

Compact, quiet and versatile, the VF Series is ideal when space is a premium. A variety of features and gear reductions enable custom design. The 24H brushless motor offers extended life, high efficiency, and controllability for demanding applications at a competitive price.

GEAR REDUCER FEATURES

Housing Material: Zinc die cast

Gears: Sintered Powder Metal

Bearings: Sintered or Needle

Lubrication: Synthetic Grease

Output speeds: 25 to 300 RPM

MOTOR FEATURES

Type: Electronically Commutated – Inner Rotor

Rated Voltage: 12Vdc or 24Vdc

Output Power: 10 to 30 Watts with Integral Drive

Phase Connection: 3 Phase Wye

Slot / Poles: 9 / 12

Rotor Magnets: High Energy skewed to reduce cogging

Insulation Class: B

Rotation: Reversible

Rotor Positioning: Three Hall Effect Sensors

Bearings: Ball

INTEGRAL CONTROL FEATURES

Type: Sinusoidal

Speed Control: PWM (15 to 25kHz)

Protection: Locked Rotor and thermal (165 °C)

Braking: Dynamic

Current Limit: 3 Amps

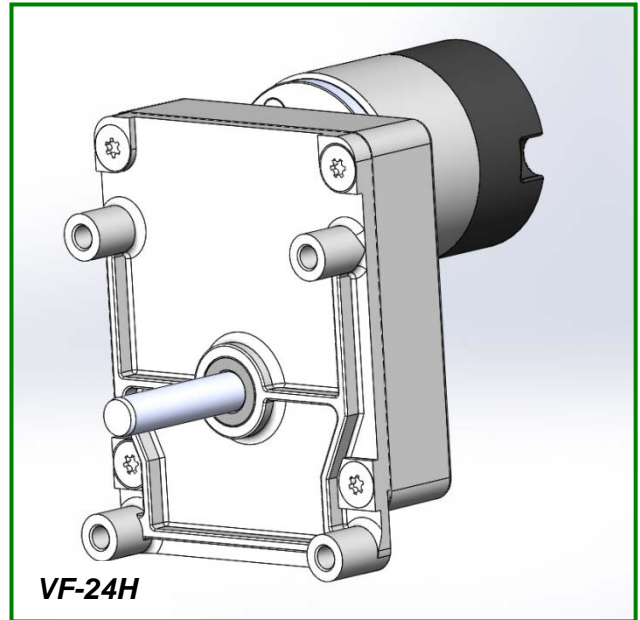
Encoder Output: 2 Channels – 100 PPR

Interface Connector: JST S8B-ZR-SM4A

Mating Connector: JST ZHR-8

OPTIONAL FEATURES

- Customized output shafts including dual output
- Helical first stage gear for low audible noise
- Various lead lengths, terminals and connectors
- Output Needle bearings for high radial loads



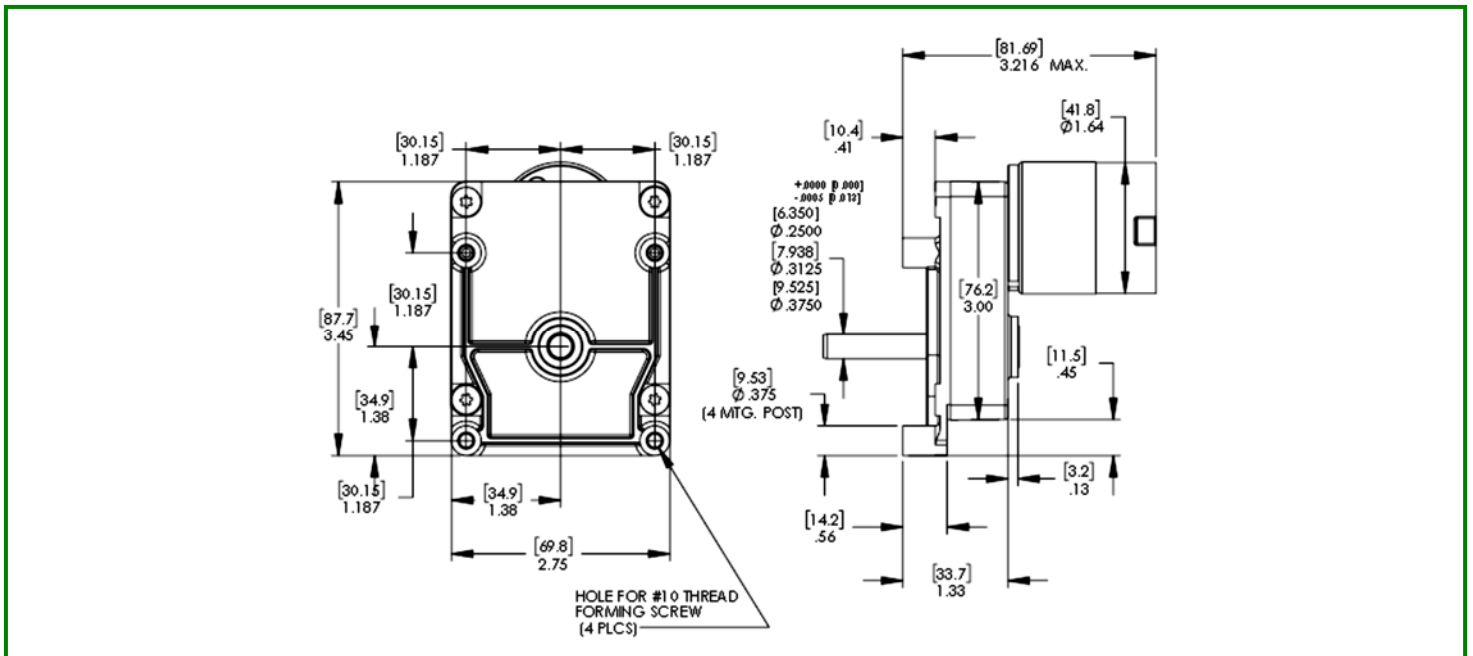
Maximum Permissible Torque: 50 In.Lb (5.6 Nm)

Speed: Up to 300 RPM

Note: Speed and torque combinations will vary depending on the motor/gearbox combination.

TYPICAL APPLICATIONS

- Food Service Equipment
- Satellite positioning systems
- Pumps
- Agricultural Equipment
- Valve Actuators
- Medical / Laboratory Equipment
- Robotics
- Material Handling



24H Interface

Pin Number	Signal Name	I/O	Voltage	Specification
Pin 1	Channel A	OUT	0 to 5 V	100 PPR, Quadrature , Output Voltage (0 to 5V)
Pin 2	Channel B			
Pin 3	Signal Power	IN	5	5 Vdc
Pin 4	Direction of Rotation	IN	0 to 5 V	High or Open: CW / Low: CCW (Vlow = 0.8Vmax)
Pin 5	PWM	IN	0 to 5 V	Duty Cycle: 15% to 100% / Frequency: 15 to 25kHz
Pin 6	Brake	IN	0 to 5 V	High or Open: Brake Off / Low: Brake On (Vlow = 0.8Vmax)
Pin 7	Power Ground	IN	0V	Ground
Pin 8	Power Supply (Vm)	IN	10.8 to 24Vdc	Motor Power