



XHP90 - Cell data sheet

Classification

| | |
|--------------------------|--------|
| Brand | Alcad |
| Cell type | XHP90 |
| Cell P/N | 210681 |
| Capacity at 5 hours rate | 90 Ah |
| IEC Designation | KH90P |
| According to IEC 60623 | |



Physical data

| | | | |
|------------------------|--------|-------------------------|--------|
| Overall height | 339 mm | | |
| Width | 166 mm | Weight per cell | 5,8 Kg |
| Length | 78 mm | Block length - 2 cells | |
| Block length - 3 cells | | Block length - 4 cells | |
| Block length - 5 cells | | Block length - 6 cells | |
| Block length - 7 cells | | Block length - 8 cells | |
| Block length - 9 cells | | Block length - 10 cells | |

Construction

| | | | |
|--------------------|-----------------|---------------------------|----------------------|
| Container material | Polypropylene | No. of terminals/polarity | 1 |
| Separator type | Microporous | Terminal material | Copper |
| Connection torque | 15,0 +/- 2,0 Nm | Vent type | flame arresting vent |
| Terminal size | M12 | | |

Plates

| | | | |
|----------------|----------|----------------|----------------|
| Positive | | Negative | |
| Type of plates | Sintered | Type of plates | Plastic bonded |

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Electrolyte

| | | | |
|------------------------------|------------|-------------------|-------|
| Electrolyte type: Renewal | | Max/Min | 60 mm |
| Electrolyte type: Initial | E4 | Vent oil quantity | |
| Electrolyte per cell: Liquid | 1,6 liters | | |

Connection

| | |
|------------|--------------------|
| Cable area | 95 mm ² |
|------------|--------------------|

Charging

| | | | |
|----------------------|-------------|-------------------------|-------------|
| Float voltage | 1,4 V/Cell | High rate voltage (min) | 1,45 V/Cell |
| Single-level voltage | 1,41 V/Cell | | |

Resistance/Short circuit

| | | | |
|---------------------|-----------|-----------------------|--------|
| Internal resistance | 0,44 mOhm | Short circuit current | 3225 A |
|---------------------|-----------|-----------------------|--------|

Performance data

Stationary performance

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 | 9,20 | 11,4 | 18,0 | 29,8 | 44,3 | 58,8 | 86,5 | 164 | 231 | 265 | 321 | 375 | 500 | 562 | 692 | 750 |
| 1,05 | 9,12 | 11,3 | 17,9 | 29,6 | 44,1 | 58,1 | 85,7 | 158 | 205 | 231 | 265 | 310 | 429 | 500 | 600 | 643 |
| 1,1 | 9,01 | 11,2 | 17,6 | 29,0 | 42,9 | 56,2 | 81,1 | 127 | 155 | 173 | 200 | 243 | 346 | 409 | 500 | 529 |
| 1,14 | 8,88 | 11,0 | 17,4 | 27,8 | 40,7 | 52,6 | 70,3 | 100 | 120 | 136 | 158 | 191 | 290 | 346 | 429 | 474 |

Engine starting performance

For a fully charged cell by a constant current charge according to IEC 60623 standard at +20°C +/- 5°C (+68°F +/- 9°F), 30 seconds discharge down to 0,85 V

| | |
|-------------------|-------|
| Available amperes | 997 A |
|-------------------|-------|

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