

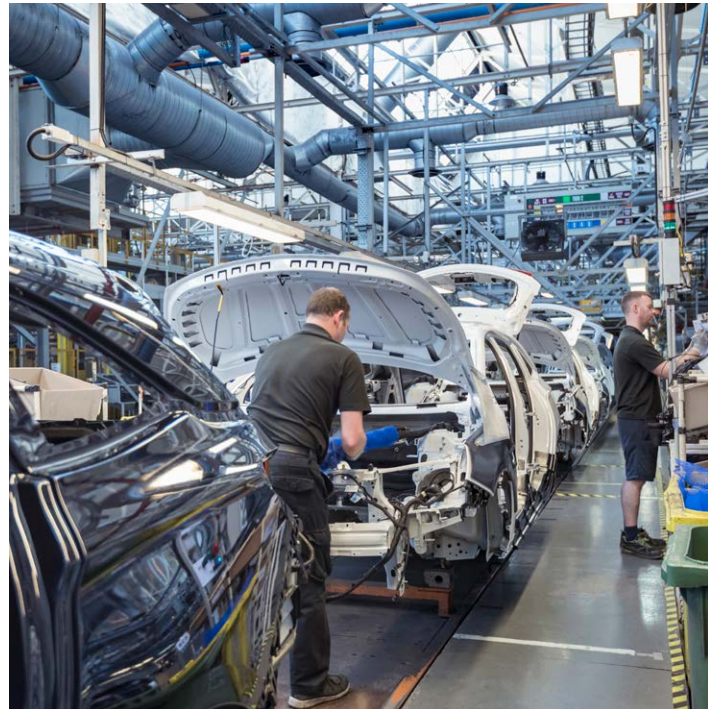
# Automotive 4.0

*Supporting Next-Gen Automotive Manufacturing Processes*

Vertiv provides comprehensive, reliable, and effective solutions that support automotive manufacturing. With proven industry expertise backed by global service support, our solutions are aimed at protecting high-value assets in your manufacturing facility, ensuring production continuity to help you meet service-level agreements and delivering the best quality product to your customers. We are committed to partner with you to protect your business.

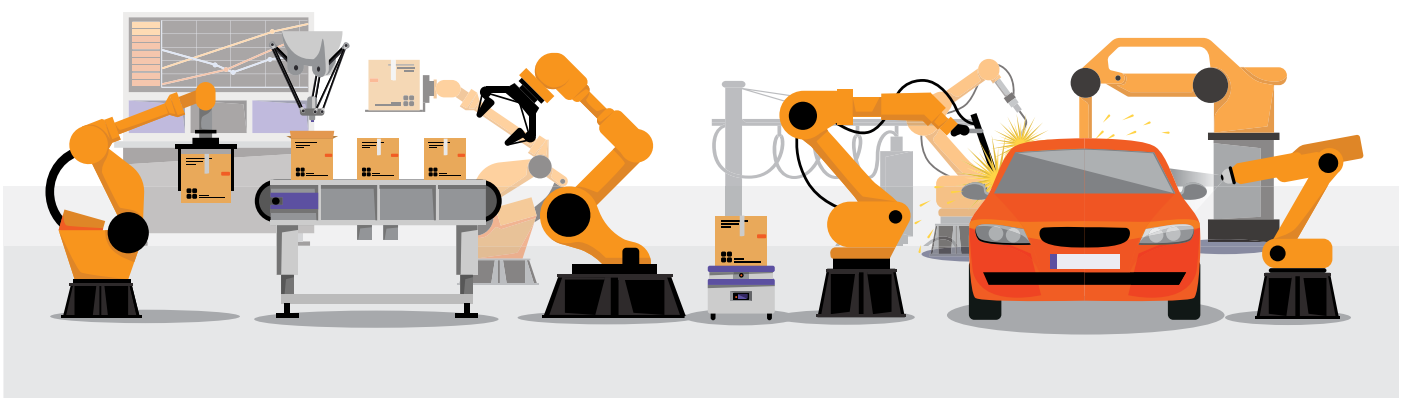
# Automotive Manufacturing

*Automotive Manufacturers seek seamless production processes to meet increasing and changing demand patterns. Reaching higher levels of productivity and profitability for these companies goes hand-in-hand with the need for continuous improvement and optimization of production systems and equipment. By planning towards system optimization and operational efficiency, you can manage expenses and investments to secure competitive advantage.*



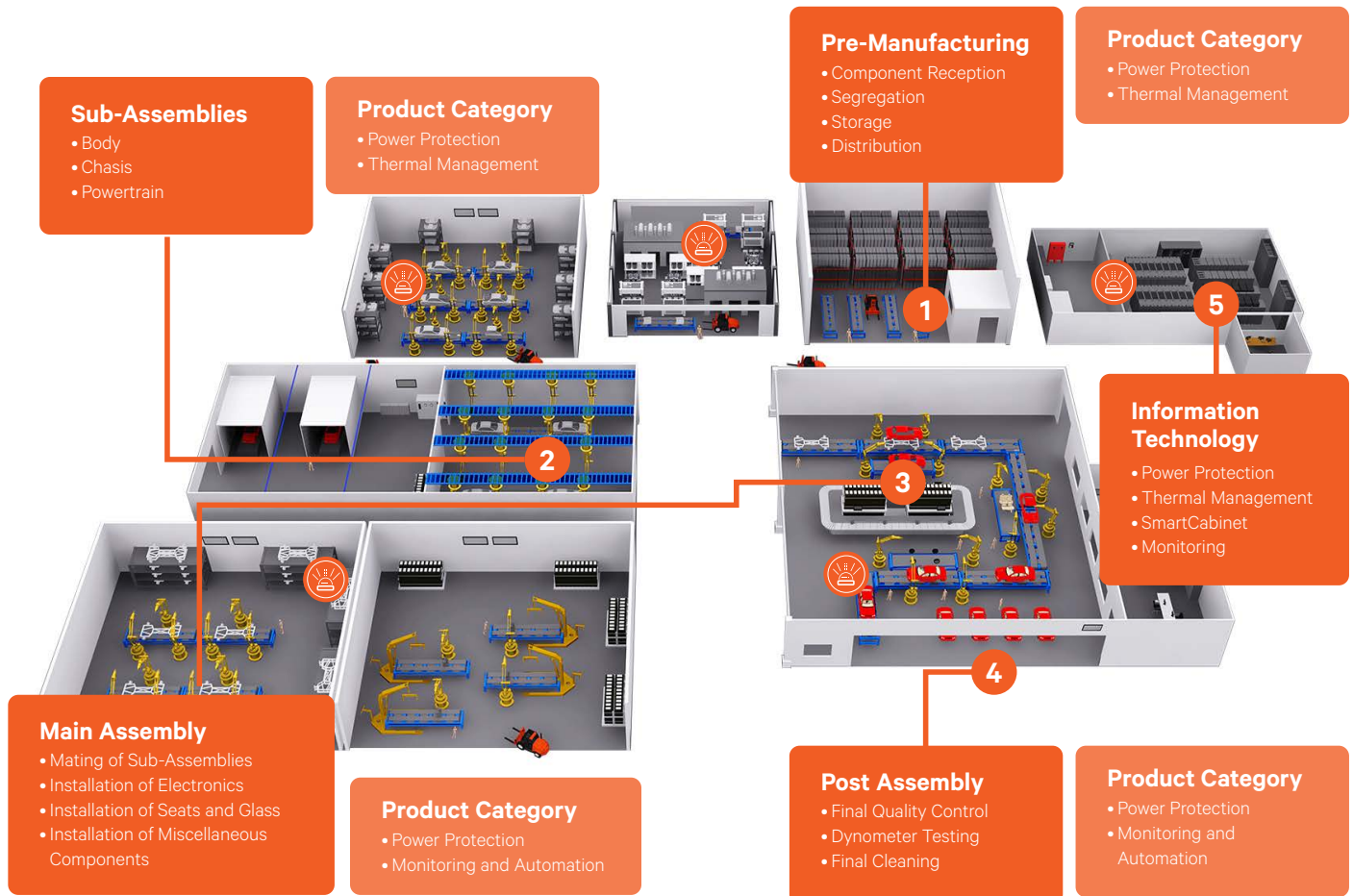
Protection of critical equipment is essential to ensure the availability and continuity of the automotive production process. Automotive manufacturers are vulnerable to power outages as the industry applies just-in-time production. Energy reliability can vary across different regions, with manufacturing plants often facing challenges such as power interruptions and outages. Therefore, automobile plants and related facilities worldwide must invest in fully functional industrial-strength generators. Moreover, integrating renewable energy sources into manufacturing processes is becoming increasingly important globally. Not only does this help reduce the carbon footprint associated with automotive production, but it also contributes to lowering long-term energy costs and enhancing sustainability efforts.

Automotive manufacturing companies stand to lose thousands of dollars and man-hours in any event of downtime. Vertiv protects automotive manufacturers' operations against lost revenues and productivity by bringing together a wide portfolio of solutions for power quality, power continuity, thermal management, infrastructure management and environmental monitoring. We keep your equipment such as conveyor systems, spray painting controllers and dynamometers running continuously, efficiently and safely. Vertiv's solutions will help ensure that equipment and investment are protected and lives up to see their utmost potential realized.



Critical processes within automotive manufacturing needs to be protected from any uncertainty, such as outages, voltage surges or sags, and power spikes, among others. How can Vertiv support your key processes to ensure production continuity?

## AUTOMOTIVE MANUFACTURING PROCESS FLOW



### APPLICATIONS IN EMERGENCY SYSTEMS

Should any unforeseen situation arises, emergency systems should be activated to ensure the safety of your staff and your equipment, or to allow for minimal or no disruption to business productivity. Vertiv's world-class power protection solutions can support your emergency lighting, communication and fire control systems, as well as control room operations to allow you to have a full view of your floor activity.



**1 Fire Control System**  
Power rating: 10kW



**2 Control Room Operations**  
Power rating: 10kW



**3 Ventilation System**  
Power rating: 1kW per unit

## PRODUCT FOCUS

### Vertiv™ Liebert® GXT5 750VA-20kVA

*Intelligent and Efficient UPS for Protection of Your Mission-Critical Applications*



#### Features and Benefits

- High output power factor up to 1.0
- Parallel or redundant operation capability (10kVA to 20kVA Models)
- Energy Star® 2.0 certification with efficiency in online (95%) and Active ECO (98%) modes
- Remote management, update, and configuration capabilities
- Models with Lithium-ion batteries

### Vertiv™ Liebert® EXS 10-80KVA

*Optimized and integrated three-phase UPS solution with high efficiency power protection*



#### Features and Benefits

- Output power factor up to 1
- Double conversion efficiency up to 96.2%
- ECO mode efficiency up to 99%
- Compact footprint with multiple internal runtime configurations (10-60 kVA)
- Available in 3/3 and 3/1 versions (10-20 kVA)
- Integrated maintenance bypass
- Integrated input and output breakers/switches
- Parallel capability for capacity and redundancy

### Vertiv™ Liebert® EXL S1 300-1.250kVA

*Beyond the Power Revolution*



#### Features and Benefits

- Extraordinary double conversion efficiency up to 97%
- Dynamic Online mode for highest availability and up to 99% efficiency
- Dynamic Grid Support for enhanced grid interactive capabilities
- Intelligent ECO mode efficiency above 99%
- Intelligent paralleling feature optimizes efficiency at partial load
- Maximized active power at unity power factor
- Compact footprint for optimum space utilization

### Vertiv™ Liebert® HPM

*Air conditioning units designed for top level performance and reliability*



#### Features and Benefits

- Available both in Chilled Water or Direct Expansion, in air cooled and water cooled versions to suit various site installation requirements.
- Latest Generation EC Fans.
- Teamwork Function.
- Internal design optimizes the aerodynamic impact thus reducing the unit energy consumption.
- User-friendly interface and frontal access for service.

### Vertiv™ Liebert® HPS

*High Performance Split Air Conditioner*



#### Features and Benefits

- Efficient air distribution allowed by displacement cooling.
- Energy and space saving with highly efficient components and a compact freecooling version.
- Extremely flexible due to the possibility of selecting amongst several versions and configurations.

### Vertiv™ Environet™ Alert

*Monitoring Software for Data Center Hardware*



#### Features and Benefits

- Powerful real-time monitoring, alarming and alerting
- Multi-site and global deployment-ready
- Operational awareness and visibility into key assets
- Improve the uptime of servers with proactive threat resolution
- Identify trends to plan and optimize operations across all locations
- Ensure consistent processes and systems across Data Centers and server rooms
- Integrates with any SNMP device

### Vertiv™ Avocent® DSView Solution

*Simplifying and Standardizing Management of Complex IT Infrastructures*



#### Features and Benefits

- Simplified management and control of virtual and physical infrastructure
- Secure and auditable access to devices for IT operators
- Minimize costs with IP consolidation, PoE and API automation
- Improved scalability with diverse devices and higher remote sessions
- Scalable to meet diverse connectivity and resolution needs
- Flexible and scalable deployments

### Vertiv™ Geist™ Rack PDUs

*Power Perfectly Configured for Your IT Application*



#### Features and Benefits

- Basic, metered, monitored and switched models
- High Temperature grade up to 60°C
- Combination C13/C19 Outlets
- Universal Input
- Upgradable & Hot-Swappable
- Small Footprint and Low-Profile Breakers
- U-Lock to avoid accidental disconnections
- Environmental Monitoring
- Fault-Tolerant Daisy Chaining
- Power Monitoring with 1% accuracy
- Remote Connectivity

### Vertiv™ SmartCabinet™ ID

*Up to 7 kW of cooling with IP54 protection for critical IT deployed in demanding environments*



#### Features and Benefits

- Simplified IT management in harsh applications with an all-in-one micro Data Center solution
- Pre-integrated zero-U cooling module with 3.5 kW or 7 kW of scalable capacity
- Reduce operational costs and increase IT reliability with a fully enclosed system that increases cooling efficiency
- Provides environmental protection for sensitive equipment deployed in harsh conditions
- Remote monitoring and management capabilities, provides peace of mind for IT system managers

### Vertiv™ SmartMod™

*Modular Data Center Infrastructure*



#### Features and Benefits

- Speed of deployment, reduced construction work and minimized site risks
- Lower initial CapEx than traditional construction
- OpEx savings with best-in-class, tightly integrated facility meeting the highest standards of availability and efficiency
- Increased productivity, consistent high quality, reduced delays and cost overruns with standardized fabrication processes

### Vertiv™ TimberMod™

*Mass timber Data Centers*



#### Features and Benefits

- Variant of the Vertiv™ SmartMod™ and Vertiv™ Power Module using mass timber as structural element instead of steel
- Mass timber can have less carbon footprint than other construction materials
- Mass timber is renewable, if coming from sustainably harvested wood
- Equivalent to our steel modules regarding seismic, wind and strength performances