7. Connect the control cables

## Default I/O connections

The diagram shows the I/O connections when parameter 9902 has value 1 (ABB STANDARD).

### Connection diagram (shielded cables)

```
Drive
```

#### Connection diagram (shielded cables)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Start up without a control panel</td>
</tr>
<tr>
<td>2</td>
<td>Connect the power cables</td>
</tr>
<tr>
<td>3</td>
<td>Confirm the brake is released</td>
</tr>
<tr>
<td>4</td>
<td>Confirm the power source is connected</td>
</tr>
<tr>
<td>5</td>
<td>Confirm the motor is connected</td>
</tr>
<tr>
<td>6</td>
<td>Confirm the power source is not connected</td>
</tr>
<tr>
<td>7</td>
<td>Confirm the motor is not connected</td>
</tr>
</tbody>
</table>

### Select the cables

**Input power cable:**
- IEC/EN 60227-1 requires the maximum voltage category 2.
- Use double- or single-shielded cable for digital, relay and I/O signals. Do not mix 24 V PE wires.
- Use two grounding conductors if the cross-section of a single grounding conductor is less than 2.5 mm² (0.04 in²) (EN60204-1:2001).

**Input power cable:**
- Use a separate grounding cable if the conductivity of the cable shield is not sufficient there is no symmetrically constructed grounding conductor in the cable.
- Make sure that the voltage between the drive DC terminals (BRK+ and BRK-) is less than 300 V DC (0.5 V/1000 V).
- Use a shielded cable on control circuits with the provided screws.

### Measure the insulation resistance

Measuring the insulation is typically not required in North America.

#### Input power cable:
- Use the standard procedure to measure the insulation resistance of the power cables. Refer to Free space requirements.,
### Configurable fieldbus communication (optional)

See the drive user’s manual.

---

### Dimensions and weights

<table>
<thead>
<tr>
<th>IP00 cabin / UL open</th>
<th>H0 (height)</th>
<th>H1 (height)</th>
<th>H2 (height)</th>
<th>H3 (height)</th>
<th>W (width)</th>
<th>D (depth)</th>
<th>weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 101 102 103 104 105</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>162 162 162 162 162</td>
<td>137 137 137 137 137</td>
<td>6.4 6.4 6.4 6.4 6.4</td>
</tr>
<tr>
<td>200 201 202 203 204 205</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>300 317 320 324 324</td>
<td>162 162 162 162 162</td>
<td>137 137 137 137 137</td>
<td>6.4 6.4 6.4 6.4 6.4</td>
</tr>
</tbody>
</table>

---

### Free space requirements

- Above
- Below
- Left
- Right

---

### Markings

The applicable markings are shown on the type designation label.

- CE
- UL
- RCM
- EAC
- WEEE
- EIP
- TÜV Nord
- IP20 / NEMA 1
- 2.2 4.8
- 1.6 3.5
- /g132
- 3AXD00000353783 L
- 3AXD00000353783 L
- 3AXD00000353783 L

---

### Fuses and typical power cable sizes

The table lists the fuses for protection against short-circuits in the input power cable or drive. The table also shows typical power cable sizes.

---

### Ambient conditions

- Temperature during operation (rated for stationary use):
  - Installation altitude: 3000 m (10 000 ft) above sea level with output current below 2000 A (CAN EN)
  - Temperature rating: 40°C (104°F) max. The temperature is most that at 90% of the output current rating at no load permitted.
  - Relative humidity: 35% without condensation.

---

**Related documents**

- ACS355 user's manual
- ACS355 manual list

---

**Dimensions and weights**

- IP20 (cabinet) / UL open
- H0 height without fastenings or clamping plate
- H1 height with fastening and without clamping plate
- H2 height with fastening and clamping plate
- W width
- D depth
- Weight

**Markings**

- CE
- UL
- RCM
- EAC
- WEEE
- EIP
- TÜV Nord

**Fuses and typical power cable sizes**

- Above
- Below
- Left
- Right

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---

**Related documents**

- ACS355 user's manual
- ACS355 manual list