



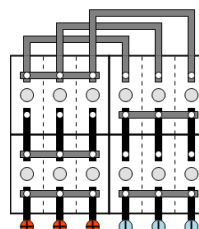
## VTX 1 L 700 - Cell data sheet

### Classification

|                          |             |
|--------------------------|-------------|
| Brand                    | Alcad       |
| Cell type                | VTX 1 L 700 |
| Cell P/N                 | 310558881   |
| Capacity at 5 hours rate | 700 Ah      |
| IEC Designation          | KGL700P     |
| According to IEC 62259   |             |



Wiring principle



Crosswise

### Physical data

|                |        |                 |         |
|----------------|--------|-----------------|---------|
| Overall height | 411 mm |                 |         |
| Cell height    |        |                 |         |
| Width          | 195 mm | Weight per cell | 29,7 Kg |
| Length         | 232 mm |                 |         |

### Construction

|                    |                 |                           |                                           |
|--------------------|-----------------|---------------------------|-------------------------------------------|
| Container material | Polypropylene   | No. of terminals/polarity | 3                                         |
| Separator type     | Felt            | Terminal material         | Steel                                     |
| Connection torque  | 30,0 +/- 3,0 Nm | Vent type                 | Low pressure flame arresting vent (large) |
| Terminal size      | M10 SW 16 mm    | Handle                    | Yes                                       |

### Plates

| Positive       |                         | Negative       |                         |
|----------------|-------------------------|----------------|-------------------------|
| Type of plates | Maintenance Free Pocket | Type of plates | Maintenance Free Pocket |

### Electrolyte

|                              |            |                   |       |
|------------------------------|------------|-------------------|-------|
| Electrolyte type: Renewal    | E13        | Max/Min           | 50 mm |
| Electrolyte type: Initial    | E22        | Vent oil quantity |       |
| Electrolyte per cell: Liquid | 6,9 liters |                   |       |

### Connection

|                                          |        |                              |        |
|------------------------------------------|--------|------------------------------|--------|
| Cable area of internal connection cables | 70 mm² | End-lug (and external cable) | 50 mm² |
|------------------------------------------|--------|------------------------------|--------|



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### Charging

|                      |             |                         |             |
|----------------------|-------------|-------------------------|-------------|
| Float voltage        | 1,42 V/Cell | High rate voltage (min) | 1,45 V/Cell |
| Single-level voltage | 1,42 V/Cell |                         |             |

### Resistance/Short circuit

|                     |           |                       |        |
|---------------------|-----------|-----------------------|--------|
| Internal resistance | 0,35 mOhm | Short circuit current | 3921 A |
|---------------------|-----------|-----------------------|--------|

### Performance data

#### Current discharge

After prolonged float charge of fully charged cells. Available amperes at +20°C +/- 5°C (+68°F +/- 9°F)

| V/Cell | 10h  | 8h   | 5h  | 3h  | 2h  | 1,5h | 1h  | 30m | 20m | 15m | 10m | 5m  | 1m  | 30s | 5s  | 1s  |
|--------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1      | 72,8 | 90,2 | 140 | 225 | 293 | 336  | 395 | 480 | 523 | 554 | 584 | 644 | 644 | 705 | 832 | 912 |
| 1,05   | 72,0 | 88,8 | 138 | 204 | 256 | 289  | 330 | 393 | 428 | 441 | 466 | 511 | 541 | 586 | 696 | 761 |
| 1,1    | 70,0 | 86,2 | 128 | 177 | 213 | 235  | 264 | 315 | 340 | 355 | 373 | 402 | 443 | 484 | 574 | 620 |
| 1,14   | 66,5 | 79,2 | 109 | 138 | 164 | 182  | 204 | 238 | 258 | 276 | 297 | 336 | 349 | 387 | 459 | 489 |

#### Power discharge

Available power (W), after prolonged float charged of fully charged cells at +20°C +/- 5°C (+68°F +/- 9°F)

| V/Cell | 10h  | 8h   | 5h  | 3h  | 2h  | 1,5h | 1h  | 30m | 20m | 15m | 10m | 5m  | 1m  | 30s | 5s  | 1s  |
|--------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1      | 84,3 | 103  | 157 | 241 | 307 | 347  | 404 | 485 | 526 | 557 | 585 | 644 | 644 | 705 | 832 | 912 |
| 1,05   | 83,8 | 102  | 157 | 225 | 277 | 311  | 352 | 416 | 451 | 465 | 490 | 537 | 568 | 616 | 731 | 799 |
| 1,1    | 81,8 | 100  | 148 | 200 | 239 | 262  | 293 | 348 | 375 | 392 | 411 | 442 | 487 | 532 | 632 | 682 |
| 1,14   | 78,0 | 92,8 | 128 | 159 | 189 | 209  | 233 | 272 | 295 | 315 | 339 | 383 | 398 | 441 | 524 | 558 |



## VTX 1 L 700 - Cell data sheet

### Kt Factor

#### Current discharge

After prolonged float charge of fully charged cells. Kt factor at +20°C +/- 5°C (+68°F +/- 9°F)

| V/Cell | 10h  | 8h   | 5h   | 3h   | 2h   | 1,5h | 1h   | 30m  | 20m  | 15m  | 10m  | 5m   | 1m   | 30s  | 5s   | 1s   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 9,6  | 7,76 | 5,00 | 3,11 | 2,39 | 2,08 | 1,77 | 1,46 | 1,34 | 1,26 | 1,20 | 1,09 | 1,09 | 0,99 | 0,84 | 0,77 |
| 1,05   | 9,7  | 7,89 | 5,06 | 3,43 | 2,74 | 2,42 | 2,12 | 1,78 | 1,64 | 1,59 | 1,50 | 1,37 | 1,29 | 1,19 | 1,01 | 0,92 |
| 1,1    | 10,0 | 8,12 | 5,45 | 3,97 | 3,28 | 2,98 | 2,65 | 2,22 | 2,06 | 1,97 | 1,87 | 1,74 | 1,58 | 1,45 | 1,22 | 1,13 |
| 1,14   | 10,5 | 8,84 | 6,41 | 5,08 | 4,26 | 3,85 | 3,44 | 2,94 | 2,71 | 2,53 | 2,35 | 2,08 | 2,01 | 1,81 | 1,52 | 1,43 |

#### Power discharge

Kt factor power, after prolonged float charged of fully charged cells at +20°C +/- 5°C (+68°F +/- 9°F)

| V/Cell | 10h  | 8h   | 5h   | 3h   | 2h   | 1,5h | 1h   | 30m  | 20m  | 15m  | 10m  | 5m   | 1m   | 30s  | 5s   | 1s   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 8,30 | 6,79 | 4,47 | 2,90 | 2,28 | 2,01 | 1,73 | 1,44 | 1,33 | 1,26 | 1,20 | 1,09 | 1,09 | 0,99 | 0,84 | 0,77 |
| 1,05   | 8,35 | 6,84 | 4,45 | 3,11 | 2,53 | 2,25 | 1,99 | 1,68 | 1,55 | 1,51 | 1,43 | 1,30 | 1,23 | 1,14 | 0,96 | 0,88 |
| 1,1    | 8,55 | 6,98 | 4,72 | 3,50 | 2,93 | 2,67 | 2,39 | 2,01 | 1,87 | 1,79 | 1,70 | 1,58 | 1,44 | 1,32 | 1,11 | 1,03 |
| 1,14   | 8,97 | 7,55 | 5,49 | 4,40 | 3,70 | 3,35 | 3,00 | 2,57 | 2,37 | 2,22 | 2,06 | 1,83 | 1,76 | 1,59 | 1,34 | 1,26 |