



BATTERY CABINET

ITYS PRO 10-20 kVA

EN

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1. CERTIFICATE AND CONDITIONS OF WARRANTY















The SOCOMEC battery cabinet is part of a system that also includes the UPS. For the warranty conditions, please refer to the relevant chapter of the UPS manual.















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2. SAFETY STANDARDS

	NOTE: This user manual specifies installation and maintenance procedures, technical data and safety instructions for SOCOMEK products. For further information visit the Socomec website: www.socomec.com .
	NOTE: Before carrying out any operations on the unit read the installation and operating manual carefully. All safety instructions contained in this document must be read, understood and followed. Keep this manual safe for future reference.
	DANGER: Failure to observe safety standards could result in fatal accidents or serious injury, and damage equipment or the environment.
	NOTE: Any work carried out on the equipment must be performed by skilled, qualified technicians who have attended SOCOMEK training courses on construction, installation and hazards, and are experienced in procedures, practices and precautions to be taken.
	DANGER: High electrical voltages are generated inside the power system, which is dangerous for maintenance personnel not suitably qualified or trained for such work. Keep unqualified personnel away from batteries.
	NOTE: This equipment complies with the European Community directives for industrial equipment and bears the CE approval mark.
	NOTE: Install the unit in accordance with clearance indications in order to prevent access to handling devices and guarantee sufficient ventilation (refer to Environmental Requirements chapter).
	NOTE: Install the unit in a technical room with the following features: <ul style="list-style-type: none"> • suitable size • clean • adequately ventilated • maintained at a temperature between 0 °C and 40 °C (15 to 25 °C recommended for longer battery life) • an even solid floor that can support the weight of the unit • free from conductive, inflammable, explosive and corrosive items • free from moisture, steam, mould, insects, vermin, dust, abrasive dust, corrosive gases, salty atmosphere or contaminated cooling refrigerant, harmful fumes, explosive dust/gas mixtures, restricted ventilation (for UPS and/or battery), radiated or conducted heat from other sources • pollution level < 2 in accordance with IEC 60664-1 • atmosphere which is not conductive, inflammable, explosive or corrosive atmosphere • non-radioactive environment.
	NOTE: Do not: <ul style="list-style-type: none"> • install the unit outdoors • place the unit in a room with ongoing construction work • insert foreign bodies in the unit • expose the unit to rain or direct sunlight • expose the unit to abnormal vibrations, shocks or tilt it.
	CAUTION: If the unit is found to be damaged externally or internally, or any of the accessories are damaged or missing, contact SOCOMEK. Do not operate the unit if it has suffered a violent mechanical shock of any kind.

	NOTE: When the equipment is transferred from a cold to a warm place wait approx. two hours before activating the unit.
	CAUTION: Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
	CAUTION: Do not dispose of batteries in a fire. The batteries may explode.
	WARNING: Care shall be taken not to wear clothes and footwear which may build up electrostatic charge. Absorbing cloth moistened only with water shall be used for battery cleaning. Other cleaning agents may result in built up of static charge or may damage the battery cases.
	NOTE: Use Personal Protective Equipment (PPE) when carrying out any work on the unit.
	NOTE: When carrying out electrical installation, all applicable standards specified by the IEC (in particular IEC 60364) and the electricity supplier must be observed. All national standards applicable to batteries must be observed. For further information refer to Technical specification chapter.
	NOTE: Only use accessories recommended or sold by the manufacturer.
	NOTE: Batteries must only be replaced with batteries recommended or sold by the manufacturer. Batteries must only be replaced by qualified technicians.
	NOTE: Before connecting the unit check it is fully compatible with the UPS model.
	NOTE: If using cabinets not supplied by the manufacturers of the UPS, it is the installer's responsibility to check the electrical compatibility and the presence of appropriate protection devices between the UPS and the battery cabinet (fuses and switches of sufficient capacity to protect the cables from the UPS to the battery cabinet). As soon as the UPS is switched on (before closing the battery switches) the battery parameters must be verified accordingly (voltage, capacity, number of elements, etc.) on the mimic panel menu. If the values indicated on the battery cabinet data plate are different from those shown on the mimic panel, please correct the settings.
	NOTE: Use the double insulated cables supplied with the unit to connect the UPS to the battery cabinet.
	CAUTION: A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working on batteries: <ul style="list-style-type: none"> • remove watches, rings or other metal objects • use tools with insulated handles • wear rubber gloves and boots • do not lay tools or metal parts on top of batteries • disconnect the charging source prior to connecting or disconnecting battery terminals • determine if battery is inadvertently earthed. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).
	WARNING: Batteries shall be neither connected nor disconnected when current is flowing. Isolate the circuit elsewhere first.
	WARNING: Before carrying out any operations, ensure that: <ul style="list-style-type: none"> • the switches located inside the battery cabinet are open • the UPS is not live and all mains or battery switches are open • the switches upstream of the UPS are open • wait approx. 5 minutes for the unit to discharge completely.

	NOTE: Connect the PE ground conductor before making any other connections.
	DANGER! RISK OF ELECTRIC SHOCK: Disconnect all power sources before carrying out any operations on the unit (cleaning and maintenance, connection of appliances, etc.).
	DANGER! RISK OF ELECTRIC SHOCK: After disconnecting all power sources wait approx. 5 minutes for the complete discharge of the unit.
	DANGER! RISK OF ELECTRIC SHOCK: Do not interfere with the disconnecting switches on the unit while the UPS is running on battery power.
	DANGER! RISK OF ELECTRIC SHOCK: There is no insulation between the batteries and the mains supply therefore it is extremely dangerous to touch any parts of the accumulator battery.
	WARNING: Strictly observe the following: <ul style="list-style-type: none"> • polarity of each individual string: cabling errors with inversion of battery polarity may cause permanent damage to the equipment • cable cross-section (refer to Electrical Requirements chapter).
	NOTE: As soon as the UPS is switched on (before closing the battery switches) the battery parameters must be verified accordingly (voltage, capacity, number of elements, etc.) on the mimic panel menu. If the values indicated on the battery cabinet data plate are different from those shown on the mimic panel, please correct the settings.
	NOTE: If the unit needs to be disposed of it must be given to companies specialising in the disposal of the system's constituent materials.
	NOTE: The batteries are toxic waste. If the battery cabinet needs to be scrapped it is essential to entrust the equipment solely and exclusively to firms specializing in the disposal of the materials making up the system. These are obliged to break up and dispose of the various components in accordance with the legal provisions in force in the country where the system is installed.
	NOTE: Any use other than the specified purpose will be considered improper. The manufacturer/supplier shall not be held responsible for damage resulting from this. Risk and responsibility lies with the system manager.
	WARNING: the unit must only be moved by two people at least. The people must take position at the sides of the unit with respect to the direction of movement.
	WARNING! HEAVY WEIGHT: move the unit using suitable equipment, taking the utmost caution at all times.
	WARNING: when moving the unit on even slightly sloping surfaces, use the blocking equipment and breaking devices to ensure that the unit does not fall over.
	NOTE: do not move the unit by putting pressure on the front door.

2.1. Warning sign

The warning sign supplied is for identifying the battery room and provides information about possible hazards.

The label should be placed outside the battery room in a visible position.




The installer is responsible for ensuring that the installation of the battery cabinets and their operating environment conform to national and international codes and safety standards.



Symbols	Description
	Protective earth terminal (PE).
	Authorized personnel only. Only qualified personnel is allowed to work on the batteries.
	Do not use naked flames or cause sparks in the vicinity of the accumulators.
	No smoking.
	Batteries charging! Batteries and related parts contain lead that is dangerous to health if ingested. Wash hands after handling!
	Accumulators are heavy! Use suitable transport and lifting equipment to work safely.
	Risk of electric shock! Connecting accumulators in series creates hazardous voltages.
	Risk of explosion! Avoid short circuits! Never place tools or metal objects on the accumulators.
	Corrosive liquids (electrolyte).
	Read the user instructions carefully. Read the user manual before performing any operations.
	Wear protective gloves
	Wear safety shoes.
	Wear protective goggles.
	In the event of accident, inadequate use, failure or electrolyte leakage wear a protective apron.
	In the event of accident, inadequate use, failure or electrolyte leakage wear a gas mask.
	In the event of contact with the eyes, wash immediately with plenty of water and call a doctor. Call a doctor immediately in the event of accidents or illness.

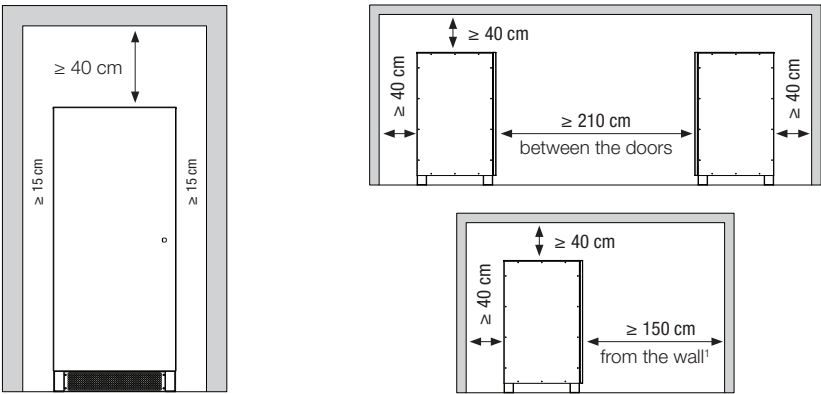
3. ENVIRONMENTAL REQUIREMENTS AND HANDLING

The packaging guarantees the stability of the battery cabinet during shipping and physical transfer. Carry the packaged unit as close as possible to the installation site.

	When moving the unit on even slightly sloping surfaces, use the locking equipment and braking devices to ensure that the unit does not fall over.
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3.1. Environmental requirements






- The unit is not designed for outdoor use.
- Do not expose the battery cabinet to direct sunlight or to sources of excessive heat.
- Do not put any object on top of the unit.
- The recommended operating temperature, humidity and altitude values are listed in the technical specifications table (see Technical Specifications). Cooling systems may be required to maintain these values.
- The unit must be installed in an environment with no obstructions and which is dry, clean and dust-free.
- Avoid dusty environments or areas where there is dust from conductive or corrosive materials (e.g. metal dust or chemical solutions).



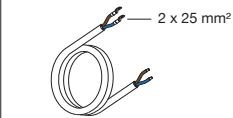

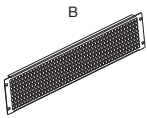
1. In accordance with standard IEC 60364

3.2. Shipping and moving







- The unit must remain in a vertical position during all shipping and moving operations.
- Ensure that the floor is strong enough to support the weight of the unit.

	WARNING! HEAVY WEIGHT! Move the battery cabinet using a fork lift truck, taking the utmost caution at all times.
	NOTE: the unit MUST be handled carefully by at least two people.
	Avoid moving the unit by putting pressure on the front door.
	CAUTION IF DAMAGED: if packaging is crushed, ripped or open such that the inner contents are revealed, the equipment should be kept in an isolated area and inspected by a qualified person. If the packaging cannot be shipped the contents should be collected promptly, kept apart, and the sender or recipient should be contacted.
	All packaging must be recycled in compliance with existing legislation in the country where the system is installed.

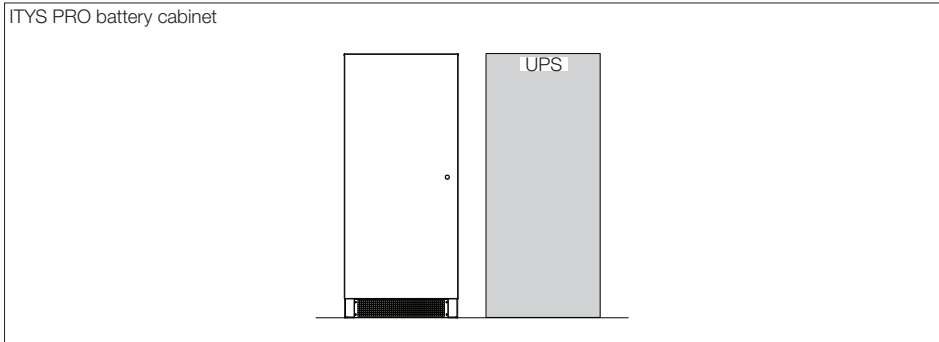
3.2.1. Unpacking procedures

ITYS PRO battery cabinet		
		
x 1	5 x 12 x 4	x 1

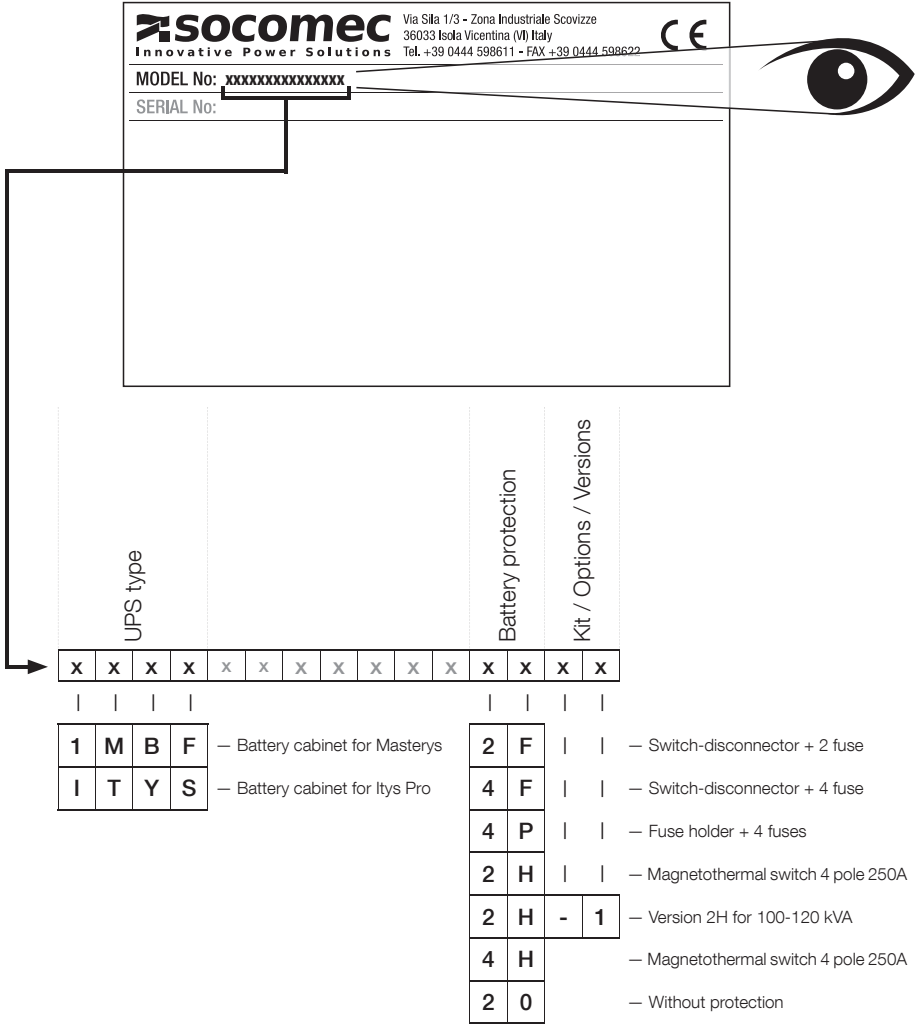
4. ELECTRICAL INSTALLATION

	<p>NOTE: before carrying out any operations on the unit read the Safety Standards chapter carefully.</p>
	<p>WARNING!</p> <p>Before carrying out any operation, ensure that:</p> <ul style="list-style-type: none"> • the switch located inside the battery cabinet is open; • the UPS is not live and all mains or battery switches are open; • the switches upstream of the UPS are open.
	<p>Use the cables supplied with the unit to connect the UPS to the Battery cabinet.</p>
	<p>Cabling errors with inversion of the battery polarity may cause permanent damage to the equipment.</p>
	<p>If using cabinets not supplied by the manufacturers of the UPS, it is the installer's responsibility to check the electrical compatibility and the presence of appropriate protection devices between the UPS and the battery cabinet (fuses and switches of sufficient capacity to protect the cables from the UPS to the battery cabinet). As soon as the UPS is switched on (before closing the battery switches) the battery parameters must be verified accordingly (voltage, capacity, number of elements, etc.) on the mimic panel menu. If the values indicated on the battery cabinet data plate are different from those shown on the mimic panel, please correct the settings.</p>
	<p>IMPORTANT!</p> <p>Protective earthing conductor (PE) must have sufficient current-carrying capacity. The PE cable core size has to be chosen according to the PROTECTIVE CURRENT RATING of the earth circuit that depends on the provision and location of overcurrent protective devices. We suggest 35 mm² for Masters Battery Cabinet.</p>

4.1. Correct placement

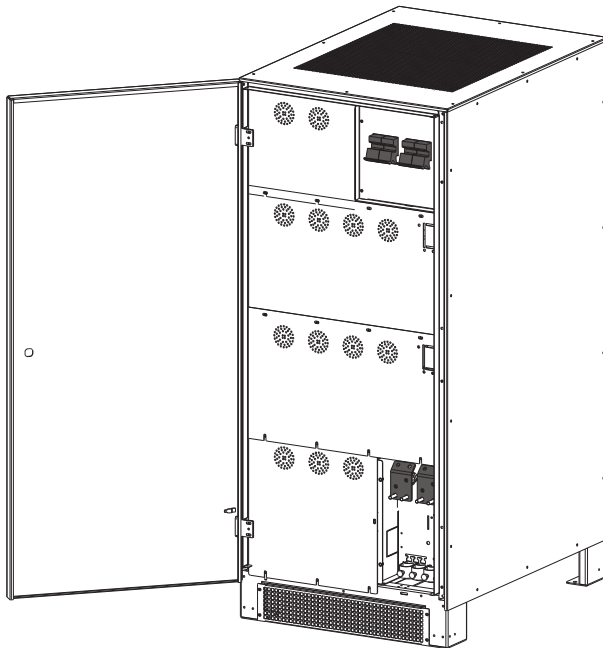


5. OVERVIEW



ITYSxxxxxxx4Pxx

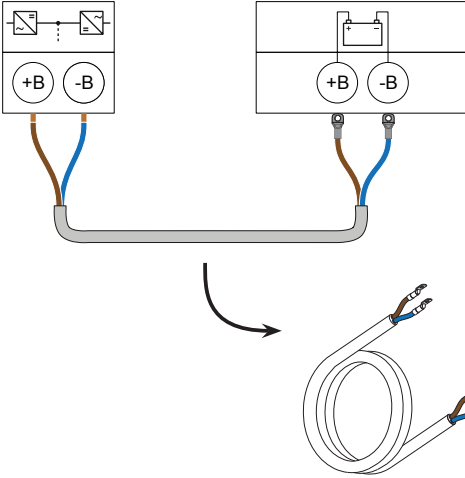
ITYS PRO 10-20kV



6. CONNECTIONS - ITYSXXXXXXXX4PXX



NOTE: before carrying out any operations on the unit read the Safety Standards chapter carefully.



LOCKING CABLE CLAMP		COLOUR	CABLE SECTION
UPS	BATTERY CABINET		
+B	+B	BROWN	1 x 25 mm ²
-B	-B	BLUE	1 x 25 mm ²

7. TECHNICAL SPECIFICATIONS

	ITYS PRO
Technical specifications	10-20kVA
Dimensions (LxDxH)	600 x 835 x 1400 mm
Weight (with packaging):	max. 850 kg ⁽¹⁾
Protection level	IP20 option IP32
Operating temperature	0÷40 °C (15÷25 °C recommended for longer battery life)
Ambient storage and transport temperature ⁽²⁾	-5 °C ÷ +40 °C max (recommended: 25 °C)
Relative humidity (condensation-free)	up to 95%
Battery recharging	T _{ambient} ≤ 25 °C: every 6 months 25 °C ≤ T _{ambient} ≤ 30 °C: every 4 months 30 °C ≤ T _{ambient} ≤ 35 °C: every 3 months 35 °C ≤ T _{ambient} ≤ 40 °C: every 2 months T _{ambient} > 40 °C: not recommended
Battery protection	Battery cabinet ...4P
	100 gR

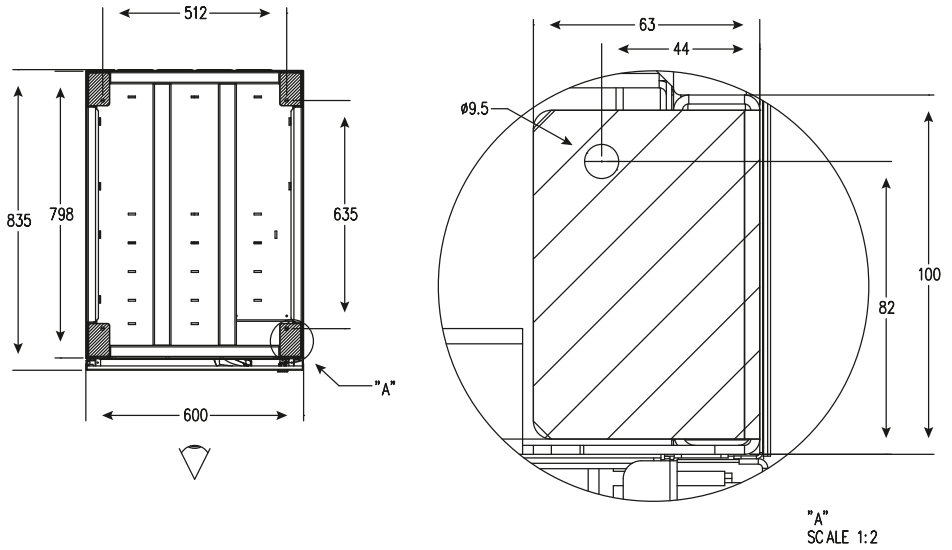
(1) Weight depends on the configuration of the battery cabinet

(2) General indication for the application of lead batteries. For further details, see the battery manufacturer's indications.

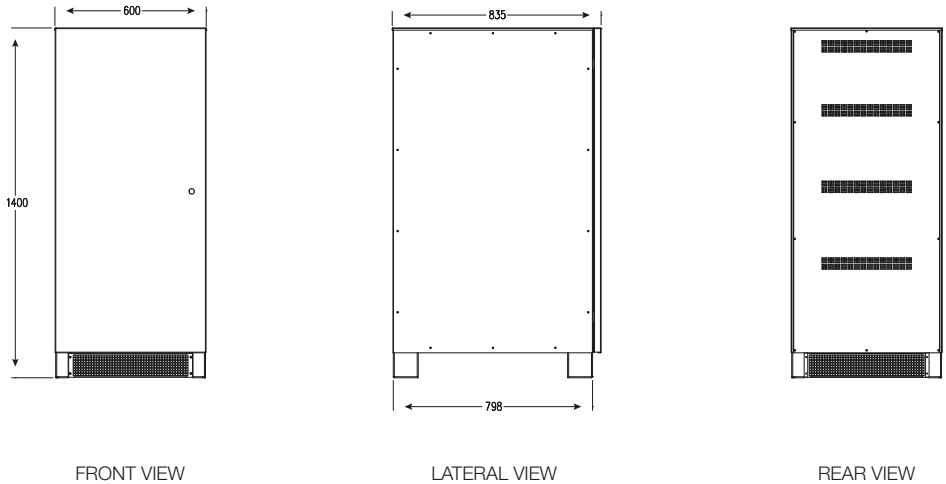
Safety	
Conforms to standards	EN 50272-2, EN 62040-1
Product certification	CE - TÜV SÜD

8. APPENDIX

8.1. Plan 1: Floor fixing [ITYS PRO 10-20kVA]



8.2. Plan 2: Dimensions [ITYS PRO 10-20kVA]



Socomec worldwide

IN EUROPE

BELGIUM

UPS / Power Control & Energy Efficiency / Solar
Tel. +32 2 340 02 30
Fax +32 2 346 28 99
info.be@socomec.com

FRANCE

UPS / Power Control & Energy Efficiency / Solar
Tel. +33 1 45 14 63 00
Fax +33 1 48 67 31 12
dcm.ups.fr@socomec.com

GERMANY

Power Control & Energy Efficiency
Tel. +49 7243 65292 0
Fax +49 7243 65292 13
info.scp.de@socomec.com

UPS

Tel. +49 621 71 68 40
Fax +49 621 71 68 444
info.ups.de@socomec.com

ITALY

Power Control & Energy Efficiency
Tel. +39 02 98 49 821
Fax +39 02 98 24 33 10
info.scp.it@socomec.com

Solar

Tel. +39 0444 598611
Fax +39 0444 598627
info.solar.it@socomec.com

UPS

Tel. +39 02 98 242 942
Fax +39 02 98 240 723
info.ups.it@socomec.com

NETHERLANDS

UPS / Power Control & Energy Efficiency / Solar
Tel. +31 90 760 0900
Fax +31 90 837 2168
info.nl@socomec.com

POLAND

Power Control & Energy Efficiency
Tel. +48 91 442 64 11
Fax +48 91 442 64 19
info.scp.pl@socomec.com

UPS

Tel. +48 22 825 73 60
Fax. +48 22 825 73 60
info.ups.pl@socomec.com

PORTUGAL

UPS / Solar
Tel. +351 261 812 599
Fax +351 261 812 570
info.ups.pt@socomec.com

ROMANIA

UPS / Power Control & Energy Efficiency / Solar
Tel. +40 21 319 36 88
Fax +40 21 319 36 89
info.ro@socomec.com

RUSSIA

UPS / Power Control & Energy Efficiency / Solar
Tel. +7 495 775 19 85
Fax +7 495 775 19 85
info.ru@socomec.com

SLOVENIA

UPS / Power Control & Energy Efficiency / Solar
Tel. +386 1 5807 860
Fax +386 1 561 11 73
info.si@socomec.com

SPAIN

UPS / Power Control & Energy Efficiency / Solar
Tel. +34 93 540 75 75
Fax +34 93 540 75 76
info.es@socomec.com

UNITED KINGDOM

Power Control & Energy Efficiency
Tel. +44 1462 440 033
Fax +44 1462 431 143
info.scp.uk@socomec.com

UPS

Tel. +44 1285 863 300
Fax +44 1285 862 304
info.ups.uk@socomec.com

TURKEY

UPS / Power Control & Energy Efficiency / Solar
Tel. +90 216 540 71 20-21-22
Fax +90 216 540 71 27
info.tr@socomec.com

IN ASIA PACIFIC

AUSTRALIA

UPS
Tel. +61 2 9325 3900
Fax +61 2 9888 9544
info.ups.au@socomec.com

CHINA

UPS / Power Control & Energy Efficiency
Tel. +86 21 52 98 95 55
Fax +86 21 62 28 34 68
info.cn@socomec.com

INDIA

Power Control & Energy Efficiency
Tel. +91 124 4027210
Fax +91 124 4562738
info.scp.in@socomec.com

UPS / Solar

Tel. +91 44 39215400
Fax +91 44 39215450 & 51
info.ups.in@socomec.com
info.solar.in@socomec.com

SINGAPORE

UPS / Power Control & Energy Efficiency
Tel. +65 6506 7600
Fax +65 64 58 7377
info.sg@socomec.com

THAILAND

UPS
Tel. +66 2 941 1644 7
Fax +66 2 941 1650
info.ups.th@socomec.com

VIETNAM

UPS
Tel. +84 8 3559 1220
Fax +84 8 3559 1221
info.ups.vn@socomec.com

IN MIDDLE EAST

UNITED ARAB EMIRATES

UPS / Power Control & Energy Efficiency / Solar
Tel. +971 4 29 98 441
Fax +971 4 29 98 449
info.ae@socomec.com

IN AMERICA

USA, CANADA & MEXICO

Power Control & Energy Efficiency
Tel. +1 617 245 0447
Fax +1 617 245 0437
info.us@socomec.com

OTHER COUNTRIES

NORTH AFRICA

Algeria / Morocco / Tunisia
info.na@socomec.com

AFRICA

Other countries
info.africa@socomec.com

SOUTH EUROPE

Cyprus / Greece / Israel / Malta
info.se@socomec.com

SOUTH AMERICA

Tel. +34 93 540 75 75
info.es@socomec.com

MORE DETAILS

www.socomec.com/worldwide

HEAD OFFICE

SOCOMECS GROUP

S.A. SOCOMECS capital 10 816 800€
R.C.S. Strasbourg B 548 500 149
B.P. 60010 - 1, rue de Westhouse
F-67235 Benfeld Cedex - FRANCE
Tel. +33 3 88 57 41 41
Fax +33 3 88 74 08 00
info.scp.isd@socomec.com

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