

Installation Instructions

VLT[®] Automation Drive FC 360 Resolver Option MCB 103

Resolver Option MCB 103 is used for interfacing resolver motor feedback to VLT[®] Automation Drive.

| | |
|--------------------------|---|
| Resolver poles | 17-50 Poles: 2 *2 |
| Resolver input voltage | 17-51 Input Voltage: 2.0–8.0 Vrms *7.0 Vrms |
| Resolver input frequency | 17-52 Input Frequency: 2–15 kHz *10.0 kHz |
| Transformation ratio | 17-53 Transformation Ratio: 0.1–1.1 *0.5 |
| Secondary input voltage | Max. 4 Vrms |
| Secondary load | App. 10 kΩ |

Table 1.1 Supported Resolver Types/Specifications

1.1.1 Safety Instructions

⚠ WARNING

DISCHARGE TIME

Frequency converters contain DC-link capacitors that can remain charged even when the frequency converter is not powered. To avoid electrical hazards, disconnect AC mains, any permanent magnet type motors, and any remote DC-link power supplies, including battery backups, UPS and DC-link connections to other frequency converters. Wait for the capacitors to fully discharge before performing any service or repair work. The amount of wait time is listed in the *Discharge Time* table. Failure to wait the specified time after power has been removed before doing service or repair could result in death or serious injury.

| Voltage [V] | Minimum waiting time [minutes] | |
|-------------|--------------------------------|----------|
| | 4 | 15 |
| 380-480 | 0.37-7.5 kW | 11-22 kW |

Table 1.2 Discharge Time

1.1.2 Scope of Delivery

- Resolver Option MCB 103

NOTICE

A terminal cover must be ordered separately.

| Enclosure | Ordering number |
|-----------|-----------------|
| J1 | 132b0263 |
| J2 | 132b0265 |
| J3 | 132b0266 |
| J4 | 132b0267 |
| J5 | 132b0268 |

Table 1.3 Terminal Cover Ordering Numbers

1.1.3 Mounting the Option

Mount the option according to *Illustration 1.1* and *Illustration 1.2*.

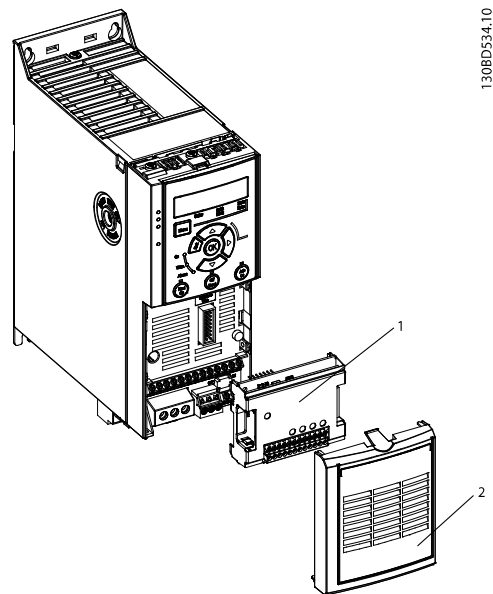


Illustration 1.1 Cover

| | |
|---|----------------|
| 1 | Option |
| 2 | Terminal cover |

Table 1.4 Legend to *Illustration 1.1*

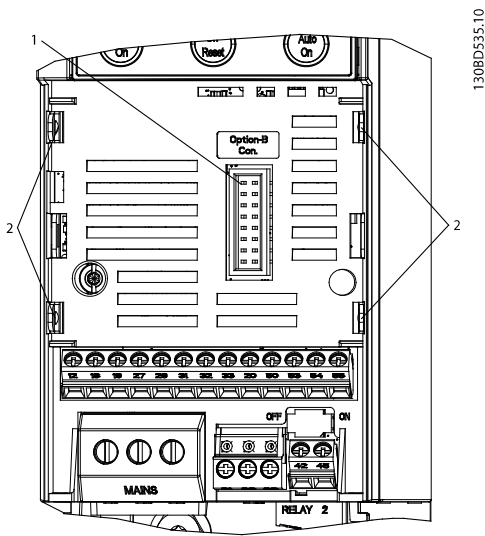


Illustration 1.2

| | |
|---|--------------|
| 1 | Connector |
| 2 | Metal clamps |

Table 1.5 Legend to Illustration 1.2

1.1.4 Ambient Working Temperature

For ambient working temperature of full load, see Table 1.6.

| | Without MCB | With MCB |
|-----------------------|-------------|----------|
| Standard Control Card | 45-50 °C* | 45 °C |
| Profibus or ProfiNet | 45 °C | 40 °C |

Table 1.6 Ambient Temperature

* Some types can reach 50 °C, see VLT® AutomationDrive FC 360 Design Guide.

1.1.5 Electrical Installation

LED indicators

- LED 1 is on when the reference signal is OK to resolver.
- LED 2 is on when Cosinus signal is OK from resolver.
- LED 3 is on when Sinus signal is OK from resolver.

The LEDs are active when 17-61 Feedback Signal Monitoring is set to [1] Warning or [2] Trip.

NOTICE

Always use screened motor cables and brake chopper cables.

Separate resolver cables from motor cables.

Connect the screen of the resolver cable correct to the decoupling plate and connected to chassis (earth) on the motor side.

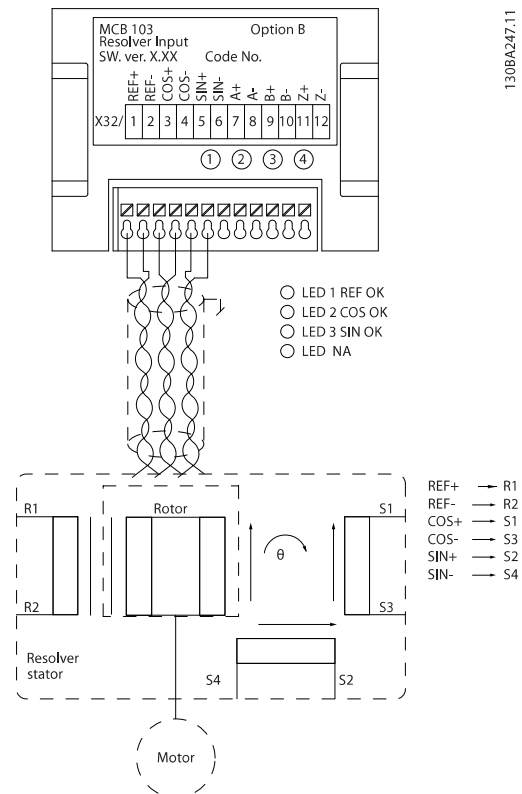


Illustration 1.3 Resolver Input MCB 103

