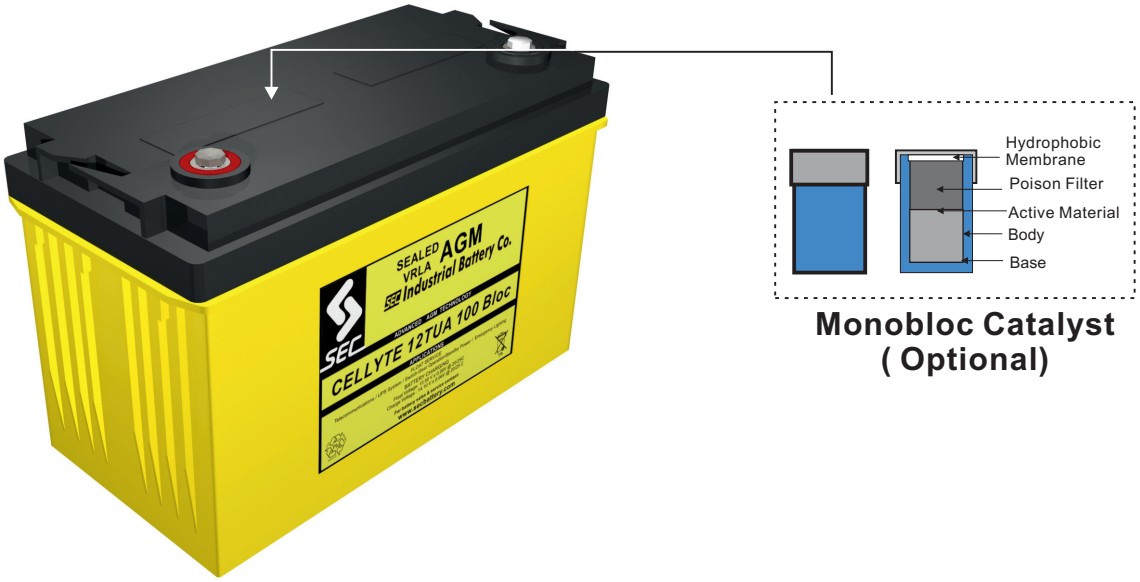
CELLYTE 6-12TUA Range

Sealed VRLA Monobloc Battery

Introducing New Monobloc Catalyst Technology
with 12 year design life
Designed for Operation at up to 30°C
Capacities : 15Ah to 250Ah. @ C/10 to 1.80Vpc at 20C



Monobloc Catalyst (Optional)

EXTRA FEATURES (with optional Catalyst)

* Will reduce float current by about 50%
* Will reduce gassing by up to 80%
* Will minimise water loss
* Reduce cell failure due to dry out
* Will extend battery float service life due to reduced plate corrosion
* Batteries with Optional Catalyst will have full design life when used in temperatures up to 30C.
* Will maintain full cell capacity by preventing depolarization of negative plate
* Reduces the possibility of thermal runaway

SPECIFICATION

Nominal Voltage : 6-12 Volts
Plates: Extra Heavy Duty
Plate Alloy : Virgin Pure Lead/ 1.6% Tin
Post Seal : Triple Seal / barrier
Terminals : Copper Insert for SS bolts
Container / Cover : Flame Retardant ABS V-O
Operating temperature : -25 to +55 C
(However we recommend that the batteries be operated in the temperature range of 20 to 25C or 20 to 30C with Catalyst to obtain full life and optimum performance)

Safety Vent : Low Pressure Self-Sealing
Float Voltage : 2.25 Vpc
Charge Voltage: Up to 2.35 Vpc
Specific Gravity : 1.300
Standards : Manufactured to comply with BS EN 60896-2:1996
EUROBAT & UL Underwriters Laboratories
Fully complies with IEC 60896-21/22-2004 when supplied with ABS V-O Cover & Case

Rated non-spillable:
by ICAO / IATA / DOT Definitions

CELLYTE Bloc 6-12TUA Ampere Hour Data @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE DATA AMPS @ 20 C. DISCHARGE TIME IN MINUTES 5	10	15	20	30	45	END Volts / CELL	DISCHARGE DATA AMPERE HOURS @ 20 C DISCHARGE TIME IN HOURS 1	1.5	2	3	4	5	6	8	10	12	20	24
6TUA 120	1.80	328	251	203	175	127	95.2	1.85	69.6	80.3	86.0	91.9	96.2	99.6	103	110	112	114	120	119
	1.75	377	281	220	158	132	98.1	1.80	73.2	85.2	91.2	97.5	102	106	109	117	120	122	128	128
	1.67	407	306	231	165	135	98.5	1.75	75.4	87.3	93.5	99.9	105	108	112	120	123	125	132	132
6TUA 175	1.80	464	361	285	252	183	138	1.85	104	120	129	137	144	149	155	166	167	171	180	178
	1.75	534	404	309	240	189	143	1.80	108	128	136	146	153	158	164	176	180	183	192	192
	1.67	576	440	325	251	193	143	1.75	111	131	140	149	156	162	168	180	184	188	198	198
6TUA 200	1.80	516	401	317	280	203	154	1.85	116	134	143	153	160	166	172	184	187	190	200	198
	1.75	593	449	344	264	210	158	1.80	120	142	152	162	170	176	182	195	200	203	214	214
	1.67	640	489	361	275	215	159	1.75	124	146	156	166	174	180	187	200	205	209	220	220
6TUA 210	1.80	519	403	319	281	204	154	1.85	119	137	147	157	164	170	176	188	191	195	209	203
	1.75	597	451	346	264	211	159	1.80	121	146	156	166	174	180	187	199	205	208	224	218
	1.67	643	492	363	275	216	160	1.75	124	149	160	171	179	185	191	205	210	214	230	225
12TUA 15	1.80	46.2	34.4	27.2	23.9	17.4	13.0	1.85	8.66	10.7	11.5	12.3	12.8	13.3	13.8	14.7	14.9	15.2	16.4	16.9
	1.75	53.1	38.5	29.5	23.7	18.0	13.4	1.80	9.76	11.4	12.2	13.0	13.6	14.1	14.6	15.6	16.0	16.3	17.5	18.0
	1.67	57.2	41.9	31.0	24.8	18.4	13.4	1.75	10.05	11.6	12.5	13.3	13.9	14.4	15.0	16.0	16.4	16.7	18.0	18.0
12TUA 20	1.80	64.1	47.7	37.7	33.2	24.1	18.0	1.85	12.9	14.9	15.9	17.0	17.8	18.5	19.1	20.4	20.7	21.2	21.8	21.6
	1.75	73.7	53.4	40.9	31.7	25.0	18.6	1.80	13.5	15.8	16.9	18.1	18.9	19.6	20.3	21.7	22.2	22.6	23.3	24.0
	1.67	79.5	58.2	43.0	33.1	25.5	18.6	1.75	14.0	16.2	17.3	18.5	19.4	20.1	20.8	22.2	22.8	23.3	24.0	24.0
12TUA 25	1.80	73.1	54.4	43.0	37.9	27.5	20.5	1.85	14.7	17.0	18.2	19.4	20.3	21.0	22.0	23.9	23.7	24.1	25.5	25.2
	1.75	84.0	60.9	46.6	34.3	28.5	21.2	1.80	15.4	18.0	19.3	20.6	21.6	22.3	23.3	25.4	25.3	25.8	27.2	26.0
	1.67	90.6	66.3	49.0	35.8	29.1	21.3	1.75	15.9	18.5	19.8	21.1	22.1	22.9	23.9	26.0	26.0	26.5	28.0	28.0
12TUA 30	1.80	92.3	68.7	54.3	47.9	34.8	26.0	1.85	18.6	21.6	23.1	24.7	25.8	26.7	27.6	29.4	30.0	30.6	30.9	30.6
	1.75	106	77.0	58.9	43.5	36.0	26.8	1.80	19.5	22.9	24.5	26.2	27.4	28.3	29.3	31.2	32.0	32.8	33.0	33.0
	1.67	114	83.8	61.9	45.5	36.8	26.9	1.75	20.1	23.4	25.1	26.8	28.1	29.0	30.0	32.0	33.0	33.7	34.0	34.0
12TUA 40	1.80	121	90.2	71.3	62.8	45.7	34.1	1.85	24.4	28.7	30.8	32.9	34.4	35.6	36.6	38.6	40.0	40.8	41.9	41.0
	1.75	139	101.0	77.4	58.0	47.3	35.1	1.80	25.6	30.5	32.6	34.9	36.5	37.8	38.8	41.0	42.0	43.7	44.7	44.0
	1.67	150	110	81.3	60.6	48.3	35.3	1.75	26.4	31.2	33.4	35.7	37.4	38.7	39.8	42.0	44.0	44.9	46.0	47.0
12TUA 50	1.80	155	115	90.9	80.2	58.2	43.5	1.85	31.1	35.9	38.5	41.1	43.0	44.5	46.1	49.3	50.1	51.1	53.7	52.0
	1.75	178	129	98.7	72.6	60.3	44.8	1.80	32.7	38.1	40.8	43.6	45.6	47.2	48.9	52.2	53.6	54.6	57.3	55.0
	1.67	192	140	104	75.8	61.6	45.0	1.75	33.7	39.1	41.8	44.7	46.8	48.4	50.1	53.6	55.0	56.1	59.0	59.0
12TUA 65	1.80	183	136	107	95	68.8	51.4	1.85	36.7	42.5	45.4	48.6	50.8	52.6	54.5	58.2	59.2	60.3	63.7	63.9
	1.75	210	152	117	84.3	71.2	53.0	1.80	38.6	45.0	48.2	51.5	53.9	55.8	57.8	61.7	63.3	64.5	68.0	65.0
	1.67	227	166	123	88.0	72.8	53.2	1.75	39.8	46.2	49.4	52.8	55.3	57.2	59.2	63.3	65.0	66.3	70.0	71.0
12TUA 70	1.80	197	146	116	102	74.1	55.3	1.85	39.5	45.7	48.9	52.3	54.7	56.7	58.7	62.7	63.7	65.0	69.2	69.3
	1.75	226	164	126	92.4	76.7	57.0	1.80	41.6	48.5	51.9	55.5	58.1	60.1	62.2	66.5	68.2	69.5	73.9	74.8
	1.67	244	179	132	96.4	78.4	57.3	1.75	42.8	49.7	53.2	56.8	59.5	61.6	63.8	68.2	70.0	71.4	76.0	77.0
12TUA 80	1.80	225	167	132	117	84.7	63.2	1.85	45.2	52.3	55.9	59.8	62.6	64.8	67.1	71.7	72.8	74.3	80.1	79.2
	1.75	259	187	144	103	87.7	65.2	1.80	47.5	55.4	59.3	63.4	66.4	68.7	71.1	76.0	77.9	79.4	85.5	77.0
	1.67	279	204	151	107	89.6	65.4	1.75	49.0	56.8	60.8	65.0	68.0	70.4	72.9	77.9	80.0	81.6	88.0	88.0
12TUA 90	1.80	260	193	153	135	97.8	73.0	1.85	52.2	60.1	64.3	68.7	71.9	74.5	77.3	82.8	83.7	85.4	91.0	90.0
	1.75	299	216	166	119	101.3	75.3	1.80	54.9	63.8	68.2	72.9	76.3	79.0	81.9	87.8	90.0	91.3	97.2	89.0
	1.67	322	236	174	124	104	75.6	1.75	56.5	65.3	69.9	74.7	78.2	81.0	84.0	90.0	92.0	93.8	100	100
12TUA 100	1.80	289	215	170	150	109	81.1	1.85	58.0	67.3	72.0	76.9	80.5	83.4	86.3	92.0	93.7	95.6	100	103
	1.75	332	240	184	132	113	83.6	1.80	61.0	71.4	76.4	81.6	85.4	88.5	91.5	97.5	100	102.2	107	109
	1.67	358	262	194	138	115	84.0	1.75	62.8	73.1	78.3	83.6	87.6	90.6	93.8	100	103	105	110	110
12TUA 110	1.80	312	232	183	162	117	87.0	1.85	62.6	72.5	77.6	82.9	86.8	89.9	93.0	99	101	103	109	109
	1.75	358	260	199	145	122	89.7	1.80	65.9	76.9	82.3	88.0	92.1	95.3	98.7	105	108	110	117	109
	1.67	386	283	209	152	124	90.0	1.75	67.9	78.8	84.4	90.1	94.4	97.7	107	108	111	113	120	121
12TUA 120	1.80	321	245	193	175	125	93.4	1.85	67.8	78.4	83.9	89.6	93.8	97.2	101	108	109	109	119	119
	1.75	369	274	210	158	129	96.3	1.80	71.3	83.2	89.0	95.1	99.6	103	107	114	117	117	127	120
	1.67	398	298	220	165	132	96.7	1.75	73.4	85.2	91.2	97.4	102	106	109	117	120	120	131	132
12TUA 130	1.80	348	266	215	185	135	100.9	1.85	76.3	88.2	94.4	101	106	109	113	121	123	125	134	133
	1.75	400	298	233	185	140	104	1.80	77.6	93.5	100	107	112	116	120	128	131	134	143	139
	1.67	431	325	245	193	143	104	1.75	79.9	95.9	103	110	115	119	123	131	135	138	147	148
12TUA 150	1.80	384	293	239	204	150	112	1.85	84.7	98.0	105	112	117	121	126	134	137	139	148	149
	1.75	442	328	259	208	155	116	1.80	86.2	104	111	119	124	129	133	142	146	149	158	157
	1.67	477	358	272	218	159	116	1.75	88.8	107	114	122	128	132	137	146	150	153	163	165
12TUA 160	1.80	395	307	243	214	155	118	1.85	90.4	105	112	120	125	130	134	143	146	149	159	159
	1.75	455	344	263	237	161	121	1.80	91.9	111	119	127	133	137	142	152	156	159	170	179
	1.67	490	375	277	248	164	122	1.75	94.7	114	122	130	136	141	146	156	160	163	175	177
12TUA 175	1.80	445	345	273	241	175	132	1.85	102	118	126	134	141	146	151	161	164	167	180	178
	1.75	512	387	296	237	181	137	1.80	103	125	134	143	149	155	160	171	175	179	192	179
	1.67	552	421	311	248	185	137	1.75	107	128	137	146	153	158	164	175	180	184	198	198
12TUA 200	1.80	494	384	303	268	194	147	1.85	113	131	140	149	156	162	168	179	182	186	200	198
	1.75	568	430	329	303	201	152	1.80	115	139	148	159	166	172	178	190	195	198	214	228
	1.67	613	468	346	317	206	152	1.75	118	142	152	162	170	176	182	195	200	204	220	220
12TUA 225	1.80	568	441	349	308	223	169	1.85	130	150	161	172	180	186	193	206	209	213	228	228
	1.75	654	494	379	348	231	174	1.80	132	159	171	182	191	198	205	218	224	228	243	246
	1.67	705	539	398	364	236	175	1.75	136	163	175	187	196	202	210	224	230	235	250	253
12TUA 250	1.80	618	480	379	335	243	184	1.85	141	163	175	187	196	202	210	224	228	232	239	243
	1.75	710	537	412	348	251	190	1.80	144	173	185	198	207	215	222	237	244	248	256	262
	1.67	766	585	432	364	257	190	1.75	148	178	190	203	213	220	228	244	250	255	263	270

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

CELLYTE Bloc 6-12TUA Amps Data @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE DATA AMPS @ 20 C. DISCHARGE TIME IN MINUTES 5	10	15	20	30	45	END Volts / CELL	DISCHARGE DATA AMPS @ 20 C. DISCHARGE TIME IN HOURS 1	1.5	2	3	4	5	6	8	10	12	20	24
6TUA 120	**1.80**	328	251	203	175	127	95.2	**1.85**	69.6	53.6	43.0	30.6	24.0	19.9	17.2	13.8	11.2	9.51	6.01	4.95
	1.75	377	281	220	158	132	98.1	**1.80**	73.2	56.8	45.6	32.5	25.5	21.1	18.2	14.6	12.0	10.17	6.42	5.34
	1.67	407	306	231	165	135	98.5	**1.75**	75.4	58.2	46.7	33.3	26.1	21.6	18.7	15.0	12.3	10.5	6.60	5.50
6TUA 175	**1.80**	464	361	285	252	183	138	**1.85**	104	80.1	64.3	45.8	36.0	29.8	25.8	20.7	16.7	14.2	9.01	7.43
	1.75	534	404	309	240	189	143	**1.80**	108	85.0	68.2	48.6	38.2	31.6	27.3	21.9	18.0	15.2	9.62	8.01
	1.67	576	440	325	251	193	143	**1.75**	111	87.1	69.9	49.8	39.1	32.4	28.0	22.5	18.4	15.6	9.90	8.25
6TUA 200	**1.80**	516	401	317	280	203	154	**1.85**	116	89.3	71.7	51.0	40.1	33.2	28.6	23.0	18.7	15.9	10.0	8.25
	1.75	593	449	344	264	210	158	**1.80**	120	94.7	76.0	54.2	42.5	35.2	30.4	24.3	20.0	17.0	10.7	8.90
	1.67	640	489	361	275	215	159	**1.75**	124	97.0	77.9	55.5	43.6	36.1	31.1	25.0	20.5	17.4	11.0	9.17
6TUA 210	**1.80**	519	403	319	281	204	154	**1.85**	119	91.4	73.4	52.3	41.1	34.0	29.3	23.5	19.1	16.2	10.5	8.44
	1.75	597	451	346	264	211	159	**1.80**	121	97.0	77.9	55.5	43.6	36.1	31.1	24.9	20.5	17.4	11.2	9.10
	1.67	643	492	363	275	216	160	**1.75**	124	99.4	79.8	56.8	44.6	37.0	31.9	25.6	21.0	17.9	11.5	9.38
12TUA 15	**1.80**	46.2	34.4	27.2	23.9	17.4	13.0	**1.85**	8.66	7.14	5.73	4.08	3.21	2.66	2.29	1.84	1.49	1.27	0.82	0.70
	1.75	53.1	38.5	29.5	23.7	18.0	13.4	**1.80**	9.76	7.58	6.08	4.33	3.40	2.82	2.43	1.95	1.60	1.36	0.87	0.75
	1.67	57.2	41.9	31.0	24.8	18.4	13.4	**1.75**	10.05	7.76	6.23	4.44	3.49	2.89	2.49	2.00	1.64	1.39	0.90	0.75
12TUA 20	**1.80**	64.1	47.7	37.7	33.2	24.1	18.0	**1.85**	12.9	9.93	7.97	5.68	4.46	3.69	3.19	2.55	2.07	1.76	1.09	0.90
	1.75	73.7	53.4	40.9	31.7	25.0	18.6	**1.80**	13.5	10.5	8.46	6.02	4.73	3.92	3.38	2.71	2.22	1.89	1.17	1.00
	1.67	79.5	58.2	43.0	33.1	25.5	18.6	**1.75**	14.0	10.8	8.66	6.17	4.85	4.01	3.46	2.78	2.28	1.94	1.20	1.00
12TUA 25	**1.80**	73.1	54.4	43.0	37.9	27.5	20.5	**1.85**	14.7	11.3	9.09	6.47	5.08	4.21	3.67	2.99	2.37	2.01	1.27	1.05
	1.75	84.0	60.9	46.6	34.3	28.5	21.2	**1.80**	15.4	12.0	9.64	6.87	5.39	4.47	3.89	3.17	2.53	2.15	1.36	1.08
	1.67	90.6	66.3	49.0	35.8	29.1	21.3	**1.75**	15.9	12.3	9.88	7.04	5.53	4.58	3.99	3.25	2.60	2.21	1.40	1.17
12TUA 30	**1.80**	92.3	68.7	54.3	47.9	34.8	26.0	**1.85**	18.6	14.4	11.5	8.22	6.45	5.34	4.60	3.68	3.00	2.55	1.55	1.28
	1.75	106	77.0	58.9	43.5	36.0	26.8	**1.80**	19.5	15.2	12.2	8.72	6.84	5.67	4.88	3.90	3.20	2.73	1.65	1.38
	1.67	114	83.8	61.9	45.5	36.8	26.9	**1.75**	20.1	15.6	12.5	8.93	7.01	5.81	5.00	4.00	3.30	2.81	1.70	1.42
12TUA 40	**1.80**	121	90.2	71.3	62.8	45.7	34.1	**1.85**	24.4	19.2	15.4	11.0	8.60	7.12	6.10	4.83	4.00	3.40	2.09	1.71
	1.75	139	101.0	77.4	58.0	47.3	35.1	**1.80**	25.6	20.3	16.3	11.6	9.13	7.56	6.47	5.12	4.20	3.64	2.24	1.83
	1.67	150	110	81.3	60.6	48.3	35.3	**1.75**	26.4	20.8	16.7	11.9	9.35	7.74	6.64	5.25	4.40	3.74	2.30	1.96
12TUA 50	**1.80**	155	115	90.9	80.2	58.2	43.5	**1.85**	31.1	24.0	19.2	13.7	10.8	8.91	7.69	6.16	5.01	4.25	2.68	2.17
	1.75	178	129	98.7	72.6	60.3	44.8	**1.80**	32.7	25.4	20.4	14.5	11.4	9.45	8.15	6.53	5.36	4.55	2.87	2.29
	1.67	192	140	104	75.8	61.6	45.0	**1.75**	33.7	26.0	20.9	14.9	11.7	9.68	8.35	6.70	5.50	4.68	2.95	2.46
12TUA 65	**1.80**	183	136	107	95	68.8	51.4	**1.85**	36.7	28.3	22.7	16.2	12.7	10.5	9.08	7.28	5.92	5.03	3.19	2.66
	1.75	210	152	117	84.3	71.2	53.0	**1.80**	38.6	30.0	24.1	17.2	13.5	11.2	9.63	7.72	6.33	5.38	3.40	2.71
	1.67	227	166	123	88.0	72.8	53.2	**1.75**	39.8	30.8	24.7	17.6	13.8	11.4	9.87	7.91	6.50	5.53	3.50	2.96
12TUA 70	**1.80**	197	146	116	102	74.1	55.3	**1.85**	39.5	30.5	24.5	17.4	13.7	11.3	9.78	7.84	6.37	5.41	3.46	2.89
	1.75	226	164	126	92.4	76.7	57.0	**1.80**	41.6	32.3	26.0	18.5	14.5	12.0	10.4	8.31	6.82	5.79	3.69	3.12
	1.67	244	179	132	96.4	78.4	57.3	**1.75**	42.8	33.1	26.6	18.9	14.9	12.3	10.6	8.52	7.00	5.95	3.80	3.21
12TUA 80	**1.80**	225	167	132	117	84.7	63.2	**1.85**	45.2	34.8	28.0	19.9	15.6	13.0	11.2	8.96	7.28	6.19	4.00	3.30
	1.75	259	187	144	103	87.7	65.2	**1.80**	47.5	37.0	29.7	21.1	16.6	13.7	11.9	9.50	7.79	6.62	4.28	3.21
	1.67	279	204	151	107	89.6	65.4	**1.75**	49.0	37.9	30.4	21.7	17.0	14.1	12.2	9.74	8.00	6.80	4.40	3.67
12TUA 90	**1.80**	260	193	153	135	97.8	73.0	**1.85**	52.2	40.1	32.2	22.9	18.0	14.9	12.9	10.4	8.37	7.12	4.55	3.75
	1.75	299	216	166	119	101.3	75.3	**1.80**	54.9	42.5	34.1	24.3	19.1	15.8	13.7	11.0	9.00	7.61	4.86	3.71
	1.67	322	236	174	124	104	75.6	**1.75**	56.5	43.5	35.0	24.9	19.6	16.2	14.0	11.3	9.20	7.82	5.00	4.17
12TUA 100	**1.80**	289	215	170	150	109	81.1	**1.85**	58.0	44.9	36.0	25.6	20.1	16.7	14.4	11.5	9.37	7.97	5.01	4.29
	1.75	332	240	184	132	113	83.6	**1.80**	61.0	47.6	38.2	27.2	21.4	17.7	15.2	12.2	10.00	8.52	5.35	4.54
	1.67	358	262	194	138	115	84.0	**1.75**	62.8	48.8	39.1	27.9	21.9	18.1	15.6	12.5	10.3	8.76	5.50	4.58
12TUA 110	**1.80**	312	232	183	162	117	87.0	**1.85**	62.6	48.3	38.8	27.6	21.7	18.0	15.5	12.4	10.10	8.59	5.46	4.54
	1.75	358	260	199	145	122	89.7	**1.80**	65.9	51.3	41.2	29.3	23.0	19.1	16.4	13.2	10.8	9.18	5.83	4.54
	1.67	386	283	209	152	124	90.0	**1.75**	67.9	52.5	42.2	30.0	23.6	19.5	17.8	13.5	11.1	9.44	6.00	5.04
12TUA 120	**1.80**	321	245	193	175	125	93.4	**1.85**	67.8	52.3	42.0	29.9	23.5	19.4	16.8	13.5	10.9	9.10	5.96	4.95
	1.75	369	274	210	158	129	96.3	**1.80**	71.3	55.4	44.5	31.7	24.9	20.6	17.8	14.3	11.7	9.73	6.37	5.00
	1.67	398	298	220	165	132	96.7	**1.75**	73.4	56.8	45.6	32.5	25.5	21.1	18.2	14.6	12.0	10.0	6.55	5.50
12TUA 130	**1.80**	348	266	215	185	135	101	**1.85**	76.3	58.8	47.2	33.6	26.4	21.9	18.9	15.1	12.3	10.4	6.69	5.55
	1.75	400	298	233	185	140	104	**1.80**	77.6	62.4	50.1	35.7	28.0	23.2	20.0	16.0	13.1	11.2	7.14	5.79
	1.67	431	325	245	193	143	104	**1.75**	79.9	63.9	51.3	36.5	28.7	23.8	20.5	16.4	13.5	11.5	7.35	6.17
12TUA 150	**1.80**	384	293	239	204	150	112	**1.85**	84.7	65.3	52.4	37.4	29.3	24.3	21.0	16.8	13.7	11.6	7.42	6.20
	1.75	442	328	259	208	155	116	**1.80**	86.2	69.3	55.6	39.6	31.1	25.8	22.2	17.8	14.6	12.4	7.92	6.54
	1.67	477	358	272	218	159	116	**1.75**	88.8	71.0	57.0	40.6	31.9	26.4	22.8	18.3	15.0	12.8	8.15	6.89
12TUA 160	**1.80**	395	307	243	214	155	118	**1.85**	90.4	69.7	55.9	39.8	31.3	25.9	22.4	17.9	14.6	12.4	7.96	6.64
	1.75	455	344	263	237	161	121	**1.80**	91.9	73.9	59.3	42.3	33.2	27.5	23.7	19.0	15.6	13.2	8.51	7.46
	1.67	490	375	277	248	164	122	**1.75**	94.7	75.7	60.8	43.3	34.0	28.2	24.3	19.5	16.0	13.6	8.75	7.38
12TUA 175	**1.80**	445	345	273	241	175	132	**1.85**	102	78.4	62.9	44.8	35.2	29.1	25.2	20.2	16.4	13.9	9.01	7.43
	1.75	512	387	296	237	181	137	**1.80**	103	83.2	66.8	47.6	37.3	30.9	26.7	21.4	17.5	14.9	9.62	7.46
	1.67	552	421	311	248	185	137	**1.75**	107	85.2	68.4	48.7	38.3	31.7	27.3	21.9	18.0	15.3	9.90	8.25
12TUA 200	**1.80**	494	384	303	268	194	147	**1.85**	113	87.1	69.9	49.8	39.1	32.4	27.9	22.4	18.2	15.5	10.0	8.25
	1.75	568	430	329	303	201	152	**1.80**	115	92.4	74.2	52.8	41.5	34.4	29.6	23.7	19.5	16.5	10.7	9.50
	1.67	613	468	346	317	206	152	**1.75**	118	94.7	76.0	54.1	42.5	35.2	30.4	24.4	20.0	17.0	11.0	9.17
12TUA 225	**1.80**	568	441	349	308	223	169	**1.85**	130	100	80.4	57.3	45.0	37.2	32.1	25.8	20.9	17.8	11.4	9.49
	1.75	654	494	379	348	231	174	**1.80**	132	106	85.3	60.8	47.7	39.5	34.1	27.3	22.4	19.0	12.2	10.2
	1.67	705	539	398	364	236	175	**1.75**	136	109	87.4	62.3	48.9	40.5	34.9	28.0	23.0	19.6	12.5	10.5
12TUA 250	**1.80**	618	480	379	335	243	184	**1.85**	141	109	87.4	62.3	48.9	40.5	34.9	28.0	22.8	19.3	12.0	10.1
	1.75	710	537	412	348	251	190	**1.80**	144	115	92.7	66.0	51.9	42.9	37.0	29.7	24.4	20.7	12.8	10.9
	1.67	766	585	432	364	257	190	**1.75**	148	118	95.0	67.7	53.1	44.0	38.0	30.4	25.0	21.3	13.2	11.3

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

CELLYTE Bloc 6-12TUA Watts per Cell @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE DATA AMPS @ 20 C. DISCHARGE TIME IN MINUTES 5	10	15	20	30	45	END Volts / CELL	DISCHARGE DATA Watts Per Cell @ 20 C. DISCHARGE TIME IN HOURS 1	1.5	2	3	4	5	6	8	10	12	20	24
6TUA 120	1.80	557	457	373	324	238	181	1.85	134	103	83.1	59.7	47.2	39.2	34.0	27.4	22.3	19.0	12.0	9.9
	1.75	624	507	412	350	251	189	1.80	137	108	87.6	62.9	49.7	41.4	35.9	28.9	23.6	20.2	12.8	10.7
	1.67	699	563	455	378	265	197	1.75	138	111	89.7	64.3	50.7	42.2	36.5	29.4	24.1	20.6	13.1	10.9
6TUA 175	1.80	789	657	525	466	341	263	1.85	200	154	124	89.3	70.6	58.7	50.9	41.1	33.4	28.5	18.1	14.9
	1.75	884	729	580	503	360	274	1.80	205	162	131	94.2	74.4	61.9	53.8	43.4	35.5	30.3	19.2	16.0
	1.67	990	809	641	543	380	287	1.75	207	165	134	96.1	75.9	63.1	54.7	44.1	36.1	30.8	19.6	16.3
6TUA 200	1.80	877	729	583	517	379	292	1.85	223	172	139	99.5	78.6	65.4	56.6	45.6	37.2	31.7	20.1	16.6
	1.75	982	810	644	559	400	305	1.80	228	181	146	105	82.9	69.0	59.8	48.1	39.4	33.7	21.3	17.8
	1.67	1100	899	712	603	422	319	1.75	230	184	150	107	84.5	70.4	60.9	48.9	40.2	34.3	21.8	18.2
6TUA 210	1.80	882	734	586	520	381	293	1.85	228	176	142	102	80.5	67.0	58.0	46.7	38.1	32.5	21.0	16.9
	1.75	988	814	648	562	402	307	1.80	233	185	150	107	84.9	70.7	61.3	49.3	40.3	34.5	22.3	18.2
	1.67	1107	904	716	607	424	320	1.75	235	189	153	110	86.6	72.1	62.4	50.1	41.2	35.2	22.7	18.6
12TUA 15	1.80	78.5	62.5	50.0	44.3	32.5	24.7	1.85	16.6	13.7	11.1	7.96	6.29	5.23	4.53	3.66	2.98	2.54	1.64	1.41
	1.75	87.9	69.4	55.2	47.8	34.3	25.8	1.80	17.0	14.5	11.7	8.39	6.63	5.52	4.79	3.86	3.15	2.70	1.74	1.50
	1.67	98.4	77.0	61.0	51.7	36.2	26.9	1.75	17.2	14.7	12.0	8.57	6.76	5.63	4.87	3.92	3.21	2.75	1.78	1.49
12TUA 20	1.80	109	86.8	69.4	61.5	45.1	34.2	1.85	24.7	19.1	15.4	11.1	8.75	7.27	6.30	5.07	4.14	3.53	2.19	1.81
	1.75	122	96.3	76.7	66.4	47.6	35.8	1.80	25.3	20.1	16.2	11.7	9.22	7.67	6.65	5.35	4.37	3.75	2.33	2.00
	1.67	137	107	84.7	71.7	50.2	37.4	1.75	25.5	20.5	16.6	11.9	9.40	7.82	6.77	5.44	4.47	3.82	2.37	1.98
12TUA 25	1.80	124	99.0	79.1	70.1	51.5	39.0	1.85	28.2	21.8	17.6	12.6	10.0	8.29	7.25	5.94	4.72	4.02	2.55	2.11
	1.75	139	110	87.4	75.7	54.3	40.8	1.80	28.9	22.9	18.5	13.3	10.5	8.75	7.66	6.26	4.99	4.28	2.71	2.17
	1.67	156	122	96.6	81.8	57.3	42.6	1.75	29.1	23.4	19.0	13.6	10.7	8.92	7.79	6.37	5.10	4.35	2.77	2.31
12TUA 30	1.80	157	125	100	88.6	65.0	49.3	1.85	35.6	27.6	22.3	16.0	12.7	10.5	9.10	7.31	5.99	5.10	3.10	2.56
	1.75	176	139	110	95.7	68.6	51.5	1.80	36.5	29.1	23.5	16.9	13.3	11.1	9.61	7.71	6.30	5.43	3.29	2.75
	1.67	197	154	122	103	72.4	53.9	1.75	36.8	29.7	24.1	17.2	13.6	11.3	9.78	7.84	6.47	5.53	3.36	2.81
12TUA 40	1.80	206	164	131	116	85.4	64.7	1.85	46.8	36.9	29.7	21.4	16.9	14.0	12.1	9.60	7.98	6.80	4.19	3.43
	1.75	231	182	145	126	90.1	67.7	1.80	47.9	38.8	31.3	22.5	17.8	14.8	12.7	10.1	8.27	7.24	4.46	3.67
	1.67	258	202	160	136	95.0	70.7	1.75	48.3	39.6	32.1	23.0	18.1	15.1	13.0	10.3	8.62	7.37	4.55	3.88
12TUA 50	1.80	263	209	167	148	109	82.6	1.85	59.7	46.1	37.2	26.7	21.1	17.5	15.2	12.2	9.98	8.50	5.38	4.35
	1.75	294	232	185	160	115	86.3	1.80	61.1	48.5	39.2	28.1	22.2	18.5	16.0	12.9	10.6	9.05	5.72	4.58
	1.67	330	258	204	173	121	90.2	1.75	61.6	49.5	40.1	28.7	22.7	18.9	16.3	13.1	10.8	9.21	5.84	4.87
12TUA 65	1.80	311	247	198	175	129	98	1.85	70.5	54.5	43.9	31.5	24.9	20.7	18.0	14.5	11.8	10.1	6.38	5.34
	1.75	348	275	219	189	136	102	1.80	72.3	57.3	46.3	33.3	26.3	21.9	19.0	15.3	12.5	10.7	6.78	5.42
	1.67	390	305	241	204	143	107	1.75	72.8	58.5	47.4	34.0	26.8	22.3	19.3	15.5	12.7	10.9	6.92	5.86
12TUA 70	1.80	334	266	213	189	139	105	1.85	75.9	58.6	47.3	34.0	26.8	22.3	19.3	15.6	12.7	10.8	6.93	5.80
	1.75	375	296	235	204	146	110	1.80	77.8	61.7	49.8	35.8	28.3	23.6	20.4	16.4	13.4	11.5	7.37	6.23
	1.67	420	328	260	220	154	115	1.75	78.4	63.0	51.1	36.6	28.9	24.0	20.8	16.7	13.7	11.7	7.52	6.35
12TUA 80	1.80	382	305	243	216	158	120	1.85	86.8	67.0	54.1	38.8	30.7	25.5	22.1	17.8	14.5	12.4	8.02	6.62
	1.75	428	338	269	233	167	126	1.80	88.9	70.6	57.0	40.9	32.4	26.9	23.3	18.8	15.4	13.2	8.53	6.42
	1.67	479	375	297	252	176	131	1.75	89.5	71.9	58.4	41.8	33.0	27.5	23.8	19.1	15.7	13.4	8.70	7.26
12TUA 90	1.80	441	352	281	249	183	139	1.85	100	77.1	62.2	44.7	35.3	29.3	25.5	20.6	16.7	14.2	9.12	7.53
	1.75	494	390	311	269	193	145	1.80	103	81.1	65.5	47.1	37.2	31.0	26.9	21.7	17.7	15.1	9.69	7.42
	1.67	554	433	343	291	204	151	1.75	103	82.7	67.1	48.1	37.9	31.6	27.4	22.1	18.0	15.4	9.89	8.25
12TUA 100	1.80	491	391	312	277	203	154	1.85	111	86.3	69.6	50.0	39.5	32.9	28.4	22.9	18.7	15.9	10.0	8.61
	1.75	549	434	345	299	214	161	1.80	114	90.8	73.3	52.7	41.7	34.7	30.0	24.1	19.7	16.9	10.7	9.08
	1.67	615	481	381	323	226	168	1.75	115	92.6	75.1	53.8	42.5	35.3	30.6	24.5	20.2	17.2	10.9	9.08
12TUA 110	1.80	530	422	337	299	220	165	1.85	120	93.0	75.0	53.9	42.6	35.4	30.7	24.7	20.1	17.2	10.9	9.11
	1.75	593	468	373	323	232	173	1.80	123	97.9	79.0	56.8	44.9	37.4	32.4	26.0	21.3	18.3	11.6	9.08
	1.67	665	520	412	349	244	180	1.75	124	99.8	81.0	58.0	45.8	38.1	34.9	26.5	21.8	18.6	11.9	10.0
12TUA 120	1.80	545	445	356	324	233	177	1.85	130	101	81.1	58.2	46.0	38.3	33.2	26.7	21.8	18.2	11.9	9.9
	1.75	611	494	393	349	246	185	1.80	133	106	85.5	61.4	48.5	40.4	35.0	28.2	23.0	19.4	12.7	10.0
	1.67	684	548	434	377	260	194	1.75	134	108	87.6	62.7	49.5	41.2	35.6	28.7	23.5	19.7	13.0	10.9
12TUA 130	1.80	591	484	395	343	252	192	1.85	146	113	91.2	65.5	51.8	43.1	37.3	30.0	24.5	20.9	13.4	11.1
	1.75	662	538	437	370	266	200	1.80	150	119	96.1	69.1	54.6	45.4	39.4	31.7	25.9	22.2	14.2	11.6
	1.67	741	597	483	400	281	209	1.75	151	121	98.5	70.5	55.7	46.3	40.1	32.2	26.5	22.6	14.5	12.2
12TUA 150	1.80	654	533	439	378	280	213	1.85	163	126	101	72.8	57.5	47.8	41.4	33.4	27.2	23.2	14.9	12.5
	1.75	732	592	485	408	296	222	1.80	167	132	107	76.8	60.7	50.5	43.8	35.2	28.8	24.7	15.8	13.1
	1.67	820	657	536	441	312	233	1.75	168	135	109	78.4	61.8	51.5	44.5	35.8	29.4	25.1	16.1	13.6
12TUA 160	1.80	672	559	447	396	291	224	1.85	174	134	108	77.7	61.4	51.0	44.2	35.6	29.0	24.7	16.0	13.3
	1.75	753	620	494	428	307	234	1.80	178	141	114	81.9	64.7	53.8	46.7	37.5	30.7	26.3	17.0	14.9
	1.67	843	689	545	462	323	244	1.75	179	144	117	83.6	66.0	54.9	47.5	38.2	31.4	26.8	17.3	14.6
12TUA 175	1.80	756	629	502	446	327	252	1.85	195	151	122	87.4	69.0	57.4	49.7	40.1	32.7	27.8	18.1	14.9
	1.75	847	698	555	482	345	263	1.80	200	159	128	92.1	72.8	60.6	52.5	42.2	34.5	29.6	19.2	14.9
	1.67	948	775	614	520	364	275	1.75	201	162	131	94.0	74.2	61.8	53.4	43.0	35.3	30.1	19.6	16.3
12TUA 200	1.80	840	699	558	495	363	280	1.85	217	168	135	97.1	76.7	63.8	55.3	44.5	36.3	30.9	20.1	16.6
	1.75	941	775	617	535	383	292	1.80	222	176	142	102	80.9	67.3	58.4	46.9	38.4	32.9	21.3	19.0
	1.67	1054	861	682	578	404	305	1.75	224	180	146	104	82.5	68.6	59.4	47.7	39.2	33.5	21.8	18.2
12TUA 225	1.80	966	803	642	570	418	321	1.85	249	193	155	112	88.2	73.4	63.5	51.2	41.7	35.6	22.8	19.0
	1.75	1082	892	709	615	441	336	1.80	256	203	164	118	93.0	77.4	67.1	54.0	44.1	37.8	24.2	20.5
	1.67	1212	990	784	665	465	351	1.75	257	207	168	120	94.8	78.9	68.3	54.9	45.1	38.5	24.7	20.9
12TUA 250	1.80	1050	873	698	619	454	349	1.85	271	209	169	121	95.9	79.7	69.1	55.6	45.4	38.7	24.0	20.3
	1.75	1176	969	771	669	479	365	1.80	278	220	178	128	101	84.1	72.9	58.7	48.0	41.1	25.5	21.8
	1.67	1317	1076	852	722	505	382	1.75	280	225	182	131	103	85.8	74.2	59.7	49.0	41.9	26.0	22.3

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

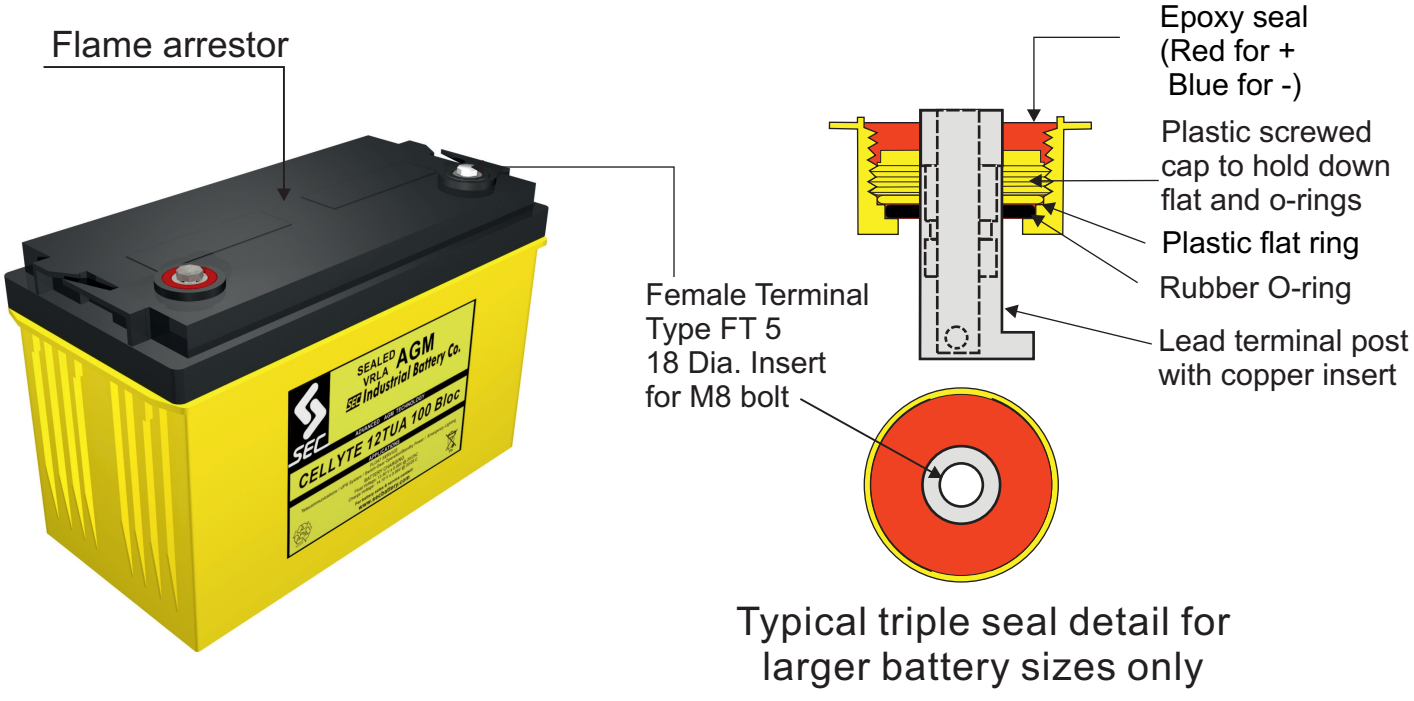
CELLYTE 6-12TUA Bloc Data & Dimensions

SEC Battery Type	Capacity C/20 1.75 vpc	Capacity C/10 1.80 vpc	CCA at -18 C 0 F.	CCA at 0 C. 32 F.	Short Circuit Amps	Internal Resistance m Ohms	Female Terminal Type	Battery Weight		Overall Battery Dimensions					
										Length		Width		Height	
								KG	lbs	Inch	mm	Inch	mm	Inch	mm
6TUA 120	130	120	760	1010	3200	3.0	FT 4	17.0	37.4	7.68	195	6.69	170	8.23	209
6TUA 175	198	180	980	1290	4600	2.4	FT 5	28.7	63.1	12.0	306	6.61	168	8.86	225
6 TUA 200	220	200	1200	1600	5000	2.3	FT 5	30.2	66.4	12.7	323	7.01	178	9.02	229
6 TUA 210	230	205	1300	1740	5500	2.2	FT 5	33.0	72.6	9.57	243	7.40	188	10.8	275
12TUA 15	18	16.0	125	155	650	14	FT 2	5.40	11.9	7.13	181	5.16	76.0	6.50	165
12TUA 20	24	22.2	165	205	940	12	FT 3	8.00	17.6	6.97	177	6.57	167	4.92	125
12TUA 25	28	25.3	200	165	1220	8.2	FT 3	8.10	17.8	6.50	165	4.96	126	6.93	176
12TUA 30	34	32.0	240	320	1500	7.3	FT 3	10.5	23.1	7.72	196	5.16	131	6.34	161
12TUA 40	47	42.0	260	350	1700	6.0	FT 3	14.7	32.3	7.76	197	6.50	165	6.69	170
12 TUA 50	59	52.3	280	380	1900	5.6	FT 3	18.5	40.7	9.06	230	5.43	138	8.27	210
12 TUA 65	71	63.3	330	450	2000	5.5	FT 3	22.0	48.4	13.8	350	6.57	167	7.05	179
12TUA 70	77	66.2	410	550	2100	5.4	FT 3	25.7	56.5	10.2	259	6.65	169	8.46	215
12TUA 80	88	77.9	460	620	2400	4.5	FT 3	25.7	56.5	10.2	259	6.65	169	8.46	215
12TUA 90	100	90	510	680	2650	4.3	FT 4	27.0	59.4	12.1	307	6.69	170	8.46	215
12TUA 100	110	100	580	780	2900	3.9	FT 4	31.0	68.2	12.9	328	6.77	172	8.46	215
12TUA 110	121	108	710	960	3000	3.4	FT 4	31.5	69.3	12.9	328	6.81	173	8.46	215
12TUA 120	132	117	760	1020	3300	3.1	FT 4	36.0	79.2	13.5	342	6.81	173	11.22	285
12TUA 130	148	131	970	1300	4200	2.9	FT 4	42.0	92.4	13.5	342	6.81	173	11.22	285
12TUA 150	165	146	1060	1370	4500	2.8	FT 5	47.0	103	19.0	483	6.69	170	9.65	245
12TUA 160	176	156	1060	1370	4500	2.6	FT 5	52.0	114	20.9	530	8.23	209	8.86	225
12TUA 175	198	175	1100	1440	4700	2.3	FT 5	56.7	125	20.9	530	8.23	209	8.86	225
12TUA 200	220	195	1240	1670	5400	2.2	FT 5	63.0	139	20.6	522	9.45	240	8.86	225
12TUA 225	253	224	1460	1951	6157	2.0	FT 5	68.0	150	20.6	522	10.59	269	8.66	220
12TUA 250	270	244	1530	2010	6464	1.9	FT 5	76.0	167	20.6	522	10.59	269	8.86	225

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

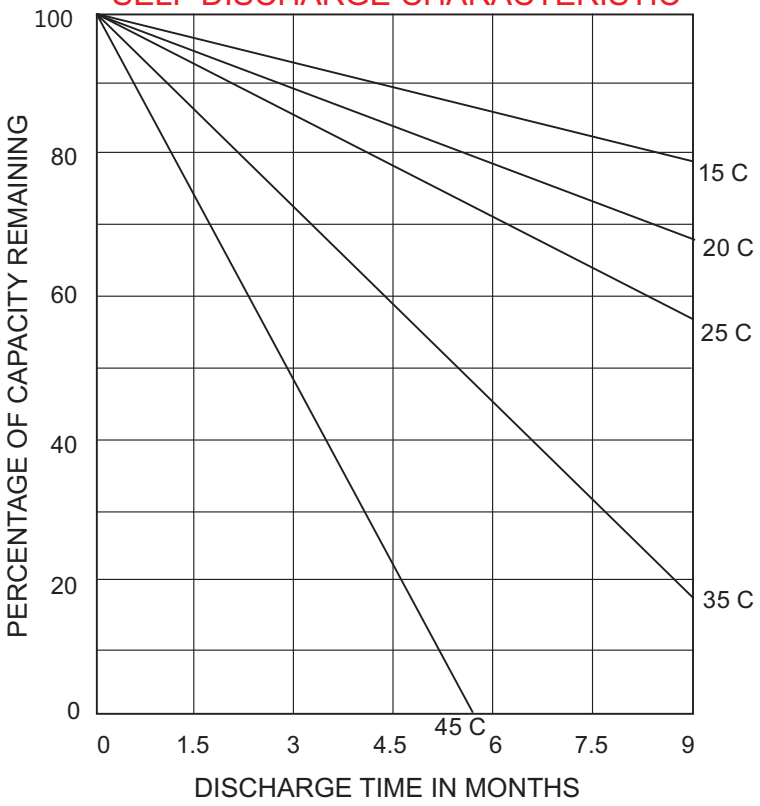
Applicable Standards

UL Component approval
BS 6290 Part 4
Eurobat
IEC 60896-21/22-2004
(Testing in progress)

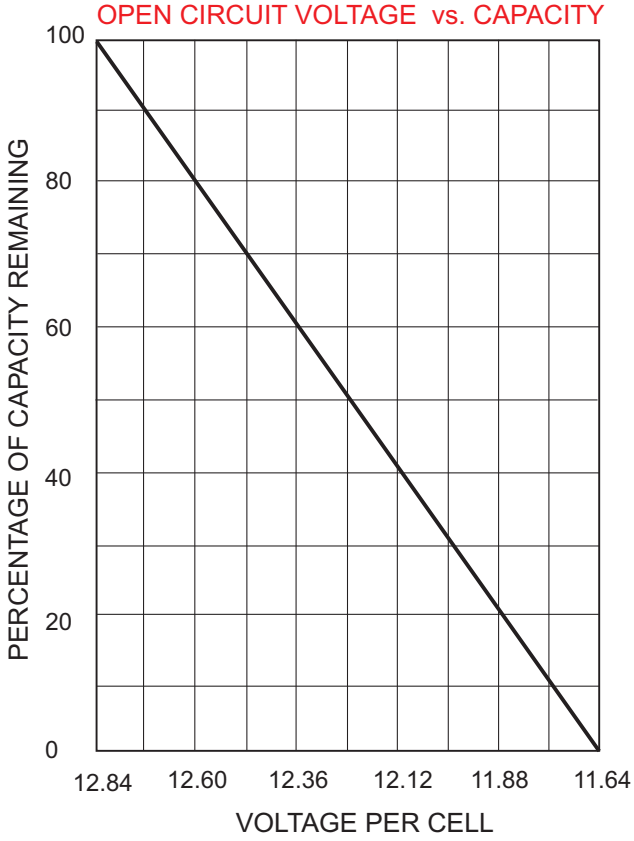


Typical triple seal detail for larger battery sizes only

SELF DISCHARGE CHARACTERISTIC



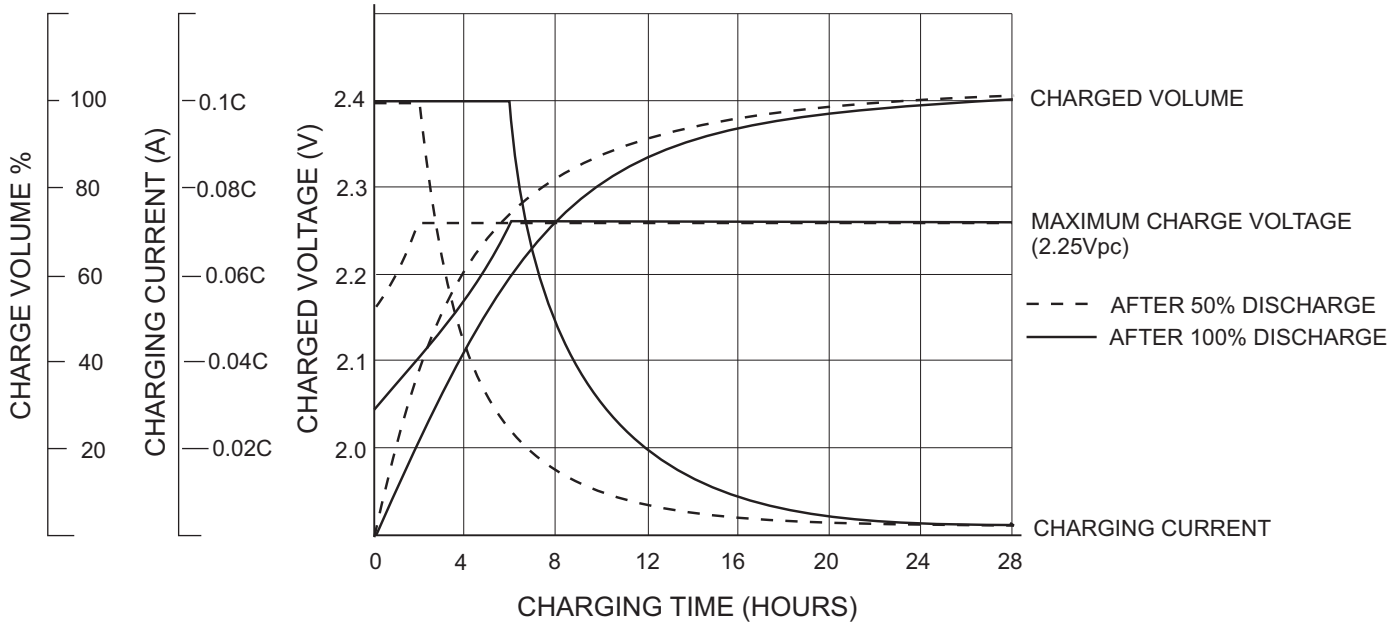
OPEN CIRCUIT VOLTAGE vs. CAPACITY



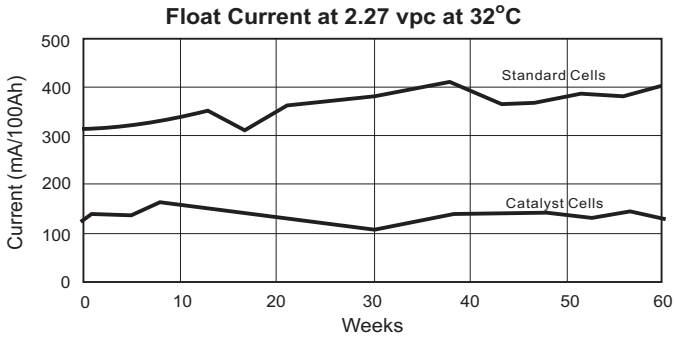
NOTE: Half the voltage per cell for 6TUA

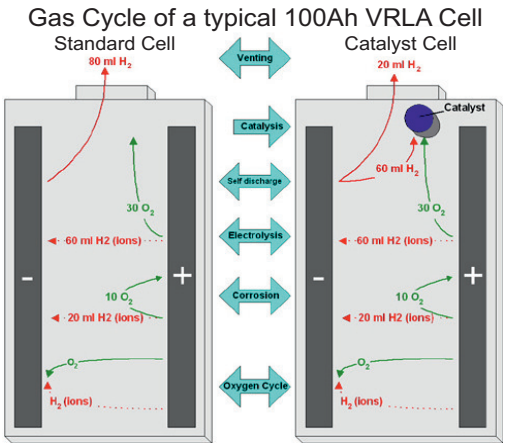
CHARGING CHARACTERISTIC

0.1C Amp (max) 2.25V/Cell Constant Voltage at 20C



Benefits of Catalyst in SEC VRLA Batteries

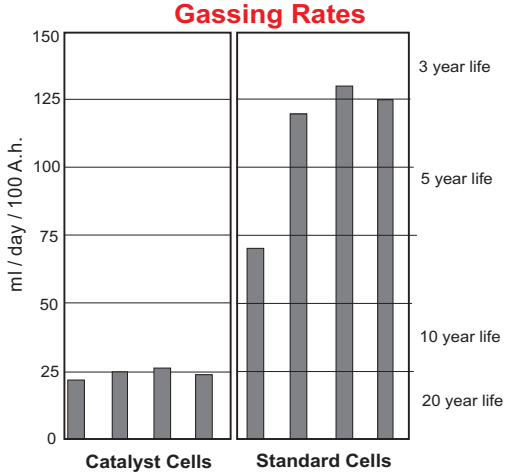




Catalyst Reduces Float Current
One of the most immediate, observable effects of installing a catalyst in a VRLA cell is a sudden drop in the float current. Typically float currents are one half or less when a catalyst is installed. Adding a catalyst to the cell prevents some of the oxygen reaching the 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 out has been predominant cause of customer dissatisfaction with VRLA technology.
* **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.

Gassing Rates



How it works

The VRLA cell was designed to correct all the problems of flooded technology. All the gas produced inside the cell was intended to recombine back into water on the negative plate in a very efficient oxygen cycle. In an ideal world there would be no negative plate self discharge, no positive plate corrosion and no excess charge current needed. Batteries would last forever and no gas would be released from the cell.

In the real world, chemistry dictates that negative plates do self-discharge and they do this more when impurities are present in higher quantities. In our experience the typical high quality, long life (20 yr) VRLA cell has a self discharge rate equivalent to 80 ml of Hydrogen gas per day per 100 Ah. Oxygen, produced from a variety of processes on the positive plate, will recombine with this hydrogen on the negative plate and cause it to depolarize.

In the real world positive grids also corrode. Designers have done what is typically done on flooded designs for long life and reduced the corrosion rate of the positive grid. Typical state of the art designs will only absorb 10 ml of oxygen on the positive plate instead of the 40 ml needed to counter act the hydrogen generated on the negative. This is the paradox of VRLA design. A "better" positive grid can actually impair the life of the design.

This leaves an unbalanced situation with a strongly depolarized negative plate. The charging system will compensate with more current which will lead to excessively high polarization on the positive plate and damaging effects on the cell due to the excess current. Electrolysis will generate high amounts of gas leading to water loss.

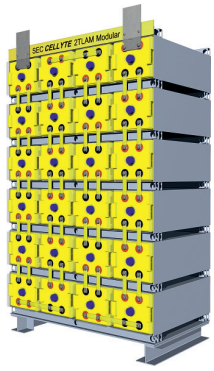
Adding a Microcat™ to the cell gives the battery designer a new tool to break out of the deadlock. The catalyst will absorb free oxygen in the headspace and recombine it with the abundant hydrogen always present in the cell. This drastically reduces the amount of gas venting from the cell, but most importantly this prevents oxygen from reaching the negative plate and buffers the negative plate self discharge reaction from the positive plate corrosion reaction. Now that the cell is in balance the negative remains charged. The charging system responds by only sending the small amount of current needed to keep the cell charged.

The Worlds First - Monobloc Catalyst Battery

SEC CELLYTE TUA Monobloc batteries are the first to use a **CatVent Catalyst** in the cell head space. This is done for several very good reasons. The Catalyst changes the electrochemical actions within the cell, this causes balance within the cell preventing the negative plate from depolarising over time and improves cell capacity. A healthy balance in the cell will be immediately obvious by a reduction of the cell's float current by up to 50%. What that means is a dramatic reduction, by up to 80% in cell gassing, reduced loss which delays cell dry out*, reduced positive plate corrosion, reduced cell heating, reducing the risk of thermal run away and a reduction in the energy required to cool the cells / batteries.

* **Please note:** Battery dry out is one of the major failure modes of VRLA batteries.

SEC Industrial Bettery 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

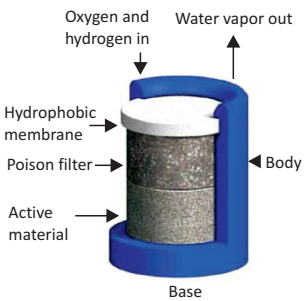
MICROLYTE +Plus Range

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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