Installation Guide
for product type ACS 400

Before Starting Installation

CHECK BOX CONTENTS: ACS 400, Manual, Mounting Template, Installation Guide, Clamp plates
CHECK INSTALLATION SITE: See Manual.
TOOLS NEEDED: Screwdrivers, Wire stripper, Tape measure, 4 pcs 5x12 mm screws, Drill
FROM MOTOR NAMEPLATE: Supply voltage, Nominal motor current, Nominal frequency, Nominal speed, Nominal power, Cos φ
Note! This Installation Guide is only for setting the speed of a single motor.
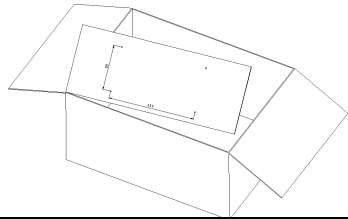
⚠ ENSURE MAINS SUPPLY TO INSTALLATION IS OFF.

⚠ ENSURE MOTOR IS SUITABLE FOR USE WITH ACS 400.
ACS 400 MUST BE INSTALLED BY A COMPETENT PERSON.
IF IN DOUBT DO NOT INSTALL.

## 1

Packing box lid contains wall mounting template.

Remove it from the box.

2

ACS 400 should ONLY be mounted vertically on a smooth, solid surface, free from heat, damp and condensation. Ensure minimum air flow gaps of 200 mm above and below and 50 mm around sides of unit.

1. Using mounting template, mark fixing hole positions.
2. Drill the holes.
3. Screw in four screws or affix nuts and bolts (depending on mounting surface).
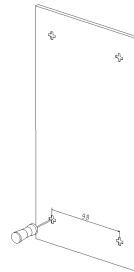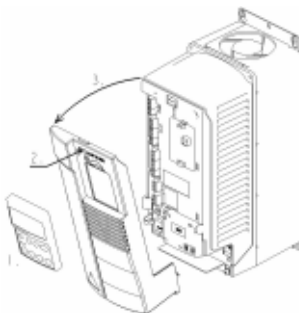

3

Position ACS 400 onto fixings and securely tighten in all four corners.

Note! Lift ACS 400 by its chassis and not by its cover.


ABB

4

1. Remove the control panel if fitted.

2. In the control panel slot there is a little hole. Press the retaining lever inside.

3. Remove the cover.

5

1. Stripp off the insulation from the motor cable and mains cable. Twist the screen wires to bundles.

2. Make suitable holes to motor and mains cable grommets.

3. To minimise radio frequency interference (RFI) at the motor end screen 360° earthing at cable lead-through.

GND
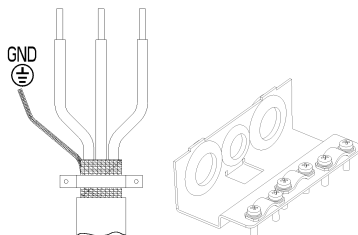
## STOP! 6

CHECK THE INSULATIONS OF MOTOR, AND MAINS AND MOTOR CABLE.

7

MOTOR AND MAINS CONNECTION

1. Lead the motor and mains cables through the clamp plate.

2. Connect the motor cable to the terminal block marked U2 V2 W2 on the right hand side of the ACS 400.

3. Connect the mains cable to the terminal block marked U1 V1 W1 on the left hand side of the ACS 400.
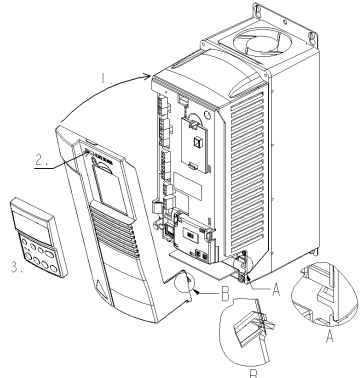
4. ENSURE PROPER EARTHINGS.

OFF
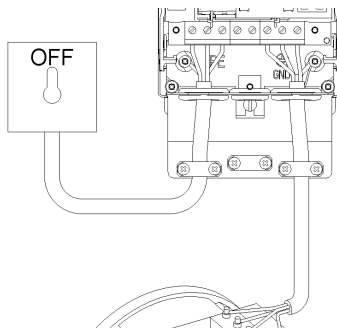
NOTE!	**ACS 400 does not carry internal fusing.** **Please ensure correct fuses are installed at the supply distribution board.** **See ACS 400 User's Manual for correct fuse sizes.**

8

Replace the front cover:

1. First hook the bottom end fingers.

2. Click the retaining lever to its place.

3. Replace the control panel if available.

9

STOP!

CHECK that starting the motor does not cause any danger. If there is a risk of damage to the driven equipment in case of incorrect rotation direction of the motor, it is recommended having the driven equipment disengaged when first start is performed.

10

NO CONTROL PANEL:

Note! The drive may start when mains is switched on.

For analogue speed reference, connect potentiometer (2-10 kΩ) to terminals 1-4.

Default setting for AI1 is voltage.

As default motor nominal values are 400(230) V and 50 Hz and 1440 rpm.

To start the drive activate digital input DI 1.

As default digital input DI 2 is deactivated and the rotation direction is forward. To reverse the rotation direction activate DI 2.
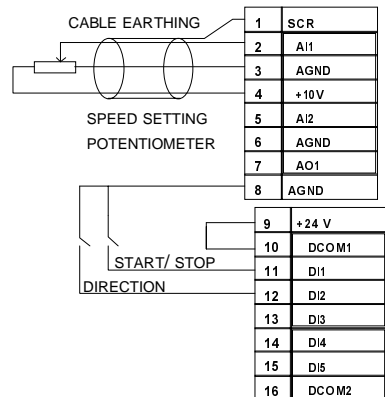
Switch on mains.

Note! For further information on I/O settings, refer to User's Manual for product type ACS 400.
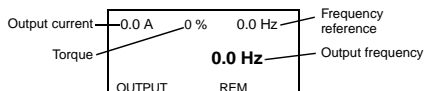
CONTROL PANEL:

Proceed with the step 11.

I/O TERMINAL (X1) WIRING

CABLE EARTHING

SPEED SETTING POTENTIOMETER

START/ STOP

DIRECTION

1	SCR
2	AI1
3	AGND
4	+10 V
5	AI2
6	AGND
7	AO1
8	AGND
9	+24 V
10	DCOM1
11	DI1
12	DI2
13	DI3
14	DI4
15	DI5
16	DCOM2

1. Display shows the OUTPUT mode.

Output current — 0.0 A   0 %   0.0 Hz — Frequency reference
Torque — **0.0 Hz** — Output frequency
OUTPUT   REM

2. Set the control mode to local by pressing and holding the LOC/REMOTE button until "LOCAL CONTROL" is displayed. After releasing the button text LOC appears on the display.

0.0 A   0 %   0.0 Hz
0.0 Hz
OUTPUT   LOC
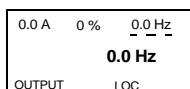
3. The following ACS 400 parameters must be set:
9901 LANGUAGE
9905 MOTOR NOM VOLT
9906 MOTOR NOM CURR
9907 MOTOR NOM FREQ
9908 MOTOR NOM SPEED
9909 MOTOR NOM POWER
9910 MOTOR COS φ

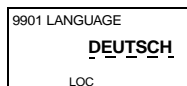**4.** Instructions for setting the parameters:

•Press (MENU) to enter the Menu. MENU flag becomes visible.

99 START-UP DATA
MENU   LOC

•Press (ENTER) to select the start-up group (99).

9901 LANGUAGE
ENGLISH
MENU   LOC
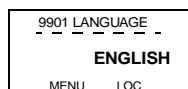
•Select the parameter with (△) and (▽) buttons.

•Press (ENTER) to get to the parameter set mode.

9901 LANGUAGE
DEUTSCH
LOC

•Alter the value by using (△) and (▽) buttons.

•Store the modified value by pressing (ENTER).

5. After setting all start-up parameters press (MENU) button twice to resume OUTPUT display.

6. For further information, refer to User's Manual.

Motor is now ready to run.
Press START/STOP button to turn on motor.

Note! Before increasing motor speed, check that the motor is running in desired direction.

To set the reference:

•To increase the reference press (△).

•To decrease reference press (▽).

To stop motor press (⓪) button.

Note! Always disconnect mains supply before working on ACS 400 or motor.

► forward direction

◄ reverse direction