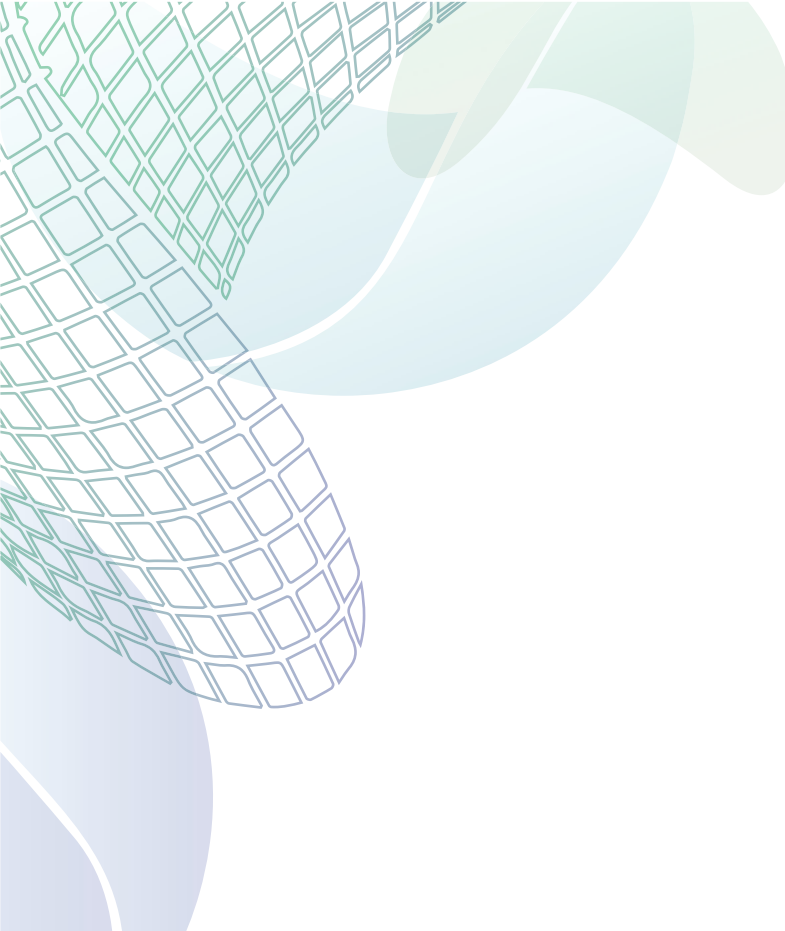




CELLYTE FTA & FTG AGM/GEL SERIES

12V FRONT TERMINAL FLAT PLATE AGM/GEL BATTERY



SEC - 12 - FTA/FTG

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SEC Industrial Battery Co. Ltd.

Battery Profile



DESIGN LIFE

12 year design life in float service @ 25°C fitted with Catalyst.

40Ah-175Ah at C/10 to 1.80Vpc at 25°C.

250 Cycles for AGM
300 Cycles for GEL

MANUFACTURED TO COMPLY

IEC 60896-21/22-2004
BS 6290 Part 4
Eurobat
UL Component approval
ISO 9001:2000
ISO 14001:2004

APPLICATIONS

Telecommunications
Power Stations
Wind & Alternative Energy
Power Control Systems
Alternative Energy Systems
Emergency lighting
Standby Power Systems
Cellular Radio
Switchgear
UPS

SPECIFICATIONS

Positive electrode:	Calcium Grid or Virgin Pure Lead 1.6% Tin
Negative electrode:	Calcium Grid Plate
Float Voltage:	2.25 vpc $\pm$ 1% at 25°C
Max.Charge Voltage:	2.35 vpc $\pm$ 1% at 25°C
Container:	ABS grade as standard / flame retardant V-0 material as optional
Electrolyte:	Sulphuric Acid/Thixotropic GEL
Safety Valve:	1-3 PSI Self-Resealing
Separators:	Absorbed Glass Mat/Micro porous separator
Terminals:	Integral Copper Insert for Stainless Steel Bolt

INNOVATIVE FEATURES

- Valve regulated with Catalyst
- Propriety virgin Lead 1.6% Tin Alloy
- Latest plates formation technology
- Uniform cell cooling
- Increased Capacity with Catalyst
- Never requires addition of water
- Spill proof and leak proof
- Very low gassing on float charge
- Explosion proof / Increased safety
- Operates at low internal pressure



CAPACITY

Ampere Hour @ 25°C



SEC Bloc Type	End Volts /Cell	DISCHARGE DATA AMPS			End Volts /Cell	DISCHARGE DATA AMPERE HOURS at 25°C											
		DISCHARGE TIME IN MINUTES				DISCHARGE TIME IN HOURS											
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr	
12-FTA-40	1.80	63.7	40.8	30.5	1.85	25.9	28.5	30.7	33.6	35.7	37.6	39.7	42.4	43.2	44.1	47.5	
	1.75	69.2	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	49.4	
	1.67	72.7	43.2	31.7	1.75	27.5	30.3	32.6	35.7	37.8	39.9	42.1	45.0	45.9	46.8	50.4	
12-FTA-55	1.80	77.9	49.9	37.3	1.85	31.7	34.9	37.5	41.1	43.6	45.9	48.5	51.8	52.9	53.9	58.1	
	1.75	84.5	51.6	38.4	1.80	33.0	36.3	39.0	42.9	45.2	47.8	50.5	53.9	55.0	56.1	60.5	
	1.67	88.8	52.8	38.7	1.75	33.6	37.0	39.8	43.7	46.3	48.7	51.5	55.0	56.1	57.2	61.7	
12-FTA-80	1.80	113	76.6	54.2	1.85	46.1	50.7	54.6	60.0	63.4	66.8	70.6	75.3	76.9	78.4	84.5	
	1.75	123	75.1	55.9	1.80	48.0	52.8	56.8	62.4	66.0	69.5	73.2	78.4	80.0	81.6	88.0	
	1.67	129	76.6	58.4	1.75	48.9	53.8	57.9	63.6	67.2	70.9	74.9	79.9	81.6	83.2	89.7	
12-FTA-100	1.80	142	90.7	67.7	1.85	57.7	63.4	68.2	75.0	79.2	83.5	88.2	94.2	96.1	98.0	106	
	1.75	154	93.9	69.8	1.80	60.0	66.0	71.0	78.0	82.4	86.9	91.8	98.0	100	102	110	
	1.67	161	95.9	70.4	1.75	61.2	67.3	72.4	79.5	84.0	88.5	93.6	99.9	102	104	112	
12-FTA-105	1.80	149	95.2	71.1	1.85	60.5	66.6	71.6	78.6	83.2	87.5	92.4	98.9	101	103	111	
	1.75	161	98.6	73.3	1.80	63.0	69.3	74.6	81.9	86.6	91.0	96.4	103	105	107	115	
	1.67	170	101	74.0	1.75	64.2	70.7	76.0	83.4	88.3	93.0	98.3	105	107	109	118	
12-FTA-105-US	1.80	144	92.4	69.0	1.85	59.4	65.3	70.2	77.1	81.6	86.0	90.6	96.8	99.0	101	109	
	1.75	157	95.6	71.1	1.80	61.8	68.0	73.1	80.3	84.8	89.5	94.6	101	103	105	113	
	1.67	164	97.7	71.7	1.75	63.0	69.3	74.6	81.9	86.6	91.3	96.4	103	105	107	115	
12-FTA-120	1.80	162	104	77.4	1.85	66.3	72.9	78.4	86.1	91.2	96.0	101	108	111	113	122	
	1.75	175	107	79.7	1.80	69.0	75.9	81.6	89.7	94.8	99.9	106	113	115	117	126	
	1.67	184	110	80.4	1.75	70.4	77.4	83.2	91.5	96.7	102	107	115	117	120	129	
12-FTA-125	1.80	181	116	86.7	1.85	72.1	79.3	85.2	93.6	99.1	104	110	118	120	122	132	
	1.75	197	120	89.4	1.80	75.0	82.5	88.8	97.5	103	109	115	122	125	127	138	
	1.67	207	123	90.2	1.75	76.5	84.1	90.4	99.3	105	111	117	125	127	130	140	
12-FTA-155	1.80	220	141	105	1.85	89.4	98.3	106	116	123	129	137	146	149	152	164	
	1.75	238	145	108	1.80	93.0	102	110	121	128	135	142	152	155	158	170	
	1.67	250	149	109	1.75	94.8	104	112	123	130	137	145	155	158	161	174	
12-FTA-175	1.80	248	159	119	1.85	103	113	121	133	141	149	157	168	171	174	188	
	1.75	269	164	122	1.80	105	116	124	137	144	152	161	171	175	179	192	
	1.67	283	168	123	1.75	109	120	129	142	150	158	167	178	181	185	200	

SEC Bloc Type	End Volts /Cell	DISCHARGE DATA AMPS			End Volts /Cell	DISCHARGE DATA AMPERE HOURS at 25°C										
		DISCHARGE TIME IN MINUTES				DISCHARGE TIME IN HOURS										
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr
12-FTG-40	1.80	55.4	35.9	27.1	1.85	23.4	26.0	28.2	30.9	33.4	35.3	37.5	40.2	41.1	42.3	46.6
	1.75	60.2	37.1	27.9	1.80	24.3	27.0	29.4	32.3	34.7	36.8	39.0	41.9	42.8	44.0	48.5
	1.67	63.2	38.0	28.2	1.75	24.8	27.6	30.0	32.9	35.4	37.5	39.8	42.7	43.6	44.9	49.4
12-FTG-55	1.80	67.8	43.9	33.2	1.85	28.5	31.7	34.5	37.8	40.8	43.2	45.8	49.2	50.2	51.7	56.9
	1.75	73.5	45.4	34.2	1.80	29.7	33.0	35.9	39.5	42.4	44.9	47.7	51.2	52.3	53.9	59.3
	1.67	77.3	46.5	34.4	1.75	30.3	33.7	36.6	40.2	43.2	45.8	48.6	52.2	53.3	54.9	60.5
12-FTG-80	1.80	98.3	67.4	48.2	1.85	41.5	46.2	50.2	55.2	59.2	62.8	66.6	71.6	73.0	75.2	82.8
	1.75	107	66.1	49.8	1.80	43.2	48.0	52.2	57.3	61.6	65.3	69.4	74.5	76.0	78.3	86.2
	1.67	112	67.4	52.0	1.75	44.0	49.0	53.2	58.5	62.8	66.5	70.8	75.9	77.5	79.9	87.8
12-FTG-100	1.80	124	79.8	60.3	1.85	51.9	57.7	62.8	69.0	74.0	78.5	83.4	89.5	91.3	94.1	104
	1.75	134	82.6	62.1	1.80	54.0	60.0	65.3	71.7	77.1	81.5	86.8	92.8	95.0	97.9	108
	1.67	140	84.4	62.7	1.75	55.1	61.2	66.6	73.2	78.6	83.3	88.2	94.9	96.9	99.8	110
12-FTG-105	1.80	130	83.8	63.3	1.85	54.5	60.6	65.9	72.3	77.8	82.4	87.5	93.6	95.9	98.8	109
	1.75	140	86.8	65.2	1.80	56.7	63.0	68.6	75.3	80.8	85.8	91.1	97.6	99.8	103	113
	1.67	148	88.9	65.9	1.75	57.8	64.3	69.9	76.8	82.4	87.5	92.9	100	102.0	105	115
12-FTG-105-US	1.80	125	81.3	61.4	1.85	53.5	59.4	64.6	71.0	76.4	80.9	85.8	92.0	94.0	96.9	107
	1.75	137	84.1	63.3	1.80	55.6	61.8	67.2	73.8	79.5	84.0	89.4	95.9	97.9	101	111
	1.67	143	86.0	63.8	1.75	56.7	63.0	68.6	75.3	81.0	85.8	91.1	97.6	100	103	113
12-FTG-120	1.80	141	91.5	68.9	1.85	59.7	66.4	72.2	79.2	85.2	90.3	95.9	103	105	108	119
	1.75	152	94.2	70.9	1.80	62.1	69.0	75.1	82.5	88.7	93.9	99.6	107	109	113	124
	1.67	160	96.8	71.6	1.75	63.3	70.4	76.6	84.0	90.4	95.8	102	109	111	115	126
12-FTG-125	1.80	157	102	77.2	1.85	64.9	72.1	78.4	86.1	92.7	98.0	104	112	114	118	129
	1.75	171	106	80.0	1.80	67.5	75.1	81.6	89.7	96.4	102	108	116	119	122	135
	1.67	180	108	80.0	1.75	68.8	76.5	83.2	91.5	98.3	104	110	118	121	125	137
12-FTG-155	1.80	191	124	93.5	1.85	80.4	89.4	97.2	107	115	122	129	138	142	146	161
	1.75	207	128	96.0	1.80	83.7	93.1	101	111	120	127	134	144	147	151	167
	1.67	218	131	97.0	1.75	85.3	94.9	103	113	122	129	137	147	150	155	170
12-FTG-175	1.80	216	140	106	1.85	92.4	103	112	123	132	140	148	159	163	167	184
	1.75	234	144	109	1.80	94.5	105	114	126	135	143	152	163	166	171	189
	1.67	246	148	109	1.75	98.0	109	119	130	140	148	157	169	172	178	196

Actual Battery Discharge Data may be $\pm 5\%$ of figures shown. 12-FTA-40 / 12-FTA-55 / 12-FTG-40 / 12-FTG-55 do not fir with catalyst.

Worlds First Monobloc Catalyst Battery

The SEC CELLYTE 12FTA and SEC CELLYTE 12FTG batteries are the first Monobloc batteries to use the Catvent Monobloc Catalyst ventcap design. This was introduced for several very important reasons. The float current is reduced by up to 50% by using a catalyst, this reduce the float service energy required by the battery, the heat generated in the cabinet and thus the air-conditioning needed to cool the battery cabinets. The 12FTA/FTG batteries are mainly used on shelves with four batteries per shelf connected in series. When fitted with the optional catalyst the voltage of each battery will be very uniform making the paralleling of up to 4 shelves of batteries possible at temperature up to 30°C without a reduction in battery life.

SEC Bloc Type	End Volts /Cell	DISCHARGE DATA AMPS			End Volts /Cell	DISCHARGE DATA AMPS at 25°C											
		DISCHARGE TIME IN MINUTES				DISCHARGE TIME IN HOURS											
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr	
12-FTA-40	1.80	63.7	40.8	30.5	1.85	25.9	19.0	15.4	11.2	8.92	7.52	6.62	5.30	4.32	3.68	1.98	
	1.75	69.2	42.2	31.4	1.80	27.0	19.8	16.0	11.7	9.28	7.82	6.88	5.51	4.50	3.83	2.06	
	1.67	72.7	43.2	31.7	1.75	27.5	20.2	16.3	11.9	9.46	7.97	7.02	5.62	4.59	3.90	2.10	
12-FTA-55	1.80	77.9	49.9	37.3	1.85	31.7	23.3	18.8	13.7	10.9	9.18	8.08	6.47	5.29	4.49	2.42	
	1.75	84.5	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	2.52	
	1.67	88.8	52.8	38.7	1.75	33.6	24.7	19.9	14.6	11.6	9.74	8.58	6.87	5.61	4.77	2.57	
12-FTA-80	1.80	113	76.6	54.2	1.85	46.1	33.8	27.3	20.0	15.9	13.4	11.8	9.41	7.69	6.53	3.52	
	1.75	123	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	3.67	
	1.67	129	76.6	58.4	1.75	48.9	35.9	29.0	21.2	16.8	14.2	12.5	10.0	8.16	6.93	3.74	
12-FTA-100	1.80	142	90.7	67.7	1.85	57.7	42.3	34.1	25.0	19.8	16.7	14.7	11.8	9.61	8.17	4.40	
	1.75	154	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	4.58	
	1.67	161	95.9	70.4	1.75	61.2	44.9	36.2	26.5	21.0	17.7	15.6	12.5	10.2	8.67	4.67	
12-FTA-105	1.80	149	95.2	71.1	1.85	60.5	44.4	35.8	26.2	20.8	17.5	15.4	12.4	10.1	8.58	4.62	
	1.75	161	98.6	73.3	1.80	63.0	46.2	37.3	27.3	21.7	18.2	16.1	12.9	10.5	8.92	4.81	
	1.67	170	101	74.0	1.75	64.2	47.1	38.0	27.8	22.1	18.6	16.4	13.1	10.7	9.08	4.91	
12-FTA-105-US	1.80	144	92.4	69.0	1.85	59.4	43.5	35.1	25.7	20.4	17.2	15.1	12.1	9.9	8.41	4.54	
	1.75	157	95.6	71.1	1.80	61.8	45.3	36.6	26.8	21.2	17.9	15.8	12.6	10.3	8.75	4.71	
	1.67	164	97.7	71.7	1.75	63.0	46.2	37.3	27.3	21.7	18.3	16.1	12.9	10.5	8.92	4.81	
12-FTA-120	1.80	162	104	77.4	1.85	66.3	48.6	39.2	28.7	22.8	19.2	16.8	13.5	11.1	9.39	5.07	
	1.75	175	107	79.7	1.80	69.0	50.6	40.8	29.9	23.7	20.0	17.6	14.1	11.5	9.75	5.27	
	1.67	184	110	80.4	1.75	70.4	51.6	41.6	30.5	24.2	20.4	17.9	14.4	11.7	10.0	5.37	
12-FTA-125	1.80	181	116	86.7	1.85	72.1	52.9	42.6	31.2	24.8	20.8	18.3	14.7	12.0	10.2	5.50	
	1.75	197	120	89.4	1.80	75.0	55.0	44.4	32.5	25.8	21.7	19.1	15.3	12.5	10.6	5.73	
	1.67	207	123	90.2	1.75	76.5	56.1	45.2	33.1	26.3	22.2	19.5	15.6	12.7	10.8	5.83	
12-FTA-155	1.80	220	141	105	1.85	89.4	65.5	52.9	38.7	30.7	25.8	22.8	18.2	14.9	12.7	6.83	
	1.75	238	145	108	1.80	93.0	68.0	55.0	40.3	32.0	26.9	23.7	19.0	15.5	13.2	7.10	
	1.67	250	149	109	1.75	94.8	69.3	56.0	41.0	32.5	27.4	24.2	19.4	15.8	13.4	7.24	
12-FTA-175	1.80	248	159	119	1.85	103	75.3	60.5	44.3	35.3	29.7	26.2	21.0	17.1	14.5	7.83	
	1.75	269	164	122	1.80	105	77.0	62.0	45.5	36.0	30.4	26.8	21.4	17.5	14.9	8.02	
	1.67	283	168	123	1.75	109	79.9	64.4	47.2	37.4	31.5	27.8	22.2	18.1	15.4	8.32	

SEC Bloc Type	End Volts /Cell	DISCHARGE DATA AMPS			End Volts /Cell	DISCHARGE DATA AMPS at 25°C											
		DISCHARGE TIME IN MINUTES				DISCHARGE TIME IN HOURS											
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr	
12-FTG-40	1.80	55.4	35.9	27.1	1.85	23.4	17.3	14.1	10.3	8.34	7.06	6.25	5.03	4.11	3.53	1.94	
	1.75	60.2	37.1	27.9	1.80	24.3	18.0	14.7	10.8	8.68	7.35	6.50	5.24	4.28	3.67	2.02	
	1.67	63.2	38.0	28.2	1.75	24.8	18.4	15.0	11.0	8.85	7.50	6.63	5.34	4.36	3.74	2.06	
12-FTG-55	1.80	67.8	43.9	33.2	1.85	28.5	21.1	17.3	12.6	10.2	8.64	7.64	6.15	5.02	4.31	2.37	
	1.75	73.5	45.4	34.2	1.80	29.7	22.0	18.0	13.2	10.6	8.98	7.95	6.40	5.23	4.49	2.47	
	1.67	77.3	46.5	34.4	1.75	30.3	22.5	18.3	13.4	10.8	9.16	8.10	6.53	5.33	4.58	2.52	
12-FTG-80	1.80	98.3	67.4	48.2	1.85	41.5	30.8	25.1	18.4	14.8	12.6	11.1	8.95	7.30	6.27	3.45	
	1.75	107	66.1	49.8	1.80	43.2	32.0	26.1	19.1	15.4	13.1	11.6	9.31	7.60	6.53	3.59	
	1.67	112	67.4	52.0	1.75	44.0	32.7	26.6	19.5	15.7	13.3	11.8	9.49	7.75	6.66	3.66	
12-FTG-100	1.80	124	79.8	60.3	1.85	51.9	38.5	31.4	23.0	18.5	15.7	13.9	11.2	9.13	7.84	4.32	
	1.75	134	82.6	62.1	1.80	54.0	40.0	32.7	23.9	19.3	16.3	14.5	11.6	9.50	8.16	4.49	
	1.67	140	84.4	62.7	1.75	55.1	40.8	33.3	24.4	19.7	16.7	14.7	11.9	9.69	8.32	4.58	
12-FTG-105	1.80	130	83.8	63.3	1.85	54.5	40.4	33.0	24.1	19.5	16.5	14.6	11.7	9.59	8.23	4.53	
	1.75	140	86.8	65.2	1.80	56.7	42.0	34.3	25.1	20.2	17.2	15.2	12.2	10.0	8.57	4.71	
	1.67	148	88.9	65.9	1.75	57.8	42.9	35.0	25.6	20.6	17.5	15.5	12.5	10.2	8.74	4.79	
12-FTG-105-US	1.80	125	81.3	61.4	1.85	53.5	39.6	32.3	23.7	19.1	16.2	14.3	11.5	9.4	8.08	4.45	
	1.75	137	84.1	63.3	1.80	55.6	41.2	33.6	24.6	19.9	16.8	14.9	12.0	9.8	8.40	4.63	
	1.67	143	86.0	63.8	1.75	56.7	42.0	34.3	25.1	20.3	17.2	15.2	12.2	10.0	8.57	4.71	
12-FTG-120	1.80	141	91.5	68.9	1.85	59.7	44.3	36.1	26.4	21.3	18.1	16.0	12.9	10.5	9.00	4.96	
	1.75	152	94.2	70.9	1.80	62.1	46.0	37.6	27.5	22.2	18.8	16.6	13.4	10.9	9.38	5.17	
	1.67	160	96.8	71.6	1.75	63.3	46.9	38.3	28.0	22.6	19.2	17.0	13.6	11.1	9.57	5.25	
12-FTG-125	1.80	157	102	77.2	1.85	64.9	48.1	39.2	28.7	23.2	19.6	17.3	14.0	11.4	9.80	5.38	
	1.75	171	106	80.0	1.80	67.5	50.1	40.8	29.9	24.1	20.4	18.0	14.5	11.9	10.2	5.61	
	1.67	180	108	80.0	1.75	68.8	51.0	41.6	30.5	24.6	20.8	18.4	14.8	12.1	10.4	5.71	
12-FTG-155	1.80	191	124	93.5	1.85	80.4	59.6	48.6	35.6	28.7	24.3	21.5	17.3	14.2	12.2	6.69	
	1.75	207	128	96.0	1.80	83.7	62.1	50.5	37.0	29.9	25.3	22.3	18.0	14.7	12.6	6.96	
	1.67	218	131	97.0	1.75	85.3	63.3	51.5	37.7	30.5	25.8	22.8	18.4	15.0	12.9	7.08	
12-FTG-175	1.80	216	140	106	1.85	92.4	68.5	55.9	40.9	33.0	27.9	24.7	19.9	16.3	13.9	7.67	
	1.75	234	144	109	1.80	94.5	70.0	57.0	41.9	33.7	28.6	25.3	20.4	16.6	14.3	7.86	
	1.67	246	148	109	1.75	98.0	72.7	59.3	43.3	35.0	29.6	26.2	21.1	17.2	14.8	8.15	

Actual Battery Discharge Data may be $\pm 5\%$ of figures shown. 12-FTA-40 / 12-FTA-55 / 12-FTG-40 / 12-FTG-55 do not fir with catalyst.

Rugged Battery Construction

The SEC CELLYTE 12FTA batteries are constructed using heavy duty flat pasted plates and 'U' fold wrapped non woven Absorbed Glass Mat (AGM) seperator.

The SEC CELLYTE 12FTG batteries are constructed using advanced Gelled electrolyte ensuring reliable performance, safety, outstanding battery life and value.

This rugged construction ensures that the batteries can be used in UBC seismic zone 4 rated racks where the battery has to withstand the worst possible earthquake conditions and still continue to deliver reliable standby DC power.

SEC Bloc Type	End Volts /Cell	DISCHARGE DATA WATTS/CELL			End Volts /Cell	DISCHARGE DATA WATTS/CELL at 25°C											
		DISCHARGE TIME IN MINUTES				DISCHARGE TIME IN HOURS											
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr	
12-FTA-40	1.80	118	76.6	57.4	1.85	49.5	36.6	29.7	21.8	17.5	14.8	13.1	10.5	8.61	7.35	3.97	
	1.75	125	77.0	57.9	1.80	51.1	37.8	30.7	22.7	18.1	15.3	13.5	10.9	8.93	7.61	4.12	
	1.67	127	77.8	58.0	1.75	51.3	38.1	30.9	22.8	18.3	15.5	13.7	11.0	9.03	7.69	4.17	
12-FTA-55	1.80	144	93.7	70.2	1.85	60.6	44.8	36.2	26.7	21.4	18.1	16.0	12.9	10.5	8.98	4.86	
	1.75	152	94.2	70.8	1.80	62.5	46.2	37.4	27.7	22.0	18.7	16.5	13.3	10.9	9.30	5.04	
	1.67	155	95.0	70.8	1.75	62.7	46.5	37.8	27.9	22.4	18.9	16.7	13.5	11.0	9.40	5.10	
12-FTA-80	1.80	209	144	102	1.85	88.2	65.0	52.8	39.0	31.1	26.3	23.3	18.7	15.3	13.1	7.06	
	1.75	221	137	103	1.80	90.9	67.2	54.5	40.3	32.2	27.2	24.0	19.4	15.9	13.5	7.33	
	1.67	226	138	107	1.75	91.2	67.6	54.9	40.7	32.5	27.5	24.3	19.6	16.1	13.7	7.42	
12-FTA-100	1.80	263	170	127	1.85	110	81.3	65.9	48.7	38.8	32.9	29.1	23.4	19.2	16.3	8.83	
	1.75	277	171	129	1.80	114	84.0	68.2	50.4	40.2	34.0	30.1	24.2	19.8	16.9	9.16	
	1.67	282	173	129	1.75	114	84.6	68.7	50.8	40.6	34.4	30.4	24.5	20.1	17.1	9.27	
12-FTA-105	1.80	276	179	134	1.85	116	85.4	69.2	51.1	40.8	34.5	30.4	24.6	20.1	17.2	9.27	
	1.75	290	180	135	1.80	119	88.2	71.6	52.9	42.2	35.7	31.6	25.5	20.8	17.7	9.62	
	1.67	298	182	135	1.75	120	88.8	72.1	53.3	42.6	36.1	31.9	25.7	21.1	17.9	9.75	
12-FTA-105-US	1.80	266	173	130	1.85	114	83.8	67.8	50.1	40.0	33.9	29.9	24.0	19.7	16.8	9.11	
	1.75	283	174	131	1.80	117	86.5	70.2	51.8	41.3	35.1	31.0	24.9	20.4	17.4	9.42	
	1.67	287	176	131	1.75	117	87.1	70.8	52.4	41.8	35.5	31.3	25.2	20.7	17.6	9.55	
12-FTA-120	1.80	300	195	146	1.85	127	93.5	75.8	55.9	44.7	37.8	33.3	26.8	22.1	18.8	10.2	
	1.75	315	195	147	1.80	131	96.6	78.3	57.9	46.2	39.1	34.6	27.9	22.8	19.4	10.5	
	1.67	322	198	147	1.75	131	97.3	79.0	58.5	46.7	39.6	34.9	28.2	23.0	19.7	10.7	
12-FTA-125	1.80	335	218	163	1.85	138	102	82.3	60.8	48.6	41.0	36.2	29.2	23.9	20.4	11.0	
	1.75	355	219	165	1.80	142	105	85.2	63.0	50.2	42.5	37.6	30.2	24.8	21.1	11.5	
	1.67	362	221	165	1.75	143	106	85.8	63.5	50.7	43.1	38.0	30.6	25.0	21.3	11.6	
12-FTA-155	1.80	407	265	198	1.85	171	126	102	75.4	60.2	50.8	45.1	36.2	29.7	25.3	13.7	
	1.75	428	265	199	1.80	176	130	106	78.1	62.4	52.7	46.5	37.6	30.8	26.2	14.2	
	1.67	438	268	199	1.75	177	131	106	78.6	62.8	53.2	47.1	38.0	31.1	26.4	14.4	
12-FTA-175	1.80	459	298	224	1.85	197	145	117	86.4	69.2	58.5	51.7	41.7	34.1	29.0	15.7	
	1.75	484	299	225	1.80	199	147	119	88.1	70.2	59.6	52.7	42.3	34.7	29.6	16.0	
	1.67	495	302	225	1.75	203	151	122	90.5	72.3	61.2	54.2	43.5	35.6	30.4	16.5	

SEC Bloc Type	End Volts /Cell	DISCHARGE DATA WATTS/CELL			End Volts /Cell	DISCHARGE DATA WATTS/CELL at 25°C											
		DISCHARGE TIME IN mins				DISCHARGE TIME IN HOURS											
		15mins	30mins	45mins		1hr	1.5hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	24hr	
12-FTG-40	1.80	102	67.4	51.0	1.85	44.8	33.3	27.3	20.1	16.4	13.9	12.4	10.0	8.20	7.05	3.89	
	1.75	108	67.7	51.5	1.80	46.0	34.4	28.2	20.9	16.9	14.4	12.8	10.4	8.49	7.30	4.04	
	1.67	111	68.4	51.6	1.75	46.3	34.7	28.5	21.0	17.1	14.6	12.9	10.5	8.58	7.38	4.09	
12-FTG-55	1.80	125	82.4	62.5	1.85	54.5	40.7	33.3	24.6	20.0	17.0	15.1	12.2	10.0	8.62	4.76	
	1.75	132	82.9	63.1	1.80	56.3	42.0	34.5	25.5	20.7	17.6	15.6	12.7	10.4	8.93	4.94	
	1.67	135	83.7	63.0	1.75	56.5	42.3	34.7	25.7	20.9	17.8	15.8	12.8	10.5	9.03	5.00	
12-FTG-80	1.80	182	127	90.7	1.85	79.4	59.3	48.5	35.9	29.0	24.7	21.9	17.8	14.6	12.5	6.92	
	1.75	193	121	91.9	1.80	81.8	61.1	50.1	37.0	30.0	25.6	22.7	18.4	15.1	13.0	7.18	
	1.67	196	121	95.2	1.75	82.1	61.6	50.5	37.4	30.3	25.8	23.0	18.6	15.3	13.1	7.27	
12-FTG-100	1.80	229	150	113	1.85	99.3	74.0	60.7	44.8	36.3	30.9	27.5	22.2	18.2	15.7	8.67	
	1.75	241	151	115	1.80	102	76.4	62.7	46.3	37.6	31.9	28.4	22.9	18.8	16.2	8.98	
	1.67	245	152	115	1.75	103	76.9	63.2	46.8	38.0	32.4	28.7	23.3	19.1	16.4	9.10	
12-FTG-105	1.80	241	157	119	1.85	104	77.7	63.7	47.0	38.2	32.5	28.8	23.2	19.1	16.5	9.09	
	1.75	252	158	120	1.80	107	80.2	65.9	48.6	39.4	33.6	29.9	24.1	19.8	17.0	9.42	
	1.67	259	160	121	1.75	108	80.8	66.3	49.1	39.8	34.0	30.2	24.5	20.1	17.2	9.52	
12-FTG-105-US	1.80	231	153	116	1.85	102	76.2	62.4	46.1	37.5	31.9	28.3	22.9	18.7	16.1	8.93	
	1.75	247	153	117	1.80	105	78.7	64.5	47.7	38.8	32.9	29.3	23.7	19.4	16.7	9.25	
	1.67	250	155	117	1.75	106	79.2	65.1	48.1	39.1	33.3	29.6	23.9	19.7	16.9	9.35	
12-FTG-120	1.80	261	172	130	1.85	114	85.2	69.8	51.5	41.8	35.6	31.6	25.6	20.9	18.0	10.0	
	1.75	274	172	131	1.80	118	87.8	72.1	53.3	43.2	36.8	32.6	26.4	21.6	18.7	10.3	
	1.67	280	174	131	1.75	118	88.4	72.7	53.7	43.7	37.2	33.1	26.7	21.8	18.9	10.4	
12-FTG-125	1.80	290	191	145	1.85	124	92.5	75.8	55.9	45.5	38.6	34.3	27.8	22.7	19.6	10.8	
	1.75	308	193	148	1.80	128	95.6	78.3	57.9	47.0	40.0	35.4	28.7	23.6	20.2	11.2	
	1.67	315	194	146	1.75	128	96.1	79.0	58.5	47.5	40.4	35.9	29.0	23.8	20.5	11.3	
12-FTG-155	1.80	353	233	176	1.85	154	115	93.9	69.4	56.3	47.9	42.5	34.4	28.3	24.3	13.4	
	1.75	373	234	177	1.80	159	118	97.0	71.7	58.3	49.6	43.9	35.6	29.2	25.1	13.9	
	1.67	382	236	178	1.75	159	119	97.7	72.2	58.9	50.1	44.4	36.0	29.5	25.5	14.1	
12-FTG-175	1.80	400	263	199	1.85	177	132	108	79.7	64.7	55.0	48.8	39.5	32.5	27.8	15.4	
	1.75	421	263	201	1.80	179	134	109	81.2	65.7	56.0	49.7	40.3	32.9	28.3	15.7	
	1.67	431	266	199	1.75	183	137	113	83.1	67.6	57.5	51.0	41.4	33.8	29.2	16.2	

Actual Battery Discharge Data may be $\pm 5\%$ of figures shown. 12-FTA-40 / 12-FTA-55 / 12-FTG-40 / 12-FTG-55 do not fir with catalyst.

Extra Features of the SEC 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 virgin pure lead/Tin (1.6%) positive plate alloy, can be used in environments with temperature up to 30°C. In areas of unstable (cyclic) power conditions. Instead of the more expensive gelled batteries, a lower cost Calcium plate version is also available.

DIMENSIONS

Dimensions, Weights, Data

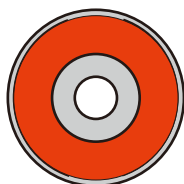
SEC Bloc Type	SEC Bloc Type	Nominal Capacity(Ah) 1.80vpc	Short Circuit Amps	Internal Resistance mΩ	Maximum Charge Current(A)	Female Terminal Type	Overall Battery Dimensions							
							Battery Weight		Length		Width		Height	
							kg	lbs	mm	inch	mm	inch	mm	inch
12-FTA-40	12-FTG-40	45	1350	9.50	9	FT4 - M6	14.6	32.2	275	10.83	105	4.13	225	8.86
12-FTA-55	12-FTG-55	55	1650	6.50	11	FT4 - M6	18.0	39.7	275	10.83	105	4.13	225	8.86
12-FTA-80	12-FTG-80	80	2400	6.00	16	FT5 - M8	27.3	60.2	395	15.55	110	4.33	268	10.6
12-FTA-100	12-FTG-100	100	3000	5.70	20	FT5 - M8	34.0	75.0	395	15.55	110	4.33	288	11.3
12-FTA-105	12-FTG-105	105	3200	5.60	21	FT5 - M8	35.0	77.2	550	21.65	110	4.33	238	9.37
12-FTA-105US	12-FTG-105US	103	3000	5.60	21	FT5 - M8	35.0	77.2	490	19.29	110	4.33	230	9.06
12-FTA-120	12-FTG-120	115	3550	5.40	23	FT5 - M8	38.0	83.8	550	21.65	110	4.33	238	9.37
12-FTA-125	12-FTG-125	125	4200	5.30	25	FT5 - M8	42.0	92.6	550	21.65	110	4.33	288	11.3
12-FTA-155	12-FTG-155	155	4800	5.10	31	FT5 - M8	49.2	108	550	21.65	110	4.33	288	11.3
12-FTA-175	12-FTG-175	175	5300	4.80	35	FT5 - M8	56.0	123	550	21.65	110	4.33	320	12.6

Actual Dimension may be $\pm 5\%$ from the figure shown. 12-FTA-40/12-FTA-55/12-FTG-40/12-FTG-55 do not fit with catalyst.

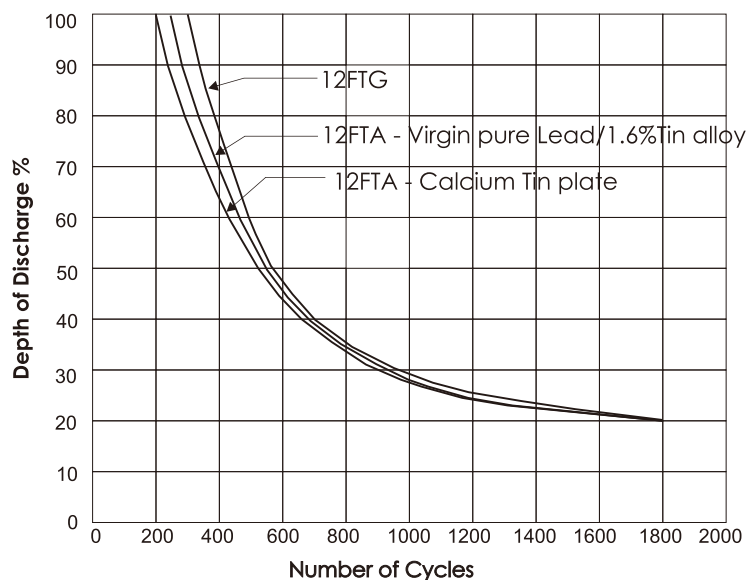
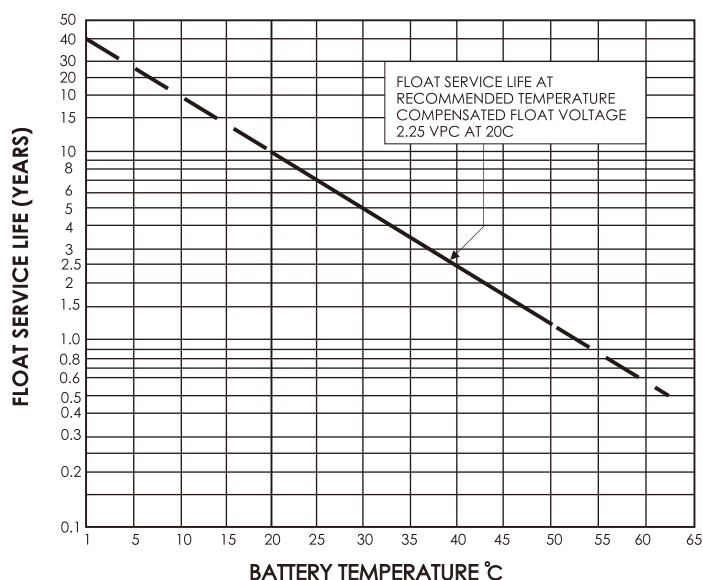
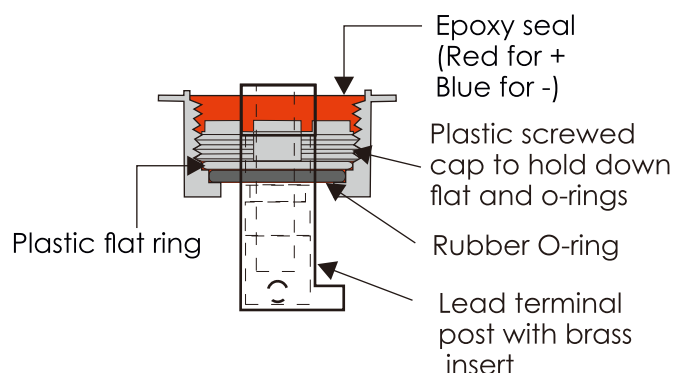
FT4 = 6 mm Female Terminal = 16mm with M6 Bolt

FT5 = 8 mm Female Terminal = 16mm with M8 Bolt

Female terminal inserts



TYPICAL TRIPLE SEAL DETAIL



Special Features

The use of front terminal batteries in telecom racks usually places the batteries below the electronics. When a large capacity battery is required there can be up to 4 shelves of batteries at 48 volts at 400Ah (12-FTA-100/12-FTG-100) or even 48 volts at 800Ah (12-FTA-175/12-FTG-175), this increases the volume of gas being vented. To make sure that these gasses do not adversely effect the electronic equipment, the SEC range of 12FTA and 12FTG batteries can be vented outside the cabinet by tubing vents from the battery manifolds outside the cabinet. The battery ventilation kit is offered as extra cost option.

CELLYTE 12FTA & 12FTG 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 to 155Ah capacity and 175Ah capacity for 23" front terminal batteries. 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 capacity of the 12FTA batteries and the "World first" Monobloc Catalyst.

Sealed Valve Regulated Construction

- These batteries are of the Absorbed Glass Mat (AGM) or Gelled electrolyte (GEL) technology. 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 incorporated 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 batteries are suitable for float/standby service with a design life of 12years at 20°C.

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 temperature up to 30°C.

Battery One-Way Safety Valve

- When pressure builds up in the cell and 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/12FTG batteries have a wide operating temperature range -25°C to +55°C. However for maximum life it is recommended to operate the battery at 20°C when not fitted with VRLA Catalyst and between 20°C to 30°C when fitted with VRLA Catalyst.

Plate Design and Paste Formulation

- SEC has optimized the plate and paste formulation to maximize the operating life of the battery. The High Tin Virgin pure lead 1.6% Tin plate alloy is used to extend the battery life and cycling capability. Paste formation will provide excellent recovery from deep discharge. With low self-discharge to ensure maximum storage time when not in use Alternative lower cost, Calcium, High Tin (1.6%) Plate is available.

Benefits of Catalyst in SEC VRLA Batteries

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 polarized. 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 is a major cause of VRLA cell failure.

*Increase 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 battery 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 increase have been seen on some cells just by installing a catalyst.

SEC ALL PRODUCT RANGE



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



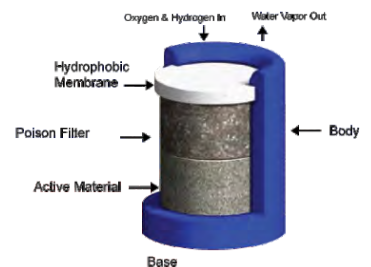
CELLYTE 2ETG OPzV Range
Tubular Steel Rack



CELLYTE TRA Range



Nickel Cadmium Range
Pocket Plate flooded and VR



Typical VRLA catalyst

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