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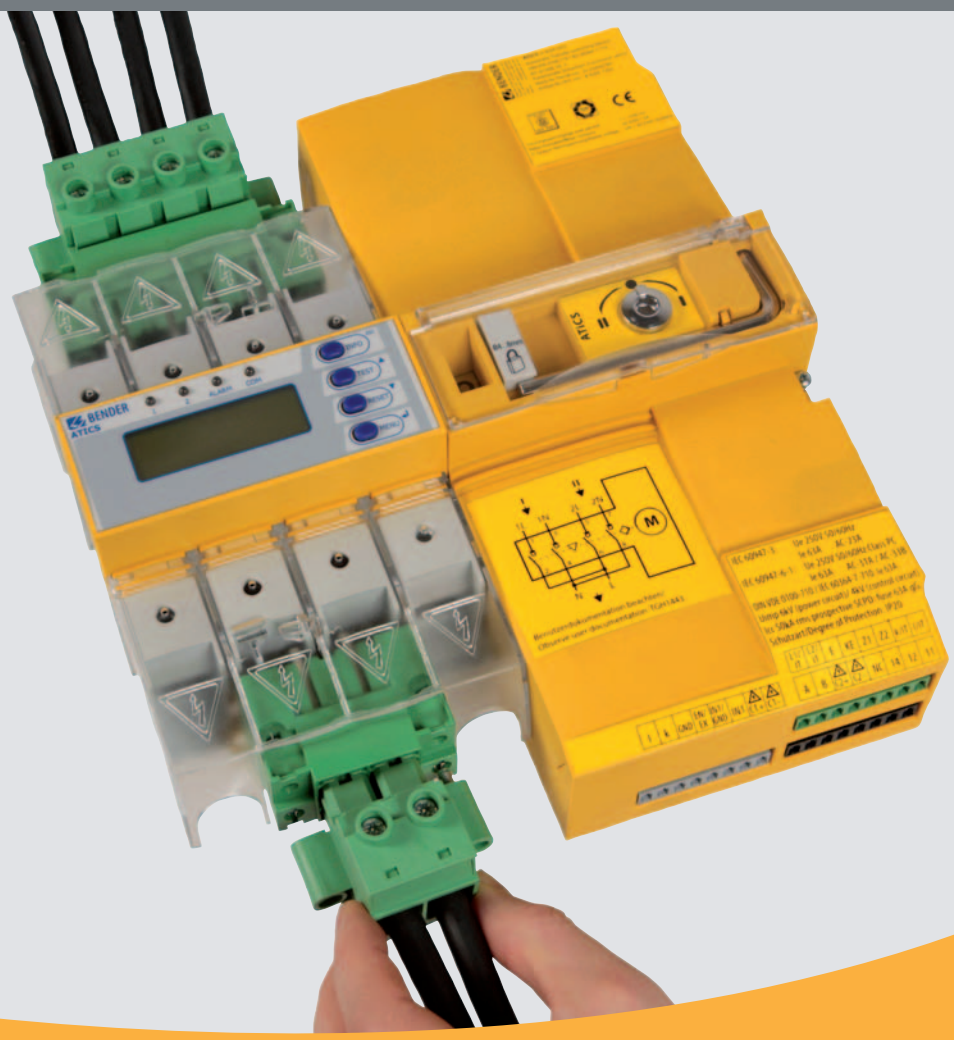
The Power in Electrical Safety©

ATICS®-2-63A-ISO
ATICS®-2-80A-ISO

Automatic transfer switching devices with monitoring functions for unearthed safety power supplies



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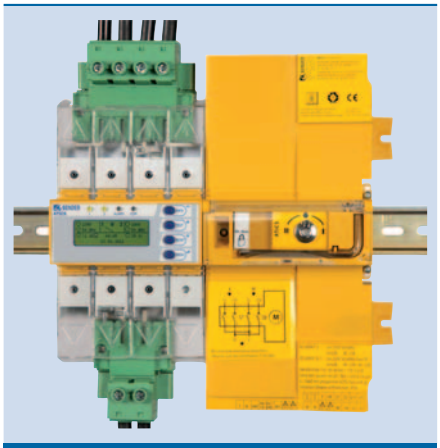


ATICS®-…-ISO

Device features

Perfectly suitable for space-saving installation / retrofitting

- Compact device for convenient setup of safety power supplies with functional safety according to EN 61508 (SIL 2) e.g. for Group 2 medical locations in compliance with IEC 60364-7-710 / DIN VDE 0100-710 (VDE 0100-710)
- The integration of the changeover function and IT system monitoring in one device provide increased safety and availability
- All-in-one: Integration of switch disconnector and control electronics
- Solutions for any application

Convenient installation and commissioning

- Saves time and money

Safe operation

- Switch disconnector contacts of robust design
- Mechanical locking
- Manual operation directly at the device
- Functional safety SIL 2
- Certified by TÜV SÜD (Technical Inspection Authority, Germany) in accordance with EN 61508 SIL 2 and DIN VDE 0100-710 (VDE 0100-710)

Uninterrupted maintenance

- Plug connectors and optional bypass switch
- Excellent communication and parameterisation options

Task

Power supplies for sensitive equipment used in Group 2 medical locations, for example, must function safely and reliably even under fault conditions.

A major contribution to achieve this are two redundant supplies and the design of an unearthed power supply system (IT system).

Product description

ATICS®-…-ISO switching devices provide all functions for changeover between two independent power supplies and for monitoring unearthed power supplies. The power section and the electronic section integrated in one flat, compact enclosure allow space-saving installation into the respective distribution board, simplifies wiring and reduces error potential. ATICS® has been developed consistently according to the Functional Safety standards (SIL 2) guarantee highest reliability.

Connectors at all connecting wires – in combination with the optional bypass switch – allow ATICS® to be tested or replaced during service works without interruption of the power supply. ATICS® considerably enhances the safety level particularly in intensive care units and operating theatres.

Changeover

- Automatic changeover to the second (redundant) line on loss of the preferred supply voltage or when the values are outside the permissible voltage range
- Voltage monitoring line 1/2 (input) and line 3 (output)
- Automatic return to the preferred line on voltage recovery
- Monitoring for short-circuits at the output of the transfer switching device
- Manual operation, optionally locked by a padlock
- Freely configurable assignment of the preferred/redundant line

IT system (unearthed power supply)

- Insulation monitoring
- Load and temperature monitoring for IT system transformer
- Optional insulation fault location system (integrated PGH function)

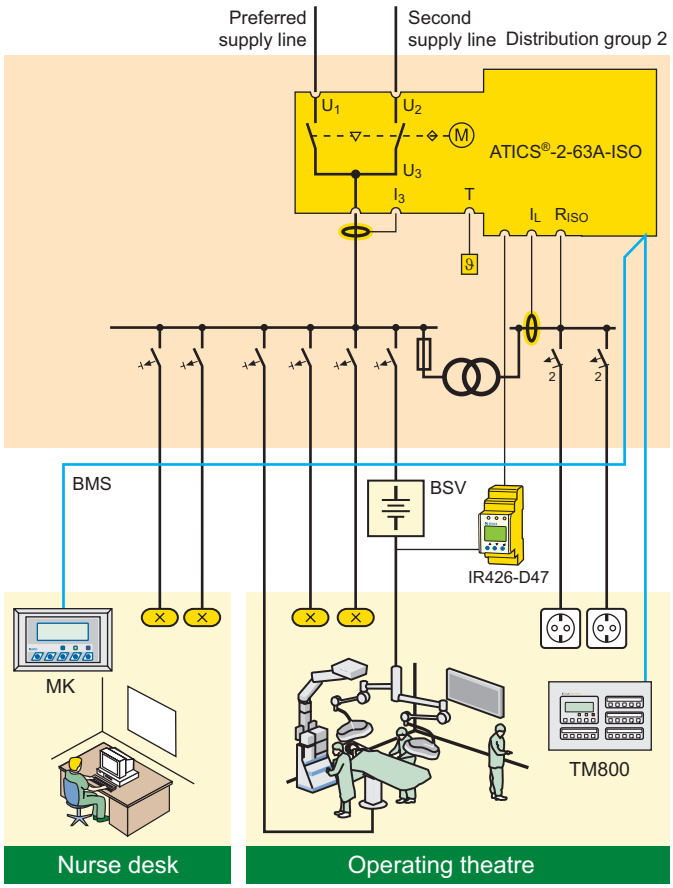
Messages

- Status indication of operating, warning and alarm messages via integrated graphic display and external MK2430 / MK800 / TM800 alarm indicator and operator panels
- Automatic reminder for prescribed tests and service intervals
- History memory for events, messages, tests and parameter changes
- Connection between ATICS® and alarm indicator and operator panels via BMS bus

Additional functions

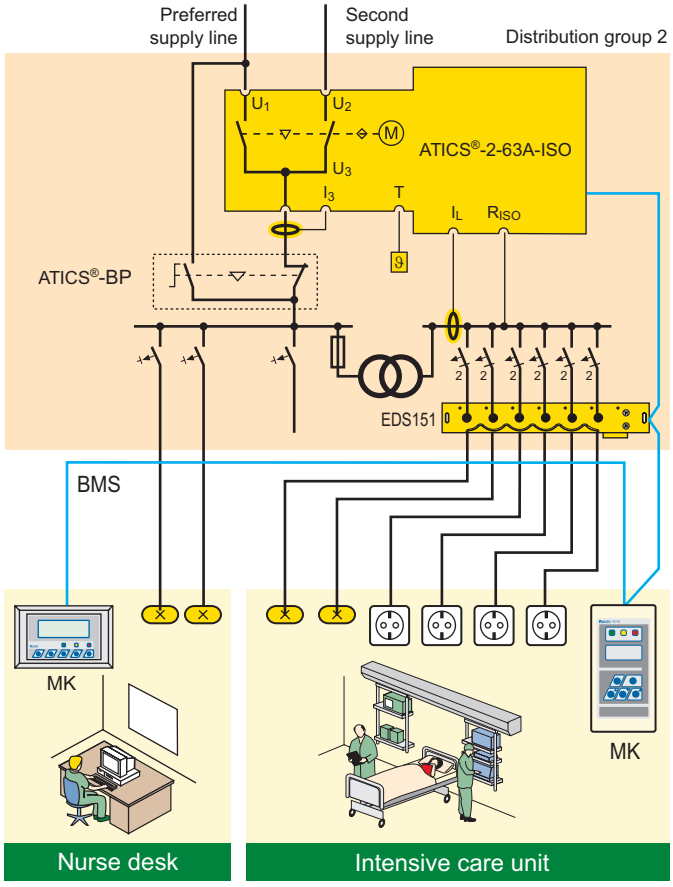
- Continous monitoring of important internal components and connecting wires
- Programmable alarm relay
- Programmable digital input

Application examples



Application example operating theatre

- ATICS®-2-63A-ISO: Automatic changeover between the preferred line and redundant line including medical IT system monitoring and monitoring of transformer load and temperature
- IR426-D47: Monitoring of the OP light IT system (optional)
- MK2430/MK800/TM800: Alarm displayed at two points guarantees functional safety



Application example intensive care unit

- ATICS®-2-63A-ISO: Automatic changeover between the preferred line and redundant line including medical IT system monitoring and monitoring of transformer load and temperature
- EDSW151: Insulation fault location system for fast insulation fault location (recommended)
- ATICS®-BP: Bypass switch allows testing / maintenance without interruption (recommended)
- MK: Alarm displayed at two points guarantees functional safety

Technical data

Insulation coordination acc. to IEC 60664-1 / IEC 60664-3

Overvoltage category	III
Rated insulation voltage	250 V
Supply voltage U_S	from the system being monitored

Power section / switching elements

Nominal system voltage U_n (operating range)	AC 230 V (AC 160…276 V)
Frequency range f_n	48…62 Hz

IT system monitoring

Insulation monitoring

Measuring range	10 kΩ…1 MΩ
Response value R_{an1} (ALARM 1)	50…500 kΩ

Load current monitoring (IT system transformer)

Measuring range I_L (TRMS)	10…110 % of the response value
Response value adjustable	5…(50) 100 A (increments of 1 A)

Temperature monitoring (IT system transformer)

PTC resistors acc. to DIN 44081	max. 6 in series

Displays and data memory

Display (languages DE, EN, FR):	graphical display
History memory	500 data records
Data logger	500 data records / channel
Config. logger	300 data records
Test logger	100 data records
Service logger	100 data records

Input

Digital inputs	1
Function selectable	switching back interlocking function, manual / automatic mode, bypass operation, functional test, changeover for the preferred supply, alarm input für operating theatre lighting circuits, alarm input for other electrical equipment

Output

Switching element	1 potential-free changeover contact
Operating principle adjustable	N/O / N/C operation
Function selectable	alarm or operating message/ common alarm message / generator start-up

BMS interface

Interface/protocol	RS-485 / BMS

EMC

Operating temperature	- 25 °C…+ 55 °C
EMC	IEC 61326
Degree of protection	IP20

Terminals

Power section

Connection	pluggable screw terminals
rigid max.	35 mm²
flexible max.	25 mm²

Other

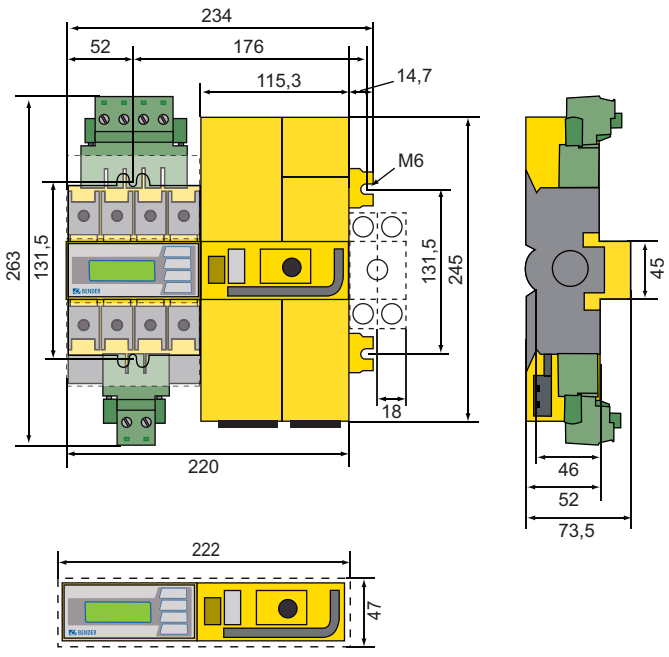
Standards	IEC 60364-7-710 / DIN VDE 0100-710 (VDE 0100-710) / Functional safety acc. to EN 61508 (SIL 2) IEC 60947-6-1 / DIN EN 60947-6-1; VDE 0660-114
Operating mode	continuous operation
DIN rail mounting	acc. to IEC 60715
Screw mounting	4 x M6
Weight	approx. 4500 g
Scope of supply	ATICS® incl. measuring current transformer STW2 and STW3, bridge, connector and terminal covers

Ordering information

Type	Designation	Rated operational current I_e	Art. No.
ATICS-2-63A-ISO	Automatic transfer switching device	AC 63 A	B 9205 7202
ATICS-2-80A-ISO	Automatic transfer switching device	AC 80 A	B 9205 7203
ATICS-BP-63A	Bypass switch kit	AC 63 A	B 9205 7252
ATICS-BP-80A	Bypass switch kit	AC 80 A	B 9205 7253
EDS151	Insulation fault location system		B 9108 0101

Dimension diagram

Dimensions in mm



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