

UPS system for emergency lighting and smoke extraction



Schneider
Electric

Requirements

There are a number of standards that apply to emergency lighting and smoke extraction systems (for example: NFS 61-940 [France only] and EN 50171).

One of the best solutions is to use a central uninterruptible power supply providing power to these critical safety systems in accordance with these standards.

Emergency lighting

Emergency lighting must provide signs that are continuously lit and general or anti-panic lighting in accordance with current regulations so that premises can be evacuated safely.

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- > 60 min battery runtime.
 - > Deep discharge protection.
 - > High overload capacity.
 - > User friendly control panel.

Smoke extraction

There are specific standards for power supplies for smoke extraction, automatic fire extinguishing and fire detection systems.

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- > 90 min battery runtime from activation.
 - > Capacity to supply all or some of the fan motors depending on the fire control zones.
 - > IP 31 to protect against dripping water falling vertically.

Our experience at your service

- > Schneider Electric has experience in complete emergency lighting systems including central power supply and distributed lighting units.
- > Schneider Electric has a long history of electrical power management, designing equipment to the highest safety standards.

Emergency lighting and smoke extraction standards

Schneider Electric provides a range of standard units meeting both European and French standards.

EN 50-171 or NFC 71-815

European standard that sets out general recommendations for central power supply systems for an independent energy supply to essential safety equipment. Recommendations.

- > Earthing systems: IT
 - Isolation transformer (optional)
 - Permanent isolation controller (optional)
- > The UPS should be able to supply the continuous rated load
- > The UPS should be able to supply 120% of the rated load for the runtime specified
- > No bypass circuit
- > Status interface in the UPS
- > Battery lifetime: 10 years
- > Runtime: 60 min
- > Recommendation: battery dimensioned for the whole lifetime
- > Battery charging time: less than 12 hours for 80% of runtime
- > Protection against battery polarity inversion
- > Deep discharge protection
- > Deep discharge protection indicator
- > Manual deep discharge indicator reset
- > Housing to EN 605898-1
- > IP 20
- > Markings on each enclosure and case
- > Hazard label on each enclosure and case
- > Specific markings may be required by local standards

Central power supply systems can be used to supply other critical safety equipment:

- > Electrical circuits of automatic fire extinguishing installations
- > Paging systems and signalling safety installations
- > Smoke extraction equipment
- > Carbon monoxide warning systems
- > Specific safety installations related to specific buildings, e.g. high-risk areas

NFS 61-940

French standard which sets out the requirements for emergency lighting installations in public places. Recommendations.

- > Earthing systems: IT
 - Isolation transformer (optional)
 - Permanent isolation controller (optional)
- > The UPS should be able to supply the continuous rated load
- > No bypass circuit
- > Status interface in the UPS
- > Battery lifetime: 10 years
- > Runtime: 60 min after 4 years and additional 50% on installation
- > Battery charging time: less than 12 hours for 80% of runtime
- > Protection against battery polarity inversion
- > Deep discharge protection
- > Deep discharge protection indicator
- > Manual deep discharge indicator reset
- > Housing to EN 605898-1
- > IP 30
- > Markings on each enclosure and case
- > Hazard label on each enclosure and case
- > Specific markings may be required by local standards



In France, emergency lighting is required for:

- Public places (order of 23 June 1980, 22 June 1990 and 19 November 2001)
- Workplaces (decree 88-1056 of 14 November 1988)
- Blocks of flats (order of 31 January 1986)

Emergency lighting range



GALAXY 300 and 300i

Three phase from 10 to 40 kVA

CHARACTERISTICS

- > Rating: 10/15/20/30/40
- > Input voltage: 340 V to 477 V at full load
- > Output voltage: 3:1 – 220/230/240V
(not available for the 40 kVA)
3:3 – 380/400/415V
- > Efficiency: up to 93%
- > Communications: Network management card (AP9630)
- > Control panel: Multi-function LCD, status and display
- > Guarantee: 1 year

FEATURES

- > 2 input sources
- > Automatic internal bypass
- > Redundancy
- > Internal batteries
- > Charger for external batteries to increase runtime
- > Access for maintenance from the front
- > Start-up Wizard
- > Input power factor correction
- > Temperature compensation while the battery is charging
- > Efficiency up to 93%
- > Reduced footprint
- > Easy to install
- > SNMP card
- > User friendly graphics interface

OPTIONS

- > External battery enclosure to increase runtime
- > Empty auxiliary enclosure
- > Communications card (AP9635CH)

DIMENSIONS

- > UPS dimensions (HxDxW) 3:1: 1300x860x400 mm (10/15 kVA) - 1300x860x500 mm (20/30 kVA)
- > UPS dimensions (HxDxW) 3:3: 1300x860x400 mm (10/15/20 kVA) - 1300x860x500 mm (30/40 kVA)
- > UPS weight (3:3 / 3:1): 145/130 kg (10/15 kVA) - 185/130 kg (20/30 kVA) - 198 kg (40 kVA)

3:1 Version

Power rating kVA	10	15	20	30
Back up Time 60 min				
SKU	G3H10K3IM6X710	G3H15K3IM6X710	G3H20K3IM6X710	G3H30K3IM6AX710 ⁽¹⁾ G3H30K3IM6BX710 ⁽²⁾
Back up time 90 min				
SKU	G3H10K3IM9X710	G3H15K3IM9X710	G3H20K3IM9X710	G3H30K3IM9X710

3:3 Version

Power rating kVA	10	15	20	30	40
Back up time 60 min					
SKU	G3H10KHTT6X710	G3H15KHTT6X710	G3H20KHTT6X710	G3H30KHT6AX710 ⁽¹⁾ G3H30KHT6BX710 ⁽²⁾	G3H40KHTT6X710
Back up time 90 min					
SKU	G3H10KHTT9X710	G3H15KHTT9X710	G3H20KHTT9X710	G3H30KHTT9X710	

Battery sizes for the emergency lighting nominal rating (kW)	6,4	9,6	12,8	19,2	25,6
Batteries (HxDxW) (mm)	1300x660x850	1300x660x850	1300x660x850	1900x712x850	1900x1012x850
Number of enclosures	1	1	2	1	1
Weight (kg)	435	435	714	928	1600

(1) Load = 1/3 Pn (2) Load = Pn

Smoke extraction range



GALAXY 5500

Three phase from 20 to 120 kVA

CHARACTERISTICS

- › Rating: 20/30/40/50/60/80/100/120 kVA
- › Parallel configuration: up to 6 units can be connected in parallel for redundancy
- › Power factor: 0.9
- › Battery: sealed lead acid, cadmium nickel, open lead
- › Front display: graphics display available in 18 languages
- › Efficiency: up to 94% to 100% ideal load
- › Communications: RS232, RS485, SNMP, voltage free contacts
- › Input voltage: 250V - 470V
- › Output voltage: 380V - 415V
- › Guarantee: 1 year

FEATURES

- › Configuration All-in-one Box
- › 2 input sources
- › Input connection from below as standard
- › Input distortion control
- › Multi-lingual display
- › High power density design
- › Electrical connections at front
- › Synchronisation output for external source

OPTIONS

- › Empty battery and auxiliary enclosure
- › Battery enclosure
- › IP 32
- › Isolation transformer in enclosure
- › AC backfeed protection

DIMENSIONS

- › UPS without battery (HxDxW) 1900x712x850 mm, 20-60kVA (400 kg), 80-120 (520 kg)
- › Empty battery/auxiliary enclosure: Min (HxDxW) - 1900x712x850 mm / Max(HxDxW) - 1900x1012x850 mm
- › Transformer enclosure (HxDxW): 1900x550x850 (527 kg max.)



GALAXY 7000

Three phase from 160 to 500 kVA

CHARACTERISTICS

- › Rating: 160/200/250/300/400/500 kVA
- › Parallel configuration: up to 8 units can be connected in parallel for redundancy
- › Output power factor: 0.9
- › Battery: sealed lead acid, cadmium nickel
- › Front display: graphics display available in 18 languages
- › Efficiency: up to 94.5% to 100% ideal load
- › Communications: card with voltage free contacts, SNMP card
- › Input voltage: 250V - 470V
- › Output voltage: 380V - 415V
- › Guarantee: 1 year

FEATURES

- › Flexible and versatile
- › Advanced electrical characteristics
- › Synchronisation output for external source
- › High availability architecture
- › High efficiency
- › AC backfeed protection

OPTIONS

- › Input connection from above
- › Battery coupling
- › IP 32
- › Isolation transformer in enclosure
- › Auxiliary and battery enclosure

DIMENSIONS

- › 160/200 kVA (HxDxW): 1900x1412x855 mm, 840 kg
- › 250/300/400 kVA (HxDxW) 1900x1412x855 mm, 990/1140 kg
- › 500 kVA (HxDxW): 1900x1812x855 mm, 1500 kg
- › Battery/auxiliary enclosure: Min (HxDxW) - 1900x400x855 mm, Max (HxDxW) - 1900x1412x855 mm

Battery sizes for the motor nominal rating (kW)	20	30	40	50	60
Batteries (HxDxW) (mm)	1900x1010x850	1900x2*710x850	1900x2*1010x850	1900x710+2*1010x850	1900x710+3*1010x850
Weight (kg)	1200	1800	2500	4000	5900

Please contact us if you require any further information.

The strengths of Schneider Electric

Systems based on standard products designed to meet your specific requirements.

Schneider Electric has a design office and a customisation line to deliver systems for particular needs.

- + Individually tailored electrical system design
- + Special colours
- + Integration of circuit breakers
- + IP and housing modifications
- + ...

A complete emergency lighting system

Schneider Electric can advise you on designing a system that is best suited for your emergency lighting requirements. Schneider Electric's product range includes emergency lighting units with LED technology to reduce power consumption, meeting the highest standards.

Exiway: more practical, more reliable, safer... and more cost effective



Exiway One LED is a range of emergency lighting products specially designed to make installation and maintenance easier and safer. It ensures the long-term reliability and efficiency of the lighting system. The Exiway product ranges are also designed to help to reduce costs and to be compatible with all types of internal fittings.



Focus on LED technology

- > Lifetime of over 50,000 hours without replacing the lamps
 - > At least 50% reduction in energy consumption
 - > Improves the safety of your installation
 - > Environmental protection
 - > Purchase, install, maintenance, consumption...
- Exiway - the most competitive product ranges on the market

A comprehensive range of services

Schneider Electric Critical Power & Cooling Services (CPCS) offers high quality services and systems, provided by experienced, reliable professionals. We can help you design, operate and maintain your critical applications.

Installation and commissioning

Installation and commissioning carried out by qualified maintenance technicians to qualify for the full manufacturer's warranty.

An installation certified by Schneider Electric ensures that you have the correct, secure configuration for maximum efficiency. This service guarantees a call-out time of less than eight working hours, five days a week, which may be extended to cover periods outside working hours.

Advantage contracts

Flexible service packages for system maintenance to improve availability at a known cost.

Advantage Plus, Advantage Prime, Advantage Ultra and Advantage Max contracts are all-inclusive service packages that include technical support, preventive maintenance, fast call-out time and remote monitoring. Response time upgrades are available.

Remote monitoring service (RMS)

The online RMS service is simple and economical and makes it possible to react rapidly to changes in the environment and the system.

Trained technicians monitor your hardware 24h/24 so that they can diagnose and cure problems before they become critical, in less than eight working hours, five days a week, and may be modified to cover periods outside working hours.

Extended on-site guarantee

If the system develops a fault, a technician is sent to the site, the following working day, to track down the fault, diagnose the reasons for the fault and correct it to reduce down-time.

Preventive maintenance

On-site preventive maintenance inspections of your critical systems are designed to avoid problems and keep the systems running at maximum efficiency.



Packages	Advantage Plus	Advantage Premium	Advantage Ultra
Annual maintenance inspection	✓	✓	✓
Call-out the following working day	✓	✓	✓
Remote monitoring service	✓	✓	✓
Technical support	✓	✓	✓
Spare parts	Preferential rates	Preferential rates	All inclusive
Labour and travelling expenses	Standard rates	All inclusive	All inclusive

To learn more about Schneider Electric solutions visit www.schneider-electric.com
Try our FREE, web-based applications to experiment with virtualization, efficiency and more at tools.apc.com

Make the most of your energySM

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