100 YEARS

Vantex Range

Maintenance-free Ni-Cd **batteries**

Reliability inside

ALCAD

ADVANCED SOLUTIONS | ENGINEERING EXCELLENCE

Your choice for peace of mind

Alcad – providing you with reliable batteries

Since 100 years we've been working alongside our clients – companies at the forefront of their industries - to provide well - established Ni-Cd battery solutions.

Our world-class batteries offer optimum security and availability for stationary applications including power backup, engine starting and bulk energy storage.

The Alcad ethos is to strive to be the best at what we do. Our R&D teams respond pro-actively to evolving technologies and streamline our manufacturing processes, assuring customers benefit from the highest quality products.

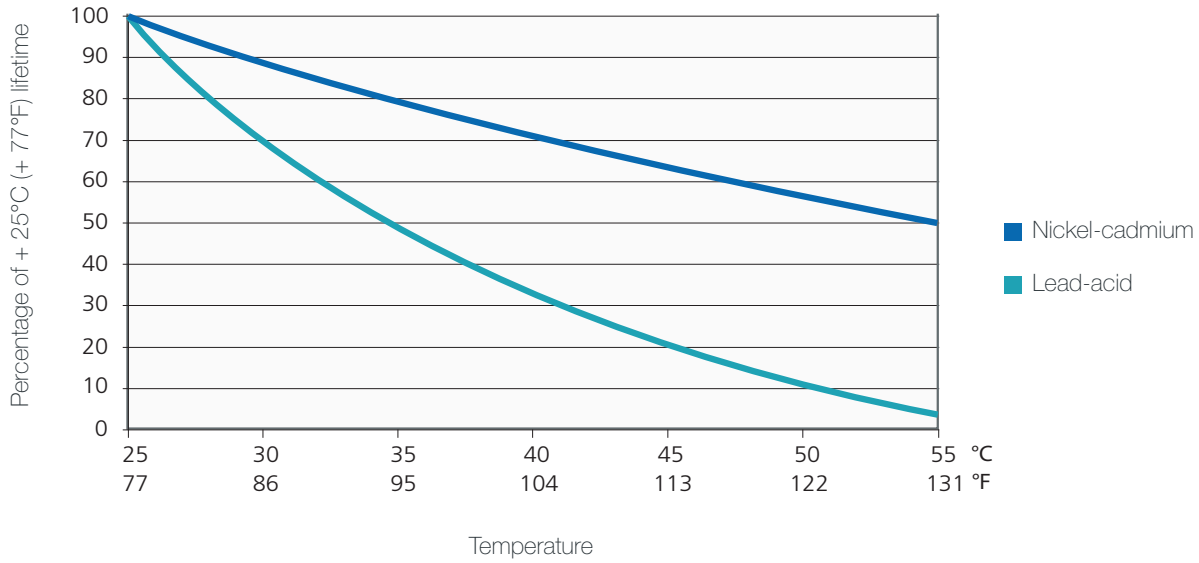
Alcad's fully integrated, worldwide service gives professional support and guidance right from your project's inception, through to supply of the batteries, installation, professional training and end of life recycling.

Vantex gives you complete peace of mind and long life – including operation at high temperatures

Alcad's proven Ni-Cd technology has set the standard in industry for battery performance in challenging environments. Our batteries are renowned for their high performance and reliability, with clients assured of long battery life with no risk of sudden death failure.

Vantex improves on this impressive track-record by providing a service life of over 20 years at + 25°C [+ 77°F]. Even at temperatures up to + 35°C [+ 95°F], battery life drops by only 20%, as opposed to a 50% fall for a lead-acid battery.

Effect of temperature on lifetime



Vantex

Vantex

The 1st Ni-Cd battery operating in narrow DC voltage windows

The maintenance-free solution for stationary applications

Alcad's most recent innovations have brought improved dependability to the world of industrial batteries. The latest Ni-Cd pocket plate technology offers maintenance-free(*) operation, making Vantex the ideal backup power supply.

Important features include its low pressure flame-arresting vent, high electrical performance and chargeability. Vantex batteries deliver exceptional performance for optimal TCO (Total Cost of Ownership).

The perfect fit to replace lead-acid batteries

The last Vantex generation is the perfect fit to replace lead-acid batteries thanks to its 1.39 V/cell single level charge. Its fast recharge enables 95% SOC in 8h at 1.45 V/cell for minimal downtime and optimal availability after a power failure.

Without the need for boost charge, Vantex Ni-Cd batteries can be fitted in all commonly used DC-systems. Dropping diodes or DC/DC converters are less required. Thus, the cost for the DC-system can be reduced as less components are needed.

(*) The term maintenance-free means that no addition of water is necessary during the lifetime of the product, when following Alcad's recommended operating conditions.

Providing optimum, maintenance-free performance

Maintenance-free design keeps running costs down

Vantex's state-of-the-art design concept gives our customers maintenance-free batteries.

• No need to add water throughout the service life of the battery (following Alcad's recommended operating conditions – from - 20°C (- 4°F) to + 40°C (+ 104°F), at 1.39 V/cell).

• Minimal servicing is required with only preventive maintenance needed.

• Water use and gas emissions are reduced due to the high level of gas recombination of more than 95% – far beyond the requirements of IEC 62259.

• Vantex is supplied with a low pressure flame-arresting vent – one that works as a valve regulated vent.

High efficiency optimizes battery life cost

Vantex battery solutions offer high efficiency. Installers can now select a specific battery that fits individual operational requirements, reducing primary purchase costs.

• Vantex design has high battery electrical performance whatever discharge time is needed. This is enabling to use a small battery capacity for an optimized TCO (Total Cost of Ownership).

• Bringing batteries into service is a straightforward procedure. Even after six months of storage, the battery commissioning is easy and simple. It can be performed with any commercial charger.

Fast battery charging reduces downtime

• Single or two-level charging regimes are available:

Single level charge

• 1.39 ± 0.01 V/cell

Two level charge

• Float level: 1.39 ± 0.01 V/cell

• High level: 1.45 ± 0.01 V/cell

• The fast recharge enables 95% SOC in 8h at 1.45 V/cell for maximum availability after a power failure, at + 20°C (+ 68°F).

> “Quick and simple charging, inside a narrow voltage window, leads to good availability with minimal downtime”

Vantex

Designed for critical applications

Essential support for vital systems

When you need a power backup system you can trust, you need Vantex.

Our batteries are the essential component in power backup systems across the following industries:

- Oil and gas exploration
- Utilities
- Manufacturing and production

Losing mains power is not a problem for systems with Vantex backup. Our batteries provide a crucial power supply to deliver continuity of mission-critical loads, expedite safe shutdown processes, bridge to standby power and safeguard computer data.

Our batteries are frequently used as backup for:

- UPS
- Substation switchgear
- Process control systems
- Emergency lighting
- Fire alarms
- Security systems

A battery you can trust in the most challenging operating conditions

When safety is of paramount importance, Vantex batteries offer complete reliability, any time, anywhere.

- Our unique Ni-Cd electrochemistry works in conjunction with the tried and tested Alcad pocket plate design to give you absolute peace of mind.
- Vantex batteries are an enduring option with a lifetime service of over 20 years at + 25°C (+ 77°F).
- Strong build quality cuts out the risk of sudden death failure.
- Vantex provides exceptional performance combined with a long service life in temperatures up to + 40°C (+ 104°F), and tolerates - 40°C (- 40°F) to + 70°C (+ 158°F) for short durations.

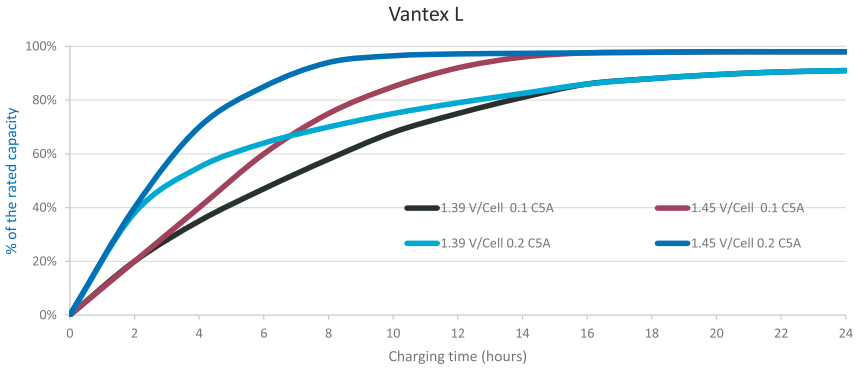
Available capacity after constant voltage charge
Available charge current 0.1 C_5A or 0.2 C_5A at + 20°C (+68°F)

Vantex VTX1 L

L type cell

15 – 1700 Ah

For low rate discharges over long periods between 1 and 100 hours

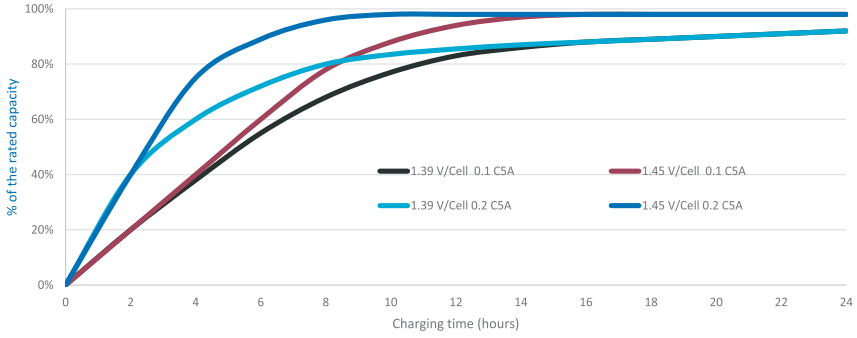


Vantex VTX1 M

M type cell

8 – 1330 Ah

For varied loads with low and high discharge rates, between 30 minutes and 3 hours

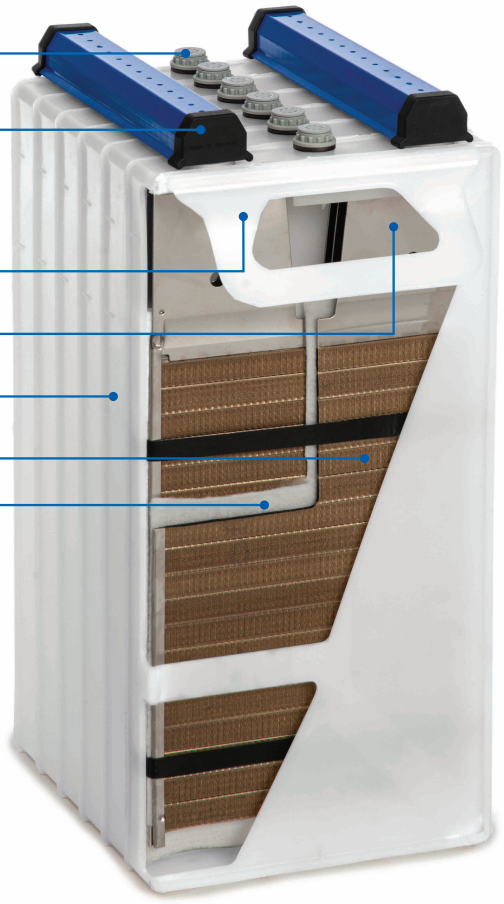


Our straightforward design promotes smooth handling, fitting and operation

- All batteries arrive filled with electrolyte and ready charged.
- The batteries have a long storage period of up to two years in normal conditions, and can be stored at elevated temperatures in certain circumstances.
- Up to ten cells can be configured into single integrated blocks connected in series.
- Adaptable block configuration allows for quick and simple installation.

> “A simple approach: our modular system allows versatile block configurations”

Vantex construction features



Cells are welded together into a block, up to a maximum of ten cells, subject to cell size and type.

Vantex

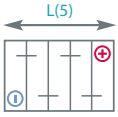
Adaptable block configurations

With single pole bolts

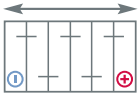
VTX1 L 15-62, VTX1 L 95, VTX1 L 140-280
VTX1 M 8-48, VTX1 M 75-220

L(4)

L(5)

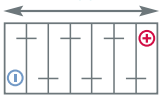


L(6)

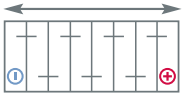


VTX1 L 15-62 VTX1 M 8-48

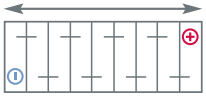
L(7)



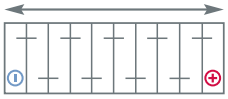
L(8)



L(9)



L(10)

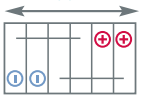


With double pole bolts

VTX1 L 325-370 VTX1 M 245-445

L(2)

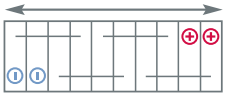
L(3)



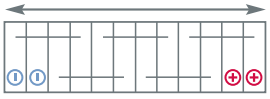
VTX1 L 75, VTX1 L 110, VTX1 M 65

L(4)

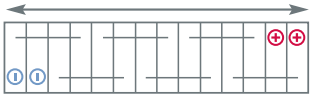
L(5)



L(6)



L(7)



With 2-6 bolts per pole, crosswise mounted on racks

VTX1 L 515-560

L(1)

VTX1 L 610-840
VTX1 M 490-640

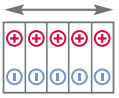
L(1)

VTX1 L 890-1120
VTX1 M 690-885

L(1)

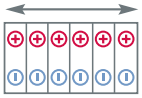
VTX1 L 1220-1400
VTX1 M 935-1030

L(1)



VTX1 L 1500-1700
VTX1 M 1130-1330

L(1)

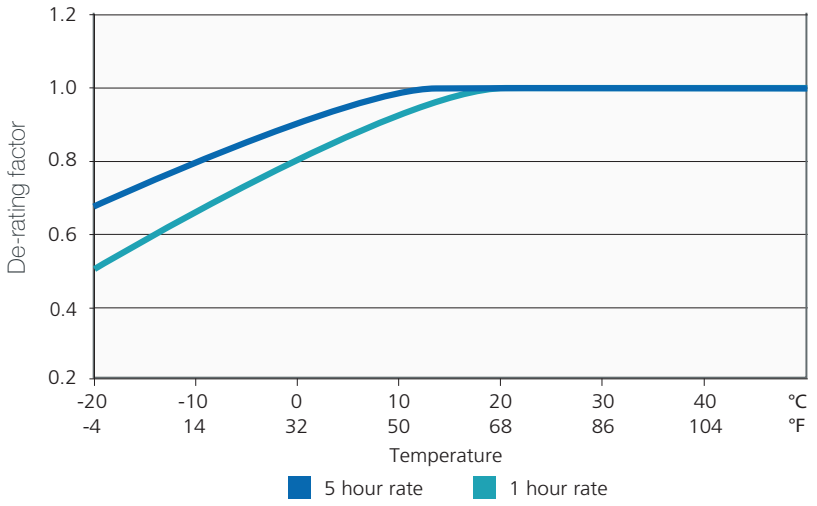


The practical choice straightforward - usage and installation

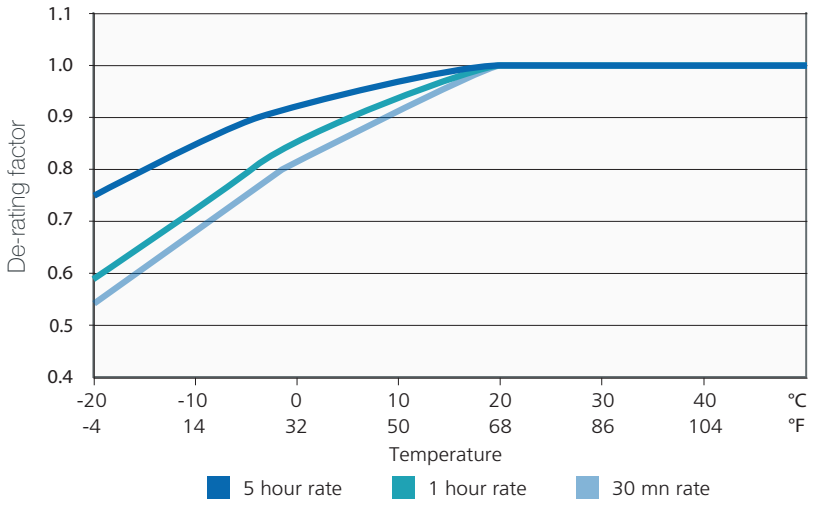
Batteries with a wide range of specifications

- The capacity of Vantex batteries extends from 8 – 1700 Ah in a choice of two ranges.
- VTX1 L energy range, optimized for long discharge periods with a relatively low current.
- VTX1 M medium power range, especially designed for mixed loads with varying current.

Temperature de-rating factors for L type cell



Temperature de-rating factors for M type cell



> The Vantex battery design meets the highest international quality, safety and environmental standards

Electrical specifications

• Certified IEC 62259 – Secondary cells and batteries containing alkaline or other non-acid electrolytes – Nickel-cadmium prismatic secondary single cells with partial gas recombination. Vantex exceeds gas recombination requirements.

• Certified IEC 60623 – Secondary cells and batteries containing alkaline or other non-acid electrolytes – Vented nickel-cadmium prismatic rechargeable single cells.

Safety

• Complies with EN 50272-2 / IEC 62485-2 – Safety requirements for secondary batteries and battery installations – Part 2: Stationary batteries – The protective covers for terminals and connectors, the insulated cables are compliant with IP2 level protection against electrical shocks according to safety standard.

Quality

• ISO 9001 and ISO 14001

• Alcad world class continuous programme

Environment & Recycling

• Fully recyclable

• RoHS – Despite batteries and accumulators not being within the remit of the RoHS directive, Alcad has taken voluntary steps to ensure that the substances forbidden by RoHS are not present in the battery, except in the electro-chemical core.

• REACH – Alcad has agreed internal procedures to conform to the European REACH (Registration,` Evaluation, Authorisation and Restriction of Chemical Substances) Regulation.

Tailored support for all our customers from start to finish

Customers around the globe come to Alcad for the ideal battery solution for their individual requirements.

Our experienced stationary battery experts work on everything from the initial design through to installation and commissioning.

And our after-sales support assists with maintenance, diagnostic services and end of life recycling.

Alcad also provides battery training seminars for relevant personnel as required.

As our customer base grows, we are continuing to expand our network of approved service stations in the Middle East, Asia and North America, to give the best possible service, worldwide.

Vantex

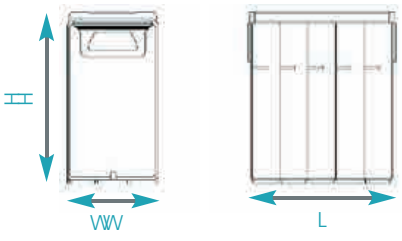
L range

Cell dimensions and internal resistance

L type	Capacity	Height		Width		Length per block														Approx. weight per cell		Internal resistance [1]	Cell connection bolt per pole
						4 cells		5 cells		6 cells		7 cells		8 cells		9 cells		10 cells					
	C_5 Ah	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	mOhm	
VTX1 L 15	15	270	10.6	123	4.8	123	4.8	153	6	182	7.2	212	8.3	241	9.5	271	10.6	300	11.8	1.1	2.42	12.1	M6
VTX1 L 30	30	270	10.6	123	4.8	143	5.6	178	7	212	8.3	247	9.7	281	11.1	316	12.4	350	13.8	1.8	3.96	6.03	M6
VTX1 L 47	47	270	10.6	123	4.8	191	7.5	238	9.4	284	11.2	331	13	377	14.8	424	16.7	470	18.5	2.5	5.51	3.85	M6
VTX1 L 62	62	270	10.6	123	4.8	239	9.4	298	11.7	356	14	415	16.3	473	18.6	532	20.9	590	23.2	3.2	7.05	2.92	M6
VTX1 L 75	75	270	10.6	123	4.8	329	13	410	16.1	491	19.3	572	22.5	-	-	-	-	-	-	4.3	9.47	2.41	2xM6
VTX1 L 95	95	421	16.6	195	7.7	157	6.2	193	7.6	229	9	-	-	-	-	-	-	-	-	4.9	10.8	2.55	M8
VTX1 L 110	110	270	10.6	123	4.8	425	16.7	530	20.9	635	25	740	29.1	-	-	-	-	-	-	5.7	12.5	1.65	2xM6
VTX1 L 140	140	421	16.6	195	7.7	205	8.1	253	10	301	11.9	-	-	-	-	-	-	-	-	6.7	14.7	1.73	M10
VTX1 L 185	185	421	16.6	195	7.7	253	10	313	12.3	373	14.7	-	-	-	-	-	-	-	-	8.4	18.5	1.31	M10
VTX1 L 235	235	421	16.6	195	7.7	305	12	378	14.9	451	17.8	-	-	-	-	-	-	-	-	9.9	21.8	1.03	M10
VTX1 L 280	280	421	16.6	195	7.7	353	13.9	438	17.2	523	20.6	-	-	-	-	-	-	-	-	11.5	25.3	0.86	M10

L type	Capacity	Height		Width		Length per block						Approx. weight per cell		Internal resistance [1]	Cell connection bolt per pole
						1 cell		2 cells		3 cells					
	C_5 Ah	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	mOhm	
VTX1 L 325	325	421	16.6	195	7.7	-	-	229	9	337	13.3	15.1	33.2	0.74	2xM10
VTX1 L 375	375	421	16.6	195	7.7	-	-	253	10	373	14.7	16.8	37.0	0.65	2xM10
VTX1 L 420	420	421	16.6	195	7.7	146	5,7	279	11	412	16.2	18.3	40.3	0.58	2xM10
VTX1 L 470	470	421	16.6	195	7.7	159	6,3	305	12	451	17.8	19.8	43.6	0.51	2xM10
VTX1 L 515	515	405	15.9	195	7.7	171	6.7	-	-	-	-	21.4	47.1	0.47	2xM10
VTX1 L 560	560	405	15.9	195	7.7	183	7.2	-	-	-	-	23.0	50.7	0.43	2xM10
VTX1 L 610	610	405	15.9	195	7.7	207	8.1	-	-	-	-	26.5	58.4	0.40	3xM10
VTX1 L 650	650	405	15.9	195	7.7	219	8.6	-	-	-	-	28.2	62.1	0.37	3xM10
VTX1 L 700	700	405	15.9	195	7.7	232	9.1	-	-	-	-	29.7	65.4	0.35	3xM10
VTX1 L 750	750	405	15.9	195	7.7	243	9.6	-	-	-	-	31.4	69.2	0.32	3xM10
VTX1 L 800	800	405	15.9	195	7.7	256	10.1	-	-	-	-	32.9	72.5	0.3	3xM10
VTX1 L 840	840	405	15.9	195	7.7	268	10.6	-	-	-	-	34.5	76.0	0.29	3xM10
VTX1 L 890	890	405	15.9	195	7.7	292	11.5	-	-	-	-	38.1	83.9	0.27	4xM10
VTX1 L 940	940	405	15.9	195	7.7	305	12	-	-	-	-	39.6	87.3	0.26	4xM10
VTX1 L 980	980	405	15.9	195	7.7	316	12.4	-	-	-	-	41.2	90.8	0.25	4xM10
VTX1 L 1030	1030	405	15.9	195	7.7	328	12.9	-	-	-	-	42.9	94.5	0.23	4xM10
VTX1 L 1120	1120	405	15.9	195	7.7	353	13.9	-	-	-	-	46.0	101.4	0.22	4xM10
VTX1 L 1220	1220	405	15.9	195	7.7	388	15.3	-	-	-	-	51.3	113.0	0.20	5xM10
VTX1 L 1300	1300	405	15.9	195	7.7	413	16.3	-	-	-	-	54.4	119.9	0.19	5xM10
VTX1 L 1400	1400	405	15.9	195	7.7	438	17.2	-	-	-	-	57.5	126.7	0.17	5xM10
VTX1 L 1500	1500	405	15.9	195	7.7	473	18.6	-	-	-	-	62.8	138.4	0.16	6xM10
VTX1 L 1600	1600	405	15.9	195	7.7	498	19.6	-	-	-	-	65.9	145.2	0.15	6xM10
VTX1 L 1700	1700	405	15.9	195	7.7	523	20.6	-	-	-	-	69.0	152.1	0.14	6xM10

[1] *Rigid connector included*



The block length and weight are determined by the number of cells in the block. All tabulated dimensions are maximum values.

Vantex

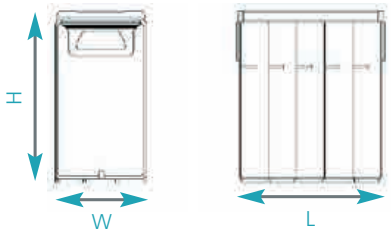
M range

Cell dimensions and internal resistance

M type	Capacity	Height		Width		Length per block														Approx. weight per cell		Internal resistance (1)	Cell connection bolt per pole
						4 cells		5 cells		6 cells		7 cells		8 cells		9 cells		10 cells					
	C_5 Ah	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	mOhm	
VTX1M 8	8	270	10.6	123	4.8	123	4.8	153	6	182	7.2	212	8.3	241	9.5	271	10.6	300	11.8	1.1	2.42	12.5	M6
VTX1M 16	16	270	10.6	123	4.8	123	4.8	153	6	182	7.2	212	8.3	241	9.5	271	10.6	300	11.8	1.5	3.30	6.25	M6
VTX1M 24	24	270	10.6	123	4.8	143	5.6	178	7	212	8.3	247	9.7	281	11.1	316	12.4	350	13.8	1.8	3.96	4.17	M6
VTX1M 32	32	270	10.6	123	4.8	191	7.5	238	9.4	284	11.2	331	13.0	377	14.8	424	16.7	470	18.5	2.5	5.51	3.13	M6
VTX1M 40	40	270	10.6	123	4.8	239	9.4	298	11.7	356	14	415	16.3	473	18.6	532	20.9	590	23.2	3.2	7.05	2.50	M6
VTX1M 48	48	270	10.6	123	4.8	239	9.4	298	11.7	356	14	415	16.3	473	18.6	532	20.9	590	23.2	3.3	7.27	2.08	M6
VTX1M 65	65	270	10.6	123	4.8	377	14.8	470	18.5	563	22.2	656	25.8	-	-	-	-	-	-	5	11.0	1.54	2xM6
VTX1M 75	75	421	16.6	195	7.7	157	6.2	193	7.6	229	9	-	-	-	-	-	-	-	-	4.9	10.8	1.52	M8
VTX1M 100	100	421	16.6	195	7.7	187	7.4	231	9.1	274	10.8	-	-	-	-	-	-	-	-	6.3	13.8	1.14	M8
VTX1M 125	125	421	16.6	195	7.7	229	9	283	11.1	337	13.3	-	-	-	-	-	-	-	-	7.6	16.7	0.91	M10
VTX1M 150	150	421	16.6	195	7.7	253	10	313	12.3	373	14.7	-	-	-	-	-	-	-	-	8.4	18.5	0.76	M10
VTX1M 170	170	421	16.6	195	7.7	305	12	378	14.9	451	17.8	-	-	-	-	-	-	-	-	9.9	21.8	0.67	M10
VTX1M 195	195	421	16.6	195	7.7	353	13.9	438	17.2	523	20.6	-	-	-	-	-	-	-	-	11.5	25.3	0.58	M10
VTX1M 220	220	421	16.6	195	7.7	353	13.9	438	17.2	523	20.6	-	-	-	-	-	-	-	-	12.	26.4	0.52	M10

M type	Capacity	Height		Width		Length per block						Approx. weight per cell		Internal resistance (1)	Cell connection bolt per pole
						1 cell		2 cells		3 cells					
	C_5 Ah	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	mOhm	
VTX1M 220	220	421	16.6	195	7.7	98	3.9	-	-	-	-	12.0	26.4	0.52	M10
VTX1M 245	245	421	16.6	195	7.7	-	-	229	9	337	13.3	15.2	33.5	0.47	2xM10
VTX1M 270	270	421	16.6	195	7.7	127	5	241	9.5	355	14	16.0	35.2	0.42	2xM10
VTX1M 295	295	421	16.6	195	7.7	133	5.2	253	10	373	14.7	16.8	37.0	0.39	2xM10
VTX1M 320	320	421	16.6	195	7.7	-	-	279	11	412	16.2	18.3	40.3	0.36	2xM10
VTX1M 345	345	421	16.6	195	7.7	159	6.3	305	12	451	17.8	19.8	43.6	0.33	2xM10
VTX1M 370	370	421	16.6	195	7.7	-	-	329	13	487	19.2	21.4	47.1	0.31	2xM10
VTX1M 395	395	421	16.6	195	7.7	-	-	353	13.9	523	20.6	23.0	50.7	0.29	2xM10
VTX1M 420	420	421	16.6	195	7.7	-	-	353	13.9	523	20.6	23.5	51.8	0.27	2xM10
VTX1M 445	445	421	16.6	195	7.7	-	-	353	13.9	523	20.6	24.0	52.9	0.26	2xM10
VTX1M 490	490	405	15.9	195	7.7	219	8.6	-	-	-	-	28.2	62.1	0.23	3xM10
VTX1M 540	540	405	15.9	195	7.7	243	9.6	-	-	-	-	31.4	69.2	0.21	3xM10
VTX1M 590	590	405	15.9	195	7.7	268	10.6	-	-	-	-	34.5	76.0	0.19	3xM10
VTX1M 640	640	405	15.9	195	7.7	268	10.6	-	-	-	-	35.5	78.2	0.18	3xM10
VTX1M 690	690	405	15.9	195	7.7	305	12	-	-	-	-	39.6	87.3	0.17	4xM10
VTX1M 740	740	405	15.9	195	7.7	328	12.9	-	-	-	-	42.9	94.5	0.15	4xM10
VTX1M 785	785	405	15.9	195	7.7	353	13.9	-	-	-	-	46.0	101.4	0.15	4xM10
VTX1M 835	835	405	15.9	195	7.7	341	13.4	-	-	-	-	45.9	101.1	0.14	4xM10
VTX1M 885	885	405	15.9	195	7.7	353	13.9	-	-	-	-	48.0	105.8	0.13	4xM10
VTX1M 935	935	405	15.9	195	7.7	413	16.3	-	-	-	-	54.4	119.9	0.12	5xM10
VTX1M 985	985	405	15.9	195	7.7	438	17.2	-	-	-	-	57.5	126.7	0.12	5xM10
VTX1M 1030	1030	405	15.9	195	7.7	413	16.3	-	-	-	-	56.4	124.3	0.11	5xM10
VTX1M 1130	1130	405	15.9	195	7.7	498	19.6	-	-	-	-	65.9	145.2	0.10	6xM10
VTX1M 1230	1230	405	15.9	195	7.7	492	19.4	-	-	-	-	67.6	149.0	0.09	6xM10
VTX1M 1330	1330	405	15.9	195	7.7	523	20.6	-	-	-	-	72.0	158.7	0.09	6xM10

(1) Rigid connector included



The block length and weight are determined by the number of cells in the block. All tabulated dimensions are maximum values.

Vantex

L range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.00 V/cell

L type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 L 15	15	1.56	1.93	3.00	4.80	6.43	7.59	9.30	10.5	12.1	13.6	14.4	15.4	17.1	19.5	21.3	26.2	29.3
VTX1 L 30	30	3.12	3.86	6.00	9.60	12.9	15.2	18.6	21.0	24.3	27.2	28.9	30.9	34.1	39.1	42.6	52.4	58.6
VTX1 L 47	47	4.89	6.05	9.40	15.0	20.1	23.8	29.1	32.9	38.0	42.6	45.2	48.3	53.5	61.2	66.7	82.0	91.8
VTX1 L 62	62	6.45	7.98	12.4	19.8	26.6	31.4	38.4	43.4	50.1	56.2	59.6	63.8	70.5	80.8	88.0	108	121
VTX1 L 75	75	7.80	9.66	15.0	24.0	32.1	37.9	46.5	52.5	60.6	68.0	72.1	77.1	85.3	97.7	106	131	146
VTX1 L 95	95	9.87	12.2	19.0	30.6	39.8	45.6	53.6	58.6	65.2	71.0	75.2	79.2	87.4	87.4	95.7	113	124
VTX1 L 110	110	11.4	14.2	22.0	35.2	47.1	55.6	68.2	77.0	88.9	99.7	106	113	125	143	156	192	215
VTX1 L 140	140	14.6	18.1	28.0	45.1	58.7	67.2	79.0	86.4	96.0	105	111	117	129	129	141	166	182
VTX1 L 185	185	19.2	23.9	37.0	59.6	77.5	88.8	104	114	127	138	147	154	170	170	186	220	241
VTX1 L 235	235	24.4	30.3	47.0	75.7	98.5	113	133	145	161	176	186	196	216	216	237	279	306
VTX1 L 280	280	29.1	36.1	56.0	90.2	117	134	158	173	192	209	222	234	257	258	282	333	365
VTX1 L 325	325	33.8	41.9	65.0	105	136	156	183	201	223	243	257	271	299	299	327	386	423
VTX1 L 375	375	39.0	48.3	75.0	121	157	180	212	232	257	280	297	313	345	345	378	446	489
VTX1 L 420	420	43.7	54.2	84.0	135	176	202	237	259	288	314	333	350	386	386	423	499	547
VTX1 L 470	470	48.8	60.6	94.0	151	197	226	265	290	322	351	372	392	432	432	473	559	612
VTX1 L 515	515	53.5	66.4	103	166	216	247	290	318	353	385	408	430	474	474	519	612	671
VTX1 L 560	560	58.2	72.2	112	180	235	269	316	346	384	418	444	467	515	515	564	666	730
VTX1 L 610	610	63.4	78.6	122	196	256	293	344	377	418	456	483	509	561	561	614	725	795
VTX1 L 650	650	67.6	83.8	130	209	272	312	367	401	446	486	515	542	598	598	655	773	847
VTX1 L 700	700	72.8	90.3	140	225	293	336	395	432	480	523	554	584	644	644	705	832	912
VTX1 L 750	750	77.9	96.7	150	242	314	360	423	463	515	560	594	626	690	690	755	891	977
VTX1 L 800	800	83.1	103	160	258	335	384	451	494	549	598	634	667	736	736	806	951	1042
VTX1 L 840	840	87.3	108	168	270	352	403	474	519	576	627	665	701	772	773	846	998	1094
VTX1 L 890	890	92.5	115	178	287	373	427	502	549	611	665	705	742	818	819	896	1058	1159
VTX1 L 940	940	97.7	121	188	303	394	451	530	580	645	702	744	784	864	865	947	1117	1225
VTX1 L 980	980	102	126	196	316	411	470	553	605	672	732	776	817	901	902	987	1165	1277
VTX1 L 1030	1030	107	133	206	332	432	494	581	636	707	769	816	859	947	948	1037	1224	1342
VTX1 L 1120	1120	116	144	224	361	469	538	632	691	768	837	887	934	1030	1030	1128	1331	1459
VTX1 L 1220	1220	127	157	244	393	511	586	688	753	837	911	966	1017	1122	1122	1229	1450	1589
VTX1 L 1300	1300	135	168	260	419	545	624	733	803	892	971	1030	1084	1195	1196	1309	1545	1694
VTX1 L 1400	1400	146	181	280	451	587	672	790	864	960	1046	1109	1168	1287	1288	1410	1664	1824
VTX1 L 1500	1500	156	193	300	483	629	720	846	926	1029	1121	1188	1251	1379	1380	1511	1783	1954
VTX1 L 1600	1600	166	206	320	515	670	768	902	988	1098	1195	1267	1334	1471	1472	1612	1902	2084
VTX1 L 1700	1700	177	219	340	547	712	816	959	1049	1166	1270	1346	1418	1563	1564	1712	2021	2215

Vantex

L range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.05 V/cell

L type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 L 15	15	1.56	1.91	2.91	4.29	5.53	6.39	7.81	8.83	10.2	11.4	12.0	13.0	14.8	16.4	17.9	22.1	24.6
VTX1 L 30	30	3.12	3.83	5.82	8.58	11.1	12.8	15.6	17.7	20.4	22.8	24.1	26.1	29.7	32.7	35.8	44.2	49.2
VTX1 L 47	47	4.89	5.99	9.12	13.4	17.3	20.0	24.5	27.7	32.0	35.6	37.7	40.8	46.5	51.3	56.2	69.2	77.1
VTX1 L 62	62	6.45	7.91	12.0	17.7	22.9	26.4	32.3	36.5	42.2	47.0	49.7	53.9	61.3	67.6	74.1	91.3	102
VTX1 L 75	75	7.80	9.56	14.6	21.5	27.7	32.0	39.1	44.1	51.0	56.9	60.1	65.1	74.2	81.8	89.6	110	123
VTX1 L 95	95	9.77	12.0	18.8	27.7	34.7	39.3	44.8	48.5	53.4	58.1	59.9	63.2	69.3	73.4	79.6	94.5	103
VTX1 L 110	110	11.4	14.0	21.3	31.5	40.6	46.9	57.3	64.7	74.8	83.4	88.2	95.5	109	120	131	162	180
VTX1 L 140	140	14.4	17.8	27.7	40.8	51.1	57.9	66.0	71.5	78.6	85.6	88.2	93.1	102	108	117	139	152
VTX1 L 185	185	19.0	23.5	36.6	54.0	67.5	76.5	87.2	94.5	104	113	117	123	135	143	155	184	201
VTX1 L 235	235	24.2	29.8	46.4	68.5	85.8	97	111	120	132	144	148	156	172	181	197	234	255
VTX1 L 280	280	28.8	35.5	55.3	81.7	102	116	132	143	157	171	176	186	204	216	235	279	304
VTX1 L 325	325	33.4	41.2	64.2	94.8	119	134	153	166	183	199	205	216	237	251	272	323	353
VTX1 L 375	375	38.6	47.5	74.1	109	137	155	177	192	211	229	236	249	274	290	314	373	407
VTX1 L 420	420	43.2	53.3	83.0	123	153	174	198	215	236	257	265	279	307	324	352	418	456
VTX1 L 470	470	48.3	59.6	92.9	137	172	194	222	240	264	287	296	313	343	363	394	468	511
VTX1 L 515	515	53.0	65.3	102	150	188	213	243	263	289	315	325	343	376	398	431	512	560
VTX1 L 560	560	57.6	71.0	111	163	204	231	264	286	314	342	353	373	409	432	469	557	608
VTX1 L 610	610	62.7	77.3	121	178	223	252	288	312	343	373	384	406	445	471	511	607	663
VTX1 L 650	650	66.9	82.4	128	190	237	269	306	332	365	397	410	432	474	502	545	647	706
VTX1 L 700	700	72.0	88.8	138	204	256	289	330	358	393	428	441	466	511	541	586	696	761
VTX1 L 750	750	77.1	95.1	148	219	274	310	354	383	421	459	473	499	547	579	628	746	815
VTX1 L 800	800	82.3	101	158	233	292	331	377	409	449	489	504	532	584	618	670	796	869
VTX1 L 840	840	86.4	107	166	245	307	347	396	429	472	514	529	559	613	649	704	836	913
VTX1 L 890	890	91.5	113	176	260	325	368	420	455	500	544	561	592	650	687	746	885	967
VTX1 L 940	940	96.7	119	186	274	343	389	443	480	528	575	592	625	686	726	787	935	1021
VTX1 L 980	980	101	124	194	286	358	405	462	501	550	599	618	652	715	757	821	975	1065
VTX1 L 1030	1030	106	131	204	300	376	426	486	526	578	630	649	685	752	795	863	1025	1119
VTX1 L 1120	1120	115	142	221	327	409	463	528	572	629	685	706	745	818	865	938	1114	1217
VTX1 L 1220	1220	125	155	241	356	445	504	575	623	685	746	769	812	891	942	1022	1214	1325
VTX1 L 1300	1300	134	165	257	379	475	537	613	664	730	795	819	865	949	1004	1089	1293	1412
VTX1 L 1400	1400	144	178	277	408	511	579	660	715	786	856	882	931	1022	1081	1173	1393	1521
VTX1 L 1500	1500	154	190	296	438	548	620	707	766	842	917	945	998	1095	1158	1257	1492	1630
VTX1 L 1600	1600	165	203	316	467	584	661	754	817	899	978	1008	1064	1168	1236	1340	1592	1738
VTX1 L 1700	1700	175	216	336	496	621	703	802	868	955	1039	1071	1131	1241	1313	1424	1691	1847

Vantex

L range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.10 V/cell

L type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 L 15	15	1.50	1.83	2.68	3.69	4.66	5.37	6.38	6.96	7.89	8.72	9.26	10.1	11.5	12.7	14.1	17.4	19.2
VTX1 L 30	30	3.00	3.67	5.37	7.39	9.32	10.7	12.8	13.9	15.8	17.4	18.5	20.1	23.0	25.5	28.2	34.8	38.5
VTX1 L 47	47	4.70	5.75	8.41	11.6	14.6	16.8	20.0	21.8	24.7	27.3	29.0	31.5	36.0	39.9	44.1	54.5	60.3
VTX1 L 62	62	6.20	7.58	11.1	15.3	19.3	22.2	26.4	28.8	32.6	36.0	38.3	41.6	47.5	52.6	58.2	71.9	79.5
VTX1 L 75	75	7.50	9.17	13.4	18.5	23.3	26.9	31.9	34.8	39.4	43.6	46.3	50.3	57.5	63.7	70.4	87.0	96.2
VTX1 L 95	95	9.50	11.7	17.4	24.0	29.0	31.9	35.9	38.5	42.7	46.1	48.2	50.7	54.6	60.1	65.7	77.9	84.1
VTX1 L 110	110	11.0	13.4	19.7	27.1	34.2	39.4	46.8	51.1	57.9	64.0	67.9	73.7	84.3	93.4	103	128	141
VTX1 L 140	140	14.0	17.2	25.7	35.3	42.7	46.9	52.9	56.7	63.0	68.0	71.1	74.7	80.4	88.6	96.8	115	124
VTX1 L 185	185	18.5	22.8	33.9	46.7	56.4	62.0	69.8	75.0	83.2	89.8	93.9	98.7	106	117	128	152	164
VTX1 L 235	235	23.5	28.9	43.1	59.3	71.7	78.8	88.7	95.3	106	114	119	125	135	149	162	193	208
VTX1 L 280	280	28.0	34.5	51.4	70.6	85.4	93.9	106	113	126	136	142	149	161	177	194	230	248
VTX1 L 325	325	32.5	40.0	59.6	82.0	99.1	109	123	132	146	158	165	173	187	206	225	267	288
VTX1 L 375	375	37.5	46.2	68.8	94.6	114	126	142	152	169	182	190	200	215	237	259	308	332
VTX1 L 420	420	42.0	51.7	77.0	106	128	141	159	170	189	204	213	224	241	266	290	345	372
VTX1 L 470	470	47.0	57.9	86.2	119	143	158	177	191	211	228	239	251	270	298	325	386	416
VTX1 L 515	515	51.5	63.4	94.5	130	157	173	194	209	232	250	261	275	296	326	356	423	456
VTX1 L 560	560	56.0	69.0	103	141	171	188	211	227	252	272	284	299	322	355	387	459	496
VTX1 L 610	610	61.0	75.1	112	154	186	205	230	247	274	296	310	325	350	386	422	500	540
VTX1 L 650	650	65.0	80.0	119	164	198	218	245	263	292	316	330	347	373	412	449	533	575
VTX1 L 700	700	70.0	86.2	128	177	213	235	264	284	315	340	355	373	402	443	484	574	620
VTX1 L 750	750	75.0	92.3	138	189	229	252	283	304	337	364	381	400	431	475	518	615	664
VTX1 L 800	800	80.0	98.5	147	202	244	268	302	324	360	389	406	427	460	506	553	656	708
VTX1 L 840	840	84.0	103	154	212	256	282	317	340	378	408	426	448	483	532	581	689	743
VTX1 L 890	890	89.0	110	163	224	271	298	336	361	400	432	452	475	511	563	615	730	788
VTX1 L 940	940	94.0	116	172	237	287	315	355	381	423	457	477	502	540	595	650	771	832
VTX1 L 980	980	98.0	121	180	247	299	329	370	397	441	476	498	523	563	620	677	804	867
VTX1 L 1030	1030	103	127	189	260	314	345	389	417	463	500	523	550	592	652	712	845	912
VTX1 L 1120	1120	112	138	205	282	342	376	423	454	504	544	569	598	644	709	774	919	991
VTX1 L 1220	1220	122	150	224	308	372	409	461	495	549	592	619	651	701	772	843	1001	1080
VTX1 L 1300	1300	130	160	238	328	396	436	491	527	585	631	660	694	747	823	899	1067	1151
VTX1 L 1400	1400	140	172	257	353	427	469	529	567	630	680	711	747	804	886	968	1149	1239
VTX1 L 1500	1500	150	185	275	378	457	503	566	608	675	728	762	800	862	950	1037	1231	1328
VTX1 L 1600	1600	160	197	293	403	488	537	604	649	720	777	812	854	919	1013	1106	1313	1416
VTX1 L 1700	1700	170	209	312	429	518	570	642	689	765	826	863	907	977	1076	1175	1395	1505

Vantex

L range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.14 V/cell

L type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 L 15	15	1.41	1.66	2.26	3.02	3.69	4.14	4.82	5.44	6.16	6.79	7.25	7.79	8.62	10.1	11.3	14.0	15.3
VTX1 L 30	30	2.82	3.32	4.53	6.04	7.38	8.28	9.65	10.9	12.3	13.6	14.5	15.6	17.2	20.2	22.6	27.9	30.6
VTX1 L 47	47	4.42	5.21	7.09	9.45	11.6	13.0	15.1	17.0	19.3	21.3	22.7	24.4	27.0	31.6	35.3	43.7	48.0
VTX1 L 62	62	5.83	6.87	9.35	12.5	15.3	17.1	19.9	22.5	25.5	28.1	30.0	32.2	35.6	41.7	46.6	57.7	63.3
VTX1 L 75	75	7.05	8.31	11.3	15.1	18.5	20.7	24.1	27.2	30.8	34.0	36.3	38.9	43.1	50.4	56.4	69.8	76.6
VTX1 L 95	95	9.03	10.7	14.8	18.7	22.3	24.7	27.6	29.6	32.3	35.1	37.5	40.3	45.6	47.3	52.5	62.4	66.4
VTX1 L 110	110	10.3	12.2	16.6	22.1	27.1	30.4	35.4	39.9	45.2	49.8	53.2	57.1	63.2	74.0	82.7	102	112
VTX1 L 140	140	13.3	15.8	21.8	27.5	32.9	36.4	40.7	43.6	47.6	51.7	55.3	59.5	67.3	69.8	77.4	91.9	97.8
VTX1 L 185	185	17.6	20.9	28.9	36.4	43.5	48.1	53.8	57.6	62.9	68.3	73.0	78.6	88.9	92.2	102	121	129
VTX1 L 235	235	22.3	26.6	36.7	46.2	55.2	61.1	68.4	73.1	79.9	86.7	92.7	100	113	117	130	154	164
VTX1 L 280	280	26.6	31.7	43.7	55.1	65.8	72.8	81.5	87.2	95.2	103	111	119	135	140	155	184	196
VTX1 L 325	325	30.9	36.8	50.7	63.9	76.4	84.5	94.6	101	111	120	128	138	156	162	180	213	227
VTX1 L 375	375	35.6	42.4	58.5	73.8	88.1	97.5	109	117	128	138	148	159	180	187	207	246	262
VTX1 L 420	420	39.9	47.5	65.5	82.6	98.7	109	122	131	143	155	166	178	202	209	232	276	294
VTX1 L 470	470	44.7	53.2	73.3	92.4	110	122	137	146	160	173	185	200	226	234	260	308	328
VTX1 L 515	515	48.9	58.3	80.3	101	121	134	150	160	175	190	203	219	247	257	285	338	360
VTX1 L 560	560	53.2	63.4	87.4	110	132	146	163	174	190	207	221	238	269	279	310	368	391
VTX1 L 610	610	58.0	69.0	95.2	120	143	159	178	190	207	225	241	259	293	304	337	400	426
VTX1 L 650	650	61.8	73.5	101	128	153	169	189	202	221	240	257	276	312	324	359	427	454
VTX1 L 700	700	66.5	79.2	109	138	165	182	204	218	238	258	276	297	336	349	387	459	489
VTX1 L 750	750	71.3	84.8	117	148	176	195	218	233	255	277	296	319	360	374	415	492	524
VTX1 L 800	800	76.0	90.5	125	157	188	208	233	249	272	295	316	340	384	399	442	525	559
VTX1 L 840	840	79.8	95.0	131	165	197	218	244	261	286	310	332	357	404	419	465	551	587
VTX1 L 890	890	84.6	101	139	175	209	231	259	277	303	328	351	378	428	444	492	584	622
VTX1 L 940	940	89.3	106	147	185	221	244	274	293	320	347	371	399	452	468	520	617	657
VTX1 L 980	980	93.1	111	153	193	230	255	285	305	333	362	387	416	471	488	542	643	685
VTX1 L 1030	1030	97.9	117	161	203	242	268	300	321	350	380	407	437	495	513	570	676	720
VTX1 L 1120	1120	106	127	175	220	263	291	326	349	381	413	442	476	538	558	619	735	783
VTX1 L 1220	1220	116	138	190	240	287	317	355	380	415	450	482	518	586	608	675	801	853
VTX1 L 1300	1300	124	147	203	256	306	338	378	405	442	480	513	552	625	648	719	853	909
VTX1 L 1400	1400	133	158	218	275	329	364	407	436	476	517	553	595	673	698	774	919	978
VTX1 L 1500	1500	143	170	234	295	353	390	437	467	510	554	592	637	721	748	830	985	1048
VTX1 L 1600	1600	152	181	250	315	376	416	466	498	544	590	631	680	769	797	885	1050	1118
VTX1 L 1700	1700	162	192	265	334	400	442	495	529	578	627	671	722	817	847	940	1116	1188

Vantex

M range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.00 V/cell

M type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 M 8	8	0.83	1.03	1.60	2.64	3.83	5.01	7.26	8.53	10.2	11.8	13.0	14.9	17.5	18.9	20.6	25.2	28.3
VTX1 M 16	16	1.66	2.05	3.20	5.28	7.66	10.0	14.5	17.1	20.3	23.5	26.0	29.7	35.0	37.7	41.2	50.4	56.6
VTX1 M 24	24	2.49	3.08	4.80	7.92	11.5	15.0	21.8	25.6	30.5	35.3	39.0	44.6	52.6	56.6	61.8	75.6	85.0
VTX1 M 32	32	3.32	4.10	6.40	10.6	15.3	20.1	29.0	34.1	40.6	47.1	52.0	59.4	70.1	75.4	82.4	101	113
VTX1 M 40	40	4.14	5.13	8.00	13.2	19.2	25.1	36.3	42.7	50.8	58.8	64.9	74.3	87.6	94.0	103	126	142
VTX1 M 48	48	4.97	6.15	9.60	15.8	23.0	30.1	43.5	51.2	61.0	70.6	77.9	89.2	105	113	124	151	170
VTX1 M 65	65	6.73	8.33	13.0	21.5	31.1	40.7	59.0	69.3	82.5	95.6	106	121	142	153	167	205	230
VTX1 M 75	75	7.74	9.58	15.0	24.5	36.0	47.1	67.9	80.1	94.2	106	114	126	140	146	155	176	189
VTX1 M 100	100	10.3	12.8	20.0	32.7	48.0	62.7	90.5	107	126	142	152	167	186	194	206	235	252
VTX1 M 125	125	12.9	16.0	25.0	40.8	59.9	78.4	113	134	157	177	190	209	233	243	258	294	315
VTX1 M 150	150	15.5	19.2	30.0	49.0	71.9	94.1	136	160	188	212	228	251	279	291	310	353	378
VTX1 M 170	170	17.5	21.7	34.0	55.5	81.5	107	154	182	214	241	258	285	317	330	351	400	429
VTX1 M 195	195	20.1	24.9	39.0	63.7	93.5	122	176	208	245	276	296	326	363	378	402	458	492
VTX1 M 220	220	22.7	28.1	44.0	71.9	105	138	199	235	276	312	334	368	410	427	454	517	555
VTX1 M 245	245	25.3	31.3	49.0	80.0	117	154	222	262	308	347	372	410	456	476	506	576	618
VTX1 M 270	270	27.9	34.5	54.0	88.2	129	169	244	288	339	382	410	452	503	524	557	635	681
VTX1 M 295	295	30.4	37.7	59.0	96.4	141	185	267	315	371	418	448	494	549	573	609	694	744
VTX1 M 320	320	33.0	40.9	64.0	105	153	201	290	342	402	453	486	536	596	621	660	752	807
VTX1 M 345	345	35.6	44.1	69.0	113	165	216	312	368	433	489	524	578	642	670	712	811	870
VTX1 M 370	370	38.2	47.3	74.0	121	177	232	335	395	465	524	562	619	689	718	764	870	933
VTX1 M 395	395	40.8	50.5	79.0	129	189	248	357	422	496	559	600	661	736	767	815	929	996
VTX1 M 420	420	43.3	53.6	84.0	137	201	263	380	449	528	595	638	703	782	815	867	987	1059
VTX1 M 445	445	45.9	56.8	89.0	145	213	279	403	475	559	630	676	745	829	864	918	1046	1122
VTX1 M 490	490	50.6	62.6	98.0	160	235	307	443	523	615	694	745	820	912	951	1011	1152	1236
VTX1 M 540	540	55.7	69.0	108	176	259	339	489	577	678	765	821	904	1006	1048	1114	1269	1362
VTX1 M 590	590	60.9	75.4	118	193	283	370	534	630	741	835	897	988	1099	1145	1218	1387	1488
VTX1 M 640	640	66.0	81.7	128	209	307	401	579	684	804	906	973	1071	1192	1242	1321	1505	1614
VTX1 M 690	690	71.2	88.1	138	225	331	433	624	737	867	977	1049	1155	1285	1339	1424	1622	1740
VTX1 M 740	740	76.4	94.5	148	242	355	464	670	790	929	1048	1125	1239	1378	1436	1527	1740	1866
VTX1 M 785	785	81.0	100	157	256	376	492	710	838	986	1112	1193	1314	1462	1524	1620	1845	1980
VTX1 M 835	835	86.2	107	167	273	400	524	756	892	1049	1182	1269	1398	1555	1621	1723	1963	2106
VTX1 M 885	885	91.3	113	177	289	424	555	801	945	1112	1253	1345	1481	1648	1718	1827	2081	2232
VTX1 M 935	935	96.5	119	187	305	448	587	846	999	1174	1324	1421	1565	1741	1815	1930	2198	2358
VTX1 M 985	985	102	126	197	322	472	618	891	1052	1237	1395	1497	1649	1834	1912	2033	2316	2484
VTX1 M 1030	1030	106	132	206	336	494	646	932	1100	1294	1458	1566	1724	1918	1999	2126	2421	2597
VTX1 M 1130	1130	117	144	226	369	542	709	1023	1207	1419	1600	1718	1892	2104	2193	2332	2657	2850
VTX1 M 1230	1230	127	157	246	402	590	772	1113	1314	1545	1742	1870	2059	2290	2387	2539	2892	3102
VTX1 M 1330	1330	137	170	266	434	638	834	1204	1420	1670	1883	2022	2226	2477	2581	2745	3127	3354

Vantex

M range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.05 V/cell

M type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 M 8	8	0.83	1.02	1.59	2.63	3.78	4.90	6.24	7.51	8.67	10.0	10.8	11.9	14.3	15.7	17.3	21.2	23.9
VTX1 M 16	16	1.65	2.04	3.18	5.25	7.57	9.79	12.5	15.0	17.3	19.9	21.5	23.8	28.6	31.4	34.6	42.5	47.7
VTX1 M 24	24	2.48	3.06	4.77	7.88	11.4	14.7	18.7	22.5	26.0	29.9	32.3	35.6	43.0	47.1	51.9	63.7	71.6
VTX1 M 32	32	3.30	4.08	6.36	10.5	15.1	19.6	25.0	30.0	34.7	39.9	43.0	47.5	57.3	62.8	69.2	85.0	95.4
VTX1 M 40	40	4.13	5.11	7.94	13.1	18.9	24.5	31.2	37.6	43.3	49.8	53.8	59.4	71.6	78.5	86.5	106	119
VTX1 M 48	48	4.95	6.13	9.53	15.8	22.7	29.4	37.4	45.1	52.0	59.8	64.5	71.3	85.9	94.2	104	127	143
VTX1 M 65	65	6.71	8.30	12.9	21.3	30.7	39.8	50.7	61.0	70.4	81.0	87.4	96.5	116	128	141	173	194
VTX1 M 75	75	7.65	9.55	14.9	24.3	35.5	46.0	60.0	69.0	78.8	87.8	93.6	102	114	123	131	149	160
VTX1 M 100	100	10.2	12.7	19.9	32.4	47.4	61.3	80.0	92.0	105	117	125	136	153	163	175	199	213
VTX1 M 125	125	12.8	15.9	24.9	40.5	59.2	76.7	100	115	131	146	156	170	191	204	219	249	266
VTX1 M 150	150	15.3	19.1	29.9	48.6	71.0	92.0	120	138	158	176	187	204	229	245	262	298	319
VTX1 M 170	170	17.3	21.6	33.8	55.0	80.5	104	136	156	179	199	212	232	259	278	297	338	362
VTX1 M 195	195	19.9	24.8	38.8	63.1	92.3	120	156	179	205	228	243	266	298	319	341	388	415
VTX1 M 220	220	22.4	28.0	43.8	71.2	104	135	176	202	231	257	275	300	336	360	385	437	468
VTX1 M 245	245	25.0	31.2	48.8	79.3	116	150	196	225	257	287	306	334	374	401	428	487	521
VTX1 M 270	270	27.5	34.4	53.8	87.4	128	166	216	248	284	316	337	368	412	441	472	537	575
VTX1 M 295	295	30.1	37.5	58.7	95.5	140	181	236	271	310	345	368	402	450	482	516	587	628
VTX1 M 320	320	32.6	40.7	63.7	104	152	196	256	294	336	374	399	436	488	523	559	636	681
VTX1 M 345	345	35.2	43.9	68.7	112	163	212	276	317	362	404	431	470	526	564	603	686	734
VTX1 M 370	370	37.7	47.1	73.7	120	175	227	296	340	389	433	462	504	565	605	647	736	788
VTX1 M 395	395	40.3	50.3	78.6	128	187	242	316	363	415	462	493	538	603	646	691	785	841
VTX1 M 420	420	42.8	53.5	83.6	136	199	258	336	386	441	491	524	572	641	687	734	835	894
VTX1 M 445	445	45.4	56.6	88.6	144	211	273	356	409	467	521	555	606	679	727	778	885	947
VTX1 M 490	490	50.0	62.4	97.6	159	232	301	392	451	515	573	612	667	748	801	857	974	1043
VTX1 M 540	540	55.1	68.7	108	175	256	331	432	497	567	632	674	735	824	883	944	1074	1149
VTX1 M 590	590	60.2	75.1	117	191	279	362	472	543	620	690	736	804	900	965	1031	1173	1256
VTX1 M 640	640	65.3	81.5	127	207	303	393	512	589	672	749	799	872	977	1046	1119	1273	1362
VTX1 M 690	690	70.4	87.8	137	223	327	423	552	635	725	807	861	940	1053	1128	1206	1372	1469
VTX1 M 740	740	75.5	94.2	147	240	350	454	592	681	777	866	924	1008	1129	1210	1294	1471	1575
VTX1 M 785	785	80.1	100	156	254	372	481	628	722	824	918	980	1069	1198	1283	1372	1561	1671
VTX1 M 835	835	85.2	106	166	270	395	512	668	768	877	977	1042	1137	1274	1365	1460	1660	1777
VTX1 M 885	885	90.3	113	176	286	419	543	708	814	929	1035	1104	1205	1351	1447	1547	1760	1884
VTX1 M 935	935	95.4	119	186	303	443	573	748	860	982	1094	1167	1273	1427	1529	1635	1859	1990
VTX1 M 985	985	100	125	196	319	466	604	788	906	1034	1152	1229	1342	1503	1610	1722	1959	2097
VTX1 M 1030	1030	105	131	205	333	488	632	824	948	1082	1205	1285	1403	1572	1684	1801	2048	2192
VTX1 M 1130	1130	115	144	225	366	535	693	904	1040	1187	1322	1410	1539	1724	1847	1975	2247	2405
VTX1 M 1230	1230	125	157	245	398	582	754	984	1132	1292	1439	1535	1675	1877	2011	2150	2446	2618
VTX1 M 1330	1330	136	169	265	430	630	816	1064	1224	1397	1556	1660	1811	2030	2174	2325	2645	2831

Vantex

M range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.10 V/cell

M type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 M 8	8	0.82	1.02	1.58	2.56	3.53	4.30	5.45	6.15	6.88	7.91	8.53	9.39	11.0	13.0	14.3	17.5	19.6
VTX1 M 16	16	1.64	2.03	3.16	5.12	7.07	8.59	10.9	12.3	13.8	15.8	17.1	18.8	22.0	26.0	28.6	35.0	39.2
VTX1 M 24	24	2.46	3.05	4.75	7.68	10.6	12.9	16.4	18.5	20.6	23.7	25.6	28.2	32.9	38.9	42.9	52.5	58.8
VTX1 M 32	32	3.28	4.07	6.33	10.2	14.1	17.2	21.8	24.6	27.5	31.7	34.1	37.5	43.9	51.9	57.2	70.0	78.4
VTX1 M 40	40	4.10	5.09	7.91	12.8	17.7	21.5	27.3	30.8	34.4	39.6	42.7	46.9	54.9	64.9	71.5	87.5	98.0
VTX1 M 48	48	4.92	6.10	9.49	15.4	21.2	25.8	32.7	36.9	41.3	47.5	51.2	56.3	65.9	77.9	85.8	105	118
VTX1 M 65	65	6.66	8.26	12.9	20.8	28.7	34.9	44.3	50.0	55.9	64.3	69.3	76.3	89.2	105	116	142	159
VTX1 M 75	75	7.57	9.38	14.7	23.7	33.4	40.9	51.0	56.0	62.7	68.6	73.5	79.7	89.7	102	109	125	133
VTX1 M 100	100	10.1	12.5	19.6	31.5	44.5	54.5	68.0	74.7	83.6	91.5	98.0	106	120	135	146	166	177
VTX1 M 125	125	12.6	15.6	24.5	39.4	55.6	68.2	85.0	93.3	105	114	123	133	150	169	182	208	221
VTX1 M 150	150	15.1	18.8	29.4	47.3	66.8	81.8	102	112	125	137	147	159	179	203	219	249	265
VTX1 M 170	170	17.2	21.3	33.3	53.6	75.7	92.7	116	127	142	156	167	181	203	230	248	283	300
VTX1 M 195	195	19.7	24.4	38.2	61.5	86.8	106	133	146	163	178	191	207	233	264	284	324	345
VTX1 M 220	220	22.2	27.5	43.1	69.4	97.9	120	150	164	184	201	216	234	263	298	321	366	389
VTX1 M 245	245	24.7	30.6	48.0	77.3	109	134	167	183	205	224	240	260	293	332	357	407	433
VTX1 M 270	270	27.2	33.8	52.9	85.1	120	147	184	202	226	247	265	287	323	365	394	449	477
VTX1 M 295	295	29.8	36.9	57.8	93.0	131	161	201	220	247	270	289	313	353	399	430	490	521
VTX1 M 320	320	32.3	40.0	62.7	101	142	175	218	239	268	293	314	340	383	433	467	532	566
VTX1 M 345	345	34.8	43.1	67.6	109	154	188	235	258	288	316	338	366	413	467	503	574	610
VTX1 M 370	370	37.3	46.3	72.5	117	165	202	252	276	309	339	363	393	443	501	540	615	654
VTX1 M 395	395	39.9	49.4	77.4	125	176	215	269	295	330	361	387	420	473	535	576	657	698
VTX1 M 420	420	42.4	52.5	82.3	132	187	229	286	314	351	384	412	446	503	568	613	698	742
VTX1 M 445	445	44.9	55.6	87.2	140	198	243	303	332	372	407	436	473	532	602	649	740	787
VTX1 M 490	490	49.4	61.3	96.0	155	218	267	333	366	410	448	480	520	586	663	715	815	866
VTX1 M 540	540	54.5	67.5	106	170	240	294	367	403	451	494	529	574	646	731	788	898	954
VTX1 M 590	590	59.5	73.8	116	186	263	322	401	441	493	540	578	627	706	799	861	981	1043
VTX1 M 640	640	64.6	80.0	125	202	285	349	435	478	535	586	627	680	766	866	934	1064	1131
VTX1 M 690	690	69.6	86.3	135	218	307	376	469	515	577	631	676	733	826	934	1006	1147	1220
VTX1 M 740	740	74.7	92.5	145	233	329	404	503	553	619	677	725	786	885	1002	1079	1230	1308
VTX1 M 785	785	79.2	98.1	154	248	349	428	534	586	656	718	769	834	939	1063	1145	1305	1387
VTX1 M 835	835	84.3	104	164	263	372	455	568	623	698	764	818	887	999	1130	1218	1388	1476
VTX1 M 885	885	89.3	111	173	279	394	483	602	661	740	810	867	940	1059	1198	1291	1471	1564
VTX1 M 935	935	94.4	117	183	295	416	510	636	698	782	856	916	993	1119	1266	1364	1554	1653
VTX1 M 985	985	99.4	123	193	311	438	537	670	735	823	901	965	1046	1179	1333	1437	1637	1741
VTX1 M 1030	1030	104	129	202	325	458	562	700	769	861	942	1009	1094	1233	1394	1502	1712	1820
VTX1 M 1130	1130	114	141	221	356	503	616	768	844	945	1034	1107	1200	1352	1529	1648	1878	1997
VTX1 M 1230	1230	124	154	241	388	547	671	836	918	1028	1125	1205	1306	1472	1665	1794	2045	2174
VTX1 M 1330	1330	134	166	261	419	592	725	904	993	1112	1217	1303	1413	1591	1800	1940	2211	2351

Vantex

M range

Electrical performance

Performance after prolonged float charge of fully charged cells
Available Amperes at + 20°C ± 5°C (+ 68°F ± 9°F)

Final voltage: 1.14 V/cell

M type	C_5Ah	Hours							Minutes							Seconds		
		10	8	5	3	2	1.5	1	45	30	20	15	10	5	1	30	5	1
VTX1 M 8	8	0.80	0.99	1.53	2.38	3.01	3.44	4.25	4.76	5.36	6.12	6.56	7.34	8.50	10.4	11.5	14.3	15.5
VTX1 M 16	16	1.59	1.97	3.06	4.76	6.02	6.87	8.50	9.53	10.7	12.2	13.1	14.7	17.0	20.7	23.0	28.5	31.0
VTX1 M 24	24	2.39	2.96	4.59	7.14	9.03	10.3	12.8	14.3	16.1	18.4	19.7	22.0	25.5	31.1	34.4	42.8	46.5
VTX1 M 32	32	3.18	3.95	6.12	9.53	12.0	13.7	17.0	19.1	21.4	24.5	26.2	29.4	34.0	41.5	45.9	57.1	62.0
VTX1 M 40	40	3.98	4.94	7.66	11.9	15.0	17.2	21.3	23.8	26.8	30.6	32.8	36.7	42.5	51.8	57.4	71.3	77.5
VTX1 M 48	48	4.78	5.92	9.19	14.3	18.1	20.6	25.5	28.6	32.2	36.7	39.4	44.1	51.0	62.2	68.9	85.6	93.0
VTX1 M 65	65	6.47	8.02	12.4	19.3	24.4	27.9	34.5	38.7	43.6	49.7	53.3	59.7	69.1	84.2	93.3	116	126
VTX1 M 75	75	7.37	9.10	14.1	22.4	29.2	33.7	39.0	43.8	48.8	54.0	57.0	62.1	71.2	81.0	87.5	100	106
VTX1 M 100	100	9.82	12.1	18.8	29.8	38.9	44.9	52.0	58.4	65.0	72.0	76.0	82.8	95.0	108	117	134	141
VTX1 M 125	125	12.3	15.2	23.5	37.3	48.6	56.1	65.0	73.0	81.3	90.0	95.0	104	119	135	146	167	177
VTX1 M 150	150	14.7	18.2	28.2	44.7	58.4	67.3	78.0	87.6	97.5	108	114	124	142	162	175	201	212
VTX1 M 170	170	16.7	20.6	32.0	50.7	66.1	76.3	88.4	99.3	111	122	129	141	161	184	198	228	240
VTX1 M 195	195	19.1	23.7	36.7	58.1	75.9	87.5	101	114	127	140	148	161	185	211	227	261	276
VTX1 M 220	220	21.6	26.7	41.4	65.6	85.6	98.7	114	128	143	158	167	182	209	238	257	295	311
VTX1 M 245	245	24.1	29.7	46.1	73.0	95.3	110	127	143	159	176	186	203	233	265	286	328	346
VTX1 M 270	270	26.5	32.8	50.8	80.5	105	121	140	158	176	194	205	224	256	292	315	362	382
VTX1 M 295	295	29.0	35.8	55.5	87.9	115	132	153	172	192	212	224	244	280	319	344	395	417
VTX1 M 320	320	31.4	38.8	60.2	95.4	124	144	166	187	208	230	243	265	304	346	373	429	452
VTX1 M 345	345	33.9	41.9	64.9	103	134	155	179	201	224	248	262	286	328	373	402	462	488
VTX1 M 370	370	36.3	44.9	69.6	110	144	166	192	216	241	266	281	306	351	400	432	495	523
VTX1 M 395	395	38.8	47.9	74.3	118	154	177	205	231	257	284	300	327	375	427	461	529	558
VTX1 M 420	420	41.2	51.0	79.0	125	163	188	218	245	273	302	319	348	399	454	490	562	594
VTX1 M 445	445	43.7	54.0	83.7	133	173	200	231	260	289	320	338	368	423	481	519	596	629
VTX1 M 490	490	48.1	59.5	92.1	146	191	220	255	286	319	353	372	406	465	529	571	656	692
VTX1 M 540	540	53.0	65.5	102	161	210	242	281	315	351	389	410	447	513	583	630	723	763
VTX1 M 590	590	57.9	71.6	111	176	230	265	307	345	384	425	448	489	560	637	688	790	834
VTX1 M 640	640	62.8	77.7	120	191	249	287	333	374	416	461	486	530	608	691	746	857	904
VTX1 M 690	690	67.8	83.7	130	206	268	310	359	403	449	497	524	571	655	745	805	924	975
VTX1 M 740	740	72.7	89.8	139	221	288	332	385	432	481	533	562	613	703	799	863	991	1046
VTX1 M 785	785	77.1	95.3	148	234	305	352	408	458	510	565	597	650	745	848	916	1051	1109
VTX1 M 835	835	82.0	101	157	249	325	375	434	488	543	601	635	691	793	902	974	1118	1180
VTX1 M 885	885	86.9	107	166	264	344	397	460	517	575	637	673	733	840	956	1032	1185	1251
VTX1 M 935	935	91.8	113	176	279	364	420	486	546	608	673	711	774	888	1010	1091	1252	1321
VTX1 M 985	985	96.7	120	185	294	383	442	512	575	640	709	749	816	935	1064	1149	1319	1392
VTX1 M 1030	1030	101	125	194	307	401	462	536	602	670	742	783	853	978	1112	1201	1379	1456
VTX1 M 1130	1130	111	137	212	337	440	507	588	660	735	814	859	936	1073	1220	1318	1513	1597
VTX1 M 1230	1230	121	149	231	367	478	552	640	718	800	886	935	1018	1168	1328	1435	1647	1738
VTX1 M 1330	1330	131	161	250	396	517	597	692	777	865	958	1011	1101	1263	1436	1551	1781	1880

A responsible corporate citizen

Alcad is committed to protecting and preserving the environment. We are engaged in a sustained effort to use resources responsibly and to act in a way that clearly demonstrates our great respect for the planet.

Alcad LTD has set up a network of Bring Back Points (BBPS) which receive end-of-life nickel based batteries from end users free of charge. These batteries are then shipped by these BBPs to our recycling facility in Sweden or to fully permitted recycling companies, in compliance with the laws governing trans-boundary waste shipments.

The recycling efficiency of these recyclers exceeds 75% of the nickel based battery weight (a level which exceeds the mandated recycling efficiency of 65% applicable to lead-acid batteries), and recycled materials are reused as secondary raw material for industry.

This network of Bring Back Points comprises over 30 entities, and provides services in all of our major markets in Europe, North America, Asia and Africa. The list of BBPs and their contact details are available on the Alcad website.

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Reliability inside

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