

# Installation Instructions

## Replacement Cables

### VLT<sup>®</sup> FC Series FC 102, FC 202, FC 301/302

#### Safety Instructions

Only Danfoss-authorized, qualified personnel are allowed to repair this equipment. The personnel must be familiar with the instructions and safety measures.

#### **⚠ WARNING**

##### DISCHARGE TIME

The frequency converter contains DC-link capacitors that can remain charged even when the frequency converter is not powered. Failure to wait the specified time after power has been removed before performing service or repair work can result in death or serious injury.

- Stop the motor.
- Disconnect the AC mains and remote DC-link power supplies, including battery back-ups, UPS, and DC-link connections to other frequency converters.
- Disconnect or lock the PM motor.
- Wait for the capacitors to discharge fully before performing any service or repair work. The waiting time is specified in *Table 1.1*.

Voltage [V]	Power range [kW]	Minimum waiting time (min)
3x200	0.25–3.7	4
3x200	5.5–11	15
3x400	0.37–7.5	4
3x400	11–90	15
3x600	2.2–7.5	4
3x600	11–90	15

High voltage can be present even when the warning LED indicator lights are off.

Table 1.1 Discharge Time

#### Items Supplied

The items supplied vary depending on the enclosure size and the cable kit ordering number. See the following tables for details:

##### Cable kits for C1 frame:

Ordering number	Items supplied
130B9975	Cable assembly for motor cables with coil.
130B9976	Cable assembly for motor cables.
130B9977	Cable kit: <ul style="list-style-type: none"> <li>• Busbar for motor terminals.</li> <li>• 4-pole gate wire for dual IGBT.</li> <li>• Gate wire for SRC.</li> <li>• 2-pole cable jumper, <math>U_{dc}</math>.</li> </ul>

Table 1.2 C1 Frame Cable Kits

##### Cable kits for C2 frame:

Ordering number	Items supplied
130B9978	Cable assembly for mains connection.
130B9980	Cable assembly for motor connection.
130B9981	Cable kit: <ul style="list-style-type: none"> <li>• Busbar for motor terminals.</li> <li>• Gate wire for IGBT.</li> <li>• Gate wire for SRC.</li> <li>• 2-pole cable jumper, <math>U_{dc}</math>.</li> </ul>

Table 1.3 C2 Frame Cable Kits

##### Cable kits for C3 frame:

Ordering number	Items supplied
130B9982	Cable assembly for motor connection.

Table 1.4 C3 Frame Cable Kits

Cable kits for C4 frame:

Ordering number	Items supplied
130B9983	Cable kit: <ul style="list-style-type: none"> <li>• Busbar for motor terminals.</li> <li>• Busbar cradle.</li> <li>• Cable assembly gate wire for IGBT (Fuji).</li> <li>• Gate wire for SRC.</li> <li>• 2-pole cable jumper, U<sub>d</sub>.</li> <li>• Cable assembly gate wire for IGBT (Semikron)</li> </ul>
130B9984	Cable assembly for motor connection.
130B9985	Cable kit: <ul style="list-style-type: none"> <li>• Busbar tube, U-V-W.</li> <li>• Cable assembly gate wire for IGBT.</li> <li>• 2-pole cable jumper.</li> <li>• Busbar cradle.</li> <li>• Gate wire for SRC.</li> </ul>

Table 1.5 C4 Frame Cable Kits

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