

Product SPECIFICATION SHEET

3PH IN / 3PH OUT

VLT® Micro 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.



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

Due to high quality components and genuine VLT® solutions, VLT® Micro Drive is extremely reliable.

RoHS compliant

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

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

Perfect

match for:

- Industrial appliances
- HVAC applications
- OEM

BRANCH CONTACT DETAILS

Johannesburg	010 202 3300
Germiston	011 418 9600
Cape Town	021 510 0710
Pinetown	031 700 4215
Riverhorse	031 492 4800

NATIONAL CALL CENTRE

Sales	010 202 3400
Technical	010 202 3500

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Feature	Benefit
User-friendly	
Minimum commissioning	Saves time
Mount – connect – go!	Minimum effort – minimum time
Copy settings via local control panel	Easy programming of multiple drives
Intuitive parameter structure	Minimal manual reading
Complies with VLT® software	Saves commissioning time
Self-protecting features	Lean operation
Process PI-controller	No need for external controller
Automatic Motor Tuning	Ensures optimal match between drive and motor
150% motor torque up to 1 minute	Plenty of brake-away and acceleration torque
Flying start (catch a spinning motor)	Doesn't trip when started on a spinning (freewheeling) motor
Electronic Thermal Relay (ETR)	Replaces external motor protection
Smart Logic Controller	Often makes PLC unnecessary
Built-in RFI filter	Saves cost and space
Energy saving	
Energy efficiency 98 %	Minimises heat loss
Automatic Energy Optimisation (AEO)	Saves 5–15% energy in HVAC applications
Reliable	
Maximum uptime	
Earth fault protection	Protects the drive
Over temperature protection	Protects the motor and drive
Short circuit protection	Protects the drive
Optimum heat dissipation	Longer lifetime
Unique cooling concept with no forced air flow over electronics	Problem-free operation in harsh environments
High quality electronics	Low lifetime cost
High quality capacitors	Tolerates uneven mains supply
All drives full load tested from factory	High reliability
Dust resistant	Increased lifetime
RoHS compliant	Protects the environment
Designed for WEEE	Protects the environment

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Coated PCB standard

For harsh environments.

Power options

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

- **VLT® Advanced Harmonic Filter:**
For applications where reducing harmonic distortion is critical.

PC software tools

- **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.

Specifications

Mains supply (L1, L2, L3)

Supply voltage	1 x 200–240 V $\pm$ 10%, 3 x 200–240 V $\pm$ 10% 3 x 380–480 V $\pm$ 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 digital inputs	5
Logic	PNP or NPN
Voltage level	0–24 VDC

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.

Analogue input

Analogue inputs	2
Modes	1 current/1 voltage or current
Voltage level	0–10 V (scaleable)
Current level	0/4 to 20 mA (scaleable)

Analogue output

Programmable analogue outputs	1
Current range at analogue output	0/4–20 mA

Relay outputs

Programmable relay outputs	1 (240 VAC, 2 A)
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Approvals

CE, C-tick, UL

Fieldbus communication

FC Protocol, Modbus RTU

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Cabinet sizes

(mounting flange incl.)

[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

Ordering numbers

Power [kW]	200 V			400 V	
	Current [I-nom.]	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	Micro Drives from 1.5 kW and up have built-in brake chopper			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

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

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