



## LCE200P - Cell data sheet

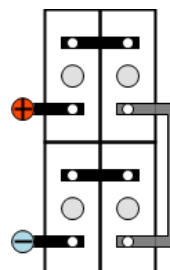
### Classification

|                          |           |
|--------------------------|-----------|
| Brand                    | Alcad     |
| Cell type                | LCE200P   |
| Cell P/N                 | 311034051 |
| Capacity at 5 hours rate | 200 Ah    |
| IEC Designation          | KL200P    |
| According to IEC 60623   |           |



Wiring principle

Normal



### Physical data

|                |        |                 |         |
|----------------|--------|-----------------|---------|
| Overall height | 357 mm |                 |         |
| Cell height    | 349 mm |                 |         |
| Width          | 192 mm | Weight per cell | 10,4 Kg |
| Length         | 93 mm  |                 |         |

### Construction

|                    |                 |                           |       |
|--------------------|-----------------|---------------------------|-------|
| Container material | Polypropylene   | No. of terminals/polarity | 1     |
| Separator type     | Grid            | Terminal material         | Steel |
| Connection torque  | 30,0 +/- 3,0 Nm | Vent type                 |       |
| Terminal size      | M10 SW 16 mm    |                           |       |
|                    |                 | Handle                    | No    |

### Plates

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

### Electrolyte

|                              |            |                   |       |
|------------------------------|------------|-------------------|-------|
| Electrolyte type: Renewal    | E13        | Max/Min           | 50 mm |
| Electrolyte type: Initial    | E22        | Vent oil quantity |       |
| Electrolyte per cell: Liquid | 2,9 liters |                   |       |

### Connection

|                                          |                    |                              |                    |
|------------------------------------------|--------------------|------------------------------|--------------------|
| Cable area of internal connection cables | 35 mm <sup>2</sup> | End-lug (and external cable) | 35 mm <sup>2</sup> |
|------------------------------------------|--------------------|------------------------------|--------------------|



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### Charging

|                      |             |                         |             |
|----------------------|-------------|-------------------------|-------------|
| Float voltage        | 1,42 V/Cell | High rate voltage (min) | 1,47 V/Cell |
| Single-level voltage | 1,43 V/Cell |                         |             |

### Resistance/Short circuit

|                     |           |                       |        |
|---------------------|-----------|-----------------------|--------|
| Internal resistance | 0,80 mOhm | Short circuit current | 1961 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      | 20,2 | 25,2 | 40,0 | 64,0 | 86,9 | 106  | 136  | 174  | 196  | 208  | 220 | 264 | 301 | 323 | 411 | 456 |
| 1,05   | 20,0 | 25,0 | 39,2 | 62,7 | 76,8 | 90,3 | 112  | 147  | 167  | 178  | 193 | 209 | 242 | 267 | 339 | 373 |
| 1,1    | 19,8 | 24,3 | 37,3 | 53,3 | 67,4 | 79,1 | 92,5 | 118  | 131  | 133  | 146 | 172 | 196 | 219 | 275 | 307 |
| 1,14   | 19,2 | 22,6 | 32,8 | 45,9 | 56,7 | 63,3 | 72,6 | 91,6 | 104  | 105  | 120 | 129 | 160 | 177 | 227 | 256 |
| 1,16   | 18,0 | 20,6 | 28,4 | 39,4 | 48,4 | 52,7 | 59,5 | 77,0 | 91,1 | 95,2 | 106 | 118 | 146 | 162 | 207 | 233 |

#### 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      | 23,4 | 28,8 | 44,7 | 68,5 | 90,9 | 109  | 139  | 175  | 197 | 209 | 220 | 264 | 301 | 323 | 411 | 456 |
| 1,05   | 23,3 | 28,8 | 44,5 | 69,0 | 83,2 | 97,0 | 119  | 155  | 176 | 188 | 203 | 219 | 254 | 280 | 356 | 392 |
| 1,1    | 23,2 | 28,2 | 43,1 | 60,4 | 75,5 | 88,2 | 103  | 131  | 144 | 146 | 161 | 189 | 215 | 241 | 302 | 337 |
| 1,14   | 22,5 | 26,4 | 38,3 | 53,1 | 65,3 | 72,7 | 83,1 | 105  | 119 | 119 | 136 | 147 | 182 | 202 | 259 | 292 |
| 1,16   | 21,2 | 24,2 | 33,4 | 46,1 | 56,4 | 61,4 | 69,2 | 89,4 | 106 | 111 | 123 | 136 | 169 | 187 | 240 | 271 |



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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      | 9,9  | 7,92 | 5,00 | 3,12 | 2,30 | 1,90 | 1,47 | 1,15 | 1,02 | 0,96 | 0,91 | 0,76 | 0,66 | 0,62 | 0,49 | 0,44 |
| 1,05   | 10,0 | 8,00 | 5,10 | 3,19 | 2,60 | 2,22 | 1,79 | 1,36 | 1,20 | 1,12 | 1,03 | 0,96 | 0,83 | 0,75 | 0,59 | 0,54 |
| 1,1    | 10,1 | 8,24 | 5,36 | 3,75 | 2,97 | 2,53 | 2,16 | 1,69 | 1,53 | 1,51 | 1,37 | 1,16 | 1,02 | 0,91 | 0,73 | 0,65 |
| 1,14   | 10,4 | 8,87 | 6,10 | 4,36 | 3,53 | 3,16 | 2,76 | 2,18 | 1,92 | 1,91 | 1,67 | 1,55 | 1,25 | 1,13 | 0,88 | 0,78 |
| 1,16   | 11,1 | 9,7  | 7,03 | 5,07 | 4,13 | 3,79 | 3,36 | 2,60 | 2,19 | 2,10 | 1,89 | 1,70 | 1,37 | 1,24 | 0,97 | 0,86 |

#### 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      | 8,54 | 6,93 | 4,47 | 2,92 | 2,20 | 1,83 | 1,44 | 1,14 | 1,02 | 0,96 | 0,91 | 0,76 | 0,66 | 0,62 | 0,49 | 0,44 |
| 1,05   | 8,59 | 6,94 | 4,49 | 2,90 | 2,40 | 2,06 | 1,68 | 1,29 | 1,14 | 1,07 | 0,98 | 0,91 | 0,79 | 0,71 | 0,56 | 0,51 |
| 1,1    | 8,63 | 7,09 | 4,64 | 3,31 | 2,65 | 2,27 | 1,95 | 1,53 | 1,39 | 1,37 | 1,24 | 1,06 | 0,93 | 0,83 | 0,66 | 0,59 |
| 1,14   | 8,88 | 7,57 | 5,22 | 3,77 | 3,06 | 2,75 | 2,41 | 1,91 | 1,68 | 1,67 | 1,47 | 1,36 | 1,10 | 0,99 | 0,77 | 0,69 |
| 1,16   | 9,45 | 8,27 | 5,98 | 4,34 | 3,54 | 3,26 | 2,89 | 2,24 | 1,89 | 1,81 | 1,63 | 1,47 | 1,18 | 1,07 | 0,83 | 0,74 |