

VLT® OneGearDrive®

VLT® OneGearDrive® is a highly efficient permanent-magnet three-phase synchronous motor coupled to an optimized bevel gear box. 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.



VLT® OneGearDrive® Hygienic



VLT® OneGearDrive® Standard with brake

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 restricted range of physical configurations of the VLT® OneGear Drive® reduces the number of spares required improving cost efficiency, and uniform mechanical dimensions simplify engineering and installation.

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 with conventional systems.

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.

Feature	Benefit
High system efficiency incl. frequency converter	– 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
Available hollow shaft diameters: 1-1/4", 1-7/16", 1-1/2" and 30, 35, 40 mm shaft sizes	– Flexible adaption 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 change
High degrees of protection: – IP 67 and IP 69K (OGD- H) – IP 65 and IP 67 (OGD- S)	– Unrestricted use in wash down areas – High protection in wash down areas
Fan-free operation	– Less noise emission – No air-born germs and dirt particles to be drawn into the motor and then expelled back into the surrounding air
Only 3 gearbox ratios in one common design	– Up to 70% reduction in variants reduces spare part stock
Compatible with all Danfoss frequency converters FC/D 302 from 1.5-3 kW	– Your choice of central and decentral installations

Up to 89%

system efficiency. Utilizing PM Motor technology which exceeds IE4 Motor Super Premium Efficiency Class.

In both versions, completely smooth, easy to clean surface without cooling fins, prevents pockets of dirt from forming and allows detergents to drain off freely. The fan-free motor avoids the risk of air-borne germs and dirt particles being drawn in and then expelled back into the surrounding air.

Hygienic design

The VLT® OneGearDrive® Hygienic complies with food contact applications FDA CFR 175.000. Best cleaning hygienic design – EHEDG (European Hygienic Engineering & Design Group). Clean rooms and aseptic filling by IPA (Fraunhofer institue) "Air Cleanliness Classification" DIN EN ISO 14644-1.

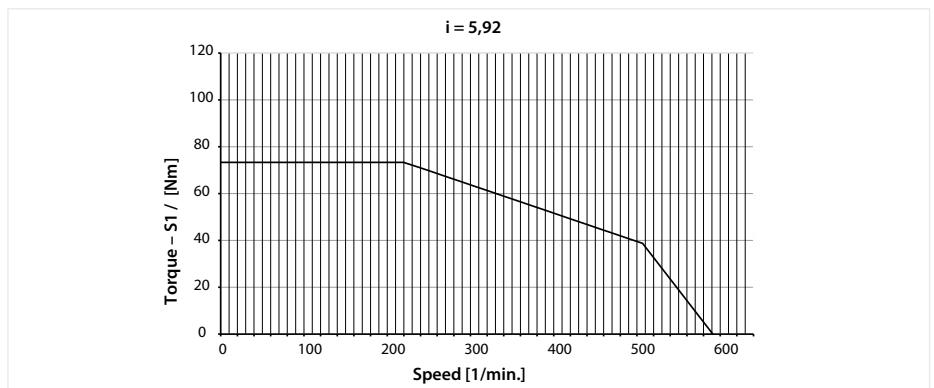
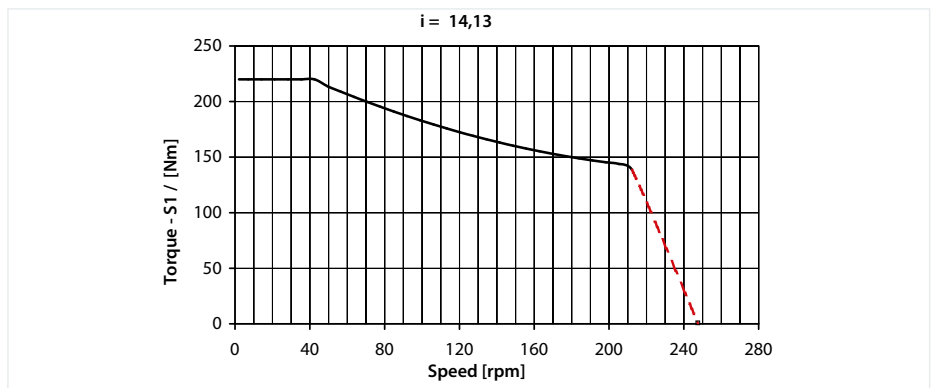
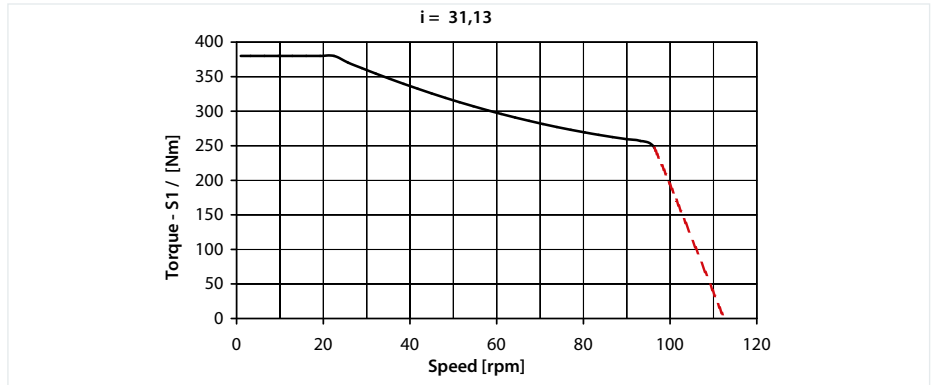


Specifications

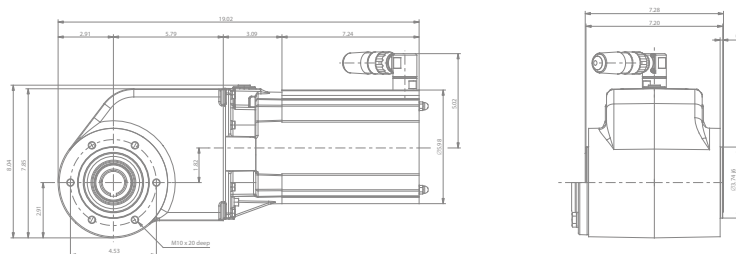
Power rating 1.5 – 3.0 kW
 Speed max 3000 rpm
 Frequency max 250 Hz
 Current max 7.2 A
 Torque 1.7 Nm/A
 Voltage 120 V/1000 rpm
 Weight Approx. 28 kg

Speed/ torque characteristics

Gear ratios $i = 31.13$; $i = 14.13$ and $i = 5.92$ (max 3.0 kW)



Dimensions



Dimensions of Danfoss VLT® OneGearDrive® Hygienic in inches

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