MGE Galaxy 5500
20/30/40/60/80/100/120 kVA
Where reliability meets flexibility.

20 – 120 kVA state-of-the-art three-phase power protection designed to meet a wide range of requirements from medium data centers to industrial and facilities applications.

- Upgradable power ranges
- Internal maintenance bypass
- Intuitive monitoring
- Parallel capable
- Front access servicing
- High power availability
Features and benefits

Flexible three-phase power protection designed to meet a wide range of requirements, from medium data centers to industrial and facilities applications.

The MGE Galaxy™ 5500 is the latest advanced engineered UPS system that increases the performance and reliability that APC™ by Schneider Electric™ customers have come to recognize and appreciate. Online technology fully isolates and protects against all power quality disturbances in even the most demanding environments. High efficiency in double conversion or ECO mode saves valuable energy costs and a comprehensive range of options enables the MGE Galaxy 5500 to be highly effective in any application. The output electrical performances are fully aligned with today’s latest load requirements that include upstream harmonics management for a generator-friendly installation and flexible configurations due to the wide range of integrated options and auxiliary equipment. Complete front access allows for a space-saving footprint, user-friendly graphical display with multiple language options, and an SNMP with network-based power management card that all ship standard. All these features make the MGE Galaxy 5500 one of the easiest UPS units in its class to manage and maintain.
Power Availability

Fault tolerance: Built-in 100 percent rated static bypass switch prevents interruption by allowing load transfer to utility power during heavy overloads.

Redundant components: Provides increased backup for greater reliability and ensures continuous operation.

High overload capacity: Improves downstream circuit discrimination.

Installation and serviceability

Easy to install: All connections are made through the front, eliminating the need for rear or side access.

Front access servicing: Simplifies installation and maintenance while minimizing space requirements.

Multiple levels of service: With package or individual service component options, our services are structured for you to choose what APC by Schneider Electric can do for you.

Flexible and upgradeable

Expandable power ranges: Scalable power levels to accommodate varying power requirements.

Higher capacity or redundancy: Parallel up to six modules to adapt to increasing power needs.

Simple integration: Easily works with networking and monitoring systems.

Extended backup options: Choice of backup times from five minutes to eight hours to meet varying requirements.

Compatible: Operates with inductive and leading power factor loads.

Field upgradeable: Change from single to parallel capability, increasing total power capacity, by simultaneously using multiple UPS units.

Low total cost of ownership

Power factor corrected input: Prevents the need for oversizing cables, circuit breakers, and generators.

Efficient: Up to 94 percent in online double conversion mode.

Flexible design: Allows for a wide range of configurations to suit any operating environment.
MGE Galaxy 5500 features

1. **IGBT-based technology for power quality**
   Supplies clean, stable power to sensitive loads, ensuring critical power protection, optimum performance, and extended life.

2. **Dual input**
   Allows for connection to two separate input sources for increased availability.

3. **Parallel operation**
   Connect as many as six units in parallel for capacity and redundancy to grow with your power requirements.

4. **Redundant components**
   Provides increased backup for greater reliability and ensures continuous operation.

5. **Built-in static and maintenance bypass**
   Enables the UPS unit to transfer the load to utility power, without interruption, in the event of heavy overload or fault.

6. **Pre-installed network management card**
   Allows for easy network integration, compliant with IP v6, SNMP v3, and PowerChute™ suite.

7. **Footprint optimization with “All in one box” configuration**
   In some configurations the UPS unit includes batteries on its frame to reduce the footprint.
MGE Galaxy 5500 options

Integrating isolation transformer
The MGE Galaxy 5500 can be equipped with an isolation transformer, fully integrated to the UPS unit depending on the customer’s galvanic isolation need (output or input). Integrating the transformer directly to the UPS unit saves footprint and provides all the benefits of galvanic isolation including a very robust buffer between the utility and the critical load.

Options
• Parallel system bypass cabinets
• IP32 rated cabinets
• External maintenance bypass, (wall-mounted or standalone)
• Top cable entry cabinet
• Communications cards
• Advanced power management software
• Compact transformer
• Full capable back feed protection option
• Additional protection with optional IEC filter
• Synchronization option (to synchronize UPS unit with external source)
StruxureWare Software Suite

APC™ by Schneider Electric™ UPS units and secure power systems are a core component of any architecture designed for highly critical applications, such as data centers, industry environments, infrastructure, and buildings.

Intelligent energy management of these systems is enabled by Schneider Electric EcoStruxure™ integrated hardware and software system architecture. StruxureWare™ software applications and suites are a key element of the EcoStruxure architecture. StruxureWare software helps maximize system reliability and optimize operational efficiency.

StruxureWare for Data Centers software collects and manages real-time information about assets, resource use, and operation status throughout the data center life cycle. This data center infrastructure management (DCIM) software fully integrates the MGE Galaxy 5500. With full system visibility, managers can monitor and apply this information in order to optimize data center performance to meet IT-, business-, and service-oriented goals.
A Comprehensive Portfolio of Services

Schneider Electric Critical Power & Cooling Services (CPCS) provides the highest quality services and solutions by trained and trusted professionals. Our world-class services offer a smart way to build, operate, and maintain your critical applications, ensuring the right people, in the right place, at the right time.

Assembly and Start-Up Service
Assembly and Start-Up Service by a certified Field Service Engineer (FSE) ensures full factory warranty coverage. A Schneider Electric-certified installation ensures your equipment is properly and safely configured for optimal performance. This service features a standard eight-hour, five-day response time, with upgrades available for off-business hours.

On-site Warranty Extension Service
In the event of a system issue, an FSE will arrive by the next business day (or faster with upgrades) to isolate, diagnose, and correct the problem in as little time as possible, minimizing downtime.

Advantage Plans
Flexible service packages offer hassle-free system maintenance to improve uptime at a predictable cost. The Advantage Plus, Prime, Ultra, and Max are full-service packages that include technical support, preventive maintenance, quick on-site response, and remote monitoring. Response time upgrades are available.

Remote Monitoring Service (RMS)
RMS is an economical and easy-to-use Web-based service that lets you quickly respond to environmental or system changes. Trained technicians provide secure 24-hour monitoring of your physical infrastructure to diagnose and resolve problems before they become critical.

Preventive Maintenance
Preventive Maintenance on-site examinations of your critical systems are designed to prevent problems and keep your system running at maximum efficiency.
## Rated power (kVA/kW)

<table>
<thead>
<tr>
<th>Normal AC supply input</th>
<th>20/18</th>
<th>30/27</th>
<th>40/36</th>
<th>60/54</th>
<th>80/72</th>
<th>100/90</th>
<th>120/108</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage (V)</td>
<td>250 V to 470 V, three-phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal and bypass AC inputs</td>
<td>separate, common in option</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Frequency (Hz)</td>
<td>45 – 66 Hz</td>
<td></td>
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</tr>
<tr>
<td>Input power factor</td>
<td>&gt; 0.99</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>THDI</td>
<td>&lt; 3% full load</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

## Bypass AC Input

<table>
<thead>
<tr>
<th>Input voltage range</th>
<th>(380 V, 400 V, 415 V) +/- 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>50 Hz/60 Hz +/- 10%</td>
</tr>
</tbody>
</table>

## Output

<table>
<thead>
<tr>
<th>Phase to phase output voltage (V)</th>
<th>380 V/400 V/415 V, three-phase + neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load power factor</td>
<td>0.9</td>
</tr>
<tr>
<td>Output frequency</td>
<td>50 or 60 Hz +/- 0.1%</td>
</tr>
<tr>
<td>Overload capacity utility operation</td>
<td>125% for 10 minutes, 150% for 60 seconds</td>
</tr>
<tr>
<td>Output voltage regulation</td>
<td>+/- 1%</td>
</tr>
<tr>
<td>Voltage distortion (THD)</td>
<td>&lt; 2% Phase-to-phase and Phase-to-neutral for non-linear loads</td>
</tr>
<tr>
<td>Output voltage tolerance</td>
<td>+1% static, +/- 2% at 100% load step</td>
</tr>
</tbody>
</table>

## Overall efficiency

<table>
<thead>
<tr>
<th>Efficiency at full load (AC-AC) at 100% load</th>
<th>Up to 94%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO mode</td>
<td>up to 97%</td>
</tr>
</tbody>
</table>

## Communication and management

| Control panel                                              | Multifunction LCD, status, and control console |

## Dimensions and weights

<table>
<thead>
<tr>
<th>UPS without battery (H x W x D)</th>
<th>1900 x 712 x 850 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS with internal battery (H x W x D)</td>
<td>1900 x 1112 x 850 mm</td>
</tr>
<tr>
<td>Weight in kg (UPS without battery)</td>
<td>400 kg</td>
</tr>
<tr>
<td>UPS with transformer dimensions</td>
<td>1900 X 1190 X 850 mm</td>
</tr>
<tr>
<td>UPS with transformer weight</td>
<td>1045 kg</td>
</tr>
<tr>
<td>Battery cabinet narrow (H x W x D)</td>
<td>1900 x 712 x 850 mm, weight 135 kg</td>
</tr>
<tr>
<td>Battery cabinet wide (H x W x D)</td>
<td>1900 x 1012 x 850 mm, weight 150 kg</td>
</tr>
<tr>
<td>Auxiliary cabinet narrow (H x W x D)</td>
<td>1900 x 712 x 850 mm, weight 135 kg min.</td>
</tr>
<tr>
<td>Auxiliary cabinet wide (H x W x D)</td>
<td>1900 x 1012 x 850 mm, weight 150 kg min.</td>
</tr>
<tr>
<td>Auxiliary cabinet 475 mm with isolation transformer, up to 60kVA (H x W x D)</td>
<td>1900 x 475 x 850 mm, weight 118 kg min. 305 kg max.</td>
</tr>
<tr>
<td>Auxiliary cabinet 550 mm with isolation transformer, 80-120kVA (H x W x D)</td>
<td>1900 x 550 x 850 mm, weight 118 kg min. 527 kg max.</td>
</tr>
<tr>
<td>Parallel system bypass (wallmounted or cabinet configuration) (H x W x D)</td>
<td>1000 x 800 x 303 mm min. 1900 x 1010 x 850 mm max. weight 71 kg min. 280 kg max.</td>
</tr>
</tbody>
</table>

## Regulatory

<table>
<thead>
<tr>
<th>Safety</th>
<th>IEC 62040-1, EN 62040-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC/EMI/RFI</td>
<td>IEC 62040-2, EN 62040-2</td>
</tr>
<tr>
<td>Approvals</td>
<td>CE, TUV</td>
</tr>
</tbody>
</table>

## Environmental

<table>
<thead>
<tr>
<th>Operating temperature</th>
<th>0 to 40 degrees C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage temperature</td>
<td>-20 to 45 degrees C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>0 – 95% non-condensing</td>
</tr>
<tr>
<td>Operating elevation</td>
<td>0 – 1000 m</td>
</tr>
<tr>
<td>Storage elevation</td>
<td>0 – 12,000 m</td>
</tr>
<tr>
<td>Max. audible noise at 1 m from unit</td>
<td>55.5 dBA</td>
</tr>
</tbody>
</table>

1. At 70% load level
2. Only available in unitary products
3. There is a risk of premature battery aging above 25 degrees C
MGE Galaxy 7000
160/200/250/300/400/500 kVA
Power efficiency for business continuity

Performance 3 Phase Power Protection with high adaptability to meet the unique requirements of Medium to Large Data centers, Industry, Buildings, and Mission Critical Environments

- Flexible and Very Adaptable
- Advanced Electrical Features
- Parallel Capable up to 8 units
- High Efficiency
- Output Synchronization to External Source
- High Availability Architectures component
- Efficiency Booster Mode on Parallel installations
Power efficiency for business continuity
The MGE Galaxy™ 7000 is the latest addition to the MGE Galaxy UPS family, providing secured power solutions for medium to large data centers, industry, buildings, and mission critical environments. The MGE Galaxy 7000 is flexible/adaptable through its robust IGBT rectifier/inverter design with all types of real world loads (inductive, capacitive with no de-rating of active power). This transformer-less based UPS system maximizes the system efficiency up to 94.5%, keeping valuable operational costs low (energy savings) while providing highest power quality to mission critical loads.

MGE Galaxy 7000 includes features and options that continue to solve customer needs, including flexibility to grow/expand power requirements with N+1 parallel/redundant modules with several choices including: Isolated redundant, Integrated Parallel, and Centralized Static Switch making the MGE Galaxy 7000 a leader with high availability architectures for mission critical environments. Easy to install and maintain is the basis of the core design for this new UPS with only front electrical connections and fully serviceable components. MGE Galaxy 7000 includes additional UPS solutions such as: bus synchronization boxes, IP32 enclosures, back-feed protection, frequency conversion capabilities, and flexible and extended battery solutions including VRLA, NiCad, external matching maintenance bypass cabinets, and paralleling gear. The versatile MGE Galaxy 7000 interfaces with the industry’s leading universal communication protocols and incorporates four communication slots in a rack mount multi-slot case to support SNMP, J-Bus/Modbus® and RS232-RS485 protocols for easy interfacing with most devices.

MGE Galaxy 7000 available services include start-up, preventive maintenance, fast response time, and comprehensive service packages designed for hassle-free system maintenance.

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**MGE Galaxy 7000**

**Availability**
- Sized for harsh environments
- Easy to upgrade
- Flexible

**Installation and Serviceability**
- Front access design
- Easy to install
- Easy integration into electrical networks

**Low total cost of ownership**
- Power factor corrected input
- Up to 94.5% efficiency in double conversion mode
- Efficiency Booster Mode on parallel installations

**Options**
- Battery cabinets
- System bypass cabinet
- Centralized Static Switch cabinet
- Centralized Static Switch cabinet maintenance bypass
- Top entry cabinet
- Backfeed

**Typical Applications**
- Data centers
- Financial institutions
- Industrial
- Healthcare
- Petrochemical
- Utility
The MGE Galaxy 7000 is easy to choose. It can operate at different frequencies and voltages, i.e. 50/60 Hz and 380-415 V. It also displays all information in 19 languages.

Compatible with all load types
- Output power factor = 0.9, in line with the latest generation of IT applications
- No derating for leading power factors
- High short-circuit and overload capacities for motor loads

Compatible with all battery types
- Lead-acid batteries (vented, sealed)
- Ni-Cad

Compatible with all backup time
- The high power charger rapidly charges batteries for backup times up to four hours

Harmonic free rectifier
- No additional harmonic filtering is required

Easy integration into electrical networks
Schneider Electric™, a leader in harmonic management, has built a true IGBT rectifier into the MGE Galaxy 7000. Upstream THDI is less than 5% and the input power factor is greater than 0.99.
- Less reactive power
- Fewer harmonics injected upstream
- Savings in network component ratings such as circuit breakers, cables, etc.
- Fully compatible with generator sets. In addition to its high input power factor, Galaxy 7000 features a soft start capability. A 400 kVA UPS only requires a 440 kVA generator set.

The MGE Galaxy 7000 is easy to install. Phase sequence detection prevents start-up if the phase order is incorrect.
- Small footprint
- No need for rear or side access. All connections are made through the front
- Integration of all switches requiring connection
- Ready for all system earthing arrangements

The MGE Galaxy 7000 is easy to operate. Any screen may be selected as the standard display. For example, if output measurements are a critical parameter, select the output measurement screen as the default display.

Locally
- The MGE Galaxy 7000 intuitive user interface provides clear, relevant information for easy operation. With its 5000 time-stamped events, statistical analysis, and energy flow pictograms, system management could not be simpler.

Remotely
- The MGE Galaxy 7000 provides valuable information to supervision systems on: The UPS and its environment, Controlled shutdown of operating systems. A number of different communication protocols are available for remote operation:
  - Ethernet 10/100 Mbps with HTTPS encryption for browser and NMS supervision,
  - J-Bus/Mod-Bus for BMS systems,
  - Modem for teleservice,
  - Simple programmable current loop contacts.

An innovative solution to make life simple
Efficient product: power availability

Sized for harsh environments

Robust electrical performance
The sizing and quality of power components result in unsurpassed output performance:
• High fault-clearing capabilities
• High load crest factor > 3:1
• Excellent voltage stability, even for stepped load switching or unbalanced loads
• Designed for any type of load (from industrial to IT)
• No derating, even for loads with a leading power factor
• Benefits
  • High fault-clearing capacity for better discrimination in the electrical network
  • Compatibility with all types of loads, including computer loads and loads with high crest factors

Clean, stable output waveform
The digitally controlled IGBTs and high technology output filter provide a very clean, stable output voltage waveform with less than 2% total harmonic distortion (THDU), even for:
• Stepped load switching
• Unbalanced loads
• Benefits
  • Optimum supply for loads
  • Increased life expectancy for the protected equipment

Easy to upgrade

Power and redundancy upgrades
• Power requirements can change over time.
• MGE Galaxy 7000 output can be multiplied by a factor of eight. Redundancy can also be added or upgraded as needed, e.g. 2N, N+1 or N+2.

Flexible architecture
High availability results not only from UPS reliability, but also from innovative and resilient architectures providing:
• Source redundancy
• Power-distribution redundancy

Parallel connection for increased power with a centralized bypass unit and up to 8 UPS units

Live standby redundancy

Distributed parallel connection for increased power and redundancy

Distribution redundancy with the Static Transfer Switch (Upsilon STS)
Up to 94.5% efficiency means significant savings

The innovative technology built into the MGE Galaxy 7000, including digital electronics for better and faster regulation, an IGBT rectifier, and transformer less design, results in high efficiency.

- **Benefits**
  - Energy savings to cut costs
  - Reduced air conditioning and ventilation in the UPS room

**Environment adaptation**

**Ambient temperature adaptability**

Digital electronics offer additional features. The available output power is automatically adapted to the temperature, e.g. a 500 kVA UPS delivers 538 kVA at 20°C ambient temperature.

**Efficiency Booster Mode (EBM) available on parallel installation**

The innovative and highly anticipated Efficiency booster mode function helps to maintain highest global efficiency in a parallel system, without any compromise on the global availability of the system.

- **Benefits**
  - Improve system efficiency by an average of 2%
  - Reduce electricity consumption and cooling of the UPS room
  - Manage your energy
Beyond international environmental regulations
The data center and critical power industry must commit to environmental issues. Schneider Electric systematically attempts to exceed current and future requirements imposed by standards. That includes:
- ISO 14001 certification of sites and R&D
- Eco-design based on ISO 14040 & 14060 standards & eco-production, a true commitment to sustainable development
- MGE Galaxy 7000 takes the environmental issue into account at each stage of the product’s life

Design
Reducing the number of parts improves reliability and reduces impact on the environment. The MGE Galaxy 7000 design team used advanced digital electronics to achieve savings:
- fewer electronic boards
- software updates via downloading instead of changing boards

End of Life recycling
- End of product life:
  - safety instructions
  - list of parts containing regulated substances and their position in the UPS

Raw materials
Thanks to its compact size and low weight, the MGE Galaxy 7000 requires fewer raw materials and the types used are more environmentally friendly.
- Power efficient components:
  - specific choke coils
  - smaller output filters
- New design for a transformerless UPS:
  - more silicon, less copper
  - more powerful IGBTs

Manufacturing according to environmental standards
MGE Galaxy 7000 is produced in factories that comply with the ISO 14001 standard to reduce:
- energy consumption
- packaging waste for supplier parts
- amounts of materials used in the process

Energy efficiency thanks to quality power solutions
- Reduced consumption thanks to the green IGBT rectifier (low harmonics), which in turn reduces sizing of the electrical distribution system (breakers, cables, generator)
- High efficiency UPS solutions to reduce heat losses:
  - up to 94.5% efficiency in on-line mode
  - efficiency booster mode improves global efficiency of a parallel system at low load level

*The weight of the MGE Galaxy 7000 has been halved compared to the previous generation.
Commissioning
Schneider Electric Critical Power and Cooling Services can commission all new equipment and provides the necessary support services to meet your specific requirements.

Maintenance contracts
UPS’s must be managed and monitored to keep them in optimum working order. Schneider Electric Critical Power and Cooling Services offers three levels of maintenance contract:
• ULTRA: For end-to-end service, all-inclusive for guaranteed peace of mind
• PREMIER: For effective, basic preventive maintenance
• SELECT: Pick and mix the services you need

Upgradeable
Installations must remain up-to-date, that is why Schneider Electric Critical Power and Cooling Services provides upgradeable solutions:
• Technical upgrades
• Upgrading of battery functions
• Site audits, studies, and analysis of the UPS environment
• Harmonic audits
• Swap-Pac upgrading of the UPS function to anticipate and adapt to changes in your needs, and to provide end of lifecycle environmental management

Teleservice monitoring services
Teleservice continuously monitors the installation 24/365 and sends alerts to you and the service center. Powerful diagnostic systems and the largest network of UPS experts worldwide help maintain system availability.
## Technical Specifications

<table>
<thead>
<tr>
<th>Rated power (kVA/kW) @ 35°C</th>
<th>160/144</th>
<th>200/180</th>
<th>250/255</th>
<th>300/270</th>
<th>400/360</th>
<th>420/378</th>
<th>500/450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal AC input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input voltage range</td>
<td>250 V² to 470 V, three phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal and bypass AC inputs</td>
<td>Separate</td>
<td>Separate</td>
<td>Separate</td>
<td>Separate</td>
<td>Separate</td>
<td>Separate</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>45 Hz to 66 Hz</td>
<td>45 Hz to 66 Hz</td>
<td>45 Hz to 66 Hz</td>
<td>45 Hz to 66 Hz</td>
<td>45 Hz to 66 Hz</td>
<td>45 Hz to 66 Hz</td>
<td></td>
</tr>
<tr>
<td>Input current distortion (THDI)</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
<td></td>
</tr>
<tr>
<td>Input power factor</td>
<td>&gt; 0.99</td>
<td>&gt; 0.99</td>
<td>&gt; 0.99</td>
<td>&gt; 0.99</td>
<td>&gt; 0.99</td>
<td>&gt; 0.99</td>
<td></td>
</tr>
<tr>
<td>Phase sequence detection</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Bypass AC input</td>
<td></td>
<td></td>
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<tr>
<td>Input voltage range</td>
<td>(380 V, 400 V, 415 V) +/- 10%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz / 60 Hz +/- 10%</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Output</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power factor</td>
<td>0.9 , up to 0.95 @ 25°C</td>
<td></td>
<td></td>
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<tr>
<td>Phase-to-phase voltage setting</td>
<td>380/400/415 V, three-phase + neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Voltage regulation</td>
<td>+/- 1%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>50 or 60 Hz +/- 0.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permissible overloads</td>
<td>150% for 30 s, 125% for 10 minutes</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Voltage distortion (THDU)</td>
<td>&lt; 2% Ph/Ph and Ph/N for non-linear loads</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Battery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of battery chains managed</td>
<td>Up to 2 circuit breakers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Sealed lead-acid, vented, Ni-Cd</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Overall efficiency</td>
<td></td>
<td></td>
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<tr>
<td>Double conversion</td>
<td></td>
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<tr>
<td>Environmental conditions</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>Up to 40°C³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>Up to 95% (non-condensing)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Operating altitude</td>
<td>Up to 1000 m, without derating</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Color</td>
<td>RAL 9023</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IP degree of protection</td>
<td>IP20 Standard, IP32 Optional</td>
<td></td>
<td></td>
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<tr>
<td>Parallel configurations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Integrated parallel units</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Parallel modules with remote centralized static bypass switch⁴</td>
<td>Up to 8 units</td>
<td></td>
<td></td>
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<tr>
<td>Standards</td>
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<tr>
<td>Construction and safety</td>
<td>IEC/EN 62040-1, IEC/EN 60950</td>
<td></td>
<td></td>
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<tr>
<td>Performance and topology</td>
<td>IEC 62040-3</td>
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<tr>
<td>Design and manufacture</td>
<td>ISO 14001, ISO 9001, IEC 60146</td>
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<td>EMC immunity</td>
<td>IEC 61000-4</td>
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<td>EMC emissions</td>
<td>IEC 62040-2 C3</td>
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<td>Approvals</td>
<td>LCIE - CE Mark</td>
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</table>

### UPS dimensions (depth 855 mm, height 1900 mm)

<table>
<thead>
<tr>
<th>Rated power (kVA)</th>
<th>160</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>400</th>
<th>420</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (without battery, in mm)</td>
<td>1412</td>
<td>1412</td>
<td>1412</td>
<td>1412</td>
<td>1412</td>
<td>1812</td>
<td></td>
</tr>
<tr>
<td>Weight (in kg)</td>
<td>840</td>
<td>840</td>
<td>990</td>
<td>990</td>
<td>1140</td>
<td>1500</td>
<td></td>
</tr>
</tbody>
</table>

¹ No other electrical characteristic is impacted; ² Depending on load level; ³ 8 hours max., 35°C continuous; ⁴ 160 and 200 kVA not included
MGE Galaxy 300

3:3 Phase: 10/15/20/30/40 kVA, 3:1 Phase: 10/15/20/30 kVA

Effective and reliable 3-phase power protection designed to prevent downtime and data loss for mission-critical applications.
Features and Benefits

MGE Galaxy 300

**Availability**
- **Dual mains input** Allows standard installation of one or two independent power sources
- **Automatic internal bypass** Built-in 100 percent rated bypass static switch prevents interruption by allowing load transfer to utility power during heavy overloads
- **Parallel 1+1 for redundancy** Connected equipment can be powered with two UPS units in parallel to increase system redundancy
- **Integrated battery back-up** Provides higher level of availability with up to 30 minutes of runtime
- **A robust charger** for extended runtime shortens recharge time to prevent deep discharge damage and provides extended runtime of up to four hours

**Serviceability**
- **Manual maintenance bypass** Easily accessible maintenance bypass allows complete isolation of each part of the system, facilitating maintenance operations without power interruption
- **Front-access servicing** Push-to-open, close door, and slide-out boards simplify installation and maintenance while minimizing space requirements
- **World-class service organization** With worldwide support and multiple levels of after-sales services, our package or individual on-site service options are structured for you to choose what APC™ can do for you

**Economy**
- **Power factor corrected input** Prevents the need for oversizing cables, circuit breakers, and generator
- **Temperature-compensated battery charging** Sensors monitor battery temperature and adjust charger voltage to prevent premature aging and extend battery lifetime
- **Efficient** Up to 93 percent with on-line double conversion topology
- **Reduced footprint** Compact wide or narrow tower makes best use of available space

**Simplified Installation**
- **Easy to install** Wheeled unit rolls into place, and all wiring connections are easily identifiable for time-saving installation
- **Start-up wizard** Step-by-step guidance and intuitive menu screens for easy set-up and system navigation

**Manageability**
- **Built in management card for SNMP** Remote and local monitoring and management capabilities with simple Web/SNMP interface
- **User-friendly graphical interface** Easy-to-read LCD provides mimic diagrams, audible alarms, and multi-language display, simplifying operation

**Typical Applications**
- Small and medium businesses
- Commercial buildings: shop floors, hotels, convention centers
- Transportation and infrastructures
- Telecommunication
- Technical facilities
Beyond international environmental regulations
The critical power industry commits to environmental issues. Schneider Electric™ demonstrates a true commitment to sustainable development with systematic attempts to exceed current and future requirements imposed by standards that include:

- ISO 14001 certification of sites and R&D
- Eco-design standards and eco-production
- RoHS compliance

MGE Galaxy 300 takes environmental issues into account at each stage of the product’s life.

Product development according to environmental standards

**Design**
Reduced number of parts and advanced digital electronics used to improve reliability and lessen environmental impact.

- Fewer electronic boards
- Software updates via downloading instead of changing boards

**Raw materials**
Compact size and low weight of design requires fewer, and more environmentally friendly, raw materials.

- New design for a transformerless UPS
- More silicon, less copper
- More powerful IGBTs changing boards

**Manufacturing**
Produced in factories that comply with the ISO 14001 standard to reduce:

- Energy consumption
- Packaging waste for supplier parts
- Amounts of materials used in the process

Energy efficiency through quality power solutions
- Reduced consumption as a result of the IGBT rectifier (low harmonics), which in turn reduces sizing of the electrical distribution system (breakers, cables, generator).
- High-efficiency UPS solutions to reduce heat losses
- Up to 93 percent efficiency in on-line mode
Battery Options

MGE Galaxy 300 provides integrated batteries for runtimes up to 30 minutes. For extended runtime needs, three external battery cabinets can be used with a robust charger option to increase runtime up to four hours. Temperature sensors come standard to monitor the battery ambient temperature and adjust the charger voltage to protect the batteries and delay premature aging. External battery function is also protected by a circuit breaker equipped with an undervoltage coil in the external battery cabinet.

UPS with integrated batteries

<table>
<thead>
<tr>
<th>KVA</th>
<th>3:1 Model Number</th>
<th>3:3 Model Number</th>
<th>Typical runtime (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>G3HT10K3IB1S</td>
<td>G3HT10K3IB2S</td>
<td>13 min 35 min</td>
</tr>
<tr>
<td>15</td>
<td>G3HT15K3IB1S</td>
<td>G3HT15K3IB2S</td>
<td>9 min 33 min</td>
</tr>
<tr>
<td>20</td>
<td>G3HT20K3IB1S</td>
<td>G3HT20K3IB2S</td>
<td>12 min 25 min</td>
</tr>
<tr>
<td>30</td>
<td>G3HT30K3IB1S</td>
<td>G3HT30K3IB2S</td>
<td>13 min 29 min</td>
</tr>
<tr>
<td>40</td>
<td>N/A</td>
<td>G3HT40K3IB1S</td>
<td>10 min 20 min</td>
</tr>
</tbody>
</table>

UPS with robust charger for extended runtime and external battery cabinet options

<table>
<thead>
<tr>
<th>KVA</th>
<th>UPS (3:1) Model Number</th>
<th>UPS (3:3) Model Number</th>
<th>Battery Cabinet Model Number</th>
<th>Typical runtime (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>G3HT10K3ILS</td>
<td>G3HT10KHLS</td>
<td>G3HTBAT1</td>
<td>113 min 203 min 267 min</td>
</tr>
<tr>
<td>15</td>
<td>G3HT15K3ILS</td>
<td>G3HT15KHLS</td>
<td>G3HTBAT1 G3HTBAT2 G3HTBAT3</td>
<td>65 min 121 min 173 min</td>
</tr>
<tr>
<td>20</td>
<td>G3HT20K3ILS</td>
<td>G3HT20KHLS</td>
<td>G3HTBAT2 G3HTBAT3</td>
<td>86 min 120 min</td>
</tr>
<tr>
<td>30</td>
<td>G3HT30K3ILS</td>
<td>G3HT30KHLS</td>
<td>G3HTBAT2 G3HTBAT3</td>
<td>55 min 71 min</td>
</tr>
<tr>
<td>40</td>
<td>N/A</td>
<td>G3HT40KHLS</td>
<td>G3HTBAT3</td>
<td>53 min</td>
</tr>
</tbody>
</table>

Battery Cabinet Dimension (HxWxD): 1300x500x850mm
G3HTBAT1 is composed of 1 cabinet; G3HTBAT2 and G3HTBAT3 are composed of 2 cabinets
(*) Typical runtime at 70% load
Economy

Optimized features Galaxy 300 is designed to provide optimal performance. The most in-demand features have been carefully selected to propose the right solution for predictable and reliable power protection, offering the benefits of a true double-conversion online architecture.

Reduced footprint Narrow and wide tower options optimize the system footprint based on kVA power requirements.

Simplified maintenance A full maintenance bypass with front access permits complete isolation of each part of the system and facilitates maintenance operations without power interruption.

Availability

Wide input voltage range For harsh electrical environments.

Double-conversion on-line topology Guarantees a consistently high level of power quality.

Parallel capability Power the connected equipment with two UPS in parallel to increase system redundancy.

Dual feed input Allows standard installation of one or two independent power sources.

Options

External battery cabinet For additional runtime. Supplied with breakers and temperature sensors.

Parallel kit For 1+1 parallel redundancy. (G3HTPARKITS)

Empty cabinet for third-party batteries or transformers Line up and match cabinet for third party batteries and transformers.

Communication cards

- Network Management Card supplied with the product (AP9630) for Web/SNMP functions
- Optional card (AP9635CH) for additional features such as Modbus/Jbus over RS485, Teleservice, and environmental sensors: Temperature (AP9335T), Temperature and Humidity (AP9335TH), Dry contact I/O (AP9810)
### Technical Specifications

<table>
<thead>
<tr>
<th><strong>Rated Power (kVA/kW)</strong></th>
<th>10/8</th>
<th>15/12</th>
<th>20/16</th>
<th>30/24</th>
<th>40/32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal AC supply input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input voltage (V)</td>
<td>380/400/415 V (Three-phase + Neutral)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency (Hz)</td>
<td>45 - 65 Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Power Factor</td>
<td>Up to 0.99 at &gt;50% load</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THDI</td>
<td>&lt;7% at full load</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Voltage Tolerance Utility Operation</td>
<td>340V to 477V at full load (-15% to +20% at 400V)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Dual Mains Input</td>
<td>Yes</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Output

| Nominal Output Voltage (V) | 31 - 220/230/240 V | N/A |
| Efficiency at Full Load (on-line) | 3.3 - 380/400/415 V (Three-phase + Neutral) | Up to 93% |
| Output Frequency | Mains synchronized in normal operation 50Hz or 60Hz + 0.1% free-running |
| Overload Capacity Utility Operation | 125% for 2 minutes, 150% for 10 seconds |
| Output Voltage Tolerance | +2% static, +5% at 100% load step |

### Communication and Management

| Communication Interface | Network Management Card (AP9630) |
| Control Panel | multi-function LCD, status and display console |

### Dimensions and Weight

| UPS Dimensions (HxWxD) – 3:1 | 1300x400x860 mm | 1300x500x860 mm | N/A |
| UPS Dimensions (HxWxD) – 3:3 | 1300x400x860 mm | 1300x500x860 mm |
| UPS Weight (kg) without Batteries (3:1 / 3:3) | 145 / 130 kg | 185 / 130 kg | 198 kg |
| UPS Maximum Weight (kg) with integrated Batteries | 615 kg |
| Battery Cabinet Dimensions (HxWxD) | 1300x660x850 mm |
| Battery Cabinet - Minimum weight | 105 kg |
| Battery Cabinet - Maximum weight | 610 kg |

### Regulatory

| Safety | IEC/EN62040-1-1 |
| EMC/EMI/RFI | IEC 62040-2 |
| Approvals | CE, TUV |

### Environmental

| Operating Temperature | 0°C to 35°C |
| Relative Humidity | 0 to 90% non-condensing |
| Operating Elevation | 0 to 1,000m at 100% load |
| Max. Audible Noise at 1m from unit | 54 dBA at 100% load |
| Protection Class | IP20 |

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Smart-UPS On-Line

1–20 kVA

High-density, double-conversion online power protection with scalable runtime

A versatile UPS developed for the harshest power conditions in the world

Smart-UPS™ On-Line provides high-density, true double-conversion online power protection for servers, voice/data networks, medical labs, and light industrial applications. Capable of supporting loads from 1 to 20 kVA in a rack/tower convertible form, the Smart-UPS On-Line is available from 2 U to 12 U. The 15 kVA and 20 kVA models enable support of power hungry blade servers or heavily loaded equipment racks. When business-critical systems require runtime in hours, not minutes, Smart-UPS On-Line can be configured with matching battery packs to comply with aggressive runtime demands. The included PowerChute™ management software provides unattended graceful shutdown of network operating systems. All models 5 kVA and above include an integrated network management card for remote management (optional on models below 5 kVA). The entire Smart-UPS On-Line family provides value to customers with demanding power environments, including a very wide input voltage window, extremely tight output voltage regulation, frequency regulation, internal bypass, and input power factor correction.
Features and Benefits

1. **Rack/Tower Convertible**
   Ensures integration in various environments

2. **Hot-swapable/User-replaceable Batteries**
   Ensures continuous operation of the load even when the batteries are being replaced

3. **Double-conversion Online**
   Provides tight voltage and frequency regulation and zero transfer time for reactive loads (machinery, lab equipment, etc.)

4. **Advanced 16-segment LED Display**
   Quickly understand unit and power status with visual indicators. (LCD on 15 – 20 kVA models)

5. **Frequency and Voltage Regulation**
   Gives higher application availability by correcting poor frequency and voltage conditions without using the battery

---

Product Accessories

**Management Cards**

- **AP9610**: Relay I/O SmartSlot™ Card
  (Not compatible with SURTD UPS models)

- **AP9622**: Modbus®/Jbus Interface Card
  (Not compatible with SURTD UPS models)

- **AP9630**: UPS Network Management Card

- **AP9631**: UPS Network Management Card with Environmental Monitoring

- **AP9610**: APC™ Dry Contact I/O Accessory
  (Not compatible with SURTD UPS models)

- **AP9620**: Legacy Communications SmartSlot Card
  (Compatible with SURTD UPS models only)

**Transformers**

- **APTF10KW01**: APC WW 10 kVA Isolation Transformer
- **APTF20KW01**: APC WW 20 kVA Isolation Transformer

- **SURT001**: APC Smart-UPS RT 3000 VA 230 V Isolation Transformer
- **SURT002**: APC Smart-UPS RT 5000 VA 230 V Isolation Transformer

**Backplate Kits**

- **SURT007**: APC Smart-UPS RT 3/5/6 kVA Input/Output Hardwire Kit
- **SY9010**: Symmetra™ RM 230 V Backplate Kit with (2) IEC 320 C19 and (1) IEC 60309

**Other**

- **SURT013**: SURT Equipment Cart

**Rail Kits**

- SURTRK: APC Smart-UPS RT 482 mm Rail Kit 1 kVA and 2 kVA
- SURTRK2: APC Smart-UPS RT 482 mm Rail Kit for Smart-UPS RT 3/5/6/8/10 kVA
- SURTRK4: APC Smart-UPS RT 482 mm Rail Kit for Smart-UPS RT 15/20 kVA

**Battery Packs**

- **SURT48XLP**: APC Smart-UPS RT 48 V Battery Pack
- **SURTR48RMXLP**: APC Smart-UPS RT 48 V RM Battery Pack
- **SURT192XLP**: APC Smart-UPS RT 192 V Battery Pack
- **SURT192RMXLP**: APC Smart-UPS RT 192 V RM Battery Pack
- **SUR192RMXLP5**: APC Smart-UPS RT 192 V RM Battery Pack 5 Rows

**Service Bypass Panels**

- **SBP3000**: APC Service Bypass Panel 100 – 240 V; 30 A; B&B; Hardwire Input/Output
- **SBP6KRMU2**: APC Service Bypass Panel 230 V; 50 A; MBB; Hardwire Input; (4) IEC 320 C19 Output
- **SBP10KRMU4**: APC Service Bypass Panel 230 V; 100 A; MBB; Hardwire Input; IEC 320 Output (4) C13 (2) C19
- **SBP20KP**: APC Service Bypass Panel 200/208/230/240 V 125 A HW Input/Output
- **SBP20KRMU4**: APC Service Bypass Panel 230 V 125 A HW Input IEC 320 Output (8) C19
## Technical Specifications

<table>
<thead>
<tr>
<th>Output</th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
<th>5000</th>
<th>6000</th>
<th>8000</th>
<th>10000</th>
<th>15000</th>
<th>20000</th>
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<tbody>
<tr>
<td><strong>Topology</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Nominal Output Voltage</strong></td>
<td>Configurable for 220 : 230 or 240 nominal output voltage</td>
<td>Configurable for 220 : 230 : 240 : 400 V nominal output voltage</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Efficiency at Full Load</strong></td>
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<tr>
<td><strong>Output Frequency</strong></td>
<td>50/60 Hz +/- 3 Hz user adjustable</td>
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<tr>
<td><strong>Output Power Capacity</strong></td>
<td>700 W</td>
<td>1400 W</td>
<td>2100 W</td>
<td>3500 W</td>
<td>4200 W</td>
<td>6400 W</td>
<td>8000 W</td>
<td>12 kW</td>
<td>16 kW</td>
</tr>
<tr>
<td><strong>Output Connections</strong></td>
<td>(6) IEC 320 C13</td>
<td>(8) IEC 320 C13, (2) IEC 320 C19</td>
<td>(1) Hardwire 3-wire (H + N + G); (4) IEC 320 C19; (8) IEC 320 C19</td>
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<th>Input</th>
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<tbody>
<tr>
<td><strong>Nominal Input Voltage</strong></td>
<td>230 V</td>
<td>230 V or 400 V</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Input Frequency</strong></td>
<td>45 – 65 Hz (auto sensing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Input Connections</strong></td>
<td>British BS1363A; IEC 320 C20; Schuko CEE 7/EU1-16P</td>
<td>Hardwire 3-wire (1PH + N + G); Hardwire 5-wire (3PH + N + G)</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Battery</th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Battery Type</strong></td>
<td>Maintenance-free sealed lead-acid battery with suspended electrolyte: leak proof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Replacement Battery</strong></td>
<td>RBC57</td>
<td>RBC44</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications and Management</th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interface Port(s)</strong></td>
<td>DB-9 RS-232, SmartSlot, USB</td>
<td>RJ-45 10/100 Base-T, RJ-45 Serial, SmartSlot</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pre-installed SmartSlot Card</strong></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>AP9631</td>
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<tr>
<td><strong>Emergency Power Off (EPO)</strong></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Control panel</strong></td>
<td>LEDs</td>
<td>LCD Display</td>
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<table>
<thead>
<tr>
<th>Physical</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Rack Height</strong></td>
<td>2 U</td>
<td>3 U</td>
<td>6 U</td>
<td>12 U</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Maximum Height</strong></td>
<td>432 mm</td>
<td>533 mm</td>
<td></td>
<td></td>
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<tr>
<td><strong>Maximum Width</strong></td>
<td>85 mm</td>
<td>130 mm</td>
<td>263 mm</td>
<td>432 mm</td>
<td></td>
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<tr>
<td><strong>Maximum Depth</strong></td>
<td>483 mm</td>
<td>660 mm</td>
<td>736 mm</td>
<td>773 mm</td>
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<tr>
<td><strong>Net Weight</strong></td>
<td>25.00 kg</td>
<td>54.55 kg</td>
<td>110.91 kg</td>
<td>247.70 kg</td>
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## Runtime Estimates at Half and Full Load (minutes)

<table>
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<tr>
<th>UPS VA</th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
<th>5000</th>
<th>6000</th>
<th>8000</th>
<th>10000</th>
<th>15000</th>
<th>20000</th>
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</thead>
<tbody>
<tr>
<td><strong>Internal</strong></td>
<td>32/14</td>
<td>17/6</td>
<td>34/14</td>
<td>18/6</td>
<td>16/5</td>
<td>20/7</td>
<td>15/5</td>
<td>22/8</td>
<td>15/5</td>
</tr>
<tr>
<td><strong>(1) Battery Pack</strong></td>
<td>122/69</td>
<td>67/30</td>
<td>122/57</td>
<td>70/31</td>
<td>49/21</td>
<td>48/21</td>
<td>37/15</td>
<td>53/23</td>
<td>38/15</td>
</tr>
<tr>
<td><strong>(2) Battery Pack</strong></td>
<td>257/129</td>
<td>121/56</td>
<td>217/102</td>
<td>125/58</td>
<td>88/40</td>
<td>76/35</td>
<td>60/26</td>
<td>84/38</td>
<td>60/27</td>
</tr>
<tr>
<td><strong>(3) Battery Pack</strong></td>
<td>360/180</td>
<td>177/83</td>
<td>315/150</td>
<td>183/85</td>
<td>130/60</td>
<td>106/49</td>
<td>83/38</td>
<td>117/54</td>
<td>85/38</td>
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<tr>
<td><strong>(4) Battery Pack</strong></td>
<td>480/240</td>
<td>234/110</td>
<td>416/199</td>
<td>242/113</td>
<td>172/80</td>
<td>136/63</td>
<td>107/49</td>
<td>150/69</td>
<td>104/50</td>
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