

VLT® Decentral Drive FCD 302

The VLT® Decentral Drive FCD 302 is the new generation of the VLT® Decentral Drive FCD 300, based on the VLT® AutomationDrive FC 302 platform. Combining the key features of both products in a completely re-designed enclosure, the drive is made for the best fit for direct machine mounting.



Designed for simplicity and robustness the new VLT® Decentral Drive FCD 302 is a user-friendly product with high performance and strong protection degree.

Decentral drives are meant for decentral mounting, eliminating the need for space-consuming control cabinets. With the drives placed near the motor, there is no need for long screened motor cables.

One-box concept

All options are built into the unit, reducing the number of boxes

to be mounted, connections and terminations in the installation. Consequently labor costs for mounting and risk of failures are dramatically reduced.

Power range

0.37 – 3 kW, 3 x 380 – 480 V

Enclosure

- IP 66 standard black
 - IP 66 standard white
 - IP 66 hygienic white
- (all enclosures are rated as NEMA 4X)

IP 66

enclosure for conveyor applications, installations in wash-down areas or widely distributed applications with a large number of drives

Feature	Benefit
Reliable	Maximum uptime
Pluggable twin-part design (installation box and electronic part)	Easy and fast service
Integrated lockable service switch available	Local disconnection possible
User-friendly	Saves commissioning and operation cost
Smooth surface	Easy cleaning; no dirt trap
Adapts to any brand of motor and geared motor, induction as well as permanent magnet motors	Easy and flexible installation
Integrated power and fieldbus looping terminals	Cable savings
Visible LEDs	Quick status check
Set-up and control through pluggable control panel, fieldbus communication and set-up software VLT® Motion Control Tool MCT 10	Easy commissioning
Awarded control panel with on-board manual (accessory)	Easy operation
Screwless spring-loaded terminals	Easy and fast connection
Integrated USB port	Direct connection to PC
Intelligent	Built-in feature
Smart Logic Control	Reduces need for PLC capacity
Safe Torque Off (Safe Stop) as standard	Reduces the need for extra components
Intelligent warning systems	Warning before controlled stop

Integrated 24 V supply

24 V DC control supply is provided by the drive. Separate supply terminals have been made for remote I/Os distribution.

Power looping

The new FCD 302 facilitates internal power looping. Terminals for 6 mm² (big box) or 4 mm² (small box) power cable inside the enclosure allows connection of multiple units in the same branch.

Ethernet switch

Integrated Ethernet switch/ hub with the two RJ-45 ports are available in the drive for easy daisy-chaining of Ethernet communication. Fieldbuses are routed easily, without adding commissioning time, by connecting Ethernet or Profibus based fieldbuses to a M12 pluggable interface.

Safety

The VLT® Decentral Drive FCD 302 is delivered as standard with the Safe Torque Off (Safe Stop) function in compliance with EN ISO 13849-1 Category 3 PL d and SIL 2 according to IEC 61508 low demand and high demand mode.

Fieldbus options

(integrated into the control card)

- PROFIBUS DP
- PROFINET
- EtherNet/IP
- EtherCAT
- POWERLINK

Application options

- VLT® Encoder Input MCB 102
- VLT® Resolver Input MCB 103
- VLT® Safe PLC I/O MCB 108

Hardware options

- Mounting brackets
- Service switch
- Internal circuit breaker
- M12 sensor plugs
- 24 V DC input for control supply
- Brake chopper
- Electromechanical brake control and supply
- Fieldbus plugs

Specifications

Mains supply (L1, L2, L3)

Supply voltage	380 – 480 V ±10%
Supply frequency	50/60 Hz
True Power Factor (λ)	0.92 nominal at rated load
Displacement Power Factor (cos φ)	(>0.98)
Switching on input supply	2 times/min.

Output data (U, V, W)

Output voltage	0 – 100% of supply
Output frequency	0 – 590 Hz 0 – 300 Hz (Flux mode)
Switching on output	Unlimited
Ramp times	0.01 – 3600 sec.

Digital inputs

Programmable digital inputs	4 (6)
Logic	PNP or NPN
Voltage level	0 – 24 V DC

Note: One/two digital inputs can be programmed as digital output

Analogue inputs

Number of analogue inputs	2
Modes	Voltage or current
Voltage level	-10 to +10 V (scaleable)
Current level	0/4 – 20 mA (scaleable)

Pulse/encoder inputs

Programmable pulse/encoder inputs	2
Voltage level	0 – 24 V DC (PNP positive logic)

Digital output

Programmable digital/pulse outputs	2
Voltage level at digital/frequency output	0 – 24 V

Analogue output

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

Relay outputs

Programmable relay outputs	2
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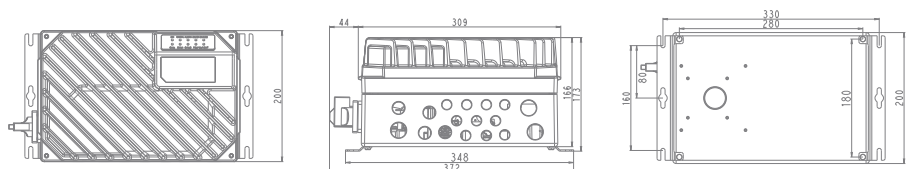
Integrated 24 V supply

Max. load	600 mA
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Dimensions

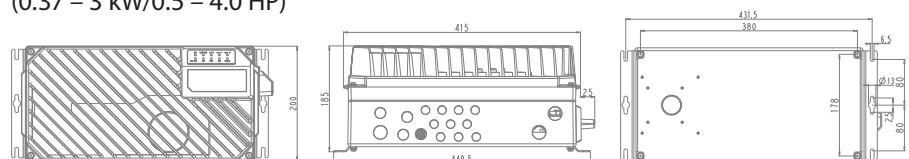
Small frame

(0.37 – 2.2 kW/0.5 – 3.0 HP)



Large frame

(0.37 – 3 kW/0.5 – 4.0 HP)



All measurements are in mm

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