

Small Brushless DC Motors

KineteX 32 Brushless DC Motors with Integral Drive

32 mm diameter, 32 mNm cont. torque, up to 16 W output power

The KineteX 32 is an extremely compact brushless DC motor with integrated drive electronics (EB versions). The KineteX 32 is an outer rotor motor with a robust bearing system capable of handling high side loads.

High quality components ensure an operating life minimum of 20000 hours. The continuous output torque of 32 mNm at a constant speed of 4750 RPM makes this motor ideal for small membrane and peristaltic pumps, laser scanners, high-end fan and medical applications.

Features & Benefits

- Two-wire version is as simple to control as a DC motor, needing only a DC voltage to operate

- Four-wire version with tachometer output (18 pulses per rev) for speed monitoring
- IP54 level protection sealing
- Thermal overload protection with automatic recovery
- Reverse supply voltage protection
- Low EMI – complies with EN 55014-1/2, 61000-6-1/3

Options

- Customized shaft
- Customized mounting flange
- Custom leads and connector configurations
- Special winding configurations
- Encoder and/or gearbox



- 32 mm dia., outer rotor, brushless DC motor with integrated drive and robust bearing system
- Rated 32 mNm (4.5 oz-in) and 16 W output at 4750 RPM
- 12 or 24 VDC winding choice

SPECIFICATIONS

Model	CW CCW	2-Wire			4-Wire	
		4322 016+	30421 30422	30423 30424	30425 30426	30427 30428
Nominal Voltage	V	12	24	12	24	
Voltage Range ¹	V	10 - 18	10 - 28	10 - 18	10 - 28	
Nominal Output Power	W	12	16	12	16	
Nominal Torque	mNm (oz-in)	32 (4.67)				
Max. Torque	mNm (oz-in)	40 (5.66)	50 (7.08)	40 (5.66)	50 (7.08)	
Nominal Speed	RPM	3450	4750	3450	4750	
No-Load Speed	RPM	4600	6000	4600	6000	
Nominal Current	mA	1420	920	1420	920	
Max. Current	mA	1600	1300	1600	1300	
No-Load Current	mA	160	130	160	130	
Torque Constant	mNm/A (oz-in/A)	26 (3.68)	41 (5.81)	N/A	N/A	
Rotor Inertia	kgm ² (oz-in-s ²)	4.7 E-6 (7 E-4)				
Mechanical Time Constant	ms	12	9	12	9	
Thermal Resist. Housing-Ambient	°C/W	13				
Weight	g (oz)	113 (4)				
Protection	-	IP54				
Gearbox (option)	-	-				
Speed Voltage Input (correlation)	RPM/V	N/A			1000	
Speed Input (set point)	V	N/A			0 - 7	
Speed Input (threshold)	V	N/A			0.2	
Speed Output Signal	PPR	N/A			18	
Speed Output Signal Low Time	µsec	N/A			195	
Thermal Protection	°C (F)	90 (194) flange temp. / 80°C (176) restart				

Notes: Values valid for nominal voltage and T_{amb} = 22 °C

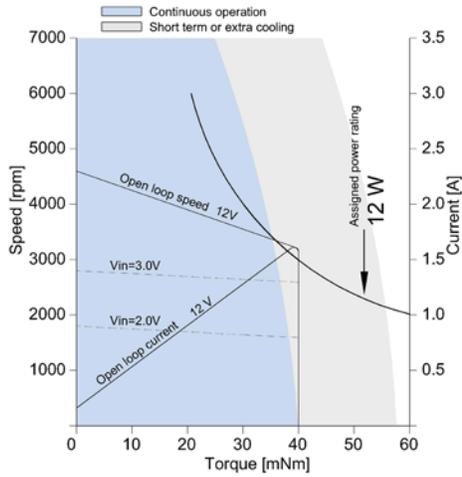
1) Power supply provided with appropriate 1000 µF buffer capacitor between supply voltage and common to comply with EN 55014-1/2

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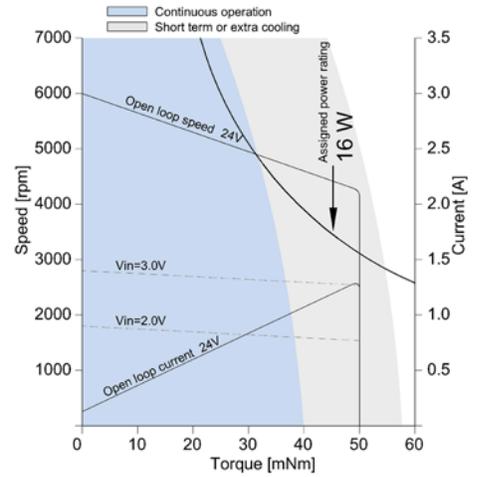
KineteX 32 Series BLDC Motors

PERFORMANCE

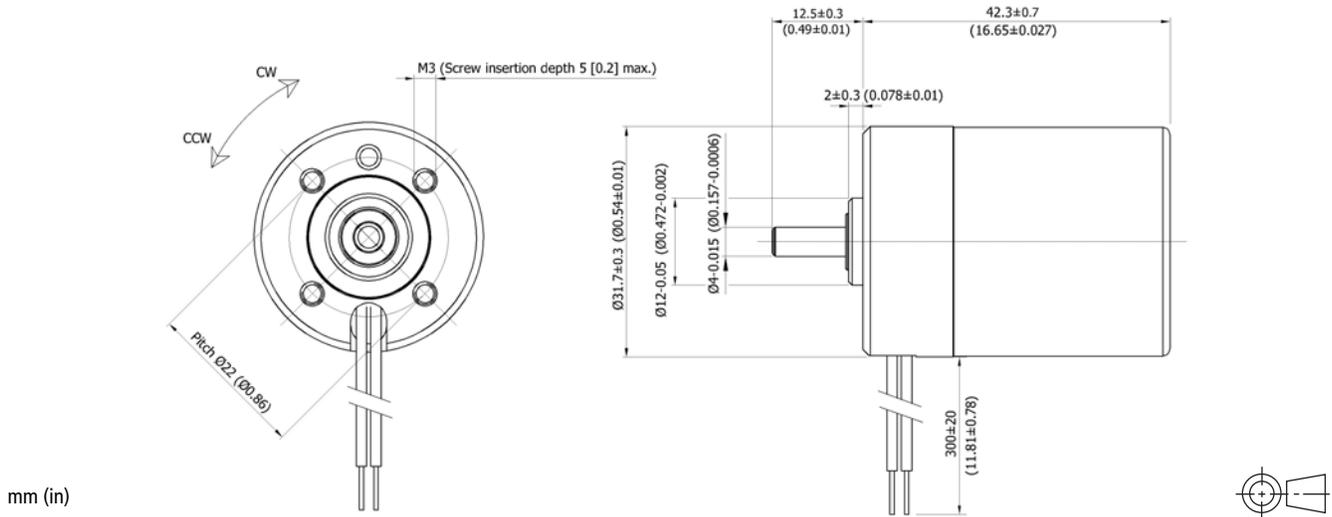
KineteX 32 EB 12W



KineteX 32 EB 16W



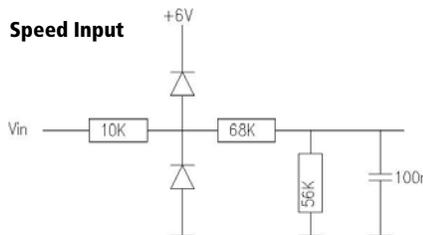
DIMENSIONS



ELECTRICAL INTERFACE

Version	Connection	Color	Size
2-wire	Supply Voltage	Red	AWG24
	Common (ground)	Black	AWG24
	Supply Voltage	Red	AWG24
4-wire	Common (ground)	Black	AWG24
	Speed Input (Vin)	White	AWG24
	Speed Output (FG)	Green	AWG24

Speed Input



Speed Output

