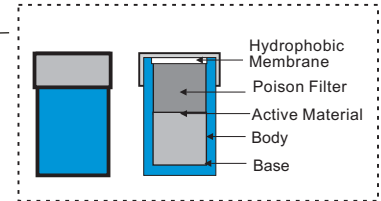


Announcing a world first New Monobloc Catalyst 10-12 year design life



**Monobloc Catalyst
(Optional)**



Typical assembly detail

**Full range of 12FTA/G available
Capacity: 40Ah. to 175Ah.
C/10 to 1.80Vpc at 20C**

New Catalyst generation

- *Reduces float current by up to 50%.
- *Reduces gassing by up to 80%.
- *Will minimize water loss from the cell.
- *Reduces cell failure due to dry out, a major failure mode of VRLA batteries.
- *Batteries will have full design life when used at temperatures up to 30°C.
- *Reduces cell heating reducing the possibility of thermal runaway.
- *Energy saving from reduced float current and cell cooling requirements.
- *Maintains full cell capacity by preventing depolarization of the negative plate



Supplied Worldwide by:
SEC Industrial Battery Co.
Visit our website on www.secbattery.com



CELLYTE 12FT A& G Front Terminal Batteries

In keeping with our philosophy to stay at the forefront of the ever expanding Telecom standby battery market we have extended our range of 19" front terminal batteries up to 175 ah capacity at 12 volts. These batteries include several innovative features: triple barrier terminal post seal, high Tin / Calcium positive plate alloy for improved, by up to 65%, deep cycle capability of the 12TLA batteries and the 'Word First' Monobloc Catalyst.

Sealed Valve Regulated Construction

* These batteries are of the Absorbed Glass Mat (AGM) or gelled electrolyte technology (Gel). The electrolyte in the cell is immobilized in a specially formulated non woven glass mat separator or in a thixotropic Gel. All the acid is absorbed in this manner providing a safe non-spillable battery.

Gas Recombination System

* The gasses generated in the normal charge / discharge use of a rechargeable lead acid battery are internally recombined during normal operating parameters and in normal operational use, more than 99% of the gas generated is recombined.

SEC Catvent - Catalyst Vent

* SEC's VRLA cells incorporate the Philadelphia Scientific Monobloc precious metal Catalyst Catvent which prevents the negative plate from depolarizing reduces the cell float current by up to 50%, reduces the cell gassing by about 80%, reduces cell dry out which is the major cause of VRLA battery failure

Battery Maintenance

* The battery has been designed and built such that no addition of electrolyte or water is needed during the life of the battery.

Battery Life in Float Service

* CELLYTE 12FTA&G batteries are suitable for float / standby Service with a design life of 10-12 years at 20C

Battery Life in Cycle Life

* CELLYTE 12FTG batteries are suitable for deep cycle service battery life will depend on temperature, depth and frequency of cycling, however the use of the optional Catvent Catalyst will improve life in temperatures up to 30 C.

Battery One-Way Safety Valve

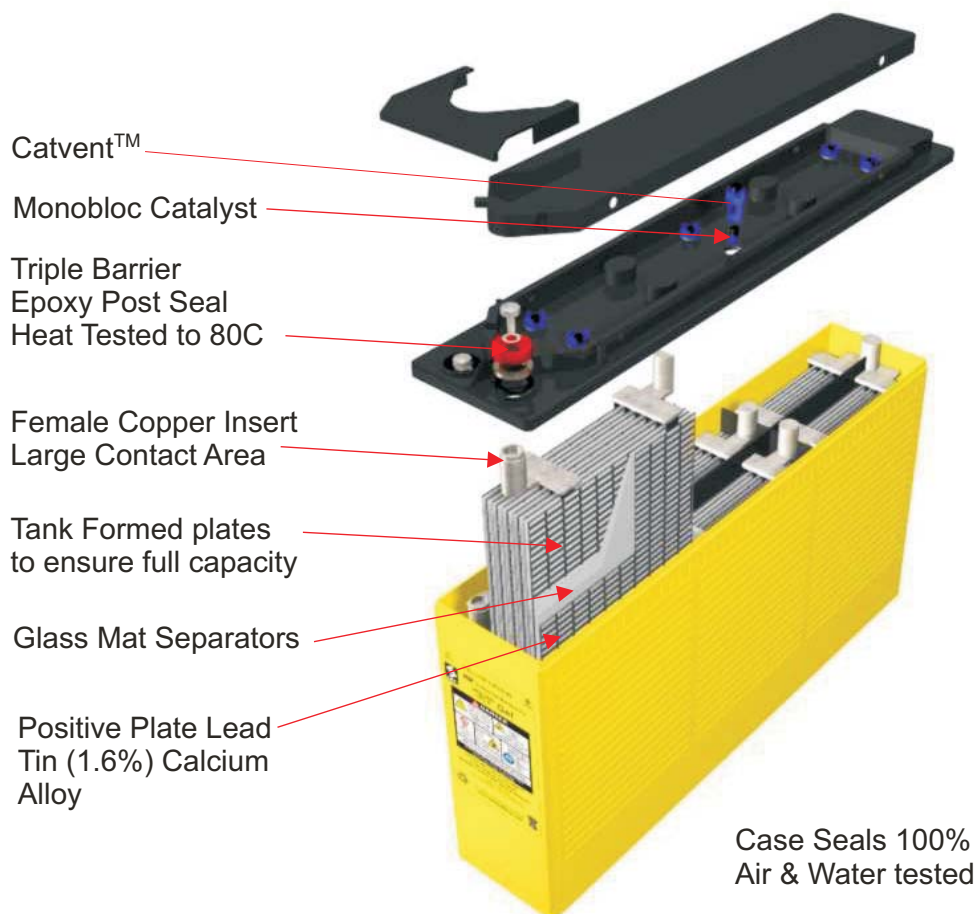
* When pressure builds up in the cell the B & S German safety one-way valve opens at 2-3 psi and releases the excessive pressure and then closes. The one-way valve does not allow the ingress of oxygen which is harmful and reduces battery life.

Temperature Range for Normal Operation

* **CELLYTE** 12FTA batteries have a wide operating temperature range -25C to +55C. However for maximum life it is recommended to operate the battery at 20C to 30C

Plate Design and Paste Formulation

* SEC has optimised the plate and paste formulation to maximise The operating life of the battery. The Virgin pure lead /Tin (1.6%) plate alloy is used to extend battery life and cycling capability. Past formulation will provide excellent recovery from deep discharge. With low self discharge to ensure maximum storage time when not in use. Alternative lower cost Calcium Tin plate is available.



CELLYTE AGM Front Terminal 12FTA Ampere Hour Data @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE DATA AMPS at 20 C.						END Volts / CELL	DISCHARGE DATA AMPERE HOURS at 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		1	1.5	2	3	4	5	6	8	10	12	20	24
12FTA40	1.80	108	80.6	63.7	60.1	40.8	30.5	1.85	25.2	28.5	30.9	33.5	35.4	37.6	39.8	42.4	43.2	44.1	47.1	47.6
	1.75	125	90.3	69.2	64.5	42.2	31.4	1.80	27.0	29.7	32.0	35.1	37.1	39.1	41.3	44.1	45.0	45.9	49.1	49.5
	1.67	134	98.3	72.7	67.3	43.2	31.7	1.75	27.5	30.3	32.6	35.8	37.9	39.9	42.1	45.0	45.9	46.6	49.8	50.1
12FTA55	1.80	132	98.5	77.9	73.4	49.9	37.3	1.85	30.8	34.9	37.7	41.0	43.3	46.0	48.6	51.8	52.9	53.9	57.6	58.1
	1.75	152	110	84.5	78.8	51.6	38.4	1.80	33.0	36.3	39.1	42.9	45.4	47.8	50.5	53.9	55.0	56.1	60.0	60.5
	1.67	164	120	88.8	82.2	52.8	38.7	1.75	33.7	37.0	39.8	43.8	46.3	48.8	51.5	55.0	56.1	57.0	60.9	61.2
12FTA80*	1.80	193	143	113	107	72.6	54.2	1.85	44.8	50.7	54.9	59.6	63.0	66.9	70.7	75.4	76.9	78.4	83.8	84.6
	1.75	221	161	123	115	75.1	55.9	1.80	48.0	52.8	56.8	62.4	66.0	69.5	73.4	78.4	80.0	81.6	87.2	88.0
	1.67	239	175	129	120	76.8	56.4	1.75	49.0	53.9	57.9	63.6	67.3	70.9	74.9	79.9	81.6	82.9	88.6	89.0
12FTA 100	1.80	241	179	142	133	90.7	67.7	1.85	56.0	63.4	68.6	74.5	78.8	83.6	88.3	94.3	96.1	98	105	106
	1.75	277	201	154	143	93.9	69.8	1.80	60.0	66.0	71.0	78.0	82.5	86.9	91.8	98.0	100	102	109	110
	1.67	298	219	161	150	95.9	70.4	1.75	61.2	67.3	72.4	79.6	84.2	88.6	93.6	100	102	104	111	111
12FTA 105	1.80	253	188	149	140	95.2	71.1	1.85	58.8	66.6	72.0	78.2	82.7	87.8	92.8	99.0	101	103	110	111
	1.75	291	211	161	150	98.6	73.3	1.80	63.0	69.3	74.6	81.9	86.6	91.2	96.4	103	105	107	114	116
	1.67	313	229	170	157	101	74.0	1.75	64.3	70.7	76.0	83.5	88.4	93.1	98	105	107	109	116	117
12FTA 105us	1.80	245	182	144	136	92.4	69.0	1.85	57.7	65.3	70.6	76.7	81.1	86.1	91.0	97.1	99.0	101	108	109
	1.75	282	204	157	146	95.6	71.1	1.80	61.8	68.0	73.1	80.3	85.0	89.5	94.6	101	103	105	112	113
	1.67	304	223	164	152	97.7	71.7	1.75	63.0	69.3	74.6	81.9	86.7	91.3	96.4	103	105	107	114	115
12FTA 120	1.80	275	205	162	153	104	77.4	1.85	64.4	72.9	78.9	85.6	90.6	96.2	102	108	111	113	120	122
	1.75	316	229	175	164	107	79.7	1.80	69.0	75.9	81.7	89.7	94.9	100	106	113	115	117	125	127
	1.67	341	250	184	171	110	80.4	1.75	70.4	77.4	83.3	91.5	96.8	102	108	115	117	119	127	128
12FTA 125	1.80	308	229	181	171	116	86.7	1.85	71.7	81.2	87.8	95.3	101	107	113	121	123	125	134	135
	1.75	354	257	197	184	120	89.4	1.80	76.8	84.5	90.9	100	106	111	118	125	128	131	140	141
	1.67	382	280	207	192	123	90.2	1.75	78.3	86.2	92.7	102	108	113	120	128	131	133	142	142
12FTA 155	1.80	373	278	220	205	141	105	1.85	86.8	98	106	115	122	134	137	146	149	152	162	164
	1.75	429	311	238	220	145	108	1.80	93.0	102	110	121	128	140	142	152	155	158	169	171
	1.67	463	339	250	230	149	109	1.75	94.9	104	112	123	130	142	145	155	158	161	172	172
12FTA 175	1.80	421	313	248	205	159	119	1.85	98.0	111	120	130	138	152	155	165	171	176	187	190
	1.75	484	351	269	220	164	122	1.80	105	116	124	137	144	158	161	172	175	179	191	193
	1.67	522	382	283	230	168	123	1.75	107	118	127	139	147	161	164	175	181	186	198	200

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

*12FTA80S - available in case size 495 mm x 110 mm x 230 mm

CELLYTE Gel - Front Terminal 12FTG Ampere Hour Data @ 20 C.

SEC Bloc Gel TYPE	END Volts / CELL	DISCHARGE DATA AMPS at 20 C.						END Volts / CELL	DISCHARGE DATA AMPERE HOURS at 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		60	1.5	2	3	4	5	6	8	10	12	20	24
12FTG 40	1.80	97.5	73.4	58.6	55.6	38.0	28.5	1.85	22.7	26.0	28.4	31.2	33.3	35.8	38.2	41.6	43.2	44.1	47.1	47.6
	1.75	112	82.2	63.6	59.6	39.3	29.4	1.80	24.3	27.0	29.4	32.6	34.9	37.1	39.7	43.2	45.0	45.9	49.1	49.5
	1.67	121	89.5	66.8	62.2	40.2	29.6	1.75	24.8	27.6	30.0	33.3	35.6	37.9	40.5	44.1	45.9	46.6	49.8	50.1
12FTG 55	1.80	119	89.7	71.7	67.9	46.4	34.8	1.85	27.7	31.7	34.7	38.1	40.7	43.7	46.6	50.8	52.9	53.9	57.6	58.1
	1.75	137	100	77.8	72.9	48.0	35.9	1.80	29.7	33.0	35.9	39.9	42.7	45.4	48.5	52.8	55.0	56.1	60.0	60.5
	1.67	148	109	81.7	76.1	49.1	36.2	1.75	30.3	33.7	36.6	40.7	43.5	46.3	49.4	53.9	56.1	57.0	60.9	61.2
12FTG 80*	1.80	173	130	104	99.3	67.5	50.7	1.85	40.3	46.2	50.5	55.4	59.2	63.6	67.9	73.9	76.9	78.4	83.8	84.6
	1.75	199	146	113	107	69.8	52.2	1.80	43.2	48.0	52.3	58.0	62.0	66.0	70.5	76.8	80.0	81.6	87.2	88.0
	1.67	215	159	119	111	71.4	52.7	1.75	44.1	49.0	53.3	59.2	63.3	67.4	71.9	78.3	81.6	82.9	88.6	89.0
12FTG 100	1.80	217	163	130	123	84.3	63.3	1.85	50.4	57.7	63.1	69.3	74.0	79.5	84.8	92.4	96.1	98.0	105	106
	1.75	249	183	141	132	87.3	65.3	1.80	54.0	60.1	65.3	72.5	77.6	82.6	88.1	96.0	100	102	109	110
	1.67	269	199	149	138	89.2	65.9	1.75	55.1	61.3	66.6	74.0	79.1	84.2	89.9	97.9	102	104	111	111
12FTG 105	1.80	227	171	137	130	88.6	66.5	1.85	52.9	60.6	66.2	72.7	77.7	83.4	89.1	97.0	101	103	110	111
	1.75	262	192	148	139	91.7	68.6	1.80	56.7	63.1	68.6	76.2	81.4	86.7	92.5	101	105	107	114	116
	1.67	282	209	156	145	93.7	69.2	1.75	57.8	64.3	70.0	77.7	83.1	88.4	94.4	103	107	109	116	117
12FTG 105us	1.80	221	166	133	126	85.9	64.5	1.85	51.9	59.4	65.0	71.3	76.3	81.8	87.4	95.2	99	101	108	109
	1.75	254	186	144	135	88.9	66.5	1.80	55.6	61.9	67.3	74.7	79.9	85.0	90.8	98.9	103	105	112	113
	1.67	274	203	151	141	90.9	67.1	1.75	56.7	63.1	68.6	76.2	81.5	86.7	92.6	101	105	107	114	115
12FTG 120	1.80	247	186	149	142	96.3	72.3	1.85	57.9	66.4	72.6	79.6	85.1	91.4	97.5	106	111	113	120	122
	1.75	284	208	161	152	99.7	74.6	1.80	62.1	69.1	75.1	83.4	89.2	94.9	101	110	115	117	125	127
	1.67	307	227	170	158	102	75.2	1.75	63.3	70.5	76.6	85.1	91.0	96.8	103	113	117	119	127	128
12FTG 125	1.80	277	209	167	159	108	81.1	1.85	64.5	73.9	80.8	88.6	94.8	102	109	118	123	125	134	135
	1.75	319	234	181	170	112	83.6	1.80	69.1	76.9	83.6	92.9	99.3	106	113	123	128	131	140	141
	1.67	344	255	190	178	114	84.3	1.75	70.5	78.4	85.3	94.7	101	108	115	125	131	133	142	142
12FTG 155	1.80	336	253	202	190	131	98.2	1.85	78.1	89.4	97.8	107	115	128	131	143	149	152	162	164
	1.75	386	283	219	204	135	101	1.80	83.7	93.1	101	112	120	133	137	149	155	158	169	171
	1.67	416	308	230	213															

CELLYTE AGM - Front Terminal 12FTA Amps Data @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE DATA AMPS at 20 C.						END Volts / CELL	DISCHARGE DATA AMPS @ 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		60	1.5	2	3	4	5	6	8	10	12	20	24
12FTA40	1.80	108	80.6	63.7	60.1	40.8	30.5	1.85	25.2	19.0	15.4	11.2	8.86	7.53	6.63	5.30	4.32	3.68	2.36	1.98
	1.75	125	90.3	69.2	64.5	42.2	31.4	1.80	27.0	19.8	16.0	11.7	9.28	7.82	6.89	5.51	4.50	3.83	2.45	2.06
	1.67	134	98	72.7	67.3	43.2	31.7	1.75	27.5	20.2	16.3	11.9	9.47	7.98	7.02	5.62	4.59	3.89	2.49	2.09
12FTA55	1.80	132	99	77.9	73.4	49.9	37.3	1.85	30.8	23.3	18.9	13.7	10.8	9.20	8.10	6.48	5.29	4.49	2.88	2.42
	1.75	152	110	84.5	78.8	51.6	38.4	1.80	33.0	24.2	19.5	14.3	11.3	9.56	8.42	6.74	5.50	4.68	3.00	2.52
	1.67	164	120	88.8	82.2	52.8	38.7	1.75	33.7	24.7	19.9	14.6	11.6	9.75	8.58	6.87	5.61	4.75	3.04	2.55
12FTA80*	1.80	193	143	113	107	72.6	54.2	1.85	44.8	33.8	27.4	19.9	15.8	13.4	11.8	9.43	7.69	6.53	4.19	3.52
	1.75	221	161	123	115	75.1	55.9	1.80	48.0	35.2	28.4	20.8	16.5	13.9	12.2	9.80	8.00	6.80	4.36	3.67
	1.67	239	175	129	120	76.8	56.4	1.75	49.0	35.9	29.0	21.2	16.8	14.2	12.5	10.0	8.16	6.91	4.43	3.71
12FTA 100	1.80	241	179	142	133	90.7	67.7	1.85	56.0	42.3	34.3	24.8	19.7	16.7	14.7	11.8	9.61	8.17	5.24	4.40
	1.75	277	201	154	143	93.9	69.8	1.80	60.0	44.0	35.5	26.0	20.6	17.4	15.3	12.3	10.0	8.50	5.45	4.58
	1.67	298	219	161	150	95.9	70.4	1.75	61.2	44.9	36.2	26.5	21.0	17.7	15.6	12.5	10.2	8.64	5.54	4.63
12FTA 105	1.80	253	188	149	140	95.2	71.1	1.85	58.8	44.4	36.0	26.1	20.7	17.6	15.5	12.4	10.1	8.58	5.50	4.62
	1.75	291	211	161	150	98.6	73.3	1.80	63.0	46.2	37.3	27.3	21.7	18.2	16.1	12.9	10.5	8.93	5.72	4.81
	1.67	313	229	170	157	100.7	74.0	1.75	64.3	47.1	38.0	27.8	22.1	18.6	16.4	13.1	10.7	9.07	5.81	4.87
12FTA 105us	1.80	245	182	144	136	92.4	69.0	1.85	57.7	43.5	35.3	25.6	20.3	17.2	15.2	12.1	9.90	8.41	5.39	4.54
	1.75	282	204	157	146	95.6	71.1	1.80	61.8	45.3	36.6	26.8	21.2	17.9	15.8	12.6	10.3	8.76	5.61	4.72
	1.67	304	223	164	152	97.7	71.7	1.75	63.0	46.2	37.3	27.3	21.7	18.3	16.1	12.9	10.5	8.90	5.70	4.77
12FTA 120	1.80	275	205	162	153	104	77.4	1.85	64.4	48.6	39.4	28.5	22.6	19.2	16.9	13.6	11.1	9.39	6.02	5.07
	1.75	316	229	175	164	107	79.7	1.80	69.0	50.6	40.8	29.9	23.7	20.0	17.6	14.1	11.5	9.8	6.27	5.27
	1.67	341	250	184	171	110	80.4	1.75	70.4	51.6	41.6	30.5	24.2	20.4	17.9	14.4	11.7	9.9	6.37	5.33
12FTA 125	1.80	308	229	181	171	116	86.7	1.85	71.7	54.1	43.9	31.8	25.2	21.4	18.8	15.1	12.3	10.5	6.70	5.64
	1.75	354	257	197	184	120	89.4	1.80	76.8	56.3	45.4	33.3	26.4	22.2	19.6	15.7	12.8	10.9	6.98	5.87
	1.67	382	280	207	192	123	90.2	1.75	78.3	57.4	46.3	33.9	26.9	22.7	20.0	16.0	13.1	11.1	7.08	5.93
12FTA 155	1.80	373	278	220	205	141	105	1.85	86.8	65.5	53.2	38.5	30.5	26.9	22.8	18.3	14.9	12.7	8.12	6.83
	1.75	429	311	238	220	145	108	1.80	93.0	68.2	55.0	40.3	32.0	27.9	23.7	19.0	15.5	13.2	8.45	7.10
	1.67	463	339	250	230	149	109	1.75	94.9	69.6	56.1	41.1	32.6	28.5	24.2	19.4	15.8	13.4	8.58	7.18
12FTA 175	1.80	421	313	248	205	159	119	1.85	98.0	74.0	60.0	43.4	34.5	30.3	25.8	20.6	17.1	14.6	9.35	7.93
	1.75	484	351	269	220	164	122	1.80	105	77.0	62.1	45.5	36.1	31.5	26.8	21.4	17.5	14.9	9.54	8.02
	1.67	522	382	283	230	168	123	1.75	107	78.5	63.4	46.4	36.8	32.1	27.3	21.9	18.1	15.5	9.88	8.34

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

*12FTA80S - available in case size 495 mm x 110 mm x 230 mm

CELLYTE Gel - Front Terminal 12FTG Amps Data @ 20 C.

SEC Bloc Gel TYPE	END Volts / CELL	DISCHARGE DATA AMPS at 20 C.						END Volts / CELL	DISCHARGE DATA AMPS @ 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		60	1.5	2	3	4	5	6	8	10	12	20	24
12FTG 40	1.80	97.5	73.4	58.6	55.6	38.0	28.5	1.85	22.7	17.3	14.2	10.4	8.33	7.15	6.36	5.20	4.32	3.68	2.36	1.98
	1.75	112	82.2	63.6	59.6	39.3	29.4	1.80	24.3	18.0	14.7	10.9	8.72	7.43	6.61	5.40	4.50	3.83	2.45	2.06
	1.67	121	89.5	66.8	62.2	40.2	29.6	1.75	24.8	18.4	15.0	11.1	8.90	7.58	6.74	5.51	4.59	3.89	2.49	2.09
12FTG 55	1.80	119	89.7	71.7	67.9	46.4	34.8	1.85	27.7	21.2	17.4	12.7	10.2	8.7	7.8	6.4	5.29	4.49	2.88	2.42
	1.75	137	100	77.8	72.9	48.0	35.9	1.80	29.7	22.0	18.0	13.3	10.7	9.1	8.1	6.6	5.50	4.68	3.00	2.52
	1.67	148	109	81.7	76.1	49.1	36.2	1.75	30.3	22.5	18.3	13.6	10.9	9.3	8.2	6.7	5.61	4.75	3.04	2.55
12FTG 80*	1.80	173	130	104	99.3	67.5	50.7	1.85	40.3	30.8	25.2	18.5	14.8	12.7	11.3	9.2	7.69	6.53	4.19	3.52
	1.75	199	146	113	107	69.8	52.2	1.80	43.2	32.0	26.1	19.3	15.5	13.2	11.8	9.6	8.00	6.80	4.36	3.67
	1.67	215	159	119	111	71.4	52.7	1.75	44.1	32.7	26.7	19.7	15.8	13.5	12.0	9.8	8.16	6.91	4.43	3.71
12FTG 100	1.80	217	163	130	123	84.3	63.3	1.85	50.4	38.5	31.5	23.1	18.5	15.9	14.1	11.5	9.61	8.17	5.24	4.40
	1.75	249	183	141	132	87.3	65.3	1.80	54.0	40.0	32.7	24.2	19.4	16.5	14.7	12.0	10.0	8.50	5.45	4.58
	1.67	269	199	149	138	89.2	65.9	1.75	55.1	40.8	33.3	24.7	19.8	16.8	15.0	12.2	10.2	8.64	5.54	4.63
12FTG 105	1.80	227	171	137	130	88.6	66.5	1.85	52.9	40.4	33.1	24.2	19.4	16.7	14.8	12.1	10.1	8.58	5.50	4.62
	1.75	262	192	148	139	91.7	68.6	1.80	56.7	42.0	34.3	25.4	20.4	17.3	15.4	12.6	10.5	8.93	5.72	4.81
	1.67	282	209	156	145	93.7	69.2	1.75	57.8	42.9	35.0	25.9	20.8	17.7	15.7	12.9	10.7	9.07	5.81	4.87
12FTG 105us	1.80	221	166	133	126	85.9	64.5	1.85	51.9	39.6	32.5	23.8	19.1	16.4	14.6	11.9	9.9	8.41	5.39	4.54
	1.75	254	186	144	135	88.9	66.5	1.80	55.6	41.2	33.6	24.9	20.0	17.0	15.1	12.4	10.3	8.76	5.61	4.72
	1.67	274	203	151	141	90.9	67.1	1.75	56.7	42.1	34.3	25.4	20.4	17.3	15.4	12.6	10.5	8.90	5.70	4.77
12FTG 120	1.80	247	186	149	142	96.3	72.3	1.85	57.9	44.2	36.3	26.5	21.3	18.3	16.3	13.3	11.1	9.39	6.02	5.07
	1.75	284	208	161	152	99.7	74.6	1.80	62.1	46.0	37.6	27.8	22.3	19.0	16.9	13.8	11.5	9.78	6.27	5.27
	1.67	307	227	170	158	102	75.2	1.75	63.3	47.0	38.3	28.4	22.7	19.4	17.2	14.1	11.7	9.93	6.37	5.33
12FTG 125	1.80	277	209	167	159	108	81.1	1.85	64.5	49.2	40.4	29.5	23.7	20.3	18.1	14.8	12.3	10.5	6.70	5.64
	1.75	319	234	181	170	112	83.6	1.80	69.1	51.3	41.8	31.0	24.8	21.1	18.8	15.4	12.8	10.9	6.98	5.87
	1.67	344	255	190	178	114	84.3	1.75	70.5	52.3	42.6	31.6	25.3	21.6	19.2	15.7	13.1	11.1	7.08	5.93
12FTG 155	1.80	336	253	202	190	131	98.2	1.85	78.1	59.6	48.9	35.8	28.7	25.5	21.9	17.9	14.9	12.7	8.12	6.83
	1.75	386																		

CELLYTE AGM - Front Terminal 12FTA Watts per Cell @ 20 C.

SEC Bloc AGM TYPE	END Volts / CELL	DISCHARGE W P C @ 20 C						END Volts / CELL	DISCHARGE DATA Watts Per Cell AT 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		1	1.5	2	3	4	5	6	8	10	12	20	24
12FTA40	1.80	191	145	118	111	76.7	57.9	1.85	48.4	36.6	29.8	21.8	17.4	14.8	13.1	10.5	8.62	7.35	4.72	3.98
	1.75	210	155	128	121	79.4	59.7	1.80	49.6	37.8	30.7	22.7	18.1	15.3	13.5	10.9	8.87	7.61	4.89	4.13
	1.67	229	167	134	127	81.2	59.9	1.75	50.1	38.4	31.3	23.0	18.4	15.6	13.7	11.0	8.99	7.66	4.93	4.13
12FTA55	1.80	233	177	144	136	93.8	70.8	1.85	59.1	44.7	36.5	26.6	21.2	18.1	16.0	12.9	10.5	8.98	5.77	4.86
	1.75	256	190	156	147	97.1	73.0	1.80	60.6	46.2	37.5	27.7	22.1	18.7	16.5	13.3	10.8	9.30	5.98	5.04
	1.67	280	204	164	155	99.2	73.3	1.75	61.2	46.9	38.2	28.2	22.4	19.0	16.8	13.5	11.0	9.36	6.02	5.05
12FTA80*	1.80	339	258	210	199	136	103	1.85	86.0	65.1	53.0	38.7	30.9	26.4	23.3	18.7	15.3	13.1	8.40	7.07
	1.75	373	276	227	215	141	106	1.80	88.1	67.2	54.8	40.3	32.2	27.2	24.1	19.4	15.8	13.5	8.69	7.33
	1.67	407	297	239	226	144	107	1.75	89.0	68.2	55.6	40.9	32.7	27.7	24.4	19.6	16.0	13.6	8.76	7.34
12FTA 100	1.80	424	322	262	247	170	129	1.85	107	81.3	66.3	48.4	38.6	33.0	29.1	23.4	19.2	16.3	10.5	8.84
	1.75	466	345	284	268	176	133	1.80	110	84.0	68.5	50.4	40.2	34.0	30.1	24.2	19.7	16.9	10.9	9.17
	1.67	508	371	299	282	180	133	1.75	111	85.3	69.5	51.2	40.8	34.6	30.5	24.5	20.0	17.0	10.9	9.18
12FTA 105	1.80	445	339	275	259	179	135	1.85	113	85.4	69.6	50.8	40.6	34.6	30.5	24.6	20.1	17.1	11.0	9.28
	1.75	489	362	298	281	185	139	1.80	116	88.2	71.9	52.9	42.2	35.7	31.6	25.4	20.7	17.8	11.4	9.63
	1.67	534	389	314	295	189	140	1.75	117	89.5	73.0	53.7	42.9	36.3	32.0	25.7	21.0	17.9	11.5	9.64
12FTA 105us	1.80	431	328	267	251	174	131	1.85	111	83.8	68.3	49.8	39.8	33.9	30.0	24.1	19.7	16.8	10.8	9.11
	1.75	475	351	290	273	180	135	1.80	113	86.5	70.6	51.9	41.4	35.1	31.0	24.9	20.3	17.4	11.2	9.44
	1.67	518	378	304	286	184	136	1.75	115	87.8	71.6	52.7	42.0	35.6	31.4	25.2	20.6	17.5	11.3	9.45
12FTA 120	1.80	484	368	299	283	195	147	1.85	124	93.5	76.2	55.6	44.4	37.9	33.4	26.9	22.0	18.8	12.1	10.2
	1.75	532	394	325	307	201	151	1.80	127	96.6	78.8	57.9	46.3	39.2	34.6	27.9	22.7	19.4	12.5	10.5
	1.67	580	423	341	323	206	152	1.75	128	98.1	80.0	58.9	46.9	39.8	35.1	28.2	23.0	19.6	12.6	10.6
12FTA 125	1.80	542	413	335	317	218	165	1.85	138	104	84.8	61.9	49.5	42.2	37.2	30.0	24.5	20.9	13.4	11.3
	1.75	597	442	364	344	226	170	1.80	141	108	87.7	64.5	51.5	43.6	38.5	31.0	25.2	21.6	13.9	11.7
	1.67	651	475	382	362	231	170	1.75	142	109	89.0	65.5	52.2	44.2	39.1	31.3	25.6	21.8	14.0	11.7
12FTA 155	1.80	657	500	406	380	264	199	1.85	167	126	103	75.0	59.9	52.9	45.1	36.3	29.7	25.3	16.3	13.7
	1.75	722	535	441	412	274	206	1.80	171	130	105	78.1	62.3	54.7	46.6	37.5	30.5	26.2	16.8	14.2
	1.67	788	575	463	433	280	206	1.75	172	132	108	79.3	63.3	55.5	47.3	37.9	31.0	26.4	17.0	14.2
12FTA 175	1.80	741	564	459	380	298	225	1.85	188	142	116	84.7	67.6	59.7	50.9	41.0	34.1	29.3	18.7	15.9
	1.75	816	604	497	412	309	232	1.80	193	147	118	88.1	70.4	61.7	52.6	42.4	34.5	29.6	19.0	16.0
	1.67	890	649	523	433	316	233	1.75	195	149	122	89.6	71.4	62.7	53.4	42.8	35.6	30.5	19.5	16.5

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

*12FTA80S - available in case size 495 mm x 110 mm x 230 mm

CELLYTE Gel - Front Terminal 12FTG Watts per Cell @ 20 C.

SEC Bloc Gel TYPE	END Volts / CELL	DISCHARGE W P C @ 20 C						END Volts / CELL	DISCHARGE DATA Watts Per Cell AT 20 C											
		DISCHARGE TIME IN MINUTES							DISCHARGE TIME IN HOURS											
		5	10	15	20	30	45		60	1.5	2	3	4	5	6	8	10	12	20	24
12FTG 40	1.80	181	138	112	105.6	72.9	55.0	1.85	46.4	35.1	28.8	21.1	17.0	14.5	12.8	10.4	8.62	7.35	4.72	3.98
	1.75	199	147	122	115	75.4	56.7	1.80	47.6	36.3	29.6	22.0	17.6	15.0	13.3	10.8	8.87	7.61	4.89	4.13
	1.67	217	159	128	120	77.1	56.9	1.75	48.1	36.8	30.2	22.3	17.9	15.2	13.5	10.9	8.99	7.66	4.93	4.13
12FTG 55	1.80	221	168	137	129	89.1	67.2	1.85	56.8	42.9	35.2	25.8	20.7	17.8	15.7	12.7	10.5	8.98	5.77	4.86
	1.75	243	180	149	140	92.2	69.3	1.80	58.2	44.3	36.2	26.9	21.6	18.4	16.2	13.2	10.8	9.30	5.98	5.04
	1.67	266	194	156	147	94.2	69.6	1.75	58.7	45.0	36.9	27.3	21.9	18.6	16.4	13.3	11.0	9.36	6.02	5.05
12FTG 80*	1.80	322	245	199	189	130	97.8	1.85	82.5	62.5	51.2	37.5	30.1	25.8	22.8	18.5	15.3	13.1	8.40	7.07
	1.75	354	262	216	205	134	101	1.80	84.6	64.5	52.9	39.1	31.4	26.7	23.6	19.2	15.8	13.5	8.69	7.33
	1.67	386	282	227	215	137	101	1.75	85.4	65.5	53.7	39.7	31.8	27.1	23.9	19.4	16.0	13.6	8.76	7.34
12FTG 100	1.80	402	306	249	235	162	122	1.85	103	78.1	64.0	46.9	37.7	32.3	28.5	23.2	19.2	16.3	10.5	8.84
	1.75	443	328	270	255	168	126	1.80	106	80.6	66.1	48.9	39.2	33.4	29.5	24.0	19.7	16.9	10.9	9.17
	1.67	483	352	284	267	171	127	1.75	107	81.9	67.1	49.6	39.8	33.9	29.9	24.2	20.0	17.0	10.9	9.18
12FTG 105	1.80	423	322	261	246	170	128	1.85	108	82.0	67.2	49.3	39.6	33.9	29.9	24.3	20.1	17.1	11.0	9.28
	1.75	465	344	284	267	176	132	1.80	111	84.7	69.4	51.3	41.2	35.0	30.9	25.2	20.7	17.8	11.4	9.63
	1.67	507	370	298	281	180	133	1.75	112	86.0	70.4	52.1	41.8	35.6	31.4	25.4	21.0	17.9	11.5	9.64
12FTG 105us	1.80	410	312	254	239	165	125	1.85	106	80.4	65.9	48.3	38.8	33.3	29.4	23.9	19.7	16.8	10.8	9.11
	1.75	451	334	275	259	171	128	1.80	109	83.1	68.1	50.3	40.4	34.4	30.3	24.7	20.3	17.4	11.2	9.44
	1.67	492	359	289	272	175	129	1.75	110	84.3	69.1	51.1	41.0	34.9	30.8	25.0	20.6	17.5	11.3	9.45
12FTG 120	1.80	460	350	284	269	185	140	1.85	119	89.8	73.6	54.0	43.3	37.1	32.8	26.7	22.0	18.8	12.1	10.2
	1.75	505	374	308	292	191	144	1.80	122	92.7	76.0	56.2	45.1	38.4	33.9	27.6	22.7	19.4	12.5	10.5
	1.67	551	402	324	306	196	144	1.75	123	94.1	77.2	57.1	45.8	39.0	34.4	27.9	23.0	19.6	12.6	10.6
12FTG 125	1.80	515	392	319	301	207	156	1.85	132	100	81.9	60.1	48.2	41.3	36.5	29.7	24.5	20.9	13.4	11.3
	1.75	567	420	346	327	215	161	1.80	135	103	84.6	62.5	50.2	42.7	37.7	30.7	25.2	21.6	13.9	11.7
	1.67	618	451	363	344	219	162	1.75	137	105	85.9	63.5	50.9	43.4	38.3	31.0	25.6	21.8	14.0	11.7
12FTG 155	1.80	624	475	386	361	251	190	1.85	160	121	99.1	72.7	58.4	51.8	44.2	35.9	29.7	25.3	16.3	13.7
	1.75	686	508	419	392	260	195	1.80	164	125	101	75.7	60.8	53.6	45.7	37.				

CELLYTE 12FTA&G Bloc Data & Dimensions

SEC Battery Type	SEC Battery Type	Nominal Capacity 1.80 vpc	Short Circuit Amps	Internal Resistance Ohms	Maximum Charge Current	Female Terminal Type	Battery Weight		Overall Battery Dimensions					
							Length		Width		Height			
							KG	lbs	Inch	mm	Inch	mm	Inch	mm
12FTG 40	12FTA 40	45	1350	6.2	7	FT4 - M6	14.6	32.1	10.83	275	4.134	105	8.858	225
12FTG 55	12FTA 55	55	1900	5.8	10	FT4 - M6	18.0	39.6	10.83	275	4.134	105	8.858	225
12FTG 80	12FTA 80	80	2400	5.2	15	FT5 - M8	28.0	61.6	15.55	395	4.331	110	11.34	288
12FTG 100	12FTA 100	100	3000	5.1	18	FT5 - M8	34.0	74.8	15.55	395	4.331	110	11.34	288
12FTG 105	12FTA 105	105	3200	5.0	19	FT5 - M8	35.0	77.0	21.65	550	4.331	110	9.37	238
12FTG 105 _{us}	12FTA 105 _{us}	103	3000	5.1	19	FT5 - M8	35.0	77.0	19.29	490	4.331	110	9.055	230
12FTG 120	12FTA 120	120	3550	4.8	19	FT5 - M8	38.0	83.6	21.65	550	4.331	110	9.37	238
12FTG 125	12FTA 125	125	4200	4.7	25	FT5 - M8	42.0	92.4	21.65	550	4.331	110	11.34	288
12FTG 155	12FTA 155	155	4800	4.5	30	FT5 - M8	49.2	108.2	21.65	550	4.331	110	11.34	288
12FTG 175	12FTA 175	175	5300	4.2	32	FT5 - M8	56.0	123	21.65	550	4.331	110	12.6	320

6 mm Female Terminal - FT 4 = 16 mm with M6 Bolt
 8 mm Female Terminal - FT 5 = 16 mm with M8 Bolt

SPECIFICATION:

- * POSITIVE PLATE: Virgin pure lead /1.6% Alloy pasted flat plate
- * NEGATIVE PLATE: 0.3% Tin 0.12% Calcium Alloy pasted flat plate
- * ELECTROLYTE: Dilute sulphuric acid or gelled
- * CATALYST VENT: German Valve with Optional Catalyst
- * CONTAINER: ABS grade V-0 as Standard
- * SEPARATORS: Absorbed Glass Mat (for FTA)
- * SEPARATORS: Micro porous separator (for FTG)
- * FLOAT VOLTAGE: 2.25 Vpc ± 0.01 at 20 to 25°C
- * MAX CHARGE VOLTAGE: 2.35 Vpc ± 0.01 at 20 to 25°C
- * SAFETY ONE WAY VALVE: 1.5 to 2.5 p.s.i Self-resealing
- * TERMINALS: Heavy duty female copper insert with M8 bolt
- * INTERCONNECTS: Insulated Copper bar

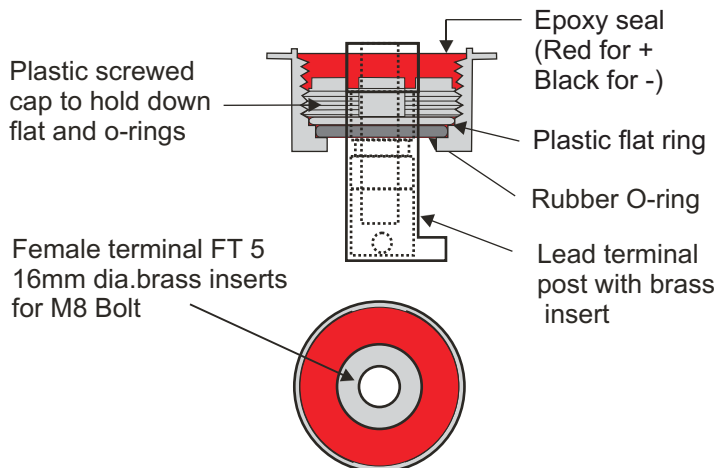
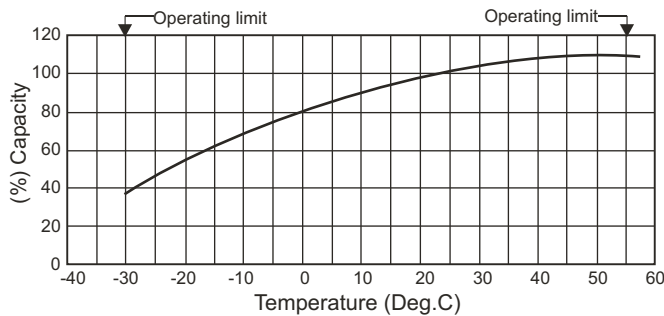
APPLICATIONS

- * Telecommunications
- * Power Stations
- * UPS- Uninterruptible Power
- * Standby Power Systems
- * Emergency lighting
- * Fire & security
- * Switchgear
- * Power Control systems
- * Cellular radio
- * PV -Photovoltaic Systems
- * Alternative Energy Systems

Extra Features of the SEC 12FTA - AGM - Battery

Conventional sealed Valve Regulated Lead acid batteries using Absorbed Glass Mat (AGM) technology are used in temperature controlled conditions for Float Charge standby applications.

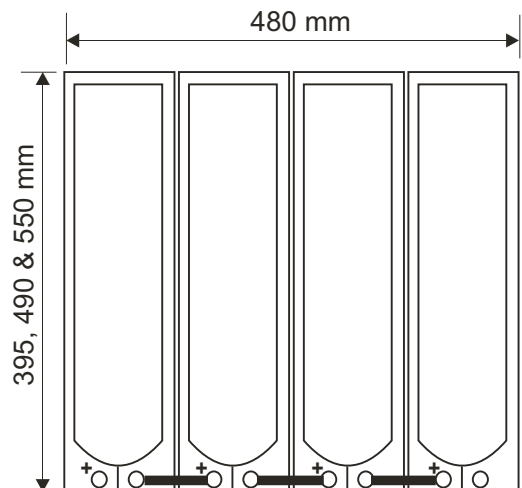
CELLYTE 12FTA batteries employing Monobloc Catalyst in the cell head space, a deep cycle special Virgin pure Lead Tin (1.6%) positive plate alloy, can be used in environments with temperatures up to 30C. in areas of unstable (cyclic) power conditions- instead of the more expensive gelled electrolyte batteries. At lower cost Calcium Tin plate is also available.



TYPICAL TRIPLE SEAL DETAIL

Applicable Standards

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

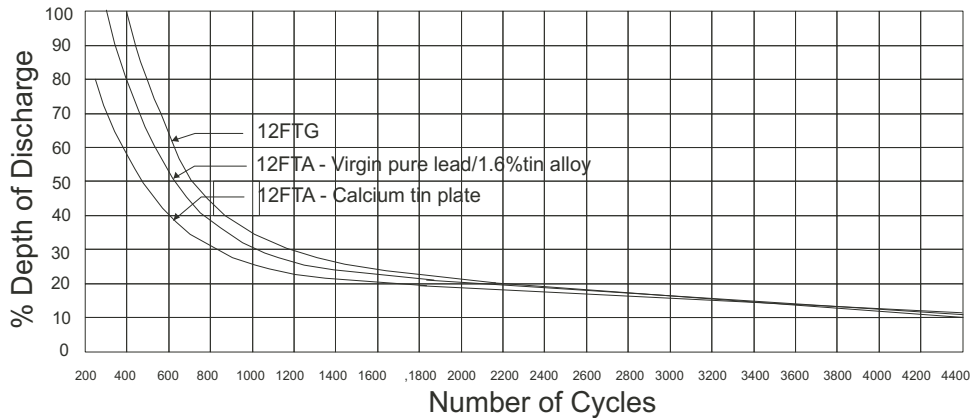


Typical Layout and wiring of 12FTA & G 80 to 175 in a 19" rack

Constant Voltage Charge

It is recommended that **CELLYTE** 12FTA & G batteries use the constant voltage method of charging. The setting of the charge voltage must be regularly checked, to optimized the battery performance & life it is necessary to ensure that the voltage is kept within the following limits:

Float Service Voltage 2.25 Vpc ± 0.01 Vpc at 20C.



Battery Deep Cycling Capability - 12FTA

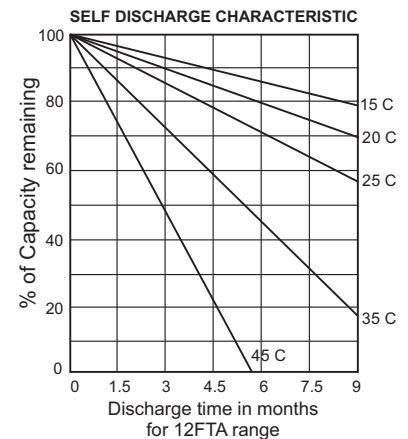
This range of front terminal batteries has been designed to achieve maximum life when used in float service at 20C. However when batteries are used in location of unreliable power supplies and are subject to frequent power outages the batteries are infact being deep cycled. If the power outage is longer than the designed battery support time then the batteries are being 80% deep cycled, often daily. For this application we recommend that the deep cycle 12FTG batteries are used. There are other applications where the power supply is more reliable but still subject to some power outages. For these applications we have designed the Virgin Pure Lead Tin (1.6%) positive plate 12FTA AGM batteries, which can be supplied at a considerably lower cost than the gelled electrolyte batteries. At lower cost a Calcium Tin plate is available.

Battery Float Charging (Temperature compensation)

Temp. Deg.C	Float Charge Volts/Cell
5	2.31
10	2.29
15	2.27
20	2.25
25	2.25
30	2.23
35	2.21

Temperature compensation is the process whereby the charge voltage is changed as a function of the battery temperature. However the catalyst/vent reduces the need for temperature compensation up to 30°C

For higher or lower temperatures outside the table range use temperature correction factor of 0.004 ± 0.01 per cell, per deg.C



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.

 <p>CELLYTE 2CMT Modular</p>	 <p>CELLYTE 2TLAM/G Tubular</p>	 <p>CELLYTE 2CMT/2TLAM/G Range</p>	
 <p>CELLYTE FTA/G Range</p>	 <p>CELLYTE 6-12TLA Range</p>	 <p>CELLYTE 6-12TUA Range</p>	 <p>CELLYTE 6-12 TLA/G Range</p>
 <p>CELLYTE 6-12TSG Range</p>	 <p>MICROLYTE Plus AGM Range</p>	 <p>MICROLYTE Red Top Range</p>	 <p>CELLYTE 2TLA/G Range</p>
 <p>SEC ETG OPzV Range</p>	 <p>SEC Tubular OPzS Range</p>	 <p>SEC Plante PS & PL Range</p>	 <p>SEC Nickel-Cadmium Range</p>

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