GVM310/300-400

Global Vehicle Motor for Traction & Electro Hydraulic Pump Range Extension

Description:

PMAC servomotors offer the best solution to meet the requirements of vehicle duty performance. The torque density and speed capabilities of Parker Permanent Magnet AC motors (PMAC) combined with a voltage matched inverter provide the speed and torque required to achieve breakthrough performance in a variety of vehicle platforms.

The GVM is a powerful choice for both on and off-road vehicles, engineered for Traction and Electro-hydraulic Pumps (EHP).

The GVM motor line has been designed to be used in a wide variety of vehicle applications including; commercial, forestry, material handling and medium to large construction vehicles.

Applications:

- Electric motors/generators for hybrid applications
- Traction applications
- Electro Hydraulic Pump applications

Benefits:

- Outstanding power density
- New thinner lamination design to reduce losses
- Performance enhancements (low flux for high speed and high flux for low speed applications)
- Patented cooling system
- Can be used either as motor or generator
- Traction applications
- HVIL loop available
- High efficiency

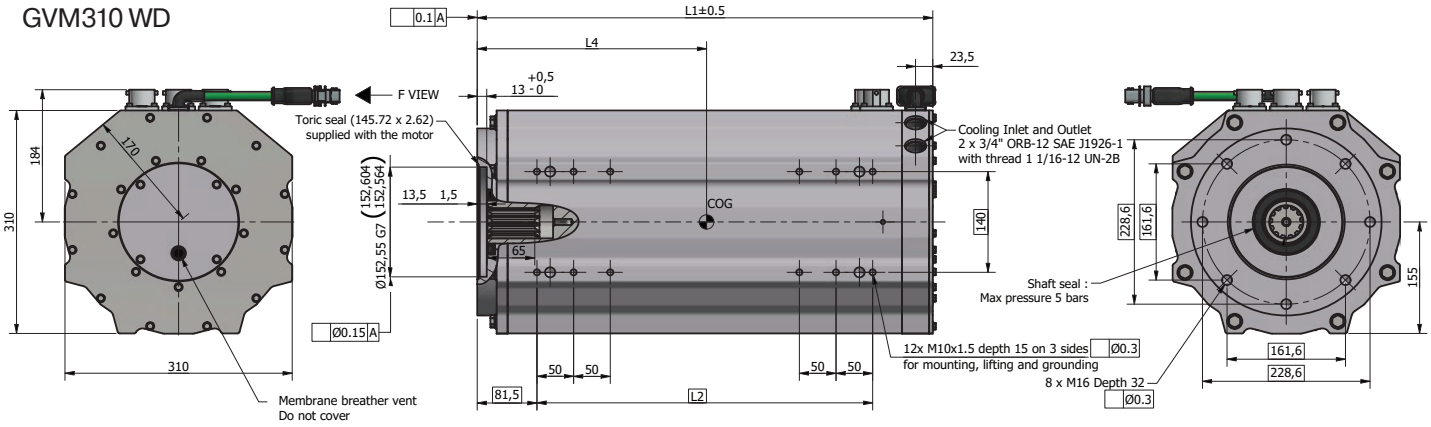
Technical Specifications

	Low flux				High flux			
	Solid wire		Litz wire		Solid wire		Litz wire	
	GVM310300	GVM310400	GVM310300	GVM310400	GVM310300	GVM310400	GVM310300	GVM310400
Continuous torque at low speed [N.m]	930	1250	840	1140	1050	1400	970	1250
Max. torque [N.m]	1500	2010	1500	2010	1720	2300	1720	2300
Continuous power [kW]	233	296	274	325	228	303	264	351
Peak power [kW]	420	420	720	720	500	500	850	850
Maximal speed [rpm]	5500	5500	5500	5500	5500	5500	5500	5500
Continuous Power density [kW/kg]	1.29	1.29	1.52	1.41	1.27	1.32	1.47	1.53
Peak Power density [kW/kg]	2.33	1.83	4.00	3.13	2.78	2.17	4.72	3.70

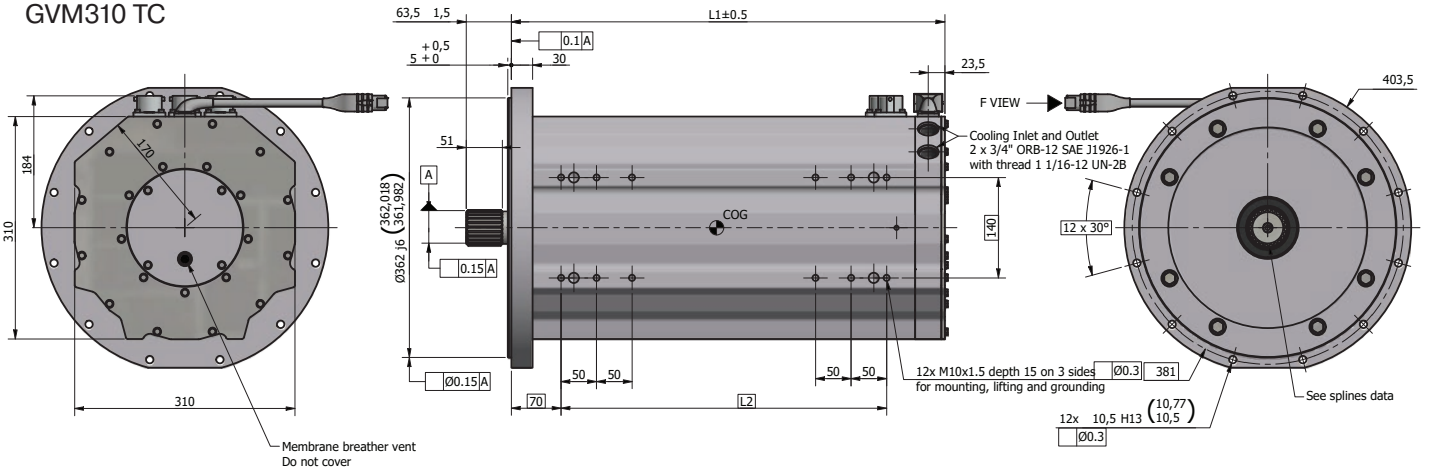
Motor data with water cooling @65°C.

Dimensions

GVM310 WD



GVM310 TC



Motor size	GVM310-300		GVM310-400	
	WD	TC	WD	TC
L1 [mm]	521	510	621	610
L2 [mm]	358	358	458	458
Weight [kg]	180		230	

192-300116 May 2024