

Galaxy VS

Increased availability. Reduced operating costs. First-class power protection for critical infrastructure.

20 – 150 kW (480 V) 10 – 75 kW (208 V)



se.com/gvs

Life Is On Schneider

Maximize your availability; minimize your total cost of ownership

Galaxy VS is a highly efficient, modular, simple-to-deploy 20 – 150 kW (480 V)/10 – 75 kW (208 V) 3-phase uninterruptible power supply (UPS) that delivers top performance to edge, small, and medium data centers, as well as critical infrastructure in commercial and industrial facilities.

You need best-in-class power protection that is as high-performing and innovative as your business. Galaxy VS maximizes your availability while minimizing your total cost of ownership, with highly efficient patented technologies and modular architecture.

Galaxy VS meets your internal redundancy needs with N+1 power modules to ensure your load remains protected. This multiplies by 10 the system's availability without extra footprint.

Battery flexibility is one of the main highlights of Galaxy VS. When you choose Galaxy Lithium-ion battery cabinets, you benefit from a longer battery lifetime and higher temperature tolerance than classic battery solutions. When you choose smart battery modules integrated in the UPS cabinet, Galaxy VS offers optimized footprint and ensures critical loads have highly predictable runtimes and battery redundancy.

The Galaxy VS is EcoStruxure[™] connected to give you visibility into the health of your UPS and peace of mind by sending real-time status updates directly to your smartphone. With its robust modular design, superior performance, and scalability and Live Swap options, Galaxy VS is the ideal backbone for your critical infrastructure.





New patented hybrid technology

Provides up to 97% efficiency in double conversion mode.

Electricity savings in full protection mode at every load level.



99% efficient in patented ECOnversion[™] mode

Recover your initial investment within two - three years through energy savings.²



Compact design. Optimized footprint

High-density technology and full-front access make Galaxy VS a footprint saver well-suited for confined spaces.



Maximum availability thanks to modular architecture

Critical system components built as modules for faster serviceability and fault tolerance. N+1 redundancy, scalability, and Live Swap options available.



Battery flexibility, including Lithium-ion batteries¹

Increase availability and reduce TCO with long-life, intelligent energy storage.



EcoStruxure IT

Anytime, anywhere monitoring and service support via smartphone app¹.

Well-suited for a wide range of data center and industrial applications



Information technology and commercial buildings

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







Green Premium Certified

Emergency power systems

Radiology and imaging

Operating rooms and Intensive

Sustainable business performance,

se.com/en/work/support/green-premium/

- Oil & gas
- Refining

Healthcare

equipment

Care Units

- Petrochemicals
 - Gas processing control Well pumps

by design. Learn more:



- Marine (DNV, BV)
- Lighting
 - Air traffic control
 - Security
 - Signaling and communication systems

Minerals, Metals & Mining

- Furnace process control
- **Glass** plants
- **Emergency lighting**
- **Power & Grid**
- Thermal plants
- Generator protection
- Hydro turbine control
- Wind farm monitoring

Galaxy VS also complies with these standards³:

- Emergency lighting: UL® 924, CSA® 22.2 NO. 141-15
- TAA-compliant UPS



1 Contact your local representative for availability.

2 Model-dependent

3 Consult your local representative for more information about configuration requirements, including accessory kits.





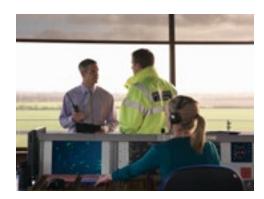
Leading performance

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 the electrical environment, with single and dual mains support included
- Optimized uptime with wide input tolerance window (+/-15%)
- Right-sized batteries with flexible DC bus



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
- N+0 or N+1 module-level redundancy
- N+0 or N+1 system-level redundancy (parallel up to 4 UPSs)



* model dependent

Reliable power for IT and non-IT environments

- Robust, fault-tolerant design ensures continuous protection in critical circumstances
- Designed to perform in dusty environments with its high-quality air filter and IP20 rating (optional IP52 kit available for select models)
- Withstands **104°F operating temperature** without derating (122°F with derating)
- Suited for humid environments thanks to conformal coating
- Seismic certified (with option kit)
- Maximum short circuit rating: 65 kA
- 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
- Operates at high elevation with no derating up to 3000m (5000m with derating)
- Models with halogen-free power cables available

Best operational efficiency

Galaxy VS in ECOnversion[™] mode delivers 99% efficiency



saving you up to **\$5,600** annually, a **100**% ROI in energy bill savings in **2-3 years***

Sustainably reduce your energy bill

By using **ECOnversion** mode, significant savings are achieved every year on your electricity bill. Compared to a legacy design, the savings are equivalent to the UPS acquisition cost after two – three years, and reduces carbon emissions as much as removing 25 cars from the road annually.

*Model dependent; based on a market electricity price: \$0.12/kWh

The annual electricity savings are done by comparing the Galaxy VS 100 kW UPS for external batteries with a 94% efficiency standard UPS. Calculate your efficiency savings using the Three Phase UPS Efficiency Comparison Calculator: <u>schneider-electric.com/upsefficiencycalculator</u>

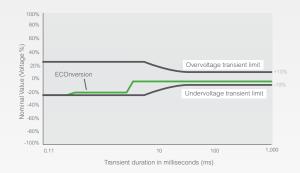
ECOnversion: an unbeatable combination of power quality and high efficiency

Enjoy the highest energy savings available today without sacrificing load protection — our patented zero-break transfer design offers peace of mind:

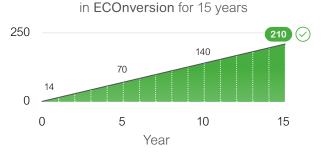
- Certified Class 1 UPS performance per IEC® 62040-3;
 third-party tested by UL
- World-class efficiency up to 99%
- · Zero transfer time to double conversion mode or batteries
- Continuously charged batteries
- Patented input short circuit protection
- · Input power factor correction and no harmonics
- Monitor your energy savings with the ECOnversion Savings Meter, which calculates your savings in kWH and \$

Patented hybrid technology

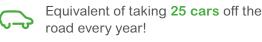
- Up to 97% efficiency in double conversion online mode even at low load levels
- Uses soft-switch method to reduce losses during double-conversion



Galaxy VS ECOnversion meets Class 1 of IEC® 62040-3: zero-break transfer during power outage.



Carbon Emissions (Metric Tons) Savings





Meets your needs in multiple environments









	Galaxy VS for external batteries	Galaxy VS with internal smart battery modules		
208 V	10 – 75 kW	10 kW	10 – 25 kW	10 – 50 kW
480 V	20 – 150 kW	20 kW	20 – 50 kW	20 – 100 kW
N+1 redundancy option*	Yes	No	No	Yes
Scalability option*	Yes	No	No	No
Dimensions	59"H x 20.5"W	59"H x 13.8"W	59"H x 20.5"W	78"H x 20.5"W
Battery type	External. Compatible with Lithium-ion and lead-acid (VRLA)	7Ah (VRLA)	9Ah (VRLA) Standard or long life	9Ah (VRLA) Standard or long life
Battery strings in UPS (maximum)	-	2	4	5
Ingress protection level	IP21 (IP52 options)	IP20	IP20	IP20
Special features:	Large cabling section provides convenient access, connection, and installation. Models with Live Swap capability and scalability available.	Models with Live Swap capability available.	Compatible with external modular battery cabinets (up to 6 battery strings). Models with Live Swap capability available.	Compatible with external modular battery cabinets (up to 9 battery strings). Models with Live Swap capability available.

Future-proof your data center

Galaxy VS UPS with optional scalability empower you to right-size your power protection to today's load requirement, then change UPS capacity as your load requirements evolve over time.

- Add 20 kW and 50 kW power modules, combined as needed
 Galaxy VS LIPS self-detects the addition of a new power
- Galaxy VS UPS self-detects the addition of a new power module and automatically updates its configuration setting

In addition, Galaxy VS UPS models with third-party verified Live Swap maximize uptime, availability, and power continuity by enabling you to swap out power modules quickly, with no scheduled downtime.







* See technical specifications table for details

Faster installation and serviceability

Quick to install and fits everywhere, thanks to its compact design

- Lightweight, small footprint, with rolling casters
- Everything you need is included Network Management Card (NMC), modbus, single and dual mains, air filters, and eight dry contacts
- · Precise and reliable battery configuration, thanks to predefined battery parameters
- Set up a simplified 1+1 parallel configuration using the built-in internal maintenance bypass breaker, or use an external maintenance bypass panel to configure parallel installations for capacity or redundancy
- Supports a common battery bank for parallel installations
- Supports installation with NEMA® 2-hole lugs

Simple to maintain and fast to service, thanks to its modular architecture

- Fast mean time to repair, thanks to swappable power, static switch, battery, and intelligence modules
- Full-front access for simple and fast connection and service (Galaxy VS for external batteries)
- Reduces risk of human error and load drop, and enhances employee protection:
 - For Galaxy VS UPSs with the Live Swap option, it is simple and fast to add, replace, or remove a power module while the Galaxy VS UPS is online and fully operational, increasing protection for your employees
 - Galaxy VS self-detects the new power module and automatically updates its configuration settings, delivering more uptime and convenience
 - If needed, the easy and intuitive guided maintenance bypass transfer sequence on the display helps you easily transfer to and from maintenance bypass and monitors the system breaker status

Modular design benefits

1 Intelligence module

"System brain" contains critical control and signal wire interfaces

2 Scalability option

Add new power module anytime as your load evolves

3 Power modules

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

4 Static switch module

Replaceable without installing an external maintenance bypass solution

5 Internal maintenance bypass

Simplifies service operations and reduces risk of error

Smart modular battery strings

Integrates smart battery modules in the UPS cabinet, conserving footprint and increasing availability with battery monitoring, additional battery strings, and fast runtime expansion with self-configuring modules





Galaxy VS for external batteries

Galaxy VS with internal batteries

Flexible, intelligent energy storage

Galaxy VS is available with a full range of energy storage options that ensure the best performance in any environment and meet a wide variety of site requirements.

Smart modular battery string



Improved availability, including long-life options

- **Increased availability:** Four smart battery modules form one smart modular battery string. All smart battery modules support the load so no individual battery is a single point of failure
- Reduced Mean Time To Repair (MTTR): Replace a smart battery module in just a few minutes

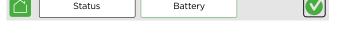
Accurate anytime replacement

- Simple: Push-in and plug; unplug and pull-out
- Safety first: Touchproof connectors
- **Self-configuring:** The UPS automatically detects the presence and type of batteries so the battery configuration is updated accurately

Long-life Galaxy Lithium-ion batteries

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:

- Double your battery life compared with any VRLA battery, optimizing TCO and achieving sustainability targets
- Recharge 2 3x faster than VRLA solutions
- High temperature tolerance
- Simplify and speed up installation with our internal power supply
- Enhance battery safety with three levels of battery management system (BMS)



ModBC #1 GVSMODBC6

#6 🗀 (<u> </u>	\square	Ø	23°C	CSB 9Ah
#5 🛄 (\Box	\square	Ø	27°C	CSB 9Ah
#4 🗀 (\square	\square	V	27°C	CSB 9Ah
#3 🛄 (\Box	\square	Ø	26°C	CSB 9Ah
#2 🛄 (\square	\square	V	28°C	CSB 9Ah
#1 🗋 🕻	<u> </u>	(Ø	27°C	CSB 9Ah



Battery monitoring included

- **Sensors:** Each smart battery module contains two temperature sensors and a battery identification device for self-configuration
- **Runtime:** The estimate on the display interface updates when smart battery modules are removed or installed
- Quick status on display: Use the UPS display to quickly identify and replace an inoperative smart battery module

Flexible, high-density energy storage

- **Right-sizing:** Easily increase runtime by adding battery modules or installing battery cabinets
- **High density:** Integrate batteries in the UPS to reduce footprint. No need for service clearance between battery rows



Classic VRLA batteries

- Quickly install the battery cabinet next to the UPS
- Compact footprint



for Lithium-ion / VRLA battery comparison

Visibility and peace of mind

Manage and monitor your Galaxy VS from anywhere, at any time, on any device, thanks to EcoStruxure IT software and services

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cyber security to deliver Innovation at Every Level. EcoStruxure IT Expert and EcoStruxure Asset Advisor are cloud-based solutions that provide you with data-driven insights to optimize data center resiliency and performance.

When it comes to IT critical equipment monitoring, are you more hands-on or hands-off?



Visibility anywhere, anytime

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://ecostruxureit.com/ecostruxure-it-expert/



24/7 remote monitoring and troubleshooting

EcoStruxure Asset Advisor* for secure power and cooling provides you a handsoff approach with 24/7 remote monitoring service by the Schneider Electric Connected Services Hub experts. We monitor and troubleshoot, you relax.

What about planning and modeling?



Unlock the full potential of your power distribution system

EcoStruxure **Power Monitoring Expert (PME)** for Backup Power Monitoring gives you real time visibility of energy storage availability, enabling analysis of historical data and alarms and creation of proactive maintenance plans. Comprehensive on-site services

Start-up service included with UPS

 Commission the installation in accordance with manufacturer's recommendations. Ensure optimal system performance from Day 1.

Schneider Electric-certified installation services

• Expert configuration of your equipment for optimal performance and reliability.

Maintenance services

- Ensure proper care of your mission-critical applications.
- Preventive maintenance and response time upgrades, where available.

Flexible service plans/on-site extended warranty

- Hassle-free system maintenance.
- Improve uptime at a predictable cost.

Scale up your power capacity

 Power upgrade service available. Model dependent; contact your Schneider Electric representative for details.

* Contact your local representative for availability.

Options and accessories

Galaxy VS is available with a full range of options and accessories that ensure the best performance in any environment.



Galaxy Lithium-ion battery cabinets*



Maintenance bypasses

Maintenance bypass cabinet

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Wall mount maintenance bypass panel



kit for UPS*







Smart modular battery string

Smart modular high capacity

Smart long-life high capacity

20 kW UPS with 480 V:400 V

Galaxy VS Live Swap upgrade kit

transformer (tolerates high peak

battery string

battery string

loads up to 80 kW)



Classic battery cabinets

IP52 / NEMA®12 IP52 / NEMA®12 kit for battery cabinet*

Maintenance bypass cabinet with transformer

Mounting skid for marine or industrial applications

Accessories

- Seismic kit •
- Air filter kit
- Parallel communications kit
- NEMA® 2-hole kit** .
- . Kirk key
- IP52/NEMA®12 kits** .
- Mounting skid for marine or • industrial applications

** Model dependent; contact your local representative for order details.



^{*} Contact your local representative for availability.

Technical specifications

Galaxy VS	480 V	208/220 V			
Тороlogy	On-line double conversion				
Nominal power (kW)	20 – 150 kW (parallel up to 600 kW)	10 – 75 kW (parallel up to 300 kW)			
Key features					
Scalability option	50 – 150 kW	25 – 75 kW			
N+1 redundancy option	20 – 100 kW N+1	10 – 50 kW N+1			
Modular elements	Power modules with Live Swap, static switch module, smart battery modules, intelligence module				
Display	Color touch screen, 4.3 inches, status LED, mimic on display				
Communication	Network management card included with ethernet (SNMP) and modbus. 8 dry contacts (4 inputs, 4 outputs)				
Maintenance bypass	Internal maintenance bypass. Optional maintenance bypass panel/cabinet				
Parallel capability	Simplified 1+1 parallel (for redundancy); Up to 4 UPSs in parallel for capacity or redundancy				
Efficiency					
Double conversion mode	Up to 97%	Up to 95.5%			
ECO mode	Up to 99%				
ECOnversion mode	Up to 99%				
Input					
Nominal input voltage	200/208/220 V, 480 V, 600 V (with maintenence bypass cabinet with transformer)				
Input voltage range (phase to phase)	+/-15%				
Single mains/dual mains	Single mains as standard. E	Single mains as standard. Easily converted to dual mains			
Input frequency	40 – 70 Hz				
Input power factor	0.99 for load greater than 50% 0.95 for load greater than 25%				
Maximum short-circuit rating	65 kA				
Backfeed protection	Included				
Output					
Nominal output voltages	200/208/220 V, 480 V, 600 V (with maintenance bypass cabinet with transformer)				
Load power factor	PF=1 (0.7 leading to 0.7 lagging without derating)				
Voltage regulation	+/-	1%			
Frequency	50/60 Hz +-0.1% free running				
Overload	1 min @ 150%; 10 min @ 125%				
Output THDU on linear load	10 – 150 kW 480V UPS	 10 – 75 kW 208 V UPS for external batteries, 10 – 50 kW 208 V UPS with up to 4 internal battery strings: <2% 10 – 50 kW 208 V UPS with up to 5 internal battery strings: <1% 			
Battery type	VRLA, Li-ion				
Nominal battery voltage, UPS for external batteries	20 – 40 kW, 80 kW: 384 – 576 V DC 50 kW, 100 kW: 480 – 576 V DC 60 kW: 432 – 576 V DC	384 – 480 V DC			
Nominal battery voltage, UPS with internal batteries	480 V DC				
Charging power	Charging power in % of output power at 0-40% load: 80% Charging power in % of output power at 100% load: 2				
Environment					
Acoustic noise, UPS for external batteries	54 dB (70% load) / 61 dB (100% load)	57 dB (70% load) / 65 dB (100% load)			
Acoustic noise, UPS with internal batteries	49 – 65dB, depending on load percentage and model				
	Air filter included. Conformal coated boards				
Dust protection	Air filter included. Cor	nformal coated boards			
Dust protection Seismic		nformal coated boards t. OSHPD tested			

Specifications can be subject to change.



To learn more about the Galaxy VS UPS, EcoStruxure IT cloud-based DCIM, and EcoStruxure Asset Advisor 24x7 Digital Monitoring Services, contact your Schneider Electric representative or visit **se.com/gvs**

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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