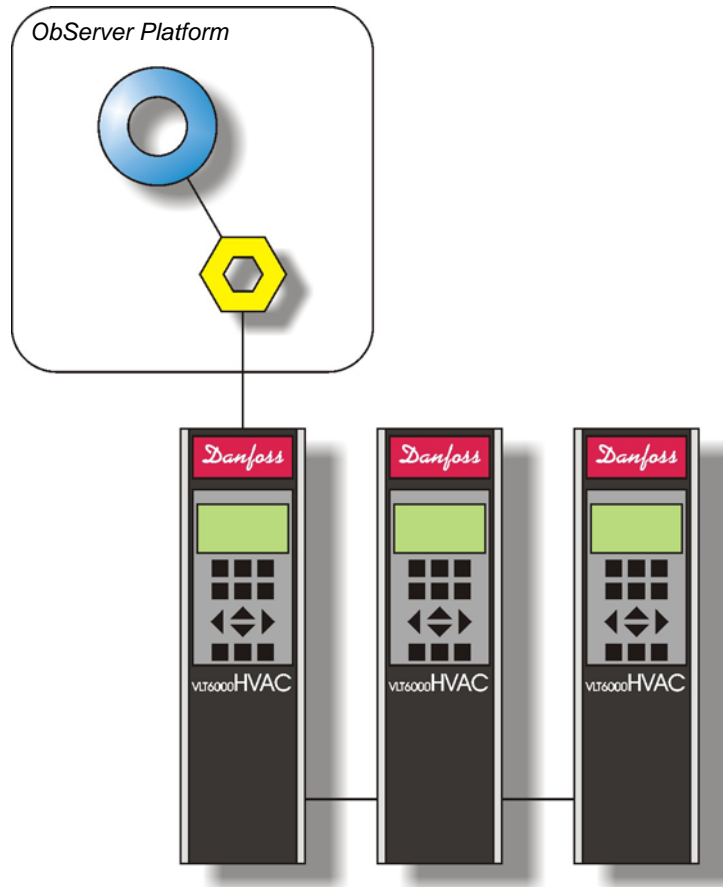


Product Engineering Guide

OSM v20 DanVLT60 v10

Introduction

The DanVLT60 OSM links a network of Danfoss VLT 6000 frequency converters to ObServer. Up to 32 frequency converters can be accessed from a single OSM. The VLT 6000 HVAC (Heating Ventilation Air-Conditioning) frequency converters are used, typically, to control fans and pumps that can regulate the flow or pressure in a system. The DanVLT60 OSM can be used to control the operation of the frequency converters as well as get back readings.



Supported Range

- Danfoss VLT 6000 series – There are several in this series, the differences regarding the shaft output power size and mains voltage. At time of writing they ranged from the 6002 (power size 1.1kW, mains voltage 3 x 200-240V) to the 6275 (power size 200/250kW, mains voltage 3 x 380-460V).

Notes

The Danfoss system does not report alarms to ObServer. If alarms are needed then an AlarmGen device will be required.

The Danfoss system does not provide logging facilities to ObServer. If logging of values is needed then a Data Manager will be required.

Engineering

Step 1 – Install OSM

The DanVLT60 OSM is installed automatically with all ObSys editions. Refer to the 'ObSys CD sleeve' for details on how to install ObSys.

Step 2 – Configure Danfoss System

The Danfoss controller should have parameters 500...502 set to determine the unit's address and baud rate. Each controller should have a unique address and the same baudrate.

Step 3 – Connect COM Port to Danfoss System

Using cable, connect the Danfoss network to a COM port of the PC. Refer to the section 'Cable' below for details of the cable.

Step 4 – Plug in DanVLT60 OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the DanVLT60 OSM to an available channel. Refer to '[ObServer v20 Application Engineering Guide](#)'.

Note: After inserting the OSM, your engineering software may need to re-scan the ObServer object in order to view the OSM.

Step 5 – Configure DanVLT60 OSM

The COM port, baudrate, alarm polling facilities, and alarm destination are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

Step 6 – Access Objects within the Danfoss System

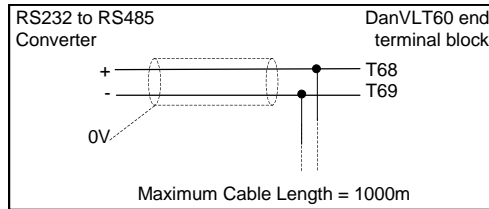
Values from the Danfoss system are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

Engineering Reference

Cable Specification

The Danfoss network is connected to ObServer using a RS232 to RS485 converter. The COM port is connected to the converter, which is then connected to the power meter. The earthing screen or braid of the RS485 cable should be connected **as close as possible** to the 0V terminal at one end only. **Do not connect the earthing braid of a single cable run to more than one unit, be it converter or device.**

The cable between COM port and the Danfoss network is as follows:



Objects

When the OSM is loaded the following objects are created within ObServer, use object software to access these objects.

Object ^[1]	Label	R/W	Type
Sc	Danfoss System connected to channel c	-	[DanVLT v10] ^[2]
Mc	DanVLT60 Module connected to channel c	-	[OSM v20\DanVLT60 v10]

Notes

- [1] The ObServer channel number, c, is a number in the range 1...40.
- [2] This object has a variable content and as such requires scanning.