

VLT® Wireless Communication Panel LCP 103

VLT® FC Series FC 102, FC 103, FC 202, FC 301/FC 302, and LD 302

1 Introduction

1.1 Items Supplied

- VLT® Wireless Communication Panel LCP 103
- Gasket

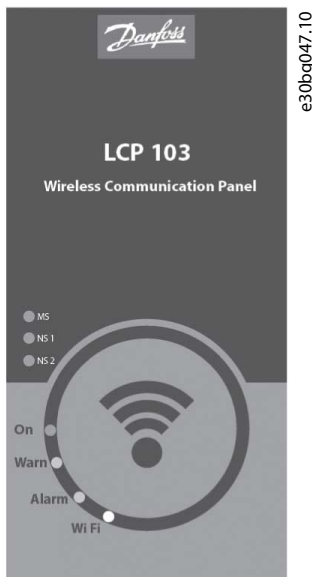


Illustration 1: VLT® Wireless Communication Panel LCP 103

1.2 Compatible Drive Series

NOTICE

Compatible drives have a white USB port.

- VLT® HVAC Drive FC 102
- VLT® Refrigeration Drive FC 103
- VLT® AQUA Drive FC 202
- VLT® AutomationDrive FC 301/FC 302
- VLT® Lift Drive LD 302

Compatible software versions:

- VLT® HVAC Drive FC 102: 5.10
- VLT® Refrigeration Drive FC 103: 2.10
- VLT® AQUA Drive FC 202: 3.10
- VLT® AutomationDrive FC 301/FC 302 and VLT® Lift Drive LD 302: 8.03

1.3 Approvals and Certifications

	FCC ID: 2ANSELCP-103	

NOTICE

FCC COMPLIANCE NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by 1 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.
- Modifications: Any modifications made to this device that are not approved by Danfoss may void the authority granted to the user by the FCC to operate this equipment. **RF EXPOSURE COMPLIANCE** This portable transmitter with its antenna has shown compliance with FCC's SAR limits for general population/uncontrolled exposure. The maximum listed SAR level is 0.22 W/kg (body). The antenna used for this device must not be co-located or operating along with any other antenna or transmitter.

NOTICE

TAIWAN NCC WARNING STATEMENT

Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power, or alter original characteristics and performance to an approved low-power radio frequency device.

The low-power radio frequency devices shall not influence aircraft security and interfere legal communications. If found, the user shall cease operating immediately until no interference is achieved. The said legal communications, meaning radio communications, is operated in compliance with the Telecommunications Act. The low-power radio frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.



Danfoss A/S

DK-6430 Nordborg
Denmark
CVR nr.: 20 16 57 15

Telephone: +45 7488 2222
Fax: +45 7449 0949

EU DECLARATION OF CONFORMITY

Danfoss A/S
Danfoss Drives

declares under our sole responsibility that the **VLT Wireless Communication Panel LCP103**,

Typcodes: 134B0460

Covered by this declaration is in conformity with the following directive(s), standard(s) or other normative document(s), provided that the product is used in accordance with our instructions.

Radio Equipment Directive 2014/53/EU

EN50566 (2013)

Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz – 6 GHz)

EN62209-2 (2010)

Human exposure to radio frequency fields from handheld and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)

EN61326-1 (2013)

Electrical equipment for measurement, control and laboratory use – EMC requirements. Part 1: General requirements.

EN301489-1 (V2.1.1)

Electromagnetic Compatibility (EMC) standard for radio equipment and services. Part 1: Common technical requirements.

Date: 20/11 2017	Issued by Signature Name: Leo Birckjær Lauritsen Title: Head of P400 group	Date: 21/11 - 2017	Approved by Signature Name: Michael Termansen Title: VP, Design Center DK and DE
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Danfoss only vouches for the correctness of the English version of this declaration. In the event of the declaration being translated into any other language, the translator concerned shall be liable for the correctness of the translation.

Illustration 2: EU Declaration of Conformity for VLT® Wireless Communication Panel LCP 103, Page 1

EN301489-17 (V3.1.1)	Electromagnetic Compatibility (EMC) standard for radio equipment and services. Part 17: Specific conditions for broadband data transmission systems.
EN300328 (V2.1.1.1)	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques.
EN60950-1 (2005)+A1:2009 + A2:2013	Information technology equipment. Safety. General requirements.
RoHS Directive 2011/65/EU EN50581: 2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Illustration 3: EU Declaration of Conformity for VLT® Wireless Communication Panel LCP 103, Page 2

2 Installation

2.1 Installing the Communication Panel

Context:

NOTICE

The VLT® Wireless Communication Panel LCP 103 is hot-pluggable and can be connected when the drive is powered on.

NOTICE

PAIRING

Start pairing within the first 10 minutes after the installation. Failing to do so closes the broadcast or wireless identification due to security limits with default passwords. To reconnect, power cycle the drive, or remove and reconnect the LCP 103.

Procedure

1. Mount the LCP 103 in the LCP input plug on the drive.
2. Search for *MyDrive® Connect* in Google Play or Apple Store.

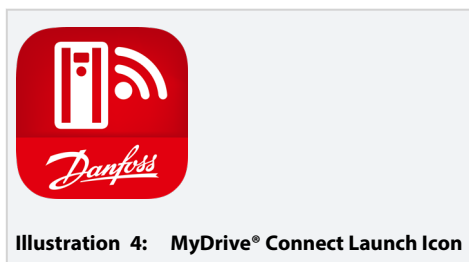


Illustration 4: MyDrive® Connect Launch Icon

3. Download and install the MyDrive® Connect App.

2.2 Connecting the Communication Panel

Context:

NOTICE

The wireless SSID is the Danfoss serial ID of the drive. For example, Danfoss_019223G455 is the default wireless SSID for a drive with the serial number 019223G455. The serial number is on the product nameplate, but is also visible in *parameter 15-51 Frequency Converter Serial Number*.

Wireless SSID	Danfoss_019223G455
Default password	Danfoss1933

Procedure

1. Open the app and establish the Wi-Fi connection, see [table 1](#) for descriptions of the white Wi-Fi LED.
2. When prompted, change the default password due to security restrictions. The password must be at least 8 and maximum 48 characters.
3. Replug the VLT® Wireless Communication Panel LCP 103 for the password to take effect. Failing to do so, allows the LCP 103 to keep broadcasting.
4. Disconnect the app, navigate to smart device settings, and forget the network.
5. Search for the wireless network and connect with the new password.

NOTICE

If the password is not changed, it leaves only 10 minutes for connecting and performing drive operations. After this, the wireless connection closes.

If the wireless SSID and password are forgotten, reset the password by accessing *parameter group 30-9* Wifi LCP via MCT 10 Set-up Software or LCP 102*.

2.3 LED Pattern

Table 1: Descriptions, LED Indicators

LED	Pattern	Description
On	Solid green	The drive is powered on (normal operation).
Wi-Fi	Flashing white	Connection pairing successful.
	Solid white	The smart device is connected and communication is OK.
Alarm	Flashing red	An alarm has occurred.
Warn	Solid yellow	A warning has occurred.
MS, NS1, NS2 ⁽¹⁾	Flashing orange	Identification of the drive when initiated through a winking command
	Flashing, then solid orange	Incompatible drive (LED flashes 3 times and then remains on).

¹ MS=module status, NS1=network status, NS2=network status 2.

2.4 Safe Control

The safe control parameter allows the drive to decide the motor behavior if the smart device, for example a tablet, communication is lost. If the limits are set to *[1] Stop motor*, the motor stops. If the limits are set to *[0] Do nothing*, the motor continues to run. This is only applicable when the motor is in Run state and if the motor has been started from the app.

The communication happens between the MyDrive® Connect App and the VLT® Wireless Communication LCP 103.

Parameter	Limits/options
<i>Parameter 30-97 Wifi Timeout Action</i>	<i>[0] Do nothing</i> <i>[1] Stop motor</i>

2.5 Specifications

Standards	IEEE 802.11 b/g
Frequency range	2.4~2.4835 GHz
Antenna	PCB-mounted chip antenna
Security	WPA2
Operating temperature	-25 °C to +50 °C (-13 °F to +122 °F)
Operating humidity	5–95% RH, non-condensing
Operating mode	Access point
Ingress protection	IP20 (IP55 with gasket)
Electrical rating	5 V, 250 mA
Internal memory size	14 MB
Dimensions (LxWxD) [mm (in)]	131.2x66.6x23 (5.1x2.6x0.9)
Weight [g (oz)]	85.3 (2.88)
Firmware update	VLT® Motion Control Tool MCT 10 software version 4.10 or higher.

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Danfoss A/S
 Ulsnaes 1
 DK-6300 Graasten
vlt-drives.danfoss.com

