



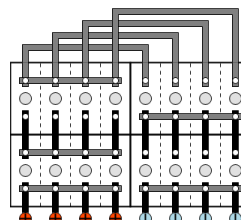
HB510P - Cell data sheet

Classification

Brand	
Cell type	HB510P
Cell P/N	310100881
Capacity at 5 hours rate	510 Ah
IEC Designation	KH510P
According to	IEC 60623



Wiring principle



Crosswise

Physical data

Overall height	410 mm		
Cell height	400 mm		
Width	195 mm	Weight per cell	42,7 Kg
Length	305 mm		

Construction

Container material	Polypropylene	No. of terminals/polarity	4
Separator type	Grid	Terminal material	Steel
Connection torque	30,0 +/- 3,0 Nm	Vent type	
Terminal size	M10 SW 16 mm		
		Handle	Yes

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	11,0 liters		

Connection

Cable area of internal connection cables	120 mm²	End-lug (and external cable)	120 mm²
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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	0,08 mOhm	Short circuit current	15166 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	51,1	63,9	102	168	249	328	481	872	1.172	1.344	1.587	1.925	2.417	2.727	3.316	3.527
1,05	50,7	63,3	101	166	245	321	465	828	1.006	1.143	1.345	1.564	2.028	2.289	2.761	2.878
1,1	49,3	61,7	98,3	161	237	309	440	672	788	887	999	1.204	1.616	1.839	2.189	2.300
1,14	48,0	60,0	94,4	154	217	276	362	531	632	709	803	982	1.289	1.478	1.739	1.800
1,16	46,5	58,2	92,1	148	199	246	293	440	525	582	646	807	1.095	1.235	1.446	1.531

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	4.453 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	61,8	77,3	122	199	294	372	522	907	1.200	1.365	1.600	1.925	2.417	2.727	3.316	3.527
1,05	61,3	76,6	120	196	289	368	517	893	1.073	1.213	1.419	1.643	2.129	2.405	2.899	3.023
1,1	59,7	74,6	118	191	279	359	501	751	876	982	1.102	1.325	1.778	2.024	2.408	2.531
1,14	58,1	72,6	113	183	256	322	419	610	724	811	917	1.120	1.469	1.685	1.983	2.052
1,16	56,3	70,4	110	176	235	289	343	512	610	676	750	937	1.270	1.433	1.678	1.776

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	4.453 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	7,98	5,00	3,03	2,04	1,55	1,06	0,58	0,44	0,38	0,32	0,26	0,21	0,19	0,15	0,14
1,05	10,1	8,05	5,07	3,08	2,08	1,59	1,10	0,62	0,51	0,45	0,38	0,33	0,25	0,22	0,18	0,18
1,1	10,3	8,27	5,19	3,17	2,15	1,65	1,16	0,76	0,65	0,58	0,51	0,42	0,32	0,28	0,23	0,22
1,14	10,6	8,50	5,40	3,30	2,35	1,85	1,41	0,96	0,81	0,72	0,64	0,52	0,40	0,35	0,29	0,28
1,16	11,0	8,77	5,53	3,44	2,56	2,07	1,74	1,16	0,97	0,88	0,79	0,63	0,47	0,41	0,35	0,33

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 4.453 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	8,25	6,60	4,18	2,56	1,73	1,37	0,98	0,56	0,43	0,37	0,32	0,26	0,21	0,19	0,15	0,14
1,05	8,32	6,66	4,24	2,60	1,76	1,39	0,99	0,57	0,48	0,42	0,36	0,31	0,24	0,21	0,18	0,17
1,1	8,54	6,83	4,34	2,67	1,83	1,42	1,02	0,68	0,58	0,52	0,46	0,38	0,29	0,25	0,21	0,20
1,14	8,78	7,02	4,52	2,79	1,99	1,58	1,22	0,84	0,70	0,63	0,56	0,46	0,35	0,30	0,26	0,25
1,16	9,06	7,25	4,63	2,90	2,17	1,77	1,49	1,00	0,84	0,75	0,68	0,54	0,40	0,36	0,30	0,29

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 4.453 A