

# Brushless DC Planetary Gearmotor Model 52mm

Merkle-Korff offers Brushless DC Gearmotors with hall only feedback or with a control board that is fully integrated to the internal motor. When mated to our planetary gearbox, this brushless gearmotor offers extremely long life and high torque in a compact size.



## Features

### Internal controller

- Two quadrant programmable control: current limiting, acceleration, speed regulation, and velocity profiles
- Built-in quadrature encoder
- Over-current protection
- Stall condition protection
- 0 – 5 or 0 – 10 VDC speed reference voltage
- Dynamic braking and holding capability
- Input voltage polarity protection
- Electronic commutation

### Motor

- Long life
- Ball bearing construction
- 8 pole rotor
- 3 phase stage– wye connection
- High energy/skewed magnets for reduced cogging
- Integral hall sensors for rotor position

### Gearbox

- Dual ball bearings: output shaft
- Sintered powder metal gearing
- Helical first stage for low audible noise
- Compact, high-torqued design
- High shock load capacity
- High axial and radial load



## Specifications

- Input voltage: 12 to 32 VDC
- Insulation class: F (155° C)
- Bi-directional
- Speed regulation: open or closed loop, programmable
- Velocity profile: programmable
- Acceleration: programmable
- Temperature protection: 90° C/110° C std
- Current limit: programmable
- Tachometer O/P: 2 Ch - 6PPR
- Gearing peak torque: 250 lb. in
- Speed range: 0.25 – 35 rpm

## Optional features

- Hall only output: externally controlled
- Incremental optical encoder

## Applications

- Commercial food equipment
- Pumps
- Business equipment/automation
- Pellet stove
- Medical/laboratory
- Satellite positioning systems
- Custom solutions

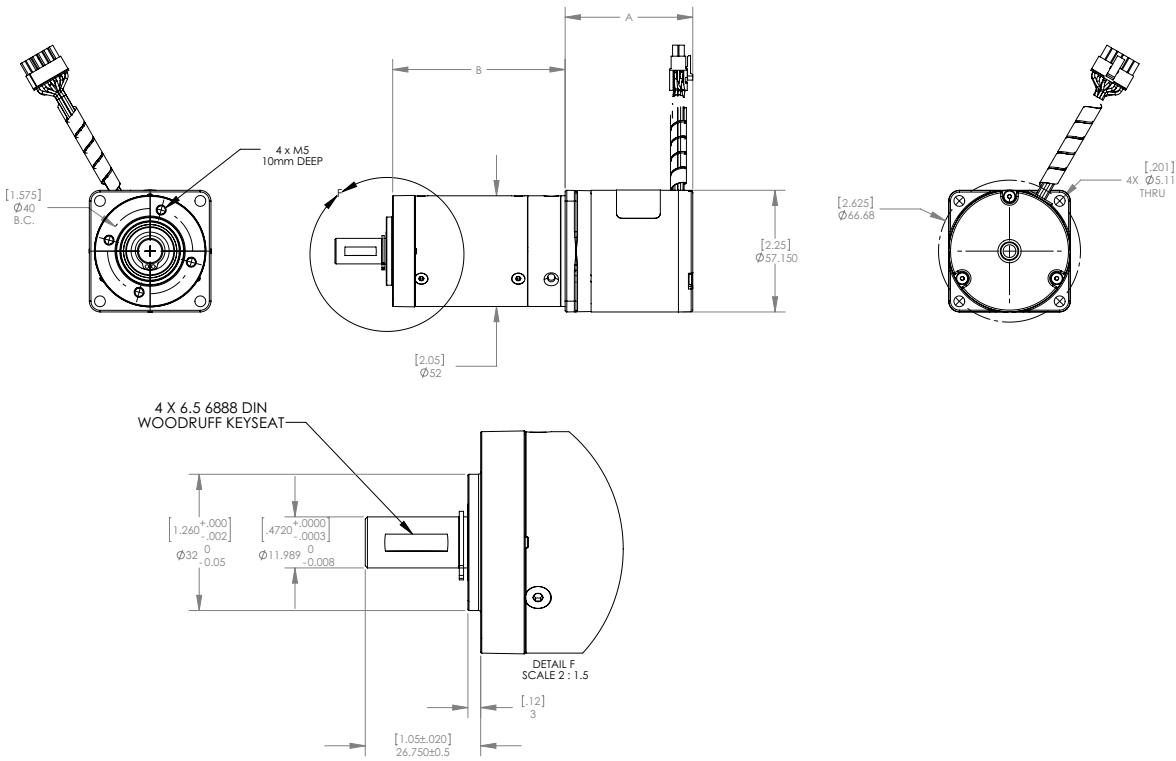


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Dimensional diagram



Motor Data

Motor Type	5706B	5719B	5719B
Voltage (V DC)	12 - 32	12 - 32	12 - 32
Output Power (Watts)	12	25	45
Continuous rated speed (RPM)	3100	3100	3100
Continuous rated torque (Ncm)	3.8	7.7	14
Length "A" (mm)	47.2	60.3	79.4

Gearbox Data

Gearbox Type	52P					
	Gear reduction (ratio)	36	50	126.5	162	225
Efficiency (%)	81	81	73	73	73	73
Number of stages	2	2	3	3	3	3
Length "B" (mm)	67.5	67.5	83	83	83	83

