



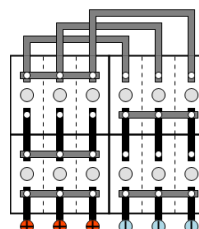
VTX 1 M 590 - Cell data sheet

Classification

Brand	Alcad
Cell type	VTX 1 M 590
Cell P/N	310562881
Capacity at 5 hours rate	590 Ah
IEC Designation	KGM590P
According to	IEC 62259



Wiring principle



Crosswise

Physical data

Overall height	411 mm		
Cell height			
Width	195 mm	Weight per cell	34,5 Kg
Length	268 mm		

Construction

Container material	Polypropylene	No. of terminals/polarity	3
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	8,7 liters		

Connection

Cable area of internal connection cables	70 mm ²	End-lug (and external cable)	70 mm ²
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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	0,19 mOhm	Short circuit current	6397 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	59,1	73,4	118	189	278	362	484	660	746	801	869	1.008	1.063	1.218	1.387	1.488
1,05	58,8	73,0	115	187	272	344	428	549	620	662	713	826	906	1.031	1.173	1.256
1,1	58,2	72,1	113	182	253	296	351	431	473	501	550	648	748	861	981	1.043
1,14	57,1	70,7	110	168	210	233	269	330	359	381	415	507	589	688	790	834

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	70,5	86,8	138	211	301	386	499	670	752	805	872	1.008	1.063	1.218	1.387	1.488
1,05	70,1	86,2	134	209	298	372	459	583	655	698	751	867	951	1.083	1.232	1.319
1,1	69,4	85,6	133	209	286	333	391	477	523	552	606	712	823	947	1.079	1.147
1,14	68,2	84,0	129	195	242	268	308	377	410	435	473	577	672	784	901	951



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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