

Dantherm Vent -R
VLT Micro drive converter
Replacement instruction
Rev. 1.0 · English

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Sparepart instruction – Danfoss VLT Micro drive

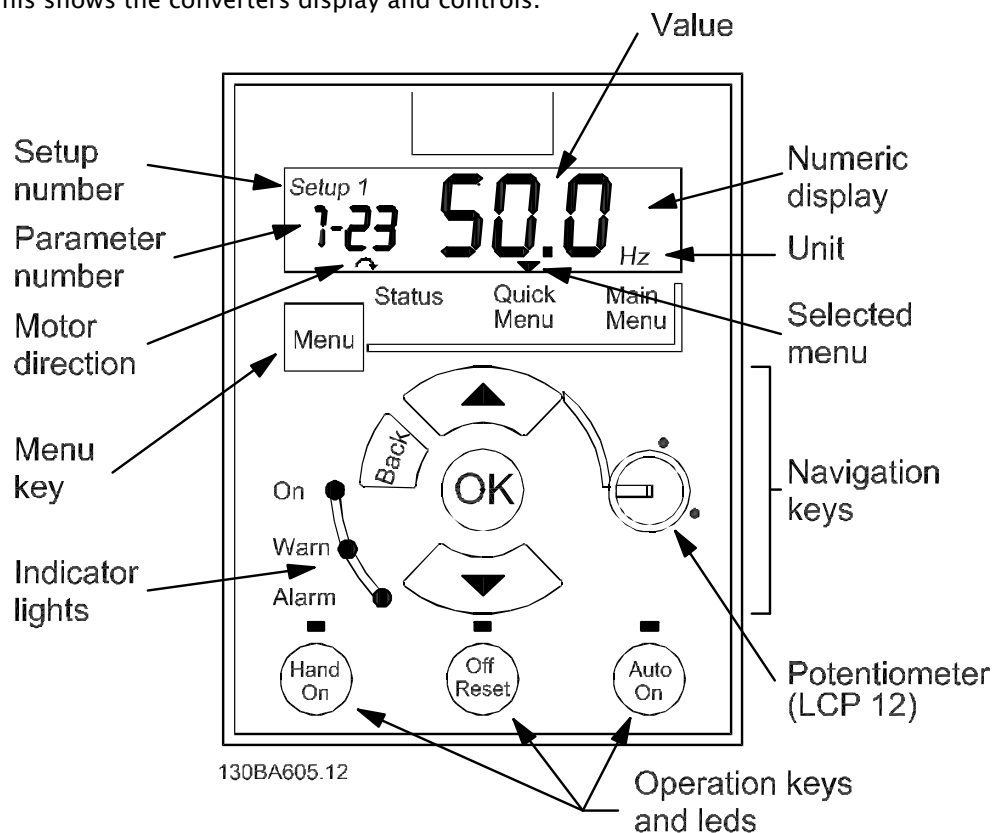
Introduction This instruction 055779 covers the parameter settings if exchanging the Danfoss VLT micro Drive frequency converter built into the Dantherm Vent-R unit

Connecting The spare part delivery from Dantherm includes the original Danfoss guide, that shows in details how to connect the Danfoss VLT unit.
If you for some reason is missing this manual, it can be downloaded at www.danfoss.com

Warning Never do any maintenance and/or repair job with the power connected to the unit.

The Danfoss Microdrive unit

Illustration, controls This shows the converters display and controls.



Control overview

Menu system

Use the [**Menu**] key to select one of the following menus:

- **Status** – for readouts only.
- **Quick Menu** – for access to Quick Menus 1 and 2, respectively.
- **Main Menu** – for access to all parameters.

Navigation keys

- [**Back**]: For moving to the previous step or layer in the navigation structure.
- [**▲**] [**▼**]: For stepping between parameter, groups, and within parameters.
- [**OK**]: For selecting a parameter and for accepting changes to parameter settings.
- Pressing [**OK**] for more than 1 s enters 'Adjust' mode. In 'Adjust' mode, it is possible to make fast adjustment by pressing [**▲**] [**▼**] combined with [**OK**]. Press [**▲**] [**▼**] to change value. Press [**OK**] to shift between digits quickly. To exit 'Adjust' mode, press [**OK**] more than 1 s again with changes saving or press
- [**Back**] without changes saving.

Continued overleaf

The Danfoss Microdrive unit, *continued*

Control overview, *continued*

Operation Keys

A yellow light above the operation keys indicates the active key.

- **[Hand on]**: Starts the motor and enables control of the frequency converter via the .
 - **[Off/Reset]**: The motor stops except in alarm mode. In that case the motor will be reset.
 - **[Auto on]**: The frequency converter is controlled either via control terminals or serial communication.
 - **[Potentiometer]** (LCP12):
The potentiometer works in two ways depending on the mode in which the frequency converter is running.
 - In Auto Mode the potentiometer acts as an extra programmable analog input.
 - In Hand on Mode the potentiometer controls local reference.
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Setting up Dantherm parameters

- Initial adjustment** After installation the VLT needs to perform a AMT process (automatic motor tuning) prior to setting the parameters
- Put the Vent-R function switch to **OFF**
 - Press **MENU** several times until "**MAIN Menu**" is active
 - Select parameter **1-29**, and set parameter to **2**, followed by **Hand On** key
 - The VLT performs over some seconds an automatic tuning. Press **OK** when asked for it.
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- Adjusting the parameters** Please follow the below this "step by step" guide to adjust all Dantherm parameters:
1. Select main menu, by pressing **Menu** until **Main menu** is active
 2. Use [**▲**] [**▼**] to highlight parameter group to be adjusted, and press [**OK**]
 3. Use [**▲**] [**▼**] to highlight individual parameter to be adjusted, and press [**OK**]
 4. Use [**▲**] [**▼**] to adjust the individual parameter value according to the table below, and press [**OK**] to store the new Dantherm value
- Repeat the above steps until all parameters is set according to the table below
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Parameters to be adjusted The below shown parameters is to be corrected in order to obtain correct Dantherm functionality

Parameter	Dantherm setting	Note	Default setting
1-20	0,09	kW	0,18
1-24	0,8	Amp.	1,04
1-25	1370	Rpm	1400
1-60	140 %	Low speed load compensation	100 %
3-02	5		0,000
3-03	100		50,0
3-41	10	Ramp up time 1	3
3-42	10	Ramp down time 1	3
4-12	5	Motor speed low limit (Hz)	0
4-14	100	Motor speed high limit (Hz)	65
4-16	250 %	Torque limit	150 %
5-11	11	Start reversing	10
5-40	9	An activate alarm output	0
6-15	100	High ref.	50

- Resetting to default** If any doubt about what parameters is corrected, or if its correct, the VLT can be reset to default value by:
1. Set parameter 14-22 to value **2**
 2. Disconnect power to the unit
 3. Re-connect power, and the unit will reset when powering up
 4. Follow this guide once again, to correct the appropriate parameters
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