

# Compact VLT® quality

VLT® Micro Drive is a genuine VLT® frequency converter with unsurpassed reliability, user-friendliness, condensed functionality, and is extremely easy to commission. Terminal numbers are named in the same manner as in the rest of the VLT® family.

## Reliable and user friendly

The VLT® Micro Drive is a full member of the VLT® family, sharing the overall quality of design, reliability and user-friendliness.

## Small drive – big performance

Despite the compact size and the easy commissioning, a VLT® Micro Drive can be set up to perform perfectly, even in complex application set-ups. Approximately 100 parameters can be set to optimize energy efficiency and operation.

### User friendly

Plug-and-play	Minimum effort – minimum time
Minimum commissioning	Save time
Copy settings via local control panel	Easy set up of multiple drives
Intuitive parameter structure	Minimal manual reading
Complies with VLT® software	Save commissioning time

### Reliable

Optimum heat dissipation	Longer lifetime
High quality electronics/capacitors	Low lifetime cost
All drives full load tested from factory	High reliability
Earth fault, temperature and short circuit protection	Lean operation
Circuit boards well protected and coated	Increased robustness

### Small drive – high performance

Process PI-controller	No need for external controller
Automatic Energy Optimizer (AEO)	Less energy consumption
Automatic Motor Tuning (AMT)	Exploit motor's full potential
150% motor torque up to 1 minute	Replace need for bigger drive
Flying start (catch a spinning motor)	Lean operation – more up-time
Electronic Thermal relay (ETR)	Replace external motor protection
Smart Logic Controller	Often makes PLC ommissible
Built-in RFI filter	Save cost and space

## In- and outputs

- 5 programmable digital inputs
- PNP/NPN selection
- Pulse input 20 – 5000 Hz
- 1 analogue input  
0 – 10 V or 0 – 20 mA
- 1 analogue input 0 – 20 mA
- Thermistor input  
(analogue/digital)
- 1 analogue output 0 – 20 mA
- 1 relay 240 V AC, 2 A
- RS485 FC-bus
- Modbus RTU

## Compact general purpose drive

The VLT® Micro Drive is a general purpose drive that can control AC motors up to 22 kW.



# Compact design – Uncompromised quality

## Space saving

A compact, book-style design allows side-by-side mounting without derating.

## Minimum penetration of dust

VLT® Micro Drives are designed to keep the forced ventilation away from the electronics. Printed circuit boards are well protected inside the drive.

## Built-in RFI

Radio disturbance from motor cables is limited with the built-in RFI filter, which allows for 15 m motor cables (screened). Meets EU norms.

## Built-in brake functions

With built in DC and AC brake functions, VLT® Micro Drive can transform kinetic energy in the

application into braking power to slow down the motor. A brake chopper is built in the drives from 1.5 kW upwards.

## Intelligent heat management

Process heat is removed through the heat sink, leaving electronics protected from dust and dirt from production.

## Coated electronics are standard

All VLT® Micro Drives use coated electronics for longer lifetime and reliability.

## Effective heat sink

An effective heat sink removes heat from the electronics and extends the lifetime and reliability of the drive.

## Energy efficiency 98%

High quality VLT® power modules ensure cool running of the drive due to low losses.

## 50° ambient temperature

Highly efficient cooling allows up to 50° ambient temperature.



# Hot pluggable display – with or without potentiometer

Remote mountable

Illuminated LCD display

Navigation buttons

Indicators  
Operation buttons



Two control panel versions. Potentiometer is optional.

The control panels are shown in actual size.  
H x W x D = 85 x 65 x 20 mm (D = 28 mm with potentiometer)

- LCP without potentiometer IP 54
- LCP with potentiometer IP 21
- Remote mounting kit
- LCP copy function
- Parameter numbers and values visible simultaneously
- Unit indications (A., V, Hz, RPM, %, s, HP and kW)
- Rotation direction indication
- Setup indication – 2 setups
- Removable during operation
- Up- and download functionality

## Large figures, easy to read

- Display readable from distance
- Operation buttons are illuminated when active

## Quick Menus

- A Danfoss defined Quick Menu
- Basic settings
- PI controller

## Menu structure

- Based on the well-known matrix from the VLT® family
- Easy shortcut for the experienced user
- Edit and operate in different set-ups simultaneously