



HB420P - Cell data sheet

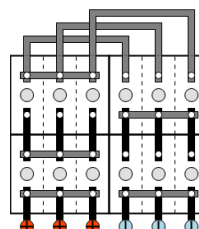
Classification

Brand
Cell type
Cell P/N
Capacity at 5 hours rate
IEC Designation
According to IEC 60623

HB420P
310100681
420 Ah
KH420P



Wiring principle



Crosswise

Physical data

Overall height	410 mm		
Cell height	400 mm		
Width	195 mm	Weight per cell	37,0 Kg
Length	268 mm		

Construction

Container material	Polypropylene	No. of terminals/polarity	3
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	10,1 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	0,10 mOhm	Short circuit current	12490 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	42,1	52,6	84,0	139	205	270	396	718	965	1.106	1.307	1.586	1.991	2.246	2.731	2.905
1,05	41,7	52,2	82,8	136	202	264	383	682	828	941	1.107	1.288	1.670	1.885	2.274	2.370
1,1	40,6	50,8	81,0	133	195	255	362	554	649	730	822	992	1.331	1.515	1.803	1.894
1,14	39,5	49,4	77,8	127	179	227	298	437	521	584	661	809	1.061	1.217	1.432	1.483
1,16	38,3	47,9	75,9	122	164	202	242	362	432	479	532	665	901	1.017	1.191	1.260

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 3.667 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	50,9	63,7	100	164	242	306	430	747	988	1.124	1.317	1.586	1.991	2.246	2.731	2.905
1,05	50,5	63,1	99,0	162	238	303	426	735	884	999	1.169	1.353	1.754	1.980	2.388	2.490
1,1	49,2	61,4	96,8	157	230	295	412	619	721	808	908	1.091	1.464	1.667	1.983	2.084
1,14	47,8	59,8	93,0	151	211	266	345	502	596	668	755	922	1.210	1.388	1.633	1.690
1,16	46,4	58,0	90,7	145	194	238	282	422	502	557	617	771	1.046	1.180	1.382	1.462

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 3.667 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 3.667 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 3.667 A