



The CELLYTE CMT Series

2 Volt flat plate AGM cell
fitted with SEC CatVent™
catalyst

**Long lasting
service for
mission-critical
conditions**

FITTED
WITH





Specification

| | |
|-----------------------------|--|
| Positive electrode: | Lead Calcium high Tin grid alloy |
| Negative electrode: | Lead Calcium grid alloy |
| Float voltage: | 2.25 - 2.30 vpc ± 1% at 25°C |
| Max. charge voltage: | 2.50 vpc ± 1% at 25°C |
| Electrolyte: | Sulphuric acid absorbed into AGM separator |
| Safety valve: | 1-3 psi self-resealing |
| Separators: | Absorptive glass mat (AGM) separator |
| Terminals: | Integral brass insert for M-10 bolt |
| Electrical: | 2V 100Ah - 2V 1600Ah at C/10 to 1.80vpc @ 25°C |

Design life

| | |
|--------------------|--|
| Float life: | 20-years in float service @ 30°C with an approved catalyst |
| Cycle life: | 1200 cycles @ 80% DOD at 25°C. |

Product compliance

| | |
|---------|--------------------|
| IEC | 60896-21/22-2004 |
| BS | 6290 part 4 |
| UL | component approval |
| Eurobat | |

Company accreditation

| | |
|-----|------------|
| ISO | 9001:2015 |
| ISO | 14001:2004 |

Product information

The Cellyte CMT series

Powerful, long-lasting performance

The Cellyte CMT series uses VRLA principles to produce a tough, no-nonsense battery. It is perfect for float and shallow cycling applications where a high-power, incredibly reliable solution is required.

The CMT is internationally certified by the best in the industry. It has a 20-year design life and offers up to 1200 cycles at 80% depth of discharge in the correct environment. The CMT range is manufactured in SEC's ISO approved factories and is backed by a full 5-year warranty as standard.

High-quality components

The Cellyte CMT series is a classic top terminal cell construction, built to last, with a heavy duty plastic terminal cover. Our engineers used European (IEC) standard dimensions so it's suited to a variety of applications. This 2V premium battery includes an SEC CatVent™ catalyst and high Tin Lead Calcium alloy flat plate construction for reduced corrosion, better recovery from deep discharge and improved cycle life.

The series features a range of premium high-power options with a choice of standard or flame retardant casing. Our engineers used international components including Swedish safety valves and Japanese triple-post sealant to craft SEC's flagship high-capacity product.

Product features

- ⚡ VRLA design fitted with CatVent™ catalyst
- ⚡ Proprietary Lead Calcium high Tin alloy
- ⚡ Latest flat plate formation technology
- ⚡ High-powered with a wide capacity range
- ⚡ For use in vertical or horizontal positions
- ⚡ Spill-proof and leak-proof with triple-sealed posts
- ⚡ Long service life when used in correct conditions
- ⚡ Ideal in a wide range of float applications
- ⚡ Standard or flame retardant container options
- ⚡ Engineered with international components
- ⚡ Wide operating temperature range
- ⚡ Uniform cell cooling

“A classic design which has become an industry standard is now enhanced with the most advanced grid alloys and material processes. When the CatVent™ recombination plug is added, the CMT range becomes a leader in a highly competitive market.”

Dr. Mike McDonagh SEC Group

Product benefits

Reliable valve regulated AGM design

The CMT features a safety valve as standard. This means reduced risk of accidental fire plus highly efficient operation. The valve does not allow the ingress of oxygen, which is harmful to the function and life of the battery.

Added stability with vertical or horizontal racking

This high integrity, high energy battery is supplied as a free standing 2V vertical or horizontal cell and can be paired with either: tubular style, zone-zero racking, or for more security in earthquake prone areas, modular steel, zone-four racking.

Higher power and reliability

The CMT range of AGM cells is a premium choice in a highly competitive market. Its low-resistance flat plates provide high-power discharge capability with faster recharge times and cooler operation in service. These are all critical advantages in quick turnaround applications.

Extended battery life and cycle service

The CMT was constructed for long life and reliability. In the right conditions it has a design life of 20-years and an average of 1200 charge/discharge cycles at 80% DOD.

Fitted with CatVent™ catalyst

The CMT is fitted with SEC's industry-leading CatVent™ catalyst. This stabilises the negative plate, enhances the water recombination process, reduces cell dry out and plate corrosion, reduces float current by 50% and minimises capacity loss. It's ideal for any high-powered float or shallow cycling application.

Performs under temperature fluctuations

Suited for a wide operating temperature range in many applications. Although the CMT has an operating temperature range of -10°C to +50°C, continuous or regular operation above 45°C is not recommended.

Optimised grid design and paste formulation

SEC has optimised the grid design and paste formulation to maximise the operating and storage life of the battery. Whilst this gives excellent recovery from deep-discharge or over-discharge; it also ensures low rates of self-discharge.

ISO:9001 approved

With installation of the most modern production and design equipment, SEC ensures that continuous product improvement is a given. SEC has recently had our efforts recognised with the coveted TUV SUD ISO:9001-2015 accreditation and we're proud to remain the first in the industry to hold this mark of quality.

Applications



Telecommunication



UPS system



Emergency lighting



Cycling service



Navigation aids



Control system



Standby power



Cellular radio



Switchgear



Industrial standby



Airport

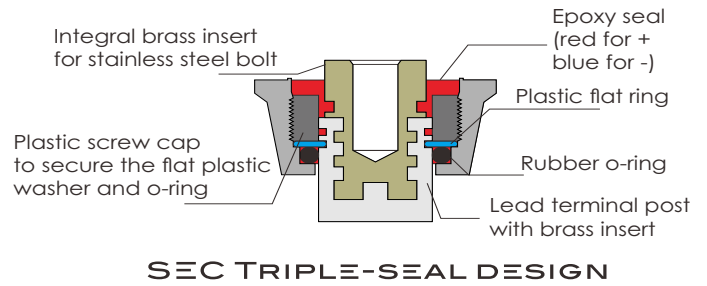
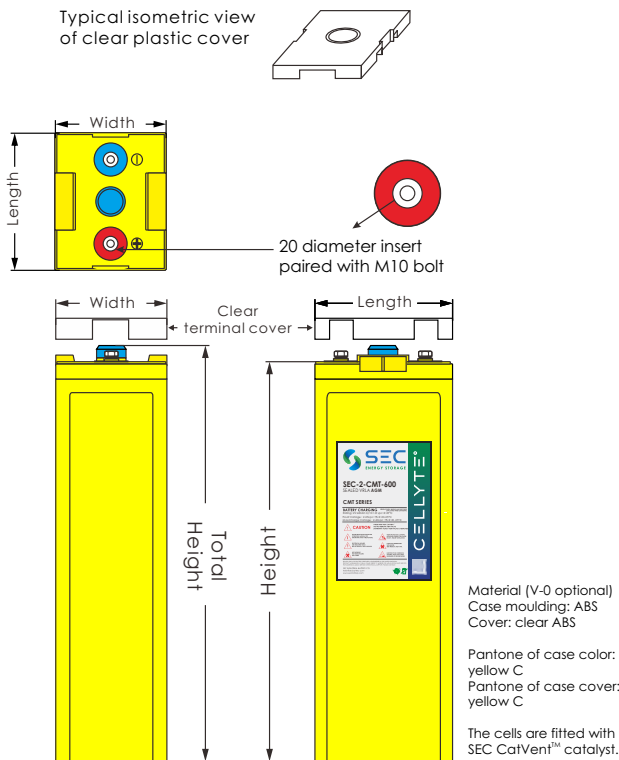


Float service

Engineering

Cell outline

Triple-seal detail



Cell dimensions

Dimensions/ Weights/ Data

| SEC bloc type | Nominal capacity C/10 1.80 vpc | Battery weight | | Overall battery dimension | | | | | | | | Internal resistance (mΩ) | Maximum charge current (A) | Short circuit current (A) | No. of terminal post |
|------------------|-----------------------------------|----------------|------|---------------------------|------|-------|------|--------|------|--------------|------|--------------------------|----------------------------|---------------------------|----------------------|
| | | | | Length | | Width | | Height | | Total height | | | | | |
| | | kg | lbs | mm | Inch | mm | Inch | mm | Inch | mm | Inch | | | | |
| 2-CMT-100 | 100 | 7.5 | 16.5 | 187 | 7.36 | 102 | 4.02 | 278 | 10.9 | 300 | 11.8 | 0.70 | 20.0 | 1080 | 2 |
| 2-CMT-150 | 150 | 10 | 22.0 | 187 | 7.36 | 102 | 4.02 | 278 | 10.9 | 300 | 11.8 | 0.60 | 30.0 | 1500 | 2 |
| 2-CMT-200 | 200 | 12.5 | 27.6 | 187 | 7.36 | 102 | 4.02 | 374 | 14.7 | 396 | 15.6 | 0.50 | 40.0 | 1600 | 2 |
| 2-CMT-250 | 250 | 15 | 33.1 | 187 | 7.36 | 102 | 4.02 | 374 | 14.7 | 396 | 15.6 | 0.45 | 50.0 | 1900 | 2 |
| 2-CMT-300 | 300 | 17.5 | 38.6 | 187 | 7.36 | 102 | 4.02 | 374 | 14.7 | 396 | 15.6 | 0.40 | 60.0 | 2400 | 2 |
| 2-CMT-350 | 350 | 22.5 | 49.6 | 187 | 7.36 | 151 | 5.94 | 374 | 14.7 | 396 | 15.6 | 0.39 | 70.0 | 2900 | 2 |
| 2-CMT-400 | 400 | 24.5 | 54.0 | 187 | 7.36 | 151 | 5.94 | 374 | 14.7 | 396 | 15.6 | 0.36 | 80.0 | 3200 | 2 |
| 2-CMT-420 | 420 | 25 | 55.1 | 187 | 7.36 | 151 | 5.94 | 374 | 14.7 | 396 | 15.6 | 0.35 | 84.0 | 3300 | 2 |
| 2-CMT-450 | 450 | 26 | 57.3 | 187 | 7.36 | 151 | 5.94 | 374 | 14.7 | 396 | 15.6 | 0.34 | 90.0 | 3600 | 2 |
| 2-CMT-500 | 500 | 31 | 68.3 | 187 | 7.36 | 151 | 5.94 | 543 | 21.4 | 565 | 22.2 | 0.34 | 100 | 4000 | 2 |
| 2-CMT-550 | 550 | 33 | 72.8 | 187 | 7.36 | 151 | 5.94 | 543 | 21.4 | 565 | 22.2 | 0.33 | 110 | 4500 | 2 |

Cell dimensions

Dimensions/ Weights/ Data

| SEC bloc type | Nominal capacity C/10 1.80 vpc | Battery weight | | Overall battery dimension | | | | | | | | Internal resistance (mΩ) | Maximum charge current (A) | Short circuit current (A) | No. of terminal post |
|-------------------|-----------------------------------|----------------|------|---------------------------|------|-------|------|--------|------|--------------|------|--------------------------|----------------------------|---------------------------|----------------------|
| | | | | Length | | Width | | Height | | Total height | | | | | |
| | | kg | lbs | mm | Inch | mm | Inch | mm | Inch | mm | Inch | | | | |
| 2-CMT-600 | 600 | 35.5 | 78.3 | 187 | 7.36 | 151 | 5.94 | 543 | 21.4 | 565 | 22.2 | 0.33 | 120 | 4800 | 2 |
| 2-CMT-650 | 650 | 38 | 83.8 | 187 | 7.36 | 151 | 5.94 | 543 | 21.4 | 565 | 22.2 | 0.32 | 130 | 5100 | 2 |
| 2-CMT-700 | 700 | 40.5 | 89.3 | 187 | 7.36 | 151 | 5.94 | 543 | 21.4 | 565 | 22.2 | 0.31 | 140 | 5600 | 2 |
| 2-CMT-750 | 750 | 46.5 | 103 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.31 | 150 | 6000 | 4 |
| 2-CMT-800 | 800 | 49 | 108 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.30 | 160 | 6400 | 4 |
| 2-CMT-850 | 850 | 51.5 | 114 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.29 | 170 | 6900 | 4 |
| 2-CMT-900 | 900 | 54 | 119 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.29 | 180 | 7300 | 4 |
| 2-CMT-1000 | 1000 | 59 | 130 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.28 | 200 | 7900 | 4 |
| 2-CMT-1100 | 1100 | 64 | 141 | 223 | 8.78 | 187 | 7.36 | 543 | 21.4 | 565 | 22.2 | 0.28 | 220 | 8600 | 4 |
| 2-CMT-1200 | 1200 | 67 | 148 | 223 | 8.78 | 187 | 7.36 | 643 | 25.3 | 665 | 26.2 | 0.27 | 240 | 9000 | 4 |
| 2-CMT-1300 | 1300 | 72 | 159 | 223 | 8.78 | 187 | 7.36 | 643 | 25.3 | 665 | 26.2 | 0.26 | 260 | 9500 | 4 |
| 2-CMT-1400 | 1400 | 77 | 170 | 223 | 8.78 | 187 | 7.36 | 643 | 25.3 | 665 | 26.2 | 0.26 | 280 | 10500 | 4 |
| 2-CMT-1500 | 1500 | 82 | 181 | 235 | 9.25 | 212 | 8.35 | 653 | 25.7 | 675 | 26.6 | 0.25 | 300 | 12000 | 4 |
| 2-CMT-1600 | 1600 | 87 | 192 | 235 | 9.25 | 212 | 8.35 | 653 | 25.7 | 675 | 26.6 | 0.25 | 320 | 12800 | 4 |

Operating temperature

| | |
|-------------------------------------|--------------------------------|
| Design operating temperature | 30°C with an approved catalyst |
| Limit for charging | -10 to +50°C |
| Limit for discharging | -15 to +50°C |
| Limit for storage | -20 to +50°C |

Charging method

| | |
|--|--|
| Float charging voltage at 25°C | 2.25 - 2.30vpc with temperature compensation |
| Maximum charging voltage at 25°C | 2.50vpc with temperature compensationC |
| Float charge temperature compensation factor | -3 mV/cell/°C above 25°C +3 mV/cell/°C below 25°C |
| Cyclic charge temperature compensation factor | -5 mV/cell/°C above 25°C +5 mV/cell/°C below 25°C |

Capacity

Ampere Hour at 25°C

| SEC bloc type | Discharge ampere hour at 25°C | | | | | | | | | | | | | | | |
|-------------------|-------------------------------|---------------------------|-------|-------|-----------------------|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| | End volts /Cell | Discharge time in minutes | | | End Volts /Cell | Discharge time in hours | | | | | | | | | | |
| | | 15min | 30min | 45min | | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 6hr | 8hr | 10hr | 12hr | 24hr |
| 2-CMT-100 | 1.75 | 32.0 | 46.2 | 53.3 | 1.80 | 57.0 | 63.0 | 68.0 | 75.9 | 82.0 | 86.0 | 88.8 | 98.0 | 100 | 102 | 109 |
| 2-CMT-150 | 1.75 | 48.0 | 69.2 | 80.0 | 1.80 | 85.5 | 94.5 | 102 | 114 | 123 | 129 | 134 | 147 | 150 | 153 | 163 |
| 2-CMT-200 | 1.75 | 64.0 | 92.3 | 107 | 1.80 | 114 | 126 | 136 | 152 | 164 | 172 | 178 | 196 | 200 | 204 | 218 |
| 2-CMT-250 | 1.75 | 80.0 | 115 | 133 | 1.80 | 143 | 158 | 170 | 190 | 205 | 215 | 223 | 245 | 250 | 255 | 273 |
| 2-CMT-300 | 1.75 | 96.0 | 138 | 160 | 1.80 | 171 | 189 | 204 | 228 | 246 | 258 | 267 | 294 | 300 | 306 | 326 |
| 2-CMT-350 | 1.75 | 112 | 162 | 187 | 1.80 | 200 | 221 | 238 | 266 | 287 | 301 | 311 | 343 | 350 | 357 | 382 |
| 2-CMT-400 | 1.75 | 128 | 185 | 213 | 1.80 | 228 | 252 | 272 | 303 | 328 | 344 | 356 | 392 | 400 | 408 | 436 |
| 2-CMT-420 | 1.75 | 134 | 194 | 224 | 1.80 | 239 | 264 | 286 | 318 | 344 | 361 | 374 | 412 | 420 | 428 | 458 |
| 2-CMT-450 | 1.75 | 144 | 208 | 240 | 1.80 | 257 | 284 | 306 | 342 | 369 | 387 | 401 | 441 | 450 | 459 | 490 |
| 2-CMT-500 | 1.75 | 160 | 231 | 267 | 1.80 | 285 | 315 | 340 | 380 | 410 | 430 | 445 | 490 | 500 | 510 | 545 |
| 2-CMT-550 | 1.75 | 176 | 254 | 293 | 1.80 | 314 | 347 | 374 | 417 | 451 | 473 | 490 | 539 | 550 | 561 | 600 |
| 2-CMT-600 | 1.75 | 192 | 277 | 320 | 1.80 | 342 | 378 | 408 | 456 | 492 | 515 | 534 | 588 | 600 | 612 | 654 |
| 2-CMT-650 | 1.75 | 208 | 300 | 346 | 1.80 | 371 | 410 | 442 | 494 | 532 | 559 | 578 | 637 | 650 | 663 | 708 |
| 2-CMT-700 | 1.75 | 224 | 323 | 373 | 1.80 | 399 | 441 | 476 | 531 | 574 | 600 | 623 | 686 | 700 | 714 | 763 |
| 2-CMT-750 | 1.75 | 240 | 346 | 400 | 1.80 | 428 | 473 | 510 | 570 | 615 | 645 | 666 | 735 | 750 | 765 | 818 |
| 2-CMT-800 | 1.75 | 256 | 369 | 426 | 1.80 | 456 | 504 | 544 | 608 | 656 | 688 | 712 | 784 | 800 | 816 | 871 |
| 2-CMT-850 | 1.75 | 272 | 392 | 453 | 1.80 | 485 | 536 | 578 | 645 | 696 | 730 | 756 | 832 | 850 | 867 | 926 |
| 2-CMT-900 | 1.75 | 288 | 415 | 480 | 1.80 | 513 | 567 | 612 | 684 | 738 | 774 | 801 | 880 | 900 | 918 | 981 |
| 2-CMT-1000 | 1.75 | 320 | 462 | 533 | 1.80 | 570 | 630 | 680 | 759 | 820 | 860 | 888 | 980 | 1000 | 1020 | 1090 |
| 2-CMT-1100 | 1.75 | 352 | 508 | 586 | 1.80 | 627 | 693 | 748 | 836 | 902 | 945 | 978 | 1078 | 1100 | 1122 | 1199 |
| 2-CMT-1200 | 1.75 | 384 | 554 | 640 | 1.80 | 684 | 756 | 816 | 912 | 984 | 1030 | 1068 | 1176 | 1200 | 1224 | 1308 |
| 2-CMT-1300 | 1.75 | 416 | 600 | 693 | 1.80 | 741 | 819 | 884 | 987 | 1066 | 1118 | 1157 | 1272 | 1300 | 1326 | 1416 |
| 2-CMT-1400 | 1.75 | 448 | 646 | 746 | 1.80 | 798 | 882 | 952 | 1064 | 1148 | 1204 | 1246 | 1372 | 1400 | 1428 | 1526 |
| 2-CMT-1500 | 1.75 | 480 | 692 | 800 | 1.80 | 855 | 945 | 1020 | 1140 | 1230 | 1290 | 1335 | 1470 | 1500 | 1530 | 1634 |
| 2-CMT-1600 | 1.75 | 512 | 738 | 853 | 1.80 | 912 | 1008 | 1088 | 1215 | 1312 | 1375 | 1422 | 1568 | 1600 | 1632 | 1744 |

Current

Amps at 25°C

| SEC bloc type | Discharge amps at 25°C | | | | | | | | | | | | | | | |
|-------------------|------------------------|---------------------------|-------|-------|-----------------|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| | End volts /Cell | Discharge time in minutes | | | End Volts /Cell | Discharge time in hours | | | | | | | | | | |
| | | 15min | 30min | 45min | | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 6hr | 8hr | 10hr | 12hr | 24hr |
| 2-CMT-100 | 1.75 | 128 | 92.3 | 71.1 | 1.80 | 57.0 | 42.0 | 34.0 | 25.3 | 20.5 | 17.2 | 14.8 | 12.3 | 10.0 | 8.50 | 4.54 |
| 2-CMT-150 | 1.75 | 192 | 138 | 107 | 1.80 | 85.5 | 63.0 | 51.0 | 38.0 | 30.8 | 25.8 | 22.3 | 18.4 | 15.0 | 12.8 | 6.81 |
| 2-CMT-200 | 1.75 | 256 | 185 | 142 | 1.80 | 114 | 84.0 | 68.0 | 50.7 | 41.0 | 34.4 | 29.7 | 24.5 | 20.0 | 17.0 | 9.08 |
| 2-CMT-250 | 1.75 | 320 | 231 | 178 | 1.80 | 143 | 105 | 85.0 | 63.3 | 51.3 | 43.0 | 37.1 | 30.6 | 25.0 | 21.3 | 11.4 |
| 2-CMT-300 | 1.75 | 384 | 277 | 213 | 1.80 | 171 | 126 | 102 | 76.0 | 61.5 | 51.6 | 44.5 | 36.8 | 30.0 | 25.5 | 13.6 |
| 2-CMT-350 | 1.75 | 448 | 323 | 249 | 1.80 | 200 | 147 | 119 | 88.7 | 71.8 | 60.2 | 51.9 | 42.9 | 35.0 | 29.8 | 15.9 |
| 2-CMT-400 | 1.75 | 512 | 369 | 284 | 1.80 | 228 | 168 | 136 | 101 | 82.0 | 68.8 | 59.3 | 49.0 | 40.0 | 34.0 | 18.2 |
| 2-CMT-420 | 1.75 | 538 | 388 | 298 | 1.80 | 239 | 176 | 143 | 106 | 86.0 | 72.2 | 62.3 | 51.5 | 42.0 | 35.7 | 19.1 |
| 2-CMT-450 | 1.75 | 576 | 415 | 320 | 1.80 | 257 | 189 | 153 | 114 | 92.3 | 77.4 | 66.8 | 55.1 | 45.0 | 38.3 | 20.4 |
| 2-CMT-500 | 1.75 | 640 | 462 | 355 | 1.80 | 285 | 210 | 170 | 127 | 103 | 86.0 | 74.2 | 61.3 | 50.0 | 42.5 | 22.7 |
| 2-CMT-550 | 1.75 | 704 | 508 | 391 | 1.80 | 314 | 231 | 187 | 139 | 113 | 94.6 | 81.6 | 67.4 | 55.0 | 46.8 | 25.0 |
| 2-CMT-600 | 1.75 | 768 | 554 | 426 | 1.80 | 342 | 252 | 204 | 152 | 123 | 103 | 89.0 | 73.5 | 60.0 | 51.0 | 27.3 |
| 2-CMT-650 | 1.75 | 832 | 600 | 462 | 1.80 | 371 | 273 | 221 | 165 | 133 | 112 | 96.4 | 79.6 | 65.0 | 55.3 | 29.5 |
| 2-CMT-700 | 1.75 | 896 | 646 | 497 | 1.80 | 399 | 294 | 238 | 177 | 144 | 120 | 104 | 85.8 | 70.0 | 59.5 | 31.8 |
| 2-CMT-750 | 1.75 | 960 | 692 | 533 | 1.80 | 428 | 315 | 255 | 190 | 154 | 129 | 111 | 91.9 | 75.0 | 63.8 | 34.1 |
| 2-CMT-800 | 1.75 | 1024 | 738 | 569 | 1.80 | 456 | 336 | 272 | 203 | 164 | 138 | 119 | 98.0 | 80.0 | 68.0 | 36.3 |
| 2-CMT-850 | 1.75 | 1088 | 785 | 604 | 1.80 | 485 | 357 | 289 | 215 | 174 | 146 | 126 | 104 | 85.0 | 72.3 | 38.6 |
| 2-CMT-900 | 1.75 | 1152 | 831 | 640 | 1.80 | 513 | 378 | 306 | 228 | 185 | 155 | 134 | 110 | 90.0 | 76.5 | 40.9 |
| 2-CMT-1000 | 1.75 | 1280 | 923 | 711 | 1.80 | 570 | 420 | 340 | 253 | 205 | 172 | 148 | 123 | 100 | 85.0 | 45.4 |
| 2-CMT-1100 | 1.75 | 1408 | 1015 | 782 | 1.80 | 627 | 462 | 374 | 279 | 226 | 189 | 163 | 135 | 110 | 93.5 | 50.0 |
| 2-CMT-1200 | 1.75 | 1536 | 1108 | 853 | 1.80 | 684 | 504 | 408 | 304 | 246 | 206 | 178 | 147 | 120 | 102 | 54.5 |
| 2-CMT-1300 | 1.75 | 1664 | 1200 | 924 | 1.80 | 741 | 546 | 442 | 329 | 267 | 224 | 193 | 159 | 130 | 111 | 59.0 |
| 2-CMT-1400 | 1.75 | 1792 | 1292 | 995 | 1.80 | 798 | 588 | 476 | 355 | 287 | 241 | 208 | 172 | 140 | 119 | 63.6 |
| 2-CMT-1500 | 1.75 | 1920 | 1385 | 1066 | 1.80 | 855 | 630 | 510 | 380 | 308 | 258 | 223 | 184 | 150 | 128 | 68.1 |
| 2-CMT-1600 | 1.75 | 2048 | 1477 | 1137 | 1.80 | 912 | 672 | 544 | 405 | 328 | 275 | 237 | 196 | 160 | 136 | 72.7 |

Power

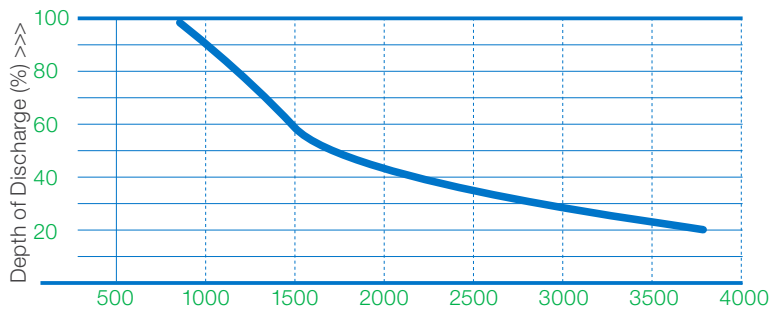
Watts/cell at 25°C

| SEC bloc type | Discharge watts/cell at 25°C | | | | | | | | | | | | | | | |
|-------------------|------------------------------|---------------------------|-------|-------|-----------------|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| | End volts /Cell | Discharge time in minutes | | | End Volts /Cell | Discharge time in hours | | | | | | | | | | |
| | | 15min | 30min | 45min | | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 6hr | 8hr | 10hr | 12hr | 24hr |
| 2-CMT-100 | 1.75 | 230 | 168.4 | 131.1 | 1.80 | 108 | 80.2 | 65.3 | 49.0 | 40.0 | 33.7 | 29.1 | 24.2 | 19.8 | 16.9 | 9.08 |
| 2-CMT-150 | 1.75 | 346 | 253 | 197 | 1.80 | 162 | 120 | 97.9 | 73.6 | 60.0 | 50.5 | 43.8 | 36.3 | 29.8 | 25.4 | 13.6 |
| 2-CMT-200 | 1.75 | 461 | 337 | 262 | 1.80 | 216 | 160 | 131 | 98.1 | 80.0 | 67.4 | 58.3 | 48.4 | 39.7 | 33.8 | 18.2 |
| 2-CMT-250 | 1.75 | 576 | 421 | 328 | 1.80 | 271 | 200 | 163 | 123 | 100 | 84.2 | 72.9 | 60.5 | 49.6 | 42.3 | 22.8 |
| 2-CMT-300 | 1.75 | 691 | 505 | 393 | 1.80 | 324 | 241 | 196 | 147 | 120 | 101 | 87.5 | 72.7 | 59.5 | 50.7 | 27.2 |
| 2-CMT-350 | 1.75 | 806 | 590 | 459 | 1.80 | 379 | 281 | 228 | 172 | 140 | 118 | 102 | 84.8 | 69.4 | 59.2 | 31.8 |
| 2-CMT-400 | 1.75 | 922 | 674 | 524 | 1.80 | 432 | 321 | 261 | 196 | 160 | 135 | 117 | 96.9 | 79.4 | 67.6 | 36.3 |
| 2-CMT-420 | 1.75 | 968 | 707 | 551 | 1.80 | 453 | 336 | 275 | 205 | 168 | 141 | 122 | 102 | 83.3 | 70.9 | 38.2 |
| 2-CMT-450 | 1.75 | 1037 | 758 | 590 | 1.80 | 487 | 361 | 294 | 221 | 180 | 152 | 131 | 109 | 89.3 | 76.1 | 40.8 |
| 2-CMT-500 | 1.75 | 1152 | 842 | 656 | 1.80 | 540 | 401 | 326 | 245 | 200 | 168 | 146 | 121 | 99.2 | 84.5 | 45.4 |
| 2-CMT-550 | 1.75 | 1267 | 926 | 721 | 1.80 | 595 | 441 | 359 | 269 | 220 | 185 | 160 | 133 | 109 | 93.0 | 50.0 |
| 2-CMT-600 | 1.75 | 1382 | 1011 | 787 | 1.80 | 648 | 481 | 392 | 294 | 240 | 202 | 175 | 145 | 119 | 101 | 54.5 |
| 2-CMT-650 | 1.75 | 1498 | 1095 | 852 | 1.80 | 703 | 521 | 424 | 319 | 259 | 219 | 190 | 157 | 129 | 110 | 59.0 |
| 2-CMT-700 | 1.75 | 1613 | 1179 | 918 | 1.80 | 756 | 561 | 457 | 343 | 280 | 235 | 204 | 170 | 139 | 118 | 63.6 |
| 2-CMT-750 | 1.75 | 1728 | 1263 | 983 | 1.80 | 811 | 601 | 490 | 368 | 300 | 253 | 218 | 182 | 149 | 127 | 68.2 |
| 2-CMT-800 | 1.75 | 1843 | 1348 | 1049 | 1.80 | 864 | 641 | 522 | 393 | 320 | 270 | 233 | 194 | 159 | 135 | 72.6 |
| 2-CMT-850 | 1.75 | 1958 | 1432 | 1115 | 1.80 | 919 | 682 | 555 | 416 | 339 | 286 | 248 | 206 | 169 | 144 | 77.2 |
| 2-CMT-900 | 1.75 | 2074 | 1516 | 1180 | 1.80 | 972 | 722 | 588 | 442 | 360 | 303 | 262 | 217 | 179 | 152 | 81.8 |
| 2-CMT-1000 | 1.75 | 2304 | 1684 | 1311 | 1.80 | 1080 | 802 | 653 | 490 | 400 | 337 | 291 | 242 | 198 | 169 | 90.8 |
| 2-CMT-1100 | 1.75 | 2534 | 1853 | 1442 | 1.80 | 1188 | 882 | 718 | 540 | 440 | 370 | 320 | 266 | 218 | 186 | 100 |
| 2-CMT-1200 | 1.75 | 2765 | 2021 | 1573 | 1.80 | 1295 | 962 | 783 | 589 | 480 | 404 | 350 | 291 | 238 | 203 | 109 |
| 2-CMT-1300 | 1.75 | 2995 | 2190 | 1705 | 1.80 | 1403 | 1042 | 849 | 637 | 520 | 438 | 379 | 314 | 258 | 220 | 118 |
| 2-CMT-1400 | 1.75 | 3226 | 2358 | 1836 | 1.80 | 1511 | 1122 | 914 | 687 | 560 | 472 | 408 | 339 | 278 | 237 | 127 |
| 2-CMT-1500 | 1.75 | 3456 | 2527 | 1967 | 1.80 | 1619 | 1203 | 979 | 736 | 600 | 505 | 437 | 363 | 298 | 254 | 136 |
| 2-CMT-1600 | 1.75 | 3686 | 2695 | 2098 | 1.80 | 1727 | 1283 | 1044 | 784 | 640 | 539 | 466 | 387 | 317 | 271 | 145 |

Cycle life

Relationship between depth of discharge and life

Ambient temperature 25°C



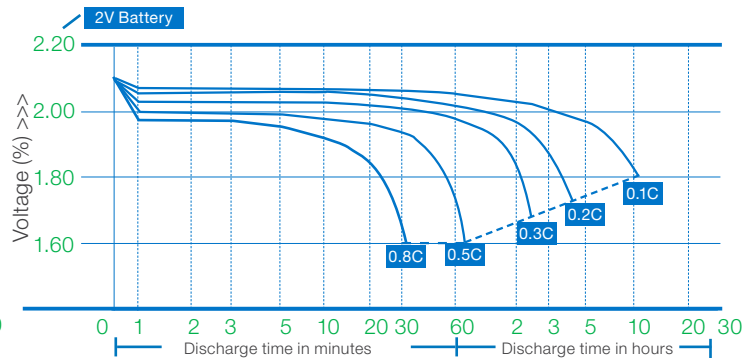
Cycle Life >>>

The depth of discharge critically affects the number of cycles which a battery will complete during its life time.

Discharge characteristics

Discharge current VS discharge time curve

Ambient temperature 25°C

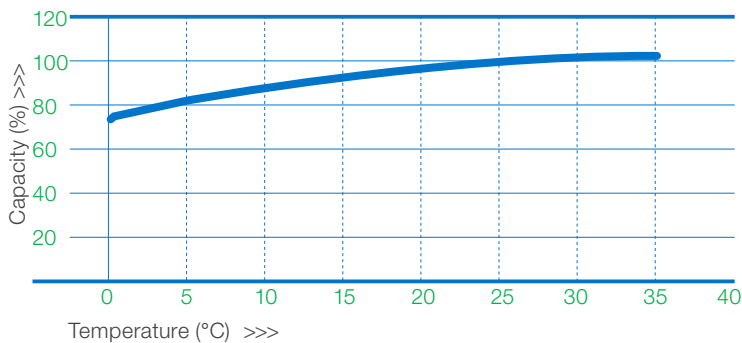


Discharge duration (h) >>>

Effect of discharge rate on battery capacity.

Effect of inclined temperature

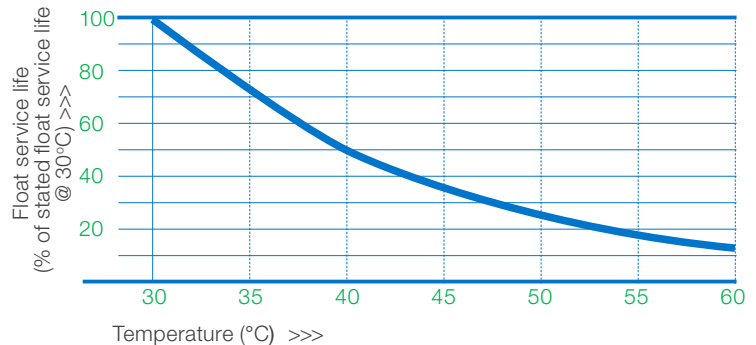
Effect of temperature on capacity at C/10 discharge rate



Temperature (°C) >>>

A high ambient temperature will increase the cell capacity but will significantly shorten its calendar and cycle life.

Float service life VS temperature

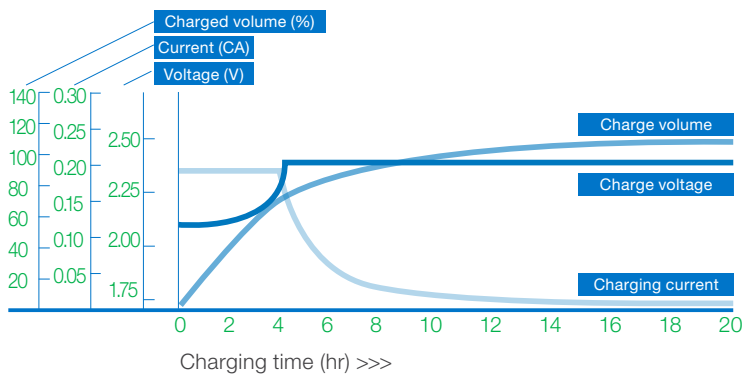


Temperature (°C) >>>

Effect of temperature on float service life.

Charge method

Constant current/voltage charge characteristic



Charging time (hr) >>>

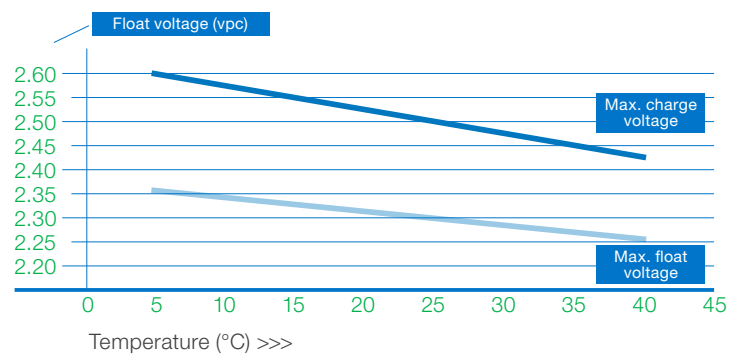
The preferred charging procedure should be in accordance with DIN 41773, constant current/constant voltage (IU characteristic). Constant float charging utilising a constant voltage charger is also acceptable.

Charging voltage measured at the battery terminals: $2.40 \pm 1\% \times \text{number of cells}$.

Equalising or fast charging can occasionally be permitted in which the charging voltage is $2.50 \times \text{number of cells}$ for a maximum fixed period of 8 hours (depends on state of charge). This will apply in deep discharge and limited recharge operations such as stand-by with parallel connections. Automatic changeover to the charging voltage of $2.30 \pm 1\% \times \text{number of cells}$ should follow after this period.

Charge compensation

Temperature compensation for float voltage



Temperature (°C) >>>

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