

Right-Angle PMDC Brush Gear Motors

RAB 30 Series

1/20 HP, Single-Reduction Worm Drive

Allied Motion's RAB series of right-angle DC gear motors are designed for battery-powered lifting and moving applications such as medical wheelchair and scooter lifts and swivel actuators. These cost effective 3-inch diameter gear motors are standard wound for 12 VDC and are available wound for up to 115 VDC. They have the ability to output up to 77 lb-in (8.7 Nm) continuous shaft torque. This motor is designed for long life in difficult applications.

In addition to lifting applications, the RAB 30 right-angle series is an ideal choice for floor care brush drives, awning extension and retraction drives, welding wire feeders, cable pullers, and similar applications.



Options

- High temperature Class H (180 °C) winding insulation
- Weather-proof (IP65) design
- High back-drive torque design
- Custom leads and/or connectors
- Synthetic grease lubrication
- Plastic or alloy-steel gearing
- Cartridge style brush holders with replaceable brushes
- Encoder mounting provisions
- Electromechanical holding brake
- 1/2-inch diameter output shaft
- Sprocket or pulley mounted on output shaft
- Winding voltages available up to 115 VDC

Features & Benefits

- Specifically designed for use in lifting applications up to 400 lbs (180 kg)
- Continuous output shaft torque up to 77 lb-in (8.7 Nm)
- High grade bronze output gear for high strength
- Precision ground steel worm for quiet operation and long life
- Die cast aluminum gearbox for strength and minimum weight
- Class A (105 °C) winding insulation
- Internal brush design for maintenance-free operation
- Oil bath lubrication for extended service life
- Bronze bushing bearing in gearbox; ball bearing on motor
- Compact design to fit restrictive spaces
- 2-pole PMDC brush motor
- 3/8-inch diameter output shaft sized for drive sprocket pinion



QuickShip Products

Some of the part number configurations for this product are in stock and available for ***immediate delivery!***

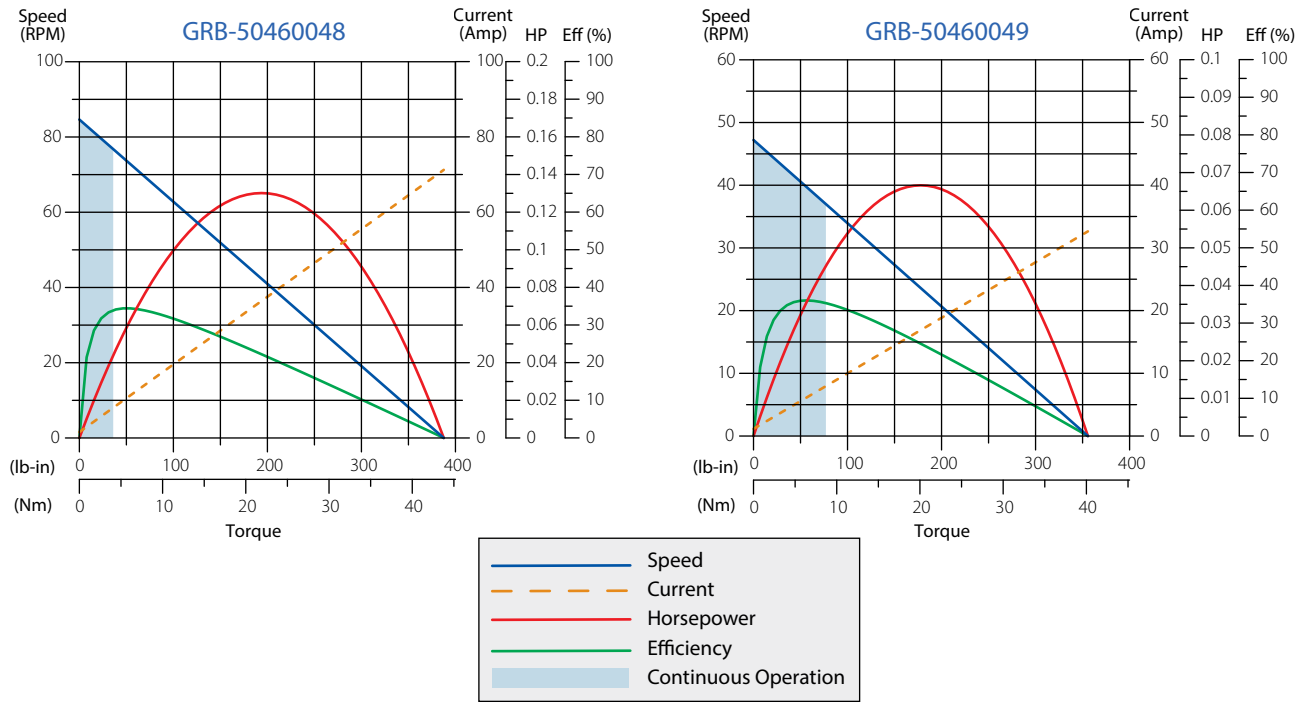
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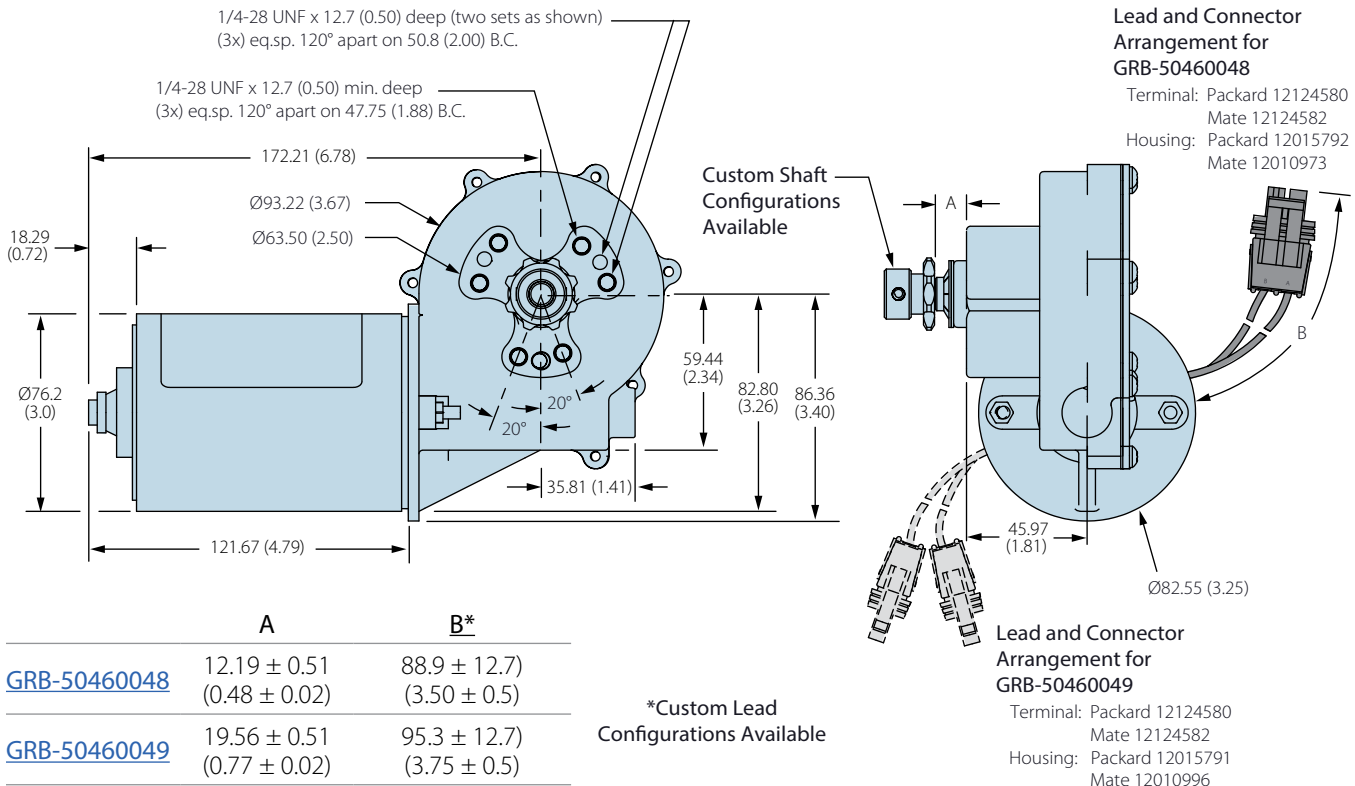
RAB 30 Series Gear Motors – Specifications

Model		 GRB-50460048	 GRB-50460049
Type		Right-angle shaft	
Motor Type		PMDC brush, 2-pole	
Frame Size		76.2 mm (3.0 in)	
Winding Voltage		12 VDC	
Torque	Rated	4.1 Nm (36 lb.in)	8.7 Nm (77 lb.in)
	Peak	19.9 Nm (176 lb.in)	23.4 Nm (207 lb.in)
Rated Speed		77 rpm	37 rpm
No-load Speed		80 - 90 rpm	40 - 50 rpm
Rated Power		33 W (0.044 HP)	37 W (0.05 HP)
Current — ADC	Rated	8	8
	Peak	34	20
	No-load	3.5	3.0
Gear Ratio		58:1	
Peak Efficiency		34%	36%
Rotation (shaft view)		CW (positive voltage to positive motor terminal)	
Bearing Type		Bronze bushing	
Backlash (no load)		4.1 - 12.6 arcmin	
Weight		2.3 kg (5 lb)	
Ambient Operating Temperature at Rated Duty		22 °C max	
Ambient Storage Temperature		-30 to 80 °C	
IP Rating		IP 54	

RAB 30 Series Gear Motors – Performance



RAB 30 Series Gear Motors Dimensions — mm (in)



Custom & Specific-Purpose Products & Sub-Assemblies

Allied Motion offers a very wide selection of standard motion control solutions to satisfy the requirements found in the commercial, industrial and aerospace and defense markets. And, we are adding new products every year to meet new demands we find in those markets.

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- Detailed product information and documentation
- Standard product selection
- Product customization and options guidance
- Specification development assistance for custom-design products
- Price quotations
- Ordering, order status and shipment information
- Logistics assistance

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