



VTX 1 M 48 - Cell data sheet

Classification

Brand	Alcad
Cell type	VTX 1 M 48
Cell P/N	310560884
Capacity at 5 hours rate	48 Ah
IEC Designation	KGM48P
According to IEC 62259	



Wiring principle

Normal

Physical data

Overall height	270 mm		
Cell height			
Width	123 mm	Weight per cell	3,3 Kg
Block length - 4 cells	239 mm	Block length - 5 cells	297 mm
Block length - 6 cells	355 mm	Block length - 7 cells	413 mm
Block length - 8 cells	471 mm	Block length - 9 cells	529 mm
Block length - 10 cells	587 mm		

Construction

Container material	Polypropylene	No. of terminals/polarity	1
Separator type	Felt	Terminal material	Steel
Connection torque	11,0 +/- 1,1 Nm	Vent type	Low pressure flame arresting vent (small)
Terminal size	M6 SW 10 mm	Handle	No

Plates

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

Electrolyte

Electrolyte type: Renewal	E13	Max/Min	35 mm
Electrolyte type: Initial	E22	Vent oil quantity	
Electrolyte per cell: Liquid	0,7 liters		

Connection

Cable area of internal connection cables	16 mm ²	End-lug (and external cable)	16 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	2,08 mOhm	Short circuit current	731 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	4,83	5,99	9,6	15,5	22,6	29,4	39,5	54,3	63,0	69,6	78,5	96,4	105	124	151	170
1,05	4,82	5,95	9,32	15,4	22,1	28,0	34,0	46,1	53,7	58,0	63,3	78,8	88,4	104	127	143
1,1	4,81	5,91	9,29	15,0	20,4	23,8	28,6	36,1	41,6	44,4	49,4	60,4	72,9	85,8	105	118
1,14	4,71	5,84	9,07	13,6	16,5	18,1	22,3	27,6	31,1	33,4	37,4	46,1	57,5	68,9	85,6	93,0

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	5,76	7,08	11,2	17,3	24,5	31,4	40,7	55,1	63,6	70,0	78,7	96,4	105	124	151	170
1,05	5,75	7,04	10,9	17,2	24,2	30,2	36,4	48,9	56,7	61,1	66,6	82,7	92,8	109	134	150
1,1	5,74	7,01	10,9	17,2	23,1	26,7	31,9	40,0	46,0	48,9	54,4	66,5	80,2	94,4	116	129
1,14	5,62	6,95	10,7	15,8	19,0	20,9	25,6	31,6	35,5	38,2	42,6	52,6	65,6	78,5	97,6	106



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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	9,9	8,01	5,00	3,09	2,13	1,63	1,22	0,88	0,76	0,69	0,61	0,50	0,46	0,39	0,32	0,28
1,05	10,0	8,06	5,15	3,11	2,17	1,72	1,41	1,04	0,89	0,83	0,76	0,61	0,54	0,46	0,38	0,34
1,1	10,0	8,12	5,17	3,19	2,35	2,02	1,68	1,33	1,15	1,08	0,97	0,79	0,66	0,56	0,46	0,41
1,14	10,2	8,21	5,29	3,52	2,91	2,65	2,15	1,74	1,55	1,44	1,28	1,04	0,83	0,70	0,56	0,52

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	8,34	6,78	4,28	2,77	1,96	1,53	1,18	0,87	0,76	0,69	0,61	0,50	0,46	0,39	0,32	0,28
1,05	8,35	6,82	4,42	2,78	1,98	1,59	1,32	0,98	0,85	0,79	0,72	0,58	0,52	0,44	0,36	0,32
1,1	8,37	6,84	4,40	2,79	2,08	1,80	1,51	1,20	1,04	0,98	0,88	0,72	0,60	0,51	0,42	0,37
1,14	8,54	6,91	4,48	3,03	2,52	2,30	1,87	1,52	1,35	1,26	1,13	0,91	0,73	0,61	0,49	0,45