729.3	480.0	423.3
1.80	2322.4	2175.6	1954.3	1579.4	1152.4	993.3	682.9	473.7	423.3
1.83	2085.0	2000.8	1748.1	1326.5	1107.6	942.0	665.0	457.4	394.7
1.85	1922.0	1811.8	1517.6	1215.9	1045.6	864.4	610.7	437.5	381.7
1.87	1573.0	1543.7	1495.1	1194.8	1018.0	837.9	587.0	425.4	377.3
1.90	1325.6	1284.9	1233.6	1116.2	906.5	736.5	541.1	397.7	347.3

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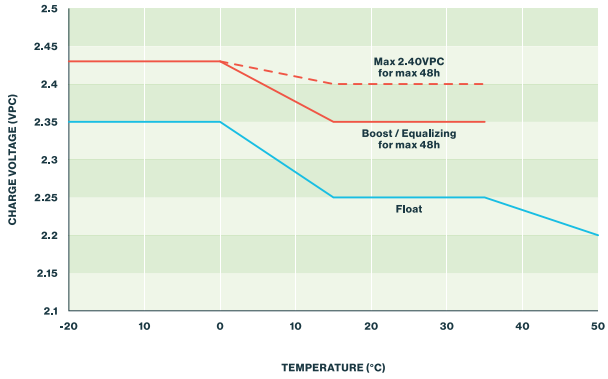
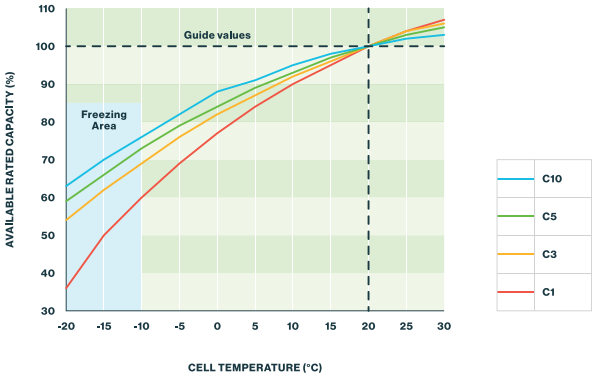
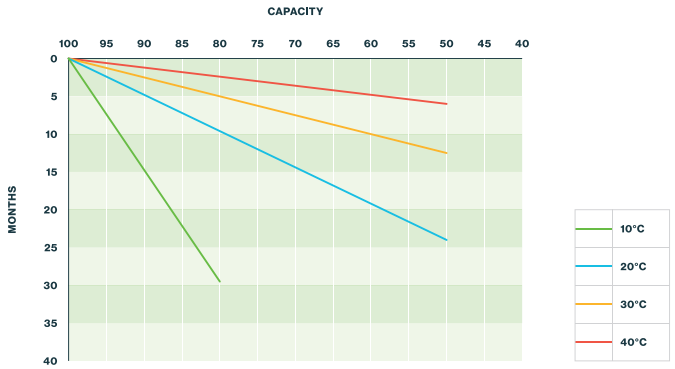
Charging voltage vs. Temperature



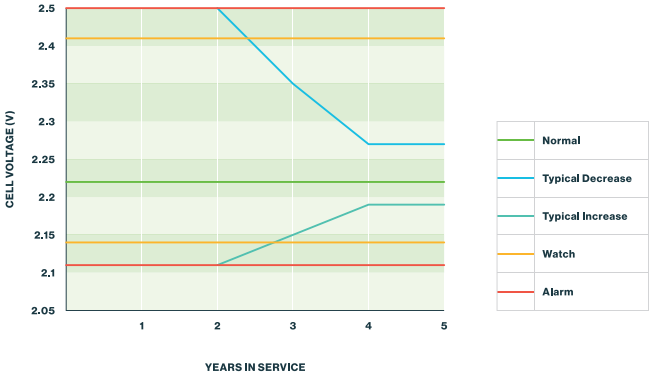
Capacity vs. Temperature



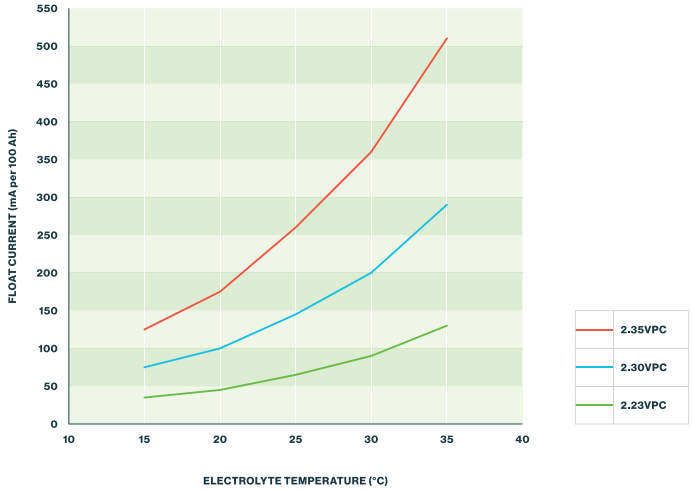
Self discharge at different temperatures



Float voltage deviation vs. Years in service



Float current: Residual charge current



Storage: Determine the state of charge