



**HospEC**<sup>®</sup>  
Hospital Energy Control

## IPS-ICU Series 710

Complete IT system distributor with integrated isolation fault detection system (IFS) for surgery rooms and intensive care units

### What does the standard require? What are your requirements?

According to DIN VDE 0100-710:2012-10 use of the IT system (ungrounded power supply system) as a means of protection for all supply group 2 areas is mandatory.

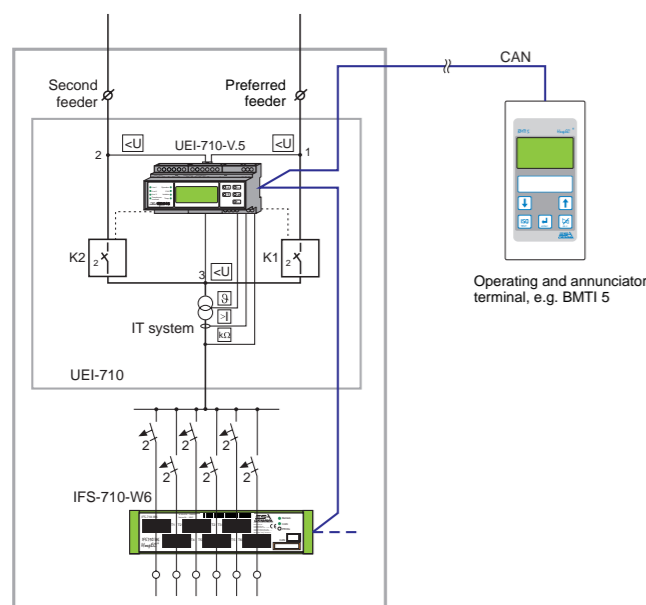
In addition, the standard requires maximum interruption periods and/or classes (0 / 0,15 / 0,5 / 15) for each IT system. Two independent feeders including automatic changeover typically serve to fulfill this requirement.

While designers and builders of such plants increasingly ask for smallest physical dimensions of all system components, plant operators and operating personnel request a substantially simplified handling of this technology thus easing their daily work.

### Our solution

The IPS-ICU Series 710 IT system distributors offer a distribution cabinet ready for connection which is unique in terms of its compact size and its extensive, easy-to-use functionality!

A multifunctional changeover and monitoring device is especially designed to comprise the functions desired by operators. Integrating the detection of output circuit insulation faults and monitoring "recurrent testing" have resulted in a significant facilitation of the users' work.



Power distribution for IT system with change-over and monitoring module (type UEI-710) and with an integrated insulation fault detection system (device type IFS-710-W6 as insulation fault detection device)

### Areas of application

IPS-ICU Series 710 IT system distributors are used to supply power to outlet circuits in medical locations of group 2 such as intensive care units or surgery rooms. These areas can be found in hospitals and surgical clinics.



### Functions and features

- Modular design with separated load switching and control
- Partial replacement of individual components
- Multifunctional changeover and monitoring device UEI-710-V.5
  - IT system monitoring (isolation, load, temperature)
  - Voltage monitoring downstream of the changeover device and the preferred and second feeder
  - Complete documentation of faults
  - Display and control of interruption and changeover times
  - Frequency indication
  - Switching cycle counter
  - Solutions with 2 transformers are supported
  - Single-phase 400V/230V transformers are supported
  - Monitoring of "recurrent testing"
- Bypass functionality enables uninterrupted recurrent testing
- Reliable separation of feed-in systems by using motor-driven load-break switches
- Connection of signaling and operating systems and I/O components via CAN bus
- Insulation fault detection system (IFS) for up to 30 feeders
- IT transformers (3.15 – 8.0 kVA) according to DIN EN 61558-2-15
- Voluntary inspection of the entire system by an independent accredited testing laboratory
- Short delivery time due to standard distributor
- Employment of latest push-in terminal technology
- Traditional wire end ferrules have been replaced by automated ultrasonic welding technology with consistent single wire labeling

### Advantages of IPS-ICU Series 710

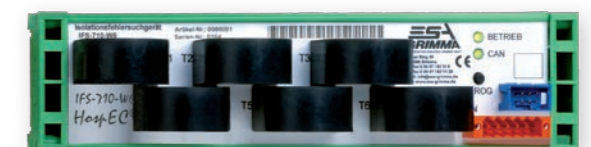
- **Smaller cabinet dimensions with large connection space**  
due to compact design (HxWxD 2000x350x400 mm)
- **Complete documentation of faults**  
in a history memory for all operating and fault messages with date and time
- **Monitoring of recurrent testing**  
according to DIN VDE 0100-710:2012-10 article 710.62 by triggering "silent alarms" when test intervals are exceeded (forwarded to the building control system via the bus system), buffered real time clock (RTC) is integrated
- **Changeover and monitoring device UEI-710-V.5**  
can be replaced while the system is running thanks to plug-in terminals
- **Secure and quick isolation monitoring**  
by means of patented measuring method
- **Self-monitoring of the IT system**  
including all internal and external functions
- **Quick troubleshooting with IFS (Option)**  
Isolation fault detection devices IFS-710-W6 in the second layer
- **Separately locked transformer room**  
for optimum temperature conditions



IPS-ICU-710 system distributor



Multifunctional change-over and monitoring device UEI-710-V.5



Insulation fault detection device IFS-710-W6

## Technical Data (excerpt)

Product designation	IPS-ICU Series 710
Operating voltage	230 V AC, 50...60 Hz
Control voltage	230 V AC, 50...60 Hz
Rated power, IT power transformers	3.15 / 4.0 / 5.0 / 6.3 / 8.0 kVA
Dimensions, HxWxD	2000x350x400 mm H = 2300 mm with 24 or 30 feeders (LSA), 2-pole
Possible number of feeders (LSA), 2-pole	6 / 12 / 18 / 24 / 30

### **Multifunctional changeover and monitoring device UEI-710-V.5**

Adjustment range, undervoltage	150...230 V (0.65... 1.0 x Un)
Adjustment range, overvoltage	230...260 V (1.0... 1.13 x Un)
Switch-on delay tvh (switch-on time)	0...20 s (increments of 0.2 s)
Switch-off delay tvr (switch-off time)	0...20 s (increments of 0.2 s)

Isolation monitoring, 230 V	AC 50...60 Hz / 120...265 V
Response value / hysteresis	programmable 50...250 kΩ / fixed +25%
Load current monitoring, response value / hysteresis	programmable 5...50 A / fixed 4%
Temperature monitoring	120°C (using break contacts or PTC thermistors)
Communications interface / protocol	CAN / CAN (2.0) ISO 11898, additional coupling possible: via gateways; binary, LON <sup>®</sup> , Modbus
Connection of peripheral devices (via CAN bus)	e.g. operating and signaling terminal BMT1 5, signaling and operating panels Series FolioTec
Parameter setting	on the device or via connected peripherals
Displays	operation and fault messages via plain text display and LED

- Complete documentation of faults in the non-volatile memory (buffered RTC integrated)
- Monitoring of "recurrent testing", triggering of "silent alarms" when test intervals are exceeded

### **Isolation fault detection (IFS) when using the isolation fault detection devices IFS-710-W6**

■ Output circuit fault detection	
■ Integrated instrument transformers	
■ Triggering threshold, test signal: 0.5 mA	
■ Up to 30 feeders can be monitored	

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We reserve the right to make any changes according to technological progress.

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