



# Danfoss VACON 100 X Heater Instruction Manual

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# Danfoss

**Danfoss VACON 100 X Heater**



## Specifications

<b>Document code</b>	DPD01097C
<b>Supply voltage input terminals</b>	1AC 230V 50Hz 60 Hz 900 mA
<b>Tolerance</b>	208V -15%... 250V +10%
<b>Switching capacity</b>	X1 Feedback relay output 24VDC / 3A, 250VAC /3A

## Product Usage Instructions

### Safety

This manual contains important safety information to ensure your personal safety and prevent any unintentional damage to the product or connected appliances. Please read the following information carefully:

### Dangers

**Table 1. Dangers**

The components of the optional heater are live when the element is connected to mains potential. Coming into contact with this voltage is extremely dangerous and may cause death or severe injury.

## Mounting Instructions: MM4 Example

Follow the steps below to mount the optional heater:

1. **Step 1:** Remove the cable entry plate (right side example).
2. **Step 2:** Remove the powerhead from the terminal box.
3. **Step 3:** Connect the supply voltage (black cable) and the output relay (red cable) to the optional heater through the bottom cable entry plate. Colors of the cables are only examples.
4. **Step 4:** Mount the optional heater on the terminal box and then close the powerhead.

## FAQ

- **Q: What is the supply voltage for the heater?**

A: The supply voltage for the heater is 1AC 230V 50Hz 60 Hz.

- **Q: What is the recommended fuse rating for the heater supply voltage?**

A: The recommended fuse types for the heater supply voltage are as follows:

Fuses for heater supply voltage input – 230VAC	Rating
gG/gL (IEC 60269-1) 500V	1A
class T (UL & CSA) 600V	1A
class J (UL & CSA) 600V	1A

## VACON® 100 X – HEATER (ARCTIC OPTION)

**Document code:** DPD01097C

### Safety

This manual contains clearly marked cautions and warnings which are intended for your personal safety and to avoid any unintentional damage to the product or connected appliances.

Please read the information included in dangers carefully.

The optional heater allows the drive to operate in low-temperature conditions down to -40°C. This option is intended to be installed inside the drive.

Only VACON® authorized, trained and qualified personnel are allowed to install and maintain this component.

### Dangers

**Table 1. Dangers**



The components of the optional heater are live when the element is connected to mains potential. Coming into contact with this voltage is extremely dangerous and may cause death or severe injury.



The heater can be used only inside the drive and in combination with only the VACON® 100 X. Before connecting the heater to mains, make sure that the VACON® 100 X drive is closed firmly.

### Technical data

The optional heater has to be supplied with single-phase 230V. The thermal element is always supplied and if the drive is connected at -40°C the drive will be heated up until the temperature of -10°C is exceeded. The heating is temperature-controlled and an internal fan ensures that the air is equally distributed inside the enclosure. The integrated relay output (switching capacity: 24VDC / 3A, 277VAC / 3A) can be used to control the power-up of the drive. The contact is closed when the internal temperature is higher than the minimum allowed value for the power-up (~ -10°C). This can be included and managed in the logic of the entire system. A bi-color LED (on the enclosure of this option), shows the status of the drive, ready or not-ready.

**Table 2. Technical information on input and relay terminals.**

Heater connections		
Terminal	Signal	Technical information
<b>L1</b>	Line	Supply voltage input terminals: 1AC 230V 50Hz 60 Hz 900 mA Tolerance: 208V -15%... 250V +10% External fuse needed: <ul style="list-style-type: none"> <li>• class T ( UL&amp; CSA) min. 300V</li> <li>• class J ( UL&amp; CSA) min. 300V</li> </ul>
<b>N</b>	Neutral	

Heater connections		
Terminal	Signal	Technical information
<b>X1</b>	Feedback relay output	Switching capacity: 24VDC / 3A 250VAC /3A

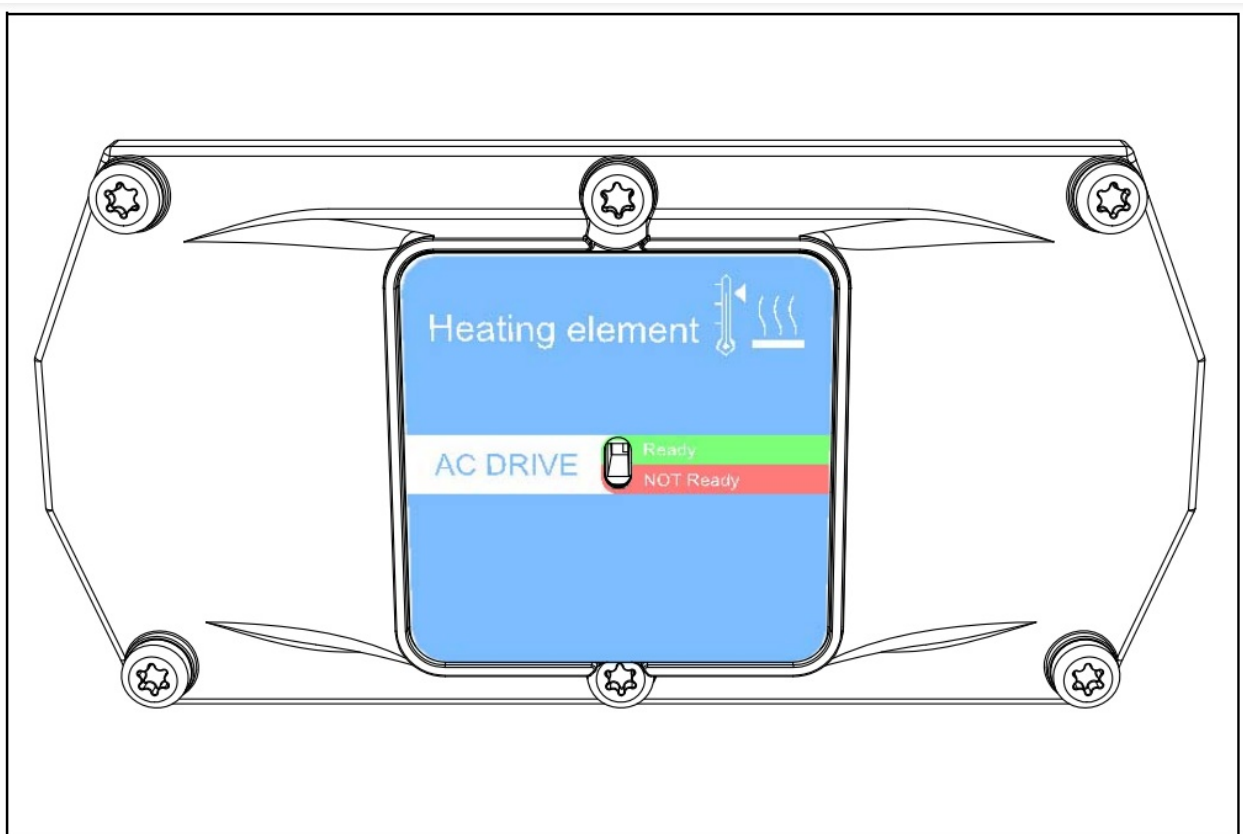
#### Fuses

The recommended fuse types for the heater supply voltage are shown in the table below.

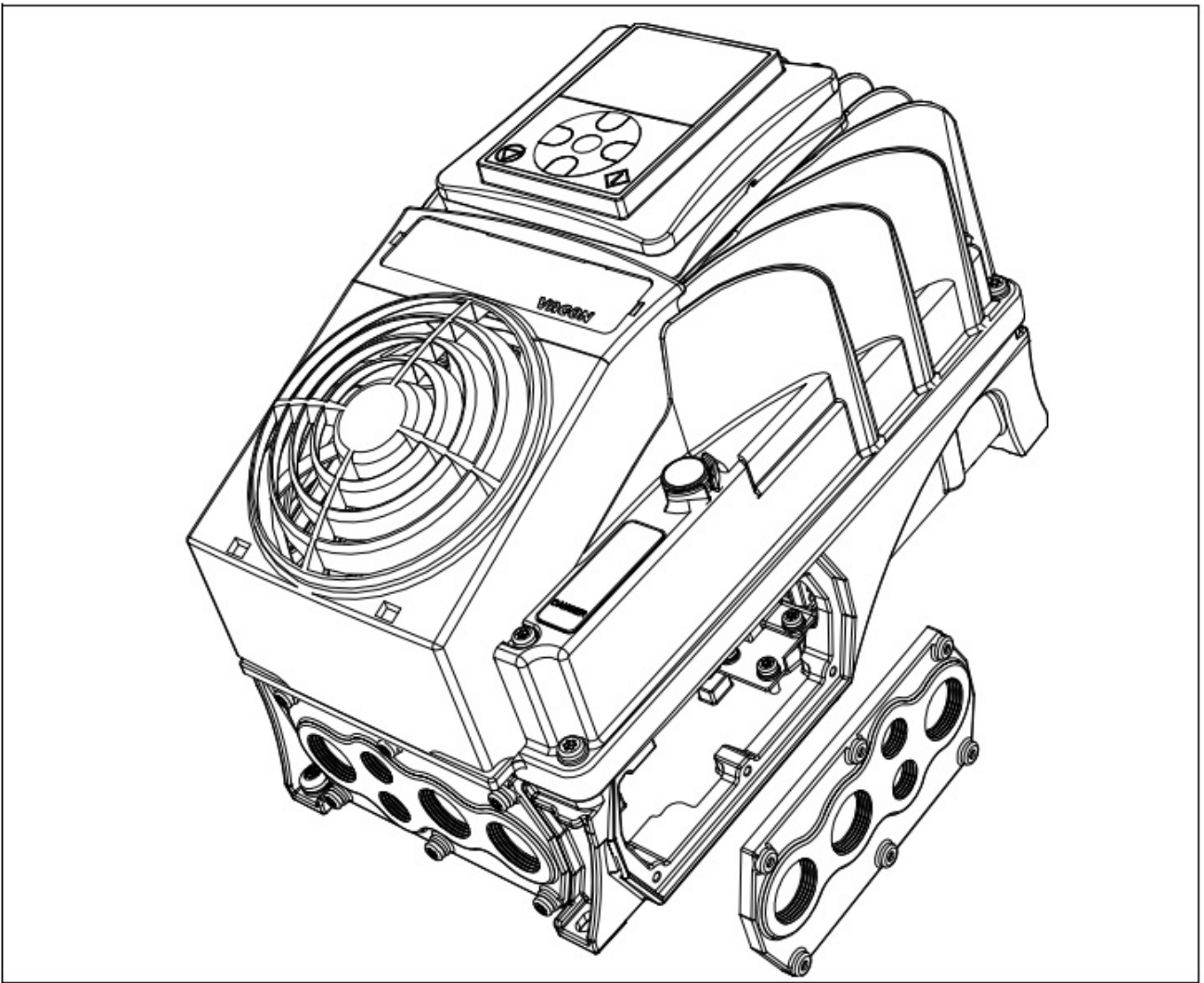
**Table 3. Fuses ratings.**

Fuses for heater supply voltage input - 230VAC		
gG/gL (IEC 60269-1) 500V	class T ( UL& CSA) 600V	class J ( UL& CSA) 600V
1A	1A	1A

**Mounting instructions: MM4 Example**



*Figure 1. Heater option for MM4.*



*Figure 2. Remove the cable entry plate (right side example).*



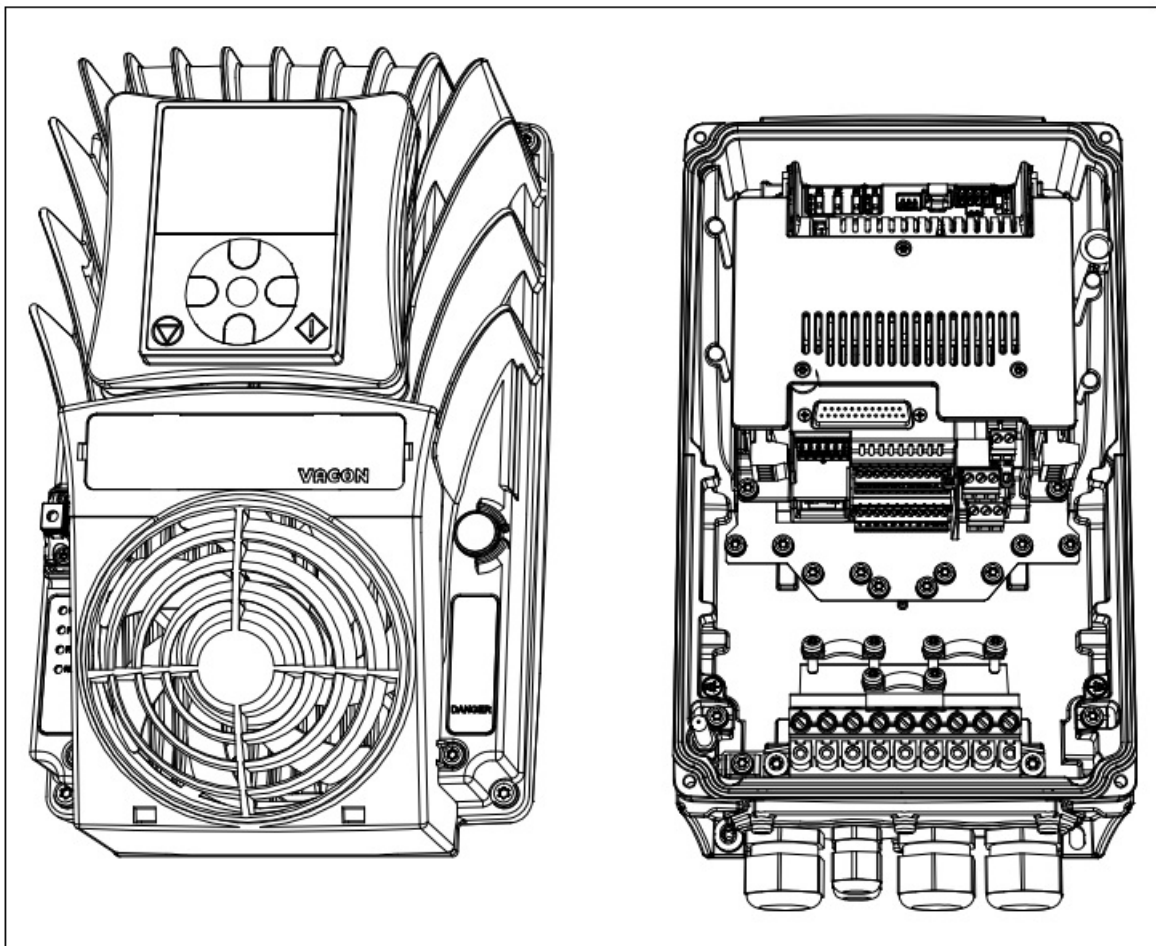


Figure 3. Remove the powerhead from the terminal box.

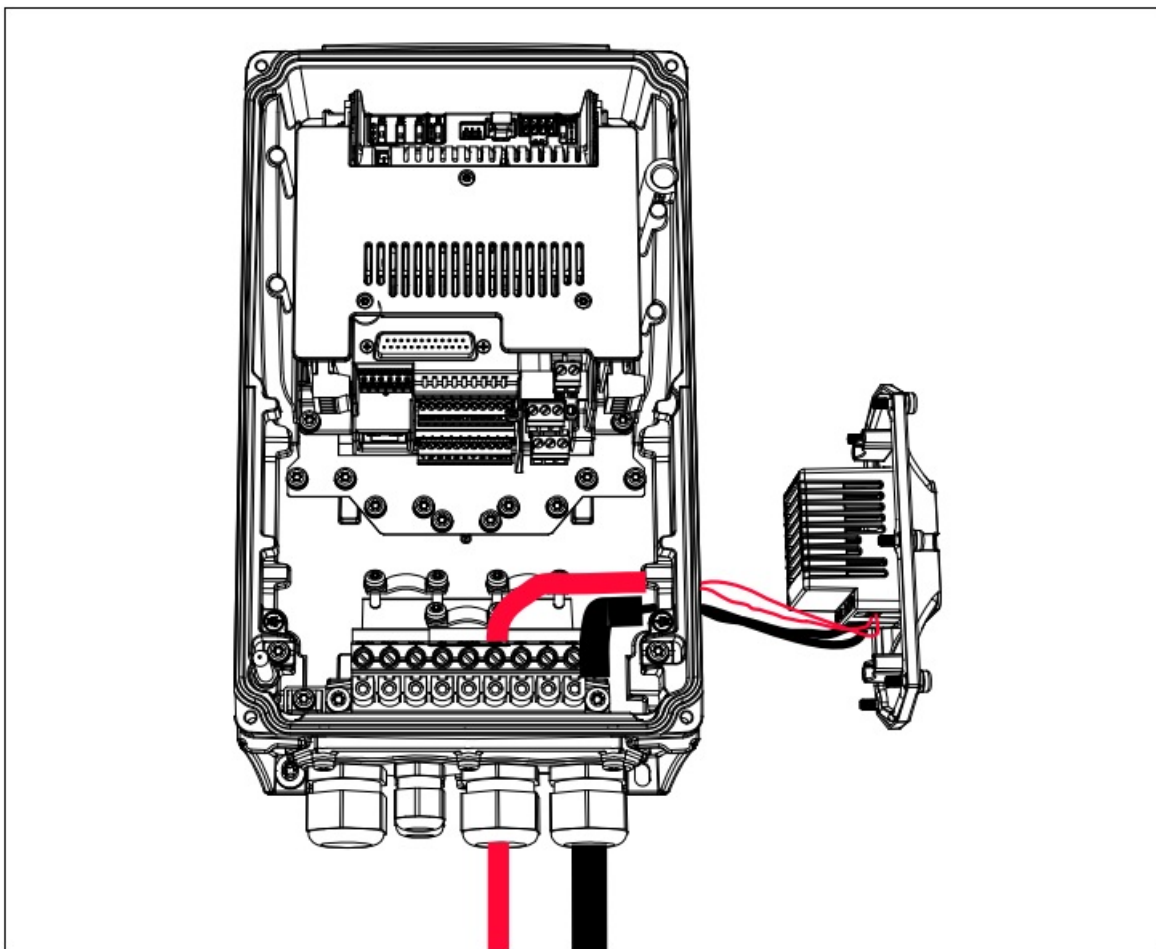


Figure 4. Connect the supply voltage (black cable) and the output relay (red cable) to the optional heater through

the bottom cable entry plate. Colors of the cables are only examples.

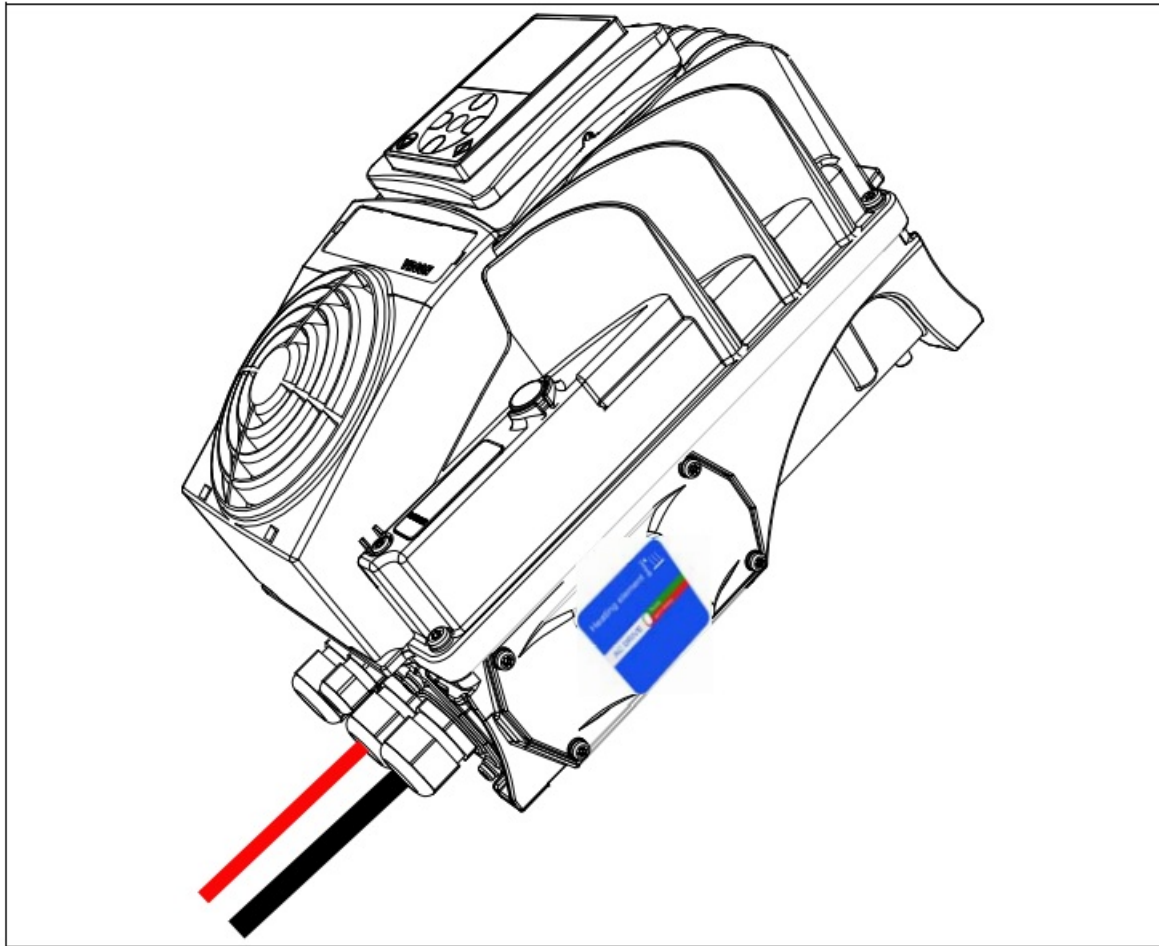
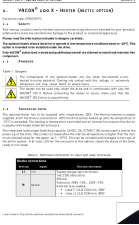


Figure 5. Mount the optional heater on the terminal box and then close the powerhead.

Local contacts: <http://drives.danfoss.com/danfoss-drives/local-contacts/>

## Documents / Resources

	<p><a href="#">Danfoss VACON 100 X Heater</a> [pdf] Instruction Manual VACON 100 X Heater, VACON 100 X, Heater</p>
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## References

- [Contacts list | Danfoss](#)
- [User Manual](#)



