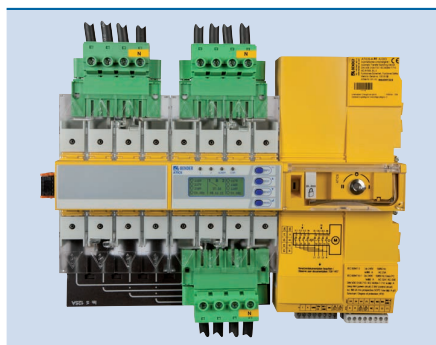


# ATICS®-...-DIO

Automatic switching device for safety power supplies





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 disconnect and control electronics
- Compact design
- Solutions for any application

### Convenient installation and commissioning

- Saves time and money

### Safe operation

- Switch disconnecter 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

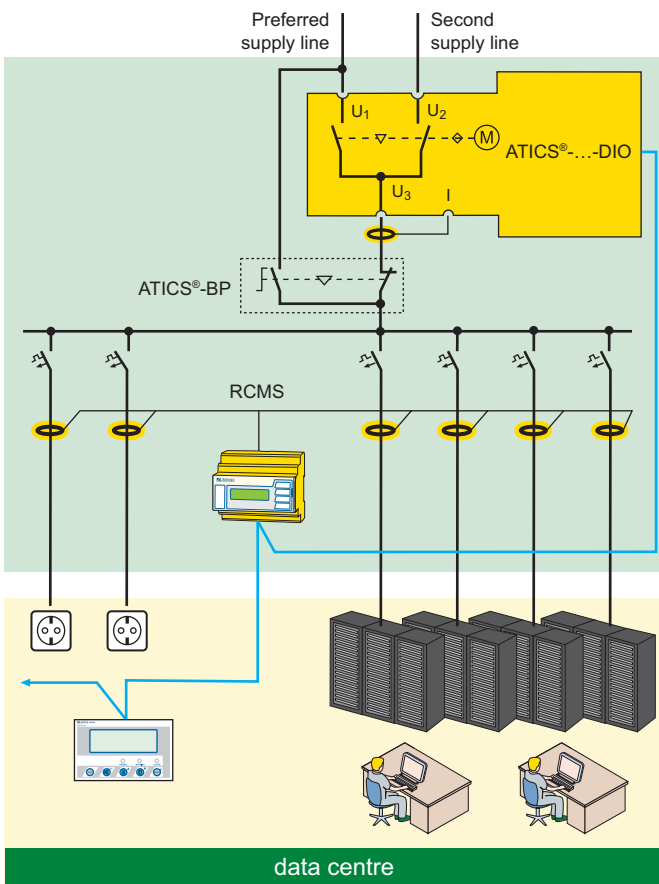
## Messages

- 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

## Additional 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 mm <sup>2</sup>	70 mm <sup>2</sup>
flexible max.	25 mm <sup>2</sup>	50 mm <sup>2</sup>

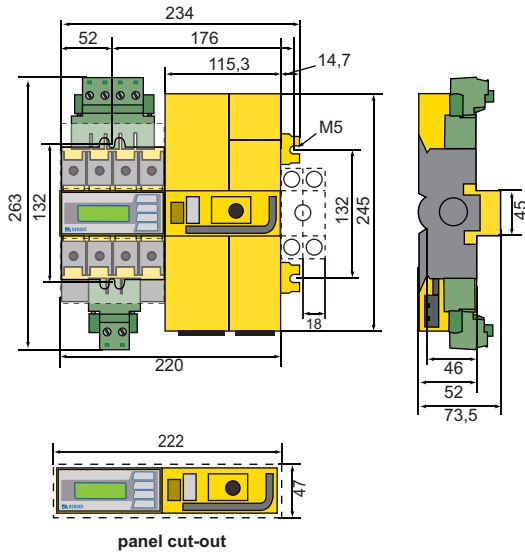
**Other**

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

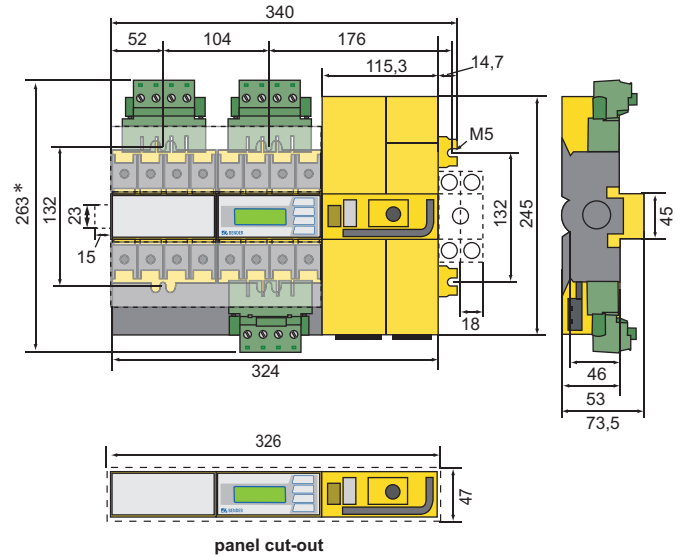
## Dimension diagram

Dimensions in mm

### 2-pole



### 4-pole



\* Version 80 A/125 A. 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	4 x STW3, bridge, connectors, terminal cover	ATICS-4-80A-DIO	B 9205 7222
	125 A	4 x STW4, bridge, connectors, terminal cover	ATICS-4-125A-DIO	B 9205 7223
	160 A	4 x STW4, bridge, terminal cover	ATICS-4-160A-DIO	B 9205 7224



### Bender GmbH & Co. KG

P.O. Box 1161 • 35301 Gruenberg • Germany  
 Londorfer Strasse 65 • 35305 Gruenberg • Germany  
 Tel.: +49 6401 807-0 • Fax: +49 6401 807-259  
 E-Mail: info@bender.de • www.bender.de



BENDER Group