



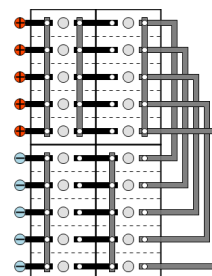
HB640P - Cell data sheet

Classification

Brand	
Cell type	HB640P
Cell P/N	310101181
Capacity at 5 hours rate	640 Ah
IEC Designation	KH640P
According to IEC 60623	



Wiring principle



Crosswise

Physical data

Overall height	410 mm		
Cell height	400 mm		
Width	195 mm	Weight per cell	53,2 Kg
Length	378 mm		

Construction

Container material	Polypropylene	No. of terminals/polarity	5
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	13,8 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	0,07 mOhm	Short circuit current	19032 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	64,1	80,2	128	211	313	412	603	1.095	1.471	1.686	1.992	2.416	3.033	3.422	4.161	4.426
1,05	63,6	79,5	126	208	307	403	584	1.039	1.262	1.435	1.687	1.963	2.545	2.873	3.465	3.612
1,1	61,9	77,4	123	202	297	388	552	844	989	1.113	1.253	1.511	2.029	2.308	2.747	2.887
1,14	60,2	75,3	119	194	273	346	454	666	793	890	1.008	1.233	1.617	1.855	2.182	2.259
1,16	58,4	73,0	116	186	250	309	368	552	658	731	810	1.013	1.374	1.550	1.815	1.921

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 5.588 A

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	77,6	97,0	153	250	369	467	655	1.138	1.506	1.713	2.008	2.416	3.033	3.422	4.161	4.426
1,05	76,9	96,2	151	246	363	462	649	1.120	1.347	1.523	1.781	2.062	2.672	3.017	3.638	3.794
1,1	74,9	93,6	147	240	350	450	628	943	1.099	1.232	1.383	1.662	2.232	2.540	3.022	3.176
1,14	72,9	91,1	142	230	322	405	526	765	908	1.018	1.151	1.406	1.844	2.114	2.488	2.575
1,16	70,6	88,3	138	221	295	362	430	642	765	849	941	1.175	1.594	1.798	2.106	2.228

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 5.588 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 5.588 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 5.588 A