1. Prepare for Installation

Warning! The ACH550 should ONLY be installed by a qualified electrician.

Unpack the Drive

Note! Lift ACH550 by its chassis and not by its cover.

1. Unpack the drive.
2. Check for any damage.
3. Check the contents agains the order / shipping label.

Check

- Motor compatibility - Motor type, nominal current, frequency, and voltage range must match drive specifications.
- Suitable environment - Drive requires heated, indoor controlled environment that is suitable for the selected enclosure.
- Wiring - Follow local codes for wiring, circuit protection, and EMC requirements.

Refer to User’s Manual and confirm that all preparations are complete

Tools Required

Screwdrivers, wire stripper, tape measure, mounting screws or bolts, drill, and conduit hole punch (R5 and R6, IP 54 / UL Type 12 drives only).

Collect Motor Data

Collect the following motor data from the motor nameplate for later use in the ACH550 startup:

- Voltage
- Nominal motor current
- Nominal frequency
- Nominal speed
- Nominal power

2. Prepare the Mounting Location

The drive requires a smooth, vertical, solid surface, free from heat and moisture, with free space for air flow - 200 mm (8 in) above and below, and 25 mm (1 in) around the sides of the drive.

1. Mark the mounting points.
2. Drill the mounting holes.

3. Remove the Front Cover

IP 21 / UL Type 1
1. Remove the control panel, if attached
2. Loosen the captive screw at the cover’s top.
3. Pull near the top to remove the cover.

IP 54 / UL Type 12
1. If hood is present: Remove screws (2) holding hood in place.
2. If hood is present: Slide hood up and off of the cover.
3. Loosen the captive screws around the edge of the cover.
4. Remove the cover.

4. Mount the Drive

IP 21 / UL Type 1
1. Lift the ACH550 by its metal chassis.
2. Non-English speaking locations: Add a warning sticker in the appropriate language over the existing warning on the top of the module.

IP 54 / UL Type 12
1. Lift the ACH550 by its metal chassis.
2. As required for access, remove the rubber plugs.
3. Position the ACH550 and securely tighten in all four corners.
4. Re-install rubber plugs.
5. Non-English speaking locations: Add a warning sticker in the appropriate language over the existing warning on the top of the module.

5. Install the Wiring

Note! Use separate conduit runs for input power, motor and control wiring.

General Wiring - IP 21 / UL Type 1
1. Install thin-wall conduit clamps (not supplied) in the conduit/gland box.
2. Install conduit/gland box.

General Wiring - IP 54 / UL Type 12
1. Depends on frame size:
   - Frame sizes R1 - R4: Remove and discard the cable seals where conduit will be installed. (The cable seals are coneshaped, rubber seals on the bottom of the drive.)
   - Frame sizes R5 - R6: Use punch to create holes for conduit connections as needed.
2. For each conduit run, install water tight conduit connectors (not supplied).
Wiring the Controls

1. Route the control cable(s) through separate conduits.
2. Strip the control cable sheathing and twist the copper screen into a pig-tail.
3. Connect the copper screen pig-tail for digital and analog I/O cables at X1-1. (Ground only at drive end)
4. Connect the ground screen pig-tail for RS485 cables at X1-28 or X1-32. (Ground only at drive end)
5. Strip and connect the individual control wires to the drive terminals. The following shows the default configuration. For details, or other configurations, see “Control Connections” in the User’s Manual.
6. Install the conduit/gland box cover (1 screw).

Control Connections

Warning! For floating networks remove screws at EM1 and EM3 on frame sizes R1 - R4. Remove screws at F1 and F2 on frame sizes R5 or R6.

Power Connections

Warning! The ACH550 will start up automatically at power up, if the external run command is on.

1. Apply input power. When power is applied to the ACH550, the green LED comes on.

Note!
- For common parameters and menu items, use the Help key to display descriptions. If you encounter alarms or faults, use the Help key or refer to the Diagnostic section of the User’s manual.

Assistant Control Panel

The Start-up assistant steps through typical start-up selections, and runs automatically upon the initial power up. At other times, use the steps below to run the Start-up assistant.

1. Use the MENU key to access the menu list.
2. Select Assistants.
3. Select Start-up Assistants.
4. Follow the screen instructions to configure the system.

Note!
- For common parameters and menu items, use the Help key to display descriptions. If you encounter alarms or faults, use the Help key or refer to the Diagnostic section of the User’s manual.

7. Re-Install the Cover

ip 21 / UL Type 1
1. Align the cover and slide it on.
2. Tighten the captive screw.
3. Re-install the control panel.

Note! The control panel window must be closed to comply with IP 21 / UL Type 1.

8. Apply Power

Always re-install the front cover before turning power on.

Warning! The ACH550 will start up automatically at power up, if the external run command is on.

1. Apply input power.

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

9. Start-up

In Start-up, enter motor data (collected earlier) and, if needed, edit parameters that define how the drive operates and communicates.

Assistant Control Panel

The Start-up assistant steps through typical start-up selections, and runs automatically upon the initial power up. At other times, use the steps below to run the Start-up assistant.

1. Use the MENU key to access the menu list.
2. Select Assistants.
3. Select Start-up Assistants.
4. Follow the screen instructions to configure the system.

Note!
- For common parameters and menu items, use the Help key to display descriptions. If you encounter alarms or faults, use the Help key or refer to the Diagnostic section of the User’s manual.