Galaxy VL

First class power protection in your data center:
Superior availability, innovation, and sustainability
200-500 kW (400/480V)

se.com/ups

Life Is On Schneider Electric

Maximize availability and sustainability. Minimize total cost of ownership.

Galaxy VL is a highly efficient, compact, modular, and scalable 200–500 kW (400/480V) 3-phase uninterruptible power supply (UPS) available worldwide that delivers top performance for medium, large, and edge data centers, as well as critical infrastructure in commercial and industrial facilities.

Its industry-leading, compact, high-density technology, and fault-tolerant architecture maximize availability, operational efficiency, and critical load protection while minimizing total cost of ownership (TCO). Thanks to patented technologies, this UPS delivers up to 99% efficiency in eConversion mode and up to 97% efficiency in double conversion mode.

Galaxy VL's scalability enables you to pay-as-you grow, reducing both capital investment and TCO. You can buy the power modules you need up-front, and enjoy optimized operating efficiency, then add power modules with Live Swap as demand grows. The modular design also enables N+1 internal redundancy, which multiplies by 10 the system's availability with no extra footprint.

Galaxy VL is compatible with Lithium-ion batteries. With our Galaxy Lithium-ion battery solutions, classic VRLA, or NiCad batteries, critical loads have highly predictable runtimes.

Galaxy VL is EcoStruxure™ connected to give you peace of mind anytime, anywhere. Start-up service is included to optimize your system's performance, quality, and safety. With Live Swap, modular design, and superior reliability, Galaxy VL is the ideal backbone for your critical infrastructure.

Powering the AI revolution with fault-tolerant UPS infrastructure

The high-density requirements of AI workloads are pressuring data center and colocation operators and hyperscalers to expand fast. As operators look for ways to meet demand, one area they must pay close attention to is power protection infrastructure. Schneider Electric leads the way in providing AI-tolerant UPSs to help safeguard multi-million-dollar AI investments.

Our Galaxy VL 200-500 kW UPS solution is an ideal choice for AI infrastructure

- Proven performance: Galaxy VL is rigorously tested for next-generation AI compute demands, ensuring they can support dramatic, rapid power load fluctuations without interruption.
- Scalability and flexibility: A high-density, modular design enables power protection infrastructure to grow alongside AI infrastructure, whether in data centers, colocation facilities, or hyperscale sites.
- Efficiency and sustainability: Galaxy VL is highly efficient, enabling businesses to leverage their AI investments while remaining energy-conscious and cost-effective.

Key advantages and innovations

Most compact design on the market with optimized footprint

High-density technology and full front access make Galaxy VL the best footprint saver of its class well suited for confined spaces.

10X system availability with no extra footprint

Scalability enables you to pay-as-you grow, maximizing savings on capital investment and total cost of ownership. One extra power module for N+1 internal redundancy delivers ultra-high availability.

Battery flexibility, including Lithium-ion batteries*

Increase availability and reduce TCO with long-life, intelligent energy storage. More than four years experience with Lithium-ion installations across the Galaxy V range platform.

Ultra-high efficiency

Provides up to 97% efficiency in double conversion mode; 99% efficient in eConversion mode.

Innovative Live Swap

Keep your load protected, your business running, and your employees safer.

Expand power and maximize uptime, availability, and power continuity by adding or swapping out power modules quickly with no scheduled downtime.

EcoStruxure IT

Monitor, manage, and model your IT infrastructure, and get service support, anytime, anywhere.*

**Contact your local representative for availability.*

Information technology and commercial buildings

- Edge, small, and medium data centers
- Internet DC
- Computer rooms
- Retail/office space
- Manufacturing facilities

Healthcare

- Radiology and imaging equipment
- Operating rooms and Intensive Care Units
- Emergency power systems

Oil & gas

- Refining
- Petrochemicals
- Gas processing control
- Well pumps

Transportation

- Lighting
- Air traffic control
- Security
- Signaling and communication systems

Minerals, Metals, & Mining

- Furnace process control
- Glass plants

Power & Grid

- Thermal plants
- Generator protection
- Hydro turbine control
- Wind farm monitoring

Environmental Data Program

Next-level transparency for better-informed product choices.

Learn more about the Environmental Data Program at:
se.com/ww/en/about-us/sustainability/environmental-data-program

Leading performance

Robust and flexible design ideal for demanding environments at maximum performance

Flexibility and performance

- **Unity Power Factor (PF=1)** allows for right-size protection to real IT needs
- Well suited for different applications thanks to high flexibility on power factor and high overload capability
- Seamlessly integrates into electrical environment:
  - Single and dual mains supported
  - Supports 3- or 4-wire installations
- Increase onsite reliability and reduce start-up costs by using the Smart Power Test feature (SPoT)
  - Simple, easy, and safe method to test the UPS at full power
  - Reduce risk to load and improve product quality

Higher availability: Maximum uptime, reduced risk.

- One extra power module for **N+1 internal redundancy** keeps your load protected and multiplies system availability by 10 with no extra footprint
- Optimized uptime with wide input tolerance window (+/-15%)
- With **Live Swap**, it is simple and fast to add, replace, or remove power modules
- Parallelable for capacity (3 MW)
- Parallelable for redundancy (2.5 MW N+1)
- N+0 or N+1 module-level redundancy
- N+0 or N+1 system-level redundancy

Robust design supports both IT and non-IT environments

- Fault-tolerant design ensures continuous protection in critical circumstances
- Maximum short circuit rating: 65kA
- Designed to perform in harsh environments with its high-quality air filter
- Static bypass switch with **high I^2t rating** enhances downstream resilience
- Suited for humid environments thanks to **conformal coating**
- **Seismic certified** (with option kit)
- Exceeds industry standards on electromagnetic protection due to EMC Level C2
- **Faster battery charging** capabilities restore back-up time 2 to 3 times faster compared to industry standards

Premium protection and sustainability

eConversion: an unbeatable combination of power quality and high efficiency

1x

Galaxy VL in eConversion*

=

30x

Rooftop solar installations

=

50x

Cars powered

=

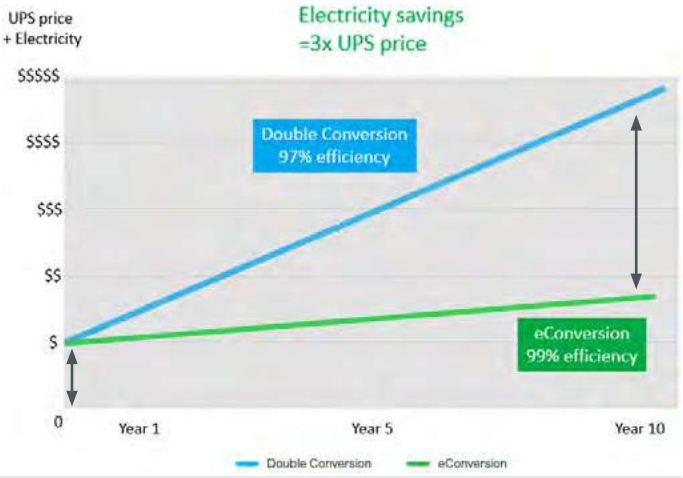
$146,000

Electricity costs saved

Sustainably reduce your operating costs

Protect power to your load, reduce your total cost of ownership and electricity consumption, and meet your sustainability goals with up to 99% efficient, Class 1-compliant eConversion mode for Galaxy V-series UPSs, the recommended operating mode for your Galaxy V-series UPS.*

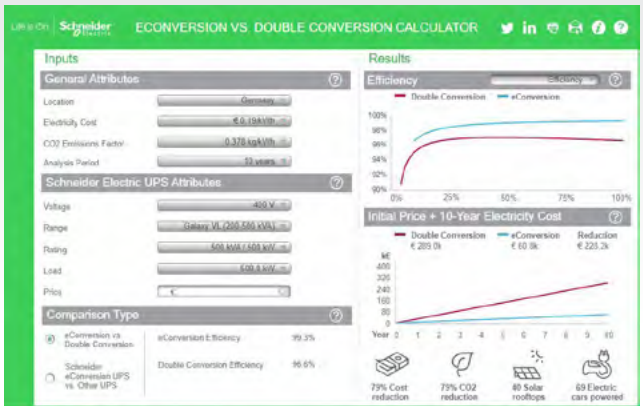
- By operating at up to **99% efficiency**, the electricity savings in eConversion within 10 years typically equals **3x the price of the UPS**.
- The inverter operates continuously, protecting the load with **no transfer time**. eConversion performance has been certified with the same IEC 62040-3 **Class 1** rating as double conversion mode.
- eConversion mode recharges batteries and provides power factor correction and harmonics compensation, making it a **versatile solution for IT and non-IT loads**.
- Since its launch in 2014, eConversion has been successfully deployed all over the world. Join thousands of customers who use it daily to protect their critical loads.



Calculate your savings

Use our eConversion vs. Double Conversion Calculator to quickly assess your potential energy savings, operating cost optimization, and CO_2 emissions reduction by comparing the cost of running your Galaxy V-Series UPS in eConversion mode vs. double conversion mode.

Scan the QR code with your phone camera, or click here to access the calculator from the Schneider Electric Data Center Trade Off Tools™ Web page.



Learn more about eConversion

*Model dependent; based on a market electricity price: $0.15 /kWh. The annual electricity savings are calculated by comparing the UPS efficiency in eConversion mode vs. double conversion mode.

Best-in-class footprint saver

Optimize your data center space; Galaxy VL reduces your power protection footprint by 50% compared to industry average*

The Galaxy VL is the best footprint saver of its class, thanks to:

- Ultra high density design
- Most compact footprint at only 0.8 m^2
- Front service access
- No shadow footprint
- Well-suited for confined spaces

	Industry Average	Galaxy VL
Square footprint	1.6m^2	0.8m^2
Dimensions (W x D)	1712.42 x 942.75 mm	850 x 925 mm

*Based on the average square cm footprint (WxD) of 500 kW modular scalable UPS models offered by top 9 global manufacturers (based on published market share of the UPS category in the last 3 years)

Save space and the environment

Galaxy Lithium-ion Battery Cabinets achieve total space savings of up to 70% compared with VRLA battery solutions. Pair your Galaxy VL UPS with Galaxy Lithium-ion Battery Cabinets to achieve the most compact, high-density footprint in the market.

As a first mover with a vast installed base, Schneider Electric has developed its own Galaxy Lithium-ion battery solution that also delivers these benefits:

- Optimize TCO and achieve sustainability targets by doubling your battery life
- Recharge 2-3x faster than VRLA solutions
- Simplify and speed up installation with our internal power supply
- Enhance battery safety with three levels of battery management system (BMS)

Galaxy VL is available with a full range of options and accessories that ensure the best performance in any environment, including Galaxy Lithium-ion and classic battery cabinets to meet any site requirement.

Lithium-ion compared to VRLA batteries

	Classic battery cabinet with VRLA	Galaxy Lithium-ion Battery Cabinet
Square footprint	3.4m^2	1.1m^2
Dimensions (W x D)	4000 x 845 mm	1950 x 587 mm

Future-proof your data center

Expand power with no scheduled downtime and no extra footprint with Live Swap

Galaxy VL's modular and scalable design supports the Live Swap of power modules, optimizes your up-front capital investment, provides you with power continuity, and gives you more flexibility to expand power and pay as you grow.

Predict your investment over time with modular, scalable design

Right-size your power protection and redundancy from day one. This maximizes your operating efficiency and sustainably minimizes your energy consumption, optimizing your TCO.

Scale fast with no scheduled downtime, and keep your employees safer

Modular design and Live Swap make just-in-time data center expansion effortless, with no scheduled downtime, enhancing business continuity.

With Live Swap, it is simple and fast to add, replace, or remove power modules while the Galaxy VL UPS is online and fully operational, increasing protection for your employees.

Scale and pay as you grow

Scale power instantly in 50 kW increments from 200 kW to 500 kW, as your power requirements evolve.

Galaxy VL's innovative design supports Live Swap: the new frontier for modularity, scalability, and employee protection

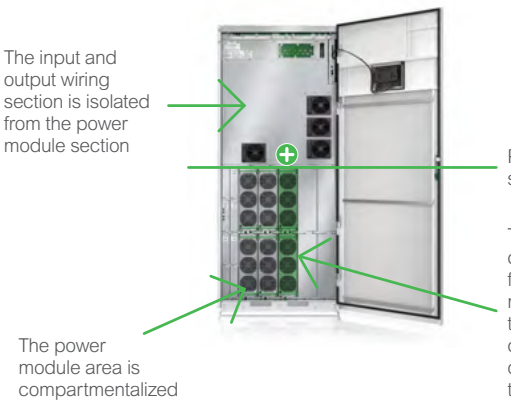
Galaxy VL with Live Swap is a pioneering innovation, driven by Schneider Electric's strong safety culture, delivering a touch safe design through the entire process of adding or replacing the power modules in the Galaxy VL, while the UPS is online.

This innovative capability enables fast and simple insertion and replacement of the power modules in the Galaxy VL 200-500 kW UPS, while the UPS is online and fully operational, without having to transfer the UPS to maintenance bypass or to battery operation and with increased protection for your employees.

Galaxy VL has been designed to reduce the risk of shock and potential arc flash during the insertion or removal of power modules, as well as to ensure touch safety throughout the entire Live Swap operation. In practical terms, the power modules can be added or replaced while the Galaxy VL is online, and the energy incident levels are kept below 1.2 cal/cm^2.

The numerous and rigorous tests completed have been witnessed and verified by a recognized third-party laboratory.

Galaxy VL has been engineered to ensure touch safety and to mitigate risks of arc flash and shock:



Galaxy VL with Live Swap is Schneider Electric's response to national and local electrical safe work practices regulations. For more information, you can read WP-13, Mitigating Electrical Risk While Swapping Energized Equipment.

Faster installation and serviceability

Quick to install and fits everywhere

- Lightweight, small footprint
- Everything you need is included – Network Management Card (NMC), Modbus, single and dual mains, air filters, and dry contacts
- Precise and reliable battery configuration, thanks to predefined battery parameters
- Use an external maintenance and system bypass cabinet to configure parallel installations for capacity or redundancy
- Enables standard top cable entry. For bottom cable entry, Bottom Entry Cabinet (BEC) or Maintenance Bypass Cabinet (MBC) can be used

Simple to maintain and fast to service thanks to its modular architecture and Live Swap design

- Full front access for simple and fast connection and service
- Fast mean time to repair thanks to Live Swap power modules
- Reduces risk of human error and load drop, and enhances employee protection
  - With Live Swap, it is simple and fast to add, replace, or remove power modules while the Galaxy VL UPS is online and fully operational, increasing protection for your employees
  - Galaxy VL self-detects the new power module and automatically updates its configuration settings for more uptime and convenience

Intelligence module 1
"System brain" contains critical control and signal wire interfaces

Scalability option 2
Add new power module anytime as your load evolves

Power modules 3
N+1 redundancy, Live Swap, slide in/slide out modules with rear connectors. Includes fan box for simple replacement. Superb core performances (PF=1, high-density, high-efficiency) and fault-tolerant design

Service flexibility 4
Makes installation and cabling work particularly simple. Copper or aluminum cables. Suitable for 3- or 4-wire installation (with or without neutral) for more flexibility.

Full front access 5
Full front access for simple and fast connection and service.

Galaxy VL

Modular Data Centers with Galaxy VL

A powerful, efficient, and compact solution that evolves with your business

Modular data center solutions combine power, cooling, and IT data center infrastructure into individual or configurable modules that are built off-site in a factory environment. These modules are then delivered to the site to provide a cohesive data center solution, providing quick-to-deploy compute capacity even in remote areas, unused warehouse space, or outdoor spaces.

Not only does the Galaxy VL with Live Swap allow you to increase your power capacity as your business grows, but provides the best footprint in the market with over 50% footprint savings, allowing you to truly optimize your space. Customers can get additional benefits and even more peace of mind when they select Schneider Electric EcoStruxure IT, a cloud-based monitoring platform that enables IT staff to proactively monitor and manage the data center from anywhere they have an Internet connection, via a smart phone app or web browser.

Increase your infrastructure capacity; shrink your infrastructure footprint by over 50%

Legacy 13.7m 500 kW Modular Solution utilizing legacy UPS

Galaxy VL 6m 500 kW Modular Solution utilizing Galaxy VL UPS

Reduce your deployment time; maintain the predictability of your design's performance

Visibility and peace of mind

Secure Network Management Card System*

Bolster your cybersecurity strategy with firmware updates

As cybersecurity is a leading concern for business interruptions, the Secure Network Management Card (NMC) System iis our commitment to deliver secure products, utilizing secure development processes, and reliable update management reducing exposure to cybersecurity attacks. The Schneider Electric Network Management Card is independently certified to the IEC 62443-4-2 standard by TÜV Rheinland. Additionally, our development processes are certified to both IEC and ISA Security Standards.

Updating your NMC firmware matters

Monitoring and alarming

Remote monitoring and visibility across IT infrastructure is mission critical, because it reduces the risk of unexpected issues and downtime.

Wherever-you-go visibility

The Schneider Electric Network Management Card enables essential and secure remote monitoring and management of your

Preventative management

Connecting your devices will improve the availability, resiliency, and efficiency of your power infrastructure systems and the IT workloads they support.

Ongoing security compliance

More and more cybersecurity breaches are linked to neglected firmware. Our new Secure NMC System will help you:

- Reduce exposure to attack and minimize downtime — protect your connected devices with the latest security updates.
- Achieve consistent compliance — protect your business with the only NMC firmware independently certified to the highest cybersecurity compliance level (IEC 62443-4-2).
- Never become out of date — During commissioning of your Galaxy VL and during maintenance activities, Schneider Electric qualified service personnel update the NMC firmware as defined in all applicable field advisories and field modifications.

Learn more at se.com/secure-nmc

**Requires an Advantage Plan service contract or EcoCare for 3-Phase UPS membership with on-site maintenance; contact your Schneider Electric representative for availability.*

EcoStruxure IT enables resilient, secure, and sustainable data centers and IT environments

Schneider Electric's comprehensive Data Center Infrastructure Management (DCIM) solution, EcoStruxure IT, ensures business continuity by enabling secure monitoring, management, insights, planning, and modeling—whether from a single IT rack to hyper-scale IT—on-premises, in the cloud, and at the edge.

Easy visibility

Monitoring and management software streamlines data center device management:

EcoStruxure IT Expert provides you a hands-on approach with cloud-based monitoring software that synthesizes and analyzes performance and alert data into proactive recommendations and enables wherever-you-go visibility from any device. Try it now: https://community.se.com/t5/Get-started-with-EcoStruxure-IT/Get-started-with-EcoStruxure-IT/ta-p/447135

EcoStruxure Data Center Expert is a scalable end-to-end on-premise monitoring software that collects, organizes, and distributes critical device information, providing a comprehensive view of your company-wide, multi-vendor physical infrastructure.

Operations, optimized

Planning and modeling software transforms data into performance insights:

EcoStruxure IT Advisor is a data center infrastructure planning and modeling solution that provides Data Center Managers in large enterprises and colocation data centers with full insights into their infrastructure to improve profitability, sustainability, and resiliency.

Improved uptime with the right service plan

EcoCare membership, a next-generation service plan from day one

An innovative product needs an innovative service. EcoCare membership is a service plan that helps keep UPSs up and running through advanced analytics and AI models combined with priority access to technical experts.

How does it work?

Critical UPS data points such as wear, aging, and temperature of key components are analyzed within our EcoStruxure IoT platform, monitored 24/7 by our Connected Services Hub, delivering key benefits such as:

Priority access to technical support

Efficient maintenance tomorrow

Optimized lifespan and budget management

Exclusive support in case of emergency

EcoCare members get the right support at the right time with:

- **24/7 remote monitoring and alarming** from our Connected Services Hub, allowing us to proactively identify and address any anomalies before they disrupt your operations.
- **Premium access to technical experts,** on-site and remotely, along with Customer Success Managers and preferred SLAs, helping to reduce Mean Time to Repair (MTTR).
- Access to **training resources** designed to empower your team to troubleshoot in case of anomalies, as well as exclusive member rates on spare parts, training, and on-site intervention.

Efficient maintenance tomorrow

From day one, we will collect operational data and remotely monitor each asset and component condition to enable a **condition-based maintenance approach** in the future, leveraging our Maintenance Index. This approach helps **optimize on-site maintenance** activities **and improve uptime** by adjusting the maintenance intervals as required, based on the current condition of the equipment, while helping to reduce operational costs.

Optimized lifespan and budget management

We provide continuous insight into the overall health of the equipment by providing the **remaining useful life for each individual critical component** of your UPS with our Health Index, **reducing the need for premature replacements** and associated capital expenditures, and avoiding carbon footprint.

* EcoCare for 3-Phase UPS is being progressively launched; contact your Schneider Electric representative for availability.

Why Schneider Electric Services?

Our EcoStruxure IoT platform utilizes proprietary AI models built on exclusive manufacturer knowledge to deliver condition-based services. These models are refined by 300+ in-house data scientists, leveraging data from the industry's largest installed base.

With over 6,000 electrical and cooling engineering experts, including remote specialists, on-site technicians, and dedicated Customer Success managers, we help ensure EcoCare members' success and the efficiency of their operations.

Technical specifications

Galaxy VL	Features
Nominal power rating (kVA = kW)	200, 300, 400, 500
Scalability	From 200 kW to 500 kW with 50 kW power module increments
N+1 power ratings	Up to 450 kW N+1
Technical rating	500 kW
Topology	On-line double conversion, UL-verified eConversion
Key features	
Modular design	Power module, control module, power supply unit
Third-party verified Live Swap	Power Module
Display	7-inch color touch display, mimic diagram on display
Cabinet Type	Standalone, White (RAL9003)
Efficiency	
Double conversion mode	> 97%
eConverison mode	Up to 99%
ECO mode	Up to 99%
Input	
Rated voltage	380/400/415/440/480 VAC
Input voltage range (phase to phase)	331-552 V
Single mains/dual mains	Single mains as standard. Easily converted to dual mains.
Input current total harmonic distortion (THDI)	<3%
Input power factor	>0.99 at load >25%
Cable entry	Top as standard. Optionable bottom cable entry cabinet available.
Input backfeed protection	Input backfeed protection: Included. Bypass backfeed protection: External or internal with kit.
Maximum short-circuit rating	65 kA Icw
Output	
Nominal output voltages	380/400/415/440/480 VAC
Load power factor	PF=1 @ 40 °C (104 °F) without derating
Voltage regulation	+/- 1% (symmetrical load)
Frequency	50/60Hz +-0.1% free running
Overload normal operation	1 min @ 150%; 10 min @ 125% (110% continuous at 30 °C (86°F))
Overload battery operation	1 min @ 125%
Output THDU on linear load	<1%
Output THDU on non-linear load	<3%
Output Voltage classification	VFI-SS-111

Galaxy VL	Features
Paralleling	
Parallel capability	Parallelable for capacity (3 MW) or redundancy (2.5 MW N+1)
Batteries	
Battery type	VRLA/Lithium-Ion/NiCad
DC Bus/Number of VRLA battery blocks	480-576 V (40-48 blocks)
Float Voltage, 2.27 V/cell	545-654 V
Backup time	5 minutes to 1 hour (longer runtime available*)
Maximum charging power (0-40% load)	80%
Maximum charging power (100% load)	20%
Number of supported battery breakers	4
Breaker trip function	UV coil on the battery breaker
Temperature compensation	-3.3 mV/°C/cell, for T >= 25 °C 0 mV/°C/cell, for T < 25 °C
Maximum short-circuit level	30 kA
Battery test	Manual/automatic (selectable)
Battery runtime estimation	Yes
Battery deep discharge protection	Yes
Environment	
Operating temperature	0-40 °C without rating
Storage temperature	-25 ° to 55 °C (-13-131 °F)
Humidity	0% to 95%
Elevation/altitude	1000m 100% load up to 3000m with derating
Audible noise at 100% load	400 V: 69.5 dB; 480 V: 68 dB
IP level (Ingress Protection)	IP20
Dust	Supports harsh environments Pollution degree 2 (IEC 62040). Air filter included.
Conformance coating	On PCBA
Dimensions	
200-500kW UPS (HxWxD)	1970 x 850 x 925 mm (77.6 x 33.5 x 36.4 in)
Weight	200 kW UPS: 495 kg (1091 lb); 500 kW UPS: 720 kg (1587 lb)

Options and accessories	
Lithium-ion battery cabinet	Parallel communications kit
Maintenance bypass cabinet	Network management card
Bottom cable entry cabinet	Internal backfeed kit
Battery breaker kit	Kirk key kit (480 V)*
Air filter kit	600 V:480 V transformer cabinet (Canada)
Seismic kit	Classic battery cabinet (400 V)*
Common VRLA battery bank	Battery breaker box (400 V)*
Remote alarm panel	Remote centralized display box
Bottom entry cabinet 65kAIC kit	Energy Reduction Maintenance Settings (ERMS) Door Switch Kit

Preliminary specifications – can be subject to changes.

**Contact your local representative for availability*

***Contact your sales representative for any custom-built requirements*

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To learn more about the Galaxy VL UPS and EcoStruxure IT DCIM, contact your Schneider Electric representative or visit se.com/GVL

About Schneider Electric At Schneider Electric, we believe **access to energy and digital** is a basic human right. We empower all to **make the most of their energy and resources**, ensuring **Life Is On** everywhere, for everyone, at every moment. We provide **energy and automation digital** solutions for **efficiency and sustainability**. We combine world-leading energy technologies, real-time automation, software and services into integrated solutions for Homes, Buildings, Data Centers, Infrastructure and Industries. We are committed to unleash the infinite possibilities of an **open, global, innovative community** that is passionate about our **Meaningful Purpose, Inclusive and Empowered** values.
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