



CELLYTE VRLA BATTERY

SEC-2TLA Sealed Lead Acid VRLA 2 Volt Flat Pasted Plate Battery Range Capacities: 50Ah to 3000Ah



SEC -TLA 2 Volt sealed valve regulated rechargeable batteries are maintenance free. SEC -TLA 2 Volt range advanced AGM absorbed electrolyte technology ensures reliable performance, safety, outstanding battery life and value. Batteries have a design life of 15 years at 20°C and comply with BS 6290 Part 4 (with flame retardant V-0 case) EUROBAT (draft IEC 896-2) standards and is a recognized component of UL 1989 under Standby Battery Category.

SPECIFICATION:

- * **POSITIVE PLATE:** Calcium flat plate grid
- * **NEGATIVE PLATE:** Flat pasted grid
- * **ELECTROLYTE:** Dilute sulphuric acid
- * **CONTAINER:** Grade 6 ABS - V-0 (optional)
- * **SEPARATORS:** Absorptive glass matt separator
- * **FLOAT VOLTAGE:** 2.25 vpc +/- 1% at 20/25°C
- * **MAX CHARGE VOLTAGE:** 2.35 vpc at 20/25°C
- * **SAFETY ONE WAY VALVE:** 1-3 p.s.i. self-resealing
- * **TERMINALS:** Integral brass insert
- * **INTERCONNECTS:** Copper bar or insulated cable

APPLICATIONS

- * Telecommunications
- * UPS
- * Emergency Lighting
- * Fire & Security
- * Standby Power
- * Switchgear
- * Control Systems
- * Cellular Radio
- * Photovoltaic

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Introduction

SEC TLA 2 Volt batteries are of the absorbed electrolyte type. The cells are designed so that a controlled amount of electrolyte, dilute sulphuric acid, is contained within an absorbent non woven separator material that also separates the battery plates. This type of separator construction allows full wetting of the plates with the available electrolyte and also allows the free passage of the oxygen generated during charging. This construction is generally referred to as absorbed glass mat (AGM) type.

Valve regulated batteries are fully sealed with the exception of a one way valve that opens when excess pressure builds up inside the battery and closes when the pressure is released. The recombination of charge gases is accomplished by allowing oxygen produced at the positive plate to pass through the separator material to the negative plate where the recombination reaction occurs. The safety valve controls the internal pressure of the battery to optimize the efficiency of the recombination reaction and minimize the possible loss of water.

SEC's **CELLYTE 2TLA** batteries are manufactured using modern technology in a new battery manufacturing facility. SEC has been able to draw on a wealth of international experience and knowledge to produce high quality reliable lead acid batteries. The continuing installation of the most modern production equipment in the world makes continuous product improvement possible.

* **Valve Regulated Construction (sealed)**

The SEC valve regulated AGM (Absorbed Glass Mat) rechargeable lead acid battery for safe, trouble free operation in Vertical or Horizontal position. The acid is suspended in a specially formulated non woven glass mat separator. All the acid is absorbed in this manner and it provides a safe non-spillable battery.

* **Gas Recombination System.**

The gasses generated in the normal charge/discharge use of the battery is recombined during normal operation. In normal operation more than 99% of the gases generated are efficiently recombined.

* **SEC-CAT Catvent™ Catalyst Vent Plug**

SEC's VRLA cells incorporate the Philadelphia Scientific precious metal catalyst **Catvent™** to enhance the water recombination process within the cell, reduce cell dry out, reduces float current by 50%, positive plate corrosion, thermal runaway, and capacity loss due to negative plate polarisation.

* **Maintenance.**

The battery has been designed and built such that no addition of water is needed for the life of the battery; thus there is no need to add water or take specific gravity readings.

* **Battery Life - Float Service.**

The SEC **CELLYTE 2TLA** cell is designed for float /standby service with design life of 15 years at 20°C.

* **Safety Valve.**

If excess pressure builds up within the battery, the safety valve automatically opens and re closes, releasing the gas at 1-3 p.s.i. The valve does not allow the ingress of oxygen which is harmful and reduces the life expectation of the battery.

* **Temperature Range for Normal Operation.**

The SEC **CELLYTE 2TLA** battery range has a wide operating temperature range. However for maximum life and safety, continuous operation over 45 Deg C is not recommended, in fact this is not recommended for any valve regulated battery.

* **Grid Design and Paste Formulation.**

SEC has optimized the grid design and paste formulation to maximize the operating and storage life of the battery. This optimized design provides the following advantages:- Excellent recovery from deep discharge or over discharge. Low self discharge to ensure maximum storage time when not in use. Excellent cycling capability for an AGM battery. Adequate safety margins in tough operating conditions.

* **Recommended Charging Voltages;**

Float/Boost 2.25 - 1% Vpc at 20/25C

Cycle Service 2.35 - 1% Vpc at 20/25C



CELLYTE 2TLA - 2 Volt Cell Ampere Hour Data @ 20 C.

SEC 2 Volt Cell TYPE	END Volts / CELL	DISCHARGE DATA AMPS @ 20 C					END Volts / CELL	DISCHARGE DATA AMPERE HOURS @ 20 C										
		DISCHARGE TIME IN MINUTES						DISCHARGE TIME IN HOURS										
		5	10	15	30	45		1	1.5	2	3	4	5	6	8	10	12	24
2TLA 50	1.80	122	91.7	76.4	50.1	37.6	1.85	30.6	32.2	33.8	37.6	39.0	40.4	42.3	45.6	47.0	47.9	52.4
	1.75	135	101	84.2	55.2	41.4	1.80	33.7	34.9	36.7	40.8	42.3	43.9	45.9	49.5	51.0	52.0	56.8
	1.67	145	109	89.5	55.0	41.1	1.75	33.2	34.9	36.7	40.8	42.3	43.9	45.9	49.5	51.0	52.0	56.8
2TLA 100	1.80	244	183	153	100	75.2	1.85	61.1	64.4	67.7	75.2	78.0	80.8	84.6	91.2	94.0	95.9	105
	1.75	269	202	168	110	82.8	1.80	67.3	69.9	73.4	81.6	84.7	87.7	91.8	98.9	102	104	114
	1.67	291	218	183	112	83.8	1.75	67.6	71.2	74.9	83.2	86.3	89.4	93.6	101	104	106	116
2TLA 150	1.80	367	275	229	150	113	1.85	91.7	96.6	102	113	117	121	127	137	141	144	157
	1.75	401	301	251	165	123	1.80	100	104	109	122	126	131	137	147	152	155	169
	1.67	433	325	274	168	126	1.75	101	107	112	125	129	134	140	151	156	159	174
2TLA 200	1.80	344	295	246	189	149	1.85	123	129	136	151	157	163	170	183	189	193	211
	1.75	415	335	287	206	162	1.80	134	139	146	162	168	175	183	197	203	207	226
	1.67	462	387	318	213	166	1.75	136	143	150	167	173	180	188	203	209	213	233
2TLA 250	1.80	430	368	307	236	186	1.85	153	162	170	189	196	203	212	229	236	241	263
	1.75	518	417	357	257	202	1.80	167	173	182	202	210	218	228	245	253	258	282
	1.67	577	484	397	266	207	1.75	170	179	188	209	217	224	235	253	261	266	291
2TLA 300	1.80	515	441	368	283	223	1.85	184	194	204	226	235	243	255	275	283	289	315
	1.75	622	502	429	309	243	1.80	201	208	219	243	252	261	274	295	304	310	339
	1.67	692	580	476	319	248	1.75	203	214	225	250	260	269	282	304	313	319	349
2TLA 375	1.80	644	552	460	354	278	1.85	230	242	255	283	294	304	319	343	354	361	394
	1.75	775	625	535	385	303	1.80	250	260	273	303	315	326	341	368	379	387	422
	1.67	864	724	595	399	310	1.75	254	268	282	313	325	336	352	379	391	399	436
2TLA 400	1.80	686	588	490	377	297	1.85	245	258	271	302	313	324	339	366	377	385	420
	1.75	829	668	572	412	323	1.80	267	277	292	324	336	348	365	393	405	413	451
	1.67	922	772	634	426	331	1.75	271	286	300	334	346	359	375	404	417	425	465
2TLA 420	1.80	720	618	515	396	311	1.85	257	271	285	317	329	340	356	384	396	404	441
	1.75	870	702	601	432	340	1.80	281	291	306	340	353	366	383	412	425	434	474
	1.67	968	811	666	447	347	1.75	285	300	315	350	363	377	394	425	438	447	488
2TLA 450	1.80	772	661	551	424	333	1.85	276	290	305	339	352	365	382	411	424	432	472
	1.75	931	751	643	462	363	1.80	300	312	328	364	378	391	410	441	455	464	507
	1.67	1036	869	713	479	372	1.75	305	321	338	375	389	403	422	455	469	478	522
2TLA 500	1.80	859	736	614	472	371	1.85	307	323	340	378	392	406	425	458	472	481	526
	1.75	1035	835	715	514	404	1.80	334	347	364	405	420	435	455	491	506	516	564
	1.67	1154	967	794	533	414	1.75	339	358	376	418	433	449	470	506	522	532	582
2TLA 570	1.80	978	839	699	538	423	1.85	349	368	387	430	446	462	484	521	538	548	599
	1.75	1176	949	812	584	459	1.80	380	394	414	460	477	495	518	558	575	587	641
	1.67	1315	1102	905	607	472	1.75	387	408	428	476	494	512	536	577	595	607	663
2TLA 600	1.80	1030	883	736	567	445	1.85	368	388	408	453	470	487	509	549	566	577	631
	1.75	1242	1002	857	617	485	1.80	401	416	437	486	504	522	546	589	607	619	676
	1.67	1383	1160	952	639	496	1.75	407	429	451	501	520	538	563	607	626	639	697
2TLA 750	1.80	1287	1103	919	708	556	1.85	460	484	509	566	587	608	636	686	707	721	788
	1.75	1555	1254	1073	772	607	1.80	502	521	547	608	631	654	684	737	760	775	847
	1.67	1728	1449	1189	798	620	1.75	508	536	563	626	649	673	704	759	782	798	871
2TLA 800	1.80	1374	1178	982	756	594	1.85	491	517	544	604	627	649	680	732	755	770	841
	1.75	1657	1337	1144	823	647	1.80	535	555	583	648	672	697	729	786	810	826	902
	1.67	1845	1547	1270	852	662	1.75	543	572	601	668	693	718	752	810	835	852	930
2TLA 1000	1.80	1716	1471	1226	944	742	1.85	613	646	679	754	783	811	849	915	943	962	1051
	1.75	2066	1667	1427	1027	807	1.80	667	692	727	808	838	869	909	980	1010	1030	1125
	1.67	2305	1932	1586	1064	827	1.75	678	714	751	834	866	897	939	1012	1043	1064	1162
2TLA 1250	1.80	2146	1839	1533	1180	927	1.85	766	808	849	943	979	1014	1061	1144	1179	1203	1313
	1.75	2558	2063	1766	1271	998	1.80	825	856	900	1000	1038	1075	1125	1213	1250	1275	1393
	1.67	2882	2416	1983	1331	1034	1.75	848	893	939	1043	1082	1121	1174	1265	1304	1330	1453
2TLA 1500	1.80	2575	2207	1840	1416	1113	1.85	920	969	1019	1132	1174	1217	1274	1373	1415	1443	1576
	1.75	3100	2500	2140	1540	1210	1.80	1000	1038	1091	1212	1257	1303	1364	1470	1515	1545	1688
	1.67	3452	2894	2376	1594	1239	1.75	1015	1070	1125	1250	1296	1343	1406	1515	1562	1593	1740
2TLA 2000	1.80	3434	2944	2453	1889	1484	1.85	1227	1293	1359	1510	1566	1623	1698	1830	1887	1925	2102
	1.75	4133	3333	2853	2053	1613	1.80	1333	1384	1454	1616	1677	1737	1818	1959	2020	2060	2250
	1.67	4612	3866	3174	2130	1655	1.75	1357	1430	1503	1670	1732	1795	1878	2024	2087	2129	2325
2TLA 3000	1.80	5151	4415	3679	2833	2226	1.85	1840	1939	2038	2264	2349	2434	2547	2745	2830	2887	3153
	1.75	6199	5000	4280	3080	2420	1.80	2000	2076	2182	2424	2515	2606	2727	2939	3030	3091	3375
	1.67	6917	5798	4761	3194	2482	1.75	2035	2144	2254	2504	2598	2692	2817	3036	3130	3193	3487

Actual Battery Discharge Data may be +/-5% of figures shown.

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CELLYTE 2TLA - 2 Volt Cell Amps Data @ 20 C.

SEC 2 Volt Cell TYPE	END	DISCHARGE DATA AMPS @ 20 C					END Volts / CELL	DISCHARGE DATA AMPS @ 20 C												
	Volts / CELL	DISCHARGE TIME IN MINUTES						DISCHARGE TIME IN HOURS												
		5	10	15	30	45		1	1.5	2	3	4	5	6	8	10	12	24		
2TLA 50	1.80	122	91.7	76.4	50.1	37.6	1.85	30.6	21.5	16.9	12.5	9.75	8.08	7.05	5.70	4.70	4.00	2.18		
	1.75	135	101	84.2	55.2	41.4	1.80	33.7	23.3	18.4	13.6	10.6	8.77	7.65	6.18	5.10	4.34	2.37		
	1.67	145	109	89.5	55.0	41.1	1.75	33.2	23.3	18.4	13.6	10.6	8.77	7.65	6.18	5.10	4.34	2.37		
2TLA 100	1.80	244	183	153	100	75.2	1.85	61.1	42.9	33.8	25.1	19.5	16.2	14.1	11.4	9.40	7.99	4.36		
	1.75	269	202	168	110	82.8	1.80	67.3	46.6	36.7	27.2	21.2	17.5	15.3	12.4	10.2	8.67	4.73		
	1.67	291	218	183	112	83.8	1.75	67.6	47.5	37.4	27.7	21.6	17.9	15.6	12.6	10.4	8.84	4.83		
2TLA 150	1.80	367	275	229	150	113	1.85	91.7	64.4	50.8	37.6	29.3	24.3	21.2	17.1	14.1	12.0	6.54		
	1.75	401	301	251	165	123	1.80	100	69.4	54.7	40.5	31.5	26.1	22.8	18.4	15.2	12.9	7.06		
	1.67	433	325	274	168	126	1.75	101	71.2	56.2	41.6	32.4	26.8	23.4	18.9	15.6	13.3	7.24		
2TLA 200	1.80	344	295	246	189	149	1.85	123	86.3	68.0	50.4	39.2	32.5	28.4	22.9	18.9	16.1	8.77		
	1.75	415	335	287	206	162	1.80	134	92.7	73.1	54.1	42.1	34.9	30.5	24.6	20.3	17.3	9.42		
	1.67	462	387	318	213	166	1.75	136	95.4	75.2	55.7	43.4	35.9	31.4	25.3	20.9	17.8	9.70		
2TLA 250	1.80	430	368	307	236	186	1.85	153	108	85.0	62.9	49.0	40.6	35.4	28.6	23.6	20.1	11.0		
	1.75	518	417	357	257	202	1.80	167	116	91.1	67.5	52.5	43.5	38.0	30.7	25.3	21.5	11.7		
	1.67	577	484	397	266	207	1.75	170	119	94.0	69.6	54.2	44.9	39.2	31.6	26.1	22.2	12.1		
2TLA 300	1.80	515	441	368	283	223	1.85	184	129	102	75.5	58.7	48.7	42.5	34.3	28.3	24.1	13.1		
	1.75	622	502	429	309	243	1.80	201	139	109	81.1	63.1	52.3	45.6	36.9	30.4	25.8	14.1		
	1.67	692	580	476	319	248	1.75	203	143	113	83.5	64.9	53.8	47.0	38.0	31.3	26.6	14.5		
2TLA 375	1.80	644	552	460	354	278	1.85	230	162	127	94.4	73.5	60.9	53.1	42.9	35.4	30.1	16.4		
	1.75	775	625	535	385	303	1.80	250	173	136	101	78.6	65.2	56.9	46.0	37.9	32.2	17.6		
	1.67	864	724	595	399	310	1.75	254	179	141	104	81.1	67.3	58.7	47.4	39.1	33.2	18.1		
2TLA 400	1.80	686	588	490	377	297	1.85	245	172	136	101	78.2	64.8	56.6	45.7	37.7	32.0	17.5		
	1.75	829	668	572	412	323	1.80	267	185	146	108	84.0	69.7	60.8	49.1	40.5	34.4	18.8		
	1.67	922	772	634	426	331	1.75	271	190	150	111	86.5	71.7	62.6	50.6	41.7	35.4	19.4		
2TLA 420	1.80	720	618	515	396	311	1.85	257	181	143	106	82.1	68.1	59.4	48.0	39.6	33.6	18.4		
	1.75	870	702	601	432	340	1.80	281	194	153	113	88.2	73.1	63.8	51.6	42.5	36.1	19.7		
	1.67	968	811	666	447	347	1.75	285	200	158	117	90.9	75.3	65.7	53.1	43.8	37.2	20.3		
2TLA 450	1.80	772	661	551	424	333	1.85	276	194	153	113	88.0	72.9	63.6	51.4	42.4	36.0	19.7		
	1.75	931	751	643	462	363	1.80	300	208	164	121	94.4	78.3	68.3	55.2	45.5	38.7	21.1		
	1.67	1036	869	713	479	372	1.75	305	214	169	125	97.3	80.7	70.4	56.9	46.9	39.9	21.8		
2TLA 500	1.80	859	736	614	472	371	1.85	307	216	170	126	97.9	81.2	70.8	57.2	47.2	40.1	21.9		
	1.75	1035	835	715	514	404	1.80	334	231	182	135	105	87.0	75.9	61.4	50.6	43.0	23.5		
	1.67	1154	967	794	533	414	1.75	339	238	188	139	108	89.8	78.3	63.3	52.2	44.4	24.2		
2TLA 570	1.80	978	839	699	538	423	1.85	349	245	194	143	112	92.5	80.6	65.2	53.8	45.7	24.9		
	1.75	1176	949	812	584	459	1.80	380	263	207	153	119	98.9	86.3	69.7	57.5	48.9	26.7		
	1.67	1315	1102	905	607	472	1.75	387	272	214	159	123	102	89.3	72.1	59.5	50.6	27.6		
2TLA 600	1.80	1030	883	736	567	445	1.85	368	258	204	151	117	97.4	84.9	68.6	56.6	48.1	26.3		
	1.75	1242	1002	857	617	485	1.80	401	277	219	162	126	104	91.1	73.6	60.7	51.6	28.2		
	1.67	1383	1160	952	639	496	1.75	407	286	225	167	130	108	93.9	75.9	62.6	53.2	29.1		
2TLA 750	1.80	1287	1103	919	708	556	1.85	460	323	255	189	147	122	106	85.7	70.7	60.1	32.8		
	1.75	1555	1254	1073	772	607	1.80	502	347	274	203	158	131	114	92.2	76.0	64.6	35.3		
	1.67	1728	1449	1189	798	620	1.75	508	357	282	209	162	135	117	94.8	78.2	66.5	36.3		
2TLA 800	1.80	1374	1178	982	756	594	1.85	491	345	272	201	157	130	113	91.5	75.5	64.2	35.0		
	1.75	1657	1337	1144	823	647	1.80	535	370	292	216	168	139	122	98.2	81.0	68.9	37.6		
	1.67	1845	1547	1270	852	662	1.75	543	381	301	223	173	144	125	101	83.5	71.0	38.8		
2TLA 1000	1.80	1716	1471	1226	944	742	1.85	613	431	339	251	196	162	141	114	94.3	80.2	43.8		
	1.75	2066	1667	1427	1027	807	1.80	667	461	364	269	210	174	152	122	101	85.9	46.9		
	1.67	2305	1932	1586	1064	827	1.75	678	476	375	278	216	179	156	126	104	88.7	48.4		
2TLA 1250	1.80	2146	1839	1533	1180	927	1.85	766	538	424	314	245	203	177	143	118	100	54.7		
	1.75	2558	2063	1766	1271	998	1.80	825	571	450	333	259	215	188	152	125	106	58.0		
	1.67	2882	2416	1983	1331	1034	1.75	848	595	469	348	271	224	196	158	130	111	60.5		
2TLA 1500	1.80	2575	2207	1840	1416	1113	1.85	920	646	509	377	294	243	212	172	142	120	65.7		
	1.75	3100	2500	2140	1540	1210	1.80	1000	692	545	404	314	261	227	184	152	129	70.3		
	1.67	3452	2894	2376	1594	1239	1.75	1015	713	562	417	324	269	234	189	156	133	72.5		
2TLA 2000	1.80	3434	2944	2453	1889	1484	1.85	1227	862	679	503	392	325	283	229	189	160	87.6		
	1.75	4133	3333	2853	2053	1613	1.80	1333	922	727	539	419	347	303	245	202	172	93.8		
	1.67	4612	3866	3174	2130	1655	1.75	1357	953	751	557	433	359	313	253	209	177	96.9		
2TLA 3000	1.80	5151	4415	3679	2833	2226	1.85	1840	1292	1019	755	587	487	425	343	283	241	131		
	1.75	6199	5000	4280	3080	2420	1.80	2000	1384	1091	808	629	521	455	367	303	258	141		
	1.67	6917	5798	4761	3194	2482	1.75	2035	1429	1127	835	649	538	470	380	313	266	145		

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CELLYTE 2TLA - 2 Volt Cell Watts per Cell @ 20 C.

SEC 2 Volt Cell TYPE	END	DISCHARGE W P C @ 20 C					END	DISCHARGE DATA Watts Per Cell AT 20 C											
	Volts / CELL	DISCHARGE TIME IN MINUTES					Volts / CELL	DISCHARGE TIME IN HOURS											
		5	10	15	30	45		1	1.5	2	3	4	5	6	8	10	12	24	
2TLA 50	1.80	221	168	141	93.2	71.8	1.85	58.7	41.3	32.7	24.4	19.1	15.9	13.9	11.3	9.37	7.99	4.38	
	1.75	244	185	155	103.8	77.4	1.80	64.6	44.5	35.3	26.3	20.6	17.2	15.0	12.2	10.1	8.62	4.73	
	1.67	263	195	169	106.5	80.0	1.75	65.2	45.2	35.9	26.9	21.0	17.5	15.3	12.5	10.3	8.80	4.84	
2TLA 100	1.80	442	335	281	186	144	1.85	117	82.6	65.4	48.9	38.3	31.9	27.9	22.6	18.7	16.0	8.76	
	1.75	487	370	310	208	155	1.80	129	88.9	70.5	52.7	41.3	34.4	30.1	24.5	20.2	17.2	9.47	
	1.67	526	390	334	211	158	1.75	129	89.5	71.1	53.2	41.7	34.7	30.4	24.7	20.5	17.4	9.59	
2TLA 150	1.80	664	503	422	280	215	1.85	176	124	98.1	73.3	57.4	47.8	41.8	34.0	28.1	24.0	13.1	
	1.75	726	551	461	309	231	1.80	193	133	105	78.5	61.5	51.2	44.8	36.4	30.2	25.7	14.1	
	1.67	784	582	501	316	238	1.75	194	134	107	79.8	62.5	52.1	45.6	37.1	30.7	26.2	14.4	
2TLA 200	1.80	623	540	452	352	284	1.85	236	166	132	98.2	76.9	64.0	56.0	45.5	37.7	32.1	17.6	
	1.75	752	613	528	388	303	1.80	257	177	140	105	82.1	68.4	59.9	48.7	40.3	34.3	18.8	
	1.67	836	693	582	401	313	1.75	259	180	143	107	83.8	69.8	61.1	49.7	41.1	35.1	19.3	
2TLA 250	1.80	777	674	565	439	355	1.85	295	207	164	123	96.1	80.0	70.0	56.9	47.1	40.1	22.0	
	1.75	937	764	658	483	378	1.80	321	221	175	131	102	85.2	74.6	60.6	50.2	42.8	23.5	
	1.67	1044	865	726	501	391	1.75	324	225	178	133	105	87.2	76.3	62.0	51.4	43.8	24.1	
2TLA 300	1.80	932	808	677	527	425	1.85	353	249	197	147	115	95.9	83.9	68.2	56.4	48.1	26.4	
	1.75	1126	918	790	581	454	1.80	385	265	210	157	123	102	89.6	72.9	60.3	51.4	28.2	
	1.67	1252	1038	871	601	469	1.75	389	269	214	160	125	105	91.5	74.4	61.6	52.5	28.9	
2TLA 375	1.80	1166	1011	847	659	532	1.85	442	311	246	184	144	120	105	85.3	70.6	60.1	33.0	
	1.75	1404	1144	985	724	566	1.80	480	330	262	196	153	128	112	90.9	75.2	64.1	35.2	
	1.67	1564	1297	1088	750	586	1.75	485	337	267	200	157	131	114	92.9	76.9	65.6	36.0	
2TLA 400	1.80	1242	1076	902	702	566	1.85	470	331	262	196	153	128	112	90.8	75.2	64.1	35.1	
	1.75	1500	1223	1053	774	605	1.80	513	353	280	209	164	136	119	97.1	80.4	68.5	37.6	
	1.67	1668	1383	1161	800	625	1.75	518	359	285	213	167	139	122	99.1	82.1	69.9	38.4	
2TLA 420	1.80	1304	1130	947	737	595	1.85	494	348	275	206	161	134	117	95.4	78.9	67.3	36.9	
	1.75	1575	1284	1105	813	635	1.80	539	371	294	220	172	143	125	102	84.4	71.9	39.5	
	1.67	1751	1452	1219	840	656	1.75	544	377	299	224	176	146	128	104	86.2	73.4	40.4	
2TLA 450	1.80	1397	1210	1014	789	637	1.85	529	373	295	220	173	144	126	102	84.5	72.0	39.5	
	1.75	1685	1374	1182	869	679	1.80	577	397	314	235	184	153	134	109	90.3	76.9	42.2	
	1.67	1876	1555	1305	900	703	1.75	582	404	320	240	188	157	137	111	92.3	78.7	43.2	
2TLA 500	1.80	1555	1347	1129	879	709	1.85	589	415	328	245	192	160	140	114	94.1	80.2	44.0	
	1.75	1874	1528	1315	967	756	1.80	641	441	350	261	205	170	149	121	100	85.5	47.0	
	1.67	2088	1731	1453	1001	782	1.75	648	449	357	267	209	174	153	124	103	87.5	48.1	
2TLA 570	1.80	1771	1534	1286	1001	807	1.85	671	472	374	279	219	182	159	129	107	91.3	50.1	
	1.75	2129	1736	1494	1099	859	1.80	729	501	397	297	233	194	170	138	114	97.2	53.4	
	1.67	2380	1973	1656	1142	892	1.75	739	512	407	304	239	199	174	141	117	99.8	54.8	
2TLA 600	1.80	1865	1616	1354	1054	850	1.85	706	497	394	294	230	192	168	136	113	96.2	52.7	
	1.75	2248	1833	1577	1160	906	1.80	769	529	420	314	246	205	179	146	120	103	56.3	
	1.67	2504	2076	1742	1201	938	1.75	777	539	428	320	251	209	183	149	123	105	57.7	
2TLA 750	1.80	2329	2018	1691	1316	1062	1.85	882	621	492	367	288	240	210	170	141	120	65.9	
	1.75	2814	2295	1975	1452	1135	1.80	963	663	525	393	308	256	224	182	151	128	70.6	
	1.67	3128	2593	2177	1500	1172	1.75	971	673	534	400	313	261	229	186	154	131	72.1	
2TLA 800	1.80	2487	2155	1806	1406	1134	1.85	942	663	525	392	307	256	224	182	151	128	70.3	
	1.75	3000	2446	2105	1548	1210	1.80	1026	706	560	418	328	273	239	194	161	137	75.2	
	1.67	3340	2769	2324	1602	1251	1.75	1037	719	571	427	335	279	244	198	164	140	77.0	
2TLA 1000	1.80	3106	2692	2256	1756	1417	1.85	1177	829	656	490	384	320	280	227	188	160	87.8	
	1.75	3740	3050	2625	1930	1508	1.80	1280	880	698	522	409	340	298	242	200	171	93.8	
	1.67	4172	3459	2903	2001	1563	1.75	1295	898	713	533	418	348	305	248	205	175	96.1	
2TLA 1250	1.80	3884	3366	2820	2195	1771	1.85	1471	1036	820	613	480	399	350	284	235	200	110	
	1.75	4629	3774	3249	2389	1867	1.80	1584	1090	864	646	506	421	369	300	248	211	116	
	1.67	5216	4324	3630	2502	1954	1.75	1619	1123	891	667	523	436	381	310	257	219	120	
2TLA 1500	1.80	4661	4040	3385	2635	2126	1.85	1766	1243	985	735	576	479	420	341	282	240	132	
	1.75	5610	4575	3937	2895	2262	1.80	1920	1321	1047	783	613	510	447	363	301	256	141	
	1.67	6248	5180	4348	2997	2341	1.75	1939	1345	1067	799	626	522	457	371	307	262	144	
2TLA 2000	1.80	6216	5387	4514	3513	2835	1.85	2355	1658	1313	981	768	639	560	455	376	321	176	
	1.75	7481	6099	5250	3860	3017	1.80	2560	1761	1396	1043	817	681	596	484	401	342	188	
	1.67	8348	6920	5809	4004	3128	1.75	2591	1797	1426	1067	837	697	610	496	411	350	192	
2TLA 3000	1.80	9323	8079	6769	5269	4251	1.85	3532	2487	1969	1471	1152	959	839	682	564	481	264	
	1.75	11221	9149	7874	5790	4525	1.80	3840	2641	2094	1565	1226	1021	894	726	601	512	281	
	1.67	12520	10379	8712	6005	4691	1.75	3886	2694	2139	1601	1255	1045	915	744	616	525	289	

Actual Battery Discharge Data may be +/-5% of figures shown.

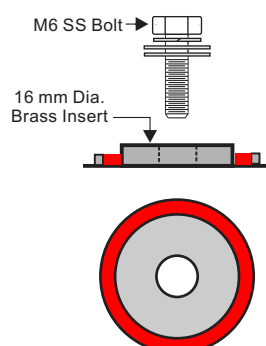
Visit our website on www.secbattery.com / www.solarenergycentre.com

SEC TLA 2 Volt AGM Range - Battery Specification

SEC CELL TYPE	CELL Volts	Nominal Capacity Amp Hour	Cell Length (L) mm	Cell Length (L) Inch	Cell Width (W) mm	Cell Width (W) Inch	Cell Height (H1) mm	Cell Height (H1) Inch	Cell Height (H2) mm	Cell Height (H2) Inch	Cell Weight KG	Cell Weight lbs	Inter. Res. m/ohms	Short Circuit Current	No. of Term.	Terminal Type
SEC 2TLA-50	2	50	161	6.34	50	1.97	166	6.54	166	6.54	3.2	7.04	0.90	509	2	FT 4
SEC 2TLA-100	2	100	171	6.73	71	2.80	205	8.07	228	8.98	6.7	14.7	0.70	1080	2	FT 4
SEC 2TLA-150	2	150	172	6.77	102	4.02	205	8.07	245	9.65	9.2	20.2	0.60	1550	2	FT 4
SEC 2TLA-200	2	200	173	6.81	111	4.37	330	12.99	365	14.37	13.5	29.7	0.50	1600	2	FT 5
SEC 2TLA-250	2	250	173	6.81	111	4.37	330	12.99	365	14.37	16.0	35.2	0.45	2000	2	FT 5
SEC 2TLA-300	2	300	171	6.73	151	5.94	330	12.99	365	14.37	18.6	40.9	0.40	2400	2	FT 5
SEC 2TLA-375	2	375	171	6.73	151	5.94	330	12.99	365	14.37	23.0	50.6	0.39	3000	2	FT 5
SEC 2TLA-400	2	400	211	8.31	176	6.93	330	12.99	365	14.37	26.4	58.1	0.36	3200	4	FT 5
SEC 2TLA-420	2	420	211	8.31	176	6.93	330	12.99	365	14.37	27.4	60.3	0.35	3300	4	FT 5
SEC 2TLA-450	2	450	223	8.78	187	7.36	351	13.82	373	14.69	33.7	74.1	0.33	3600	4	FT 5
SEC 2TLA-500	2	500	211	8.31	176	6.93	329	12.95	367	14.45	31.0	68.2	0.30	4000	4	FT 5
SEC 2TLA-570	2	570	223	8.78	187	7.36	351	13.82	373	14.69	37.0	81.4	0.29	4600	4	FT 5
SEC 2TLA-600	2	600	301	11.85	175	6.89	331	13.03	366	14.41	40.0	88.0	0.28	4800	4	FT 5
SEC 2TLA-750	2	750	301	11.85	175	6.89	331	13.03	366	14.41	48.0	106	0.22	6000	4	FT 5
SEC 2TLA-800	2	800	410	16.14	175	6.89	330	12.99	365	14.37	52.2	115	0.20	6400	8	FT 5
SEC 2TLA-1000	2	1000	410	16.14	175	6.89	330	12.99	365	14.37	62.2	137	0.16	7900	8	FT 5
SEC 2TLA-1250	2	1250	475	18.70	175	6.89	328	12.91	365	14.37	77.0	169	0.13	10050	8	FT 5
SEC 2TLA-1500	2	1500	401	15.79	351	13.82	342	13.46	378	14.88	98.5	216.7	0.11	11950	8	FT 5
SEC 2TLA-2000	2	2000	491	19.33	351	13.82	344	13.54	383	15.08	127	279	0.09	16100	8	FT 5
SEC 2TLA-3000	2	3000	712	28.03	353	13.90	341	13.43	382	15.04	188.5	414.7	0.08	24100	8	FT 5

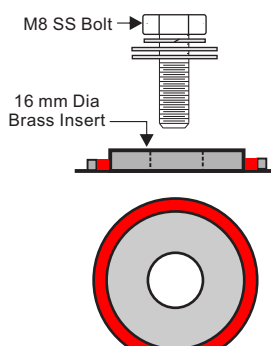
Battery Dimensions may be changed without prior notice.

Terminal Type FT 4

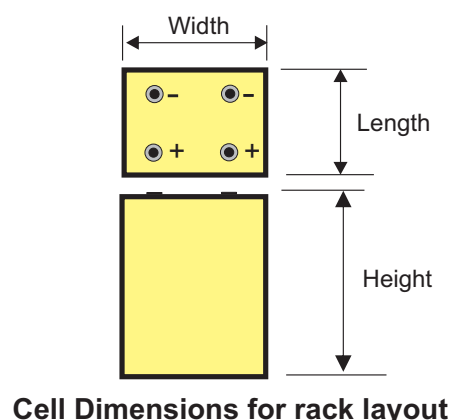


16 mm Brass Insert Terminal for M6 Bolt

Terminal Type FT 5



16 mm Brass Insert Terminal for M8 Bolt



Benefits of Catalyst in SEC VRLA Batteries

Catalyst Reduces Float Current

One of the most immediate, observable effects of installing a catalyst in a VRLA cell is a sudden drop in the float current. Typically float currents are one half or less when a catalyst is installed. Adding a catalyst to the cell prevents some of the oxygen reaching the negative plate and allows the negative plate to stay polarised. This means that less current needs to be supplied to the cell from the charging system, manifesting itself as lower float current, leading to the following benefit :-

* Minimize water loss

Gasses are recombined into water inside the cell rather than exiting the cell. Too much gas leaving the cell can lead to premature dry-out and cell failure. Cell dry is a major cause of VRLA cell failure.

* Increased life

There are many potential failure modes of VRLA cells. A number of these failure modes can be mitigated by the catalyst technology such as: Cell dry out, positive plate corrosion, thermal runaway, capacity loss due to negative plate depolarization

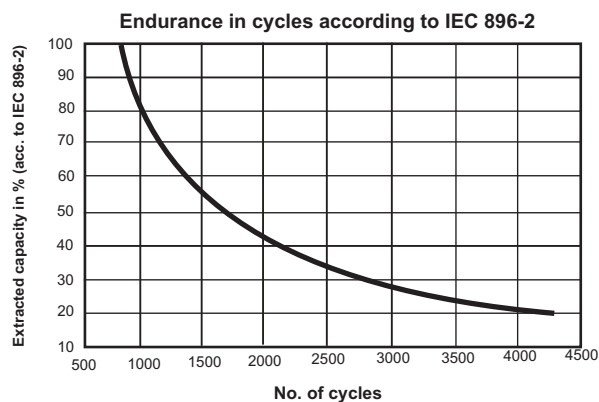
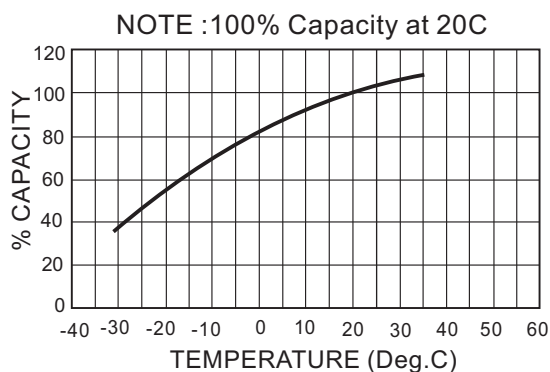
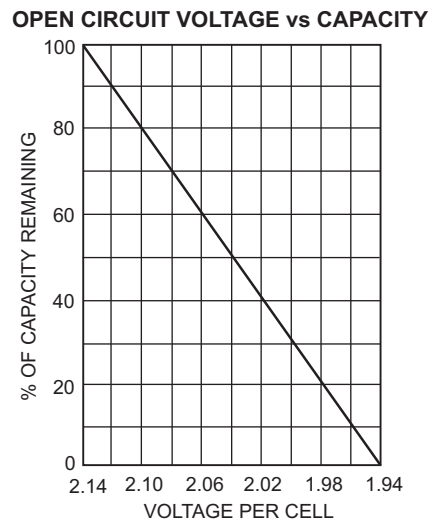
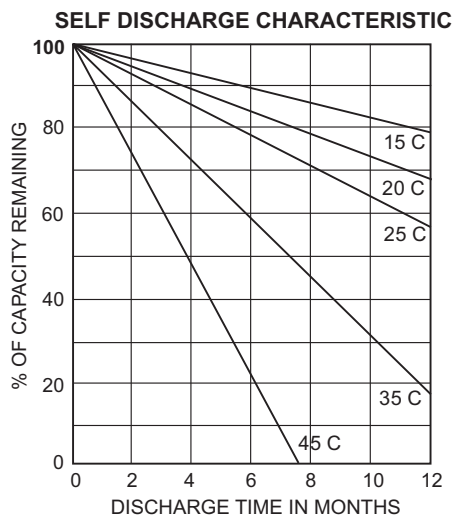
* Minimize positive plate corrosion

A reduction in float current reduces the amount of over-charge on the positive plate which directly impacts the corrosion rate. The design life of a lead acid cell is based on the corrosion of the plate barring any other unforeseen failure modes.

* Maintain cell capacity

Many VRLA cells in service are failing capacity tests because their negative plates are depolarized. In fact significant capacity increases have been seen on some cells just by installing a catalyst.

CELLYTE 2TLA Cells - PERFORMANCE CURVES



Standards / Approvals

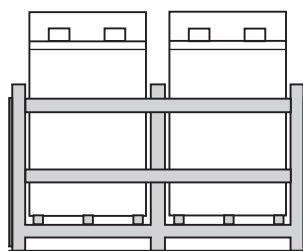
UL approval
BS 6290 Part 4 (Optional)
Eurobat (Draft IEC 896-2)
IEEE
JIS

SEC CELLYTE 2TLA Cells - Horizontal & Vertical Racking Systems.

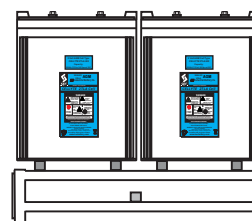
SEC2TLA Range can be mounted on/in vertical or Horizontal Racking System
It is not recommended to mount cells larger than 1000 AH in horizontal position.



Typical rack for horizontal cell configuration



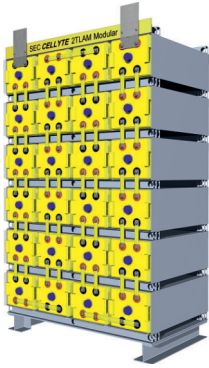
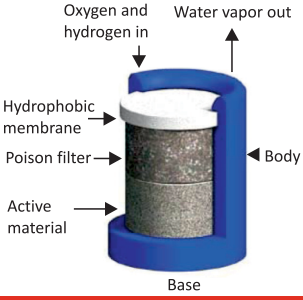
Typical anti-seismic rack for vertical cell configuration



Typical standard rack for vertical cell configuration



SEC Industrial Battery Co. range of products

			
CELLYTE 2CMT/G Modular Steel Rack	CELLYTE 2TLAM/G Tubular Steel Rack	CELLYTE 2CMT/G, CELLYTE 2TLAM/G with Catalyst	
			
CELLYTE 12PLF & 12PLT Range	CELLYTE 12FTA/G Range	CELLYTE 6-12TUA Range	CELLYTE 6-12TSG Range
			
CELLYTE 6-12TLA Range	CELLYTE 6-12TLG Range	MICROLYTE +Plus Range	MICROLYTE Red Top Range
			
CELLYTE 2ETG OPzV Range Tubular Steel Rack	SEC Tubular OPzS Range	Nickel Cadmium Range Pocket Plate flooded and Valve Regulated	Typical VRLA catalyst

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