



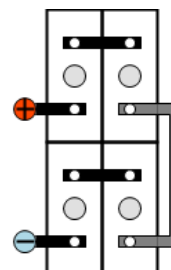
# XHP90 - Cell data sheet

## Classification

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



Wiring principle      Normal



## Physical data

Overall height	339 mm		
Cell height			
Width	166 mm	Weight per cell	5,8 Kg
Length	78 mm		

## 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	Handle	No

## Plates

Positive		Negative	
Type of plates	Sintered	Type of plates	Plastic bonded

## 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 of internal connection cables	95 mm <sup>2</sup>	End-lug (and external cable)	95 mm <sup>2</sup>
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## 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	3252 A
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## 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	9,20	11,4	18,0	29,8	44,4	58,8	86,8	165	230	268	317	375	511	573	703	756
1,05	9,12	11,3	17,9	29,6	44,1	58,1	85,7	157	202	230	262	307	435	489	600	652
1,1	9,01	11,2	17,6	29,0	43,0	56,4	81,0	127	154	174	200	243	353	409	500	539
1,14	8,88	11,0	17,4	27,8	40,7	52,6	70,5	101	119	135	157	191	294	342	423	464

### 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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### 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	11,1	13,8	21,5	35,3	52,4	66,6	94,3	171	235	272	319	375	511	573	703	756
1,05	11,0	13,7	21,3	35,1	52,1	66,6	95,3	169	216	244	277	323	457	514	630	685
1,1	10,9	13,5	21,1	34,4	50,7	65,4	92,2	142	171	192	221	268	388	450	550	593
1,14	10,8	13,4	20,8	32,9	48,1	61,6	81,7	116	137	155	179	218	335	390	482	529

### 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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## 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	9,8	7,88	5,00	3,02	2,03	1,53	1,04	0,55	0,39	0,34	0,28	0,24	0,18	0,16	0,13	0,12
1,05	9,9	7,95	5,04	3,04	2,04	1,55	1,05	0,57	0,44	0,39	0,34	0,29	0,21	0,18	0,15	0,14
1,1	10,0	8,05	5,10	3,10	2,10	1,60	1,11	0,71	0,58	0,52	0,45	0,37	0,26	0,22	0,18	0,17
1,14	10,1	8,16	5,18	3,24	2,21	1,71	1,28	0,90	0,75	0,66	0,57	0,47	0,31	0,26	0,21	0,19

### 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

### 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	8,08	6,51	4,18	2,55	1,72	1,35	0,95	0,53	0,38	0,33	0,28	0,24	0,18	0,16	0,13	0,12
1,05	8,16	6,57	4,22	2,57	1,73	1,35	0,94	0,53	0,42	0,37	0,32	0,28	0,20	0,18	0,14	0,13
1,1	8,26	6,65	4,27	2,62	1,78	1,38	0,98	0,63	0,53	0,47	0,41	0,34	0,23	0,20	0,16	0,15
1,14	8,37	6,74	4,33	2,73	1,87	1,46	1,10	0,78	0,66	0,58	0,50	0,41	0,27	0,23	0,19	0,17

### Engine starting performance

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

Available amperes 997 A