

saft



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Uptimax Ni-Cd Battery

The highly sustainable
maintenance-free
solution for backup
power applications



TotalEnergies



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Uptimax

The ideal choice for total security and availability

Make Saft your eco-friendly battery partner for stationary applications

Saft has over 100 years of experience working in partnership with leading industrial customers to deliver well-proven Ni-Cd battery solutions optimized to ensure the total security and availability of stationary applications including power backup, engine starting and bulk energy storage.



Developed for demanding industrial installations

Uptimax batteries are at the heart of power backup systems throughout the oil and gas exploration and production, utility and manufacturing industries. If mains power is lost, Uptimax delivers the vital power to ensure the continuity of mission-critical loads, facilitate safe shutdown processes, bridge to standby power and safeguard computer data.

That's why Uptimax is the trusted choice for power backup applications including: UPS, substation, switchgear, process control systems, emergency lighting, fire alarms and security systems.

Why Uptimax?

- Easy installation and operation
- Maintenance-free
- High performance
- Strong chargeability
- Total reliability
- Flexible configuration
- Environmentally responsible
- Designed with the highest of standards
- End-to-end support from Saft experts

Sustainability in focus

A unique use of recycled materials

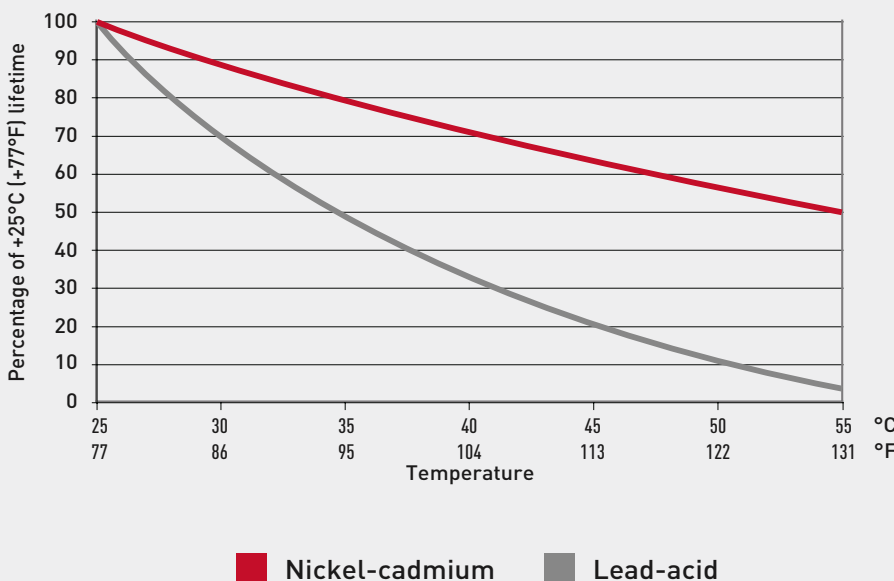
Saft operates the only plant in the world that produces nickel-cadmium batteries incorporating metals that have been reclaimed on site from spent batteries, reducing their eco-footprint.

The recycling of Ni-Cd batteries is a complex process that involves separating the nickel, cobalt and cadmium from the electrodes, a process perfected by Saft's plant in Oskarshamn, Sweden. This plant is unique in combining the recycling of used batteries and the manufacturing of new ones, hence facilitating the incorporation of recycled materials into new products.

Ni-Cd batteries: the environmentally responsible choice

Saft's robust Ni-Cd technology sets the benchmark for industrial batteries operating in difficult and demanding conditions. It has established a reputation for performance, reliability, sustainability and a long, totally predictable service life – with no risk of sudden death failure.

Effect of temperature on lifetime



Uptimax builds on this heritage by ensuring a 20-year plus service life at +25°C (+77°F). Even at +35°C (+95°F), its lifetime falls by just 20% compared with a 50% reduction for a lead-acid battery.



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Designed with the highest standards

Uptimax batteries are designed in full compliance with the highest quality, safety and environmental standards.

Electrical and performances

- Certified IEC 62259 - Secondary cells and batteries containing alkaline or other non-acid electrolytes - Nickel-cadmium prismatic secondary single cells with partial gas recombination. Uptimax New Generation 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.

Quality

- ISO 9001 und ISO 14001
- Saft Excellence System

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, and the insulated cables, are compliant with IP2X level protection against electrical shocks according to safety standard.

Environment and recycling

- Fully recyclable
- RoHS – Although batteries and accumulators are not within the scope of the RoHS directive, Saft has taken voluntary measures to make sure that the substances forbidden by RoHS are not present in the battery, with the exception of the electro-chemical core.
- REACH - The Saft Group has adopted internal procedures to ensure conformity with the European REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances) Regulation.
- Saft operates a network of over 30 bring back points worldwide that receive spent Ni-Cd batteries manufactured by Saft. The bring back points located in northern Europe bring these used batteries back to Oskarshamn, minimizing transportation. Other bring back points work with other fully permitted recycling partners selected by Saft. This take back and recycling service ensures that the recycling efficiency mandated by the EU battery directive is met and that we have closed the loop on responsible production of Ni-Cd batteries.

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In 2022, the sustainability performance of Saft was evaluated by Ecovadis, a leading Environment and Social Responsibility rating agency. This evaluation focuses on the following matters: environment, labor and human rights, ethics as well as sustainable procurement.

Saft is ranked within the top 1% of companies involved in the manufacture of batteries and accumulators.



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Program Net Zero

Saft has launched our sustainability initiative, Program Net Zero, consisting of five pillars:

- 1 Reducing the environmental footprint of our activities and that of our battery solutions.
- 2 Assisting Saft's customers in lowering their environmental footprint.
- 3 Using natural resources sustainably and implementing circular economy principles throughout our operations.
- 4 Prioritizing suppliers with strong environmental, social, and human rights records.
- 5 Working to always ensure compliance with environmental regulations and best practices in all locations.

Batteries facilitate the shift towards clean energy, but there is much work to do to achieve Net Zero. That's why Saft is committed to reducing its impact, while respecting social and human rights all along the value chain.

Uptimax is the ideal replacement for lead-acid batteries

The first Ni-Cd battery for Plug & Play replacement of lead-acid

The latest generation of Uptimax is the perfect fit to replace lead-acid batteries.

Thanks to its 1.39 V/cell single level charge without the need for boost charge, Uptimax can be charged in all commonly used DC-systems with +/- 10% voltage window. This reduces the need for dropping diodes or DC/DC converters, and as a consequence it decreases the overall cost of DC-systems.

When a fast recharge is needed, 95% State-Of-Charge (SOC) in 8h can be reached at 1.45 V/cell for maximum availability after a power failure and minimum downtime.







Making operation easy

The maintenance-free battery for stationary applications

Uptimax is Saft's latest development in Ni-Cd pocket plate battery technology. It combines maintenance-free operation with total reliability to provide the ideal backup power solution for industrial installations.

Maintenance-free means that no addition of water is necessary during the lifetime of the product when operating under Saft's recommended conditions.

Uptimax is maintenance-free thanks to a new high-tech design concept:

- Uptimax never needs water to be added throughout its entire service life (under Saft's recommended operating conditions - from -20°C (-4°F) to +40°C (+104°F)).
- Maintenance is reduced to a minimum: only preventive maintenance is necessary.
- The high level of gas recombination is beyond the requirements of IEC 62259 (recombination level higher than 95%), and Uptimax reduces water consumption and gas emissions.
- Uptimax is equipped with a low pressure flame-arresting vent.

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Why Ni-Cd?

Sustainability

- Our manufacturing process and recycling capability ensures the lowest CO₂ footprint.
- The wide operating temperature range makes AC and heating redundant, thereby saving energy

Reliability

- A long operational life of over 20 years, at least three times longer than lead-acid batteries
- No risk of sudden death failure

The economical choice

With its low pressure flame arresting vent, high electrical performance and chargeability, Uptimax delivers the lowest optimized TCO (Total Cost of Ownership).

High performance, chargeability and reliability

High performance optimizes battery life cost and reduces CO₂ footprint

Uptimax offers high performance. This enables installers to specify a battery optimized for their specific application, saving on initial purchase costs.

- Uptimax design enables high battery electrical performance whatever discharge time is needed.
- Commissioning is simple and easy and can still be

- carried out using any commercially available charger even after up to six months in storage.
- The minimal need for heating or cooling reduces carbon emissions.

Good chargeability minimizes battery downtime

- Uptimax features fast and simple charging, within a narrow voltage window, for minimal downtime and maximum availability.
- Single or two-level charging regimes are possible:

Single level charge

- 1.39 or 1.42 ± 0.01 V/cell

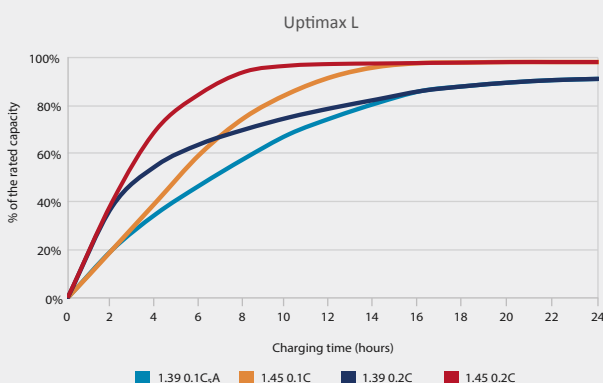
Two level charge

- Float level: 1.39 or 1.42 ± 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), after a constant voltage charge for 15 hours with an available charge current of 0.1 C₅A.

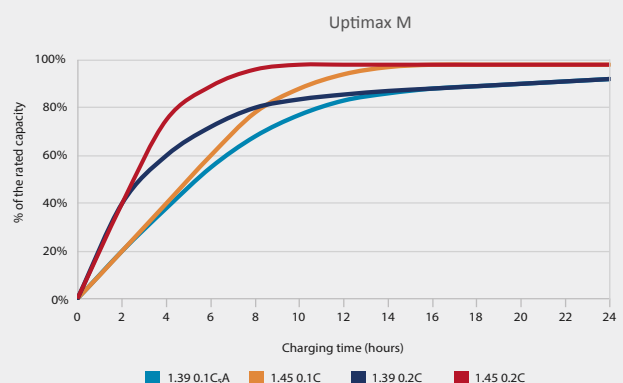
Total reliability ensures the safe operation of industrial equipment

- Uptimax provides complete peace of mind, whatever the application, whatever the location. Even in the most demanding operating conditions.
- Total reliability is based on a unique Ni-Cd electrochemistry/ technology combined with the well proven Saft Nife® pocket plate design.
- It enables a long service life of over 20 years at +25°C (+77°F).
- Robust construction eliminates risk of sudden death failure.
- Uptimax delivers long life and outstanding performance intemperatures 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 C₅A or 0.2 C₅A
for L type cell



Available capacity after constant voltage charge
Available charge current 0.1 C₅A or 0.2 C₅A
for M type cell



Design features

Easy handling, installation and operation

Our modular approach, based on flexible block configurations, means Uptimax batteries make transportation, installation and operation fast and easy.

- Batteries are only delivered filled with electrolyte and in electrically charged condition.
- Storage for up to two years in normal conditions is possible.
- Design enables batteries to be assembled in blocks of up to 10 cells connected in series.
- Flexible block configuration makes the battery easy and fast to install.

- 1 Low pressure vent
- 2 Terminal pillars protected by covers in line with EN 50272-2 / IEC 62485-2 (safety) with IP2 level
- 3 Plate group bus bar
- 4 Plate tab
- 5 Polypropylene cell container
- 6 Pocket plate
- 7 Polypropylene fibrous separators

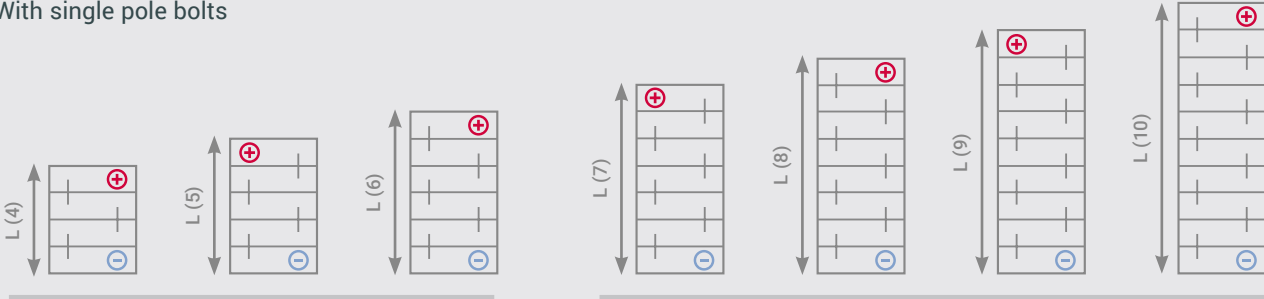


Cells are welded together to form a rugged block up to 10 depending on cell size and type

Design features

Flexible configuration based on cell blocks

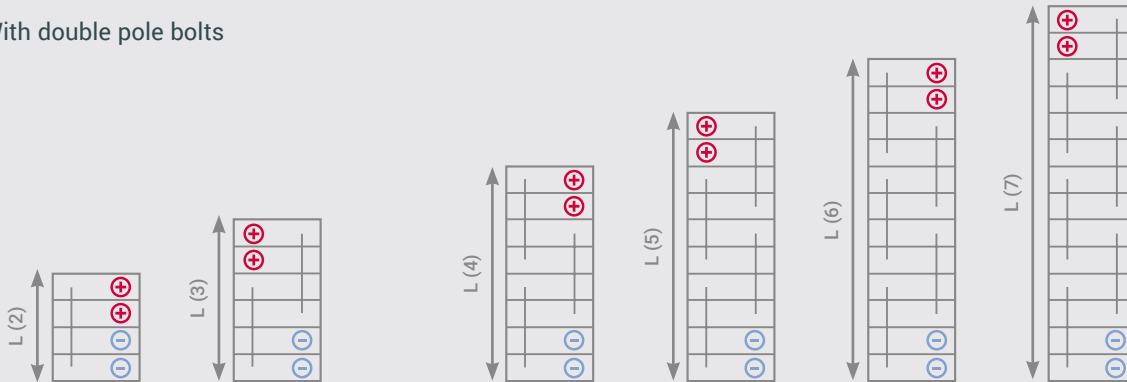
With single pole bolts



UP1 L 15-280
UP1 M 8-48, UP1 M 75-220

UP1 L 15-62
UP1 M 8-48

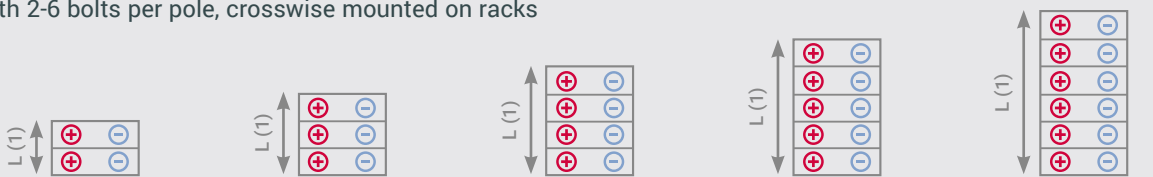
With double pole bolts



UP1 L 325
UP1 M 238-445

UP1 L 102-110
UP1 M 65, UP1 M 89-96

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



UP1 L 515-560

UP1 L 589-840
UP1 M 461-675

UP1 L 870-1120
UP1 M 690-885

UP1 L 1180-1400
UP1 M 915-1030

UP1 L 1460-1700
UP1 M 1130-1330

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Physical properties L range

| Cell Type | Capacity C _s Ah | Height | | Width | | Length per block | | | | | | | | | | | | | | | | Approx. Weight per cell | | Internal Resistance mOhm | Bolt per pole | | |
|-----------|-------------------------------|--------|------|-------|-----|------------------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|-------------------------|------|-----------------------------|---------------|-------|-------|
| | | mm | in | mm | in | 2 cells | | 3 cells | | 4 cells | | 5 cells | | 6 cells | | 7 cells | | 8 cells | | 9 cells | | 10 cells | | | | | |
| | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | | | kg | lb |
| UP1L 15 | 15 | 270 | 10.6 | 123 | 4.8 | | | | | 123 | 4.8 | 153 | 6.0 | 182 | 7.2 | 212 | 8.3 | 241 | 9.5 | 271 | 10.6 | 300 | 11.8 | 1.1 | 2.4 | 12.07 | M6 |
| UP1L 30 | 30 | 270 | 10.6 | 123 | 4.8 | | | | | 143 | 5.6 | 178 | 7.0 | 212 | 8.3 | 247 | 9.7 | 281 | 11.1 | 316 | 12.4 | 350 | 13.8 | 1.8 | 4.0 | 6.03 | M6 |
| UP1L 47 | 47 | 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 | 5.5 | 3.85 | M6 |
| UP1L 57 | 57 | 270 | 10.6 | 123 | 4.8 | | | | | 239 | 9.4 | 298 | 11.7 | 356 | 14.0 | 415 | 16.3 | 473 | 18.6 | 532 | 20.9 | 590 | 23.2 | 3.1 | 6.8 | 3.18 | M6 |
| UP1L 62 | 62 | 270 | 10.6 | 123 | 4.8 | | | | | 239 | 9.4 | 298 | 11.7 | 356 | 14.0 | 415 | 16.3 | 473 | 18.6 | 532 | 20.9 | 590 | 23.2 | 3.2 | 7.1 | 2.92 | M6 |
| UP1L 75 | 75 | 270 | 10.6 | 123 | 4.8 | | | | | 329 | 13.0 | 410 | 16.1 | 491 | 19.3 | 572 | 22.5 | | | | | | | 4.3 | 9.5 | 2.41 | 2xM6 |
| UP1L 83 | 83 | 421 | 16.6 | 195 | 7.7 | | | | | 157 | 6.2 | 193 | 7.6 | 229 | 9.0 | | | | | | | | | 4.8 | 10.6 | 2.92 | M8 |
| UP1L 95 | 95 | 421 | 16.6 | 195 | 7.7 | | | | | 157 | 6.2 | 193 | 7.6 | 229 | 9.0 | | | | | | | | | 4.9 | 10.8 | 2.55 | M8 |
| UP1L 102 | 102 | 270 | 10.6 | 123 | 4.8 | | | | | 425 | 16.7 | 530 | 20.9 | 635 | 25.0 | 740 | 29.1 | | | | | | | 5.7 | 12.6 | 1.77 | 2xM6 |
| UP1L 110 | 110 | 270 | 10.6 | 123 | 4.8 | | | | | 425 | 16.7 | 530 | 20.9 | 635 | 25.0 | 740 | 29.1 | | | | | | | 5.7 | 12.6 | 1.65 | 2xM6 |
| UP1L 124 | 124 | 421 | 16.6 | 195 | 7.7 | | | | | 205 | 8.1 | 253 | 10.0 | 301 | 11.9 | | | | | | | | | 6.6 | 14.6 | 1.95 | M10 |
| UP1L 140 | 140 | 421 | 16.6 | 195 | 7.7 | | | | | 205 | 8.1 | 253 | 10.0 | 301 | 11.9 | | | | | | | | | 6.7 | 14.8 | 1.73 | M10 |
| UP1L 167 | 167 | 421 | 16.6 | 195 | 7.7 | | | | | 253 | 10.0 | 313 | 12.3 | 373 | 14.7 | | | | | | | | | 8.3 | 18.3 | 1.45 | M10 |
| UP1L 185 | 185 | 421 | 16.6 | 195 | 7.7 | | | | | 253 | 10.0 | 313 | 12.3 | 373 | 14.7 | | | | | | | | | 8.4 | 18.5 | 1.31 | M10 |
| UP1L 210 | 210 | 421 | 16.6 | 195 | 7.7 | | | | | 305 | 12.0 | 378 | 14.9 | 451 | 17.8 | | | | | | | | | 9.6 | 21.2 | 1.15 | M10 |
| UP1L 225 | 225 | 421 | 16.6 | 195 | 7.7 | | | | | 305 | 12.0 | 378 | 14.9 | 451 | 17.8 | | | | | | | | | 9.7 | 21.4 | 1.08 | M10 |
| UP1L 235 | 235 | 421 | 16.6 | 195 | 7.7 | | | | | 305 | 12.0 | 378 | 14.9 | 451 | 17.8 | | | | | | | | | 9.9 | 21.8 | 1.03 | M10 |
| UP1L 250 | 250 | 421 | 16.6 | 195 | 7.7 | | | | | 353 | 13.9 | 438 | 17.2 | 523 | 20.6 | | | | | | | | | 11.4 | 25.1 | 0.97 | M10 |
| UP1L 280 | 280 | 421 | 16.6 | 195 | 7.7 | 183 | 7.2 | 268 | 10.6 | 353 | 13.9 | 438 | 17.2 | 523 | 20.6 | | | | | | | | | 11.5 | 25.4 | 0.86 | M10 |
| UP1L 294 | 294 | 421 | 16.6 | 195 | 7.7 | 229 | 9.0 | 337 | 13.3 | | | | | | | | | | | | | | | 14.9 | 32.8 | 0.82 | 2xM10 |
| UP1L 325 | 325 | 421 | 16.6 | 195 | 7.7 | 229 | 9.0 | 337 | 13.3 | | | | | | | | | | | | | | | 15.1 | 33.3 | 0.74 | 2xM10 |
| UP1L 350 | 350 | 421 | 16.6 | 195 | 7.7 | 253 | 10.0 | 373 | 14.7 | | | | | | | | | | | | | | | 16.7 | 36.8 | 0.69 | 2xM10 |
| UP1L 375 | 375 | 421 | 16.6 | 195 | 7.7 | 253 | 10.0 | 373 | 14.7 | | | | | | | | | | | | | | | 16.8 | 37.0 | 0.65 | 2xM10 |
| UP1L 420 | 420 | 421 | 16.6 | 195 | 7.7 | 279 | 11.0 | 412 | 16.2 | | | | | | | | | | | | | | | 18.3 | 40.3 | 0.58 | 2xM10 |
| UP1L 454 | 454 | 421 | 16.6 | 195 | 7.7 | 305 | 12.0 | 451 | 17.8 | | | | | | | | | | | | | | | 19.5 | 43.0 | 0.53 | 2xM10 |
| UP1L 470 | 470 | 421 | 16.6 | 195 | 7.7 | 305 | 12.0 | 451 | 17.8 | | | | | | | | | | | | | | | 19.8 | 43.7 | 0.51 | 2xM10 |
| UP1L 500 | 500 | 421 | 16.6 | 195 | 7.7 | 329 | 13.0 | 487 | 19.2 | | | | | | | | | | | | | | | 21.2 | 46.7 | 0.48 | 2xM10 |

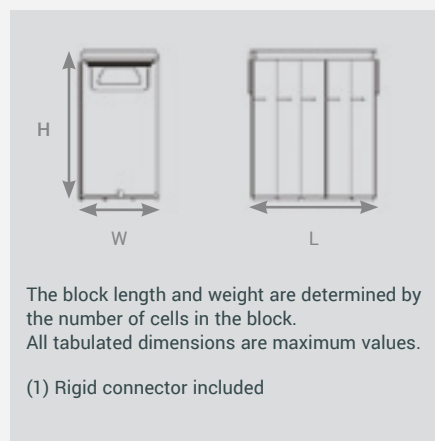
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Physical properties L range

| Cell Type | Capacity C ₅ Ah | Height | | Width | | Length per block | | Approx. Weight per cell | | Internal Resistance mOhm | Bolt per pole |
|-----------|-------------------------------|--------|------|-------|-----|------------------|------|-------------------------|-------|-----------------------------|---------------|
| | | mm | in | mm | in | 1 cells | | kg | lb | | |
| | | | | | | mm | in | | | | |
| UP1L 515 | 515 | 411 | 16.2 | 195 | 7.7 | 171 | 6.7 | 21.4 | 47.2 | 0.47 | 2xM10 |
| UP1L 560 | 560 | 411 | 16.2 | 195 | 7.7 | 183 | 7.2 | 23.0 | 50.7 | 0.43 | 2xM10 |
| UP1L 589 | 589 | 411 | 16.2 | 195 | 7.7 | 207 | 8.1 | 26.2 | 57.8 | 0.41 | 3xM10 |
| UP1L 610 | 610 | 411 | 16.2 | 195 | 7.7 | 207 | 8.1 | 26.5 | 58.4 | 0.40 | 3xM10 |
| UP1L 650 | 650 | 411 | 16.2 | 195 | 7.7 | 219 | 8.6 | 28.2 | 62.2 | 0.37 | 3xM10 |
| UP1L 664 | 664 | 411 | 16.2 | 195 | 7.7 | 219 | 8.6 | 28.5 | 62.8 | 0.36 | 3xM10 |
| UP1L 700 | 700 | 411 | 16.2 | 195 | 7.7 | 232 | 9.1 | 29.7 | 65.5 | 0.35 | 3xM10 |
| UP1L 725 | 725 | 411 | 16.2 | 195 | 7.7 | 243 | 9.6 | 31.2 | 68.8 | 0.33 | 3xM10 |
| UP1L 750 | 750 | 411 | 16.2 | 195 | 7.7 | 243 | 9.6 | 31.4 | 69.2 | 0.32 | 3xM10 |
| UP1L 775 | 775 | 411 | 16.2 | 195 | 7.7 | 256 | 10.1 | 32.6 | 71.9 | 0.31 | 3xM10 |
| UP1L 800 | 800 | 411 | 16.2 | 195 | 7.7 | 256 | 10.1 | 32.9 | 72.5 | 0.30 | 3xM10 |
| UP1L 840 | 840 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 34.5 | 76.1 | 0.29 | 3xM10 |
| UP1L 870 | 870 | 411 | 16.2 | 195 | 7.7 | 292 | 11.5 | 37.5 | 82.7 | 0.28 | 4xM10 |
| UP1L 890 | 890 | 411 | 16.2 | 195 | 7.7 | 292 | 11.5 | 38.1 | 84.0 | 0.27 | 4xM10 |
| UP1L 914 | 914 | 411 | 16.2 | 195 | 7.7 | 305 | 12.0 | 39.2 | 86.4 | 0.26 | 4xM10 |
| UP1L 940 | 940 | 411 | 16.2 | 195 | 7.7 | 305 | 12.0 | 39.6 | 87.3 | 0.26 | 4xM10 |
| UP1L 980 | 980 | 411 | 16.2 | 195 | 7.7 | 316 | 12.4 | 41.2 | 90.8 | 0.25 | 4xM10 |
| UP1L 990 | 990 | 411 | 16.2 | 195 | 7.7 | 316 | 12.4 | 41.8 | 92.2 | 0.24 | 4xM10 |
| UP1L 1010 | 1010 | 411 | 16.2 | 195 | 7.7 | 328 | 12.9 | 42.2 | 93.0 | 0.24 | 4xM10 |
| UP1L 1030 | 1030 | 411 | 16.2 | 195 | 7.7 | 328 | 12.9 | 42.9 | 94.6 | 0.23 | 4xM10 |
| UP1L 1080 | 1080 | 411 | 16.2 | 195 | 7.7 | 341 | 13.4 | 45.3 | 99.9 | 0.22 | 4xM10 |
| UP1L 1120 | 1120 | 411 | 16.2 | 195 | 7.7 | 353 | 13.9 | 46.0 | 101.4 | 0.22 | 4xM10 |
| UP1L 1180 | 1180 | 411 | 16.2 | 195 | 7.7 | 378 | 14.9 | 49.5 | 109.1 | 0.21 | 5xM10 |
| UP1L 1220 | 1220 | 411 | 16.2 | 195 | 7.7 | 388 | 15.3 | 51.3 | 113.1 | 0.20 | 5xM10 |
| UP1L 1260 | 1260 | 411 | 16.2 | 195 | 7.7 | 402 | 15.8 | 53.3 | 117.5 | 0.19 | 5xM10 |
| UP1L 1300 | 1300 | 411 | 16.2 | 195 | 7.7 | 413 | 16.3 | 54.4 | 119.9 | 0.19 | 5xM10 |
| UP1L 1324 | 1324 | 411 | 16.2 | 195 | 7.7 | 413 | 16.3 | 55.7 | 122.8 | 0.18 | 5xM10 |
| UP1L 1350 | 1350 | 411 | 16.2 | 195 | 7.7 | 426 | 16.8 | 57.1 | 125.9 | 0.18 | 5xM10 |
| UP1L 1400 | 1400 | 411 | 16.2 | 195 | 7.7 | 438 | 17.2 | 57.5 | 126.8 | 0.17 | 5xM10 |
| UP1L 1460 | 1460 | 411 | 16.2 | 195 | 7.7 | 463 | 18.2 | 61.3 | 135.1 | 0.17 | 6xM10 |
| UP1L 1500 | 1500 | 411 | 16.2 | 195 | 7.7 | 473 | 18.6 | 62.8 | 138.4 | 0.16 | 6xM10 |
| UP1L 1540 | 1540 | 411 | 16.2 | 195 | 7.7 | 487 | 19.2 | 64.5 | 142.2 | 0.16 | 6xM10 |
| UP1L 1570 | 1570 | 411 | 16.2 | 195 | 7.7 | 498 | 19.6 | 65.0 | 143.3 | 0.15 | 6xM10 |
| UP1L 1600 | 1600 | 411 | 16.2 | 195 | 7.7 | 498 | 19.6 | 65.9 | 145.3 | 0.15 | 6xM10 |
| UP1L 1700 | 1700 | 411 | 16.2 | 195 | 7.7 | 523 | 20.6 | 69.0 | 152.1 | 0.14 | 6xM10 |



Uptimax

Physical properties M range

| Cell Type | Capacity C _s Ah | Height | | Width | | Length per block | | | | | | | | | | | | | | | | Approx. Weight per cell | | Internal Resistance mOhm | Bolt per pole | | |
|-----------|-------------------------------|--------|------|-------|-----|------------------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|-------------------------|------|-----------------------------|---------------|-------|-------|
| | | mm | in | mm | in | 2 cells | | 3 cells | | 4 cells | | 5 cells | | 6 cells | | 7 cells | | 8 cells | | 9 cells | | 10 cells | | | | | |
| | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | kg | lb |
| UP1M 8 | 8 | 270 | 10.6 | 123 | 4.8 | | | | | 123 | 4.8 | 153 | 6.0 | 182 | 7.2 | 212 | 8.3 | 241 | 9.5 | 271 | 10.6 | 300 | 11.8 | 1.1 | 2.4 | 12.50 | M6 |
| UP1M 16 | 16 | 270 | 10.6 | 123 | 4.8 | | | | | 123 | 4.8 | 153 | 6.0 | 182 | 7.2 | 212 | 8.3 | 241 | 9.5 | 271 | 10.6 | 300 | 11.8 | 1.5 | 3.3 | 6.25 | M6 |
| UP1M 24 | 24 | 270 | 10.6 | 123 | 4.8 | | | | | 143 | 5.6 | 178 | 7.0 | 212 | 8.3 | 247 | 9.7 | 281 | 11.1 | 316 | 12.4 | 350 | 13.8 | 1.8 | 4.0 | 4.17 | M6 |
| UP1M 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 | 5.5 | 3.13 | M6 |
| UP1M 40 | 40 | 270 | 10.6 | 123 | 4.8 | | | | | 239 | 9.4 | 298 | 11.7 | 356 | 14.0 | 415 | 16.3 | 473 | 18.6 | 532 | 20.9 | 590 | 23.2 | 3.3 | 7.3 | 2.50 | M6 |
| UP1M 48 | 48 | 270 | 10.6 | 123 | 4.8 | | | | | 239 | 9.4 | 298 | 11.7 | 356 | 14.0 | 415 | 16.3 | 473 | 18.6 | 532 | 20.9 | 590 | 23.2 | 3.3 | 7.3 | 2.08 | M6 |
| UP1M 65 | 65 | 270 | 10.6 | 123 | 4.8 | | | | | 377 | 14.8 | 470 | 18.5 | 563 | 22.2 | 656 | 25.8 | | | | | | | 5.0 | 11.0 | 1.54 | 2xM6 |
| UP1M 75 | 75 | 421 | 16.6 | 195 | 7.7 | | | | | 157 | 6.2 | 193 | 7.6 | 229 | 9.0 | | | | | | | | | 4.9 | 10.8 | 1.52 | M8 |
| UP1M 89 | 89 | 270 | 10.6 | 122 | 4.8 | | | | | 473 | 18.6 | 590 | 23.2 | 707 | 27.8 | 824 | 32.4 | | | | | | | 6.6 | 14.6 | 1.12 | 2xM6 |
| UP1M 96 | 96 | 270 | 10.6 | 122 | 4.8 | | | | | 473 | 18.6 | 590 | 23.2 | 707 | 27.8 | 824 | 32.4 | | | | | | | 6.7 | 14.8 | 1.04 | 2xM6 |
| UP1M 100 | 100 | 421 | 16.6 | 195 | 7.7 | | | | | 187 | 7.4 | 231 | 9.1 | 274 | 10.8 | | | | | | | | | 6.3 | 13.9 | 1.14 | M8 |
| UP1M 114 | 114 | 421 | 16.6 | 195 | 7.7 | | | | | 229 | 9.0 | 283 | 11.1 | 337 | 13.3 | | | | | | | | | 7.5 | 16.4 | 1.00 | M10 |
| UP1M 125 | 125 | 421 | 16.6 | 195 | 7.7 | | | | | 229 | 9.0 | 283 | 11.1 | 337 | 13.3 | | | | | | | | | 7.6 | 16.8 | 0.91 | M10 |
| UP1M 140 | 140 | 421 | 16.6 | 195 | 7.7 | | | | | 253 | 10.0 | 313 | 12.3 | 373 | 14.7 | | | | | | | | | 8.2 | 18.1 | 0.81 | M10 |
| UP1M 150 | 150 | 421 | 16.6 | 195 | 7.7 | | | | | 253 | 10.0 | 313 | 12.3 | 373 | 14.7 | | | | | | | | | 8.4 | 18.5 | 0.76 | M10 |
| UP1M 170 | 170 | 421 | 16.6 | 195 | 7.7 | | | | | 305 | 12.0 | 378 | 14.9 | 451 | 17.8 | | | | | | | | | 9.9 | 21.8 | 0.67 | M10 |
| UP1M 175 | 175 | 421 | 16.6 | 195 | 7.7 | | | | | 305 | 12.0 | 378 | 14.9 | 451 | 17.8 | | | | | | | | | 10.2 | 22.5 | 0.65 | M10 |
| UP1M 195 | 195 | 421 | 16.6 | 195 | 7.7 | | | | | 353 | 13.9 | 438 | 17.2 | 523 | 20.6 | | | | | | | | | 11.5 | 25.4 | 0.58 | M10 |
| UP1M 209 | 209 | 421 | 16.6 | 195 | 7.7 | | | | | 353 | 13.9 | 438 | 17.2 | 523 | 20.6 | | | | | | | | | 11.8 | 25.9 | 0.55 | M10 |
| UP1M 220 | 220 | 421 | 16.6 | 195 | 7.7 | | | | | 353 | 13.9 | 438 | 17.2 | 523 | 20.6 | | | | | | | | | 12.0 | 26.5 | 0.52 | M10 |
| UP1M 238 | 238 | 421 | 16.6 | 195 | 7.7 | 229 | 9.0 | 337 | 13.3 | | | | | | | | | | | | | | | 14.9 | 32.8 | 0.48 | 2xM10 |
| UP1M 245 | 245 | 421 | 16.6 | 195 | 7.7 | 229 | 9.0 | 337 | 13.3 | | | | | | | | | | | | | | | 15.2 | 33.5 | 0.47 | 2xM10 |
| UP1M 263 | 263 | 421 | 16.6 | 195 | 7.7 | 241 | 9.5 | 355 | 14.0 | | | | | | | | | | | | | | | 15.7 | 34.6 | 0.43 | 2xM10 |
| UP1M 270 | 270 | 421 | 16.6 | 195 | 7.7 | 241 | 9.5 | 355 | 14.0 | | | | | | | | | | | | | | | 16.0 | 35.3 | 0.42 | 2xM10 |
| UP1M 285 | 285 | 421 | 16.6 | 195 | 7.7 | 253 | 10.0 | 373 | 14.7 | | | | | | | | | | | | | | | 16.5 | 36.3 | 0.40 | 2xM10 |
| UP1M 295 | 295 | 421 | 16.6 | 195 | 7.7 | 253 | 10.0 | 373 | 14.7 | | | | | | | | | | | | | | | 16.8 | 37.0 | 0.39 | 2xM10 |
| UP1M 310 | 310 | 421 | 16.6 | 195 | 7.7 | 279 | 11.0 | 412 | 16.2 | | | | | | | | | | | | | | | 17.9 | 39.5 | 0.37 | 2xM10 |
| UP1M 320 | 320 | 421 | 16.6 | 195 | 7.7 | 279 | 11.0 | 412 | 16.2 | | | | | | | | | | | | | | | 18.3 | 40.3 | 0.36 | 2xM10 |
| UP1M 332 | 332 | 421 | 16.6 | 195 | 7.7 | 305 | 12.0 | 451 | 17.8 | | | | | | | | | | | | | | | 19.6 | 43.2 | 0.34 | 2xM10 |
| UP1M 345 | 345 | 421 | 16.6 | 195 | 7.7 | 305 | 12.0 | 451 | 17.8 | | | | | | | | | | | | | | | 19.8 | 43.7 | 0.33 | 2xM10 |
| UP1M 358 | 358 | 421 | 16.6 | 195 | 7.7 | 329 | 13.0 | 487 | 19.2 | | | | | | | | | | | | | | | 21.2 | 46.7 | 0.32 | 2xM10 |
| UP1M 370 | 370 | 421 | 16.6 | 195 | 7.7 | 329 | 13.0 | 487 | 19.2 | | | | | | | | | | | | | | | 21.4 | 47.2 | 0.31 | 2xM10 |
| UP1M 382 | 382 | 421 | 16.6 | 195 | 7.7 | 353 | 13.9 | 523 | 20.6 | | | | | | | | | | | | | | | 22.8 | 50.3 | 0.30 | 2xM10 |
| UP1M 395 | 395 | 421 | 16.6 | 195 | 7.7 | 353 | 13.9 | 523 | 20.6 | | | | | | | | | | | | | | | 23.0 | 50.7 | 0.29 | 2xM10 |
| UP1M 420 | 420 | 421 | 16.6 | 195 | 7.7 | 353 | 13.9 | 523 | 20.6 | | | | | | | | | | | | | | | 23.5 | 51.8 | 0.27 | 2xM10 |
| UP1M 434 | 434 | 421 | 16.6 | 195 | 7.7 | 353 | 13.9 | 523 | 20.6 | | | | | | | | | | | | | | | 23.7 | 52.2 | 0.26 | 2xM10 |
| UP1L 445 | 445 | 421 | 16.6 | 195 | 7.7 | 353 | 13.9 | 523 | 20.6 | | | | | | | | | | | | | | | 24.0 | 52.9 | 0.26 | 2xM10 |

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Physical properties M range

| Cell Type | Capacity C ₅ Ah | Height | | Width | | Length per block | | Approx. Weight per cell | | Internal Resistance mOhm | Bolt per pole |
|-----------|-------------------------------|--------|------|-------|-----|------------------|------|-------------------------|-------|-----------------------------|---------------|
| | | mm | in | mm | in | 1 cells | | kg | lb | | |
| | | mm | in | mm | in | mm | in | kg | lb | | |
| UP1M 461 | 461 | 411 | 16.2 | 195 | 7.7 | 206 | 8.1 | 26.4 | 58.2 | 0.25 | 3xM10 |
| UP1M 475 | 475 | 411 | 16.2 | 195 | 7.7 | 206 | 8.1 | 27.0 | 59.5 | 0.24 | 3xM10 |
| UP1M 490 | 490 | 411 | 16.2 | 195 | 7.7 | 219 | 8.6 | 28.2 | 62.2 | 0.23 | 3xM10 |
| UP1M 502 | 502 | 411 | 16.2 | 195 | 7.7 | 232 | 9.1 | 29.5 | 65.0 | 0.23 | 3xM10 |
| UP1M 517 | 517 | 411 | 16.2 | 195 | 7.7 | 232 | 9.1 | 30.4 | 67.0 | 0.22 | 3xM10 |
| UP1M 530 | 530 | 411 | 16.2 | 195 | 7.7 | 243 | 9.6 | 31.0 | 68.3 | 0.22 | 3xM10 |
| UP1M 540 | 540 | 411 | 16.2 | 195 | 7.7 | 243 | 9.6 | 31.4 | 69.2 | 0.21 | 3xM10 |
| UP1M 553 | 553 | 411 | 16.2 | 195 | 7.7 | 244 | 9.6 | 31.6 | 69.7 | 0.21 | 3xM10 |
| UP1M 569 | 569 | 411 | 16.2 | 195 | 7.7 | 244 | 9.6 | 32.6 | 71.9 | 0.20 | 3xM10 |
| UP1M 590 | 590 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 34.5 | 76.1 | 0.19 | 3xM10 |
| UP1M 604 | 604 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 34.5 | 76.1 | 0.14 | 3xM10 |
| UP1M 620 | 620 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 34.9 | 76.9 | 0.18 | 3xM10 |
| UP1M 630 | 630 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 35.2 | 77.6 | 0.18 | 3xM10 |
| UP1M 640 | 640 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 35.5 | 78.3 | 0.18 | 3xM10 |
| UP1M 656 | 656 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 35.4 | 78.0 | 0.17 | 3xM10 |
| UP1M 675 | 675 | 411 | 16.2 | 195 | 7.7 | 268 | 10.6 | 36.0 | 79.4 | 0.17 | 3xM10 |
| UP1M 690 | 690 | 411 | 16.2 | 195 | 7.7 | 305 | 12.0 | 39.6 | 87.3 | 0.17 | 4xM10 |
| UP1M 715 | 715 | 411 | 16.2 | 195 | 7.7 | 317 | 12.5 | 41.6 | 91.7 | 0.16 | 4xM10 |
| UP1M 740 | 740 | 411 | 16.2 | 195 | 7.7 | 328 | 12.9 | 42.8 | 94.4 | 0.15 | 4xM10 |
| UP1M 752 | 752 | 411 | 16.2 | 195 | 7.7 | 317 | 12.5 | 44.2 | 97.4 | 0.15 | 4xM10 |
| UP1M 772 | 772 | 411 | 16.2 | 195 | 7.7 | 329 | 13.0 | 43.1 | 95.0 | 0.15 | 4xM10 |
| UP1M 785 | 785 | 411 | 16.2 | 195 | 7.7 | 353 | 13.9 | 46.0 | 101.4 | 0.15 | 4xM10 |
| UP1M 810 | 810 | 411 | 16.2 | 195 | 7.7 | 328 | 12.9 | 44.1 | 97.2 | 0.14 | 4xM10 |
| UP1M 835 | 835 | 411 | 16.2 | 195 | 7.7 | 341 | 13.4 | 45.9 | 101.2 | 0.14 | 4xM10 |
| UP1M 860 | 860 | 411 | 16.2 | 195 | 7.7 | 353 | 13.9 | 47.5 | 104.7 | 0.13 | 4xM10 |
| UP1M 885 | 885 | 411 | 16.2 | 195 | 7.7 | 353 | 13.9 | 48.0 | 105.8 | 0.13 | 4xM10 |
| UP1M 915 | 915 | 411 | 16.2 | 195 | 7.7 | 402 | 15.8 | 53.5 | 117.9 | 0.12 | 5xM10 |
| UP1M 935 | 935 | 411 | 16.2 | 195 | 7.7 | 413 | 16.3 | 54.4 | 119.9 | 0.12 | 5xM10 |
| UP1M 960 | 960 | 411 | 16.2 | 195 | 7.7 | 388 | 15.3 | 53.2 | 117.3 | 0.12 | 5xM10 |
| UP1M 985 | 985 | 411 | 16.2 | 195 | 7.7 | 438 | 17.2 | 57.5 | 126.8 | 0.12 | 5xM10 |
| UP1M 1000 | 1000 | 411 | 16.2 | 195 | 7.7 | 407 | 16.0 | 55.6 | 122.6 | 0.11 | 5xM10 |
| UP1M 1030 | 1030 | 411 | 16.2 | 195 | 7.7 | 413 | 16.3 | 56.4 | 124.3 | 0.11 | 5xM10 |
| UP1M 1080 | 1080 | 411 | 16.2 | 195 | 7.7 | 438 | 17.2 | 60.1 | 132.5 | 0.11 | 5xM10 |
| UP1M 1130 | 1130 | 411 | 16.2 | 195 | 7.7 | 498 | 19.6 | 65.9 | 145.3 | 0.10 | 6xM10 |
| UP1M 1180 | 1180 | 411 | 16.2 | 195 | 7.7 | 473 | 18.6 | 65.2 | 143.7 | 0.10 | 6xM10 |
| UP1M 1230 | 1230 | 411 | 16.2 | 195 | 7.7 | 492 | 19.4 | 67.6 | 149.0 | 0.09 | 6xM10 |
| UP1M 1250 | 1250 | 411 | 16.2 | 195 | 7.7 | 498 | 19.6 | 68.7 | 151.5 | 0.09 | 6xM10 |
| UP1M 1280 | 1280 | 411 | 16.2 | 195 | 7.7 | 511 | 20.1 | 70.5 | 155.4 | 0.09 | 6xM10 |
| UP1M 1330 | 1330 | 411 | 16.2 | 195 | 7.7 | 523 | 20.6 | 72.0 | 158.7 | 0.09 | 6xM10 |



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

(1) Rigid connector included



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