BENDER
The Power in Electrical Safety©

ATiCS, the safest and most compact all-in-one changeover and monitoring device in the world

for safety-relevant and medical locations

ATiCS offers unbeatable advantages

Safe

Functional safety SIL2 according to IEC 61508
guarantees protection against malfunction hazards

Constant self-monitoring
of electronic system and circuit paths with automatic notification

Preventive safety
by automatic reminders for prescribed tests

Maximum reliability during switchover by

- patented switchover system with mechanical and electrical interlock
- weld-free switching contacts with circuit breaker mechanism
- insensible for example in case of voltage fluctuations or vibrations by stable switching position and permanent contact pressure .

User-friendly

Easy operability and perfect overview
by clear menu structure and user guidance

Correct information at the correct time
by clear messages via an illuminated graphic display and via bus

Safe manual changeover during service
by integrated manual/automatic mode with mechanical restart interlock

Complete documentation of the following events

- Changeover procedures
- Testing
- Parameter changes

External functional test or exchange without service interruption
by optional bypass-switch.

Compact

Compact design
of electronic system and switching elements in one enclosure

Changeover and IT system monitoring
in one unit

Simple wirings
by integrated design

Completely pluggable.

Efficient

Small space required

Tests according to the regulations without interruption of power supply

One-stop service

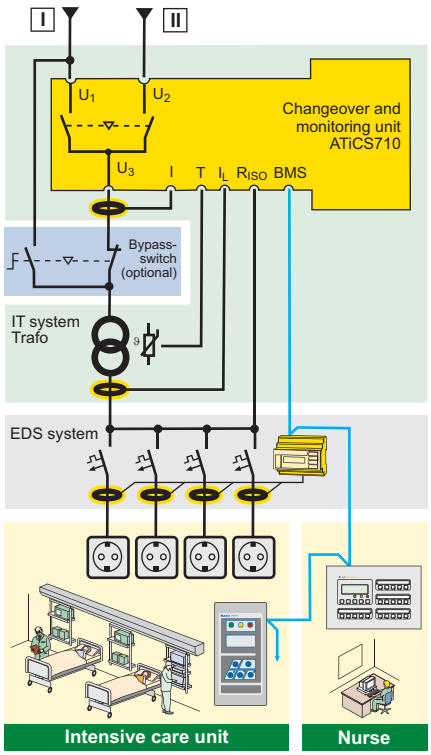
- one single partner from planning to maintenance.

ATiCS ...guarantees high availability in earthed and unearthed power supplies

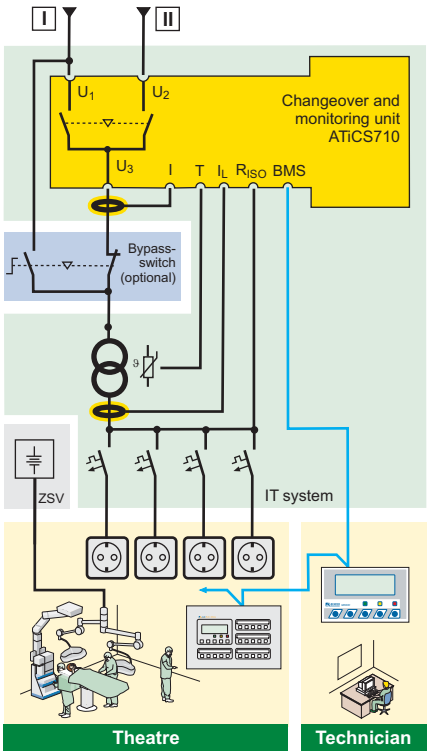
... perfect for power supply in safety-relevant environments like for example

- Group 2 medical locations according to IEC 60364-7-710 and DIN VDE 0100-710:2002-11
- Emergency power supplies
- Heating, air conditioning, ventilation, cooling
- EDP, computer centres
- Fire extinguishing and sprinkler systems.

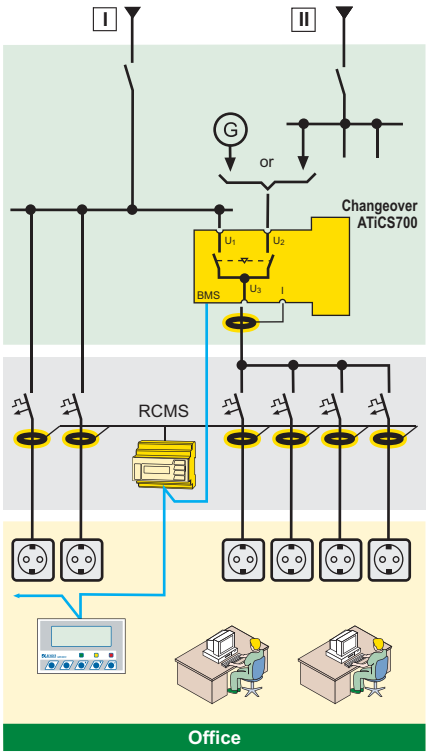
Example applications



Changeover for intensive care units with integrated insulation fault location system (EDS) and bypass-switch

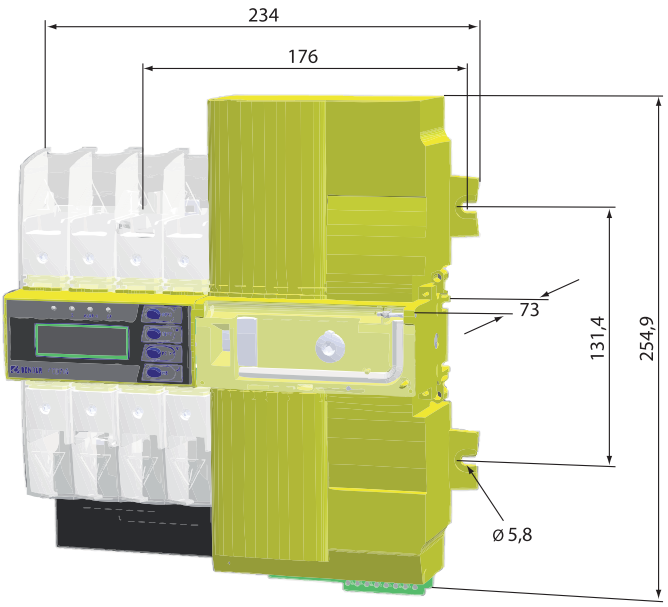


Changeover for operating theatre with bypass-switch



Changeover for safety-relevant environments with additional RCMS residual current monitoring system

Diagram / Installation



Type overview

Application	Med. locations		Safety power supplies		
Phases	single-phase		single-phase	three-phase	
Poles	2		2	4	
Nominal system voltage	AC 50…60 Hz 230 V		AC 50…60 Hz 230 V	3NAC 50…60 Hz 400/230 V	
ATiCS7x0 (basic unit)	**ATiCS710-2-125**		**ATiCS700-2-125**	**ATiCS700-4-125**	**ATiCS700-4-160**
Max. load current	125 A		125 A	125 A	160 A
Type with plug-in terminals	X		X	X	--
Type with screw terminals	--		--	--	X
ATiCS710M (module)	**ATiCS710M-40**	**ATiCS710M-80**			
Bypass-switch	X	X			
Max. load current	40 A	80 A			
Integrated MK power supply	X	X			
Application					
Changeover line 1 / line 2 (< 0,35…100 s)	X		X	X	
Stable position also in case of loss of power supply sources	X		X	X	
Manual/automatic mode	X		X	X	
Functional safety SIL 2	X		X	X	
Language (display, menu)	D, GB, F		D, GB, F	D, GB, F	
Control					
Emergency manual operation with 3 switch positions, locked by padlock	X		X	X	
Integrated generation of voltage supply	X		X	X	
Digital inputs (adjustable parameters)	1		4	4	
Relay outputs (adjustable parameters)	1 changeover contact		1 changeover contact, 3 N/O contacts	1 changeover contact, 3 N/O contacts	
Changeover module					
Monitoring					
Voltage line 1 / 2 / output	X		X	X	
Frequency line 1 / 2	X		X	X	
Output current (optional)	X		X	X	
Adjustable parameters					
Voltage (high / low)	X		X	X	
Switching back interlock	X		X	X	
Changeover period (0…100 s)	X		X	X	
Down time (100 ms…100 s)	X		X	X	
Return transfer delay (0…9999 s)	X		X	X	
Preferred line	X		X	X	
Generator start-up	X		X	X	
Phase sequence, asymmetry	--		--	X	
Integrated N-conductor monitoring	--		--	X	
Load current	X		X	X	
IT system monitoring					
Insulation resistance IT system	X		--	--	
Load current IT system	X		--	--	
Temperature IT system transformer	X		--	--	
Connection monitoring mains/PE	X		--	--	
Connection monitoring measuring current transformer/PTC	X		--	--	
Test current generator for insulation fault location system	X		--	--	
Graphic display (illuminated)					
U, f (line 1, 2)	X		X	3 phases	
Insulation resistance IT system, load current IT system	X		--	--	
Date, Time	X		X	X	
Switch position	X		X	X	
Menu system	X		X	X	

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