



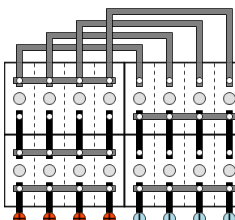
## VTX 1 L 1030 - Cell data sheet

### Classification

|                          |              |
|--------------------------|--------------|
| Brand                    | Alcad        |
| Cell type                | VTX 1 L 1030 |
| Cell P/N                 | 310559581    |
| Capacity at 5 hours rate | 1.030 Ah     |
| IEC Designation          | KGL1030P     |
| According to             | IEC 62259    |



Wiring principle



Crosswise

### Physical data

|                |        |                 |         |
|----------------|--------|-----------------|---------|
| Overall height | 411 mm |                 |         |
| Cell height    |        |                 |         |
| Width          | 195 mm | Weight per cell | 42,9 Kg |
| Length         | 327 mm |                 |         |

### Construction

|                    |                 |                           |                                           |
|--------------------|-----------------|---------------------------|-------------------------------------------|
| Container material | Polypropylene   | No. of terminals/polarity | 4                                         |
| 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 | 10,7 liters |                   |       |

### Connection

|                                          |                    |                              |                    |
|------------------------------------------|--------------------|------------------------------|--------------------|
| Cable area of internal connection cables | 70 mm <sup>2</sup> | End-lug (and external cable) | 50 mm <sup>2</sup> |
|------------------------------------------|--------------------|------------------------------|--------------------|



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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 | 0,23 mOhm | Short circuit current | 5770 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      | 107  | 133 | 206 | 332 | 432 | 494  | 581 | 707 | 769 | 816 | 859 | 947 | 948 | 1.037 | 1.224 | 1.342 |
| 1,05   | 106  | 131 | 204 | 300 | 376 | 426  | 486 | 578 | 630 | 649 | 685 | 752 | 795 | 863   | 1.025 | 1.119 |
| 1,1    | 103  | 127 | 189 | 260 | 314 | 345  | 389 | 463 | 500 | 523 | 550 | 592 | 652 | 712   | 845   | 912   |
| 1,14   | 97,8 | 117 | 161 | 203 | 242 | 268  | 300 | 350 | 380 | 407 | 437 | 495 | 513 | 570   | 676   | 720   |

#### 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      | 124 | 152 | 230 | 355 | 451 | 511  | 594 | 714 | 774 | 819 | 861 | 947 | 948 | 1.037 | 1.224 | 1.342 |
| 1,05   | 123 | 151 | 231 | 331 | 407 | 458  | 518 | 612 | 664 | 684 | 721 | 790 | 835 | 906   | 1.076 | 1.175 |
| 1,1    | 120 | 147 | 218 | 294 | 352 | 385  | 432 | 512 | 552 | 576 | 605 | 651 | 717 | 783   | 930   | 1.003 |
| 1,14   | 115 | 136 | 188 | 234 | 279 | 307  | 343 | 400 | 434 | 464 | 499 | 564 | 585 | 649   | 771   | 821   |



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### 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 |