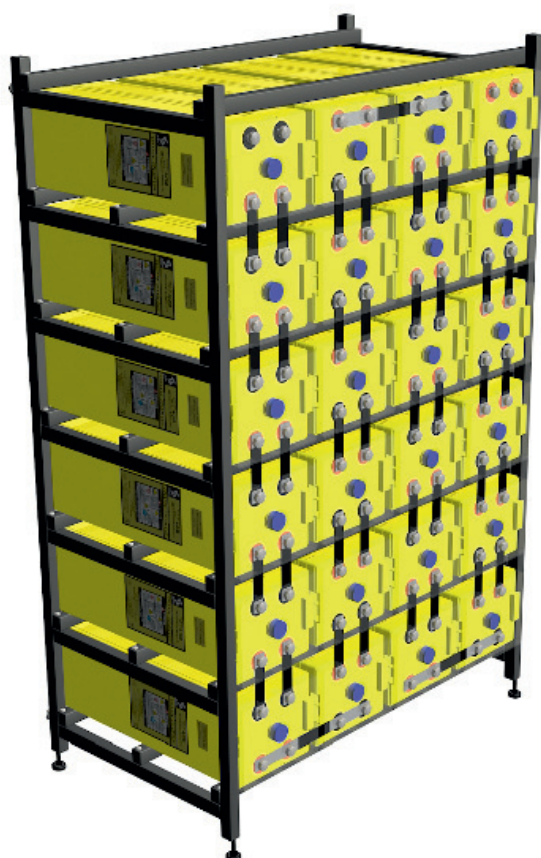


CELLYTE 2TLAM Range

STATIONARY TUBULAR RACK BATTERIES AGM TECHNOLOGY

15 YEARS DESIGN LIFE IN FLOAT SERVICE



**HORIZONTAL LAYOUT MINIMISES
BATTERY FLOOR SPACE**

**Sealed Valve Regulated
Maintenance Free
Lead Acid Batteries**

**CAPACITY 100 Ah. TO 3200 Ah.
C/10 RATE TO 1.80 Vpc @ 20C
or C/8 to 1.75 Vpc @ 25C**

CADMIUM FREE

**FULLY RECYCLABLE
LEAD ACID BATTERIES**

**CONFORMS TO THE EUROPEAN
E.C.1992 DIRECTIVE ON
DANGEROUS SUBSTANCES**

INNOVATIVE FEATURES

- * Valve regulated with Catalyst
- * Fully tank formed plates
- * Never requires watering
- * Spill proof and leak proof
- * Low gassing on float charge
- * Explosion proof
- * Operates at low internal pressure
- * Increased safety
- * For use in vertical or horizontal position
- * Increased capacity in given area

APPLICATIONS

- * Telecommunications
- * UPS
- * Emergency Lighting
- * Standby Power
- * Switchgear
- * Control System
- * Cellular Radio
- * Navigation Aids
- * Photovoltaic / Solar



CELLYTE - Battery Sizing 2TLAM Range

CELLYTE 2TLAM -Modular/Tubular - Ampere Hour Data to 1.80 vpc @ 20 C.

| SEC Battery TYPE | END Volts / Cell | DATA AMPS @ 20 C | | | | | | END Volts / Cell | DISCHARGE DATA AMPS HOURS TO 1.80 vpc @ 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 | 24 | |
| 2TLAM100 | 1.75 | 171 | 145 | 128 | 114 | 92.3 | 73.5 | 1.80 | 57.0 | 63.0 | 68.0 | 76.0 | 82.0 | 86.0 | 89.0 | 98.0 | 100 | 102 | 109 | |
| 2TLAM150 | 1.75 | 257 | 218 | 192 | 171 | 139 | 110 | 1.80 | 85.5 | 94.5 | 102 | 114 | 123 | 129 | 134 | 147 | 150 | 153 | 164 | |
| 2TLAM200 | 1.75 | 342 | 291 | 257 | 228 | 185 | 147 | 1.80 | 114 | 126 | 136 | 152 | 164 | 172 | 178 | 196 | 200 | 204 | 218 | |
| 2TLAM250 | 1.75 | 428 | 363 | 321 | 285 | 231 | 184 | 1.80 | 143 | 158 | 170 | 190 | 205 | 215 | 223 | 245 | 250 | 255 | 273 | |
| 2TLAM300 | 1.75 | 513 | 436 | 385 | 342 | 277 | 221 | 1.80 | 171 | 189 | 204 | 228 | 246 | 258 | 267 | 294 | 300 | 306 | 327 | |
| 2TLAM350* | 1.75 | 599 | 509 | 449 | 399 | 323 | 257 | 1.80 | 200 | 221 | 238 | 266 | 287 | 301 | 312 | 343 | 350 | 357 | 382 | |
| 2TLAM400* | 1.75 | 684 | 581 | 513 | 456 | 369 | 294 | 1.80 | 228 | 252 | 272 | 304 | 328 | 344 | 356 | 392 | 400 | 408 | 436 | |
| 2TLAM420* | 1.75 | 718 | 610 | 539 | 479 | 388 | 309 | 1.80 | 239 | 265 | 286 | 319 | 344 | 361 | 374 | 412 | 420 | 428 | 458 | |
| 2TLAM450* | 1.75 | 770 | 654 | 577 | 513 | 416 | 331 | 1.80 | 257 | 284 | 306 | 342 | 369 | 387 | 401 | 441 | 450 | 459 | 491 | |
| 2TLAM500* | 1.75 | 855 | 727 | 641 | 570 | 462 | 368 | 1.80 | 285 | 315 | 340 | 380 | 410 | 430 | 445 | 490 | 500 | 510 | 545 | |
| 2TLAM550* | 1.75 | 941 | 799 | 705 | 627 | 508 | 404 | 1.80 | 314 | 347 | 374 | 418 | 451 | 473 | 490 | 539 | 550 | 561 | 600 | |
| 2TLAM600* | 1.75 | 1026 | 872 | 770 | 684 | 554 | 441 | 1.80 | 342 | 378 | 408 | 456 | 492 | 516 | 534 | 588 | 600 | 612 | 654 | |
| 2TLAM650* | 1.75 | 1112 | 945 | 834 | 741 | 600 | 478 | 1.80 | 371 | 410 | 442 | 494 | 533 | 559 | 579 | 637 | 650 | 663 | 709 | |
| 2TLAM700* | 1.75 | 1197 | 1017 | 898 | 798 | 646 | 515 | 1.80 | 399 | 441 | 476 | 532 | 574 | 602 | 623 | 686 | 700 | 714 | 763 | |
| 2TLAM750 | 1.75 | 1283 | 1090 | 962 | 855 | 693 | 551 | 1.80 | 428 | 473 | 510 | 570 | 615 | 645 | 668 | 735 | 750 | 765 | 818 | |
| 2TLAM800 | 1.75 | 1368 | 1163 | 1026 | 912 | 739 | 588 | 1.80 | 456 | 504 | 544 | 608 | 656 | 688 | 712 | 784 | 800 | 816 | 872 | |
| 2TLAM850 | 1.75 | 1454 | 1235 | 1090 | 969 | 785 | 625 | 1.80 | 485 | 536 | 578 | 646 | 697 | 731 | 757 | 833 | 850 | 867 | 927 | |
| 2TLAM900 | 1.75 | 1539 | 1308 | 1154 | 1026 | 831 | 662 | 1.80 | 513 | 567 | 612 | 684 | 738 | 774 | 801 | 882 | 900 | 918 | 981 | |
| 2TLAM1000 | 1.75 | 1710 | 1454 | 1283 | 1140 | 923 | 735 | 1.80 | 570 | 630 | 680 | 760 | 820 | 860 | 890 | 980 | 1000 | 1020 | 1090 | |
| 2TLAM1100 | 1.75 | 1881 | 1599 | 1411 | 1254 | 1016 | 809 | 1.80 | 627 | 693 | 748 | 836 | 902 | 946 | 979 | 1078 | 1100 | 1122 | 1199 | |
| 2TLAM1200 | 1.75 | 2052 | 1744 | 1539 | 1368 | 1108 | 882 | 1.80 | 684 | 756 | 816 | 912 | 984 | 1032 | 1068 | 1176 | 1200 | 1224 | 1308 | |
| 2TLAM1300 | 1.75 | 2223 | 1890 | 1667 | 1482 | 1200 | 956 | 1.80 | 741 | 819 | 884 | 988 | 1066 | 1118 | 1157 | 1274 | 1300 | 1326 | 1417 | |
| 2TLAM1400 | 1.75 | 2394 | 2035 | 1796 | 1596 | 1293 | 1029 | 1.80 | 798 | 882 | 952 | 1064 | 1148 | 1204 | 1246 | 1372 | 1400 | 1428 | 1526 | |
| 2TLAM1500 | 1.75 | 2565 | 2180 | 1924 | 1710 | 1385 | 1103 | 1.80 | 855 | 945 | 1020 | 1140 | 1230 | 1290 | 1335 | 1470 | 1500 | 1530 | 1635 | |
| 2TLAM1600 | 1.75 | 2736 | 2326 | 2052 | 1824 | 1477 | 1176 | 1.80 | 912 | 1008 | 1088 | 1216 | 1312 | 1376 | 1424 | 1568 | 1600 | 1632 | 1744 | |
| 2TLAM1700 | 1.75 | 2907 | 2471 | 2180 | 1938 | 1570 | 1250 | 1.80 | 969 | 1071 | 1156 | 1292 | 1394 | 1462 | 1513 | 1666 | 1700 | 1734 | 1853 | |
| 2TLAM1800 | 1.75 | 3078 | 2616 | 2309 | 2052 | 1662 | 1324 | 1.80 | 1026 | 1134 | 1224 | 1368 | 1476 | 1548 | 1602 | 1764 | 1800 | 1836 | 1962 | |
| 2TLAM2000 | 1.75 | 3420 | 2907 | 2565 | 2280 | 1847 | 1471 | 1.80 | 1140 | 1260 | 1360 | 1520 | 1640 | 1720 | 1780 | 1960 | 2000 | 2040 | 2180 | |
| 2TLAM2200 | 1.75 | 3762 | 3198 | 2822 | 2508 | 2031 | 1618 | 1.80 | 1254 | 1386 | 1496 | 1672 | 1804 | 1892 | 1958 | 2156 | 2200 | 2244 | 2398 | |
| 2TLAM2400 | 1.75 | 4104 | 3488 | 3078 | 2736 | 2216 | 1765 | 1.80 | 1368 | 1512 | 1632 | 1824 | 1968 | 2064 | 2136 | 2352 | 2400 | 2448 | 2616 | |
| 2TLAM2600 | 1.75 | 4446 | 3779 | 3335 | 2964 | 2401 | 1912 | 1.80 | 1482 | 1638 | 1768 | 1976 | 2132 | 2236 | 2314 | 2548 | 2600 | 2652 | 2834 | |
| 2TLAM2800 | 1.75 | 4788 | 4070 | 3591 | 3192 | 2586 | 2059 | 1.80 | 1596 | 1764 | 1904 | 2128 | 2296 | 2408 | 2492 | 2744 | 2800 | 2856 | 3052 | |
| 2TLAM3000 | 1.75 | 5130 | 4361 | 3848 | 3420 | 2770 | 2206 | 1.80 | 1710 | 1890 | 2040 | 2280 | 2460 | 2580 | 2670 | 2940 | 3000 | 3060 | 3270 | |
| 2TLAM3200 | 1.75 | 5472 | 4651 | 4104 | 3648 | 2955 | 2353 | 1.80 | 1824 | 2016 | 2176 | 2432 | 2624 | 2752 | 2848 | 3136 | 3200 | 3366 | 3597 | |

*Cell types 350 to 700 also available as high discharge rate cells with 4 terminal posts

Actual discharge data may be +/- 5% of data shown - Largest single cells is 1600 Ah

CELLYTE 2TLAM Modular free standing 2 volt cells - Gel Technology - with Catalyst.

Valve Regulated Lead Acid (VRLA) low Maintenance Batteries - for Standby Applications.

These are free standing cells and can be supplied as cells only or with Modular zone 4 racks or in vertical or horizontal conventional zone 0 Tubular racks.

“SEC-CAT” Catvent™ - Catalyst Vent Plug

SEC's VRLA cells incorporate the Philadelphia Scientific Precious Metal Catalyst **Catvent™**

to stabilise the negative plate, enhance the water recombination process within the cell, reduce cell dry out, reduces float current by up to 50%, positive plate corrosion, thermal runaway, and capacity loss due to negative plate polarisation.

This makes the **CELLYTE** 2TLAM battery ideally suited for Telecom, UPS, Photovoltaic, Wind power, and other Float & Shallow Cyclic applications. Manufactured to Quality system certified to ISO 9001

Applicable Standards

IEC 60896-21/22-2004

BS 6290 Part 4

Eurobat

UL Component approval

CELLYTE - Battery Sizing 2TLAM Range

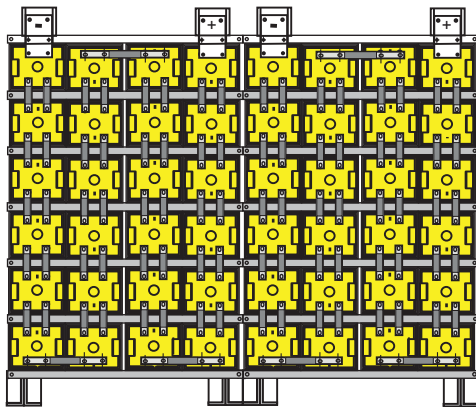
CELLYTE 2TLAM - Modular/Tubular Dimensions, Weights & Data

| SEC Battery TYPE | Capacity C/10 1.80 vpc | Single Cell Sizes | CELL DIMENSIONS & WEIGHT | | | | | 24 CELL BATTERY DIMENSIONS mm | | | | Internal Resist. mOhms | 1 Minute Rate to 1.67 vpc | Short Circuit Current | No. of Terminal Post |
|------------------|------------------------|-------------------|--------------------------|----------|--------------|--------------|---------|-------------------------------|-----------------|------------------|------------------|------------------------|---------------------------|-----------------------|----------------------|
| | | | Length mm | Width mm | Height mm H1 | Height mm H2 | CELL KG | Length Mod./Tub. | Depth Mod.&Tub. | Height Mod.&Tub. | Weight Mod./Tub. | | | | |
| 2TLAM100 | 100 | 1 x 100 | 102 | 187 | 278 | 300 | 7.0 | 672 / 720 | 310 | 1010 | 202/188 | 0.70 | 216 | 1080 | 2 |
| 2TLAM150 | 150 | 1 x 150 | 102 | 187 | 278 | 300 | 9.0 | 672 / 720 | 310 | 1010 | 288/270 | 0.60 | 300 | 1500 | 2 |
| 2TLAM200 | 200 | 1 x 200 | 102 | 187 | 278 | 300 | 13.6 | 672 / 720 | 310 | 1010 | 430/400 | 0.50 | 340 | 1600 | 2 |
| 2TLAM250 | 250 | 1 x 250 | 102 | 187 | 374 | 396 | 15.2 | 672 / 720 | 410 | 1010 | 490/460 | 0.45 | 380 | 1900 | 2 |
| 2TLAM300 | 300 | 1 x 300 | 102 | 187 | 374 | 396 | 18.8 | 672 / 720 | 410 | 1010 | 605/565 | 0.40 | 480 | 2400 | 2 |
| 2TLAM350* | 350 | 1 x 350 | 151 | 187 | 374 | 396 | 25.0 | 966 / 1010 | 410 | 1010 | 720/670 | 0.39 | 580 | 2900 | 2 |
| 2TLAM400* | 400 | 1 x 400 | 151 | 187 | 374 | 396 | 28.0 | 966 / 1010 | 410 | 1010 | 810/750 | 0.36 | 640 | 3200 | 2 |
| 2TLAM420* | 420 | 1 x 420 | 151 | 187 | 374 | 396 | 28.0 | 966 / 1010 | 410 | 1010 | 810/750 | 0.35 | 660 | 3300 | 2 |
| 2TLAM450* | 450 | 1 x 450 | 151 | 187 | 374 | 396 | 32.0 | 966 / 1010 | 410 | 1010 | 920/860 | 0.33 | 720 | 3600 | 2 |
| 2TLAM500* | 500 | 1 x 500 | 151 | 187 | 543 | 565 | 28.5 | 966 / 1010 | 410 | 1010 | 980/910 | 0.30 | 800 | 4000 | 2 |
| 2TLAM550* | 550 | 1 x 550 | 151 | 187 | 543 | 565 | 36.0 | 966 / 1010 | 580 | 1010 | 1040/970 | 0.29 | 900 | 4500 | 2 |
| 2TLAM600* | 600 | 1 x 600 | 151 | 187 | 543 | 565 | 38.0 | 966 / 1010 | 580 | 1010 | 1100/1000 | 0.28 | 970 | 4800 | 2 |
| 2TLAM650* | 650 | 1 x 650 | 151 | 187 | 543 | 565 | 41.0 | 966 / 1010 | 580 | 1010 | 1180/1080 | 0.24 | 1030 | 5100 | 2 |
| 2TLAM700* | 700 | 1 x 700 | 151 | 187 | 543 | 565 | 45.0 | 966 / 1010 | 580 | 1010 | 1300/1190 | 0.23 | 1120 | 5600 | 2 |
| 2TLAM750 | 750 | 1 x 750 | 223 | 187 | 543 | 565 | 45.0 | 966 / 1010 | 580 | 1010 | 1390/1270 | 0.22 | 1200 | 6000 | 4 |
| 2TLAM800 | 800 | 1 x 800 | 223 | 187 | 543 | 565 | 58 | 958 / 980 | 580 | 1500 | 1670/1530 | 0.20 | 1280 | 6400 | 4 |
| 2TLAM850 | 850 | 1 x 850 | 223 | 187 | 543 | 565 | 61 | 958 / 980 | 580 | 1500 | 1750/1600 | 0.190 | 1380 | 6900 | 4 |
| 2TLAM900 | 900 | 1 x 900 | 223 | 187 | 543 | 565 | 65 | 958 / 980 | 580 | 1500 | 1870/1710 | 0.180 | 1460 | 7300 | 4 |
| 2TLAM1000 | 1000 | 1 x 1000 | 223 | 187 | 543 | 565 | 68 | 958 / 980 | 580 | 1500 | 1950/1800 | 0.160 | 1580 | 7900 | 4 |
| 2TLAM1100 | 1100 | 1 x 1100 | 223 | 187 | 543 | 565 | 74 | 958 / 980 | 580 | 1500 | 2130/1950 | 0.140 | 1720 | 8600 | 4 |
| 2TLAM1200 | 1200 | 1 x 1200 | 223 | 187 | 643 | 665 | 78 | 958 / 980 | 680 | 1500 | 2250/2060 | 0.130 | 1800 | 9000 | 4 |
| 2TLAM1300 | 1300 | 1 x 1300 | 223 | 187 | 643 | 665 | 82 | 958 / 980 | 680 | 1500 | 2360/2160 | 0.125 | 1900 | 9500 | 4 |
| 2TLAM1400 | 1400 | 1 x 1400 | 223 | 187 | 643 | 665 | 88 | 958 / 980 | 680 | 1500 | 2530/2320 | 0.120 | 2100 | 10500 | 4 |
| 2TLAM1500 | 1500 | 1 x 1500 | 235 | 212 | 653 | 675 | 100 | 1010 / 1030 | 690 | 1670 | 2770/2530 | 0.110 | 2380 | 12000 | 4 |
| 2TLAM1600 | 1600 | 1 x 1600 | 235 | 212 | 653 | 675 | 110 | 1010 / 1030 | 690 | 1670 | 3340/3060 | 0.100 | 2560 | 12800 | 4 |
| 2TLAM1700 | 1700 | 2 x 850 | 2 x 223 | 187 | 543 | 565 | 2 x 61 | 1916 / 1940 | 580 | 1500 | 3510/3220 | 0.095 | 2760 | 13800 | 8 |
| 2TLAM1800 | 1800 | 2 x 900 | 2 x 223 | 187 | 543 | 565 | 2 x 65 | 1916 / 1940 | 580 | 1500 | 3750/3430 | 0.090 | 2920 | 14600 | 8 |
| 2TLAM2000 | 2000 | 2 x 1000 | 2 x 223 | 187 | 543 | 565 | 2 x 68 | 1916 / 1940 | 580 | 1500 | 3920/3590 | 0.080 | 3160 | 15800 | 8 |
| 2TLAM2200 | 2200 | 2 x 1100 | 2 x 223 | 187 | 543 | 565 | 2 x 74 | 1916 / 1940 | 580 | 1500 | 4260/3900 | 0.070 | 3440 | 17200 | 8 |
| 2TLAM2400 | 2400 | 2 x 1200 | 2 x 223 | 187 | 643 | 665 | 2 x 78 | 1916 / 1940 | 680 | 1500 | 4490/4120 | 0.065 | 3600 | 18000 | 8 |
| 2TLAM2600 | 2600 | 2 x 1300 | 2 x 223 | 187 | 643 | 665 | 2 x 82 | 1916 / 1940 | 680 | 1500 | 4720/4330 | 0.080 | 3800 | 19000 | 8 |
| 2TLAM2800 | 2800 | 2 x 1400 | 2 x 223 | 187 | 643 | 665 | 2 x 88 | 1916 / 1940 | 680 | 1500 | 5070/4640 | 0.070 | 4200 | 21000 | 8 |
| 2TLAM3000 | 3000 | 2 x 1500 | 2 x 235 | 212 | 653 | 675 | 2 x 100 | 2220 / 2250 | 690 | 1670 | 5540/5060 | 0.067 | 4760 | 24000 | 8 |
| 2TLAM3200 | 3200 | 2 x 1600 | 2 x 235 | 212 | 653 | 675 | 2 x 110 | 2220 / 2250 | 690 | 1670 | 6680/6120 | 0.063 | 5120 | 25600 | 8 |

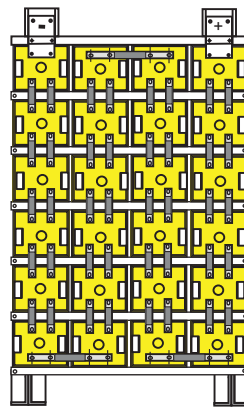
Actual discharge data may be +/- 5% of data shown - Largest single cell is 1600 Ah

Typical Modular Racks for 48 Volt Systems - Zone 4

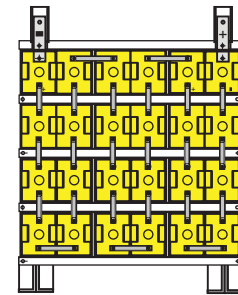
Note:- Cells up to 1600Ah. are single cells. Cells over 1600Ah. are made up of 2 x 850Ah. to 2 x1600Ah. connected in parallel or series to give 1700Ah. to 3200Ah.



Front view
24 x 2TLAM2000 to 3200
(2 x 24 x 1000 to 1600)
2 x 4 post cells



Front view
24 x 2TLAM750 to 1600
4 post cells



Front view
24 x 2TLAM100 to 700
2 post cells

CELLYTE - Battery Sizing 2TLAM Range

CELLYTE 2TLAM - Modular/Tubular - Data Amps to 1.80 vpc @ 20 C.

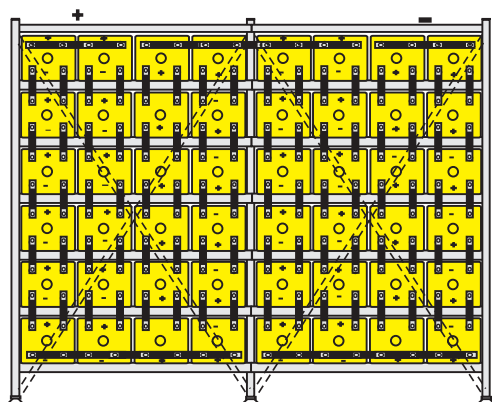
| SEC Battery TYPE | END Volts / Cell | DATA AMPS @ 20 C | | | | | | END Volts / Cell | DISCHARGE DATA AMPS TO 1.80 vpc @ 20 C | | | | | | | | | | | |
|------------------|------------------|---------------------------|------|------|------|------|------|------------------|--|------|------|------|------|------|------|------|------|------|------|--|
| | | 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 | 24 | |
| 2TLAM100 | 1.75 | 171 | 145 | 128 | 114 | 92.3 | 73.5 | 1.80 | 57.0 | 42.0 | 34.0 | 25.3 | 20.5 | 17.2 | 14.8 | 12.3 | 10.0 | 8.50 | 4.54 | |
| 2TLAM150 | 1.75 | 257 | 218 | 192 | 171 | 139 | 110 | 1.80 | 85.5 | 63.0 | 51.0 | 38.0 | 30.8 | 25.8 | 22.3 | 18.4 | 15.0 | 12.8 | 6.81 | |
| 2TLAM200 | 1.75 | 342 | 291 | 257 | 228 | 185 | 147 | 1.80 | 114 | 84.0 | 68.0 | 50.7 | 41.0 | 34.4 | 29.7 | 24.5 | 20.0 | 17.0 | 9.08 | |
| 2TLAM250 | 1.75 | 428 | 363 | 321 | 285 | 231 | 184 | 1.80 | 143 | 105 | 85.0 | 63.3 | 51.3 | 43.0 | 37.1 | 30.6 | 25.0 | 21.3 | 11.4 | |
| 2TLAM300 | 1.75 | 513 | 436 | 385 | 342 | 277 | 221 | 1.80 | 171 | 126 | 102 | 76.0 | 61.5 | 51.6 | 44.5 | 36.8 | 30.0 | 25.5 | 13.6 | |
| 2TLAM350* | 1.75 | 599 | 509 | 449 | 399 | 323 | 257 | 1.80 | 200 | 147 | 119 | 88.7 | 71.8 | 60.2 | 51.9 | 42.9 | 35.0 | 29.8 | 15.9 | |
| 2TLAM400* | 1.75 | 684 | 581 | 513 | 456 | 369 | 294 | 1.80 | 228 | 168 | 136 | 101 | 82.0 | 68.8 | 59.3 | 49.0 | 40.0 | 34.0 | 18.2 | |
| 2TLAM420* | 1.75 | 718 | 610 | 539 | 479 | 388 | 309 | 1.80 | 239 | 176 | 143 | 106 | 86.1 | 72.2 | 62.3 | 51.5 | 42.0 | 35.7 | 19.1 | |
| 2TLAM450* | 1.75 | 770 | 654 | 577 | 513 | 416 | 331 | 1.80 | 257 | 189 | 153 | 114 | 92.3 | 77.4 | 66.8 | 55.1 | 45.0 | 38.3 | 20.4 | |
| 2TLAM500* | 1.75 | 855 | 727 | 641 | 570 | 462 | 368 | 1.80 | 285 | 210 | 170 | 127 | 103 | 86.0 | 74.2 | 61.3 | 50.0 | 42.5 | 22.7 | |
| 2TLAM550* | 1.75 | 941 | 799 | 705 | 627 | 508 | 404 | 1.80 | 314 | 231 | 187 | 139 | 113 | 94.6 | 81.6 | 67.4 | 55.0 | 46.8 | 25.0 | |
| 2TLAM600* | 1.75 | 1026 | 872 | 770 | 684 | 554 | 441 | 1.80 | 342 | 252 | 204 | 152 | 123 | 103 | 89.0 | 73.5 | 60.0 | 51.0 | 27.3 | |
| 2TLAM650* | 1.75 | 1112 | 945 | 834 | 741 | 600 | 478 | 1.80 | 371 | 273 | 221 | 165 | 133 | 112 | 96.4 | 79.6 | 65.0 | 55.3 | 29.5 | |
| 2TLAM700* | 1.75 | 1197 | 1017 | 898 | 798 | 646 | 515 | 1.80 | 399 | 294 | 238 | 177 | 144 | 120 | 104 | 85.8 | 70.0 | 59.5 | 31.8 | |
| 2TLAM750 | 1.75 | 1283 | 1090 | 962 | 855 | 693 | 551 | 1.80 | 428 | 315 | 255 | 190 | 154 | 129 | 111 | 91.9 | 75.0 | 63.8 | 34.1 | |
| 2TLAM800 | 1.75 | 1368 | 1163 | 1026 | 912 | 739 | 588 | 1.80 | 456 | 336 | 272 | 203 | 164 | 138 | 119 | 98.0 | 80.0 | 68.0 | 36.3 | |
| 2TLAM850 | 1.75 | 1454 | 1235 | 1090 | 969 | 785 | 625 | 1.80 | 485 | 357 | 289 | 215 | 174 | 146 | 126 | 104 | 85.0 | 72.3 | 38.6 | |
| 2TLAM900 | 1.75 | 1539 | 1308 | 1154 | 1026 | 831 | 662 | 1.80 | 513 | 378 | 306 | 228 | 185 | 155 | 134 | 110 | 90.0 | 76.5 | 40.9 | |
| 2TLAM1000 | 1.75 | 1710 | 1454 | 1283 | 1140 | 923 | 735 | 1.80 | 570 | 420 | 340 | 253 | 205 | 172 | 148 | 123 | 100 | 85.0 | 45.4 | |
| 2TLAM1100 | 1.75 | 1881 | 1599 | 1411 | 1254 | 1016 | 809 | 1.80 | 627 | 462 | 374 | 279 | 226 | 189 | 163 | 135 | 110 | 93.5 | 50.0 | |
| 2TLAM1200 | 1.75 | 2052 | 1744 | 1539 | 1368 | 1108 | 882 | 1.80 | 684 | 504 | 408 | 304 | 246 | 206 | 178 | 147 | 120 | 102 | 54.5 | |
| 2TLAM1300 | 1.75 | 2223 | 1890 | 1667 | 1482 | 1200 | 956 | 1.80 | 741 | 546 | 442 | 329 | 267 | 224 | 193 | 159 | 130 | 111 | 59.0 | |
| 2TLAM1400 | 1.75 | 2394 | 2035 | 1796 | 1596 | 1293 | 1029 | 1.80 | 798 | 588 | 476 | 355 | 287 | 241 | 208 | 172 | 140 | 119 | 63.6 | |
| 2TLAM1500 | 1.75 | 2565 | 2180 | 1924 | 1710 | 1385 | 1103 | 1.80 | 855 | 630 | 510 | 380 | 308 | 258 | 223 | 184 | 150 | 128 | 68.1 | |
| 2TLAM1600 | 1.75 | 2736 | 2326 | 2052 | 1824 | 1477 | 1176 | 1.80 | 912 | 672 | 544 | 405 | 328 | 275 | 237 | 196 | 160 | 136 | 72.7 | |
| 2TLAM1700 | 1.75 | 2907 | 2471 | 2180 | 1938 | 1570 | 1250 | 1.80 | 969 | 714 | 578 | 431 | 349 | 292 | 252 | 208 | 170 | 145 | 77.2 | |
| 2TLAM1800 | 1.75 | 3078 | 2616 | 2309 | 2052 | 1662 | 1324 | 1.80 | 1026 | 756 | 612 | 456 | 369 | 310 | 267 | 221 | 180 | 153 | 81.8 | |
| 2TLAM2000 | 1.75 | 3420 | 2907 | 2565 | 2280 | 1847 | 1471 | 1.80 | 1140 | 840 | 680 | 507 | 410 | 344 | 297 | 245 | 200 | 170 | 90.8 | |
| 2TLAM2200 | 1.75 | 3762 | 3198 | 2822 | 2508 | 2031 | 1618 | 1.80 | 1254 | 924 | 748 | 557 | 451 | 378 | 326 | 270 | 220 | 187 | 100 | |
| 2TLAM2400 | 1.75 | 4104 | 3488 | 3078 | 2736 | 2216 | 1765 | 1.80 | 1368 | 1008 | 816 | 608 | 492 | 413 | 356 | 294 | 240 | 204 | 109 | |
| 2TLAM2600 | 1.75 | 4446 | 3779 | 3335 | 2964 | 2401 | 1912 | 1.80 | 1482 | 1092 | 884 | 659 | 533 | 447 | 386 | 319 | 260 | 221 | 118 | |
| 2TLAM2800 | 1.75 | 4788 | 4070 | 3591 | 3192 | 2586 | 2059 | 1.80 | 1596 | 1176 | 952 | 709 | 574 | 482 | 415 | 343 | 280 | 238 | 127 | |
| 2TLAM3000 | 1.75 | 5130 | 4361 | 3848 | 3420 | 2770 | 2206 | 1.80 | 1710 | 1260 | 1020 | 760 | 615 | 516 | 445 | 368 | 300 | 255 | 136 | |
| 2TLAM3200 | 1.75 | 5472 | 4651 | 4104 | 3648 | 2955 | 2353 | 1.80 | 1824 | 1344 | 1088 | 811 | 656 | 550 | 475 | 392 | 320 | 281 | 150 | |

*Cell types 350 to 700 also available as high discharge rate cells with 4 terminal posts

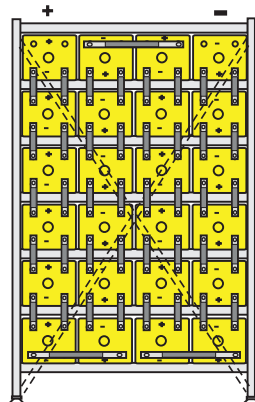
Actual discharge data may be +/- 5% of data shown - Largest single cells is 1600 ah

Typical Tubular racks for 48Volt System - Zone 0

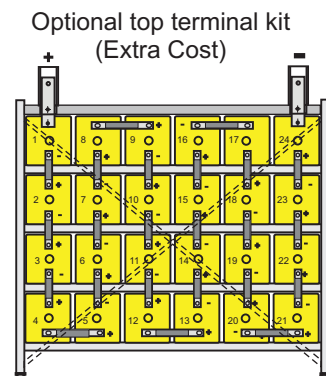
Note:- Cells up to 1600Ah. are single cells. Cells over 1600Ah. are made up of 2 x 850Ah. to 2 x 1600Ah. connected in parallel or series to give 1700Ah. to 3200Ah.



Front view
24 x 2TLAM2000 to 3200
(2 x 24 x 1000 to 1600)
2 x 4 post cells



Front view
24 x 2TLAM750 to 1600
4 post cells



Optional top terminal kit
(Extra Cost)
Front view
24 x 2TLAM100 to 700
2 post cells



CELLYTE - Battery Sizing 2TLAM Range

CELLYTE 2TLAM - Modular/Tubular - Watts to 1.67 / 1.75 vpc @ 20 C.

| SEC Battery TYPE | END Volts / Cell | DISCHARGE Watts per Cell at 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 | |
| 2TLAM100 | 1.67 | 355 | 302 | 268 | 238 | 194 | 150 | 1.75 | 115 | 83.5 | 67.2 | 50.1 | 40.6 | 34.2 | 29.6 | 24.6 | 20.1 | |
| 2TLAM150 | 1.67 | 532 | 453 | 403 | 356 | 291 | 224 | 1.75 | 172 | 125 | 101 | 75.2 | 60.8 | 51.3 | 44.4 | 36.9 | 30.2 | |
| 2TLAM200 | 1.67 | 710 | 604 | 537 | 475 | 388 | 299 | 1.75 | 230 | 167 | 134 | 100 | 81.1 | 68.4 | 59.1 | 49.2 | 40.2 | |
| 2TLAM250 | 1.67 | 887 | 755 | 671 | 594 | 485 | 374 | 1.75 | 287 | 209 | 168 | 125 | 101 | 85.5 | 73.9 | 61.5 | 50.3 | |
| 2TLAM300 | 1.67 | 1065 | 906 | 805 | 713 | 582 | 449 | 1.75 | 344 | 251 | 202 | 150 | 122 | 103 | 88.7 | 73.8 | 60.4 | |
| 2TLAM350* | 1.67 | 1242 | 1057 | 939 | 831 | 679 | 523 | 1.75 | 402 | 292 | 235 | 175 | 142 | 120 | 103 | 86.2 | 70.4 | |
| 2TLAM400* | 1.67 | 1419 | 1208 | 1073 | 950 | 776 | 598 | 1.75 | 459 | 334 | 269 | 200 | 162 | 137 | 118 | 98.5 | 80.5 | |
| 2TLAM420* | 1.67 | 1490 | 1269 | 1127 | 998 | 815 | 628 | 1.75 | 482 | 351 | 282 | 210 | 170 | 144 | 124 | 103 | 84.5 | |
| 2TLAM450* | 1.67 | 1597 | 1359 | 1208 | 1069 | 873 | 673 | 1.75 | 517 | 376 | 303 | 226 | 183 | 154 | 133 | 111 | 90.5 | |
| 2TLAM500* | 1.67 | 1774 | 1510 | 1342 | 1188 | 970 | 748 | 1.75 | 574 | 418 | 336 | 251 | 203 | 171 | 148 | 123 | 101 | |
| 2TLAM550* | 1.67 | 1952 | 1661 | 1476 | 1306 | 1067 | 822 | 1.75 | 631 | 459 | 370 | 276 | 223 | 188 | 163 | 135 | 111 | |
| 2TLAM600* | 1.67 | 2129 | 1812 | 1610 | 1425 | 1164 | 897 | 1.75 | 689 | 501 | 403 | 301 | 243 | 205 | 177 | 148 | 121 | |
| 2TLAM650* | 1.67 | 2307 | 1963 | 1744 | 1544 | 1261 | 972 | 1.75 | 746 | 543 | 437 | 326 | 264 | 222 | 192 | 160 | 131 | |
| 2TLAM700* | 1.67 | 2484 | 2114 | 1879 | 1663 | 1358 | 1047 | 1.75 | 804 | 585 | 471 | 351 | 284 | 239 | 207 | 172 | 141 | |
| 2TLAM750 | 1.67 | 2661 | 2265 | 2013 | 1782 | 1455 | 1121 | 1.75 | 861 | 626 | 504 | 376 | 304 | 257 | 222 | 185 | 151 | |
| 2TLAM800 | 1.67 | 2839 | 2416 | 2147 | 1900 | 1552 | 1196 | 1.75 | 918 | 668 | 538 | 401 | 325 | 274 | 237 | 197 | 161 | |
| 2TLAM850 | 1.67 | 3016 | 2567 | 2281 | 2019 | 1649 | 1271 | 1.75 | 976 | 710 | 572 | 426 | 345 | 291 | 251 | 209 | 171 | |
| 2TLAM900 | 1.67 | 3194 | 2718 | 2415 | 2138 | 1746 | 1346 | 1.75 | 1033 | 752 | 605 | 451 | 365 | 308 | 266 | 222 | 181 | |
| 2TLAM1000 | 1.67 | 3549 | 3020 | 2684 | 2375 | 1940 | 1495 | 1.75 | 1148 | 835 | 672 | 501 | 406 | 342 | 296 | 246 | 201 | |
| 2TLAM1100 | 1.67 | 3903 | 3322 | 2952 | 2613 | 2134 | 1645 | 1.75 | 1263 | 919 | 740 | 551 | 446 | 376 | 325 | 271 | 221 | |
| 2TLAM1200 | 1.67 | 4258 | 3624 | 3220 | 2851 | 2328 | 1794 | 1.75 | 1378 | 1002 | 807 | 601 | 487 | 411 | 355 | 296 | 241 | |
| 2TLAM1300 | 1.67 | 4613 | 3926 | 3489 | 3088 | 2522 | 1944 | 1.75 | 1492 | 1086 | 874 | 652 | 527 | 445 | 384 | 320 | 262 | |
| 2TLAM1400 | 1.67 | 4968 | 4228 | 3757 | 3326 | 2716 | 2093 | 1.75 | 1607 | 1169 | 941 | 702 | 568 | 479 | 414 | 345 | 282 | |
| 2TLAM1500 | 1.67 | 5323 | 4531 | 4025 | 3563 | 2910 | 2243 | 1.75 | 1722 | 1253 | 1009 | 752 | 608 | 513 | 444 | 369 | 302 | |
| 2TLAM1600 | 1.67 | 5678 | 4833 | 4294 | 3801 | 3104 | 2392 | 1.75 | 1837 | 1336 | 1076 | 802 | 649 | 547 | 473 | 394 | 322 | |
| 2TLAM1700 | 1.67 | 6032 | 5135 | 4562 | 4038 | 3298 | 2542 | 1.75 | 1952 | 1420 | 1143 | 852 | 690 | 582 | 503 | 418 | 342 | |
| 2TLAM1800 | 1.67 | 6387 | 5437 | 4831 | 4276 | 3492 | 2691 | 1.75 | 2066 | 1503 | 1210 | 902 | 730 | 616 | 532 | 443 | 362 | |
| 2TLAM2000 | 1.67 | 7097 | 6041 | 5367 | 4751 | 3880 | 2990 | 1.75 | 2296 | 1670 | 1345 | 1002 | 811 | 684 | 591 | 492 | 402 | |
| 2TLAM2200 | 1.67 | 7807 | 6645 | 5904 | 5226 | 4268 | 3289 | 1.75 | 2526 | 1837 | 1479 | 1103 | 892 | 753 | 650 | 542 | 443 | |
| 2TLAM2400 | 1.67 | 8516 | 7249 | 6441 | 5701 | 4656 | 3588 | 1.75 | 2755 | 2004 | 1614 | 1203 | 974 | 821 | 710 | 591 | 483 | |
| 2TLAM2600 | 1.67 | 9226 | 7853 | 6978 | 6176 | 5044 | 3887 | 1.75 | 2985 | 2171 | 1748 | 1303 | 1055 | 889 | 769 | 640 | 523 | |
| 2TLAM2800 | 1.67 | 9936 | 8457 | 7514 | 6651 | 5433 | 4186 | 1.75 | 3214 | 2338 | 1883 | 1403 | 1136 | 958 | 828 | 690 | 563 | |
| 2TLAM3000 | 1.67 | 10646 | 9061 | 8051 | 7126 | 5821 | 4485 | 1.75 | 3444 | 2505 | 2017 | 1503 | 1217 | 1026 | 887 | 739 | 604 | |
| 2TLAM3200 | 1.67 | 11355 | 9665 | 8588 | 7601 | 6209 | 4784 | 1.75 | 3674 | 2672 | 2152 | 1604 | 1298 | 1095 | 946 | 788 | 644 | |

*Cell types 350 to 700 also available as high discharge rate cells with 4 terminal posts

Actual discharge data may be +/- 5% of data shown - Largest single cells is 1600 ah

Features:

The **CELLYTE** 2TLAM 'High Integrity' high density battery is supplied as a free standing 2 volt vertical or horizontal cell or in a modular or tubular steel racking system for minimum floor space, uniform cell cooling and extra long life. The Zone 4 modular battery rack design provides a stronger battery rack that is reduced in both height, width and weight. The Zone 0 tubular battery racks for areas not subject to earthquakes.

System Configuration:

24 and 48 volts for Telecommunications

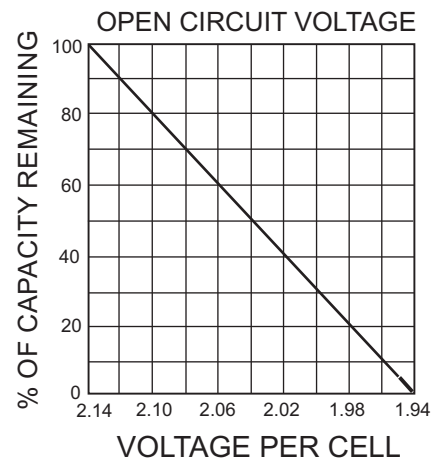
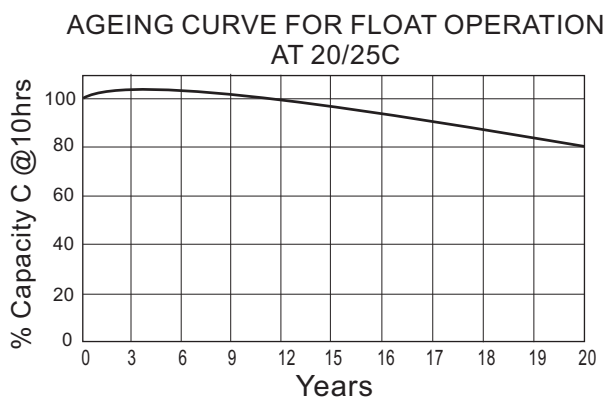
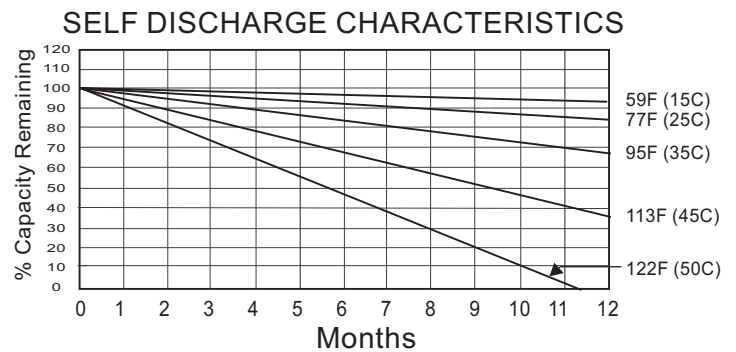
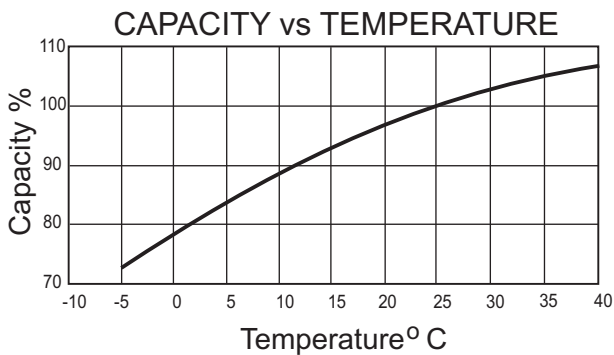
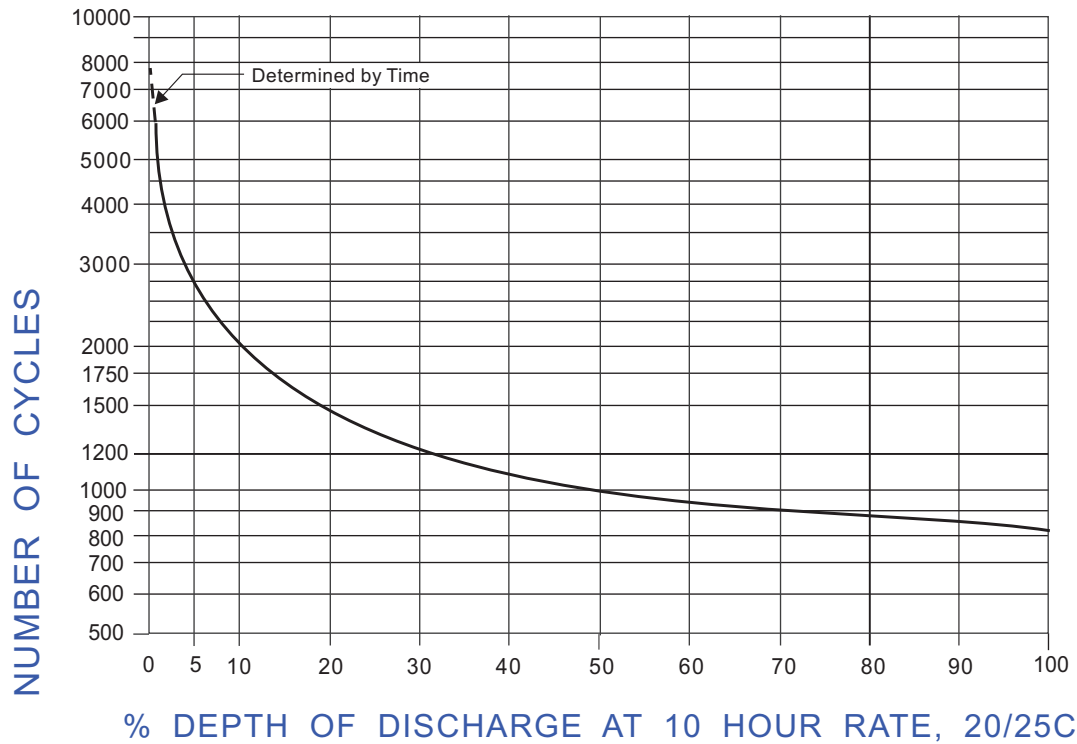
120, 240 and 480 volts for UPS, Power and Switchgear Control

Zone 4 rated modules with horizontal cell layout provides smaller battery foot print

Zone 0 rated tubular racks with vertical or horizontal cell layout for minimum battery footprint.

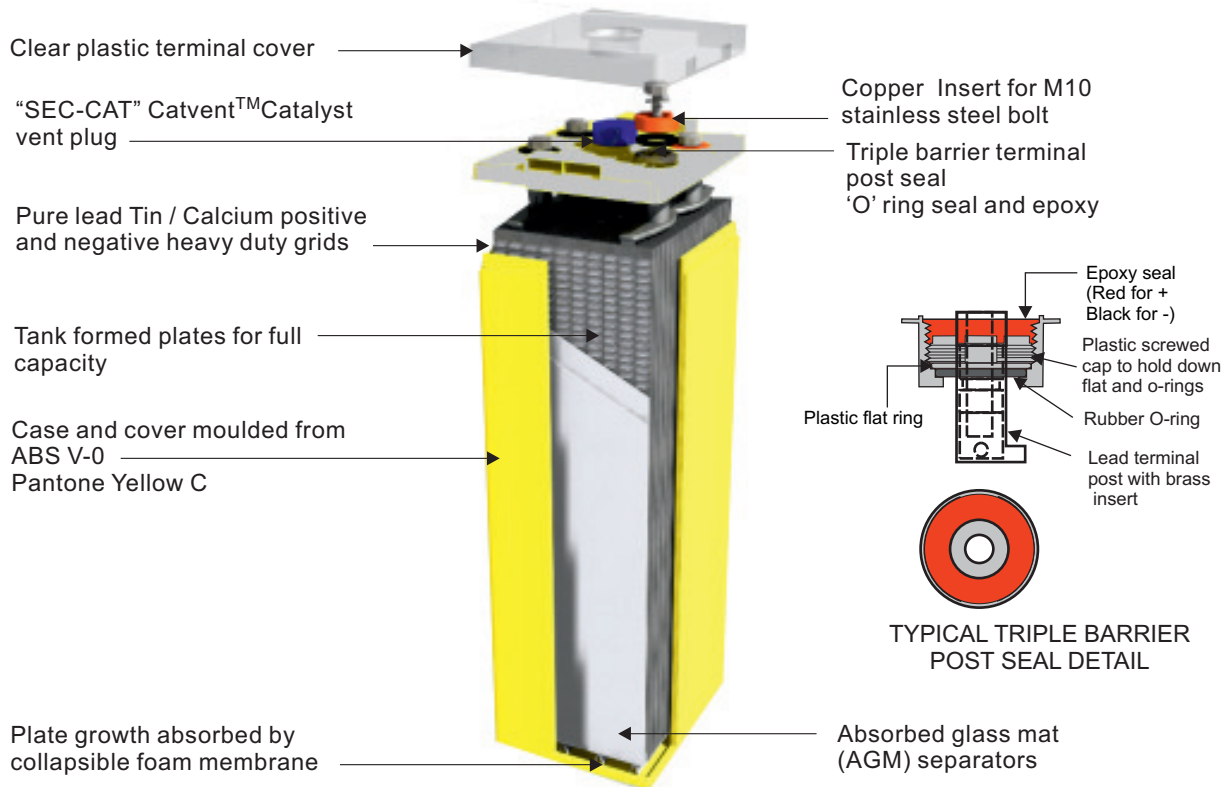
SEC's **CELLYTE** 2TLAM batteries are manufactured using modern technology in a new joint venture battery manufacturing facility. SEC has been able to draw on a wealth of international experience and knowledge to produce high quality reliable lead acid batteries. The continuing installation of modern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

CELLYTE - 2TLAM Range Data



CELLYTE - 2TLAM Range Data

CELLYTE 2TLAM Cell - Cutaway View



Heavy duty ABS cell jar can be free standing or in a zone 4 modular rack

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.

SEC Industrial Battery Co. range of products

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

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world wide supplier

