

B-Track Features

Rugged Duty Actuators

Key Features

- Weather-tight sealed
- Patented in-line load transfer
- Heavy wall rod and cover tube
- High performance motors
- Up to 2,800 lb. (12455 N) capacity
- Speeds up to 2" per second

Standard Models

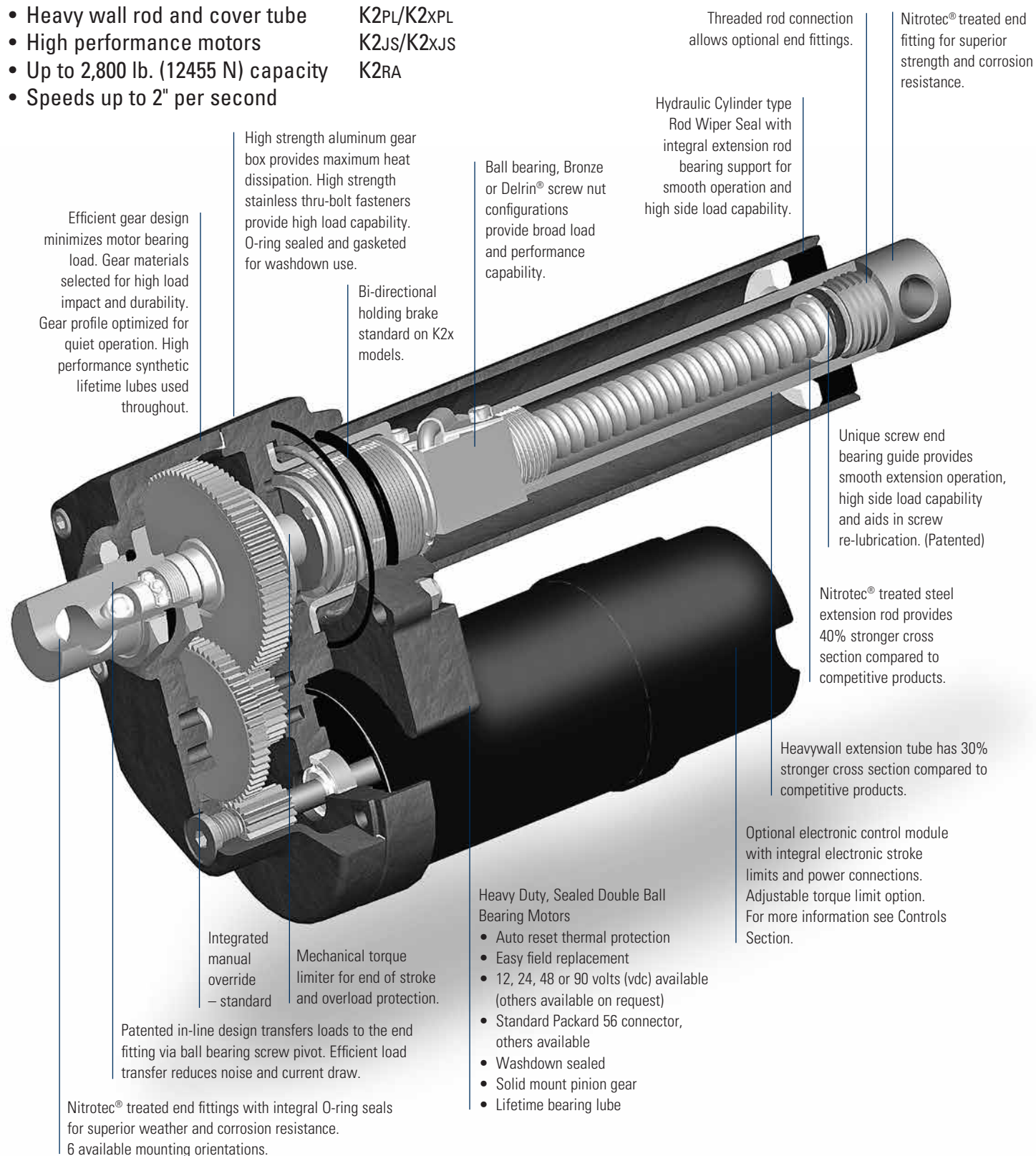
K2vL, K2, K2x, K2AC, K2xAC

Option Models

K2PL/K2xPL

K2JS/K2xJS

K2RA



Efficient gear design minimizes motor bearing load. Gear materials selected for high load impact and durability. Gear profile optimized for quiet operation. High performance synthetic lifetime lubes used throughout.

High strength aluminum gear box provides maximum heat dissipation. High strength stainless thru-bolt fasteners provide high load capability. O-ring sealed and gasketed for washdown use.

Ball bearing, Bronze or Delrin® screw nut configurations provide broad load and performance capability.

Bi-directional holding brake standard on K2x models.

Threaded rod connection allows optional end fittings.
Hydraulic Cylinder type Rod Wiper Seal with integral extension rod bearing support for smooth operation and high side load capability.

Nitrotec® treated end fitting for superior strength and corrosion resistance.

Unique screw end bearing guide provides smooth extension operation, high side load capability and aids in screw re-lubrication. (Patented)

Nitrotec® treated steel extension rod provides 40% stronger cross section compared to competitive products.

Heavywall extension tube has 30% stronger cross section compared to competitive products.

Optional electronic control module with integral electronic stroke limits and power connections. Adjustable torque limit option. For more information see Controls Section.

- Heavy Duty, Sealed Double Ball Bearing Motors
- Auto reset thermal protection
 - Easy field replacement
 - 12, 24, 48 or 90 volts (vdc) available (others available on request)
 - Standard Packard 56 connector, others available
 - Washdown sealed
 - Solid mount pinion gear
 - Lifetime bearing lube

Integrated manual override – standard
Mechanical torque limiter for end of stroke and overload protection.

Patented in-line design transfers loads to the end fitting via ball bearing screw pivot. Efficient load transfer reduces noise and current draw.

Nitrotec® treated end fittings with integral O-ring seals for superior weather and corrosion resistance. 6 available mounting orientations.

B-Track Configurator

How To Select

Step 1 – Determine Load and Stroke length requirements

Use the Quick Selection guide to identify the model family that will provide the load capacity and stroke length needed for your application.

Step 2 – Determine Gear Ratio

Select gear ratio from performance charts for allowable current draw and needed load.

Step 3 – Identify motor type and voltage

Select DC motor and motor voltage.

Step 4 – Motor Type

Select M for ignition protected motor (12 VDC only).
Select needed motor voltage.

Step 5 – Confirm the application Duty Cycle

At full load capacity, actuators have a 25% duty cycle. Duty cycle is the amount of 'on-time' compared to cooling time. A unit that runs for 15 seconds should be off for 45 seconds.

Step 6 – Select Nut Type

Select nut for unit selected. (K2x are all ball bearing).

Step 7 – Select Stroke Length

Choose standard lengths from chart. For special length consult factory.

Step 8 – Select end fitting orientation

Leave blank for standard orientation.

Important Unit Restrictions

Side loading and shock loads must be considered in actuator applications. Side loading and cantilevered mounting should be eliminated through proper machine design. Side loading will dramatically reduce unit life. While actuators can withstand limited shock loads, it is recommended that shock loading be avoided wherever possible. (See page 71)

B-Track Configurator

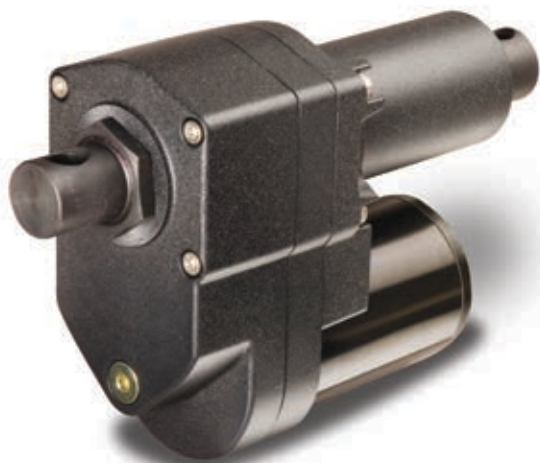
K2x	P1.x	G20	12 V	M	BR	04	R120
Actuator Model No. K2x K2 K2vL	Gear Ratio G30 = 30:1 G20 = 20:1 G10 = 10:1 G05 = 5:1	Motor Voltage 12V – 12 volts 24V – 24 volts 36V – 36 volts 48V – 48 volts 90V – 90 volts 115V – 115 volts 230V – 230 volts		Motor Type M – Ignition Protected Motor For standard motor, leave blank.	Nut Type* Blank – K2x BR – Bronze Nut BRL – Bronze Nut - Long DN – Delrin® Nut *BRL matches K2x pin to pin	Stroke Length 04 – 4.00 (100 mm) 06 – 6.00 (150 mm) 08 – 8.00 (200 mm) 12 – 12.00 (300 mm) 18 – 18.00 (450 mm) 24 – 24.00 (600 mm)	Base Fitting Alignment Blank – Standard R30 – 30° Fitting R60 – 60° Fitting R90 – 90° Fitting R120 – 120° Fitting R150 – 150° Fitting



Scan to watch!
Linear Actuator Basic Selection Video
<https://p.widencdn.net/ydtpk6>

B-Track K2vL

General Duty Actuator DC Motor Acme Screw



Up to 600 lbs. (2669 N) Rated Load
Up to 2.7 in. (68.58 mm)/sec. Travel Speed

This value model of the B-track family is well suited for the toughest applications not needing the full load capability of standard K2 models. The K2vL uses a flange bronze bearing configuration for internal load transfer, offering the lowest cost while maintaining the rugged-duty performance capabilities of the B-track family.

K2vL units feature Nitrotec® corrosion protection on end fittings and rods, high performance powder coat paint on cover tubes and gear box covers, providing a totally sealed, weatherproof, and durable finish for years of trouble-free service.

Features

- **Protective coatings** and O-ring seals throughout
- **Hybrid nut and screw design**, no brake needed
- **Ball detent overload clutch**
- **Stroke lengths** 2 to 12 inches (50 to 300 millimeters)
- **Load capacities** up to 600 pounds (2669 N)
- **Speeds up to** 2.7 inches (68.58 millimeters)/sec. travel
- **Thermal overload** incorporated into the motor
- **Heavy wall construction**
- **Double ball bearing motors**
- **Heat treated gears**
- **Rugged extension rod** bearing support

Typical Applications

- Flow gate open/close
- Deck and implement lifts for tractors and mobile applications
- Wheelchair and scooter lifts
- Bin and tank cover lifts
- Remote engine clutch engagement

Load/Current/Speed/Duty Cycle

- Maximum Static Rating: 3,000 lbs. (13345 N) Static (in-line load)
- Refer to performance chart for load/current/speed capabilities
- Stroke Length Tolerance: +/- .06" (1.52mm)
- Motor is protected with auto reset breaker inside motor housing (temperature/current/time dependent)
- Overload clutch setting: +25% over rated dynamic load
- Duty cycle is time/temperature/load dependent, suggested guidelines are:
 - 50% max on-time/50% off-time for loads up to 50% of capability
 - 25% max on-time/75% off-time for loads between 50%-80% of capability
 - 10% max on-time/90% off-time for loads between 80%-100% of capability

(Load/stroke profiles will allow some adjustment variation from these guidelines.)

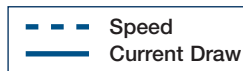
Operating Environment

- Ambient temp range: -20° F to +150° F (-29° C to +65° C)
- Weather resistant enclosure & seals (IP69K Static, IP65 capable, 250 hour salt spray, 500 hour for paint)
- Normal operating voltage: 10-16 vdc (Ratings are at 12 vdc Normal.)

Control/Connections

- 14 gauge stranded lead wires-UL style 1230 w/PVC insulation Class F 105° C
- Use momentary contact double pole/double throw switch in powering unit for extend/retract operation. (ON)-OFF-(ON) DPDT
- Connectors:
 - Packard 56 series or Delphi Weather-Pack
 - Packard 56 series with 56 series blades (#2984883 & #2962987)
 - Delphi Weather-Pack series (#121015792 & #12010973)

B-Track K2vL



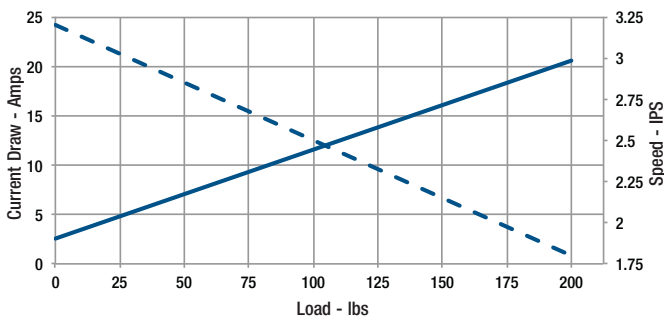
Performance Graphs Imperial Measurements*

*Performance Chart Measurements are Nominal

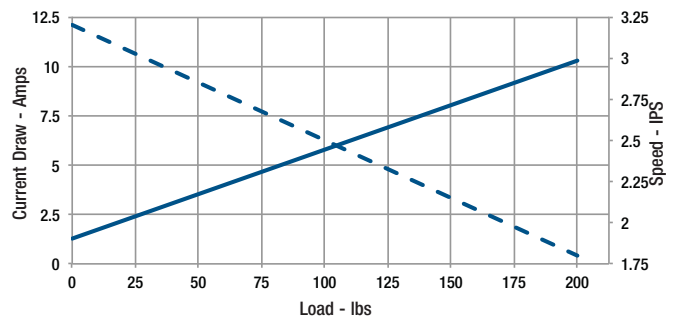
Load Capacity 200 lbs.

For Metric Measurements, see page 26.

K2vL.G05-12VDC



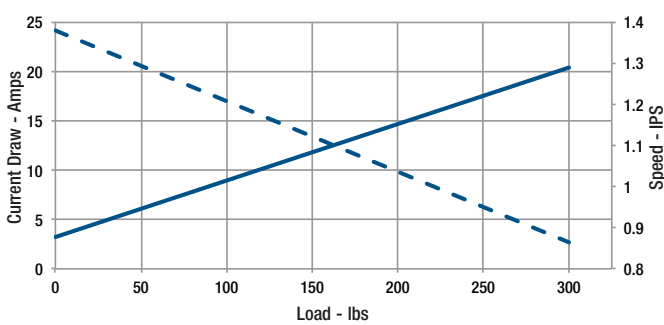
K2vL.G05-24VDC



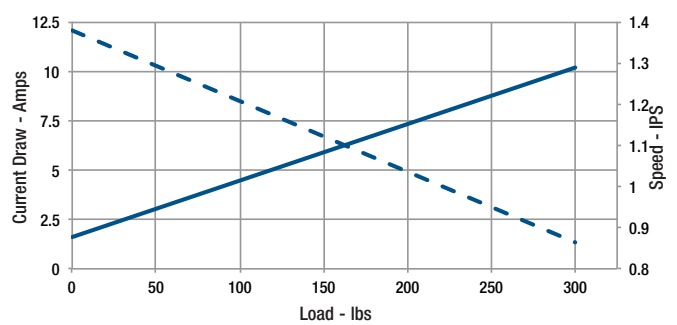
Load Capacity 300 lbs.

For Metric Measurements, see page 26.

K2vL.G10-12VDC



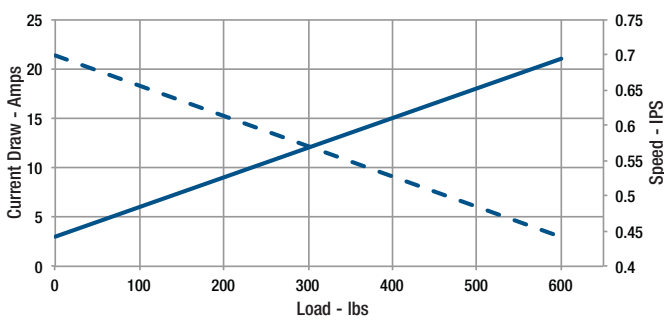
K2vL.G10-24VDC



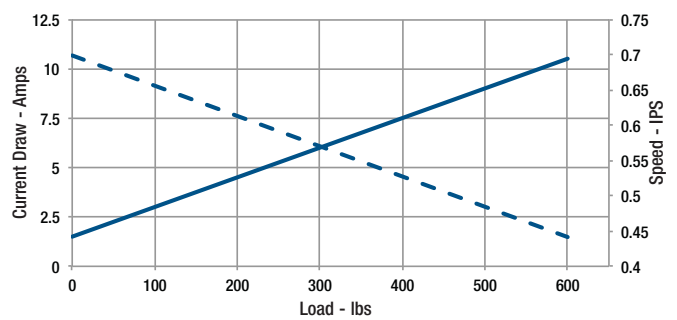
Load Capacity 600 lbs.

For Metric Measurements, see page 26.

K2vL.G20-12VDC



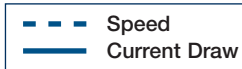
K2vL.G20-24VDC



B-Track K2vL

Performance Graphs Metric Measurements*

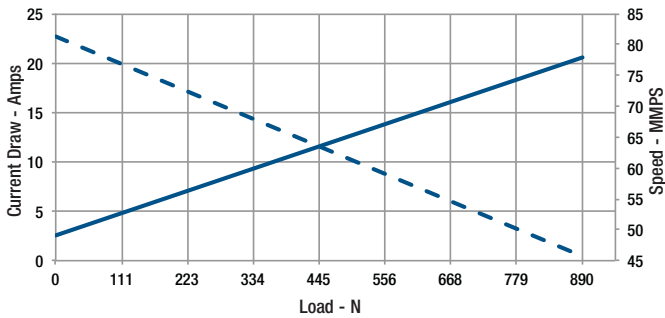
*Performance Chart Measurements are Nominal



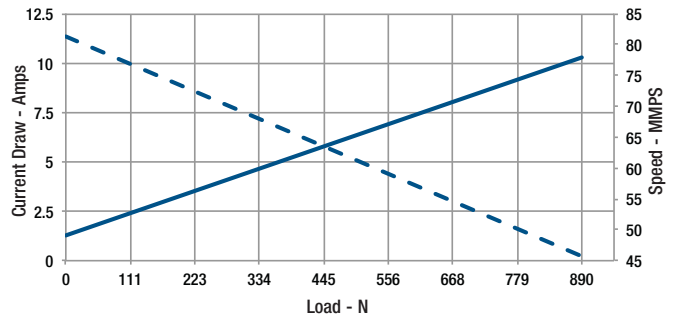
Load Capacity 890 N

For Imperial Measurements, see page 25.

K2vL.G05-12VDC



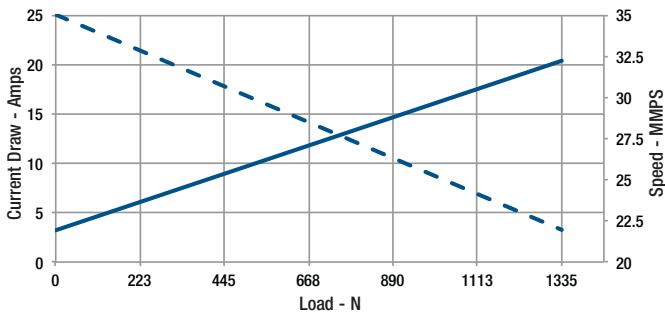
K2vL.G05-24VDC



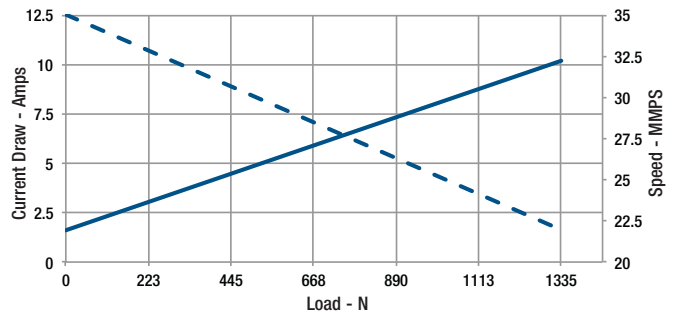
Load Capacity 1335 N

For Imperial Measurements, see page 25.

K2vL.G10-12VDC



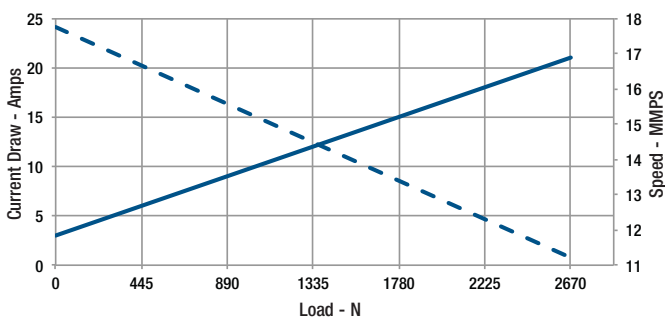
K2vL.G10-24VDC



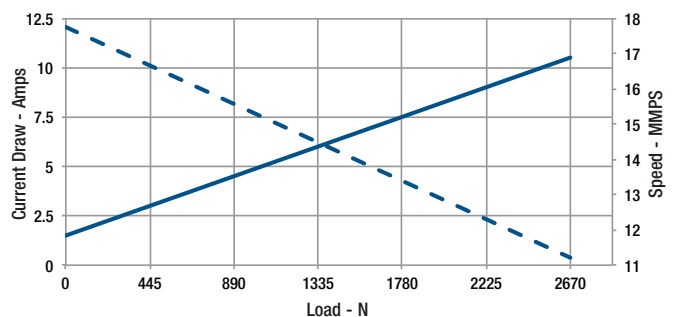
Load Capacity 2670 N

For Imperial Measurements, see page 25.

K2vL.G20-12VDC



K2vL.G20-24VDC



B-Track K2vL

Dimensions

Dimensions

B-Track K2vL	Stroke	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
		2	51	4	102	6	152	8	203	10	254	12	305
	A	8.32	211.3	10.32	262.1	12.32	312.9	14.32	363.7	16.32	414.5	18.32	465.3

Note: Special lengths available

