



Solutions for medical locations

Solution for the continuity and availability of the power supply in Group 2 medical facilities

Standard IEC 60364-7-710 categorises medical facilities into the three following groups, according to the risk of electric shock:

Group 0



Medical facilities which do not have any 'applied parts' intended for use.

What is an 'applied part'?

Standard IEC 60364-7-710 defines an "applied part" as being part of the medical electrical equipment which in normal use

- necessarily comes into physical contact with the patient for the equipment to perform its function, or
- can be brought into contact with the patient, or
- needs to be touched by the patient.

Group 1



Medical facilities in which 'applied parts' are intended for use, as follows:

- externally, or
- invasively across every part of the body, except where Group 2 applies.

Group 2



Medical facilities in which 'applied parts' are intended for use in applications such as medical procedures, surgical procedures and life-saving treatments.

Standard IEC 60364-7-710 also defines the precise continuity of service requirements for the power supply, depending on the type of care being given.

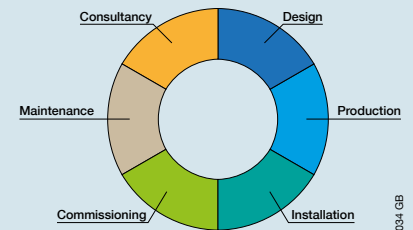
- Class 0: power supply without switching,
- Class 0.5: power available in max. 0.5 s
- Class 15: power available in max. 15 s
- Class >15: power supply available in 15 s or longer

The MEDSYS range

The MEDSYS range meets Class 0, 0.5 or ≤ 15 levels for Groups 0, 1 and 2, as defined in standard IEC 60364-7-710. It is the only IEC 61439-certified and accredited manufacturer solution. MEDSYS also meets European standard HD60364-7-710 and local requirements such as NFC15-211 for France and other countries (please contact us for more information).

From design to maintenance

In addition to its standard products, Socomec has a department dedicated to designing customised systems and meeting the requirements of your project. We support you through the various stages of your project.



MEDSYS 034 GB



Continuity of service

- Service continuity even in single fault conditions.
- Insulation fault detected in less than 6 seconds even with high-interference equipment present.
- Power availability guaranteed by automatic, static and/or continuous power transfer systems.



Guaranteed safety

- Personal protection against indirect contact (IT system, insulation) and direct contact (IP2X, segregation).
- All device signalling contacts are built-in,
- to back up data to a BMS/CTM.



Improved implementation

- The cabinets are fitted with a pivoting body, for rapid access to all functional units.
- Visual identification of the various compartments.



Technological performance

- Predictive maintenance across your entire IT system (OhmScanner technology integrated into ISOM Digeware).



IoT Ready

- Embedded web technology.
- Remote control/consultation.
- Alarm control and data analytics.



Complete range

- Four versions and eight configurations.
- Solution adapts to the usage conditions and structural properties of Group 2 locations.
- Insulation fault detection and overvoltage protection available for all configurations.



Easy maintenance



- All connections are grouped in a separate compartment.
- Some critical components can be removed (transformer, UPS, static transfer system).

Range of services

To ensure your MEDSYS bay works at its best, Socomec offers expert services including commissioning, troubleshooting and training. Contact your sales branch for more information.

Solutions for medical locations

Selection guide

	Basic configuration		Advanced configuration
	Includes all the equipment required to protect against indirect contact, with a single normal or safety incomer		Includes all the equipment required to protect against indirect contact for 2 normal and safety incomers or 2 safety incomers
			
	MEDSYS 20		MEDSYS 30 Slim
	A	B	A
Inputs			
1 inverter/normal input	•	•	
1 inverter input and 1 spare input			•
2 inverter inputs			•
1 normal input			
2 normal/standby inputs			
Insulation transformer			
Power (kVA)	4	6.3	10
Switched	•	•	
Integrated			•
Headgear			
Load-break switch	•	•	
STATYS Static Transfer System			
ATyS M transfer switch			•
Integrated UPS			
MODULYS or NETYS RT Uninterrupted Power Supply (UPS)			
Distribution			
TN-S		•	•
IT-M (ISOM K-40h)	•	•	•
Alarm report			
ISOM D-15h Alarm notification	•	•	•
Options			
Surge protection device (SURGYS D40)	•	•	•
ISOM Digiware insulation fault detection	Contact us	Contact us	•
Dimensions			
H x W x D (mm)	630 x 403 x 129		1800 x 600 x 220

Solutions for medical locations

Configuration that adapts as your needs change

Standard IEC 60364-7-710 requires a medical IT system for Group 2 locations and at least one transformer for each operating room or each medical site.

Transformer for the medical IT system

Socomec dry TRM transformers are LV/LV transformers that separate the general distribution network from the medical facility's power supply provided in an IT system. As such, they can isolate and compartmentalise the electrical disturbances across the entire installation.



TRMFO 083

AND

Insulation Monitoring Device and alarm report

The ISOM K-40h insulation monitoring device is a combined unit for monitoring:

- The level of insulation of a medical IT system
- The charging current of single-phase transformers for medical IT systems (up to 50 A)
- The temperature of the medical IT transformer

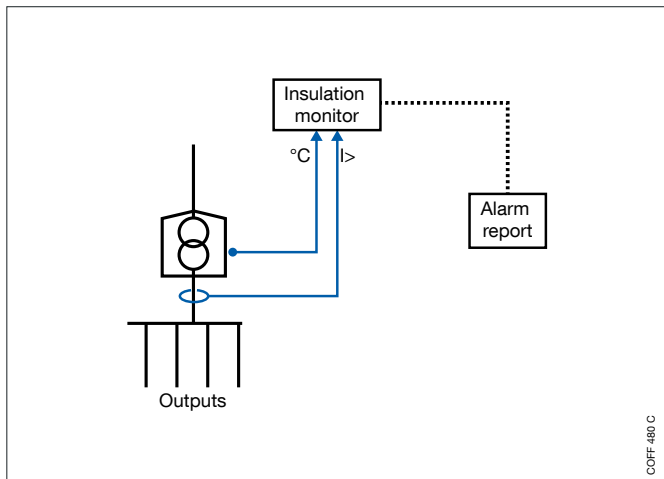
The D-15h alarm report summarises the alarms from insulation monitoring, overheating and overloads of the medical IT transformer measured by the ISOM K-40h IMD.



ISOM 486



ISOM 484



COFF 480 C

Standard IEC 60364-7-710 stipulates that Group 2 medical facilities be powered by 2 separate sources.

Automatic Transfer Switch (ATS)

ATyS M devices are switching systems that provide automatic transfer between 2 power sources. They have been developed, tested and approved according to criteria defined by the international product standards IEC 60947-3 and IEC 60947-6-1.



ATyS GM 001

OR

Static Transfer System (STS)

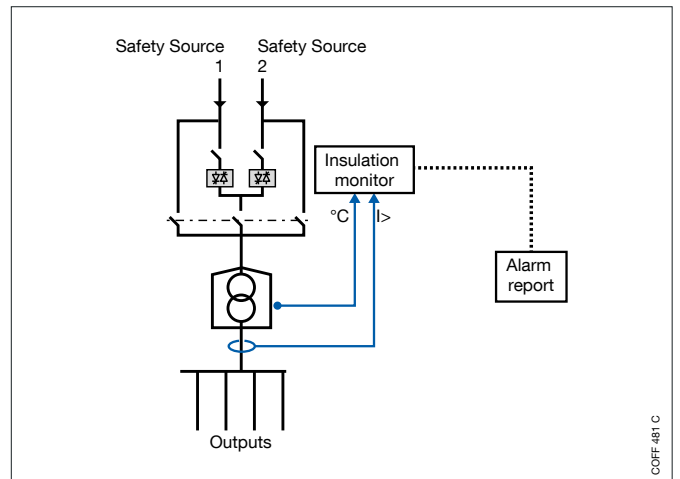
STATYS static transfer systems ensure power supply redundancy between two independent sources while ensuring power continuity to critical applications by choosing the most reliable source. Loads are transferred without interruption in accordance with IEC 62310.



STATY 018



STATY 004



COFF 481 C

Standard IEC 60364-7 stipulates that Group 2 locations must be powered continuously.

Uninterrupted Power Supply (UPS)

The uninterruptible power supply (UPS) NETYS RT ensures continuity of power supply. Double conversion technology ensures the ultimate protection for loads.

The rack design means power and/or redundancy can be upgraded as your requirements evolve.



The document HD 60364-7-710 stipulates the use of a fault location device.

Insulation and multi-measurement monitoring

ISOM Digiware is a 2-in-1 system that combines insulation and multi-measurement monitoring for IT systems. This interconnected system instantly detects and pinpoints any insulation fault. It guarantees continuity of service even for single fault conditions, while protecting people and property.



OhmScanner solution

The OhmScanner detects an insulation fault before it happens. Mapping the insulation of each circuit in detail helps the user to perform predictive maintenance work (available with the ISOM Digiware system).

