

ATICS-2-63A-ISO / ATICS-2-80A-ISO



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

This reference guide does not replace the operating manual. You will find the operating manual on the CD accompanying the device or on the download section of our homepage. Make sure that the personnel has read this manual and understood all instructions relating to safety.

1. Safety instructions

! Danger: Risk of fatal injury from electric shock

Parts of the system are live. During installation and connection:

- ▶ Do not touch parts of the system.
- ▶ Make sure that the power supply has been disconnected and the system is dead.
- ▶ Switch the ATICS® to manual mode and to switch position "0".
- ▶ Lock the changeover device with a padlock to prevent it starting accidentally.

! Warning: Risk of destruction if mains voltage incorrect

- ▶ The permissible mains voltage is indicated on the nameplate.

! Caution: Avoiding incorrect insulation measurements

Only one insulation monitoring device may exist in an IT system to prevent erroneous measurements. ATICS® includes an insulation monitoring device.

- ▶ Do not connect additional insulation monitoring devices.

! Danger: Risk of fatal injury from electric shock

Connecting wires can come loose and fall out if the ferrules being used are too short, the wire ends are tinned or the connection screws have not been tightened enough.

- ▶ Consider a stripping length of 20 mm and do not use ferrules when connecting lines 1, 2 and 3.
- ▶ Use a torque wrench to tighten the terminal screws. Check all the screws on a regular basis to make sure they are seated tightly.

! Warning: Risk of destruction when insulation and voltage tests are being carried out

- ▶ Disconnect the device from the mains for the duration of the test.

2. Scope of delivery

ATICS® transfer switching device

- including connectors, bridge and terminal covers
- Current transformers STW2 and STW3

Documentation

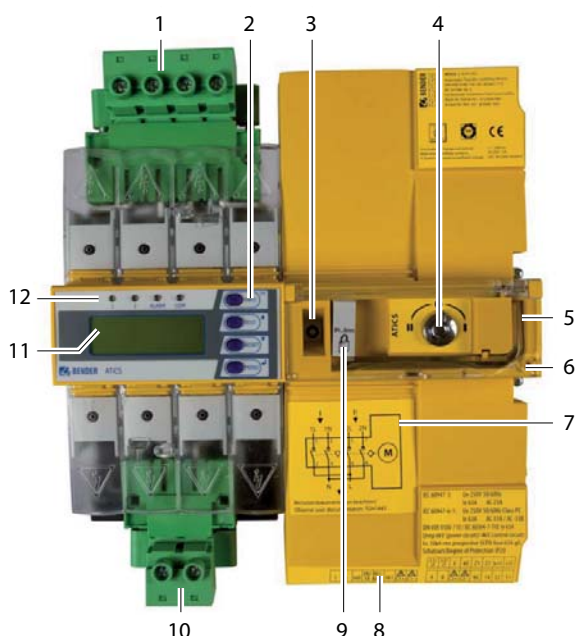
- CD with ATICS® operating manual and operating manuals of other system components
- Quick reference guides and checklist

3. Other system components required

- IT system transformer with temperature monitoring
- Alarm indicator and test combination MK... or/and alarm indicator and operator panel TM...
- Bypass switch (recommended)
- For screw mounting only: mounting screws M6

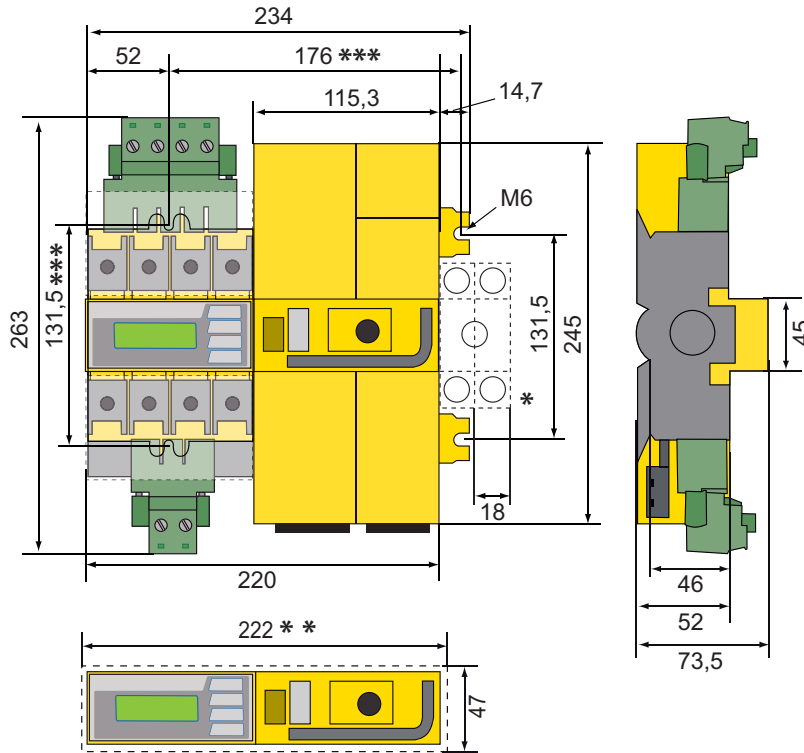
4. Device overview

ATICS® transfer switching device



1. Green plug device for Line 1 and Line 2
2. Control buttons
3. Inspection window for switch position
4. Selector switch for manual mode selection, also shows the switch position.
5. Allen key for manual mode
6. Transparent cover for changeover switch (manual mode), sealable
7. Wiring diagram for lines 1, 2 and 3
8. Three coded connector plugs
9. Locking device for switch position 0
10. Green plug device for Line 3
11. LCD
12. Operating and alarm LEDs

5. Dimensions



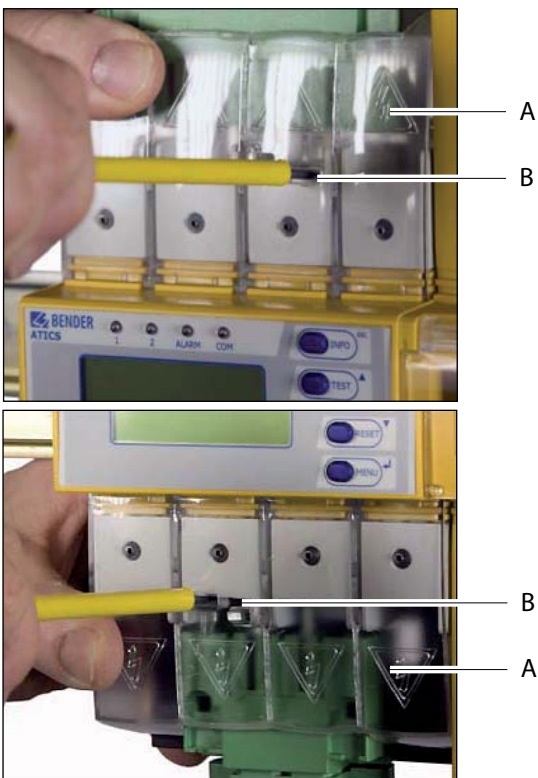
- * Additional space required for the auxiliary contact when using a bypass switch
- ** Adapt the cutout to the terminal cover
- *** Dimensions for screw mounting on mounting plate

6. Tools required

- We recommend to use the following tools for connecting the power section and the control cables:

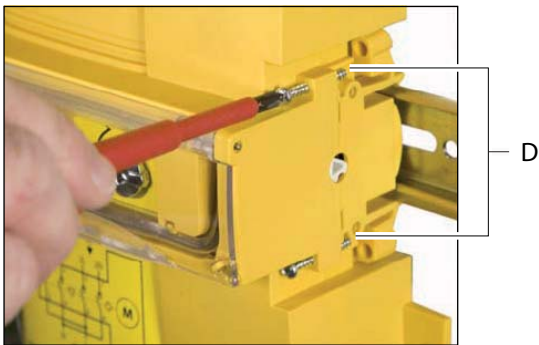
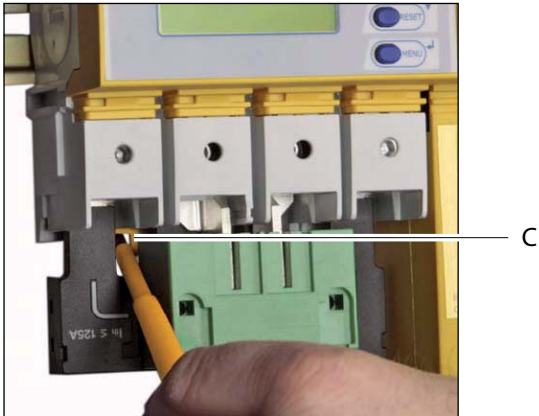
- Screwdriver PZ2 or 6.5 x 1.2 mm
- Screwdriver 2.5 x 0.4 mm
- Allen key 4 mm

7. Removing the terminal covers



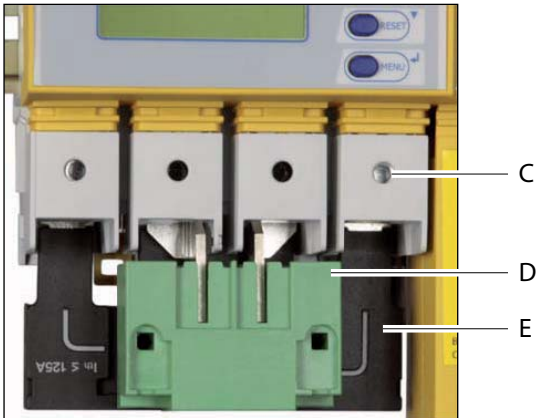
1. Push back the locking hook (B) in the middle of the top and bottom terminal (A) cover by using a screwdriver.
2. Remove the terminal cover.

8. Mounting the ATICS® on DIN rail



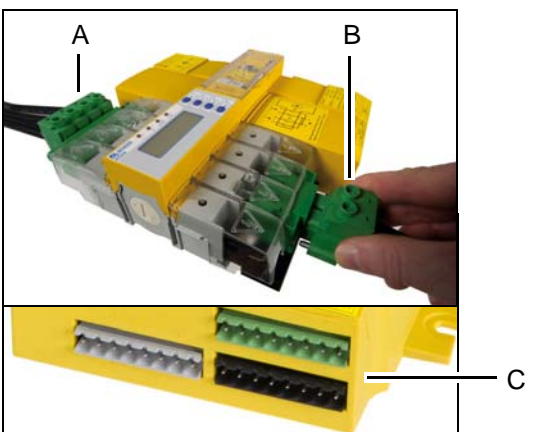
1. Place the ATICS® on the top edge of the rail
2. Use a screwdriver to pull down the lower yellow slide lock (C) and snap the ATICS® into place with slight pressure. Check that the slide lock is properly snapped into position by pulling slightly the lower part of the enclosure.
3. Secure all terminals including the unused terminals with Allen screws.
Tightening torque: 5 Nm.
4. Fasten the terminal covers.
5. Tighten the mounting screws (D) (PZ1, 8.8 lb-in, 1 Nm). The screws prevent the device from slipping sideways on the rail.

9. Mounting the ATICS® on mounting plate



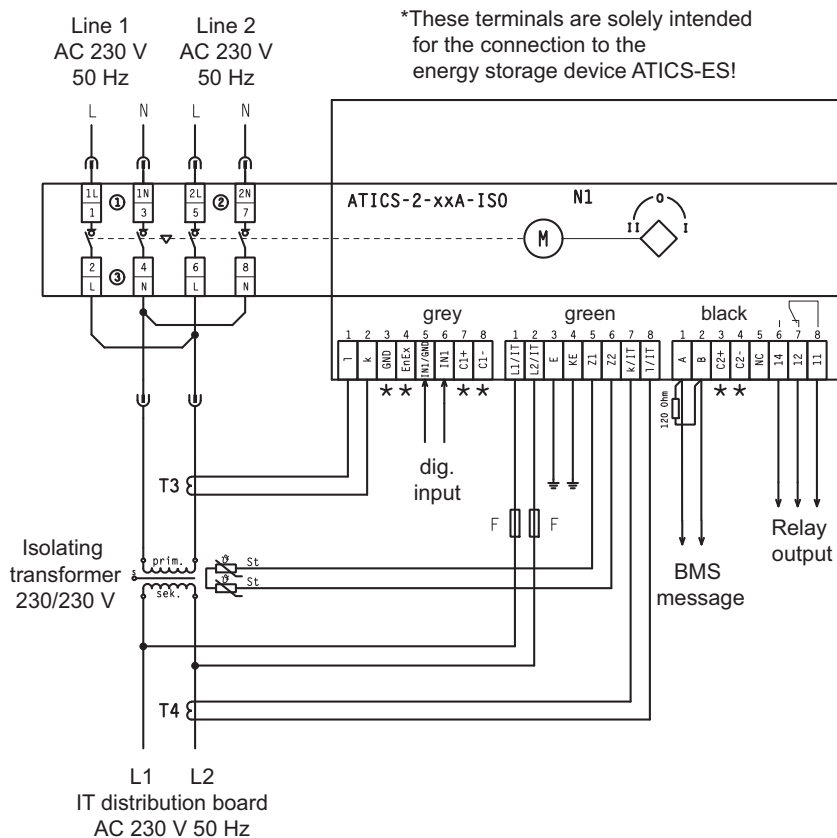
1. Undo the Allen screws of the terminals (C).
2. Remove the green connectors (D) top and bottom
3. Remove the black bridge (E) bottom
4. Fasten the ATICS® to the mounting plate with M6 (22 lb-in, 2.5 Nm) mounting screws. Note: Provide for sufficient distance to adjacent live conductors by using mounting screws with flat screw heads and flat washers.
5. Insert the black bridge (E), bottom
6. Plug in the green plug connectors (D) top and bottom
7. Tighten the Allen screws on the terminals (C). All terminals, including the unused terminals must be fully tightened.
Tightening torque: 5 Nm.
8. Fasten the terminal covers (A, B)

10. Fastening, inserting and securing connections



Connect the terminals according to the wiring diagram to the plug connectors (A, B) and the three connector plugs (C).

- Connect the lines 1, 2 and 3 to the plug connectors (A, B) with a Phillips screwdriver PZ2 or a slotted screwdriver 6.5 x 1.2 mm. Consider a stripping length of 20 mm and do not use ferrules. Tightening torque: 2.5...4.5 Nm. The connecting wires must be laid so that they are short-circuit and earth-fault proof!
 - Connect the connector plugs (C) with a slotted screwdriver of 2.5 x 0.4 mm. Stripping length: 7 mm. Tightening torque: 0.22...0.25 Nm.
1. Insert bottom green plug connector (B) and secure with mounting screws. After that, insert top green plug connector (A) and secure with mounting screws.
 2. Insert the other three connector plugs (C).



Terminal	Meaning
1L, 1N	Connection for Line 1 (input line)
2L, 2N	Connection for Line 2 (input line)
L, N	Connection for Line 3 (output line)
I, k	Connection measuring current transformer STW3 (T3) for monitoring the load current downstream the transfer switching device (short-circuit monitoring)
GND, En/Ex	Connection for external energy storage device ATICS-ES (12 V)
IN1/GND, IN1	Digital input, configurable, for example, for monitoring the switch position of the changeover function
C1+, C1-	Connection for external energy storage device ATICS-ES
L1/IT, L2/IT	Connection to the IT system for monitoring the insulation resistance. Locating current signal for insulation fault location. Bipolar connection via ≤ 6 A fuse.
E, KE	Connection of E and KE to two separate PE lines
Z1, Z2	Temperature monitoring for the IT system transformer
k/IT, I/IT	Connection for measuring current transformer STW2 (T4) to monitor the load current of the IT system transformer (overload monitoring)
A, B	BMS bus connection
C2+, C2-	Connection for external energy storage device ATICS-ES
NC	not used
14, 12, 11	Alarm relay, programmable function

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