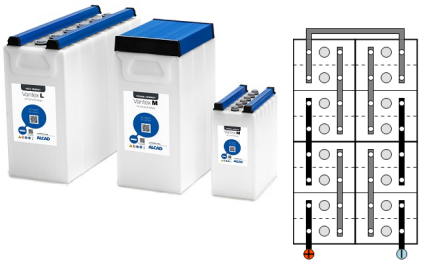
Reliability inside

VTX 1 M 420 - Cell data sheet

Classification

Brand	Alcad
Cell type	VTX 1 M 420
Cell P/N	310562482
Capacity at 5 hours rate	420 Ah
IEC Designation	KGM420P
According to IEC 62259	



Wiring principle Normal

Physical data

Overall height	421 mm		
Cell height			
Width	195 mm	Weight per cell	23,5 Kg
Block length - 2 cells	352 mm	Block length - 3 cells	522 mm

Construction

Container material	Polypropylene	No. of terminals/polarity	2
Separator type	Felt	Terminal material	Steel
Connection torque	30,0 +/- 3,0 Nm	Vent type	Low pressure flame arresting vent (large)
Terminal size	M10 SW 16 mm		
		Handle	Yes

Plates

Positive		Negative	
Type of plates	Maintenance Free Pocket	Type of plates	Maintenance Free Pocket

Electrolyte

Electrolyte type: Renewal	E13	Max/Min	50 mm
Electrolyte type: Initial	E22	Vent oil quantity	
Electrolyte per cell: Liquid	5,8 liters		

Connection

Cable area of internal connection cables	120 mm²	End-lug (and external cable)	120 mm²

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Charging

Float voltage	1,42 V/Cell	High rate voltage (min)	1,45 V/Cell
Single-level voltage	1,42 V/Cell		

Resistance/Short circuit

Internal resistance	0,27 mOhm	Short circuit current	4554 A

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	52,3	84,0	135	198	258	345	470	531	570	619	717	757	867	987	1.059
1,05	41,8	51,9	81,7	133	194	245	305	391	441	471	508	588	645	734	835	894
1,1	41,4	51,3	80,5	130	180	211	250	307	337	357	392	461	532	613	698	742
1,14	40,6	50,3	78,0	119	149	166	191	235	256	271	295	361	420	490	562	594

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	50,2	61,8	98,0	150	214	275	355	477	536	573	620	717	757	867	987	1.059
1,05	49,9	61,4	95,4	149	212	265	327	415	466	497	534	617	677	771	877	939
1,1	49,4	60,9	94,6	149	204	237	278	340	372	393	431	507	586	674	768	816
1,14	48,6	59,8	92,0	139	172	191	220	268	292	309	337	411	478	558	641	677

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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	8,04	5,00	3,12	2,13	1,63	1,22	0,89	0,79	0,74	0,68	0,59	0,56	0,48	0,43	0,40
1,05	10,0	8,09	5,14	3,16	2,17	1,71	1,38	1,07	0,95	0,89	0,83	0,71	0,65	0,57	0,50	0,47
1,1	10,1	8,18	5,22	3,24	2,33	1,99	1,68	1,37	1,25	1,18	1,07	0,91	0,79	0,69	0,60	0,57
1,14	10,3	8,35	5,38	3,52	2,82	2,53	2,20	1,79	1,64	1,55	1,42	1,16	1,00	0,86	0,75	0,71

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	8,37	6,80	4,28	2,80	1,96	1,53	1,18	0,88	0,78	0,73	0,68	0,59	0,56	0,48	0,43	0,40
1,05	8,41	6,84	4,40	2,82	1,98	1,59	1,28	1,01	0,90	0,85	0,79	0,68	0,62	0,54	0,48	0,45
1,1	8,50	6,89	4,44	2,83	2,06	1,77	1,51	1,24	1,13	1,07	0,97	0,83	0,72	0,62	0,55	0,51
1,14	8,65	7,02	4,57	3,02	2,44	2,20	1,91	1,57	1,44	1,36	1,25	1,02	0,88	0,75	0,66	0,62