

VLT® Decentral Drive FCD 302

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

Simplicity and robustness have been taken into consideration during the design of the new VLT® Decentral Drive FCD 302, resulting in a real user-friendly product, with high performance and the highest protection degree.

Decentral drives are meant for delocated mounting, where the need for space-consuming control cabinets is eliminated. With the drives placed near – or directly on – the motor, there is no need for long screened motor cables.

One-box concept

All options are built as part of the unit, reducing the number of boxes to be mounted, connections and terminations in the installation. Consequently labor costs in mounting hours and risk of failures are dramatically reduced.

Power range

0.37 – 3 kW, 3 x 380 – 480 V

Enclosure

- IP 66/NEMA 4X standard black
- IP 66/NEMA 4X standard white
- IP 69K hygienic white
(all enclosures are rated as Type 4X)

Perfect match for:

- Conveyor applications
- Installation in wash-down areas
- Widely distributed applications, with large number of drives



Features	Benefits
Reliable	Maximum uptime
Special painting treatment and smooth surface	Easy cleaning; no dirt trap
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
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 controlled through pluggable control panel, fieldbus communication and MCT10 PC software	Easy commissioning
Awarded control panel with on-board manual	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 Stop, STO: Safe Torque Off	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 field buses to a M12 pluggable interface.

Safety

The VLT® Decentral Drive FCD 302 comes standard with safe stop functionality. The solution is approved by authorities for category 3 installations in accordance with EN 954-1 and SIL2/IEC 61508.

Fieldbus options

- PROFIBUS DP
- PROFINET
- EtherNet/IP

Application options

- Encoder
- Resolver
- VLT® Encoder Input MCB 102
- VLT® Resolver Input MCB 103
- VLT® Functional Safety Option 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

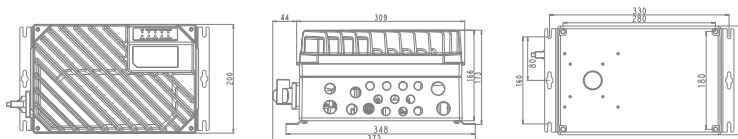
Specifications

FC 302 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 – 1000 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
<i>Note: One/two digital inputs can be programmed as digital output</i>	
Analog inputs	
Number of analog 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
Analog output	
Programmable analog outputs	1
Current range	0/4 – 20 mA
Relay outputs	
Programmable relay outputs	2
Integrated 24 V supply	
Max. load	600 mA

Dimensions

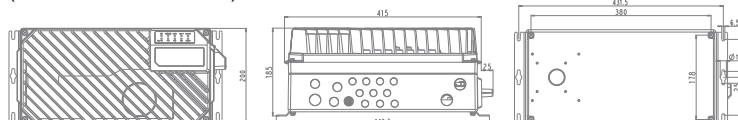
Small frame size

(0.37 – 2.2 kW/0.5 – 3.0 HP)



Large frame size

(0.37 – 3 kW/0.5 – 4.0 HP)



All measurements are in mm

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