



VLT® Micro Drive

The compact general purpose drive

The VLT® Micro Drive is a general purpose drive that can control AC motors up to 22 kW. It's a small drive with maximum strength and reliability.

RoHS compliant

The VLT® Micro Drive is manufactured with respect for the environment, and it complies with the RoHS Directive.

The perfect match for:

- Industrial appliances
- HVAC applications
- OEM

Power range:

1 phase 200–240 V AC: 0.18–2.2 kW
 3 phase 200–240 V AC: 0.25–3.7 kW
 3 phase 380–480 V AC: 0.37–22 kW



Features	Benefits
User friendly	
<ul style="list-style-type: none"> • Minimum commissioning • Mount – connect – go! • Copy settings via local control panel • Intuitive parameter structure • Complies with VLT® software • Self-protecting features • Process PI-controller • Automatic Motor Adaptation (AMA) 	<ul style="list-style-type: none"> • Saves time • Minimum effort - minimum time • Easy programming of multiple drives • Minimal manual reading • Saves commissioning time • Lean operation • No need for external controller • Exploits motor's full potential
<ul style="list-style-type: none"> • 150% motor torque up to 1 minute • Flying start (catch a spinning motor) • Electronic Thermal Relay (ETR) • Precise stop function • Smart Logic Controller • Built-in RFI filter 	<ul style="list-style-type: none"> • Plenty of brake-away and acceleration torque • Doesn't trip when started on a spinning (freewheeling) motor • Replaces external motor protection • Lean production – more up-time • Often makes PLC unnecessary • Saves cost and space
Energy saving	
<ul style="list-style-type: none"> • Energy efficiency 98 % • Automatic Energy Optimisation (AEO) 	<ul style="list-style-type: none"> • Less operation cost • Minimises heat loss • Saves 5-15% energy in HVAC applications
Reliable	
<ul style="list-style-type: none"> • Earth fault protection • Over temperature protection • Short circuit protection • Optimum heat dissipation • High quality electronics • High quality capacitors • All drives full load tested from factory • Dust resistant • Tight enclosure • RoHS compliant • Designed for WEEE 	<ul style="list-style-type: none"> • Maximum uptime • Protects the drive • Protects the motor and drive • Protects the drive • Longer lifetime • Low lifetime cost • Tolerates uneven mains supply • High reliability • Optimised productivity • Increased lifetime • Protects the environment • Protects the environment

Coated PCB standard
For harsh environments.

Power options

Danfoss Drives offers a range of external power options for use together with our drives in critical networks or applications.

PC software

- **MCT 10**
 - Ideal for commissioning and servicing the drive including guided programming of cascade controller, real-time clock, smart logic controller and preventive maintenance.
- **VLT® Energy Box**
 - Comprehensive energy analysis tool, shows the drive payback time.
- **MCT 31**
 - Harmonics calculations tool.



Cabinet sizes
(mounting flange included)

[mm]	M1	M2	M3	M4	M5
Height	150	176	239	292	335
Width	70	75	90	125	165
Depth	148	168	194	241	248

+ 6 mm with potentiometer

Specifications

Mains supply (L1, L2, L3)	
Supply voltage	1 x 200–240 V ± 10%, 3 x 200–240 V ± 10% 3 x 380–480 V ± 10%
Supply frequency	50/60 Hz
Displacement Power Factor (cos φ) near unity	(> 0.98)
Switching on input supply L1, L2, L3	1–2 times/min.
Output data (U, V, W)	
Output voltage	0–100% of supply voltage
Output frequency	0–200 Hz (VVC+ mode), 0–400 Hz (U/f mode)
Switching on output	Unlimited
Ramp times	0.05–3600 sec
Digital inputs	
Programmable inputs	5
Logic	PNP or NPN
Voltage level	0–24 V
Pulse inputs	
Programmable pulse inputs	1*
Voltage level	0–24 V DC (PNP positive logic)
Pulse input frequency	20–5000 Hz
* One of the digital inputs can be used for pulse inputs.	
Analog input	
Analog inputs	2
Modes	1 current/1 voltage or current
Voltage level	0–10 V (scaleable)
Current level	0/4–20 mA (scaleable)
Analog output	
Programmable analog outputs	1
Current range at analog output	0/4–20 mA
Relay outputs	
Programmable relay outputs	1 (240 VAC, 2 A)
Approvals	
CE, C-tick, UL	
Fieldbus communication	
FC Protocol, Modbus RTU	

Ordering numbers

Power [kW]	Current [I-nom.]	200 V		400 V	
		1 ph.	3 ph.	Current [I-nom.]	3 ph.
0.18	1.2	132F 0001			
0.25	1.5		132F 0008		
0.37	2.2	132F 0002	132F 0009	1.2	132F 0017
0.75	4.2	132F 0003	132F 0010	2.2	132F 0018
1.5	6.8	132F 0005	132F 0012	3.7	132F 0020
2.2	9.6	132F 0007	132F 0014	5.3	132F 0022
3.0				7.2	132F 0024
3.7	15.2		132F 0016		
4.0				9.0	132F 0026
5.5				12.0	132F 0028
7.5				15.5	132F 0030
11.0				23.0	132F 0058
15.0				31.0	132F 0059
18.5				37.0	132F 0060
22.0				43.0	132F 0061

Micro drives from 1.5 kW and up have built in brake chopper

VLT® Control panel LCP 11 Without potentiometer: 132B0100
VLT® Control panel LCP 12 With potentiometer: 132B0101