

Fact Sheet

VLT® OneGearDrive®

VLT® OneGearDrive® comprises a high-efficiency permanent magnet (PM) motor coupled with an optimized bevel gearbox. As part of the Danfoss VLT® FlexConcept®, the VLT® OneGearDrive® is an energy-efficient drive system that helps to optimize plant productivity and reduce energy costs.

With only one motor type and three available gear ratios, the motor concept covers all typical versions of conveyor drives commonly used in the food and beverage industry.

The uniform mechanical dimensions and the available configurations of the VLT® OneGearDrive® simplify engineering, installation, and reduces the need for spare part inventory which improves cost efficiency.

Flexible plant design

In combination with the VLT® AutomationDrive FC 302 or the VLT® Decentral Drive FCD 302, the VLT® OneGearDrive® is equally suited to central and decentral installations, giving the plant designer complete flexibility from the outset. As a whole, the system can reach energy savings of up to 40% compared to conventional systems.

Achieve up to

70%

variant reduction with VLT® OneGearDrive® together FC 302 or VLT® Decentral Drive FCD 302.

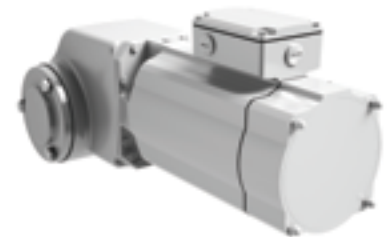
Two versions

The VLT® OneGearDrive® comes in two versions: the VLT® OneGearDrive® Standard, for use in dry and wet production areas, and the

VLT® OneGearDrive® Hygienic, for use in wet areas, areas with high cleaning intensity and aseptic and clean room production areas.



VLT® OneGearDrive® Hygienic



VLT® OneGearDrive® Standard with brake

Feature	Benefit
High system efficiency, including drive	– Save money and energy — up to 40% energy savings compared to conventional systems
High-efficiency permanent-magnet three-phase synchronous 10-pole motor with bevel gear drive	– Better than Super Premium Efficiency class IE4 (compared to induction motor only). Complies with highest IES2 class with FC 302
Available hollow shaft diameters: 30, 35, 40 mm and 3 impartial shaft sizes	– Flexible adaptation to customer standards
Completely smooth enclosure leaves no crevices or dirt traps	– Easy to clean – Safe production
Motor connection with Danfoss CleanConnect® stainless steel circular connector	– Safe connection in wet areas – Fast installation and replacement – High cleanability
Motor and brake connections via terminal box with CageClamp® technology	– Fast, reliable connection – Lower installation cost
Aseptic coating	– Resistant to detergents and disinfectants (pH 2..14)
Gearbox without breather vents and use of food grade lubricants compliant with FDA and NSF requirements	– Up to 35,000 operating hours in partial load between oil changes
High degrees of protection: – IP67 and IP69K (OGD- H) – IP67 (OGD-S)	– Unrestricted use in wash-down areas – High protection in wash-down areas
Fan-free operation	– Less noise emission – No airborne germs and dirt particles are drawn into the motor and then expelled back into the ambient air
Only three gearbox ratios in one common design	– Up to 70% reduction in variants reduces spare parts stock
Compatible with all Danfoss drives, FC 302 and FCD 302 from 0.75 to 3 kW	– Free choice of central or decentral installation

In both versions, the completely smooth, easy-to-clean surface that is free of cooling fins prevents pockets of dirt from forming and allows detergents to drain off freely. The fan-free motor avoids the risk of airborne germs and dirt particles from being drawn in and then expelled back into the ambient air.

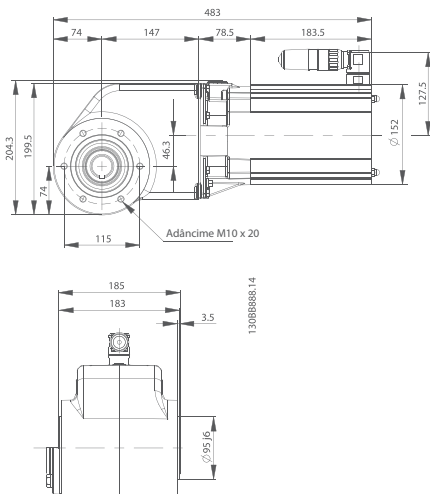
Hygienic design

The VLT® OneGearDrive® Hygienic complies with the requirements for best cleaning and hygienic design. It is certified as usable for clean rooms and aseptic filling by IPA (Fraunhofer) according to the dedicated “Air Cleanliness Classification” DIN EN ISO 14644-1.

Specifications

Power rating0.75-2.2 kW
 Speed max.....3,000 RPM
 Frequency max.....250 Hz
 Nominal current.....5.5 A
 Torque.....2.35 Nm/A
 Voltage.....155 V/1000 rpm
 Weight.....Approx. 22 kg

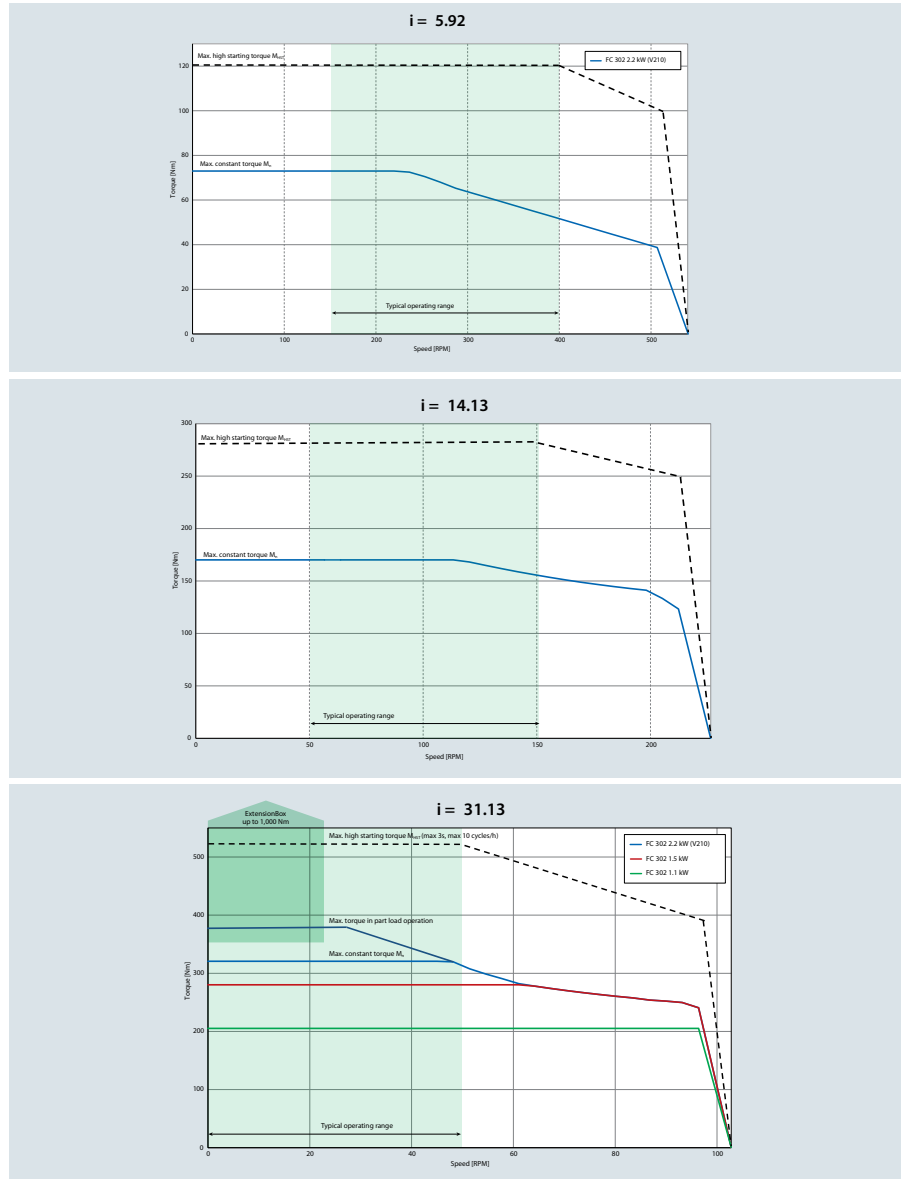
Dimensions



Dimensions of Danfoss VLT® OneGearDrive® Hygienic in mm

Speed/torque characteristics

Gear ratios 5.92: $i = 14.13$ and $i = 31.13$



VLT® | VAGON®

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