



HC90P - Cell data sheet

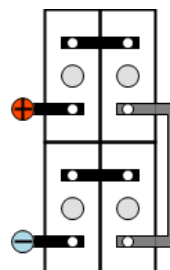
Classification

Brand	
Cell type	HC90P
Cell P/N	310451951
Capacity at 5 hours rate	90 Ah
IEC Designation	KH90P
According to	IEC 60623



Wiring principle

Normal



Physical data

Overall height	357 mm		
Cell height	349 mm		
Width	192 mm	Weight per cell	10,3 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	3,4 liters		

Connection

Cable area of internal connection cables	95 mm ²	End-lug (and external cable)	95 mm ²
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Charging

Float voltage	1,4 V/Cell	High rate voltage (min)	1,45 V/Cell
Single-level voltage	1,43 V/Cell		

Resistance/Short circuit

Internal resistance	0,43 mOhm	Short circuit current	3146 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	9,04	11,3	18,0	29,6	43,9	57,9	84,6	155	208	243	289	358	464	529	667	732
1,05	8,96	11,2	17,7	29,2	43,1	56,6	81,7	147	180	208	246	292	395	450	556	596
1,1	8,74	10,9	17,3	28,4	41,7	54,6	77,6	120	144	162	184	226	311	360	441	494
1,14	8,45	10,6	16,6	27,3	39,9	51,6	68,6	93,7	112	125	142	173	249	288	360	378
1,16	8,21	10,3	16,2	26,2	36,6	46,0	55,6	77,0	93,8	102	114	143	211	241	300	323

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	857 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	10,9	13,7	21,5	35,0	51,8	65,6	91,9	161	213	247	291	358	464	529	667	732
1,05	10,8	13,6	21,2	34,6	50,8	64,8	90,9	158	192	220	260	306	415	473	584	626
1,1	10,6	13,2	20,6	33,6	49,2	63,2	88,3	134	160	180	203	249	342	396	485	543
1,14	10,2	12,8	19,9	32,3	47,0	60,4	79,5	108	128	143	162	198	284	329	411	431
1,16	9,9	12,4	19,4	31,0	43,2	54,1	65,0	89,6	109	119	132	166	245	280	348	374

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	857 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	10,0	7,97	5,00	3,04	2,05	1,56	1,06	0,58	0,43	0,37	0,31	0,25	0,19	0,17	0,14	0,12
1,05	10,0	8,03	5,08	3,08	2,09	1,59	1,10	0,61	0,50	0,43	0,37	0,31	0,23	0,20	0,16	0,15
1,1	10,3	8,24	5,21	3,17	2,16	1,65	1,16	0,75	0,63	0,55	0,49	0,40	0,29	0,25	0,20	0,18
1,14	10,7	8,52	5,41	3,30	2,26	1,74	1,31	0,96	0,81	0,72	0,64	0,52	0,36	0,31	0,25	0,24
1,16	11,0	8,77	5,55	3,44	2,46	1,96	1,62	1,17	0,96	0,88	0,79	0,63	0,43	0,37	0,30	0,28

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 857 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	8,23	6,58	4,18	2,57	1,74	1,37	0,98	0,56	0,42	0,36	0,31	0,25	0,19	0,17	0,14	0,12
1,05	8,30	6,64	4,25	2,60	1,77	1,39	0,99	0,57	0,47	0,41	0,35	0,29	0,22	0,19	0,15	0,14
1,1	8,51	6,81	4,36	2,68	1,83	1,42	1,02	0,67	0,56	0,50	0,44	0,36	0,26	0,23	0,19	0,17
1,14	8,80	7,04	4,53	2,78	1,91	1,49	1,13	0,84	0,70	0,63	0,56	0,46	0,32	0,27	0,22	0,21
1,16	9,06	7,25	4,64	2,90	2,08	1,66	1,38	1,00	0,83	0,76	0,68	0,54	0,37	0,32	0,26	0,24

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 857 A