

Data Catalogue

OPzV Standby Power

Eternity Technologies valve regulated lead-acid batteries for the standby power market. With an innovative Gel-Technology design Eternity Technologies OPzV batteries have a reliable maintenance-free and leakage-free construction.



Part of our Network Power range

Features

High energy 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 CO₂ footprint



Applications

Telecommunications/ Mobile Phone Stations

Traffic Systems

UPS Systems

Emergency Lighting

Electrical Switching

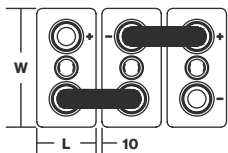
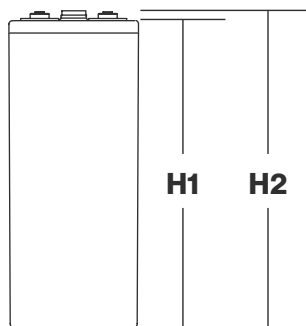
Cell specification

DIN Cell Type	Plate (Ah)	Length (mm)	Width (mm)	Height over lid (mm)	Height over pillar (mm)	Typical max weight (kg)	Internal resistance (mOhm)	Short circuit current (A)	Capacity (Ah) C10 - 1.8V Cell at 20°C
4 OPzV-ET 200	50	105	208	367	392	18.4	0.95	1650	225
5 OPzV-ET 250	50	126	208	367	392	22.2	0.78	2100	280
6 OPzV-ET 300	50	147	208	367	392	26.2	0.63	2550	335
5 OPzV-ET 350	70	126	208	483.5	509	30.7	0.63	2800	415
6 OPzV-ET 420	70	147	208	483.5	509	36.2	0.54	3400	500
7 OPzV-ET 490	70	168	208	483.5	509	41.7	0.46	4050	580
6 OPzV-ET 600	100	147	208	656	681	50.0	0.51	4350	750
8 OPzV-ET 800	100	212	193	657	682	66.3	0.39	4550	1010
10 OPzV-ET 1000	100	212	235	659	684	81.7	0.33	6050	1250
12 OPzV-ET 1200	100	212	277	658	683	97.0	0.28	7600	1510
12 OPzV-ET 1500	125	212	277	809	834	111.9	0.25	8500	1650
16 OPzV-ET 2000	125	215	400	784	809	155.6	0.21	10500	2200
20 OPzV-ET 2500	125	214	489	782	807	190.1	0.16	13000	2740
22 OPzV-ET 2750	125	214	578	784	809	216.4	0.13	14600	3025
24 OPzV-ET 3000	125	214	578	784	809	226.2	0.11	16000	3300
26 OPzV-ET 3250	125	214	578	784	809	236.0	0.11	17300	3575

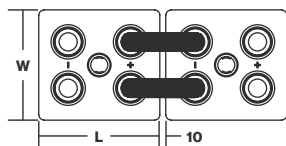
V0 option available
Horizontal installation possible

H1: Height over lid
H2: Height over pillar
M10 threaded terminal
Torque: 23Nm

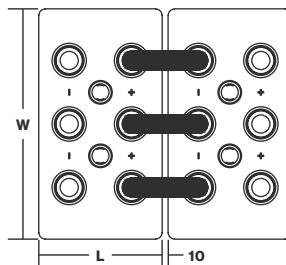
Not to scale



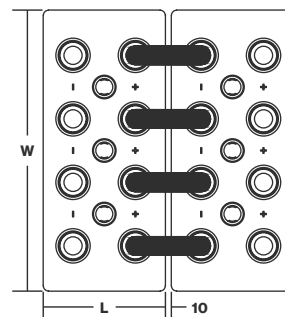
**4 OPzV-ET 200 to
6 OPzV-ET 600**



**8 OPzV-ET 800 to
12 OPzV-ET 1500**



16 OPzV-ET 2000



**20 OPzV-ET 2500 to
26 OPzV-ET 3250**

Constant current discharge data

1.90 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	144.0	126.1	107.1	76.3	59.7	45.8	31.1	21.4	18.3
5 OPzV-ET 250	180.4	157.9	134.1	95.6	74.7	57.3	39.0	26.8	22.9
6 OPzV-ET 300	215.9	189.0	160.5	114.4	89.4	68.6	46.6	32.1	27.4
5 OPzV-ET 350	243.5	230.4	186.6	142.8	113.6	93.1	65.0	44.5	36.5
6 OPzV-ET 420	293.4	277.6	224.8	172.0	136.8	112.2	78.3	53.7	44.0
7 OPzV-ET 490	341.0	322.6	261.2	199.9	159.0	130.4	91.0	62.4	51.1
6 OPzV-ET 600	266.9	260.2	244.5	215.6	167.9	144.3	101.4	71.9	60.4
8 OPzV-ET 800	362.3	353.3	332.0	292.6	227.9	195.9	137.7	97.5	82.0
10 OPzV-ET 1000	445.6	434.5	408.3	359.9	280.2	240.9	169.4	120.0	100.8
12 OPzV-ET 1200	537.5	524.1	492.5	434.2	338.1	290.6	204.3	144.7	121.6
12 OPzV-ET 1500	523.2	507.1	484.4	440.2	355.9	287.7	210.1	153.9	133.8
16 OPzV-ET 2000	695.2	673.9	643.7	585.0	473.0	382.3	279.2	204.5	177.8
20 OPzV-ET 2500	867.3	840.7	803.0	729.8	590.0	476.9	348.2	255.1	221.8
22 OPzV-ET 2750	959.2	929.8	888.1	807.1	652.6	527.4	385.2	282.1	245.3
24 OPzV-ET 3000	1046.4	1014.3	968.8	880.5	711.9	575.4	420.2	307.8	267.6
26 OPzV-ET 3250	1133.6	1098.8	1049.5	953.8	771.2	623.3	455.2	333.4	289.9

1.87 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	173.0	156.0	124.0	83.8	64.8	49.6	34.9	24.4	20.5
5 OPzV-ET 250	216.1	194.9	154.9	104.7	80.9	62.0	43.5	30.5	25.6
6 OPzV-ET 300	258.4	233.0	185.2	125.2	96.8	74.1	52.0	36.4	30.6
5 OPzV-ET 350	331.1	283.2	238.5	162.6	122.6	98.8	69.3	47.9	38.9
6 OPzV-ET 420	399.1	341.4	287.5	196.0	147.7	119.1	83.5	57.7	46.9
7 OPzV-ET 490	463.0	396.1	333.5	227.4	171.4	138.2	96.9	66.9	54.4
6 OPzV-ET 600	337.1	328.6	306.3	248.6	194.8	156.8	112.8	78.0	65.6
8 OPzV-ET 800	454.6	443.1	413.1	335.2	262.7	211.4	152.1	105.3	88.5
10 OPzV-ET 1000	564.8	550.5	513.1	416.4	326.3	262.6	189.0	130.8	109.9
12 OPzV-ET 1200	682.4	665.1	620.0	503.2	394.3	317.3	228.3	158.0	132.8
12 OPzV-ET 1500	627.3	615.6	598.1	475.6	402.6	329.7	229.0	164.8	145.9
16 OPzV-ET 2000	838.0	822.4	799.0	635.3	537.9	440.4	306.0	220.2	194.9
20 OPzV-ET 2500	1044.4	1025.0	995.8	791.8	670.4	548.9	381.3	274.5	242.9
22 OPzV-ET 2750	1154.0	1132.5	1100.3	874.9	740.7	606.5	421.4	303.3	268.4
24 OPzV-ET 3000	1258.9	1235.5	1200.4	954.4	808.1	661.7	459.7	330.8	292.8
26 OPzV-ET 3250	1363.8	1338.5	1300.4	1034.0	875.4	716.8	498.0	358.4	317.2

1.85 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	194.1	171.0	137.0	91.6	68.3	52.0	36.2	24.8	21.4
5 OPzV-ET 250	241.3	212.6	170.3	113.9	84.9	64.7	45.0	30.9	26.6
6 OPzV-ET 300	288.5	254.2	203.6	136.1	101.5	77.3	53.8	36.9	31.8
5 OPzV-ET 350	331.3	290.5	248.5	175.8	123.6	103.8	72.7	49.7	40.4
6 OPzV-ET 420	398.5	349.4	298.9	211.4	148.7	124.9	87.5	59.8	48.6
7 OPzV-ET 490	462.5	405.6	346.9	245.4	172.6	145.0	101.5	69.4	56.4
6 OPzV-ET 600	399.9	369.0	337.5	270.3	201.0	165.3	119.3	82.3	68.6
8 OPzV-ET 800	539.9	498.2	455.6	364.8	271.3	223.2	161.1	111.1	92.6
10 OPzV-ET 1000	670.0	618.3	565.4	452.8	336.7	277.0	200.0	137.9	114.9
12 OPzV-ET 1200	809.4	747.0	683.1	547.0	406.8	334.6	241.6	166.6	138.8
12 OPzV-ET 1500	778.8	734.1	616.5	491.4	419.9	344.0	241.2	171.2	148.9
16 OPzV-ET 2000	1035.0	975.6	819.3	653.1	558.1	457.1	320.6	227.6	197.9
20 OPzV-ET 2500	1296.5	1222.2	1026.3	818.1	699.1	572.7	401.6	285.1	247.9
22 OPzV-ET 2750	1427.7	1345.8	1130.2	900.9	769.8	630.6	442.2	313.9	273.0
24 OPzV-ET 3000	1557.5	1468.2	1232.9	982.8	839.8	687.9	482.4	342.5	297.8
26 OPzV-ET 3250	1687.3	1590.5	1335.7	1064.7	909.8	745.3	522.6	371.0	322.6

Constant current discharge data

1.83 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	209.0	182.0	148.1	95.2	71.4	54.2	38.1	26.1	22.3
5 OPzV-ET 250	259.6	226.0	183.9	118.3	88.6	67.3	47.4	32.4	27.7
6 OPzV-ET 300	311.1	270.9	220.5	141.8	106.2	80.7	56.8	38.8	33.2
5 OPzV-ET 350	349.2	296.3	264.4	186.6	125.7	105.7	74.6	50.8	40.9
6 OPzV-ET 420	420.8	357.1	318.6	224.8	151.5	127.5	89.9	61.2	49.3
7 OPzV-ET 490	488.3	414.4	369.7	260.9	175.8	147.9	104.4	71.0	57.2
6 OPzV-ET 600	416.9	405.5	366.9	291.0	222.3	176.5	125.9	87.4	71.1
8 OPzV-ET 800	562.6	547.2	495.1	392.7	300.0	238.2	169.9	117.9	95.9
10 OPzV-ET 1000	697.6	678.4	613.9	486.9	372.0	295.4	210.7	146.2	119.0
12 OPzV-ET 1200	843.9	820.8	742.7	589.0	450.0	357.3	254.9	176.8	143.9
12 OPzV-ET 1500	847.1	812.9	712.3	538.3	444.7	375.3	261.6	179.1	153.9
16 OPzV-ET 2000	1133.3	1087.6	953.0	720.1	594.9	502.1	350.0	239.6	205.9
20 OPzV-ET 2500	1414.0	1356.9	1189.0	898.4	742.3	626.4	436.6	298.9	256.9
22 OPzV-ET 2750	1558.2	1495.2	1310.2	990.0	817.9	690.3	481.1	329.4	283.1
24 OPzV-ET 3000	1699.8	1631.2	1429.3	1080.0	892.3	753.0	524.9	359.3	308.9
26 OPzV-ET 3250	1841.5	1767.1	1548.4	1170.0	966.7	815.8	568.6	389.3	334.6

1.80 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	232.0	207.0	157.1	99.9	74.5	58.1	39.2	26.6	22.5
5 OPzV-ET 250	288.7	257.6	195.4	124.3	92.7	72.2	48.7	33.0	28.0
6 OPzV-ET 300	345.4	308.2	233.8	148.7	110.9	86.4	58.3	39.5	33.5
5 OPzV-ET 350	417.1	373.1	279.3	200.4	135.7	108.7	79.3	51.0	41.5
6 OPzV-ET 420	502.5	449.5	336.5	241.5	163.5	131.0	95.5	61.5	50.0
7 OPzV-ET 490	582.9	521.4	390.3	280.1	189.7	152.0	110.8	71.3	58.0
6 OPzV-ET 600	489.0	458.3	388.5	314.3	227.3	185.3	130.5	89.3	75.0
8 OPzV-ET 800	658.5	617.1	523.2	423.2	306.0	249.5	175.7	120.2	101.0
10 OPzV-ET 1000	815.0	763.8	647.5	523.8	378.8	308.8	217.5	148.8	125.0
12 OPzV-ET 1200	984.5	922.6	782.2	632.7	457.5	373.0	262.7	179.7	151.0
12 OPzV-ET 1500	965.3	904.2	811.8	651.8	470.3	401.0	272.3	186.5	165.0
16 OPzV-ET 2000	1287.0	1205.6	1082.4	869.0	627.0	534.6	363.0	248.6	220.0
20 OPzV-ET 2500	1602.9	1501.5	1348.1	1082.3	780.9	665.8	452.1	309.6	274.0
22 OPzV-ET 2750	1769.6	1657.7	1488.3	1194.9	862.1	735.1	499.1	341.8	302.5
24 OPzV-ET 3000	1930.5	1808.4	1623.6	1303.5	940.5	801.9	544.5	372.9	330.0
26 OPzV-ET 3250	2091.4	1959.1	1758.9	1412.1	1018.9	868.7	589.9	404.0	357.5

1.75 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	257.2	241.0	179.6	115.4	80.6	61.0	40.8	27.8	23.2
5 OPzV-ET 250	320.1	299.9	223.5	143.6	100.4	75.8	50.8	34.6	28.8
6 OPzV-ET 300	383.0	358.9	267.4	171.8	120.1	90.7	60.7	41.4	34.5
5 OPzV-ET 350	422.5	388.2	299.7	226.5	135.9	111.8	80.9	52.5	42.3
6 OPzV-ET 420	509.0	467.7	361.1	272.9	163.7	134.6	97.4	63.2	51.0
7 OPzV-ET 490	590.4	542.5	418.9	316.5	189.9	156.2	113.0	73.4	59.2
6 OPzV-ET 600	563.9	536.9	467.4	335.3	241.8	195.4	136.0	92.7	77.3
8 OPzV-ET 800	759.4	723.0	629.4	451.5	325.6	263.2	183.1	124.8	104.0
10 OPzV-ET 1000	939.9	894.8	778.9	558.8	403.0	325.7	226.6	154.5	128.8
12 OPzV-ET 1200	1135.4	1080.9	941.0	675.0	486.8	393.5	273.7	186.6	155.5
12 OPzV-ET 1500	1023.0	991.7	933.9	764.0	493.4	427.4	290.4	188.1	165.0
16 OPzV-ET 2000	1364.0	1322.2	1245.2	1018.6	657.8	569.8	387.2	250.8	220.0
20 OPzV-ET 2500	1698.8	1646.7	1550.8	1268.6	819.3	709.7	482.2	312.4	274.0
22 OPzV-ET 2750	1875.5	1818.0	1712.2	1400.6	904.5	783.5	532.4	344.9	302.5
24 OPzV-ET 3000	2046.0	1983.3	1867.8	1527.9	986.7	854.7	580.8	376.2	330.0
26 OPzV-ET 3250	2216.5	2148.6	2023.5	1655.2	1068.9	925.9	629.2	407.6	357.5

Constant current discharge data

1.70 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	286.2	260.7	203.5	119.6	82.3	61.9	40.8	27.6	23.2
5 OPzV-ET 250	356.2	324.5	253.2	148.8	102.4	77.0	50.8	34.3	28.8
6 OPzV-ET 300	426.1	388.2	303.0	178.0	122.5	92.1	60.7	41.1	34.5
5 OPzV-ET 350	462.7	419.9	330.2	229.9	138.4	114.7	80.9	52.5	42.3
6 OPzV-ET 420	557.4	505.9	397.8	276.9	166.8	138.2	97.4	63.2	51.0
7 OPzV-ET 490	653.0	592.6	466.0	324.4	195.3	161.9	114.1	74.1	59.7
6 OPzV-ET 600	652.0	627.3	537.7	400.9	258.0	199.3	138.3	94.2	77.3
8 OPzV-ET 800	878.0	844.7	724.0	539.9	347.5	268.4	186.2	126.9	104.0
10 OPzV-ET 1000	1086.7	1045.5	896.1	668.2	430.0	332.2	230.5	157.1	128.8
12 OPzV-ET 1200	1312.7	1262.9	1082.5	807.2	519.5	401.3	278.4	189.7	155.5
12 OPzV-ET 1500	1178.1	1118.7	1031.3	867.9	544.5	447.2	298.7	188.1	165.0
16 OPzV-ET 2000	1570.8	1491.6	1375.0	1157.2	726.0	596.2	398.2	250.8	220.0
20 OPzV-ET 2500	1956.4	1857.7	1712.5	1441.2	904.2	742.5	495.9	312.4	274.0
22 OPzV-ET 2750	2159.9	2051.0	1890.6	1591.2	998.3	819.8	547.5	344.9	302.5
24 OPzV-ET 3000	2356.2	2237.4	2062.5	1735.8	1089.0	894.3	597.3	376.2	330.0
26 OPzV-ET 3250	2552.6	2423.9	2234.4	1880.5	1179.8	968.8	647.1	407.6	357.5

1.65 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	315.4	280.0	214.6	124.4	83.4	61.9	40.8	27.6	23.2
5 OPzV-ET 250	392.5	348.4	267.1	154.9	103.8	77.0	50.8	34.3	28.8
6 OPzV-ET 300	469.6	416.8	319.5	185.3	124.2	92.1	60.7	41.1	34.5
5 OPzV-ET 350	526.9	486.7	368.0	235.3	139.6	115.7	81.6	52.9	42.7
6 OPzV-ET 420	635.5	587.1	444.0	283.8	168.4	139.6	98.4	63.9	51.5
7 OPzV-ET 490	737.9	681.6	515.4	329.5	195.5	162.0	114.2	74.1	59.8
6 OPzV-ET 600	719.2	709.9	594.1	427.2	261.1	199.3	138.3	94.2	77.3
8 OPzV-ET 800	968.5	956.0	800.0	575.3	351.6	268.4	186.2	126.9	104.0
10 OPzV-ET 1000	1198.7	1183.2	990.1	712.0	435.2	332.2	230.5	157.1	128.8
12 OPzV-ET 1200	1448.0	1429.3	1196.0	860.1	525.7	401.3	278.4	189.7	155.5
12 OPzV-ET 1500	1266.0	1215.8	1115.6	921.9	551.1	450.9	302.3	192.1	167.0
16 OPzV-ET 2000	1682.8	1616.2	1483.0	1225.5	732.6	599.4	401.8	255.3	222.0
20 OPzV-ET 2500	2107.4	2023.9	1857.1	1534.6	917.4	750.6	503.2	319.7	278.0
22 OPzV-ET 2750	2320.9	2229.1	2045.3	1690.2	1010.4	826.7	554.2	352.1	306.2
24 OPzV-ET 3000	2531.9	2431.7	2231.3	1843.8	1102.3	901.9	604.6	384.1	334.0
26 OPzV-ET 3250	2742.9	2634.3	2417.2	1997.5	1194.1	977.0	655.0	416.1	361.9

1.60 VpC	Discharge in A at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	348.8	303.4	224.6	124.4	83.4	61.9	40.8	27.6	23.2
5 OPzV-ET 250	434.0	377.5	279.5	154.9	103.8	77.0	50.8	34.3	28.8
6 OPzV-ET 300	519.3	451.7	334.4	185.3	124.2	92.1	60.7	41.1	34.5
5 OPzV-ET 350	550.8	506.8	381.3	238.2	139.6	115.7	81.6	52.9	42.7
6 OPzV-ET 420	664.4	611.3	459.9	287.4	168.4	139.6	98.4	63.9	51.5
7 OPzV-ET 490	771.3	709.8	534.0	333.6	195.5	162.0	114.2	74.1	59.8
6 OPzV-ET 600	801.9	782.5	645.0	445.7	261.1	199.3	138.3	94.2	77.3
8 OPzV-ET 800	1079.8	1053.8	868.7	600.3	351.6	268.4	186.2	126.9	104.0
10 OPzV-ET 1000	1336.4	1304.2	1075.1	742.9	435.2	332.2	230.5	157.1	128.8
12 OPzV-ET 1200	1614.4	1575.5	1298.7	897.4	525.7	401.3	278.4	189.7	155.5
12 OPzV-ET 1500	1556.6	1414.6	1257.6	965.3	564.5	459.3	305.6	192.1	167.0
16 OPzV-ET 2000	2069.1	1880.4	1671.7	1283.2	750.4	610.5	406.3	255.3	222.0
20 OPzV-ET 2500	2591.1	2354.8	2093.5	1606.9	939.7	764.5	508.8	319.7	278.0
22 OPzV-ET 2750	2853.7	2593.4	2305.6	1769.8	1034.9	842.0	560.3	352.1	306.2
24 OPzV-ET 3000	3113.1	2829.2	2515.2	1930.7	1129.0	918.6	611.3	384.1	334.0
26 OPzV-ET 3250	3372.5	3065.0	2724.8	2091.5	1223.1	995.1	662.2	416.1	361.9

Constant power discharge data

1.90 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	274.5	240.3	203.5	146.2	114.7	87.8	59.9	41.2	35.2
5 OPzV-ET 250	344.4	301.6	255.3	182.5	143.7	111.1	76.0	51.8	44.6
6 OPzV-ET 300	410.4	359.3	305.9	219.0	172.5	132.8	90.8	61.9	52.8
5 OPzV-ET 350	447.5	423.3	354.4	271.2	218.6	179.8	125.7	86.3	71.4
6 OPzV-ET 420	544.7	515.3	427.0	328.4	263.7	216.1	151.6	104.5	85.5
7 OPzV-ET 490	637.6	603.2	497.3	380.8	305.7	251.7	176.3	120.7	100.0
6 OPzV-ET 600	510.4	497.7	465.6	411.8	321.5	278.3	196.0	139.6	117.4
8 OPzV-ET 800	690.1	673.0	630.9	557.7	437.2	379.2	267.7	190.1	159.7
10 OPzV-ET 1000	850.2	829.1	775.7	686.1	537.8	464.8	327.8	233.5	196.3
12 OPzV-ET 1200	1026.8	1001.2	936.5	828.8	650.0	559.6	396.5	281.9	237.9
12 OPzV-ET 1500	995.8	965.2	936.6	838.3	682.7	553.3	406.8	299.5	260.3
16 OPzV-ET 2000	1325.6	1284.9	1233.6	1116.2	906.5	736.5	541.1	397.7	347.3
20 OPzV-ET 2500	1660.8	1609.8	1547.2	1391.9	1130.9	917.3	675.2	494.9	433.2
22 OPzV-ET 2750	1826.7	1770.6	1715.3	1537.9	1249.7	1015.3	745.0	548.2	478.2
24 OPzV-ET 3000	1992.8	1931.6	1871.2	1677.7	1363.3	1107.6	812.7	598.0	521.7
26 OPzV-ET 3250	2158.8	2092.6	2027.1	1817.6	1476.9	1199.9	880.5	647.9	565.1

1.87 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	323.8	292.0	232.4	158.1	122.8	94.8	67.3	47.1	39.3
5 OPzV-ET 250	403.7	364.0	291.9	197.3	154.0	118.2	83.4	58.8	48.9
6 OPzV-ET 300	484.2	436.6	347.3	237.3	184.4	142.3	100.3	70.5	59.3
5 OPzV-ET 350	613.3	524.7	446.4	306.7	233.4	189.0	133.5	92.7	75.4
6 OPzV-ET 420	740.2	633.2	540.0	368.9	281.4	227.8	160.7	110.7	90.2
7 OPzV-ET 490	862.5	737.8	625.6	429.5	326.4	265.5	186.5	128.8	105.5
6 OPzV-ET 600	636.0	619.9	573.5	467.4	367.6	299.3	215.9	150.6	127.0
8 OPzV-ET 800	853.1	831.5	775.0	631.6	497.9	404.2	292.2	203.9	171.4
10 OPzV-ET 1000	1063.0	1036.2	962.3	784.5	617.6	500.2	364.9	253.0	213.4
12 OPzV-ET 1200	1285.7	1253.2	1161.9	947.7	746.5	604.8	439.1	304.2	257.0
12 OPzV-ET 1500	1182.0	1160.0	1121.7	893.8	761.8	627.7	439.1	318.6	282.4
16 OPzV-ET 2000	1573.0	1543.7	1495.1	1194.8	1018.0	837.9	587.0	425.4	377.3
20 OPzV-ET 2500	1964.1	1927.6	1865.1	1487.3	1268.1	1043.3	730.8	530.9	469.2
22 OPzV-ET 2750	2172.5	2132.1	2063.6	1645.1	1401.5	1152.9	808.7	587.1	519.5
24 OPzV-ET 3000	2370.0	2325.9	2251.2	1794.7	1528.9	1257.7	882.2	640.5	566.7
26 OPzV-ET 3250	2567.5	2519.7	2438.8	1944.3	1656.3	1362.5	955.7	693.9	614.0

1.85 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	359.4	316.6	255.0	171.4	129.2	99.4	69.6	47.8	40.3
5 OPzV-ET 250	446.2	393.0	317.3	213.5	160.3	122.8	85.9	58.8	50.7
6 OPzV-ET 300	535.3	471.5	379.6	256.1	192.5	147.5	102.5	71.1	61.1
5 OPzV-ET 350	612.8	537.4	461.8	328.6	234.0	197.7	138.8	95.5	77.3
6 OPzV-ET 420	736.6	645.8	554.9	395.3	281.9	237.8	166.8	114.2	93.0
7 OPzV-ET 490	856.9	751.4	644.6	457.7	326.4	274.5	194.5	133.5	108.0
6 OPzV-ET 600	746.8	689.2	625.8	503.3	377.6	313.3	228.8	157.8	132.1
8 OPzV-ET 800	1004.7	927.2	844.7	681.2	511.0	423.6	306.9	214.7	177.8
10 OPzV-ET 1000	1248.5	1152.1	1050.2	844.5	633.4	524.8	382.4	265.1	221.4
12 OPzV-ET 1200	1509.2	1392.7	1268.0	1021.4	764.7	633.4	462.2	319.2	267.1
12 OPzV-ET 1500	1455.2	1371.7	1143.4	913.9	786.7	648.9	459.6	329.6	285.6
16 OPzV-ET 2000	1922.0	1811.8	1517.6	1215.9	1045.6	864.4	610.7	437.5	381.7
20 OPzV-ET 2500	2415.3	2276.8	1902.0	1523.2	1309.9	1081.9	765.6	548.5	477.6
22 OPzV-ET 2750	2667.9	2514.9	2094.6	1676.3	1443.2	1190.6	843.5	604.3	524.6
24 OPzV-ET 3000	2910.4	2743.5	2285.1	1828.7	1574.4	1298.9	920.2	659.2	572.3
26 OPzV-ET 3250	3153.0	2972.1	2475.5	1981.0	1705.6	1407.1	996.9	714.2	620.0

Constant power discharge data

1.83 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	383.3	333.8	272.9	178.3	133.9	102.1	72.4	49.4	42.7
5 OPzV-ET 250	476.9	415.3	339.3	220.7	166.7	127.6	90.1	61.7	53.1
6 OPzV-ET 300	571.0	497.2	406.8	264.9	200.0	152.4	108.0	74.1	63.6
5 OPzV-ET 350	638.1	541.4	486.0	346.0	236.5	199.5	142.5	97.5	77.7
6 OPzV-ET 420	772.0	655.1	586.8	417.9	283.8	239.8	171.4	117.4	94.5
7 OPzV-ET 490	894.1	758.7	679.2	484.5	329.2	278.4	198.7	136.1	110.3
6 OPzV-ET 600	764.0	743.0	672.7	537.4	414.0	332.2	239.7	167.1	136.5
8 OPzV-ET 800	1030.0	1001.8	908.8	724.5	560.6	447.9	323.2	225.9	183.4
10 OPzV-ET 1000	1278.0	1242.9	1126.9	899.3	694.9	556.8	400.4	279.2	228.4
12 OPzV-ET 1200	1545.4	1502.9	1364.2	1088.6	840.5	671.6	485.3	339.3	275.1
12 OPzV-ET 1500	1563.2	1500.1	1307.0	991.1	826.9	702.1	495.5	342.3	293.8
16 OPzV-ET 2000	2085.0	2000.8	1748.1	1326.5	1107.6	942.0	665.0	457.4	394.7
20 OPzV-ET 2500	2603.9	2498.7	2179.8	1654.8	1380.9	1173.8	828.2	571.1	491.7
22 OPzV-ET 2750	2876.3	2760.2	2402.2	1823.0	1522.6	1294.1	912.3	631.4	543.1
24 OPzV-ET 3000	3137.8	3011.1	2620.5	1988.8	1661.0	1411.7	995.2	688.8	592.4
26 OPzV-ET 3250	3399.3	3262.1	2838.9	2154.5	1799.4	1529.4	1078.1	746.2	641.8

1.80 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	418.5	373.5	286.4	183.6	139.3	109.7	74.9	50.6	42.9
5 OPzV-ET 250	520.6	464.6	355.1	228.8	172.6	135.8	92.4	62.6	53.1
6 OPzV-ET 300	622.7	555.6	424.6	274.0	207.4	163.1	110.9	75.8	64.3
5 OPzV-ET 350	751.0	671.8	506.4	366.8	252.2	204.0	150.5	97.7	79.6
6 OPzV-ET 420	904.5	809.1	609.8	442.0	303.3	246.2	181.0	117.9	95.9
7 OPzV-ET 490	1051.3	940.4	706.1	512.9	351.5	285.9	209.7	135.9	111.1
6 OPzV-ET 600	880.7	825.3	701.4	572.3	419.1	345.6	245.8	169.9	142.6
8 OPzV-ET 800	1187.4	1112.7	945.8	771.4	565.2	465.3	332.8	228.6	193.2
10 OPzV-ET 1000	1469.7	1377.3	1171.2	955.3	700.6	577.6	412.2	284.7	237.3
12 OPzV-ET 1200	1772.8	1661.3	1414.9	1153.4	846.1	695.9	497.0	343.2	288.1
12 OPzV-ET 1500	1750.6	1639.9	1464.2	1184.1	865.2	745.4	510.3	355.2	313.5
16 OPzV-ET 2000	2322.4	2175.6	1954.3	1579.4	1152.4	993.3	682.9	473.7	423.3
20 OPzV-ET 2500	2902.7	2719.1	2433.4	1967.4	1435.8	1237.1	849.2	589.9	526.2
22 OPzV-ET 2750	3204.6	3001.9	2686.5	2172.0	1585.2	1365.8	937.5	651.3	580.9
24 OPzV-ET 3000	3500.3	3278.9	2929.4	2367.3	1729.6	1489.8	1023.6	710.5	632.9
26 OPzV-ET 3250	3791.9	3552.1	3173.6	2564.6	1873.8	1614.0	1108.9	769.7	685.7

1.75 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	452.5	424.0	320.0	208.1	149.1	114.4	76.7	52.9	44.4
5 OPzV-ET 250	562.9	527.4	397.6	259.8	186.3	141.7	96.4	65.2	54.7
6 OPzV-ET 300	674.1	631.6	476.0	310.6	222.4	170.0	115.1	78.6	66.1
5 OPzV-ET 350	741.5	681.3	529.3	407.4	250.8	207.2	153.1	100.7	81.0
6 OPzV-ET 420	892.6	820.2	638.3	490.0	302.3	250.7	184.3	121.3	97.7
7 OPzV-ET 490	1035.8	951.7	740.8	569.7	349.8	289.6	213.6	140.7	113.1
6 OPzV-ET 600	988.0	940.6	823.2	597.6	439.9	361.9	256.7	176.9	147.3
8 OPzV-ET 800	1332.0	1268.1	1110.4	806.5	593.2	487.6	345.4	237.6	198.0
10 OPzV-ET 1000	1647.8	1568.8	1373.1	997.5	732.4	602.3	427.2	294.9	245.6
12 OPzV-ET 1200	1991.1	1895.6	1658.1	1205.3	886.0	726.8	515.8	355.8	295.8
12 OPzV-ET 1500	1792.6	1737.6	1641.1	1355.6	891.5	783.3	546.9	359.5	313.5
16 OPzV-ET 2000	2388.5	2315.3	2189.3	1808.4	1189.3	1047.0	729.3	480.0	423.3
20 OPzV-ET 2500	2976.7	2885.5	2725.5	2251.0	1480.5	1302.6	908.3	597.3	526.2
22 OPzV-ET 2750	3286.4	3185.6	3009.5	2483.6	1632.9	1437.8	1002.7	658.2	580.2
24 OPzV-ET 3000	3585.1	3475.3	3283.1	2709.4	1781.4	1568.5	1093.9	718.0	632.9
26 OPzV-ET 3250	3883.9	3764.9	3556.7	2935.2	1929.8	1699.2	1185.0	777.9	685.7

Constant power discharge data

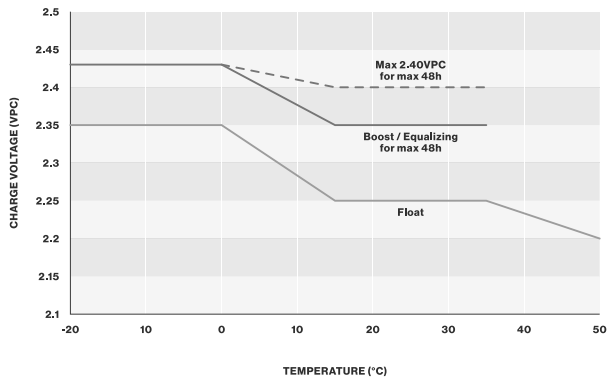
1.70 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	492.3	448.4	356.1	215.1	151.4	115.8	77.5	52.4	44.4
5 OPzV-ET 250	610.4	556.1	441.0	267.1	189.4	144.2	96.2	64.7	54.7
6 OPzV-ET 300	731.3	666.2	528.6	320.1	226.3	172.5	114.7	78.0	66.1
5 OPzV-ET 350	790.5	717.5	571.7	406.6	255.2	215.0	153.1	100.7	81.0
6 OPzV-ET 420	952.4	864.4	687.1	490.0	306.1	257.5	184.3	121.3	97.7
7 OPzV-ET 490	1116.1	1013.0	804.2	573.1	358.1	301.5	215.7	142.1	114.3
6 OPzV-ET 600	1110.4	1068.3	924.0	700.3	466.7	367.7	261.1	179.9	147.3
8 OPzV-ET 800	1497.6	1440.8	1244.9	945.9	630.8	496.0	351.2	241.6	198.0
10 OPzV-ET 1000	1853.0	1782.8	1540.4	1168.8	780.2	614.3	434.5	299.8	245.6
12 OPzV-ET 1200	2237.9	2153.1	1860.8	1413.1	941.9	740.5	524.6	361.7	295.8
12 OPzV-ET 1500	2006.0	1904.9	1764.9	1504.8	970.0	822.0	562.5	359.5	313.5
16 OPzV-ET 2000	2674.0	2539.1	2354.0	2006.8	1296.2	1097.2	750.0	480.0	423.3
20 OPzV-ET 2500	3332.1	3164.0	2931.0	2499.0	1613.6	1367.2	934.1	597.3	526.2
22 OPzV-ET 2750	3677.1	3491.7	3235.6	2758.8	1779.2	1508.0	1031.2	658.2	580.2
24 OPzV-ET 3000	4011.4	3809.1	3529.7	3009.6	1940.9	1645.1	1125.0	718.0	632.9
26 OPzV-ET 3250	4345.6	4126.5	3823.8	3260.3	2102.6	1782.2	1218.7	777.9	685.7

1.65 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	527.6	468.3	367.7	221.8	154.0	115.8	77.5	52.4	44.4
5 OPzV-ET 250	657.6	583.7	457.2	276.2	192.3	144.2	96.2	64.7	54.7
6 OPzV-ET 300	787.3	698.8	547.4	330.5	228.6	172.5	114.7	78.0	66.1
5 OPzV-ET 350	875.7	809.0	622.1	412.5	257.5	216.8	154.4	101.6	81.7
6 OPzV-ET 420	1056.7	976.2	749.8	496.1	309.1	260.0	186.1	122.5	98.6
7 OPzV-ET 490	1226.4	1133.0	870.7	576.6	358.5	301.7	215.9	142.2	114.4
6 OPzV-ET 600	1192.4	1177.0	995.1	735.2	472.0	367.7	261.1	179.9	147.3
8 OPzV-ET 800	1604.8	1584.1	1343.3	992.5	638.1	496.0	351.2	241.6	198.0
10 OPzV-ET 1000	1986.2	1960.6	1660.4	1228.2	789.5	614.3	434.5	299.8	245.6
12 OPzV-ET 1200	2400.1	2369.2	2004.5	1481.4	952.4	740.5	524.6	361.7	295.8
12 OPzV-ET 1500	2094.4	2011.5	1857.5	1564.2	988.0	826.5	569.3	367.0	317.3
16 OPzV-ET 2000	2784.2	2674.0	2471.4	2080.8	1316.9	1101.7	756.9	488.6	427.2
20 OPzV-ET 2500	3485.8	3347.8	3093.3	2605.1	1646.4	1377.9	947.8	611.4	533.9
22 OPzV-ET 2750	3838.3	3686.4	3406.2	2868.6	1811.3	1516.3	1043.8	672.1	587.3
24 OPzV-ET 3000	4187.3	4021.5	3715.9	3129.4	1975.9	1654.1	1138.7	733.2	640.7
26 OPzV-ET 3250	4536.2	4356.7	4025.6	3390.2	2140.6	1792.0	1233.6	794.2	694.0

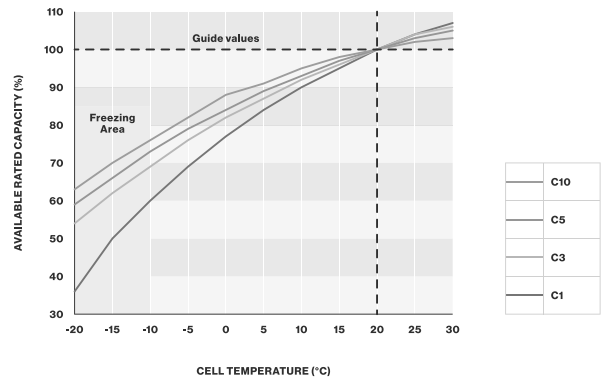
1.60 VpC	Discharge in W at 20°C								
	10 m	15 m	30 m	1h	2h	3h	5h	8h	10h
4 OPzV-ET 200	570.5	496.2	381.2	222.7	154.0	115.8	77.5	52.4	44.4
5 OPzV-ET 250	710.7	618.1	475.5	276.4	192.3	144.2	96.2	64.7	54.7
6 OPzV-ET 300	848.5	738.0	567.7	330.7	228.6	172.5	114.7	78.0	66.1
5 OPzV-ET 350	891.2	821.5	631.9	419.2	257.5	216.8	154.4	101.6	81.7
6 OPzV-ET 420	1076.6	990.7	762.2	506.0	309.1	260.0	186.1	122.5	98.6
7 OPzV-ET 490	1248.0	1148.4	885.6	586.7	358.5	301.7	215.9	142.2	114.4
6 OPzV-ET 600	1291.0	1259.9	1054.8	759.0	472.0	367.7	261.1	179.9	147.3
8 OPzV-ET 800	1740.4	1698.5	1423.8	1027.5	638.1	496.0	351.2	241.6	198.0
10 OPzV-ET 1000	2152.5	2100.6	1761.8	1269.2	789.5	614.3	434.5	299.8	245.6
12 OPzV-ET 1200	2599.4	2536.8	2127.3	1531.2	952.4	740.5	524.6	361.7	295.8
12 OPzV-ET 1500	2499.2	2271.3	2039.3	1606.6	1011.9	841.8	575.6	367.0	317.3
16 OPzV-ET 2000	3322.3	3019.3	2712.7	2143.0	1348.8	1122.1	765.3	488.6	427.2
20 OPzV-ET 2500	4160.1	3780.7	3396.2	2678.5	1686.3	1403.4	958.2	611.4	533.9
22 OPzV-ET 2750	4581.9	4164.1	3739.6	2946.3	1855.2	1544.4	1055.3	672.1	587.3
24 OPzV-ET 3000	4998.5	4542.6	4079.5	3214.1	2023.8	1684.8	1151.3	733.2	640.7
26 OPzV-ET 3250	5415.0	4921.2	4419.5	3482.0	2192.5	1825.1	1247.2	794.2	694.0

OPzV Standby Power

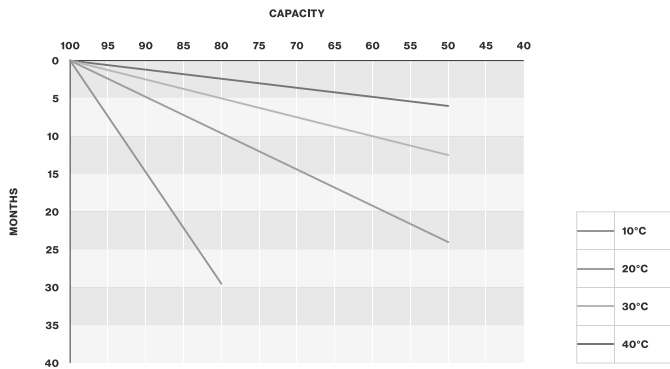
Charging voltage vs. Temperature



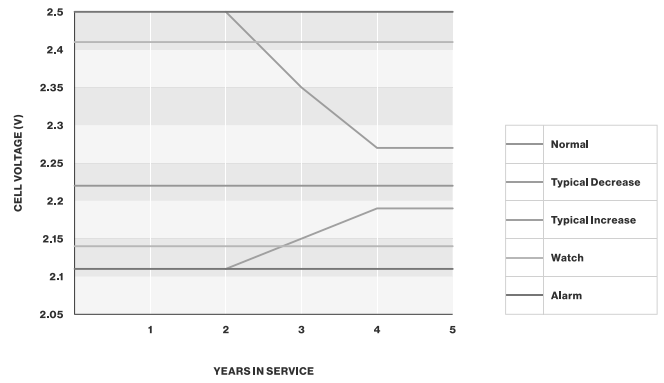
Capacity vs. Temperature



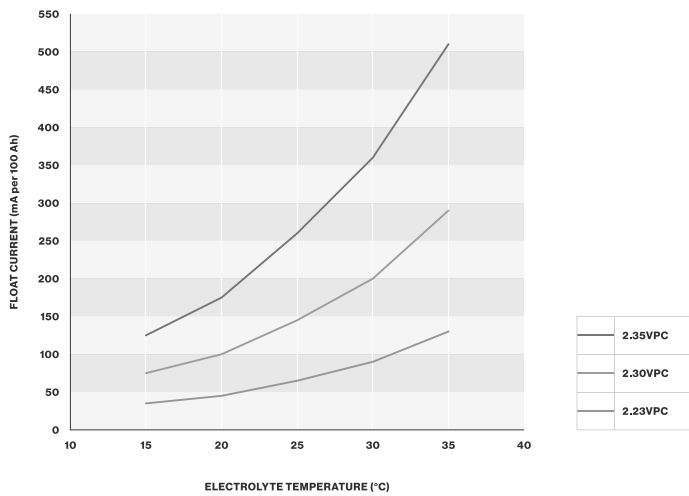
Self discharge at different temperatures



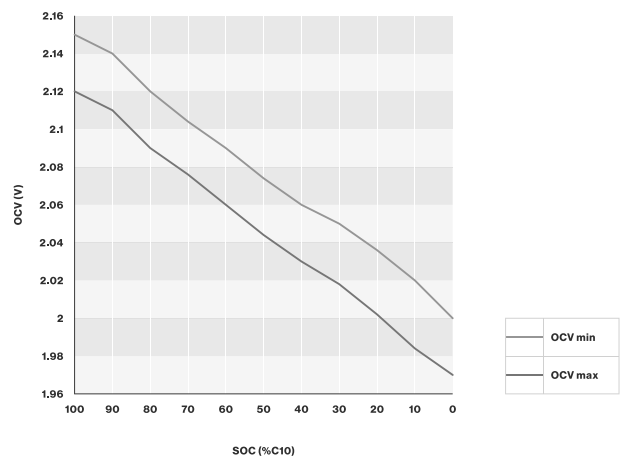
Float voltage deviation vs. Years in service



Float current: Residual charge current



Storage: Determine the state of charge



Ventilation

Lead Acid batteries generate hydrogen and oxygen during overcharging (electrolysis water decomposition)

1 Ah decomposes 0.336g water and generates 0.00042 m³ H₂

Air becomes explosive if hydrogen content ≥ 4% and when ignited

Dilution by fresh air necessary to bring H₂ to less than 4%

Ventilation calculation acc. to EN 50272-2

$$Q = v \cdot q \cdot s \cdot n \cdot I_{\text{gas}} \cdot C_n / 100 \text{ [m}^3/\text{h]}$$

Q = Quantity fresh air [m³/h]

v = necessary dilution of H₂ factor 24 (100% - 4%)/4% = 24

$$q = 0.42 \cdot 10^{-3} \text{ m}^3/\text{Ah generated H}$$

s = 5, general safety factor

n = number of cells

I_{gas} = current producing gas in mA per Ah rate capacity for float or boost charge current

C_{rt} = capacity C₁₀ (Ah) to 1.80 VpC @ 20°C

Maintenance and control

Eternity OPzV are sealed maintenance-free lead-acid batteries and need no water addition. The containers and lids must be kept dry, clean and free from dust. Cleaning must be done only with a damp cotton cloth. Avoid static discharges generated during cleaning.

Acc. to EN 50272-2 minimum insulation resistance between batteries circuit and other local conductive parts should be > 100 Ohm per Volt (of battery nominal voltage) corresponding to leakage currents < 10 mA.

Tests, e.g. capacity tests, must be carried out acc. to IEC 896-2 (draft IEC 60 896-21).

Every 6 months the following checks must be actioned:

- Check for any evidence of damage on the battery and equipment
 - Check and record the total battery floating voltage, the voltage on pilot cells and temperature
-

Once a year the following checks must be actioned:

- Check and record individual cell voltages
 - Perform a discharge test according to IEC 60896-21 Standards until the battery shows signs of degradation and every six months thereafter
 - Keep a log book to record all maintenance and inspection operations, which will be helpful to monitor long-term changes of the battery condition
-

Do not attempt to open the safety valve. Opening could cause damage to the battery.

Simplified formula

$$Q = 0.05 \cdot n \cdot I_{\text{gas}} \cdot C_n / 100 \text{ [m}^3/\text{h]}$$

I_{gas} -values [mA per Ah] to be used:

	Float	Boost
Vented (Sb < 3%):	5	20
VRLA:	1	8

Values taking into account temperatures up to 40°C

Results of calculation

$$Q = \text{m}^3/\text{h (per 100Ah and per cell)}$$

Charging mode:	Float	Boost
EN 50272-2 (June 2001):	0.005	0.04

Leakage currents

According to EN50272-2, the minimum insulation resistance between the battery circuit and other local conductive parts should be greater than 100 Ohm/Volt (of battery nominal voltage) corresponding to leakage currents less than 10 mA. Refer to Installation, Operation and Maintenance Manual for further information.

OPzV Standby Power

Positive plate

Modern tubular design that maximises the active lead material to give high energy density. Lead calcium tin alloy ensures low self discharge rates and low float currents

Negative plate

The latest negative plate design ensures good retention and maximisation of the Negative Active material

Separator

High-porosity and corrosion-resistant ensures maximum capacity for the lifetime of the cell

Terminal

Specifically designed terminal maintains an air-tight seal even when the plates expand and grow



Electrolyte

Eternity uses a silica-based gel-form electrolyte that has no water loss and therefore maintenance free

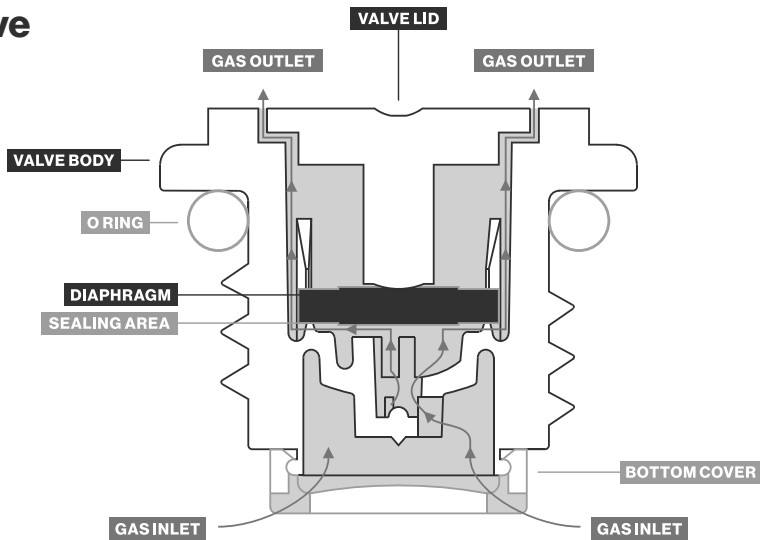
Pressure release valve

The valve is designed to open at a specific pressure to ensure that hydrogen gas can be released safely

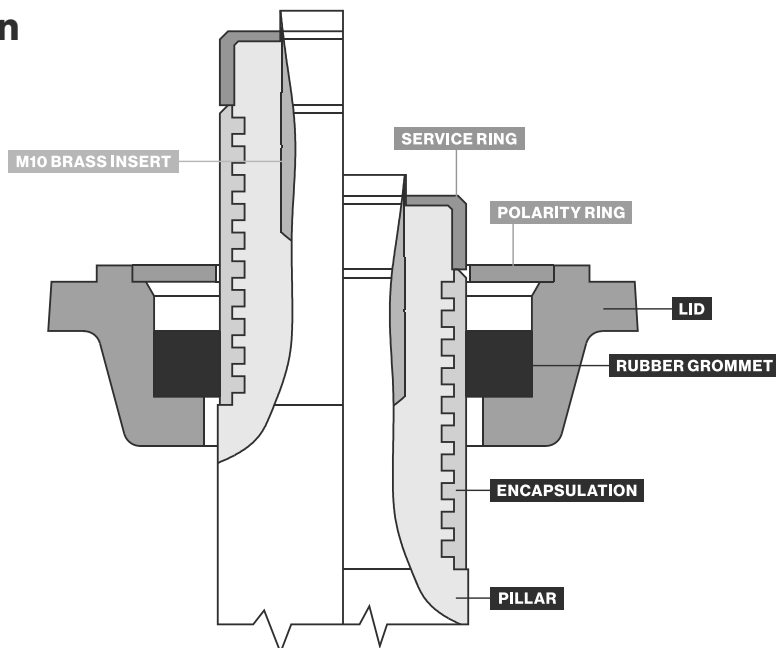
Container and lid

Manufactured from Acrylonitrile-Butadiene-Styrene (ABS), which is durable and offers good resistance to heat and chemicals. UL94-V0 flame retardant option also available

Gas release valve



Pillar sealing design



POWER FOR TOMORROW TODAY

The Eternity Technologies range is built using only the highest quality and most efficient production processes at our state-of-the-art manufacturing centre in the UAE.

It is this innovation, modern design criteria and industry-leading machinery that allows Eternity Technologies to not only meet the needs of the global industrial market with increased reliability but define it for the future.



Service



Accessories



Bloc Batteries



Chargers



Network Power



Motive Power



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