BENDER
The Power in Electrical Safety©

ATICS®-...-DIO

Automatic switching device for safety power supplies

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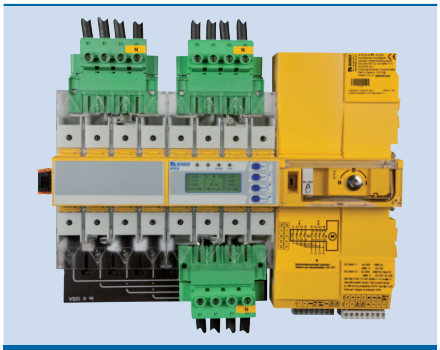


ATICS®-...-DIO

Device features

Perfectly suitable for space-saving installation/retrofitting

- Compact device for designing safety power supplies with functional safety more easily, in accordance with DIN VDE 61508 (SIL 2), in computing centres, industry, or in group 2 medical locations in accordance with DIN VDE 0100-710 (VDE 0100-710)/ IEC 60364-7-710
- All-in-one: Integration of switch disconnector and control electronics
- Compact design
- 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 on the device
- Functional safety SIL 2
- Certification by TÜV SÜD

Uninterrupted maintenance

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

Task

Where sensitive electrical installations are involved, e.g. in medical locations of Group 2, industry or computing centre, safe and reliable power supply must be ensured, also in the event of malfunctions.

Redundant supply lines significantly contribute to achieve safe and secure power supply.

Product description

The ATICS®-…-DIO series automatic switching devices include all functions for changeover between two independent supply lines. 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 industry, hospitals and sensitive areas.

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 to avoid harmful switching processes
- Manual operation, optionally locked by a padlock
- Freely configurable assignment of the preferred/redundant line

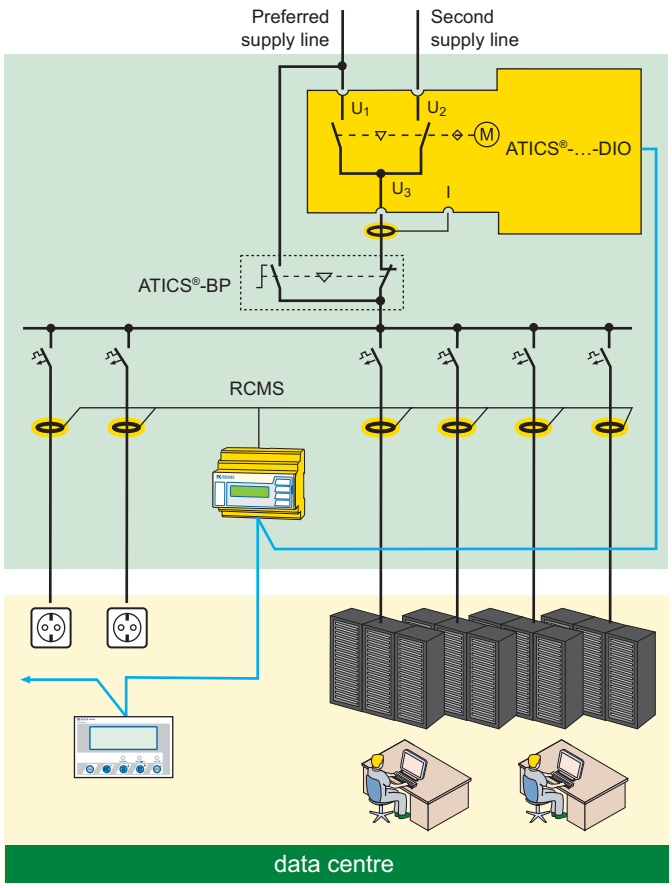
Messages

- Status indication of operating, warning and alarm messages via integrated graphic display and external display at 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
- Communication between the ATICS® and alarm indicator and operator panels via BMS bus

Additonal functions

- Continuous monitoring of the functional conditions of important internal components and connecting wires
- 4 programmable alarm relays
- 4 programmable digital inputs

Application example



Example application computing centre

- ATICS®-…-DIO: Changeover between the preferred and the redundant line
- MK2430/MK800/TM800: Alarm at at least two points for functional safety

Technical data

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

Overvoltage category	III
Rated operational voltage U_e (operating range)	230 V (AC 160…276 V)
Rated insulation voltage ATICS®-2-DIO/ATICS®-4-DIO	250/400 V
Supply voltage U_S	from the system being monitored

Power section/switching elements

Nominal system voltage U_n	2-pole	AC 230 V
	4-pole	3NAC 400/230 V
Frequency range f_n		48…62 Hz

Displays and data memory

Display (languages DE, EN, FR)	graphic 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	4
Function selectable	switching back interlocking function, manual/automatic mode, bypass mode, functional test, changeover to the preferred line, alarm input for operating theatre lights, alarm input for other technical equipment

Output

Switching elements	1 potential-free changeover contact/3 potential-free N/O contacts
Operating principle adjustable	N/O or N/C operation
Function selectable	alarm or operating message/common alarm message/ generator start-up

BMS interface

Interface/protocol	RS-485/BMS

Environment/EMC

Operating temperature	-25…+55 °C
EMC	IEC 61326-1
Degree of protection	IP20

Terminals

Power unit	**up to 125 A**	**160 A**
Connection	pluggable screw terminals	screw-type terminals
rigid max.	35 mm²	70 mm²
flexible max.	25 mm²	50 mm²

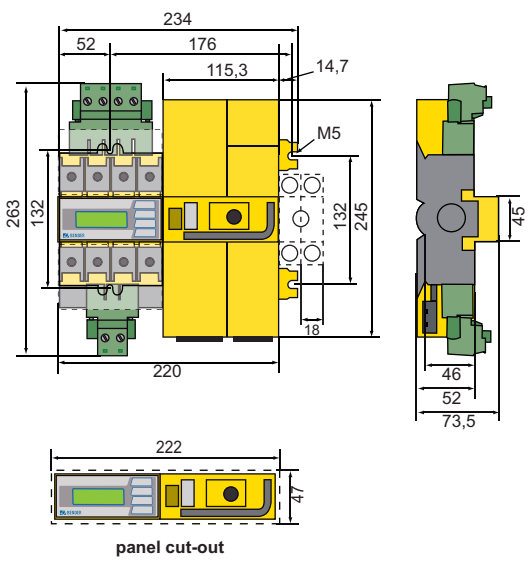
Other

Operating mode	continuous operation
DIN rail mounting	according to IEC 60715
Screw mounting	
2-pole	4 x M5
4-pole	6 x M5
Weight	
2-pole	approx. 4500 g
4-pole	approx. 5700 g
Scope of delivery	see ordering information

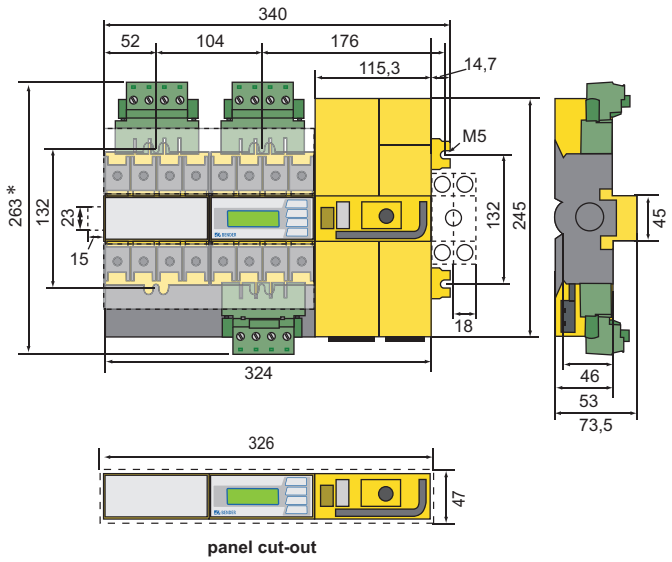
Dimension diagram

Dimensions in mm

2-pole



4-pole



* Version 80A/125A. Version 160 A without connectors.

Ordering information ATICS®...-DIO 2-pole

Version	Rated operational current I_e	Scope of delivery	Type	Art. No.
	AC			
2-pole	63 A	1 x STW3, bridge, connectors, terminal cover	ATICS-2-63A-DIO	B 9205 7212
	80 A	1 x STW3, bridge, connectors, terminal cover	ATICS-2-80A-DIO	B 9205 7213
Bypass switch set	63 A	Bridge, terminal cover, auxiliary contacts, LEDs green/red	ATICS-BP-3-63A-SET	B 9205 7252
	80 A	Bridge, terminal cover, auxiliary contacts, LEDs green/red	ATICS-BP-3-80A-SET	B 9205 7253

Ordering information ATICS®...-DIO 4-pole

Version	Rated operational current I_e	Scope of delivery	Type	Art. No.
	AC			
4-pole	80 A	3 x STW3, bridge, connectors, terminal cover	ATICS-4-80A-DIO	B 9205 7222
	125 A	3 x STW4, bridge, connectors, terminal cover	ATICS-4-125A-DIO	B 9205 7223
	160 A	3 x STW4, bridge, terminal cover	ATICS-4-160A-DIO	B 9205 7224

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