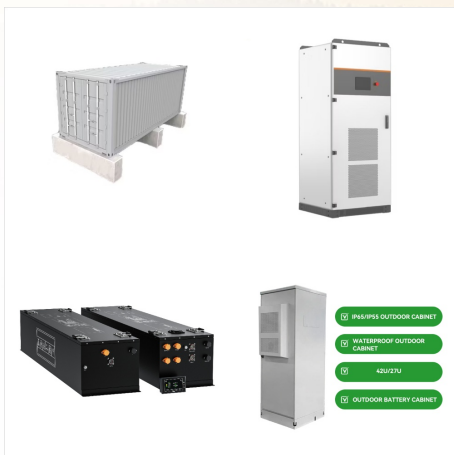




Battery energy storage systems are essential for enhancing the modern energy supply chain's stability, efficiency, and sustainability. At Polarium, safety is always our first priority, and our products are designed to meet the highest safety and quality standards. As lithium-ion batteries (LIBs) becomes an increasingly important part of our daily lives and in the transition [???

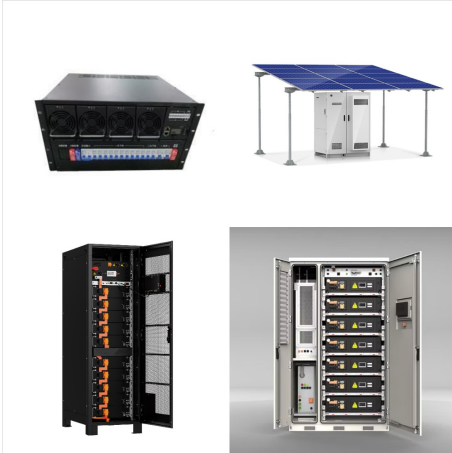


Overview Liquid Cooling Options for Data Centers  
Battery Energy Storage System Keep critical support equipment for IT systems under control with Vertiv??? Environet??? Alert Transitioning to 5G  
Lithium-ion Technologies UPS Types What is a Rack PDU The Edge Revolution Customer Case Studies Condition-Based Maintenance services: Data-driven



Fortunately, the lithium-ion battery industry has come a long way in terms of safety during its three decades in existence, and the failure rates for the most common cells [cylindrical 18650] cells have dropped from 1 in 200 000 to 1 in 10 million in only two decades. Dr. Henrik Lundgren is Senior Battery Technology Engineer at Polarium. He

# POLARIUM LITHIUM BATTERY TUNISIA



The first lithium-ion battery was commercialized in 1991, combining high energy density, long cycle life, and low self-discharge in a single package. Because of these properties, and its massive price drop since its introduction, lithium has become the chemistry of choice for most applications requiring rechargeable battery solutions and a key



Cylindrical cells, like an ordinary AA or AAA battery, are generally named XXYY for lithium-ion batteries, where XX is the cells' diameter in millimeters and YY is the cells' height in millimeters (sometimes an extra zero is added in the end, e.g. 18650).



Polarium Battery has a modular architecture, based on common building blocks with standard mechanical sizes, capacities, and a Battery Management System (BMS). Our products bring unprecedented safety levels. Polarium's lithium batteries are of superior quality and made to stand the test of time. The modular battery solutions will adapt to

# POLARIUM LITHIUM BATTERY TUNISIA



High energy density battery. Compact design in 19" mounting, 4U height and 578 mm depth; Nominal 150 Ah / -48 V; Exceptional life; 15 years or 4000 cycles at 80% DoD Join our newsletter. Get the latest news from Polarium. Sign up to receive monthly news about energy storage solutions, innovations, the energy future and industry events



Polarium Battery is an advanced power backup system. Its re-chargeable smart lithium-ion battery provides reliable power backup for hybrid, off-grid and grid-connected sites worldwide. Polarium Energy Solutions AB Jan Stenbecks Torg 17 | PO Box 1037 | SE-164 21, Kista, Sweden Phone: +46 8 5454 4000 | [info@polarium](mailto:info@polarium) |



We make energy storage and optimization solutions built on lithium-ion battery technology for businesses within telecom, commercial, industrial, and residential facilities across the world. Cutting-edge and easily adaptable modular battery technology for today ??? and tomorrow. Polarium Battery. The core of our product range. It is a series

# POLARIUM LITHIUM BATTERY TUNISIA



Polarium 19" 4U 250Ah Lithium NMC Batteries can be used for both backup and hybrid applications, keeping your network up-and-running irrespective of energy sources used. Polarium Battery is an advanced power backup system for telecom use. Its rechargeable smart lithium-ion battery provides reliable power backup for hybrid, off-grid and



Since the launch of its Battery product range in 2015, Polarium has maintained a high pace of innovation to develop the best-performing energy storage solutions built on lithium-ion battery technology on the market. Now the company is launching Generation 6 of Battery, which is prepared for whatever the future may hold.



Polarium has certified its Smart Lithium Batteries??? in accordance with UL1973 and UL62368 for the US and Canadian markets. This is one of the first, if not the first time ever that telecom lithium batteries have been certified to these standards as a stand-alone battery. Behind the certification are years of focused hard work in research



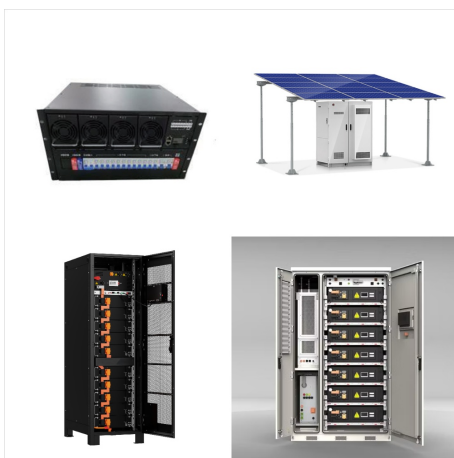
# POLARIUM LITHIUM BATTERY TUNISIA



Very high energy density battery. Compact design in 19" mounting, 4U height and 560 mm depth; Nominal 250 Ah/ -48 V; Exceptional life; 20 years or 6000 cycles at 80% DoD Join our newsletter. Get the latest news from Polarium. Sign up to receive monthly news about energy storage solutions, innovations, the energy future and industry events



Polarium batteries up to 100 Ah can be air transported allowing fast supply solutions; About Polarium. Polarium creates a Smart and Sustainable Future by providing safe and sustainable lithium power backup solutions to the global telecom market. Polarium is a leader in developing advanced lithium batteries for telecom sites" backup power.



Global demand for lithium batteries is expected to grow by 25 percent every year to 2030. To secure the long-term supply of critical battery minerals, lithium batteries need to be recycled at the end of their lifespan. Through its recycling program, Polarium is taking the necessary steps towards a circular battery industry.

# POLARIUM LITHIUM BATTERY TUNISIA



We make energy storage and optimization solutions built on lithium-ion battery technology for businesses, and the residential market. ??? Learn more. Search About; Products; Why Polarium; News & Customer Cases We are Polarium. Polarium was founded in 2015 on the conviction that safe, smart and sustainable energy storage solutions will be



Samuel Wingstedt: Polarium Battery Energy Storage System (BESS) is a flexible and scalable solution for storing energy from various sources. Designed with modular lithium-ion batteries and inverters, it supports energy security, renewable integration, and electrification. By adding our Energy Management System, the BESS optimizes consumption



Polarium's lithium-ion battery measures internal battery temperature and adjusts output and input to prevent excessive temperature increases. It does this by enabling the battery to continue to operate as long as possible until it reaches a temperature limit. When this occurs, it begins to reduce charge function to inhibit temperature

# POLARIUM LITHIUM BATTERY TUNISIA



Battery Energy Storage System (BESS) Polarium Battery Energy Storage System (BESS) is a scalable, intelligent product range developed by our leading battery experts. The complete system of lithium-ion batteries allows you to store renewable energy from different sources when produced and use it when needed.



An iron-based lithium-ion battery cell chemistry. LFP is characterized by initial low capital costs and high safety. On the downside, they have lower energy density and operating voltage and higher self-discharge. Nickel Manganese Cobalt Cells (NMC) A nickel-based lithium-ion battery cell chemistry.



Why Polarium . Climate change is the biggest challenge of our time. CO2 emissions need to decrease by half every decade until 2050 in order to reach net zero. Our lithium battery modules eliminate the first two reasons for theft. And to make resell unattractive, our batteries contain anti-theft features and are prepared for an optional GPS

# POLARIUM LITHIUM BATTERY TUNISIA



High energy density battery. Compact design in 19" mounting, 4U height and 420 mm depth; Nominal 100 Ah / -48 V; Exceptional life; 15 years or 4000 cycles at 80% DoD Join our newsletter. Get the latest news from Polarium. Sign up to receive monthly news about energy storage solutions, innovations, the energy future and industry events



Lithium batteries include a Battery Management System (BMS) that can implement an internal battery disconnect in the event of an internal fault, high or low temperatures, high or low battery voltages or other conditions. In case of a battery cell high voltage condition the Polarium BMS will limit the charge current to  $.07 \times \text{Ah}$  rating of the



Battery-as-a-Service(R) is Polarium's circular business model for companies that want to reap the full benefits of energy storage built on lithium batteries, but not own the solution themselves. Polarium takes full responsibility for the battery, from installation and maintenance to replacement and recycling ??? while the customers can focus



# POLARIUM LITHIUM BATTERY TUNISIA



Polarium Battery is our series of intelligent, connected, and robust batteries built on lithium-ion battery technology, with a proven track record from all around the world ??? turning uncertainty into predictability, preparing you for whatever the ???



With a yearly production potential of more than 300,000 batteries, the facility further increases Polarium's presence in sub-Saharan Africa. ATC Africa signed a multimillion-dollar lithium-ion battery bulk purchase agreement with Polarium in 2021, securing thousands of lithium-powered backup solutions for ATC Africa's markets over the



With commonly available lithium cells, this means that a lithium-ion battery module with the same performance (rated voltage and capacity) as a corresponding lead-acid battery, weighs approximately a fifth of the lead battery and approximately a third of the volume. In late 2023, Polarium initiated a partnership with the Swedish sodium-ion

# POLARIUM LITHIUM BATTERY TUNISIA



Phone: +46 8 5454 4000 | [info@polarium](mailto:info@polarium) | Polarium Battery is an advanced power backup system. Its rechargeable smart lithium-ion battery provides reliable power backup for hybrid, off-grid and grid-connected sites worldwide. Enclosure Size 19" 4U Lithium Chemistry Nickel based Rated Voltage 48 V