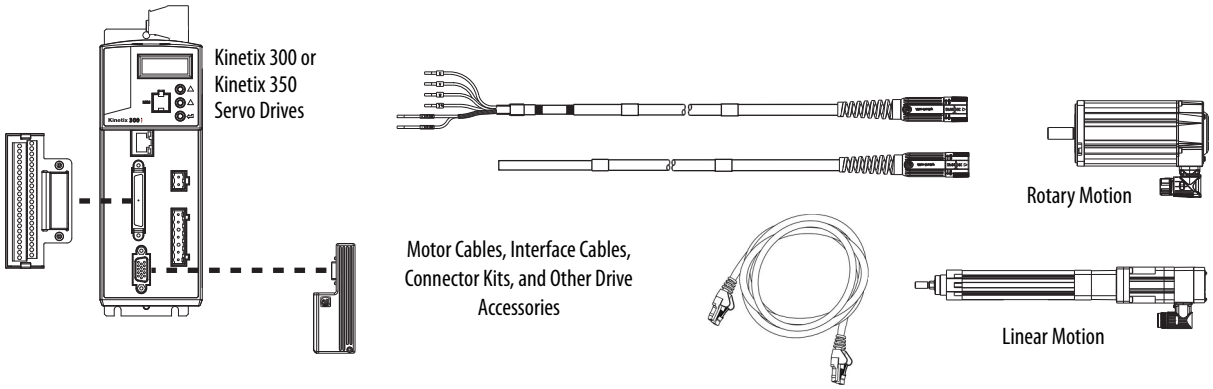
Allen-Bradley

Kinetix 300 and Kinetix 350 Drive Systems

Catalog Numbers
2097-V31PR0, 2097-V31PR2, 2097-V32PR0, 2097-V32PR2, 2097-V32PR4, 2097-V33PR1, 2097-V33PR3, 2097-V33PR5, 2097-V33PR6, 2097-V34PR3, 2097-V34PR5, 2097-V34PR6

2097-V31PR0-LM, 2097-V31PR2-LM, 2097-V32PR0-LM, 2097-V32PR2-LM, 2097-V32PR4-LM, 2097-V33PR1-LM, 2097-V33PR3-LM, 2097-V33PR5-LM, 2097-V33PR6-LM, 2097-V34PR3-LM, 2097-V34PR5-LM, 2097-V34PR6-LM



Topic	Page
Summary of Changes	2
Introduction	2
Determine What You Need	3
Kinetix 300 and Kinetix 350 System Examples	4
2090-Series Motor/Actuator Cables Overview	5
Rotary Motion System Combinations	
MP-Series Low Inertia Motors	7
MP-Series Medium Inertia Motors	15
MP-Series Food Grade Motors	19
MP-Series Stainless Steel Motors	23
TL-Series (Bulletin TLY) Motors	25

Topic (continued)	Page
Linear Motion System Combinations	
LDAT-Series Integrated Linear Thrusters	32
MP-Series Integrated Linear Stages	50
MP-Series Electric Cylinders	56
MP-Series Heavy Duty Electric Cylinders	58
LDC-Series Linear Motors	65
LDL-Series Linear Motors	73
Additional Resources	78

Summary of Changes

This publication contains new and updated information as indicated in the following table.

Topic	Page
Moved TL-Series™ Electric Cylinders and Kinetix® 300/350 drives performance specifications to TL-Series Electric Cylinders Installation Instructions, publication TLAR-IN001.	–

Introduction

Use this publication if your application includes the Kinetix 300 or Kinetix 350 drive family with any of the compatible Allen-Bradley® motors and actuators. For more Kinetix drive and motor information, see the Kinetix Motion Control Selection Guide, publication KNX-SG001 or the Motion Analyzer system sizing and selection tool.

The purpose of this publication is to help you identify the drive system components and accessory items that are required for your Kinetix 300/350 drive and motor/actuator combination. Diagrams in this publication illustrate how many of the common drive accessories are used in a typical system. See the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for detailed accessory descriptions and specifications.

Also provided are drive/motor or drive/actuator system combinations that include the following:

- Motor/cable combinations table
- Drive and motor/actuator performance specification table
- Torque/speed curves with each motor that is matched to the drive that provides optimum performance

Performance specification data and curves reflect nominal system performance of a typical system with motor/drive at rated ambient temperature and line voltage. For additional information on ambients, line conditions, and valid combinations that are not shown in this publication, see the Motion Analyzer system sizing and selection tool.

IMPORTANT These system combinations do not include all possible motor/drive combinations. See the Motion Analyzer system sizing and selection tool to verify compatibility. Access the tool from: https://motionanalyzer.rockwellautomation.com/.

Determine What You Need

For each Kinetix 300 and Kinetix 350 drive system, the drive and motor/actuator catalog numbers are required to determine the motor power and feedback cable catalog numbers. Interface cables and connector kits are also required. Optional equipment includes the Bulletin 2198 encoder output module, Bulletin 2097 AC line filter, shunt resistor, and others. Example diagrams of the required equipment listed on this page are shown on page 4.

Kinetix 300/350 Drive Modules

Kinetix 300 Drives Cat. No.	Kinetix 350 Drives Cat. No.	Input Voltage	Continuous Output Power kW	Continuous Output Current A 0-pk	Features
2097-V31PR0	2097-V31PR0-LM	• 120V AC rms, single-phase • 240V AC rms, single-phase (1)	0.40 kW	2.8	• 120V Doubler mode • Safe Torque-off
2097-V31PR2	2097-V31PR2-LM		0.80 kW	5.7	
2097-V32PR0	2097-V32PR0-LM	240V AC rms, single-phase (1)	0.40 kW	2.8	• Integrated AC line filter • Safe Torque-off
2097-V32PR2	2097-V32PR2-LM		0.80 kW	5.7	
2097-V32PR4	2097-V32PR4-LM		1.70 kW	11.3	
2097-V33PR1	2097-V33PR1-LM	• 120V AC rms, single-phase • 240V AC rms, single-phase (1) • 240V AC rms, three-phase	0.50 kW	2.8	Safe Torque-off
2097-V33PR3	2097-V33PR3-LM		1.00 kW	5.7	
2097-V33PR5	2097-V33PR5-LM		2.00 kW	11.3	
2097-V33PR6	2097-V33PR6-LM		3.00 kW	17.0	
2097-V34PR3	2097-V34PR3-LM	480V AC rms, three-phase	1.00 kW	2.8	
2097-V34PR5	2097-V34PR5-LM		2.00 kW	5.7	
2097-V34PR6	2097-V34PR6-LM		3.00 kW	8.5	

(1) Expect the same motor performance with 240V single-phase input as you can get from the 240V three-phase input (refer to the table below).

Kinetix 300 and Kinetix 350 Drive Operation with 240V Input Voltage

Three-phase Operation with 240V Input	Single-phase Operation with 240V Input		Continuous Output Current A 0-pk	Peak Output Current A 0-pk
2097-V33PR1-*xx*	2097-V32PR0-*xx*	2097-V31PR0-*xx*	2.8	8.5
2097-V33PR3-*xx*	2097-V32PR2-*xx*	2097-V31PR2-*xx*	5.7	17.0
2097-V33PR5-*xx*	2097-V32PR4-*xx*	N/A	11.3	33.9

Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 300 and Kinetix 350 drive families.

Required Drive Accessories

Drive Accessory	Description	Cat. No.
Terminal block for I/O connections	Provides termination points for 50-pin IOD connector	2097-TB1 (1)
Low-profile connector kits (required for flying-lead cables)	Incremental feedback from any compatible motor/actuator to Kinetix 300 or Kinetix 350 drives	2090-K2CK-D15M (2)
	Absolute high-resolution feedback from LDAT-Series linear thrusters to Kinetix 300 drives	LDAT-CONKIT-ABS (1)
Backup battery (required to maintain absolute position reference)	Installs in the 2090-K2CK-D15M low-profile connector kit and applies to drive systems that include TLY-A*xxxx*-B rotary motors	2090-DA-BAT2 (2)
Ethernet network cables	Double-ended, non-flex, shielded	1585J-M8CBJM-*x* (2)
	Double-ended, high-flex, shielded	1585J-M8UBJM-*x* (2)
Motor power and feedback cables	Refer to the specific drive/motor combination for the motor cables required for your system (2)	

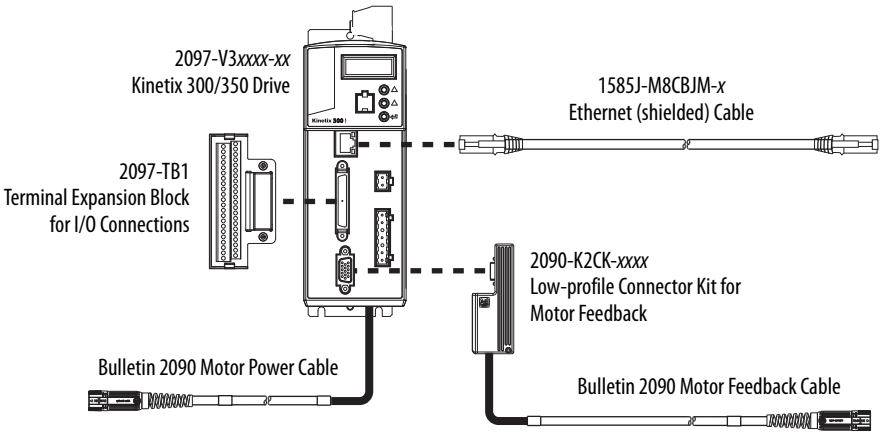
(1) Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and specifications of these drive accessories.

(2) Refer to the Kinetix Motion Accessories Specifications Technical Data, publication KNX-TD004, for detailed descriptions and specifications of these drive accessories.

Kinetix 300 and Kinetix 350 System Examples

These system examples illustrate how the required drive modules and accessories are used in a typical system.

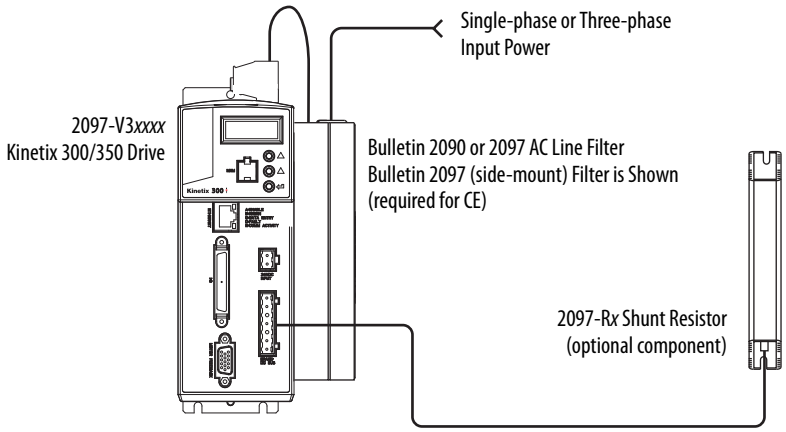
Kinetix 300/350 System Example (Ethernet network)



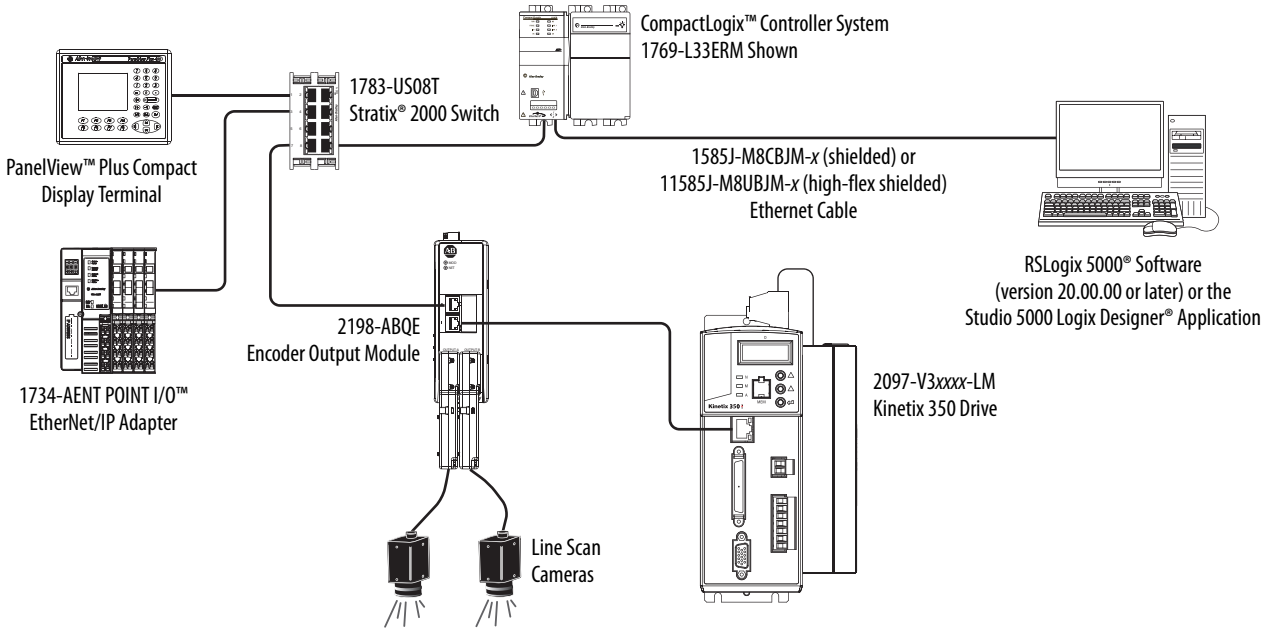
Optional Drive Accessories

Drive Accessory	Drive Family	Description	Cat. No.
2097 AC line filter		AC line conditioning for EMC	2097-F*x*
2090 AC line filter			2090-XXLF-TC*xxx*
			2090-XXLF-336
2097 Shunt resistor		Panel-mount shunt resistor	2097-R*x*
Memory module programmer		Hand-held device for duplicating your Kinetix 300/350 drive configuration	2097-PGMR
Memory modules 12 pack		Memory modules for Automatic Device Replacement (ADR)	2097-MEM
Encoder output module	Kinetix 350	DIN-rail mounted EtherNet/IP™ network-based standalone module capable of outputting encoder pulses to a customer-supplied peripheral device	2198-ABQE
Connector set		Replacement connectors for AC input power (IPD), back-up power (CPD), shunt and DC bus (BC), motor power (MP), and safe-off (STO)	2097-CONN1
External auxiliary encoder	Kinetix 300	Incremental external encoder for master gearing	Bulletin 844D, 847H, and 847T
	Kinetix 350	Feedback-only/master axis for integrated motion over the EtherNet/IP network	Bulletin 842E-CM

Kinetix 300/350 Input Power Accessories Example



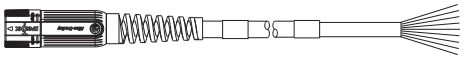
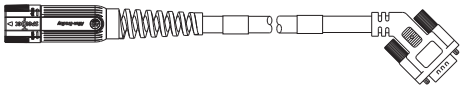
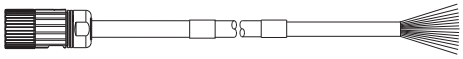
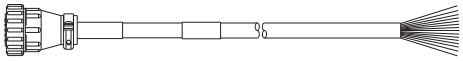
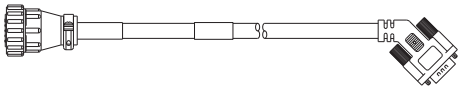
Kinetix 350 Drive and Encoder Output Module Example



Motor-end cable connector kits, for use when building your own cables, and panel-mounted breakout components are also available. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for detailed descriptions and specifications of optional servo drive accessories.

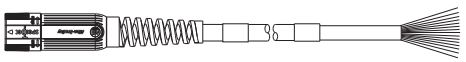
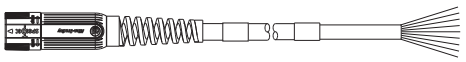
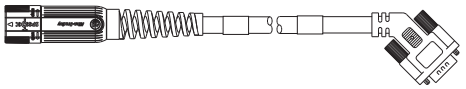
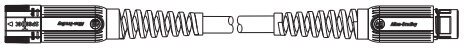
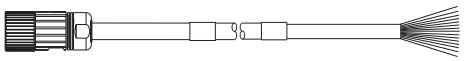
2090-Series Motor/Actuator Cables Overview

Feedback Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CFBM7DF-CEAA*xx*	• Drive-end flying-leads (DF) • High-resolution or resolver applications (CE)			SpeedTec DIN (M7)
2090-CFBM7DD-CEAA*xx*	• Drive-end 15-pin connector (DD) • High-resolution or resolver applications (CE)			
2090-XXNFMF-S*xx*	• Drive-end flying-leads • High-resolution or incremental applications			Threaded DIN (M4)
2090-CFBM4E2-CATR	• Drive-end bayonet (E2), transition (TR) cable (1) • Motor-end threaded DIN (M4) • All feedback types (CA)			
2090-CFBM6DF-CBAA*xx*	• Drive-end flying-leads (DF) • High-resolution, battery backup or Incremental applications (CB)			Circular Plastic (M6)
2090-CFBM6DD-CCAA*xx*	• Drive-end 15-pin connector (DD) • Incremental applications only (CC)			

(1) Threaded DIN connector (motor end) and bayonet connector for 2090-XXNFMP-S*xx* cable.

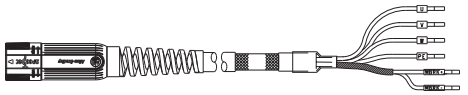
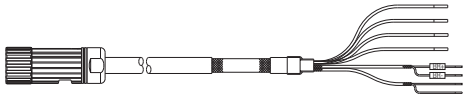
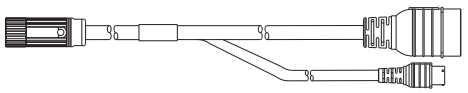
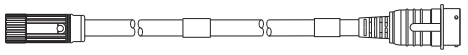
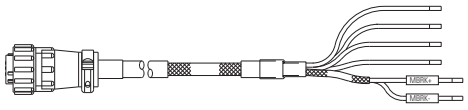
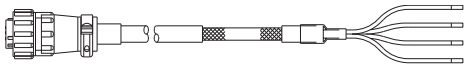
Feedback Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration	Motor/Actuator Connector
		Motor/Actuator End — Drive End	
2090-CFBM7DF-CDAF*xx*	• Drive-end flying-leads (DF) • High-resolution or incremental applications (CD)		SpeedTec DIN (M7)
2090-CFBM7DF-CEAF*xx*	• Drive-end flying-leads (DF) • High-resolution or resolver applications (CE)		
2090-CFBM7DD-CEAF*xx*	• Drive-end 15-pin connector (DD) • High-resolution or resolver applications (CE)		
2090-CFBM7E7-CDAF*xx*	• Drive-end (male) connector, extension (E7) (1) • Motor-end SpeedTec DIN cable plug (M7)		
2090-CFBM7E7-CEAF*xx*			
2090-CFBM4DF-CDAF*xx*	• Drive-end flying-leads • High-resolution or incremental applications		Threaded DIN (M4)

(1) SpeedTec DIN connector (motor end) and male connector for extending SpeedTec or threaded DIN cable.

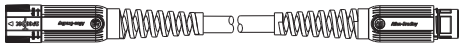
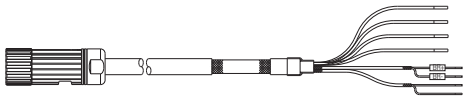
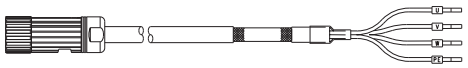
IMPORTANT Feedback cables with the CE designation, for example 2090-CFBM7DF-CEAA*xx*, are intended for high-resolution encoder or resolver applications and have fewer conductors than feedback cables with the CD designation, for example 2090-CFBM7DF-CDAF*xx*, which are intended for high-resolution or incremental encoder applications.

Power/Brake Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration	Motor/Actuator Connector
		Motor/Actuator End — Drive End	
2090-CPBM7DF-*xx*AA*xx*	• Drive-end flying-leads (DF) • Power/brake wires (PB)		SpeedTec DIN (M7)
2090-CPWM7DF-*xx*AA*xx*	• Drive-end flying-leads (DF) • Power wires only (PW)		
2090-XXNPMF-*xx*S*xx*	• Drive-end flying-leads • Power/brake wires		Threaded DIN (M4)
2090-CPBM4E2-*xx*TR	• Drive-end bayonet (E2), transition (TR) cable (1) • Motor-end threaded DIN (M4) • Power/brake wires (PB)		
2090-CPWM4E2-*xx*TR	• Drive-end bayonet (E2), transition (TR) cable (1) • Motor-end threaded DIN (M4) • Power wires only (PW)		
2090-CPBM6DF-16AA*xx*	• Drive-end flying-leads (DF) • Power/brake wires (PB)		Circular Plastic (M6)
2090-CPWM6DF-16AA*xx*	• Drive-end flying-leads (DF) • Power wires only (PW)		

(1) Threaded DIN connector (motor end) and bayonet connector for 2090-XXNFMP-S*xx* cable.

Power/Brake Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration Motor/Actuator End — Drive End	Motor/Actuator Connector
2090-CPBM7DF-*xx*AF*xx*	• Drive-end flying-leads (DF) • Power/brake wires (PB)		SpeedTec DIN (M7)
2090-CPWM7DF-*xx*AF*xx*	• Drive-end flying-leads (DF) • Power wires only (PW)		
2090-CPBM7E7-*xx*AF*xx*	• Drive-end (male) connector, extension (E7) (1) • Motor-end SpeedTec DIN cable plug (M7)		
2090-CPBM4DF-*xx*AF*xx*	• Drive-end flying-leads (DF) • Power/brake wires (PB)		Threaded DIN (M4)
2090-CPWM4DF-*xx*AF*xx*	• Drive-end flying-leads (DF) • Power wires only (PW)		

(1) SpeedTec DIN connector (motor end) and male connector for extending SpeedTec or threaded DIN cable.

Kinetix 300/350 (200V-class) Drives with MP-Series Low Inertia Motors

This section provides system combination information for the Kinetix 300/350 (200V-class) drives when matched with MP-Series™ low-inertia motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

IMPORTANT The MP-Series low-inertia motors on this page are equipped with DIN connectors (specified by 7 in the catalog number) and are not compatible with cables designed for motors equipped with bayonet connectors (specified by 2 in the catalog number). The motors with bayonet connectors (for example, MPL-A310P-*xx*2*x*AA) are being discontinued and require 2090-XXN*x*MP (bayonet) cables. For help with migration or to select bayonet cables, contact your Rockwell Automation sales representative.

Bulletin MPL Motor Cable Combinations

Motor Cat. No. (200V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPL-A1510V-*xx*7*x*AA, MPL-A1520U-*xx*7*x*AA, MPL-A1530U-*xx*7*x*AA	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or (2) (3) 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPL-A210V-*xx*7*x*AA, MPL-A220T-*xx*7*x*AA, MPL-A230P-*xx*7*x*AA		
MPL-A310F-*xx*7*x*AA, MPL-A310P-*xx*7*x*AA, MPL-A320H-*xx*7*x*AA, MPL-A320P-*xx*7*x*AA, MPL-A330P-*xx*7*x*AA		
MPL-A420P-*xx*7*x*AA, MPL-A430H-*xx*7*x*AA		
MPL-A4530F-*xx*7*x*AA, MPL-A4540C-*xx*7*x*AA		2090-XXNFMF-S*xx* (standard, non-flex) (4) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback
MPL-A430P-*xx*7*x*AA	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPL-A4530K-*xx*7*x*AA, MPL-A4540F-*xx*7*x*AA		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.
(2) Applies to Kinetix 300/350 drives and MPL-A3*xxx*-M/S…MPL-A45*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 300 drives and MPL-A15*xxx*-V/E…MPL-A2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 300/350 drives and MPL-A15*xxx*-H…MPL-A45*xxx*-H motors with incremental feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPL Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

Performance Specifications with Kinetix 300/350 (200V-class, single-phase) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class, Single-phase Drives
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	10.1	2.82 (24.9)	0.39	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPL-A210V	8000	8000	3.09	0.55 (4.8)	10.2	1.52 (13.5)	0.37	
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62	
MPL-A230P	5000	5000	5.40	2.10 (18)	23.0	8.2 (72.5)	0.86	2097-V33PR5-*xx* 2097-V32PR4-*xx*
MPL-A310F	3000	3000	3.20	1.58 (14)	9.3	3.61 (32)	0.46	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPL-A310P	4750	5000	4.85	1.58 (14)	14	3.61 (32)	0.73	
MPL-A320H	3350	3500	6.1	3.05 (27)	19.3	7.91 (70)	1.0	2097-V33PR5-*xx* 2097-V32PR4-*xx*
MPL-A320P	4750	5000	9.0	3.05 (27)	29.5	7.91 (70)	1.3	

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

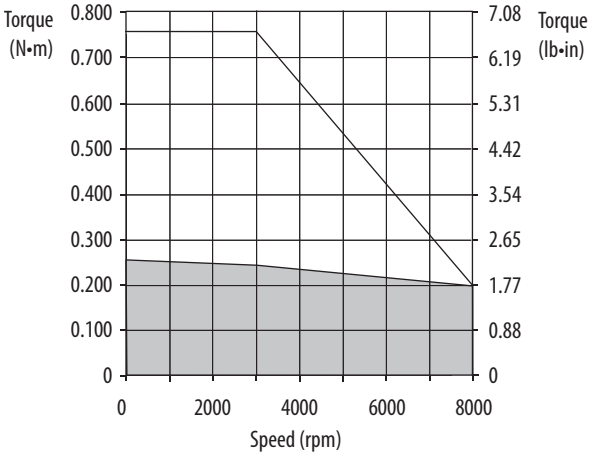
Performance Specifications with Kinetix 300/350 (200V-class, three-phase) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16	2097-V33PR1-*xx*
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	10.1	2.82 (24.9)	0.39	2097-V33PR3-*xx*
MPL-A210V	8000	8000	3.09	0.55 (4.8)	10.2	1.52 (13.5)	0.37	
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62	
MPL-A230P	5000	5000	5.40	2.10 (18)	23.0	8.2 (72.5)	0.86	2097-V33PR5-*xx*
MPL-A310F	3000	3000	3.20	1.58 (14)	9.3	3.61 (32)	0.46	2097-V33PR3-*xx*
MPL-A310P	4750	5000	4.85	1.58 (14)	14	3.61 (32)	0.73	
MPL-A320H	3350	3500	6.1	3.05 (27)	19.3	7.91 (70)	1.0	2097-V33PR5-*xx*
MPL-A320P	4750	5000	9.0	3.05 (27)	29.5	7.91 (70)	1.3	
MPL-A330P	5000	5000	12.0	4.18 (37)	38	11.1 (98)	1.8	2097-V33PR6-*xx*
MPL-A420P	5000	5000	12.7	4.74 (42)	46	13.5 (120)	2.0	
MPL-A430H	3500	3500	12.2	6.21 (55)	45	19.8 (175)	1.8	
MPL-A430P	5000	5000	16.8	5.99 (53)	51	15.7 (139)	2.2	
MPL-A4530F	2800	2800	13.4	8.36 (74)	42	20.3 (180)	1.9	
MPL-A4540C	1500	1500	9.4	10.2 (90)	29	27.1 (240)	1.5	

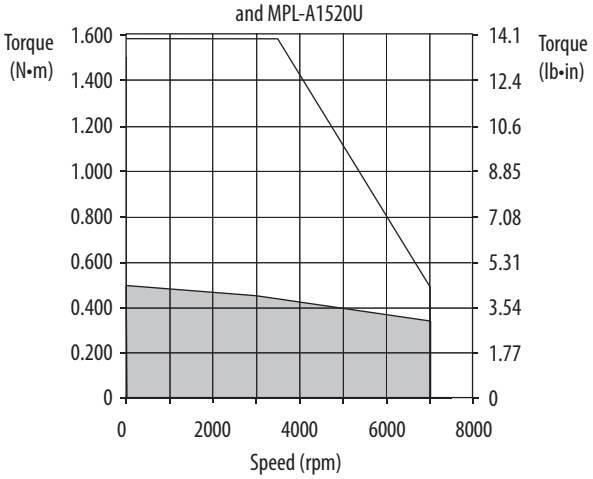
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/MP-Series Low Inertia Motor Curves

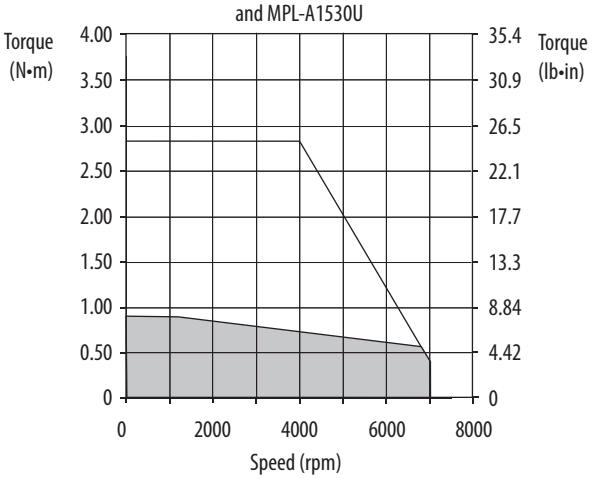
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and MPL-A1510V



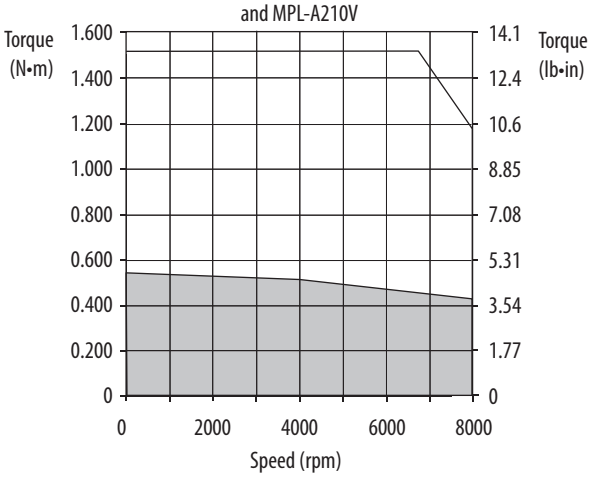
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and MPL-A1520U



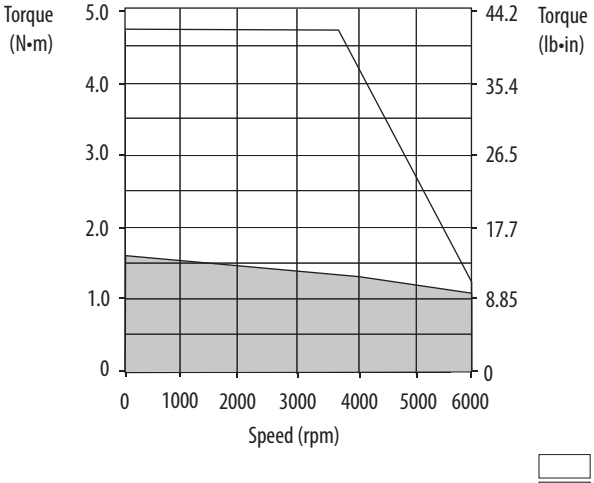
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPL-A1530U



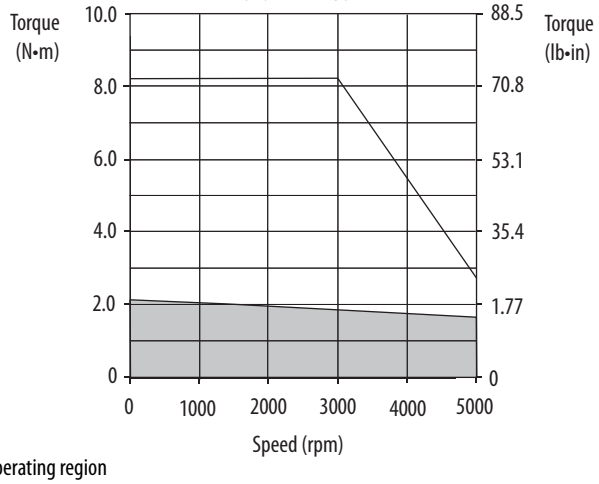
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPL-A210V



2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPL-A220T



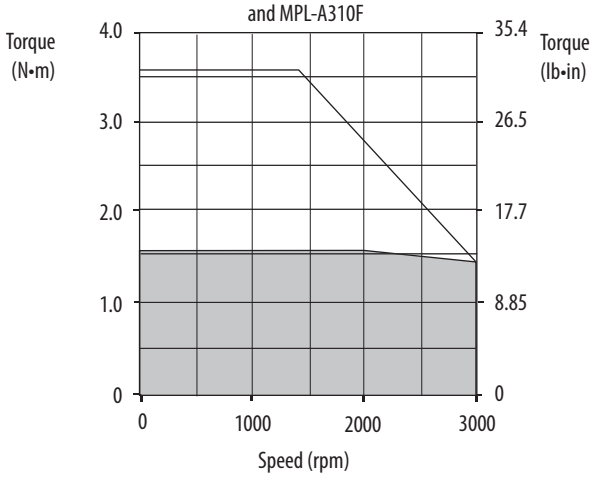
2097-V32PR4 or 2097-V33PR5 and MPL-A230P



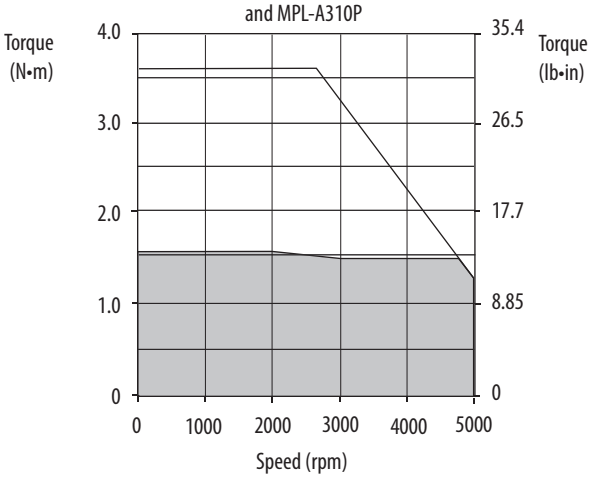
= Intermittent operating region
= Continuous operating region

Kinetix 300/350 (200V-class) Drives/MP-Series Low Inertia Motor Curves (continued)

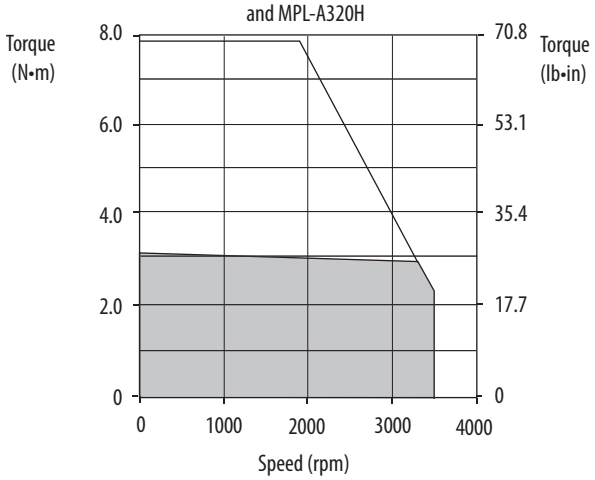
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPL-A310F



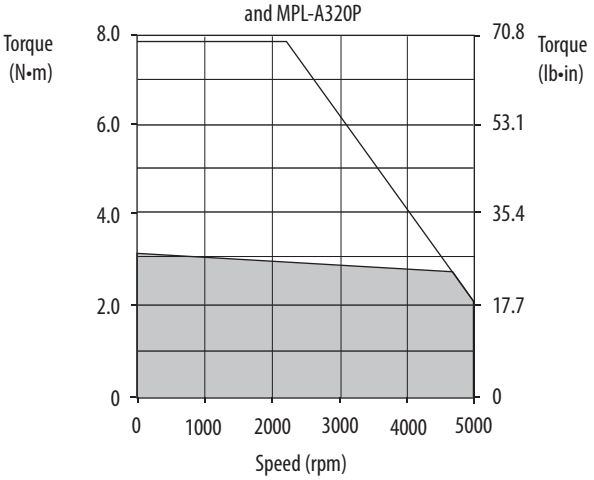
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPL-A310P



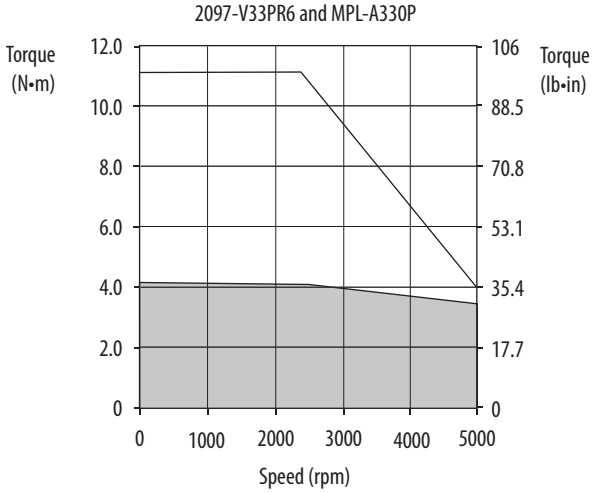
2097-V32PR4 or 2097-V33PR5 and MPL-A320H



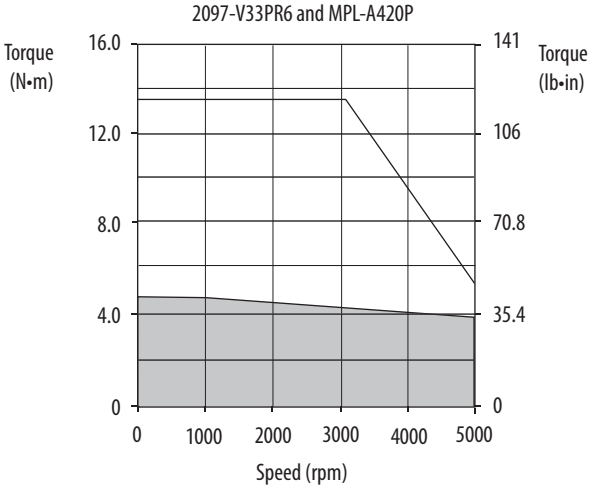
2097-V32PR4 or 2097-V33PR5 and MPL-A320P



2097-V33PR6 and MPL-A330P



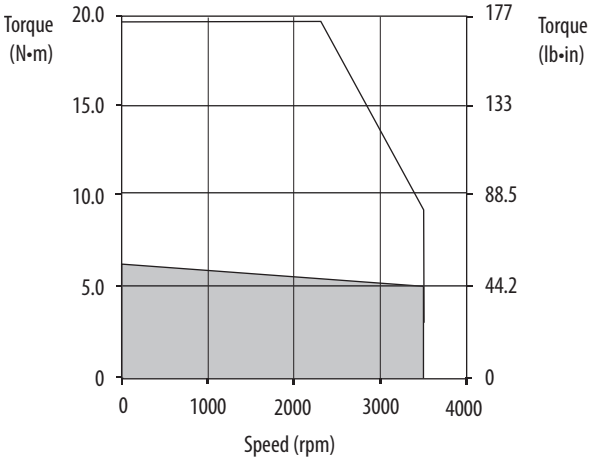
2097-V33PR6 and MPL-A420P



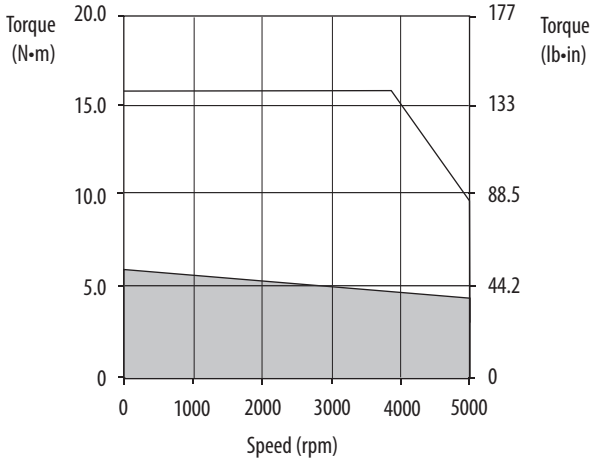
= Intermittent operating region
= Continuous operating region

Kinetix 300/350 (200V-class) Drives/MP-Series Low Inertia Motor Curves (continued)

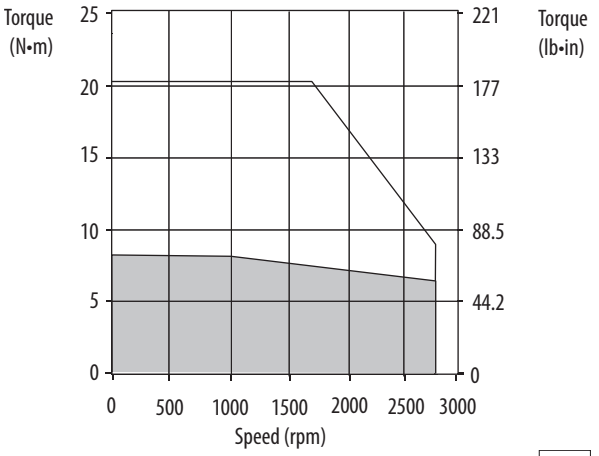
2097-V33PR6 and MPL-A430H



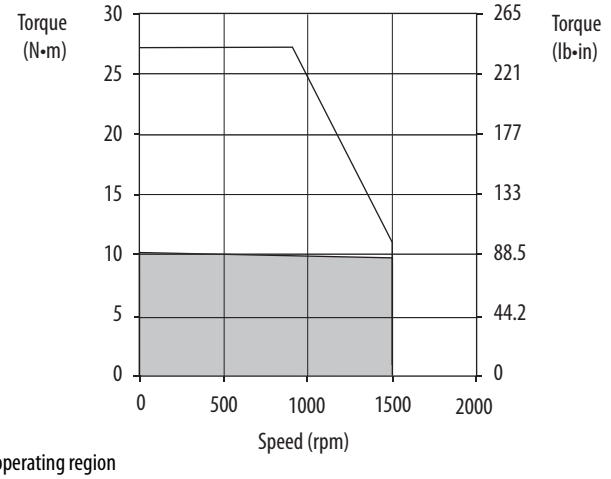
2097-V33PR6 and MPL-A430P



2097-V33PR6 and MPL-A4530F



2097-V33PR6 and MPL-A4540C



= Intermittent operating region
= Continuous operating region

Kinetix 300/350 (400V-class) Drives with MP-Series Low Inertia Motors

This section provides system combination information for the Kinetix 300/350 (400V-class) drives when matched with MP-Series low-inertia motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

IMPORTANT The MP-Series low-inertia motors on this page are equipped with DIN connectors (specified by 7 in the catalog number) and are not compatible with cables designed for motors equipped with bayonet connectors (specified by 2 in the catalog number). The motors with bayonet connectors (for example, MPL-A310P-*xx*2*x*AA) are being discontinued and require 2090-XXN*x*MP (bayonet) cables. For help with migration or to select bayonet cables, contact your Rockwell Automation sales representative.

Bulletin MPL Motor Cable Combinations

Motor Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPL-B1510V-*xx*7*x*AA, MPL-B1520U-*xx*7*x*AA, MPL-B1530U-*xx*7*x*AA	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or (2) (3) 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPL-B210V-*xx*7*x*AA, MPL-B220T-*xx*7*x*AA, MPL-B230P-*xx*7*x*AA		
MPL-B310P-*xx*7*x*AA, MPL-B320P-*xx*7*x*AA, MPL-B330P-*xx*7*x*AA		
MPL-B420P-*xx*7*x*AA		
MPL-B4530F-*xx*7*x*AA		2090-XXNFMF-S*xx* (standard, non-flex) (4) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.
(2) Applies to Kinetix 300/350 drives and MPL-B3*xxx*-M/S…MPL-B45*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 300 drives and MPL-B15*xxx*-V/E…MPL-B2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 300/350 drives and MPL-B15*xxx*-H…MPL-B45*xxx*-H motors with incremental feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

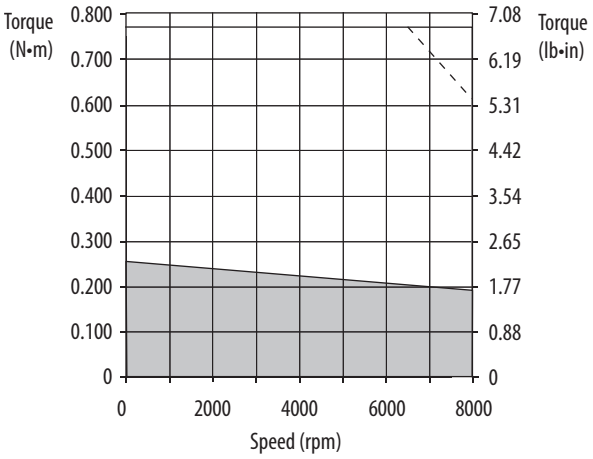
Bulletin MPL Motor Performance Specifications with Kinetix 300/350 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPL-B1510V	8000	8000	0.95	0.26 (2.3)	3.10	0.77 (6.80)	0.16	2097-V34PR3-*xx*
MPL-B1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	
MPL-B1530U	7000	7000	2.0	0.90 (8.0)	7.20	2.82 (24.9)	0.39	
MPL-B210V	8000	8000	1.75	0.55 (4.8)	5.80	1.52 (13.5)	0.37	
MPL-B220T	6000	6000	3.30	1.61 (14.2)	11.3	4.74 (41.9)	0.62	2097-V34PR5-*xx*
MPL-B230P	5000	5000	2.60	2.10 (18.6)	11.3	8.20 (73.0)	0.86	
MPL-B310P	5000	5000	2.4	1.58 (14)	7.1	3.61 (32)	0.77	2097-V34PR3-*xx*
MPL-B320P	5000	5000	4.5	2.94 (26)	14.0	7.91 (70)	1.5	2097-V34PR5-*xx*
MPL-B330P	5000	5000	6.1	4.18 (37)	19.0	11.1 (98)	1.8	2097-V34PR6-*xx*
MPL-B420P	5000	5000	6.4	4.74 (42)	22.0	13.5 (120)	1.9	
MPL-B4530F	3000	3000	6.7	8.36 (74)	21.0	20.3 (180)	2.1	

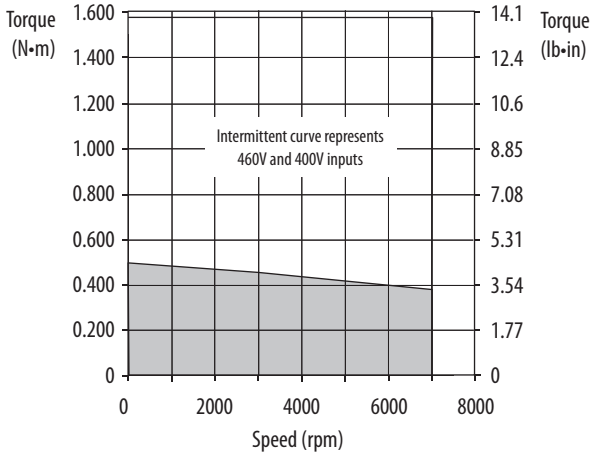
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (400V-class) Drives/MP-Series Low Inertia Motor Curves

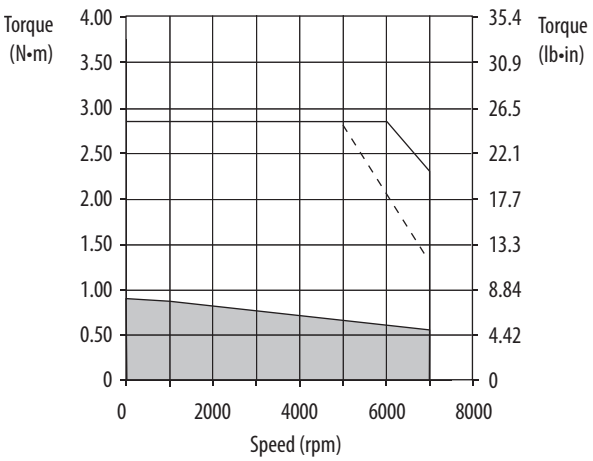
2097-V34PR3 and MPL-B1510V



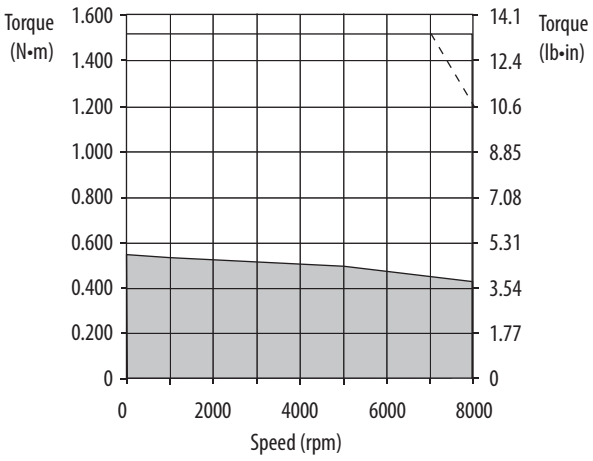
2097-V34PR3 and MPL-B1520U



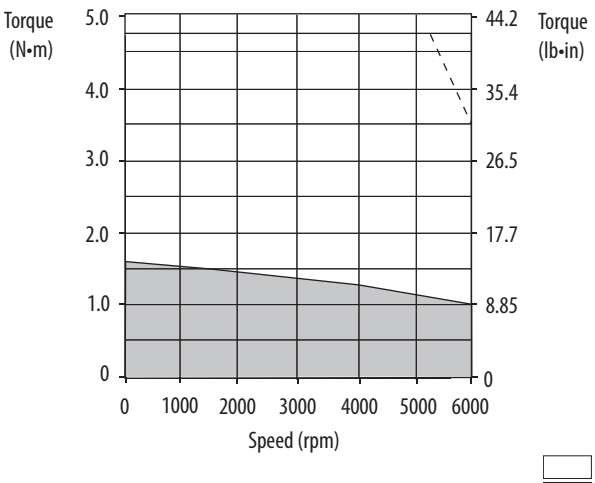
2097-V34PR3 and MPL-B1530U



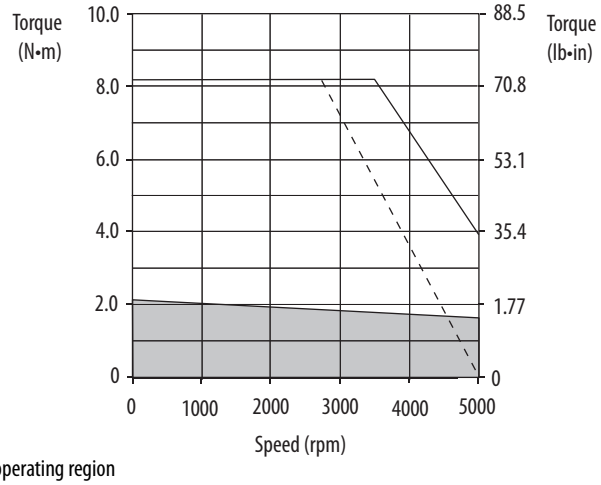
2097-V34PR3 and MPL-B210V



2097-V34PR5 and MPL-B220T



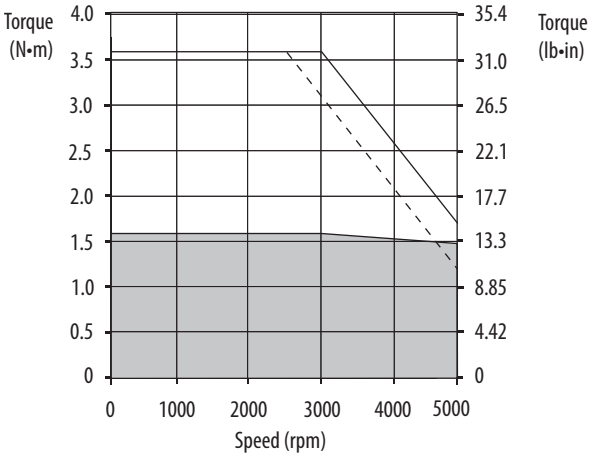
2097-V34PR5 and MPL-B230P



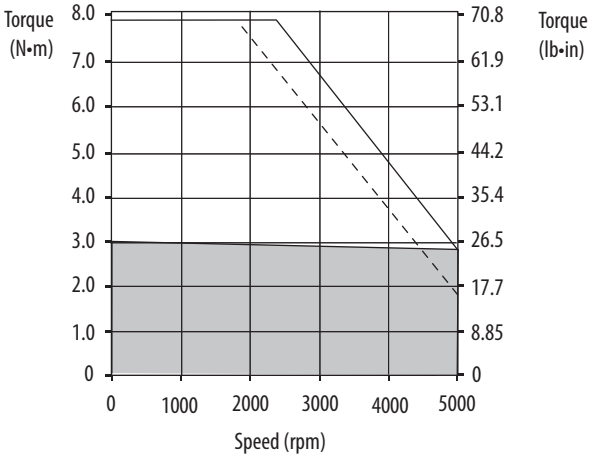
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 300/350 (400V-class) Drives/MP-Series Low Inertia Motor Curves (continued)

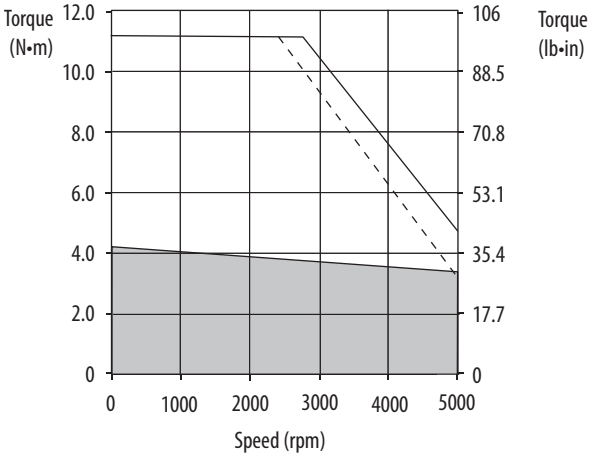
2097-V34PR3 and MPL-B310P



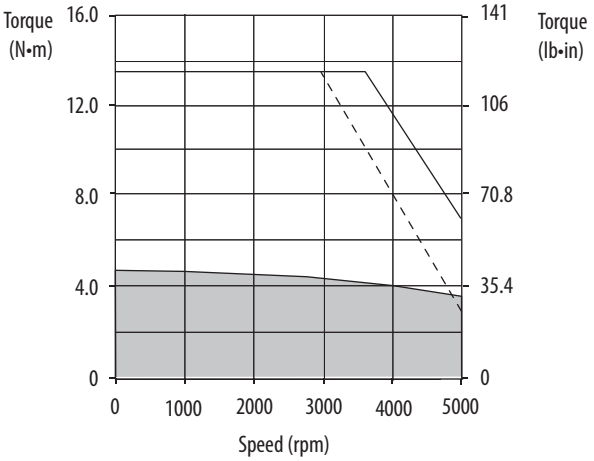
2097-V34PR5 and MPL-B320P



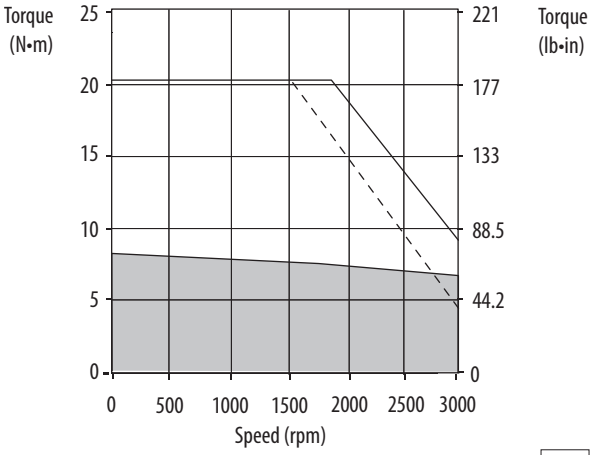
2097-V34PR6 and MPL-B330P



2097-V34PR6 and MPL-B420P



2097-V34PR6 and MPL-B4530F



= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 300/350 (200V-class) Drives with MP-Series Medium Inertia Motors

This section provides system combination information for the Kinetix 300/350 (200V-class) drives when matched with MP-Series medium-inertia motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPM Motor Cable Combinations

Motor Cat. No. (200V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPM-A1151M, MPM-A1152F	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

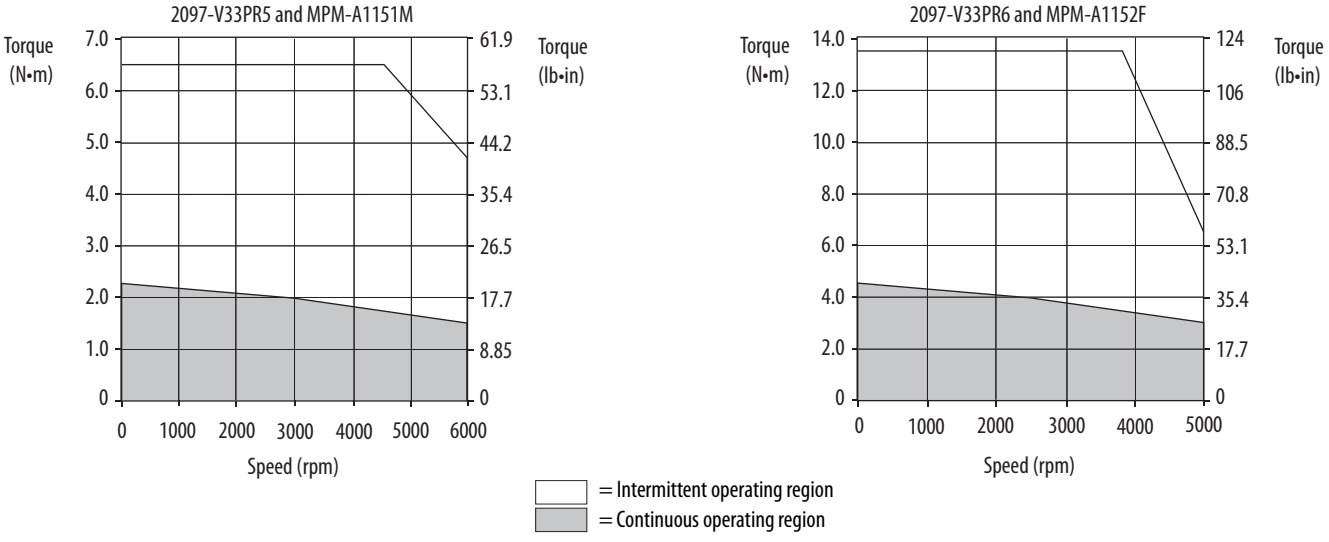
For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPM Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

Rotary Motor Cat. No.	Base Speed rpm	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
MPM-A1151M	4500	5000	6000	7.65	2.3 (20.3)	30.5	6.6 (58.4)	0.90	2097-V33PR5-*xx*
MPM-A1152F	3000	4000	5000	11.93	4.7 (41.6)	44.8	13.5 (119)	1.40	2097-V33PR6-*xx*

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/MP-Series Medium Inertia Motor Curves



Kinetix 300/350 (400V-class) Drives with MP-Series Medium Inertia Motors

This section provides system combination information for the Kinetix 300/350 (400V-class) drives when matched with MP-Series medium-inertia motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPM Motor Cable Combinations

Motor Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPM-B1151F, MPM-B1151T, MPM-B1152C, MPM-B1152F, MPM-B1153E	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPM-B1302F, MPM-B1304C		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

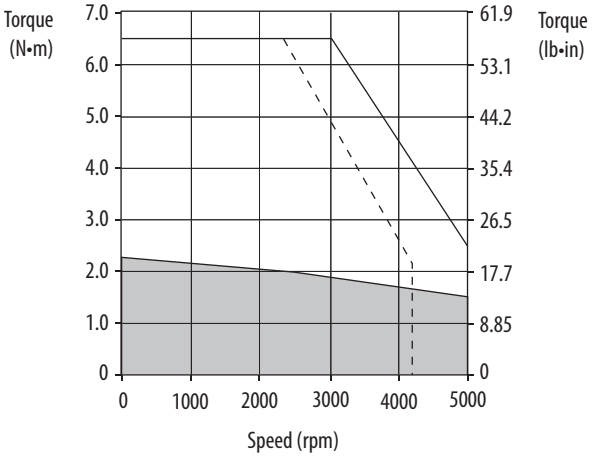
Bulletin MPM Motor Performance Specifications with Kinetix 300/350 (400V-class) Drives

Rotary Motor Cat. No.	Base Speed rpm	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPM-B1151F	3000	4000	5000	2.71	2.3 (20.3)	9.9	6.6 (58.4)	0.75	2097-V34PR5-*xx*
MPM-B1151T	6000	5000	7000	5.62	2.3 (20.3)	20.5	5.8 (51.3)	0.90	2097-V34PR6-*xx*
MPM-B1152C	1500	2500	3000	3.61	5.0 (44.2)	12.4	13.5 (119)	1.20	2097-V34PR5-*xx*
MPM-B1152F	3000	4000	5200	6.17	5.0 (44.2)	21.1	13.3 (118)	1.40	2097-V34PR6-*xx*
MPM-B1153E	2250	3000	3500	6.21	6.5 (57.5)	21.6	19.7 (174)	1.40	
MPM-B1302F	3000	4000	4500	8.57	6.6 (58.4)	22.0	13.2 (117)	1.65	
MPM-B1304C	1500	1870	2750	7.0	10.3 (91.1)	22.3	27.1 (240)	2.00	

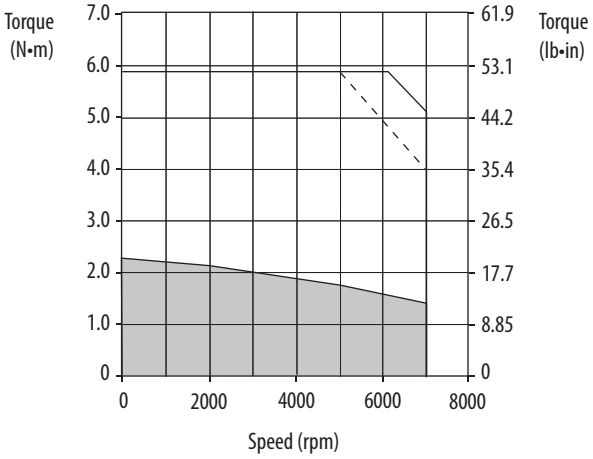
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (400V-class) Drives/MP-Series Medium Inertia Motor Curves

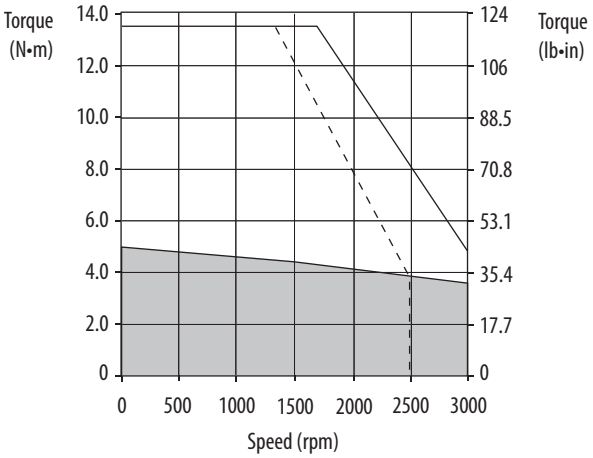
2097-V34PR5 and MPM-B1151F



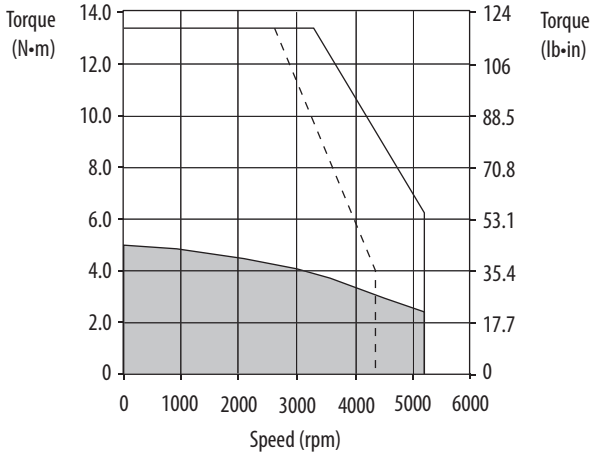
2097-V34PR6 and MPM-B1151T



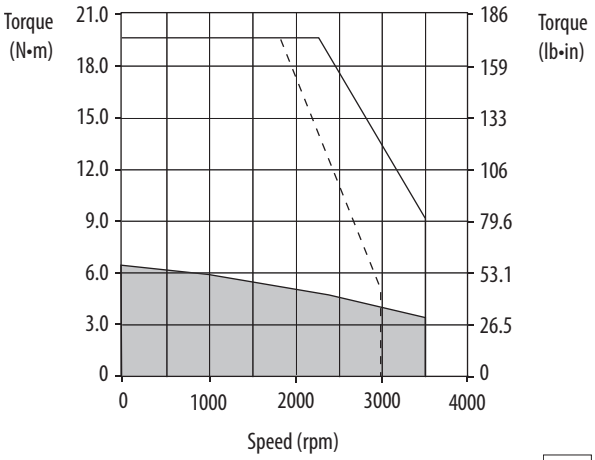
2097-V34PR5 and MPM-B1152C



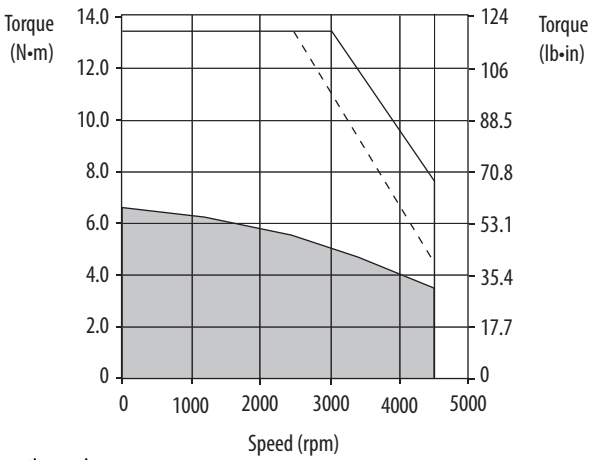
2097-V34PR6 and MPM-B1152F



2097-V34PR6 and MPM-B1153E



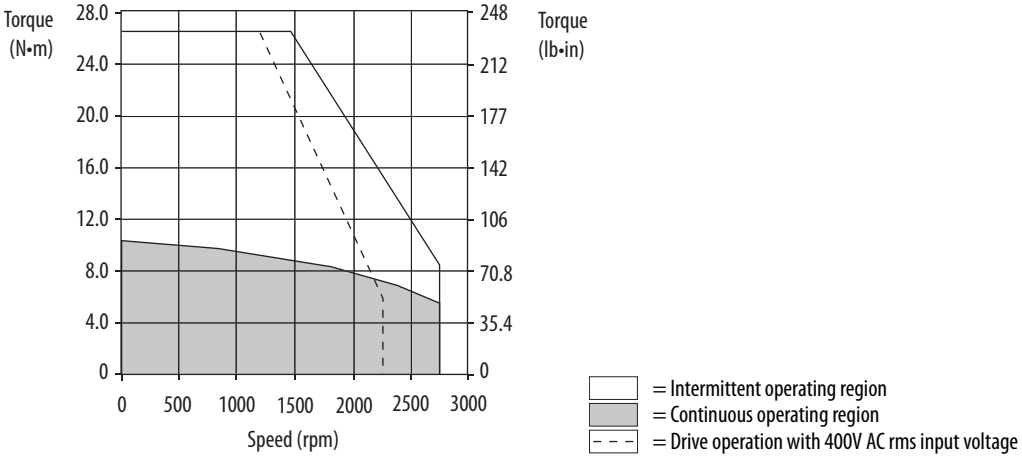
2097-V34PR6 and MPM-B1302F



= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 300/350 (400V-class) Drives/MP-Series Medium Inertia Motor Curves (continued)

2097-V34PR6 and MPM-B1304C



Kinetix 300/350 (200V-class) Drives with MP-Series Food Grade Motors

This section provides system combination information for the Kinetix 300/350 (200V-class) drives when matched with MP-Series food-grade motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPF Motor Cable Combinations

Motor Cat. No. (200V-class)	Motor Power Cable	Motor Feedback Cable (1)
MPF-A310P, MPF-A320H, MPF-A320P, MPF-A330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPF-A430H		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPF Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

Performance Specifications with Kinetix 300/350 (200V-class, single-phase) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase Drives
MPF-A310P	4750	5000	4.85	1.58 (14)	14	3.61 (32)	0.73	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPF-A320H	3350	3500	6.1	3.05 (27)	19.3	7.91 (70)	1.0	2097-V33PR5-*xx* 2097-V32PR4-*xx*
MPF-A320P	4750	5000	9.0	3.05 (27)	29.5	7.91 (70)	1.3	

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

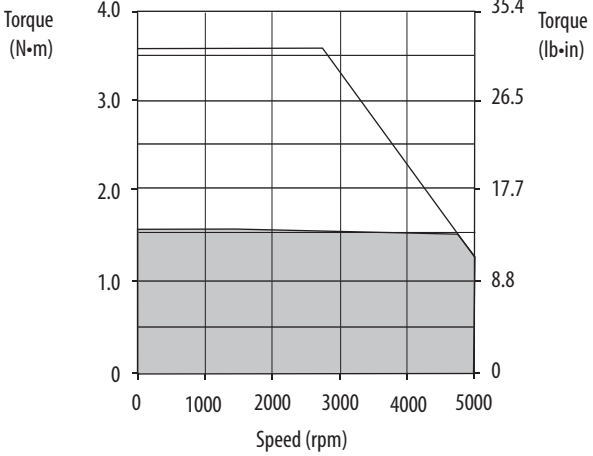
Performance Specifications with Kinetix 300/350 (200V-class, three-phase) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
MPF-A310P	4750	5000	4.85	1.58 (14)	14	3.61 (32)	0.73	2097-V33PR3-*xx*
MPF-A320H	3350	3500	6.1	3.05 (27)	19.3	7.91 (70)	1.0	2097-V33PR5-*xx*
MPF-A320P	4750	5000	9.0	3.05 (27)	29.5	7.91 (70)	1.3	2097-V33PR3-*xx*
MPF-A330P	5000	5000	12.0	4.18 (37)	38	11.1 (98)	1.6	2097-V33PR6-*xx*
MPF-A430H	3500	3500	12.2	6.21 (55)	45	19.8 (175)	1.8	2097-V33PR6-*xx*

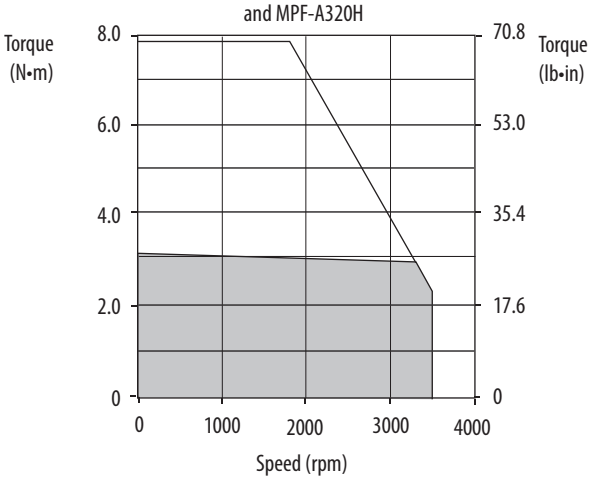
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/MP-Series Food Grade Motor Curves

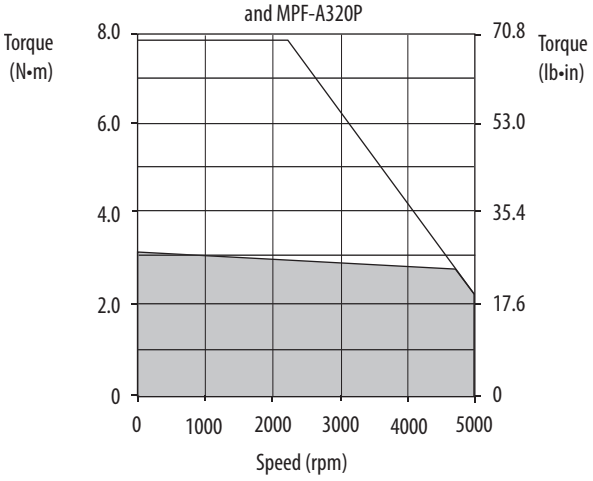
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPF-A310P



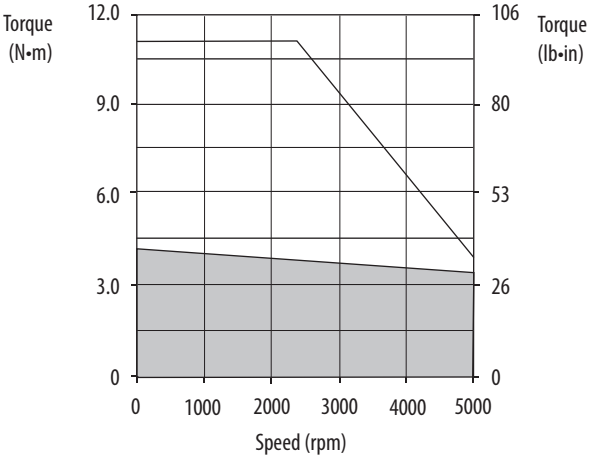
2097-V32PR4 or 2097-V33PR5 and MPF-A320H



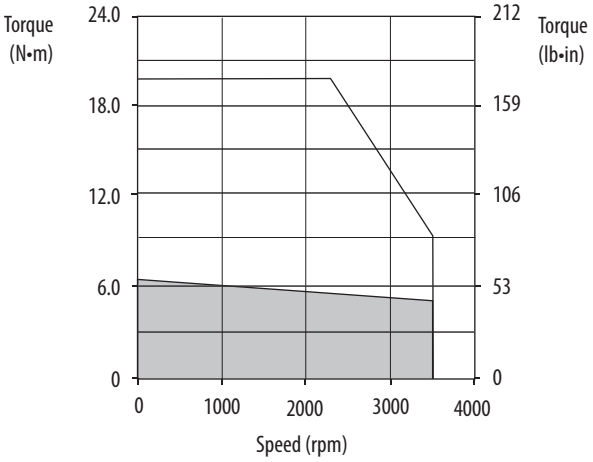
2097-V32PR4 or 2097-V33PR5 and MPF-A320P



2097-V33PR6 and MPF-A330P



2097-V33PR6 and MPF-A430H



= Intermittent operating region
= Continuous operating region

Kinetix 300/350 (400V-class) Drives with MP-Series Food Grade Motors

This section provides system combination information for the Kinetix 300/350 (400V-class) drives when matched with MP-Series food-grade motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPF Motor Cable Combinations

Motor Cat. No. (400V-class)	Motor Power Cable	Motor Feedback Cable (1)
MPF-B310P MPF-B320P MPF-B330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

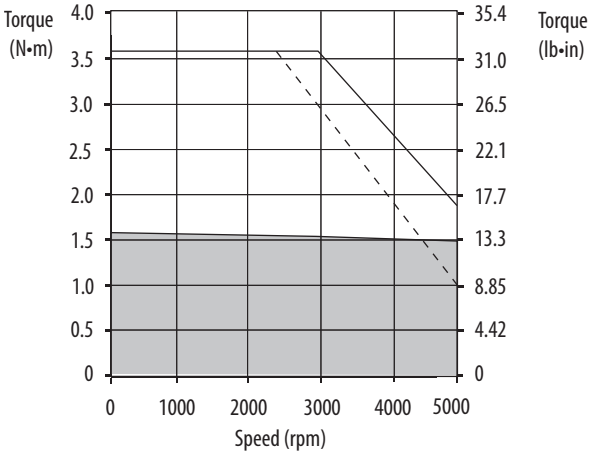
Bulletin MPF Motor Performance Specifications with Kinetix 300/350 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPF-B310P	5000	5000	2.30	1.58 (14)	7.1	3.61 (32)	0.77	2097-V34PR3-*xx*
MPF-B320P	5000	5000	4.24	3.05 (27)	14.0	7.34 (65)	1.5	2097-V34PR5-*xx*
MPF-B330P	5000	5000	5.70	4.18 (37)	16.9	10.0 (88)	1.6	2097-V34PR5-*xx*
					19.0	11.1 (98)		2097-V34PR6-*xx*

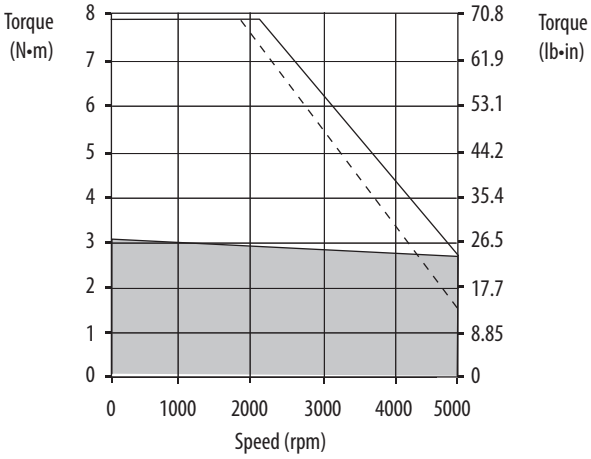
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (400V-class) Drives/MP-Series Food Grade Motor Curves

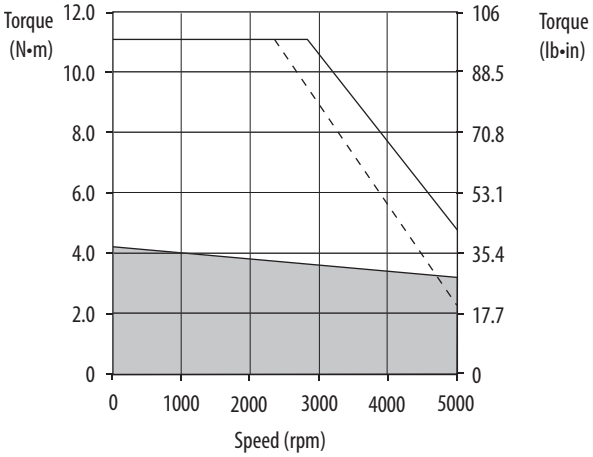
2097-V34PR3 and MPF-B310P



2097-V34PR5 and MPF-B320P



2097-V34PR6 and MPF-B330P



= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 300/350 (200V-class) Drives with MP-Series Stainless Steel Motors

This section provides system combination information for the Kinetix 300/350 (200V-class) drives when matched with MP-Series stainless-steel motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPS Motor Cable Combinations

Motor Cat. No. (200V-class)	Motor Power Cable	Motor Feedback Cable (1)
MPS-A330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPS-A4540F		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

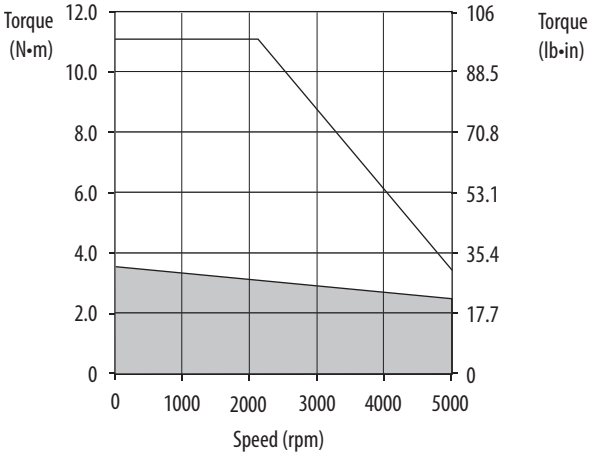
Bulletin MPS Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
MPS-A330P	5000	5000	9.80	3.60 (32)	33.9	10.1 (89.4)	1.3	2097-V33PR5-*xx*
					38.0	11.1 (98.2)		2097-V33PR6-*xx*
MPS-A4540F	3000	3000	14.4	8.1 (72)	50.9	24.8 (219)	1.4	2097-V33PR6-*xx*

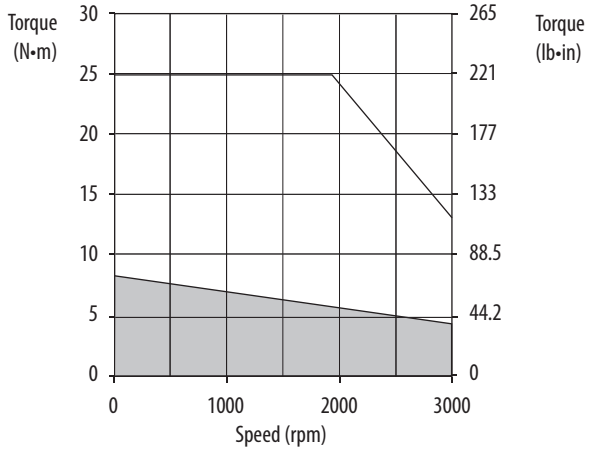
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/MP-Series Stainless Steel Motor Curves

2097-V33PR6 and MPS-A330P



2097-V33PR6 and MPS-A4540F



= Intermittent operating region
= Continuous operating region

Kinetix 300/350 (400V-class) Drives with MP-Series Stainless Steel Motors

This section provides system combination information for the Kinetix 300/350 (400V-class) drives when matched with MP-Series stainless-steel motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin MPS Motor Cable Combinations

Motor Cat. No. (400V-class)	Motor Power Cable	Motor Feedback Cable (1)
MPS-B330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPS-B4540F		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

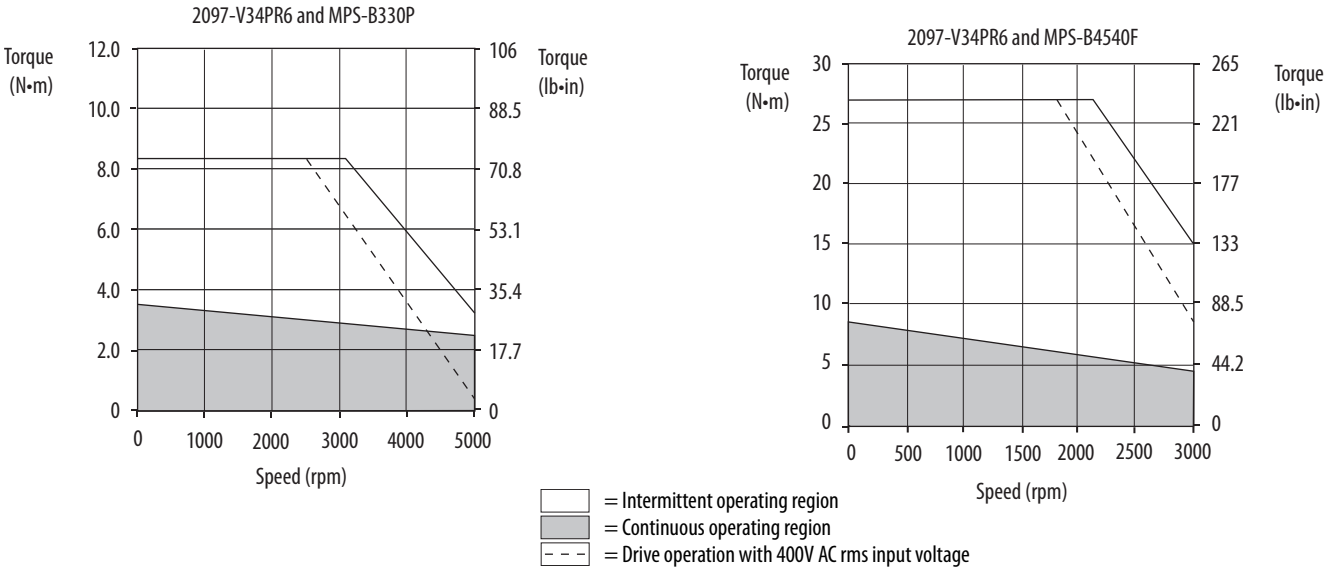
For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPS Motor Performance Specifications with Kinetix 300/350 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPS-B330P	5000	5000	4.90	3.6 (32)	16.9	10.1 (89.4)	1.3	2097-V34PR5-*xx*
					19.0	11.1 (98.2)		2097-V34PR6-*xx*
MPS-B4540F	3000	3000	7.1	8.1 (72)	25.4	26.3 (233)	1.4	2097-V34PR6-*xx*

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (400V-class) Drives/MP-Series Stainless Steel Motor Curves



Kinetix 300/350 (200V-class) Drives with TL-Series Low Inertia Motors

This section provides system combination information for the Kinetix 300/350 drives when matched with TL-Series (Bulletin TLY) low-inertia motors. Compatible TL-Series motors are equipped with absolute high-resolution or incremental encoder feedback. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Bulletin TLY Motor Cable Combinations

Motor Cat. No. (200V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
TLY-A110*x*, TLY-A120*x*, TLY-A130*x*	2090-CPWM6DF-16AA*xx* (standard, non-flex) (without brake) 2090-CPBM6DF-16AA*xx* (standard, non-flex) (with brake)	2090-CFBM6DF-CBAA*xx* or 2090-CFBM6DD-CCAA*xx* (standard, non-flex) Absolute High-resolution or Incremental Feedback
TLY-A220*x*, TLY-A230*x*		
TLY-A2530P, TLY-A2540P		
TLY-A310M		

(1) For TLY-A*xxxx*-H motors with incremental encoder feedback, use 2090-CFBM6DF-CBAA*xx* flying-lead cables and 2090-K2CK-D15M connector kit (battery not required) or use 2090-CFBM6DD-CCAA*xx* (15-pin connector) cable on the drive end. Refer to Required Drive Accessories on page 3 for more information.
The TLY-A*xxxx*-B motors with 17-bit high resolution encoder feedback require the 2090-CFBM6DF-CBAA*xx* flying-lead feedback cable and 2090-K2CK-D15M connector kit with 2090-DA-BAT2 battery.

TL-Series (Bulletin TLY) motors are characterized as having 1000 mm (39.4 in.) cable extensions with circular plastic connectors and TLY-A*xxx* catalog numbers.
For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin TLY (non-brake) Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

Performance Specifications (non-brake) with Kinetix 300/350 (200V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase or Three-phase Drives
TLY-A110*x*	5000	6000 (1)	0.55	0.096 (0.85)	1.50	0.20 (1.75)	0.041	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A120*x*	5000		1.03	0.181 (1.60)	2.50	0.36 (3.20)	0.086	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A130*x*	5000		1.85	0.325 (2.88)	4.90	0.76 (6.70)	0.14	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A220*x*	5000		3.50	0.836 (7.40)	7.90	1.48 (13.1)	0.35	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A230*x*	5000		5.50	1.30 (11.5)	15.5	3.05 (27.0)	0.44	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*

(1) Applies to TLY-A*xxx*T-H motors with incremental feedback. The TLY-A*xxx*T-B motors with absolute high-resolution encoders are rated for 5000 rpm.

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications (non-brake) with Kinetix 300/350 (200V-class) Drives (continued)

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase or Three-phase Drives
TLY-A2530P	4400	5000	10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.69	2097-V33PR5-*xx* 2097-V32PR4-*xx*
TLY-A2540P	4575		10.0	2.94 (26.0)	24.8	7.10 (63.0)	0.86	2097-V33PR5-*xx* 2097-V32PR4-*xx*
TLY-A310M	4000	4500	10.0	3.61 (31.9)	30.0	9.0 (79.6)	0.95	2097-V33PR5-*xx* 2097-V32PR4-*xx*

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Bulletin TLY (brake) Motor Performance Specifications with Kinetix 300/350 (200V-class) Drives

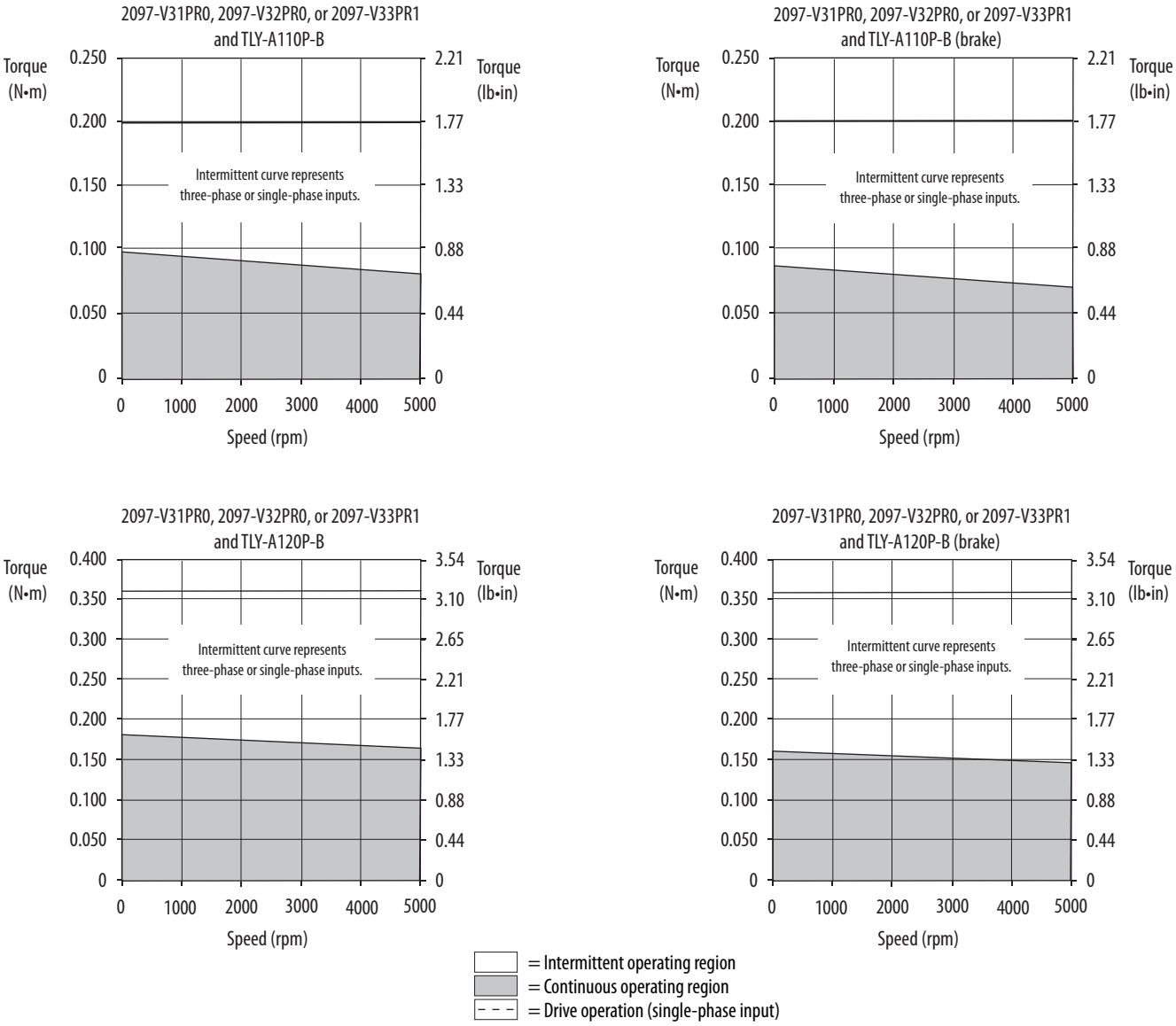
Performance Specifications (brake) with Kinetix 300/350 (200V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase or Three-phase Drives
TLY-A110*x*	5000	6000 (1)	0.50	0.086 (0.76)	1.50	0.20 (1.75)	0.037	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A120*x*	5000		0.93	0.163 (1.44)	2.50	0.36 (3.20)	0.077	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A130*x*	5000		1.67	0.293 (2.59)	4.90	0.76 (6.70)	0.13	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A220*x*	5000		3.15	0.757 (6.70)	7.90	1.48 (13.1)	0.24	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
TLY-A230*x*	4250		4.95	1.16 (10.3)	15.5	3.05 (27.0)	0.32	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
TLY-A2530P	3650	5000	10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.55	2097-V33PR5-*xx* 2097-V32PR4-*xx*
TLY-A2540P	3750		10.0	2.94 (26.0)	24.8	7.10 (63.0)	0.66	2097-V33PR5-*xx* 2097-V32PR4-*xx*
TLY-A310M	3900	4500	10.0	3.61 (31.9)	30.0	9.0 (79.6)	0.90	2097-V33PR5-*xx* 2097-V32PR4-*xx*

(1) Applies to TLY-A*xxx*T-H motors with incremental feedback. The TLY-A*xxx*T-B motors with absolute high-resolution encoders are rated for 5000 rpm.

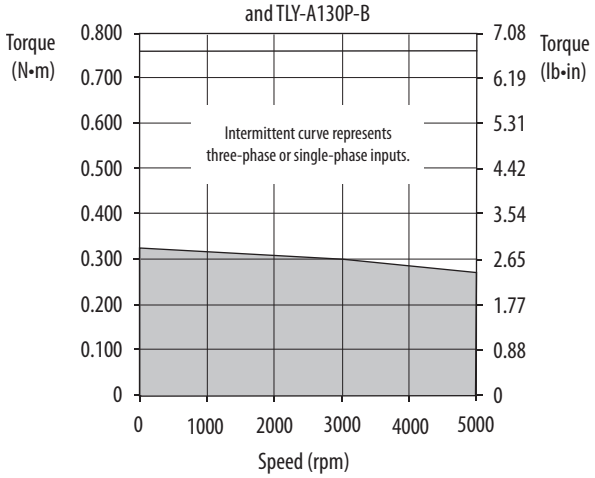
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/TLY-A*xxx*P-B (absolute high-resolution) Motor Curves

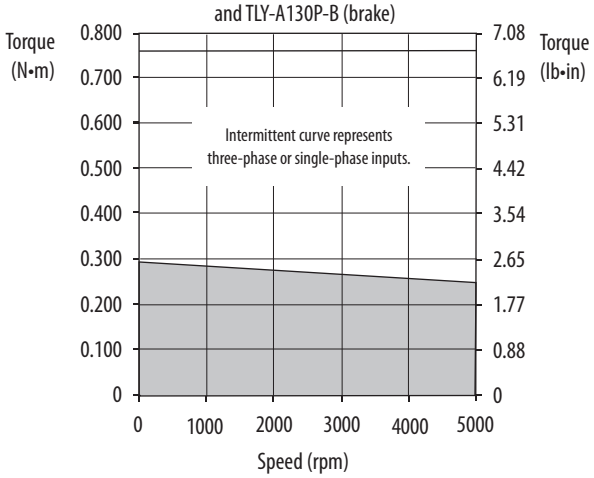


Kinetix 300/350 (200V-class) Drives/TLY-A*xxx*P-B (absolute high-resolution) Motor Curves (continued)

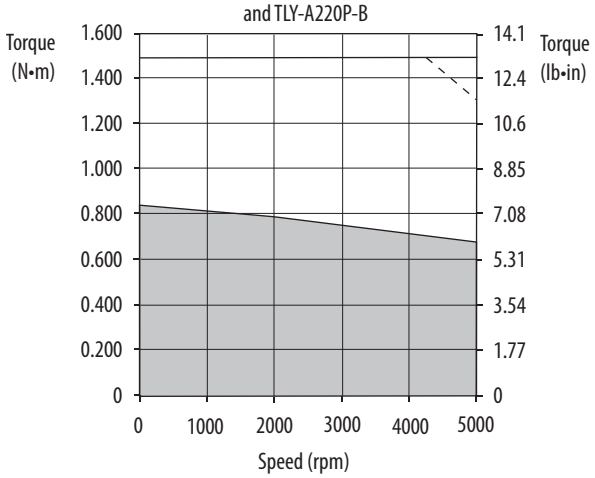
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A130P-B



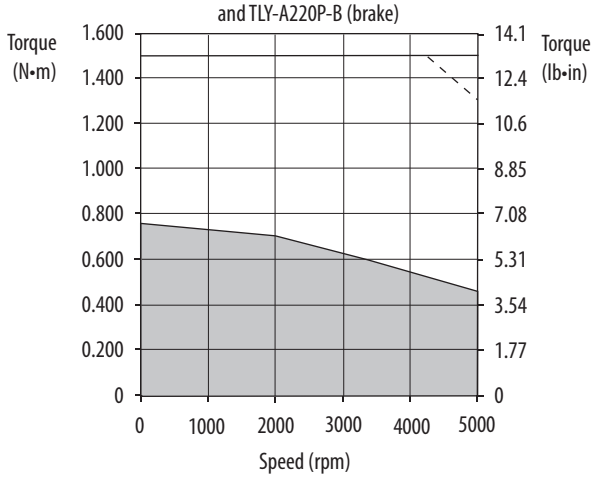
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A130P-B (brake)



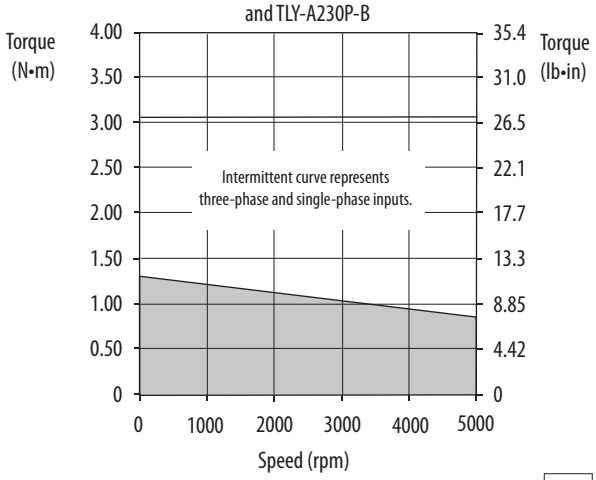
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A220P-B



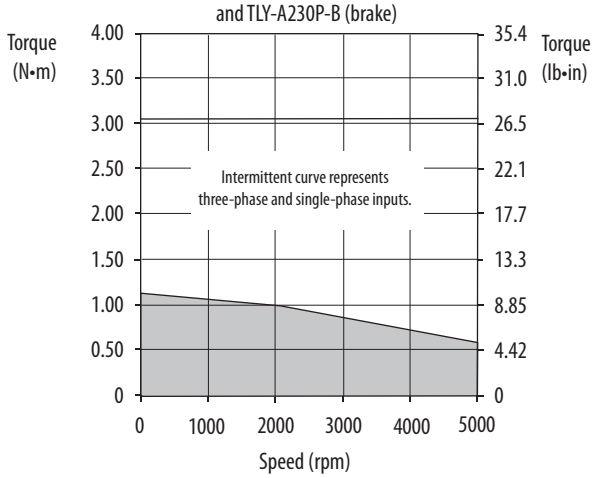
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A220P-B (brake)



2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and TLY-A230P-B



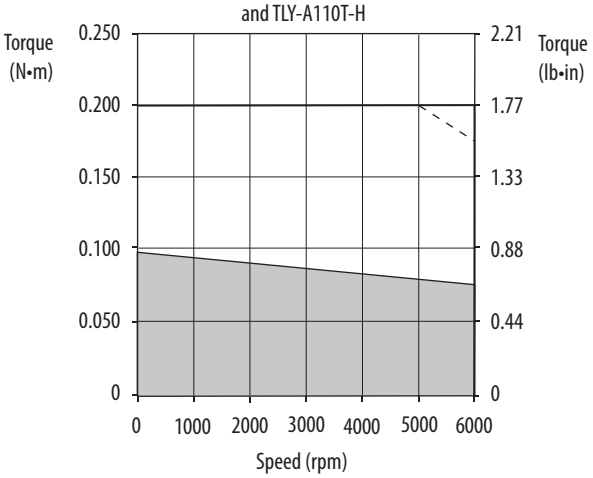
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and TLY-A230P-B (brake)



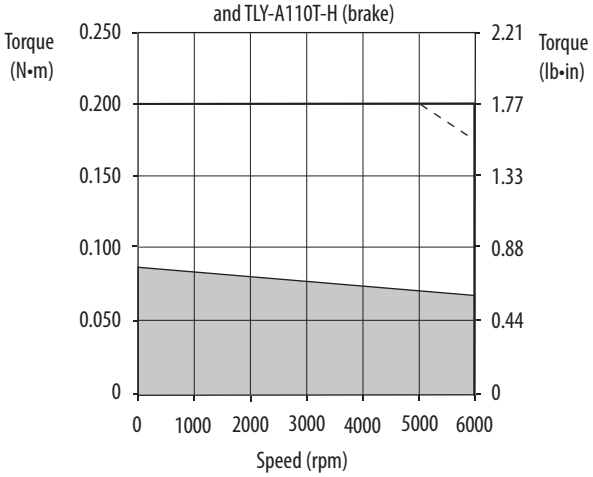
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 300/350 (200V-class) Drives/TLY-A*xxx*T-H (incremental) Motor Curves

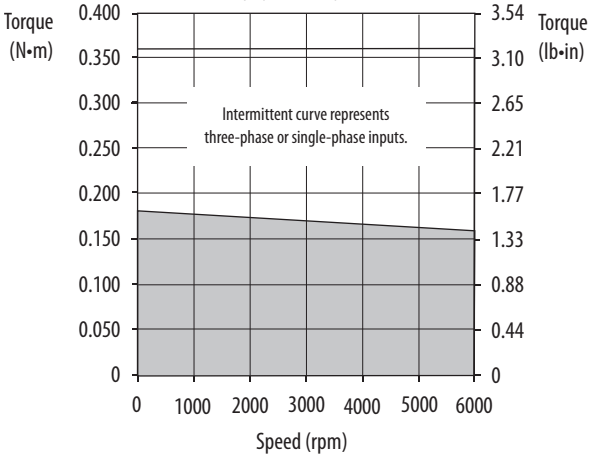
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A110T-H



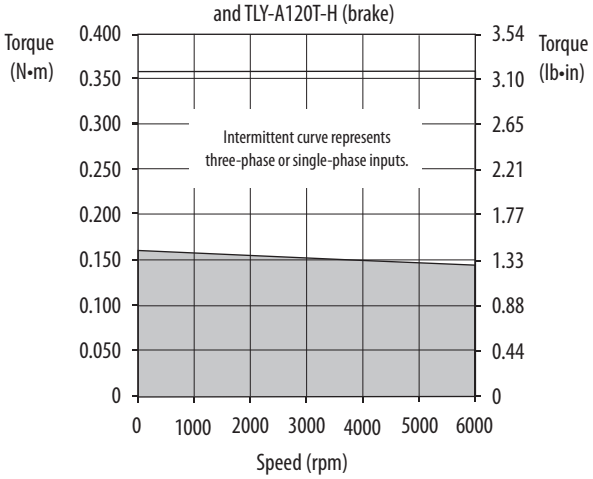
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A110T-H (brake)



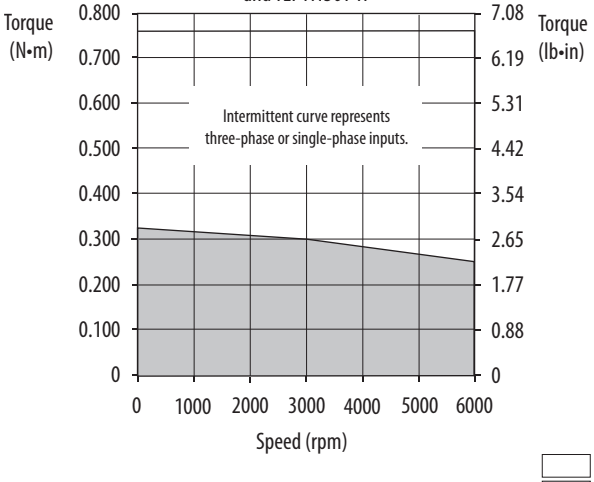
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A120T-H



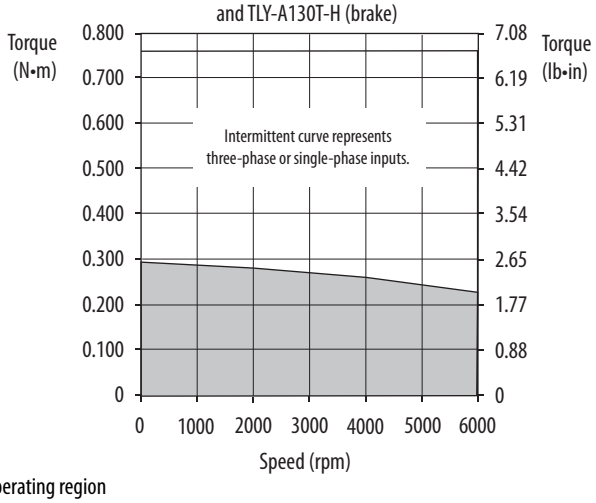
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A120T-H (brake)



2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A130T-H



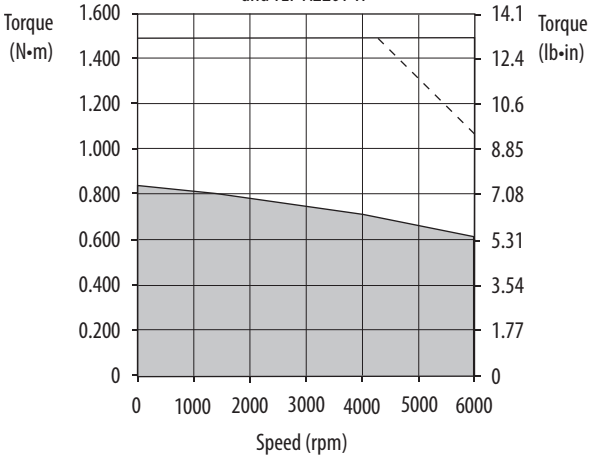
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A130T-H (brake)



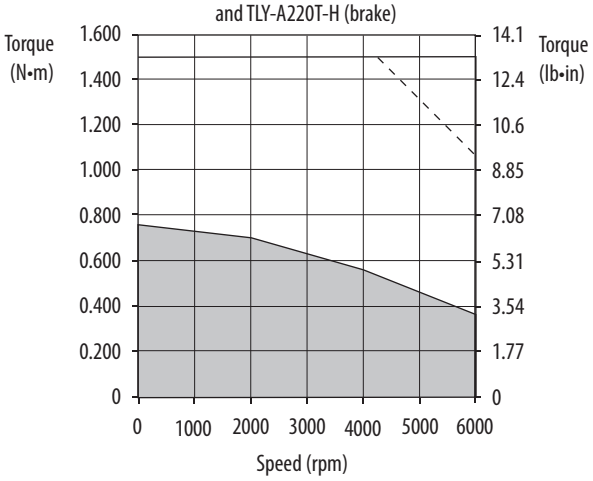
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 300/350 (200V-class) Drives/TLY-A*xxx*T-H (incremental) Motor Curves (continued)

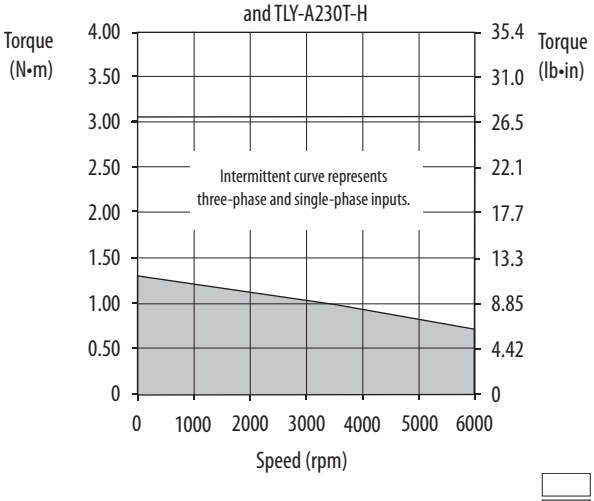
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A220T-H



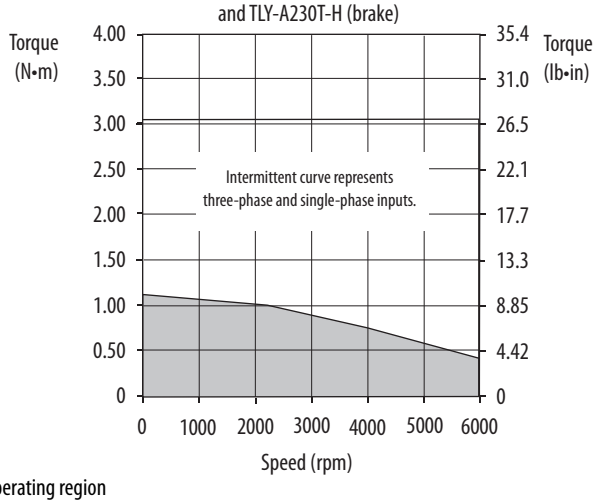
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and TLY-A220T-H (brake)



2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and TLY-A230T-H



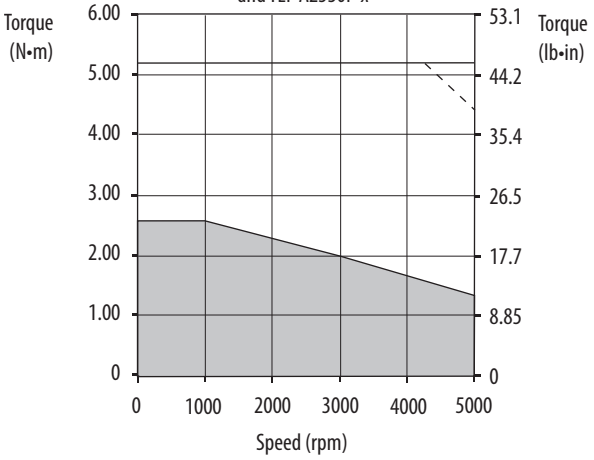
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and TLY-A230T-H (brake)



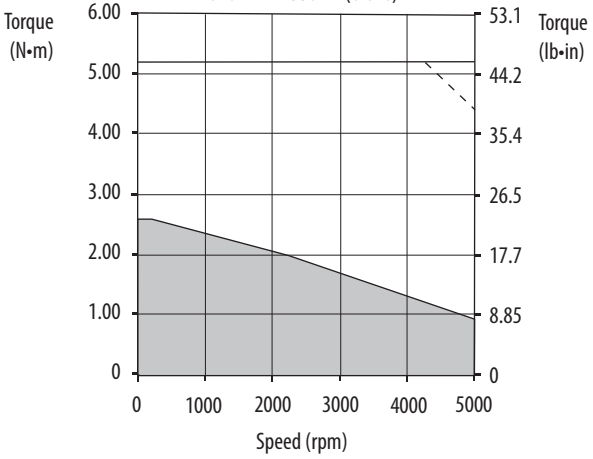
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 300/350 (200V-class) Drives/TLY-A*xxxx-x* Motor Curves

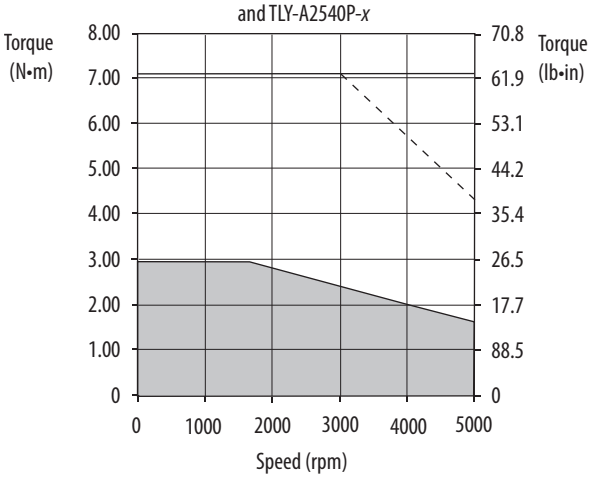
2097-V32PR4 or 2097-V33PR5 and TLY-A2530P-*x*



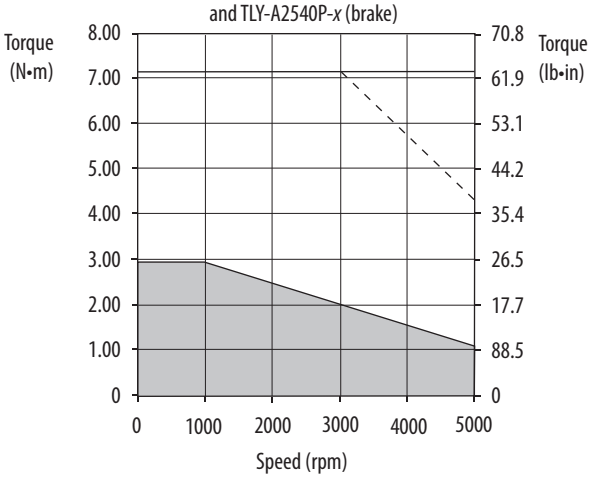
2097-V32PR4 or 2097-V33PR5 and TLY-A2530P-*x* (brake)



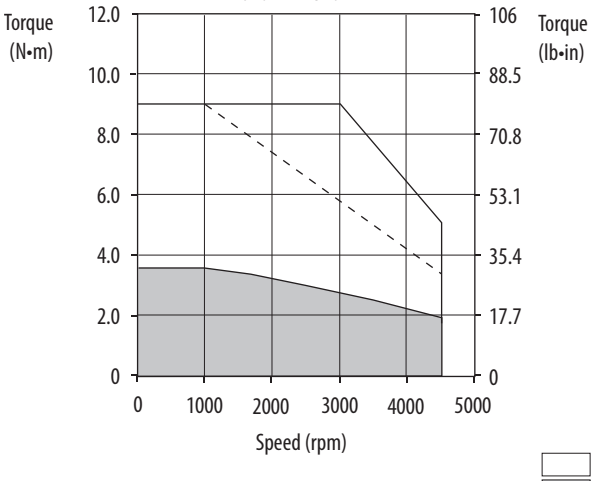
2097-V32PR4 or 2097-V33PR5 and TLY-A2540P-*x*



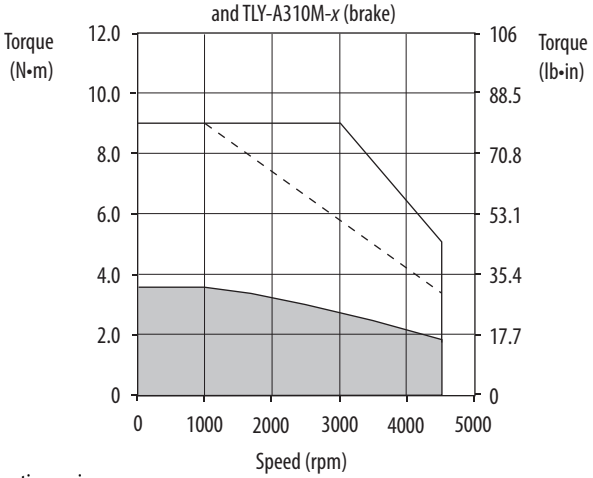
2097-V32PR4 or 2097-V33PR5 and TLY-A2540P-*x* (brake)



2097-V32PR4 or 2097-V33PR5 and TLY-A310M-*x*



2097-V32PR4 or 2097-V33PR5 and TLY-A310M-*x* (brake)



= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 300 Drives with LDAT-Series Integrated Linear Thrusters

This section provides system combination information for the Kinetix 300 drives when matched with LDAT-Series integrated linear thrusters. Included are motor power and feedback cable catalog numbers, system performance specifications, and force/velocity curves.

LDAT-Series Cable Combinations

Linear Thruster Cat. No.	Feedback Type	Motor Feedback Cable
LDAT-S*xxxxxx-x*D*x*	Absolute high-resolution feedback (1)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* 2090-CFBM7DD-CEAF*xx* (continuous-flex)
LDAT-S*xxxxxx-x*B*x*	Incremental feedback (2)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex)

(1) Use low-profile connector kit (LDAT-CONKIT-ABS) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3

(2) Use low-profile connector kit (2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

Linear Thruster Cat. No.	Motor Power Cable
LDAT-S031*xxx*-D*xx*, LDAT-S032*xxx-xxx*, LDAT-S033*xxx-xxx*	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)
LDAT-S051*xxx*-D*xx*, LDAT-S052*xxx-xxx*, LDAT-S053*xxx-xxx*, LDAT-S054*xxx*	
LDAT-S072*xxx-xxx*, LDAT-S073*xxx-xxx*, LDAT-S074*xxx-xxx*, LDAT-S076*xxx*-E*xx*	
LDAT-S102*xxx-xxx*, LDAT-S103*xxx-xxx*, LDAT-S104*xxx-xxx*, LDAT-S106*xxx*-E*xx*	
LDAT-S152*xxx-xxx*, LDAT-S153*xxx-xxx*, LDAT-S154*xxx-xxx*, LDAT-S156*xxx*-E*xx*	
LDAT-S076*xxx*-D*xx*	2090-CPWM7DF-14AA*xx* (standard, non-flex) 2090-CPWM7DF-14AF*xx* (continuous-flex)
LDAT-S106*xxx*-D*xx*	
LDAT-S156*xxx*-D*xx*	

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

LDAT-Series Performance Specifications with Kinetix 300 (200V-class) Drives

Performance Specifications with Frame 30 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S031010-D*xx*	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S031020-D*xx*	3.1					0.25		
LDAT-S031030-D*xx*	3.5					0.29		
LDAT-S031040-D*xx*	3.8					0.31		
LDAT-S032010-D*xx*	3.1	7.4	126 (28)	24.3	336 (76)	0.44	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S032020-D*xx*	4.1					0.52		
LDAT-S032030-D*xx*	4.7					0.59		
LDAT-S032040-D*xx*	5.0					0.63		
LDAT-S032010-E*xx*	3.1	3.7		12.2		0.40	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S032020-E*xx*	4.1					0.47		
LDAT-S032030-E*xx*	4.7					0.52		
LDAT-S032040-E*xx*	5.0					0.55		
LDAT-S033010-D*xx*	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2097-V33PR6	2097-V33PR6
LDAT-S033020-D*xx*	4.7					0.88		
LDAT-S033030-D*xx*	5.0					0.95		
LDAT-S033040-D*xx*								
LDAT-S033010-E*xx*	3.5	3.7		12.2		0.55	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S033020-E*xx*	4.4					0.65		
LDAT-S033030-E*xx*								
LDAT-S033040-E*xx*								

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 50 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.31	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S051020-D*xx*	3.7					0.38		
LDAT-S051030-D*xx*	4.1					0.42		
LDAT-S051040-D*xx*	4.4					0.44		
LDAT-S051050-D*xx*	4.7					0.46		
LDAT-S052010-D*xx*	3.7	6.2	251 (56)	22.7	727 (163)	0.79	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S052020-D*xx*	4.8					0.97		
LDAT-S052030-D*xx*	5.00					1.01		
LDAT-S052040-D*xx*								
LDAT-S052050-D*xx*								
LDAT-S052010-E*xx* … LDAT-S052050-E*xx*	2.6	3.1		11.4		0.50	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3

Performance Specifications with Frame 50 Linear Thrusters (continued)

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S053010-D*xx*	4.1	9.4	378 (85)	34.2	1093 (246)	1.31	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S053020-D*xx*	5.0					1.53		
LDAT-S053030-D*xx* … LDAT-S053050-D*xx*	5.0					1.53		
LDAT-S053010-E*xx* … LDAT-S053050-E*xx*	1.7	3.1		11.4		0.47	N/A	2097-V33PR3
LDAT-S054010-D*xx*	4.4	12.4	509 (114)	45.5	1453 (327)	1.87	2097-V33PR6	2097-V33PR6
LDAT-S054020-D*xx* … LDAT-S054050-D*xx*	5.0					2.05		
LDAT-S054010-E*xx* … LDAT-S054050-E*xx*	2.6	6.2		22.7		1.02	2097-V33PR5 2097-V32PR4	2097-V33PR5

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 70 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S072010-D*xx* … LDAT-S072070-D*xx*	3.5	6.0	364 (82)	22.0	1055 (237)	1.03	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S072010-E*xx* … LDAT-S072070-E*xx*	1.7	3.0		11.0		0.47	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S073010-D*xx* … LDAT-S073070-D*xx*	3.5	9.0	554 (125)	32.8	1576 (354)	1.57	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S073010-E*xx* … LDAT-S073070-E*xx*	1.2	3.0		10.9		0.41	N/A	2097-V33PR3
LDAT-S074010-D*xx* … LDAT-S074070-D*xx*	3.5	11.9	730 (164)	43.5	2088 (469)	2.08	2097-V33PR6	2097-V33PR6
LDAT-S074010-E*xx* … LDAT-S074070-E*xx*	1.8	6.0		21.7		0.95	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S076010-E*xx* … LDAT-S076070-E*xx*	1.8	9.1	1122 (252)	33.2	3189 (717)	1.45	2097-V33PR5 2097-V32PR4	2097-V33PR5

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 100 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S102010-D*xx* … LDAT-S102090-D*xx*	2.6	5.7	456 (103)	21.0	1289 (290)	0.96	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S102010-E*xx* … LDAT-S102090-E*xx*	1.3	2.9		10.5		0.42	N/A	2097-V33PR3
LDAT-S103010-D*xx* … LDAT-S103090-D*xx*	2.7	8.6	702 (158)	31.5	1935 (435)	1.47	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S103010-E*xx* … LDAT-S103090-E*xx*	0.9	2.9		10.5	1388 (312)	0.30	N/A	2097-V33PR3
LDAT-S104010-D*xx* … LDAT-S104090-D*xx*	2.7	11.5	929 (209)	42.0	2578 (580)	2.07	2097-V33PR6	2097-V33PR6
LDAT-S104010-E*xx* … LDAT-S104090-E*xx*	1.3	5.7		21.0		0.86	N/A	2097-V33PR3
LDAT-S106010-E*xx* … LDAT-S106090-E*xx*	1.3	8.6	1403 (315)	31.5	3871 (870)	1.28	N/A	2097-V33PR5

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

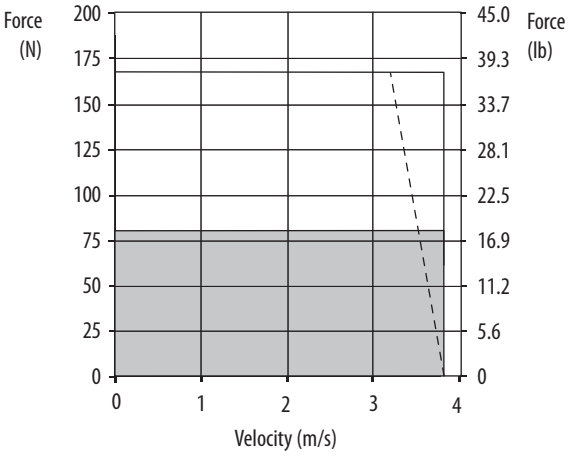
Performance Specifications with Frame 150 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 300 (200V-class) Drives	
							Single-phase Operation	Three-phase Operation
LDAT-S152010-D*xx* … LDAT-S152090-D*xx*	1.8	5.3	643 (145)	19.5	1799 (404)	0.87	2097-V33PR3 2097-V32PR2 2097-V31PR2	2097-V33PR3
LDAT-S152010-E*xx* … LDAT-S152090-E*xx*	0.9	2.7		9.8	1679 (377)	0.34	N/A	2097-V33PR1
LDAT-S153010-D*xx* … LDAT-S153090-D*xx*	1.8	8.0	978 (220)	29.1	2680 (602)	1.33	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S154010-D*xx* … LDAT-S154090-D*xx*	1.8	10.7	1306 (294)	39.1	3597 (809)	1.78	2097-V33PR5 2097-V32PR4	2097-V33PR5
LDAT-S154010-E*xx* … LDAT-S154090-E*xx*	0.9	5.3		19.5	3383 (761)	0.70	N/A	2097-V33PR3
LDAT-S156010-D*xx* … LDAT-S156090-D*xx*	1.8	16.3	1997 (449)	59.4	5469 (1229)	2.71	2097-V33PR6	2097-V33PR6
LDAT-S156010-E*xx* … LDAT-S156090-E*xx*	0.9	8.1		19.8	5110 (1149)	1.05	N/A	2097-V33PR5

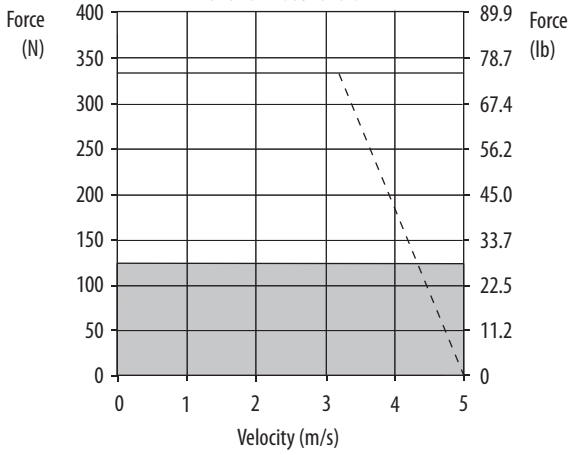
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves

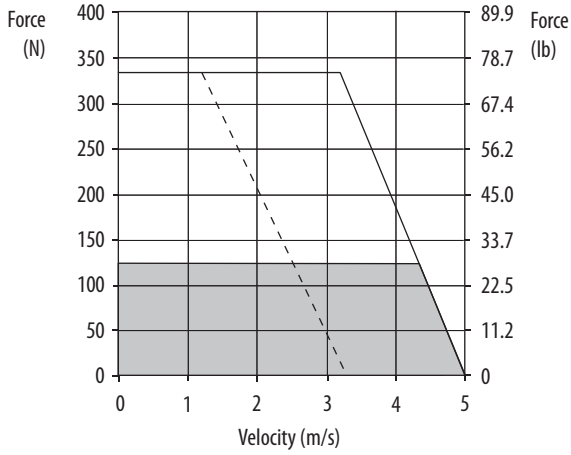
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S031040-D*xx*



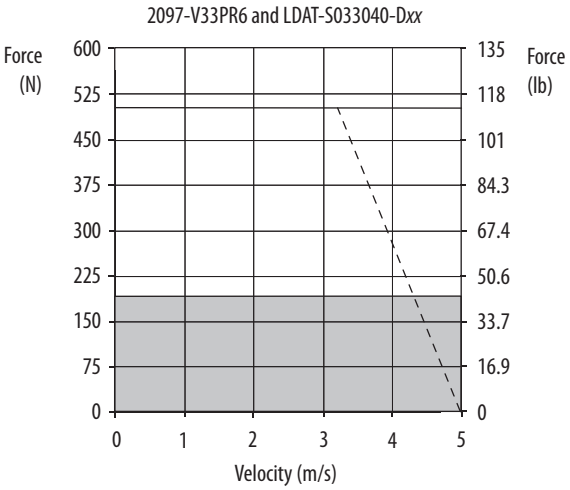
2097-V32PR4 or 2097-V33PR5 and LDAT-S032040-D*xx*



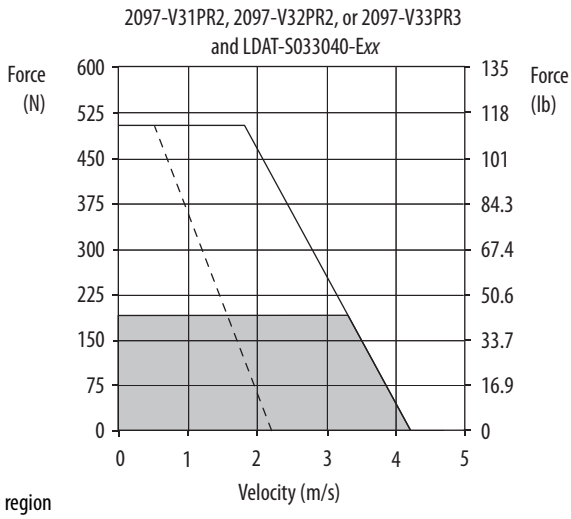
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S032040-E*xx*



2097-V33PR6 and LDAT-S033040-D*xx*



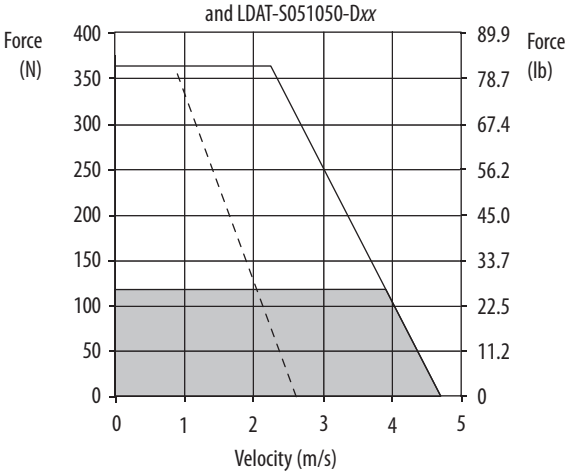
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S033040-E*xx*



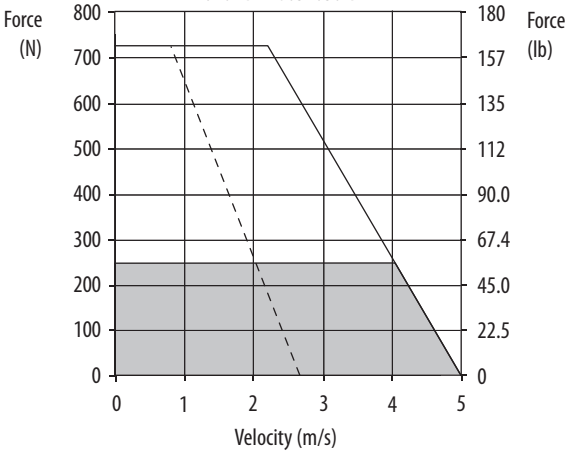
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

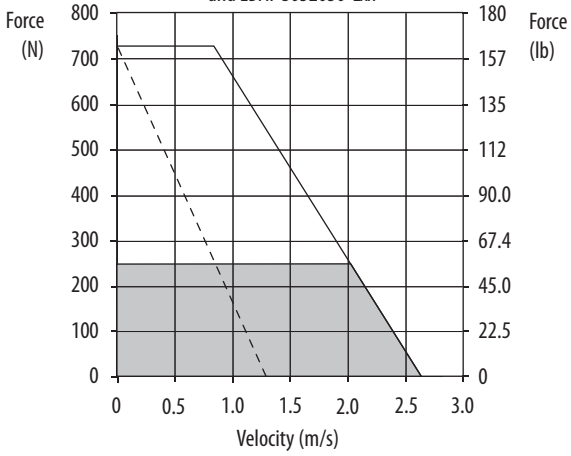
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S051050-D*xx*



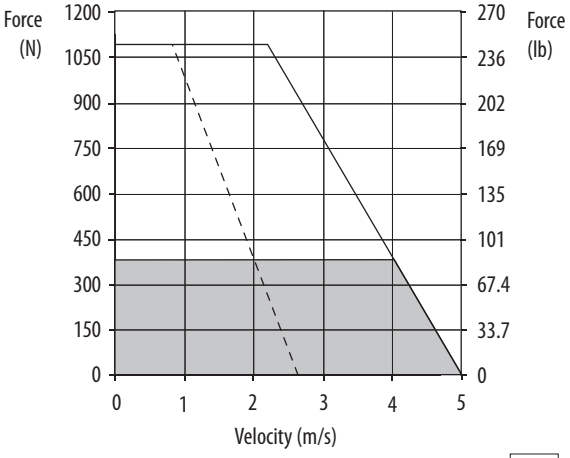
2097-V32PR4 or 2097-V33PR5 and LDAT-S052050-D*xx*



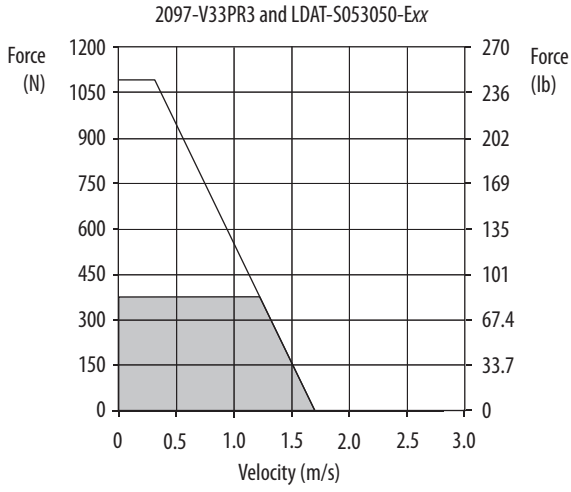
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S052050-E*xx*



2097-V32PR4 or 2097-V33PR5 and LDAT-S053050-D*xx*



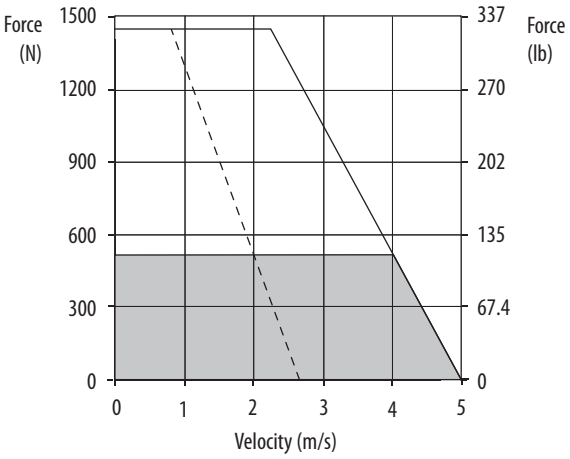
2097-V33PR3 and LDAT-S053050-E*xx*



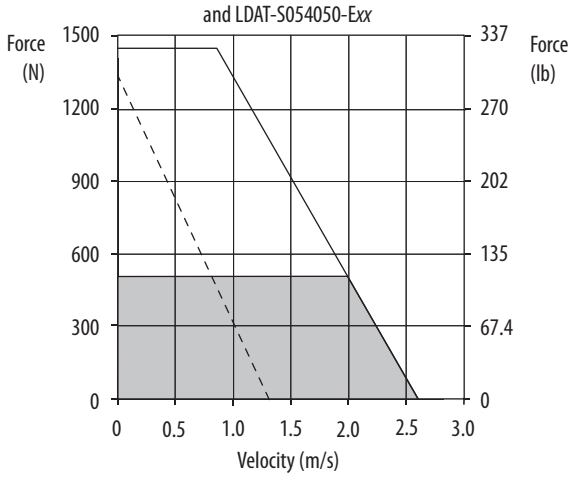
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

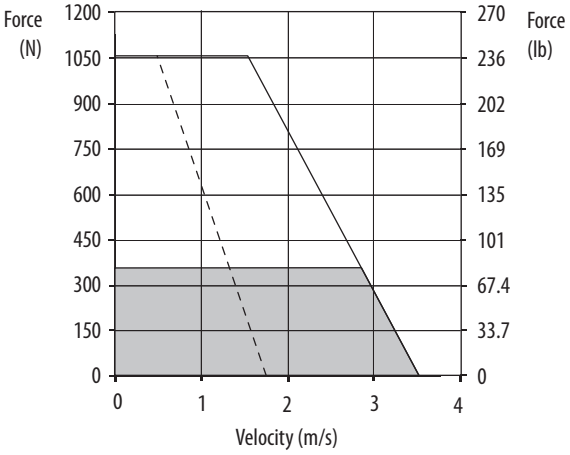
2097-V33PR6 and LDAT-S054050-D*xx*



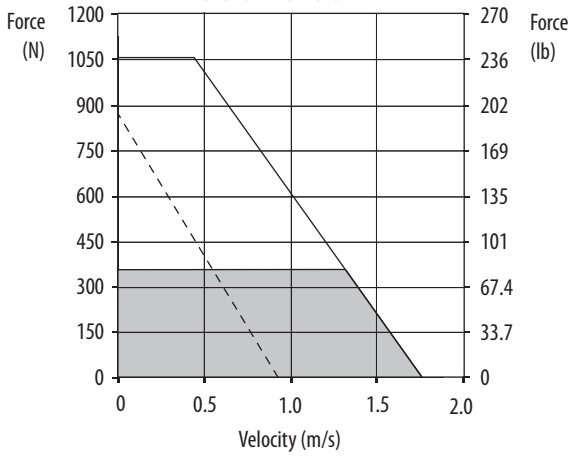
2097-V32PR4 or 2097-V33PR5 and LDAT-S054050-E*xx*



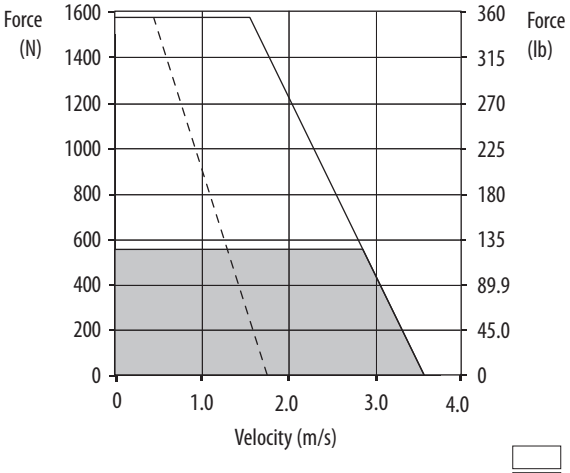
2097-V32PR4 or 2097-V33PR5 and LDAT-S072070-D*xx*



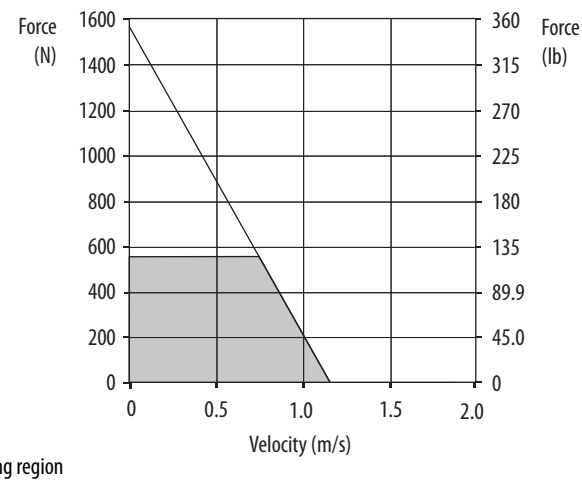
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S072070-E*xx*



2097-V32PR4 or 2097-V33PR5 and LDAT-S073070-D*xx*



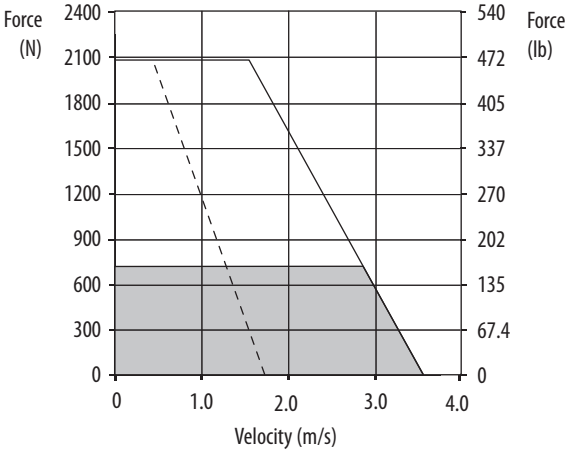
2097-V33PR3 and LDAT-S073070-E*xx*



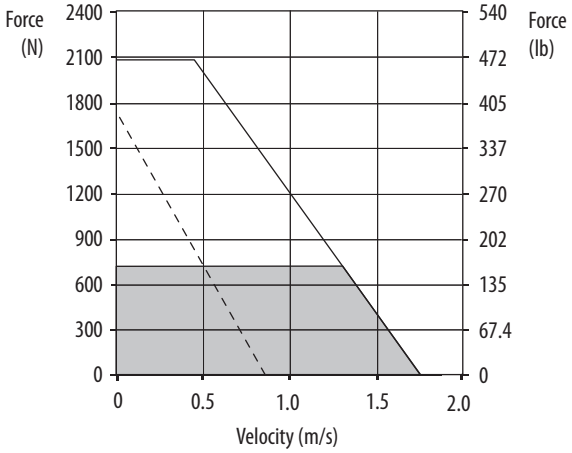
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

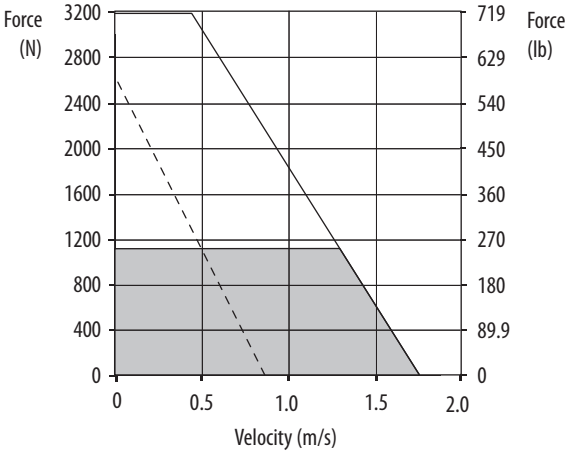
2097-V33PR6 and LDAT-S074070-D*xx*



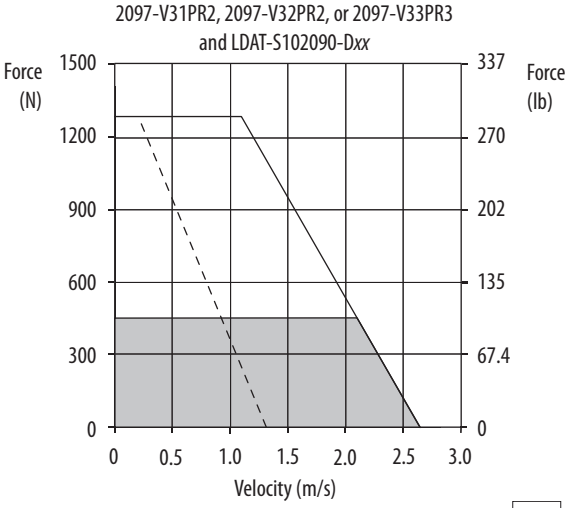
2097-V32PR4 or 2097-V33PR5 and LDAT-S074070-E*xx*



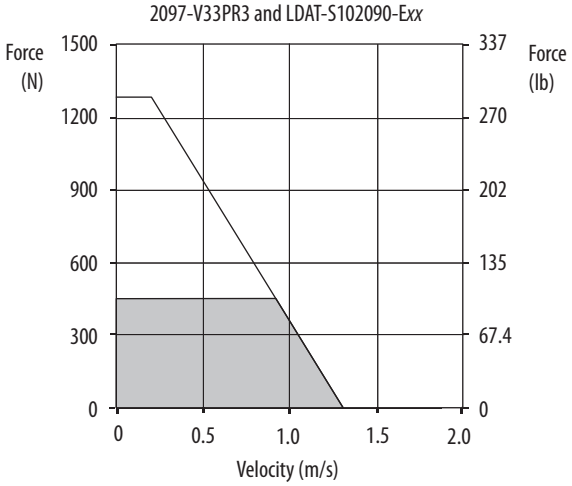
2097-V32PR4 or 2097-V33PR5 and LDAT-S076070-E*xx*



2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S102090-D*xx*



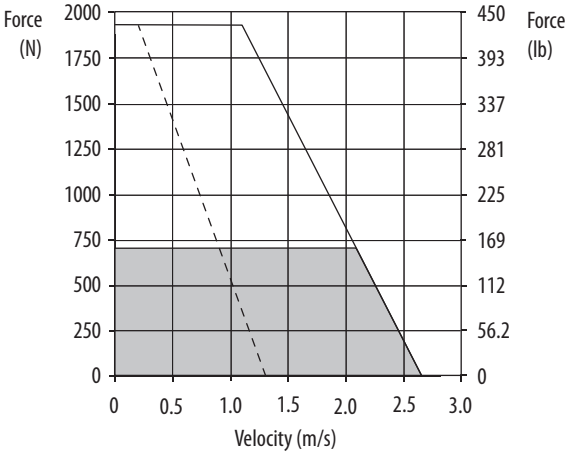
2097-V33PR3 and LDAT-S102090-E*xx*



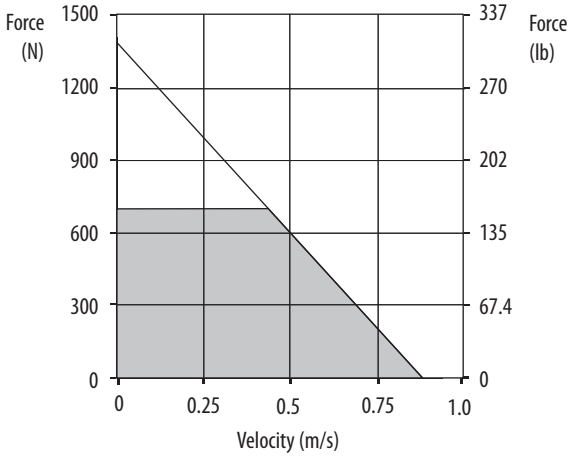
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

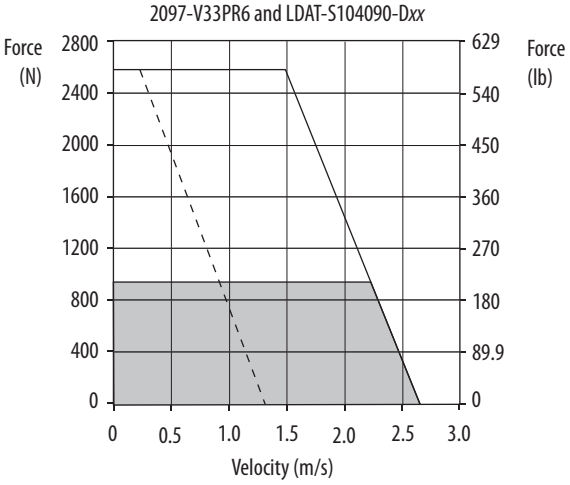
2097-V32PR4 or 2097-V33PR5 and LDAT-S103090-D*xx*



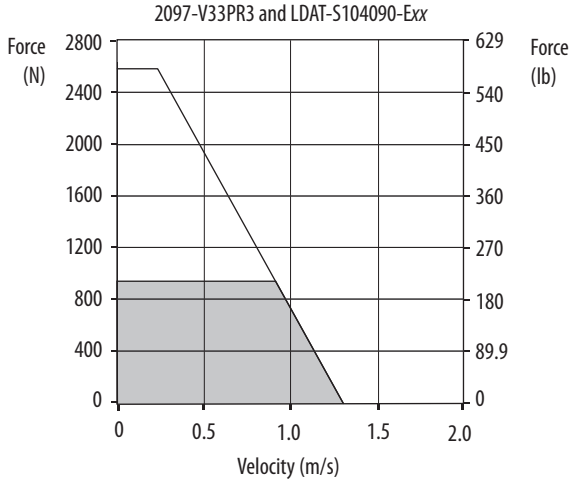
2097-V33PR3 and LDAT-S103090-E*xx*



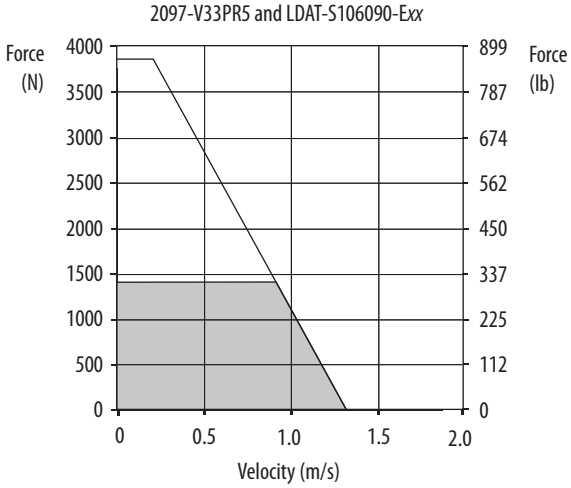
2097-V33PR6 and LDAT-S104090-D*xx*



2097-V33PR3 and LDAT-S104090-E*xx*



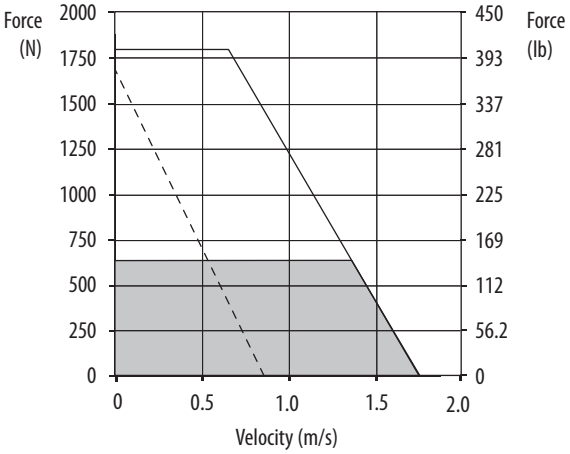
2097-V33PR5 and LDAT-S106090-E*xx*



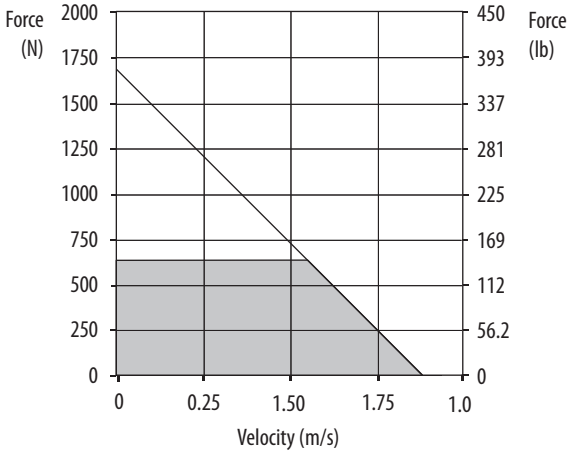
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

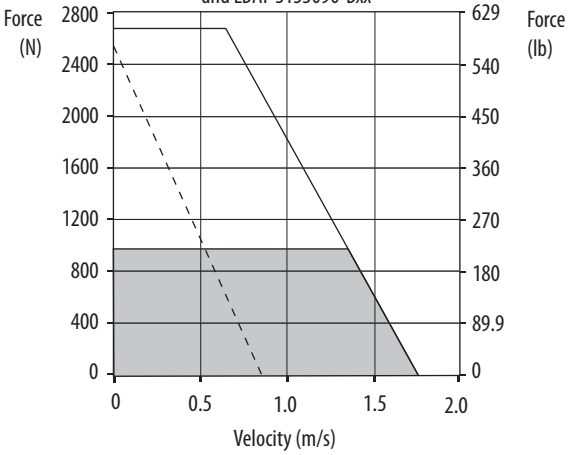
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDAT-S152090-D*xx*



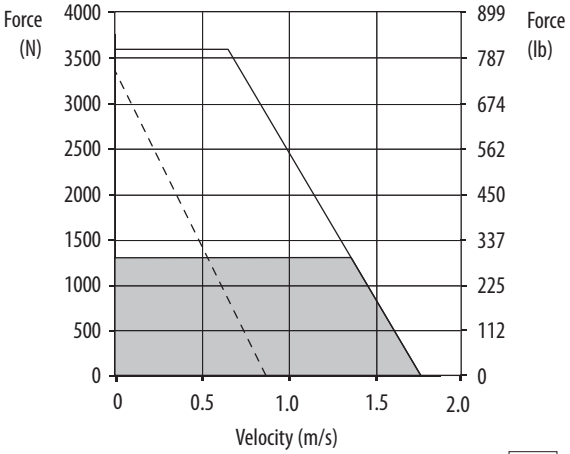
2097-V33PR3 and LDAT-S152090-E*xx*



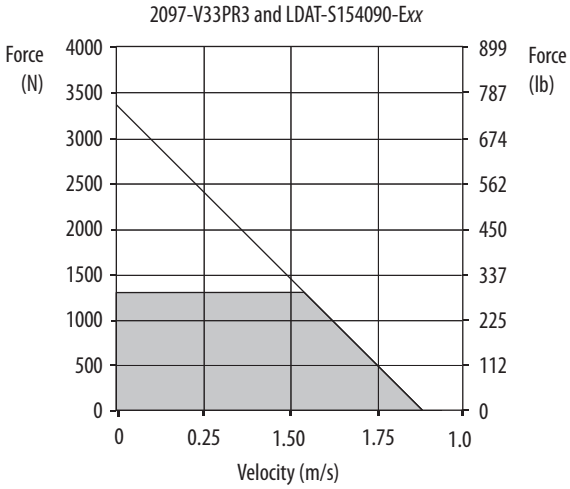
2097-V32PR4 or 2097-V33PR5 and LDAT-S153090-D*xx*



2097-V32PR4 or 2097-V33PR5 and LDAT-S154090-D*xx*



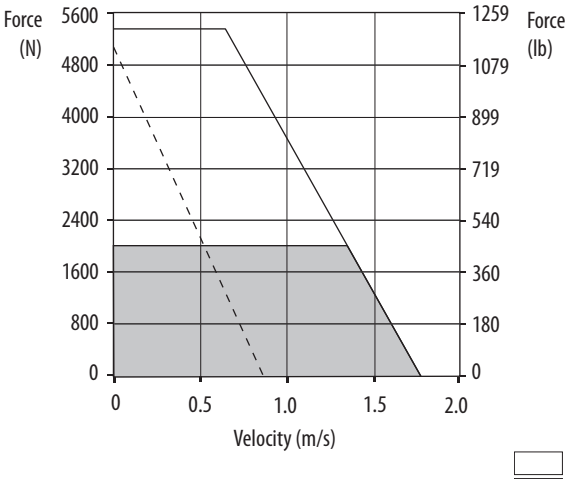
2097-V33PR3 and LDAT-S154090-E*xx*



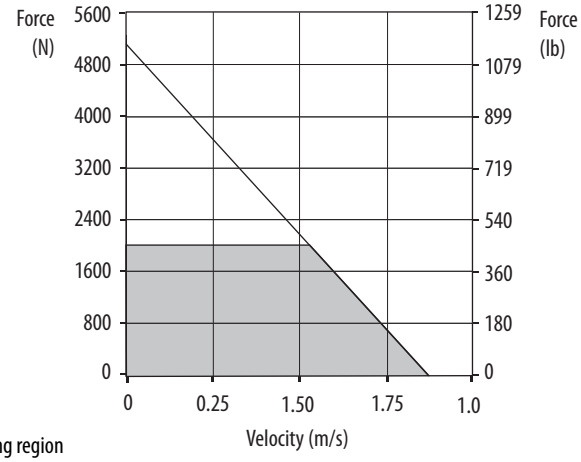
= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

Kinetix 300 (200V-class) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

2097-V33PR6 and LDAT-S156090-D*xx*



2097-V33PR5 and LDAT-S156090-E*xx*



= Intermittent operating region
= Continuous operating region
= Intermittent operating region with 115V AC rms input voltage

LDAT-Series Performance Specifications with Kinetix 300 (400V-class) Drives

Performance Specifications with Frame 30 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 300 (400V-class) Drives Three-phase Operation
LDAT-S031010-D*xx*	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2097-V34PR5
LDAT-S031020-D*xx*	3.1					0.25	
LDAT-S031030-D*xx*	3.5					0.29	
LDAT-S031040-D*xx*	3.8					0.31	
LDAT-S032010-D*xx*	3.1	7.4	126 (28)	24.3	336 (76)	0.40	2097-V34PR6
LDAT-S032020-D*xx*	4.1					0.52	
LDAT-S032030-D*xx*	4.7					0.59	
LDAT-S032040-D*xx*	5.0					0.63	
LDAT-S032010-E*xx*	3.1	3.7		12.2		0.40	2097-V34PR5
LDAT-S032020-E*xx*	4.1					0.52	
LDAT-S032030-E*xx*	4.7					0.59	
LDAT-S032040-E*xx*	5.0					0.63	
LDAT-S033010-E*xx*	3.5	3.7	190 (43)	12.2	504 (113)	0.67	2097-V34PR5
LDAT-S033020-E*xx*	4.7					0.87	
LDAT-S033030-E*xx*	5.0					0.91	
LDAT-S033040-E*xx*							

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 50 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 300 (400V-class) Drives Three-phase Operation
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.34	2097-V34PR5
LDAT-S051020-D*xx*	3.7					0.43	
LDAT-S051030-D*xx*	4.1					0.49	
LDAT-S051040-D*xx*	4.4					0.53	
LDAT-S051050-D*xx*	4.7					0.55	
LDAT-S052010-D*xx*	3.7	6.2	251 (56)	22.7	727 (163)	0.92	2097-V34PR6
LDAT-S052020-D*xx*	4.8					1.20	
LDAT-S052030-D*xx*	5.0					1.24	
LDAT-S052040-D*xx*							
LDAT-S052050-D*xx*							
LDAT-S052010-E*xx*	3.7	3.1		11.4		0.80	2097-V34PR5
LDAT-S052020-E*xx*	4.6					0.98	
LDAT-S052030-E*xx*	4.6					1.02	
LDAT-S052040-E*xx*							
LDAT-S052050-E*xx*							
LDAT-S053010-E*xx* … LDAT-S053050-E*xx*	3.5	3.1	378 (85)	11.4	1093 (246)	1.04	2097-V34PR5
LDAT-S054010-E*xx*	4.4	6.2	509 (114)	22.7	45.5	1.87	2097-V34PR6
LDAT-S054020-E*xx* … LDAT-S054050-E*xx*	5.0					1453 (327)	

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 70 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 300 (400V-class) Drives Three-phase Operation
LDAT-S072010-D*xx*	3.9	6.0	364 (82)	22.0	1055 (237)	1.37	2097-V34PR6
LDAT-S072020-D*xx*	5.0					1.64	
LDAT-S072030-D*xx* … LDAT-S072070-D*xx*							
LDAT-S072010-E*xx* … LDAT-S072070-E*xx*	3.5	3.0		11.0		1.03	2097-V34PR5
LDAT-S073010-E*xx* … LDAT-S073070-E*xx*	2.4	3.0	554 (125)	10.9	1576 (354)	1.01	2097-V34PR5
LDAT-S074010-E*xx* … LDAT-S074070-E*xx*	3.5	6.0	730 (164)	21.7	2088 (469)	2.08	2097-V34PR6

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Frame 100 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 300 (400V-class) Drives Three-phase Operation
LDAT-S102010-D*xx*	3.4	5.7	456 (103)	21.0	1289 (290)	1.44	2097-V34PR5
LDAT-S102020-D*xx*	4.4					1.74	
LDAT-S102030-D*xx*	5.0					1.91	
LDAT-S102040-D*xx*							
LDAT-S102050-D*xx* … LDAT-S102090-D*xx*							
LDAT-S102010-E*xx* … LDAT-S102090-E*xx*	2.6	2.9		10.5		0.96	2097-V34PR5
LDAT-S103010-D*xx*	3.8	8.6	702 (158)	31.5	1935 (435)	2.41	2097-V34PR6
LDAT-S103020-D*xx* … LDAT-S103090-D*xx*	5.0					2.93	
LDAT-S103010-E*xx* … LDAT-S103090-E*xx*	1.8	2.9		10.5		0.92	2097-V34PR5
LDAT-S104010-E*xx* … LDAT-S104090-E*xx*	2.7	5.7	929 (209)	21.0	2578 (580)	2.07	2097-V34PR5
LDAT-S106010-E*xx* … LDAT-S106090-E*xx*	2.7	8.6	1403 (315)	31.5	3871 (870)	2.94	2097-V34PR6

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

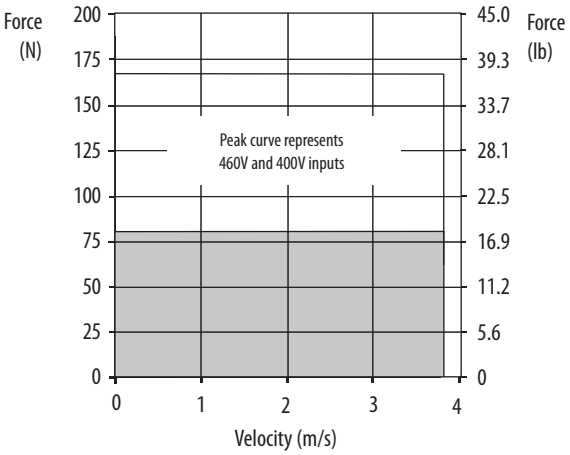
Performance Specifications with Frame 150 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 300 (400V-class) Drives Three-phase Operation
LDAT-S152010-D*xx*	3.2	5.3	643 (145)	19.5	1799 (404)	1.76	2097-V34PR5
LDAT-S152020-D*xx* … LDAT-S152090-D*xx*	3.5					1.89	
LDAT-S152010-E*xx* … LDAT-S152090-E*xx*	1.8	2.7		9.8		0.87	2097-V34PR3
LDAT-S153010-D*xx* … LDAT-S153090-D*xx*	3.6	8.0	978 (220)	29.1	2680 (602)	2.87	2097-V34PR6
LDAT-S153010-E*xx* … LDAT-S153090-E*xx*	1.2	2.7		9.1		0.80	2097-V34PR3
LDAT-S154010-E*xx* … LDAT-S154090-E*xx*	1.8	5.3	1306 (294)	19.5	3597 (809)	1.78	2097-V34PR5
LDAT-S156010-E*xx* … LDAT-S156090-E*xx*	1.8	8.1	1997 (449)	19.8	5469 (1229)	2.71	2097-V34PR6

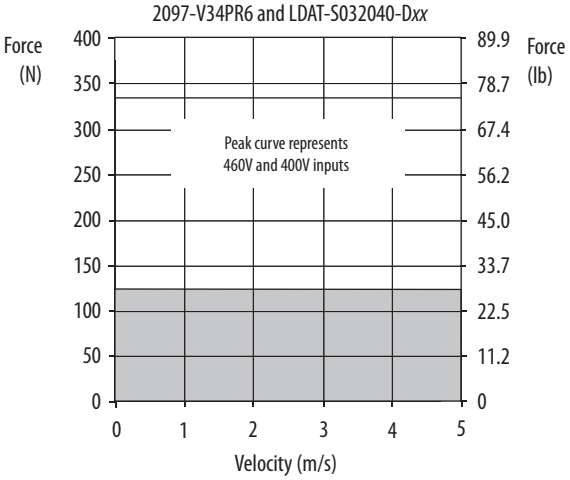
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300 (400V-class) Drives/LDAT-Series Integrated Linear Thruster Curves

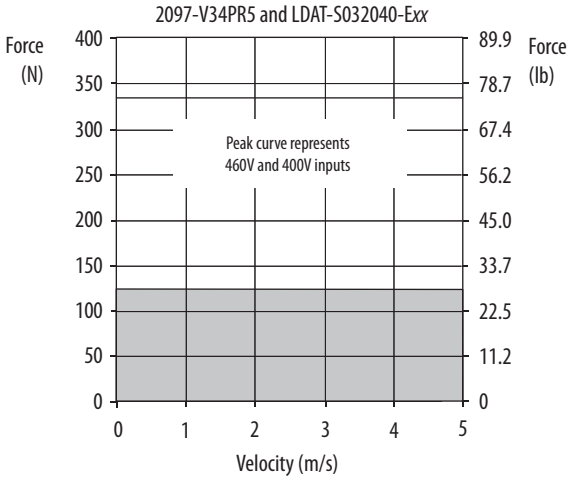
2097-V34PR5 and LDAT-S031040-D*xx*



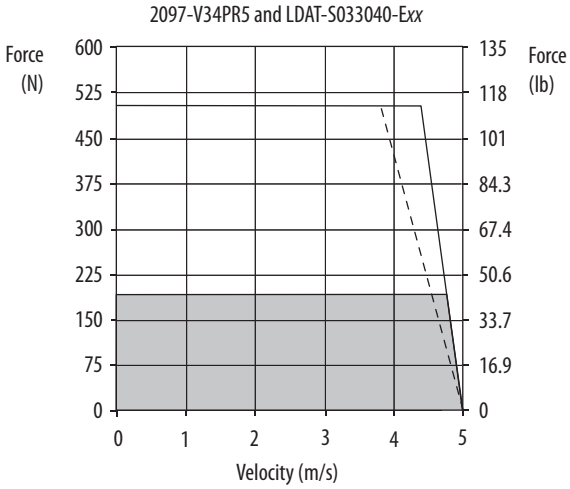
2097-V34PR6 and LDAT-S032040-D*xx*



2097-V34PR5 and LDAT-S032040-E*xx*



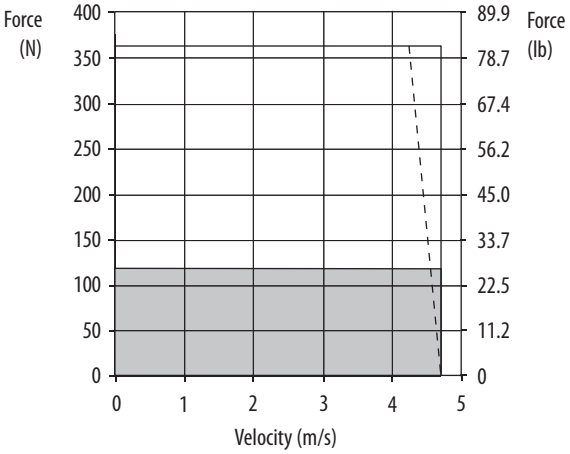
2097-V34PR5 and LDAT-S033040-E*xx*



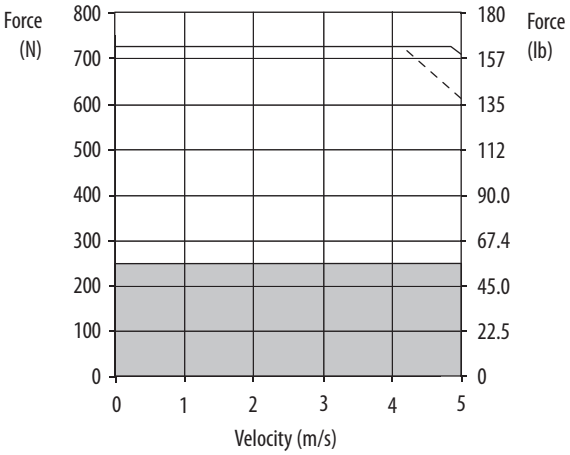
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 300 (400V-class) Drives/LDAT-Series Linear Thruster Curves (continued)

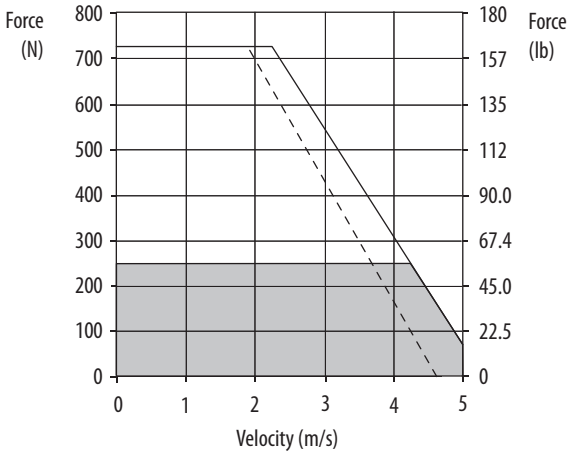
2097-V34PR5 and LDAT-S051050-D*xx*



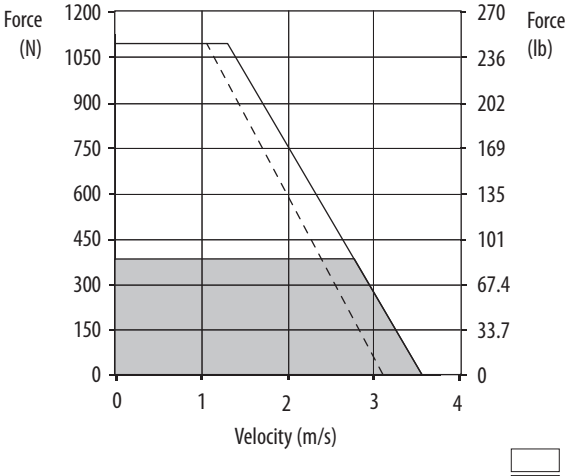
2097-V34PR6 and LDAT-S052050-D*xx*



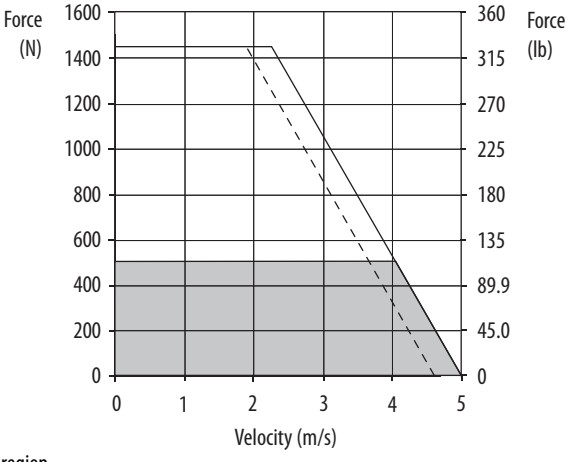
2097-V34PR5 and LDAT-S052050-E*xx*



2097-V34PR5 and LDAT-S053050-E*xx*



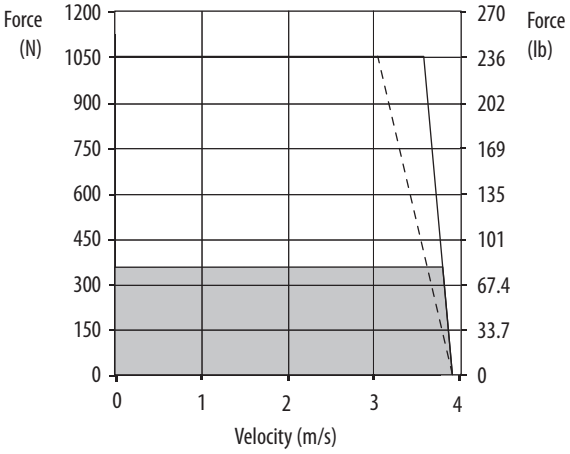
2097-V34PR6 and LDAT-S054050-E*xx*



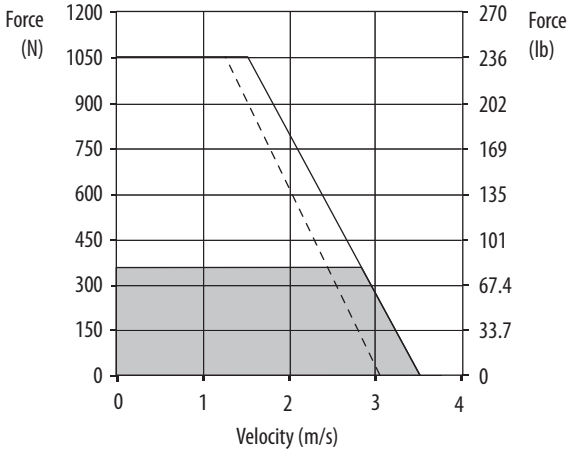
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 300 (400V-class) Drives/LDAT-Series Linear Thruster Curves (continued)

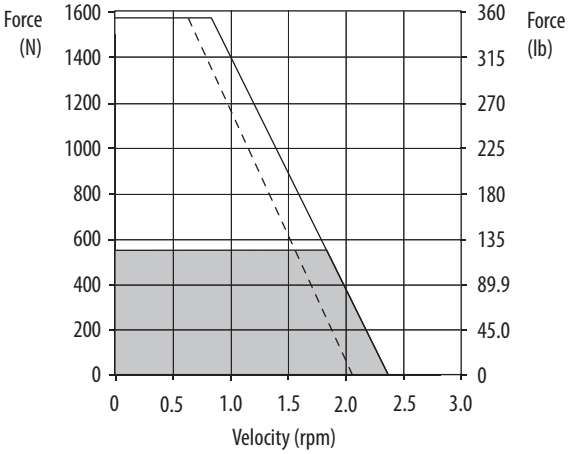
2097-V34PR6 and LDAT-S072070-D*xx*



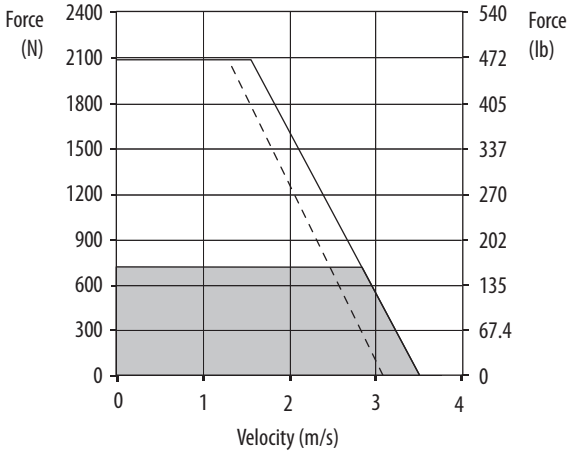
2097-V34PR5 and LDAT-S072070-E*xx*



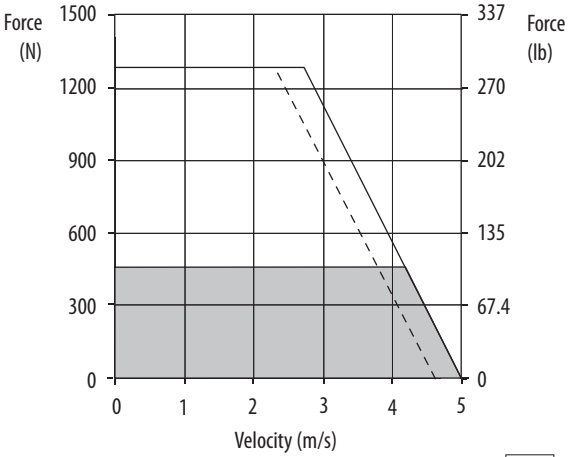
2097-V34PR5 and LDAT-S073070-E*xx*



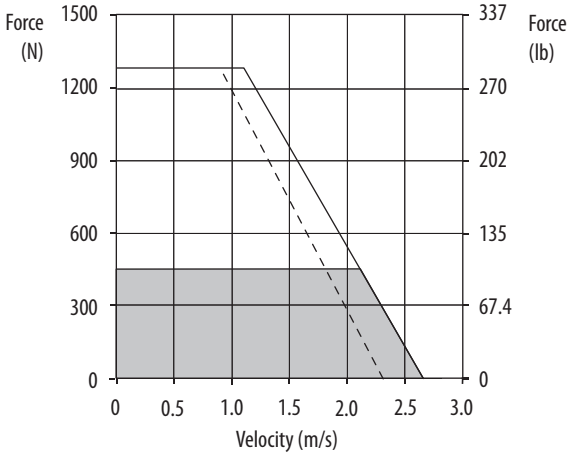
2097-V34PR6 and LDAT-S074070-E*xx*



2097-V34PR5 and LDAT-S102090-D*xx*



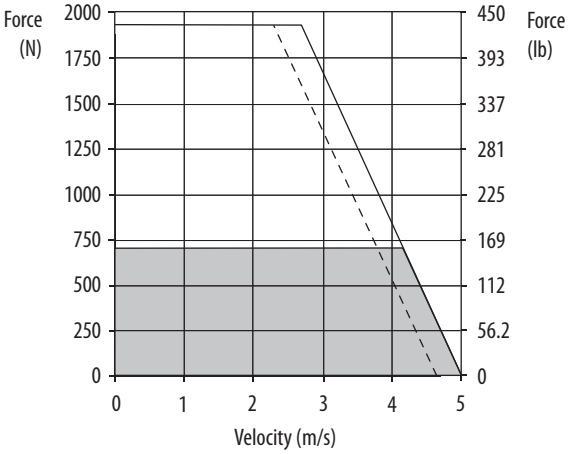
2097-V34PR5 and LDAT-S102090-E*xx*



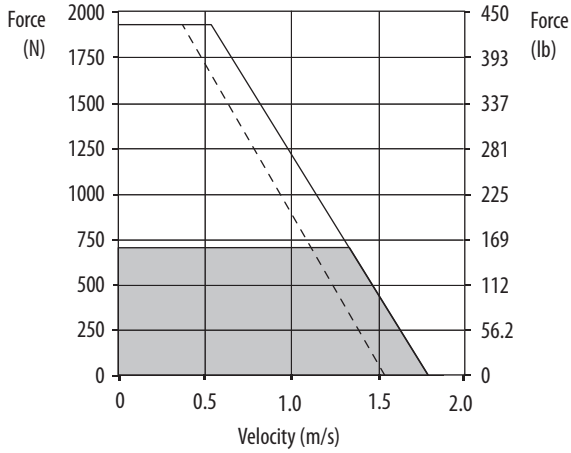
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 300 (400V-class) Drives/LDAT-Series Linear Thruster Curves (continued)

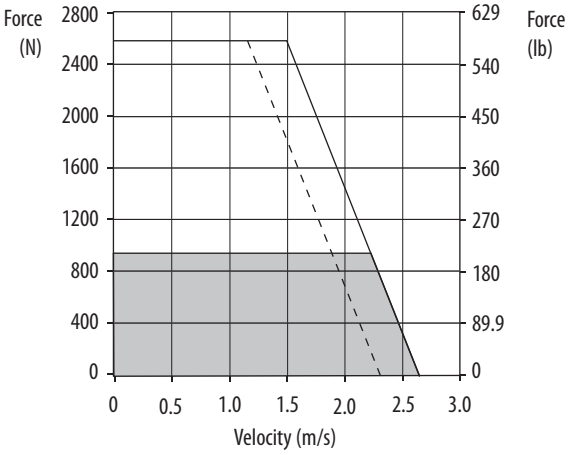
2097-V34PR6 and LDAT-S103090-D*xx*



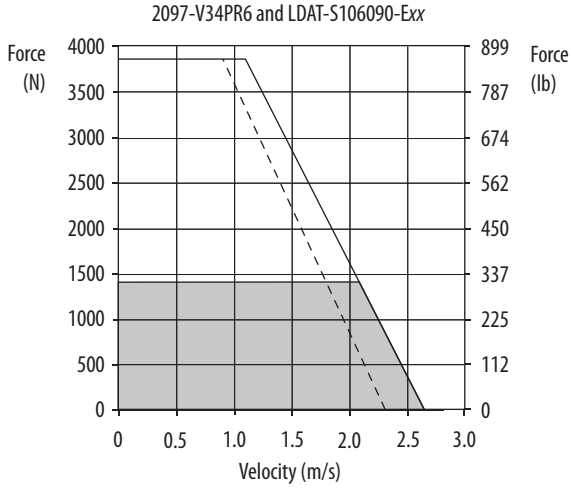
2097-V34PR5 and LDAT-S103090-E*xx*



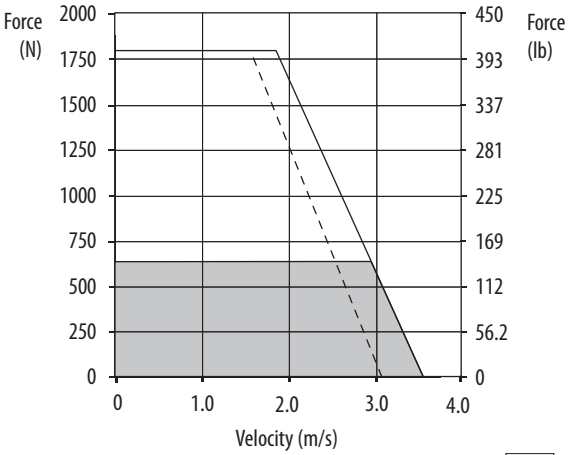
2097-V34PR5 and LDAT-S104090-E*xx*



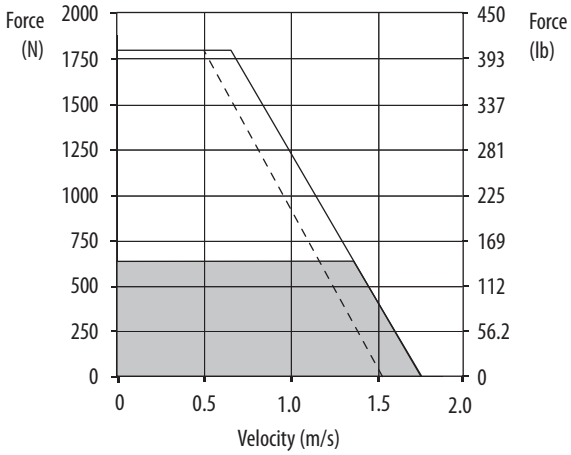
2097-V34PR6 and LDAT-S106090-E*xx*



2097-V34PR5 and LDAT-S152090-D*xx*



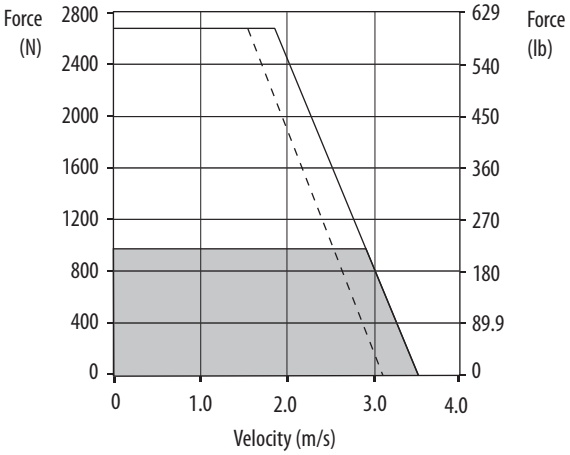
2097-V34PR3 and LDAT-S152090-E*xx*



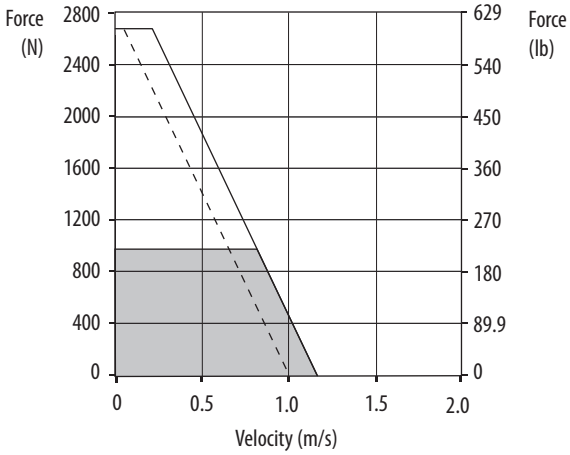
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 300 (400V-class) Drives/LDAT-Series Linear Thruster Curves (continued)

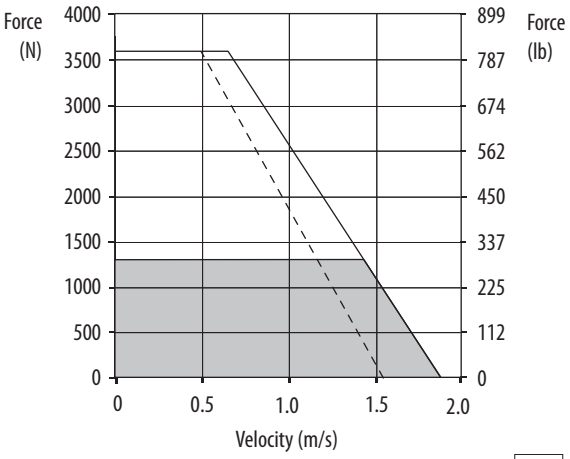
2097-V34PR6 and LDAT-S153090-D*xx*



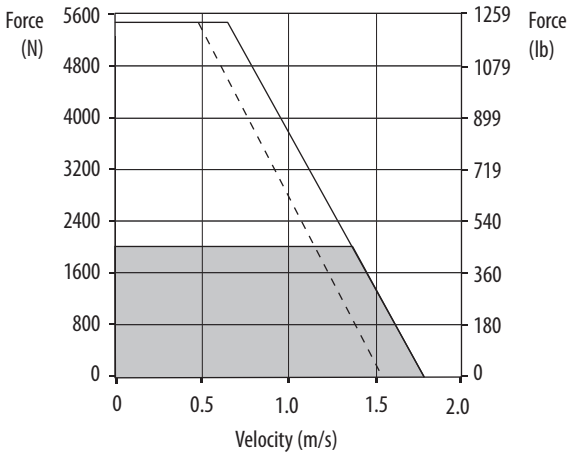
2097-V34PR3 and LDAT-S153090-E*xx*



2097-V34PR5 and LDAT-S154090-E*xx*



2097-V34PR6 and LDAT-S156090-E*xx*



= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 300/350 (200V-class) Drives with MP-Series Integrated Linear Stages

This section provides system combination information for the Kinetix 300/350 (200V-class) drives when matched with MP-Series (200V-class) integrated ballscrew and direct-drive linear stages. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and force/velocity curves.

IMPORTANT Kinetix 300 and Kinetix 350 drives are compatible with MPAS-B*xxxxx*-V*xx*S*x*A (ball screw) stages. Only Kinetix 300 drives are compatible with MPAS-B*xxxxx*-ALM*x*2C (direct-drive) stages.

Bulletin MPAS Cable Combinations

Linear Stage Cat. No. (200V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAS-A*xxxx*1-V05S*x*A MPAS-A*xxxx*2-V20S*x*A	2090-CP*x*M7DF-16AA*xx* (standard) or 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPAS-A6*xxx*B-ALM*x*2C MPAS-A8*xxx*E-ALM*x*2C MPAS-A9*xxx*K-ALM*x*2C		2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPAS Performance Specifications with Kinetix 300/350 (200V-class) Drives

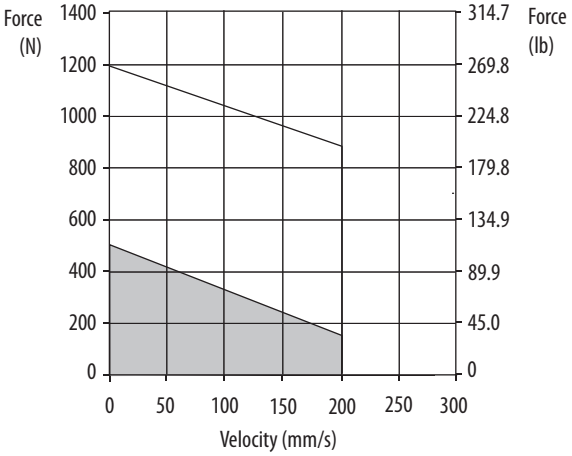
Linear Stage Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Stage Rated Output kW	Kinetix 300/350 200V-class Single-phase and Three-phase Drives
MPAS-A*xxxx*1-V05S*x*A	200 (7.9) (1)	3.09	521 (117)	6.10	1212 (272)	0.37	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAS-A*xxxx*2-V20S*x*A	1124 (44.3) (2)	4.54	462 (104)	9.10	968 (218)	0.62	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAS-A6*xxx*B-ALM02C	5000 (200)	5.3	105 (23.6)	15.8	359 (80.7)	0.32	2097-V33PR3 2097-V32PR2 2097-V31PR2
MPAS-A6*xxx*B-ALMS2C		4.7	83.0 (18.7)	14.2	312 (70.1)	0.29	
MPAS-A8*xxx*E-ALM02C		7.0	189 (42.5)	18.5	456 (103)	0.53	2097-V33PR5 2097-V32PR4
MPAS-A8*xxx*E-ALMS2C		6.3	159 (35.7)	16.7	399 (89.7)	0.48	
MPAS-A9*xxx*K-ALM02C		6.7	285 (64.1)	18.3	680 (153)	0.77	
MPAS-A9*xxx*K-ALMS2C		6.1	245 (55.1)	16.5	601 (135)	0.69	

(1) For 900 mm stroke length, maximum speed is 176 mm/s (6.9 in/s). For 1020 mm stroke length, maximum speed is 143 mm/s (5.6 in/s).
(2) For 780 mm stroke length, maximum speed is 889 mm/s (35.0 in/s). For 900 mm stroke length, maximum speed is 715 mm/s (28.2 in/s). For 1020 mm stroke length, maximum speed is 582 mm/s (22.9 in/s).

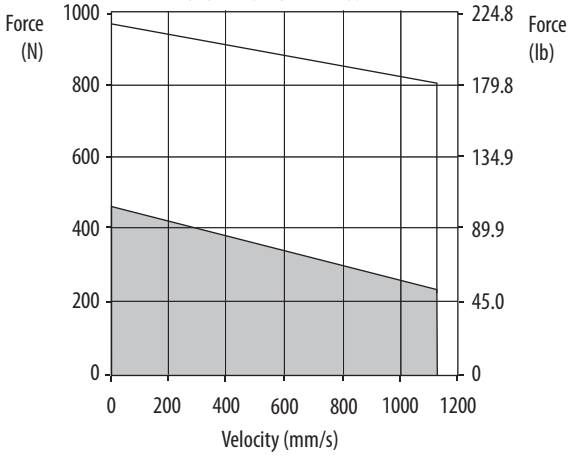
Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (200V-class) Drives/MP-Series Integrated Linear Stage Curves

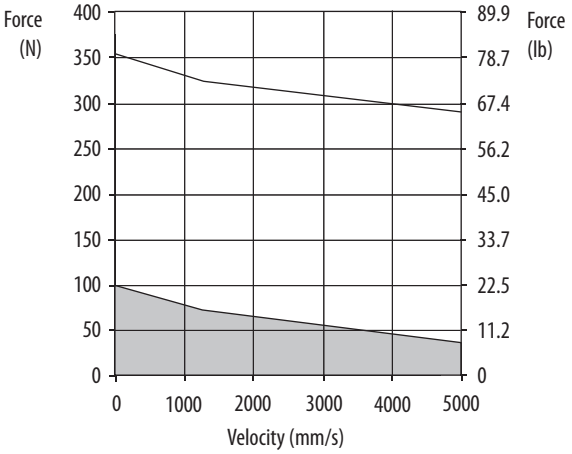
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A6*xxx*1-V05S*x*A



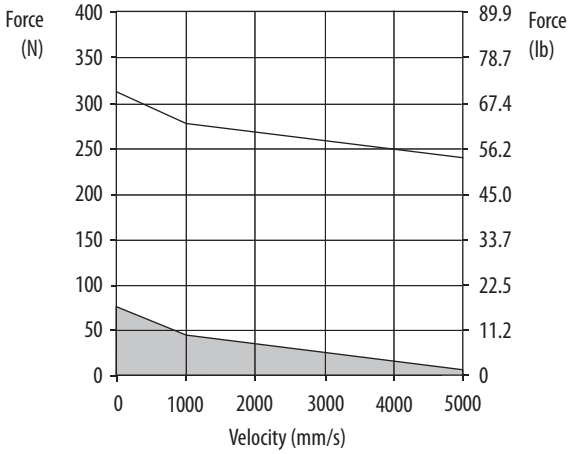
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A6*xxx*2-V20S*x*A



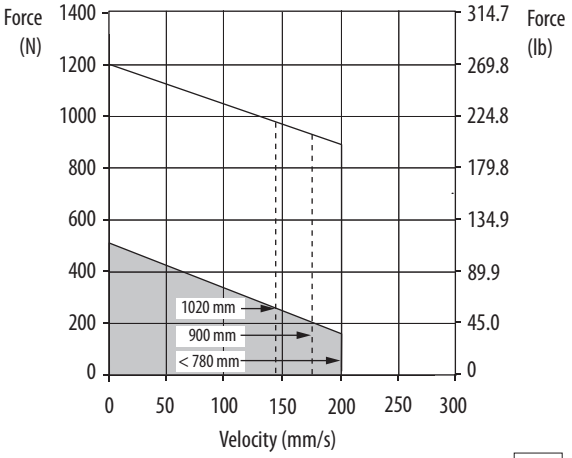
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A6*xxx*B-ALM02C



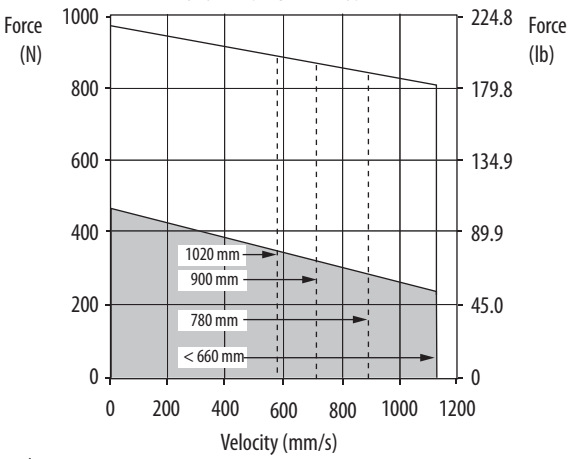
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A6*xxx*B-ALMS2C



2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A8*xxx*1-V05S*x*A



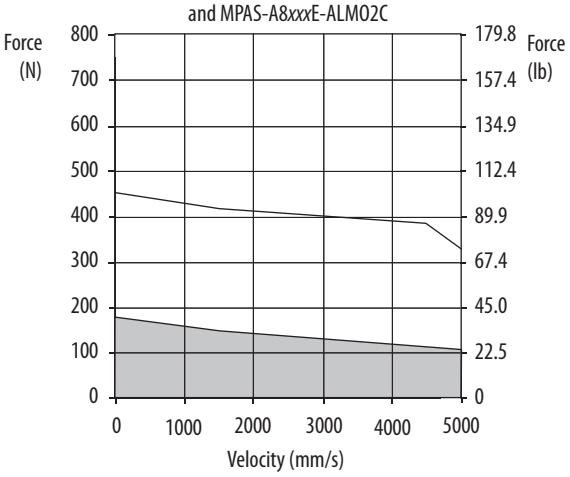
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and MPAS-A8*xxx*2-V20S*x*A



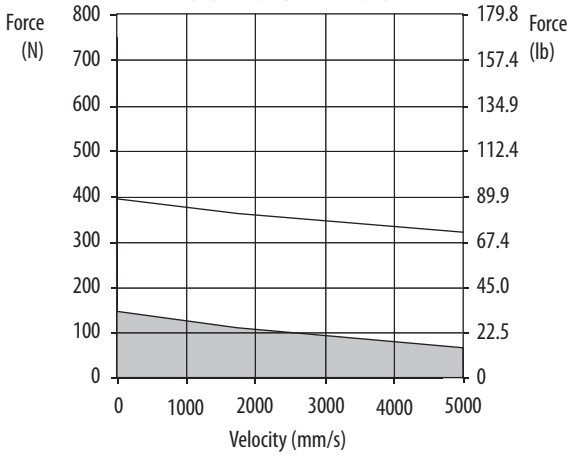
= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 300/350 (200V-class) Drives/MP-Series Integrated Linear Stage Curves (continued)

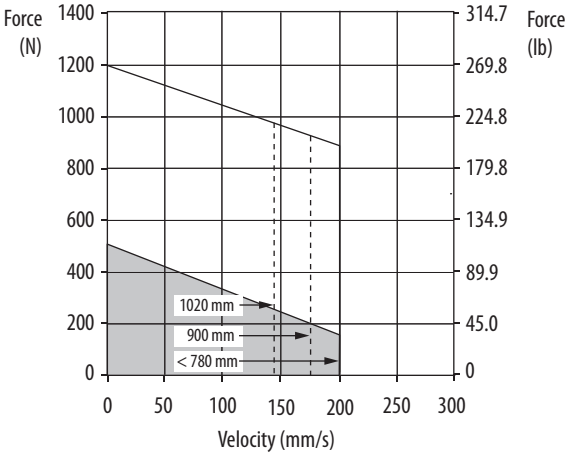
2097-V32PR4 or 2097-V33PR5
and MPAS-A8*xxx*E-ALM02C



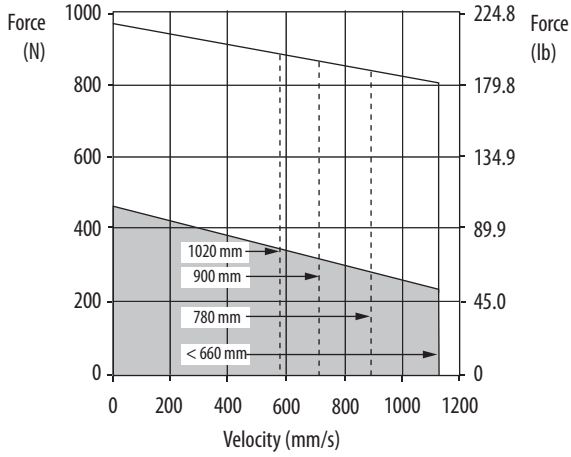
2097-V32PR4 or 2097-V33PR5
and MPAS-A8*xxx*E-ALMS2C



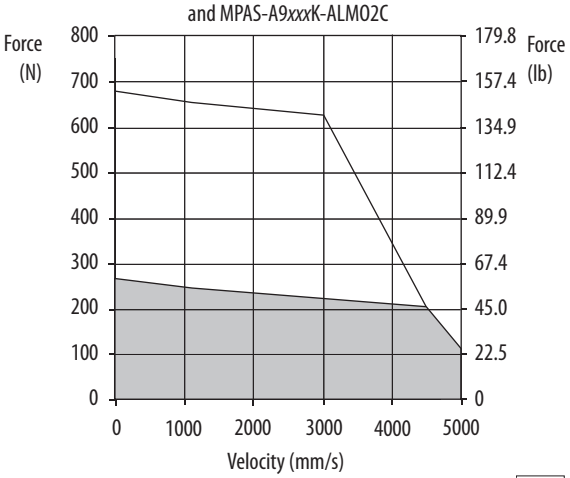
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAS-A9*xxx*1-V05S*x*A



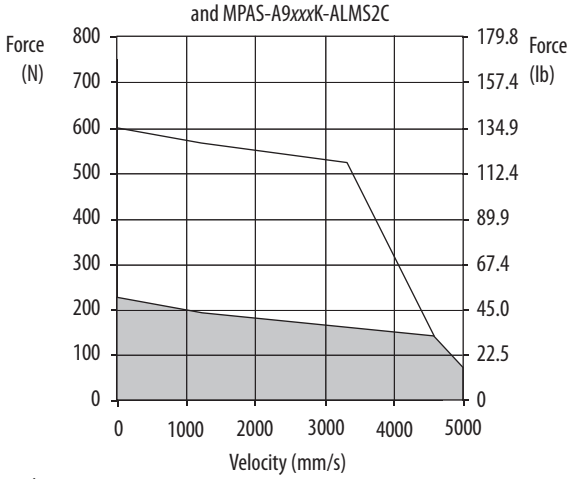
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAS-A9*xxx*2-V20S*x*A



2097-V32PR4 or 2097-V33PR5
and MPAS-A9*xxx*K-ALM02C



2097-V32PR4 or 2097-V33PR5
and MPAS-A9*xxx*K-ALMS2C



= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 300/350 (400V-class) Drives with MP-Series Linear Stages

This section provides system combination information for the Kinetix 300/350 (400V-class) drives when matched with MP-Series (400V-class) integrated ballscrew and direct-drive linear stages. Included are power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

IMPORTANT Kinetix 300 and Kinetix 350 drives are compatible with MPAS-B*xxxxx*-V*xx*S*x*A (ball screw) stages. Only Kinetix 300 drives are compatible with MPAS-B*xxxxx*-ALM*x*2C (direct-drive) stages.

Bulletin MPAS Cable Combinations

Linear Stage Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAS-B*xxxx*1-V05S*x*A MPAS-B*xxxx*2-V20S*x*A	2090-CP*x*M7DF-16AA*xx* (standard) or 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPAS-B8*xxxx*-ALM*x*2C MPAS-B9*xxxx*-ALM*x*2C		2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPAS Performance Specifications with Kinetix 300/350 (400V-class) Drives

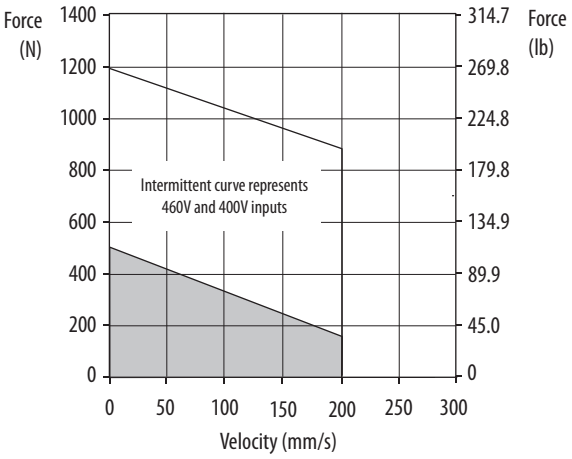
Linear Stage Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Stage Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPAS-B*xxxx*1-V05S*x*A	200 (7.9) (1)	1.75	521 (117)	3.50	1212 (272)	0.138	2097-V34PR3-*xx*
MPAS-B*xxxx*2-V20S*x*A	1124 (44.3) (2)	3.30	462 (104)	6.60	968 (218)	0.52	2097-V34PR5-*xx*
MPAS-B8*xxx*F-ALM02C	5000 (200)	3.50	189 (42.5)	9.30	456 (103)	0.527	2097-V34PR5
MPAS-B8*xxx*F-ALMS2C	5000 (200)	3.15	159 (35.7)	8.37	399 (89.7)	0.475	
MPAS-B9*xxx*L-ALM02C	5000 (200)	3.40	285 (64.1)	9.10	680 (153)	0.768	
MPAS-B9*xxx*L-ALMS2C	5000 (200)	3.03	245 (55.1)	8.19	601 (135)	0.69	

(1) For 900 mm stroke length, maximum speed is 176 mm/s (6.9 in/s). For 1020 mm stroke length, maximum speed is 143 mm/s (5.6 in/s).
(2) For 780 mm stroke length, maximum speed is 889 mm/s (35.0 in/s). For 900 mm stroke length, maximum speed is 715 mm/s (28.2 in/s). For 1020 mm stroke length, maximum speed is 582 mm/s (22.9 in/s).

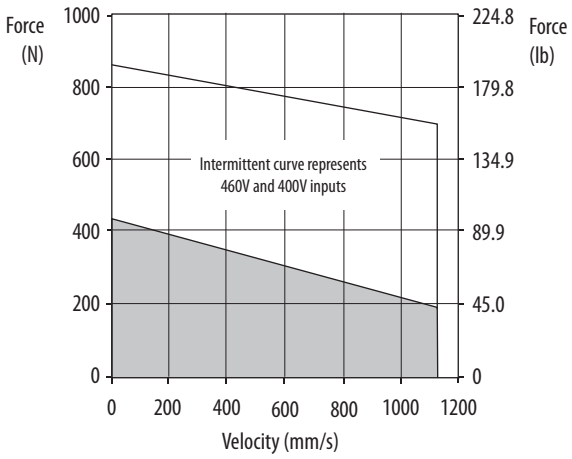
Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 (400V-class) Drives/MP-Series Integrated Linear Stage Curves

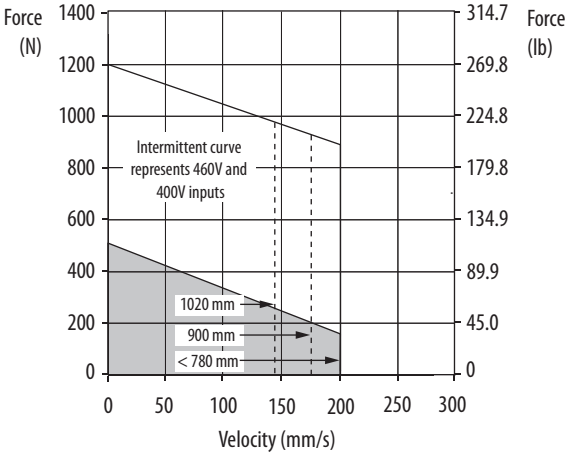
2097-V34PR3 and MPAS-B6*xxx*1-V05S*x*A



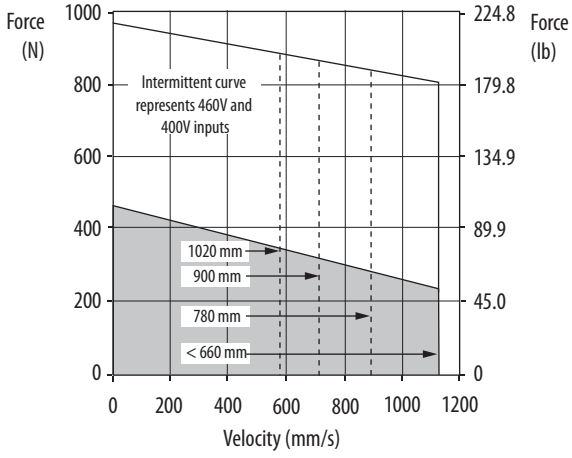
2097-V34PR5 and MPAS-B6*xxx*2-V20S*x*A



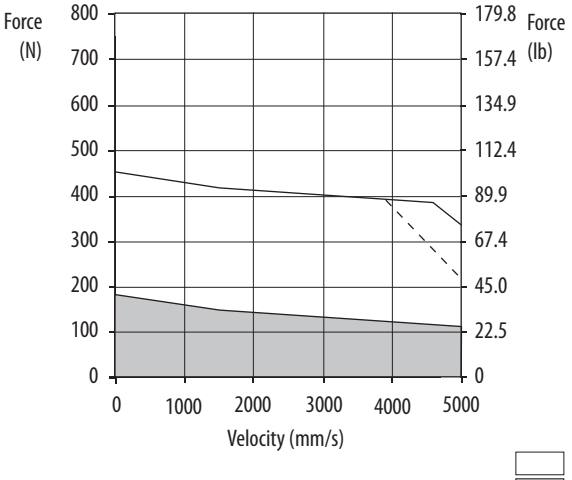
2097-V34PR3 and MPAS-B8*xxx*1-V05S*x*A



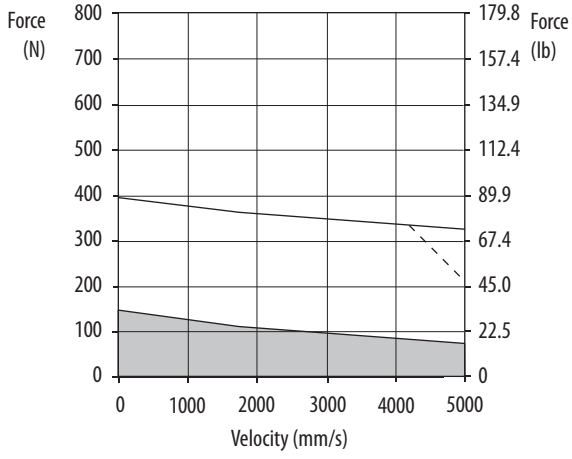
2097-V34PR5 and MPAS-B8*xxx*2-V20S*x*A



2097-V34PR5 and MPAS-B8*xxx*F-ALMO2C



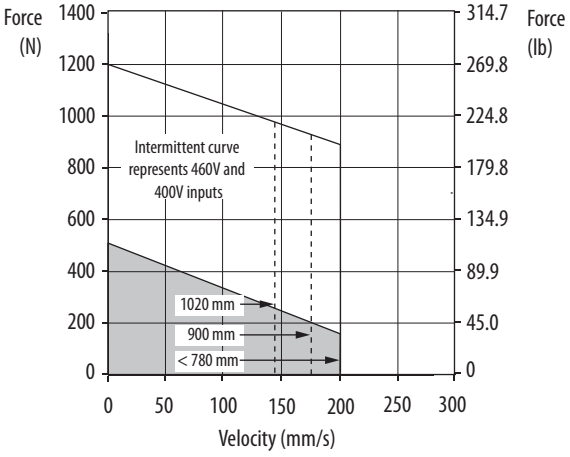
2097-V34PR5 and MPAS-B8*xxx*F-ALMS2C



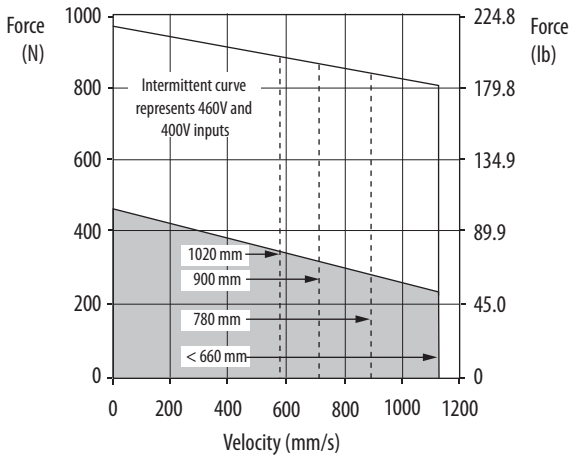
= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 300/350 (400V-class) Drives/MP-Series Integrated Linear Stages (continued)

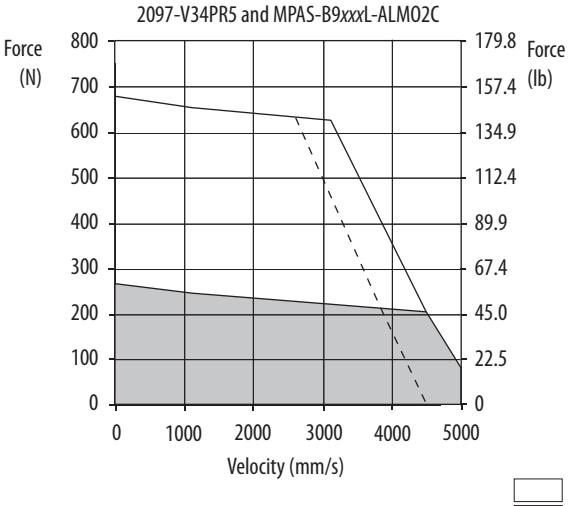
2097-V34PR3 and MPAS-B9*xxx*1-V05S*x*A



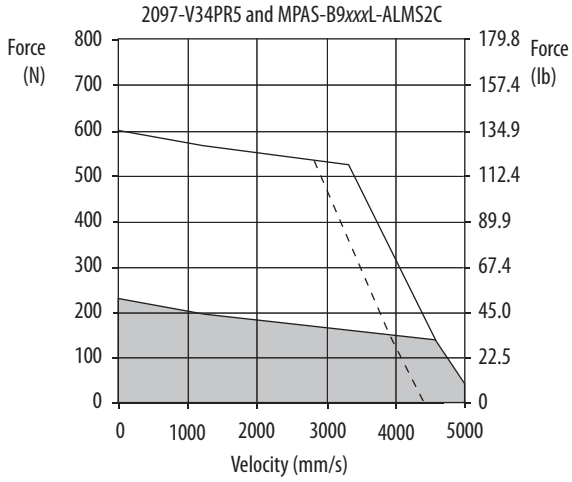
2097-V34PR5 and MPAS-B9*xxx*2-V20S*x*A



2097-V34PR5 and MPAS-B9*xxx*L-ALM02C



2097-V34PR5 and MPAS-B9*xxx*L-ALMS2C



= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 300/350 Drives with MP-Series Electric Cylinders

This section provides system combination information for the Kinetix 300/350 drives when matched with MP-Series electric cylinders. Included are power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Bulletin MPAR Cable Combinations

Electric Cylinder Cat. No. (200V and 400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAR-A/B1*xxx*B MPAR-A/B1*xxx*E MPAR-A/B2*xxx*C MPAR-A/B2*xxx*F MPAR-A/B3*xxx*E MPAR-A/B3*xxx*H	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use low-profile connector kit (2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPAR Performance Specifications with Kinetix 300/350 Drives

Performance Specifications with Kinetix 300/350 (200V-class, single-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase Drives
MPAR-A1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
MPAR-A1*xxx*E	500	2.16	280 (62.9)	2.48	350 (78.7)	0.140	
MPAR-A2*xxx*C	250	2.42	420 (94.4)	2.72	525 (118)	0.105	
MPAR-A2*xxx*F	640	4.54	640 (144)	5.41	800 (180)	0.410	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAR-A3*xxx*E	500	10.33	2000 (450)	12.34	2500 (562)	1.00	2097-V33PR5-*xx* 2097-V32PR4-*xx*

Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Kinetix 300/350 (200V-class, three-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
MPAR-A1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2097-V33PR1-*xx*
MPAR-A1*xxx*E	500	2.16	280 (62.9)	2.48	350 (78.7)	0.140	
MPAR-A2*xxx*C	250	2.42	420 (94.4)	2.72	525 (118)	0.105	
MPAR-A2*xxx*F	640	4.54	640 (144)	5.41	800 (180)	0.410	2097-V33PR3-*xx*
MPAR-A3*xxx*E	500	10.33	2000 (450)	12.34	2500 (562)	1.00	2097-V33PR5-*xx*
MPAR-A3*xxx*H	1000	12.20	1300 (292)	16.40	1625 (365)	1.30	2097-V33PR6-*xx*

Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

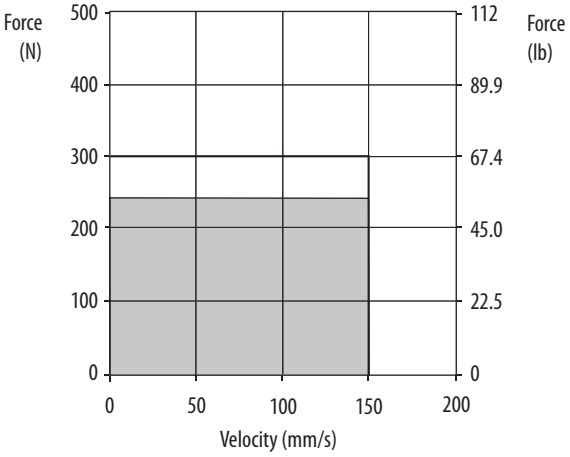
Performance Specifications with Kinetix 300/350 (400V-class) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
MPAR-B1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2097-V34PR3-*xx*
MPAR-B1*xxx*E	500	1.49	280 (62.9)	1.71	350 (78.7)	0.140	
MPAR-B2*xxx*C	250	1.67	420 (94.4)	1.90	525 (118)	0.105	
MPAR-B2*xxx*F	640	3.29	640 (144)	3.93	800 (180)	0.410	2097-V34PR5-*xx*
MPAR-B3*xxx*E	500	5.16	2000 (450)	6.17	2500 (562)	1.00	
MPAR-B3*xxx*H	1000	6.13	1300 (292)	6.79	1625 (365)	1.30	2097-V34PR6-*xx*

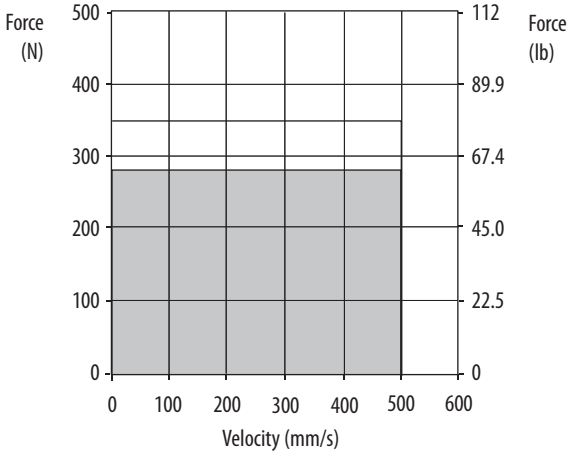
Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 Drives/MP-Series Electric Cylinder Curves

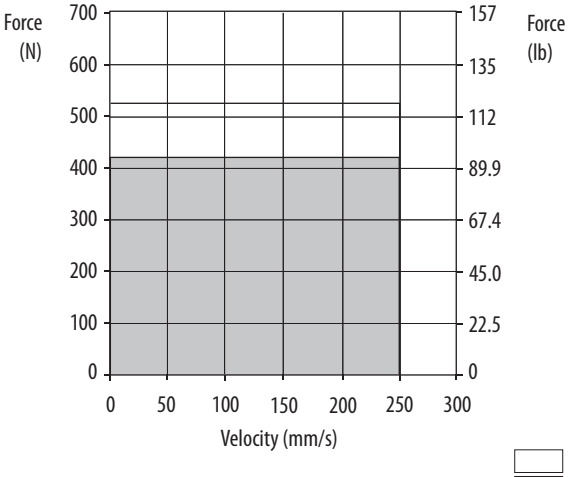
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and MPAR-A1*xxx*B-V*x*A
2097-V34PR3 and MPAR-B1*xxx*B-V*x*A



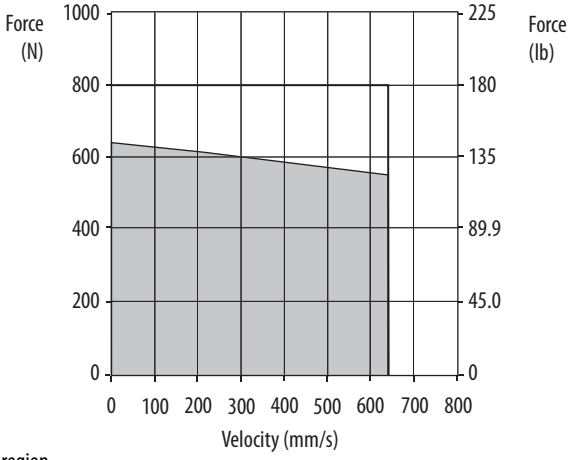
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and MPAR-A1*xxx*E-V*x*A
2097-V34PR3 and MPAR-B1*xxx*E-V*x*A



2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and MPAR-A2*xxx*C-V*x*A
2097-V34PR3 and MPAR-B2*xxx*C-V*x*A

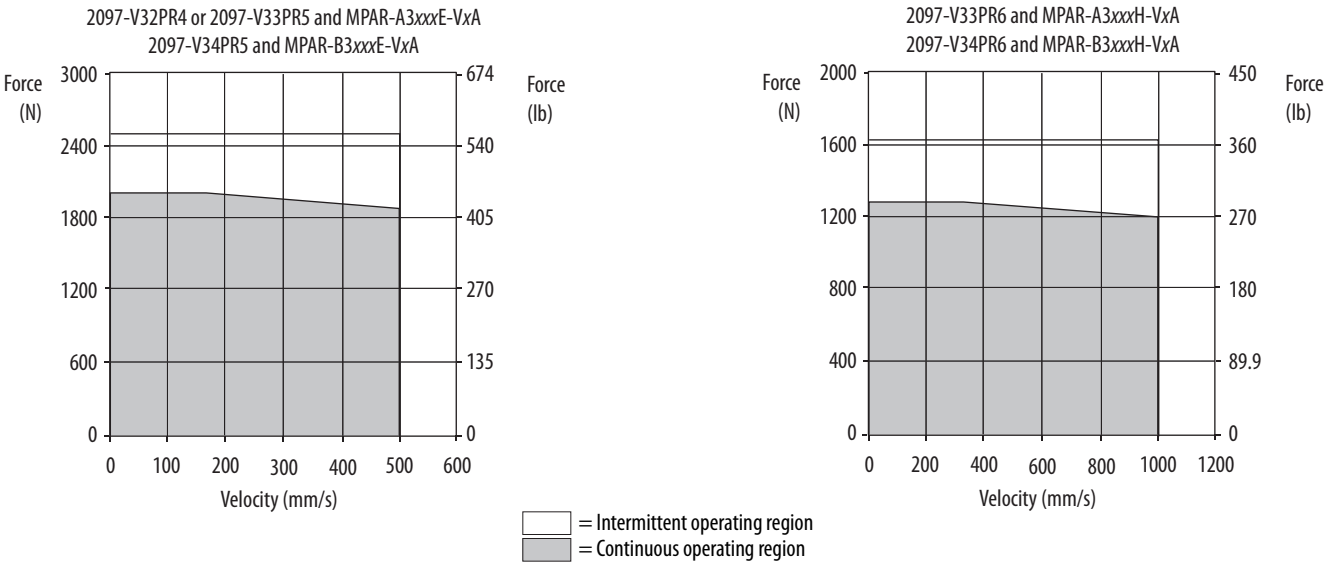


2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAR-A2*xxx*F-V*x*A
2097-V34PR5 and MPAR-B2*xxx*F-V*x*A



= Intermittent operating region
= Continuous operating region

Kinetix 300/350 Drives/MP-Series Electric Cylinders (continued)



Kinetix 300/350 Drives/MP-Series Heavy Duty Electric Cylinders

This section provides system combination information for the Kinetix 300/350 drives when matched with MP-Series heavy-duty electric cylinders. Included are power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Bulletin MPAI Cable Combinations

Heavy Duty Electric Cylinder Cat. No. (200V and 400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAI-A/B2*xxx*C	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or 2090-CFBM7DD-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* or 2090-CFBM7DD-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPAI-A/B3*xxx*C, MPAI-A/B3*xxx*E MPAI-A/B3*xxx*R, MPAI-A/B3*xxx*S		
MPAI-A/B4*xxx*C, MPAI-A/B4*xxx*E MPAI-A/B4*xxx*R, MPAI-A/B4*xxx*S		
MPAI-B5*xxx*C, MPAI-B5*xxx*E		
MPAI-A5*xxx*C, MPAI-A5*xxx*E	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 3

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Bulletin MPAI Performance Specifications with Kinetix 300/350 (200V-class) Drives

Performance Specifications (ball screw) with Kinetix 300/350 (200V-class, single-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A2076CV1	305 (12)	1.80	890 (200)	706 (159)	4.50	1446 (325)	0.22	2097-V33PR1-*xx* 2097-V32PR0-*xx* 2097-V31PR0-*xx*
MPAI-A2150CV3		2.47	1446 (325)	1147 (258)	6.20		0.25	
MPAI-A2300CV3								
MPAI-A3076CM1	305 (12)	2.68	1624 (365)	1290 (290)	8.90	4448 (1000)	0.27	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAI-A3076EM1	610 (24)		814 (183)	645 (145)		2570 (578)		
MPAI-A3150CM3	279 (11)	5.61	4003 (900)	3176 (714)	8.40	4448 (1000)	0.39	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAI-A3300CM3								
MPAI-A3450CM3	188 (7.3)							
MPAI-A3150EM3	559 (22)		2002 (450)	1588 (357)	14.14	4003 (900)		
MPAI-A3300EM3								
MPAI-A3450EM3	376 (15)							
MPAI-A4150CM3	279 (11)	10.89	7784 (1750)	6179 (1389)	17.07	8896 (2000)	0.43	2097-V33PR5-*xx* 2097-V32PR4-*xx*
MPAI-A4300CM3								
MPAI-A4450CM3	245 (9.5)							
MPAI-A4150EM3	559 (22)		3892 (875)	3092 (695)	27.44	7784 (1750)		
MPAI-A4300EM3								
MPAI-A4450EM3	491 (19)							

Performance specification data and curves reflect nominal system performance of a typical system with actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications (roller screw) with Kinetix 300/350 (200V-class, single-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Single-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A3076RM1	305 (12)	2.87	1557 (350)	1237 (278)	8.90	4862 (1093)	0.27	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAI-A3076SM1	610 (24)		778 (175)	618 (139)		2431 (547)		
MPAI-A3150RM3	279 (11)	5.61	3781 (850)	3003 (675)	14.14	7562 (1700)	0.39	2097-V33PR3-*xx* 2097-V32PR2-*xx* 2097-V31PR2-*xx*
MPAI-A3300RM3								
MPAI-A3450RM3	176 (6.9)							
MPAI-A3150SM3	559 (22)		1891 (425)	1499 (337)		3781 (850)		
MPAI-A3300SM3								
MPAI-A3450SM3	353 (14)							
MPAI-A4150RM3	279 (11)	10.89	7340 (1650)	5827 (1310)	27.44	14,679 (3300)	0.43	2097-V33PR5-*xx* 2097-V32PR4-*xx*
MPAI-A4300RM3								
MPAI-A4450RM3	196 (7.6)							
MPAI-A4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-A4300SM3								
MPAI-A4450SM3	393 (15)							

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications (ball screw) with Kinetix 300/350 (200V-class, three-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A2076CV1	305 (12)	1.80	890 (200)	706 (159)	4.50	1446 (325)	0.22	2097-V33PR1-*xx*
MPAI-A2150CV3		2.47	1446 (325)	1147 (258)	6.20		0.25	2097-V33PR3-*xx*
MPAI-A2300CV3								
MPAI-A3076CM1	305 (12)	2.68	1624 (365)	1290 (290)	8.90	4448 (1000)	0.27	2097-V33PR3-*xx*
MPAI-A3076EM1	610 (24)		814 (183)	645 (145)		2570 (578)		
MPAI-A3150CM3	279 (11)	5.61	4003 (900)	3176 (714)	8.40	4448 (1000)	0.39	2097-V33PR3-*xx*
MPAI-A3300CM3								
MPAI-A3450CM3	188 (7.3)							
MPAI-A3150EM3	559 (22)		2002 (450)	1588 (357)	14.14	4003 (900)		
MPAI-A3300EM3								
MPAI-A3450EM3	376 (15)							
MPAI-A4150CM3	279 (11)	10.89	7784 (1750)	6179 (1389)	17.07	8896 (2000)	0.43	2097-V33PR5-*xx*
MPAI-A4300CM3								
MPAI-A4450CM3	245 (9.5)							
MPAI-A4150EM3	559 (22)		3892 (875)	3092 (695)	27.44	7784 (1750)		
MPAI-A4300EM3								
MPAI-A4450EM3	491 (19)							
MPAI-A5*xxx*CM3	200 (7.8)	13.25	13,123 (2950)	10,415 (2341)	16.70	13,345 (3000)	0.55	2097-V33PR6-*xx*
MPAI-A5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	33.40	13,122 (2950)		

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications (roller screw) with Kinetix 300/350 (200V-class, three-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 200V-class Three-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A3076RM1	305 (12)	2.87	1557 (350)	1237 (278)	8.90	4862 (1093)	0.27	2097-V33PR3-*xx*
MPAI-A3076SM1	610 (24)		778 (175)	618 (139)		2431 (547)		
MPAI-A3150RM3	279 (11)	5.61	3781 (850)	3003 (675)	14.14	7562 (1700)	0.39	2097-V33PR3-*xx*
MPAI-A3300RM3								
MPAI-A3450RM3	176 (6.9)							
MPAI-A3150SM3	559 (22)		1891 (425)	1499 (337)		3781 (850)		
MPAI-A3300SM3								
MPAI-A3450SM3	353 (14)							
MPAI-A4150RM3	279 (11)	10.89	7340 (1650)	5827 (1310)	27.44	14,679 (3300)	0.43	2097-V33PR5-*xx*
MPAI-A4300RM3								
MPAI-A4450RM3	196 (7.6)							
MPAI-A4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-A4300SM3								
MPAI-A4450SM3	393 (15)							

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Bulletin MPAI Performance Specifications with Kinetix 300/350 (400V-class) Drives

Performance Specifications (ball screw) with Kinetix 300/350 (400V-class, three-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-B2076CV1	305 (12)	0.90	890 (200)	706 (159)	2.30	1446 (325)	0.22	2097-V34PR3-*xx*
MPAI-B2150CV3		1.29	1446 (325)	1147 (258)	3.25		0.25	
MPAI-B2300CV3								
MPAI-B3076CM1	305 (12)	1.35	1624 (365)	1290 (290)	4.57	4448 (1000)	0.27	2097-V34PR3-*xx*
MPAI-B3076EM1	610 (24)		814 (183)	645 (145)		2570 (578)		
MPAI-B3150CM3	279 (11)	2.81	4003 (900)	3176 (714)	4.30	4448 (1000)	0.39	2097-V34PR5-*xx*
MPAI-B3300CM3								
MPAI-B3450CM3	188 (7.3)							
MPAI-B3150EM3	559 (22)		2002 (450)	1588 (357)	7.07	4003 (900)		
MPAI-B3300EM3								
MPAI-B3450EM3	376 (15)							
MPAI-B4150CM3	279 (11)	5.61	7784 (1750)	6179 (1389)	8.68	8896 (2000)	0.43	2097-V34PR5-*xx*
MPAI-B4300CM3								
MPAI-B4450CM3	245 (9.5)							
MPAI-B4150EM3	559 (22)		3892 (875)	3092 (695)	14.14	7784 (1750)		
MPAI-B4300EM3								
MPAI-B4450EM3	491 (19)							
MPAI-B5*xxx*CM3	200 (7.8)	6.62	13,123 (2950)	10,415 (2341)	8.48	13,345 (3000)	0.55	2097-V34PR6-*xx*
MPAI-B5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	16.70	13,122 (2950)		

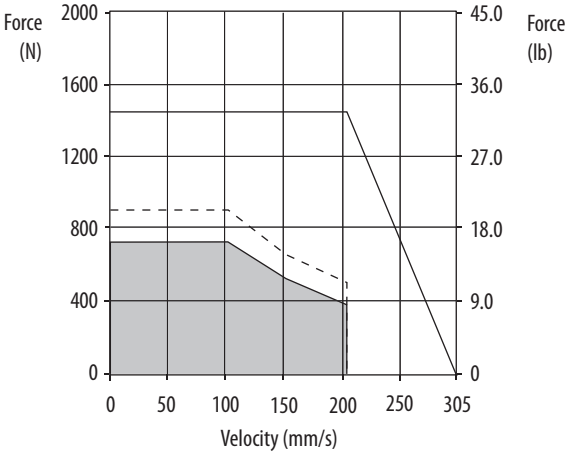
Performance Specifications (roller screw) with Kinetix 300/350 (400V-class, three-phase) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Rated Output kW	Kinetix 300/350 400V-class Three-phase Drives
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-B3076RM1	305 (12)	1.45	1557 (350)	1237 (278)	4.57	4862 (1093)	0.27	2097-V34PR3-*xx*
MPAI-B3076SM1	610 (24)		778 (175)	618 (139)		2431 (547)		
MPAI-B3150RM3	279 (11)	2.81	3781 (850)	3003 (675)	7.07	7562 (1700)	0.39	2097-V34PR5-*xx*
MPAI-B3300RM3								
MPAI-B3450RM3	176 (6.9)							
MPAI-B3150SM3	559 (22)		1891 (425)	1499 (337)		3781 (850)		
MPAI-B3300SM3								
MPAI-B3450SM3	353 (14)							
MPAI-B4150RM3	279 (11)	5.61	7340 (1650)	5827 (1310)	14.14	14,679 (3300)	0.43	2097-V34PR5-*xx*
MPAI-B4300RM3								
MPAI-B4450RM3	196 (7.6)							
MPAI-B4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-B4300SM3								
MPAI-B4450SM3	393 (15)							

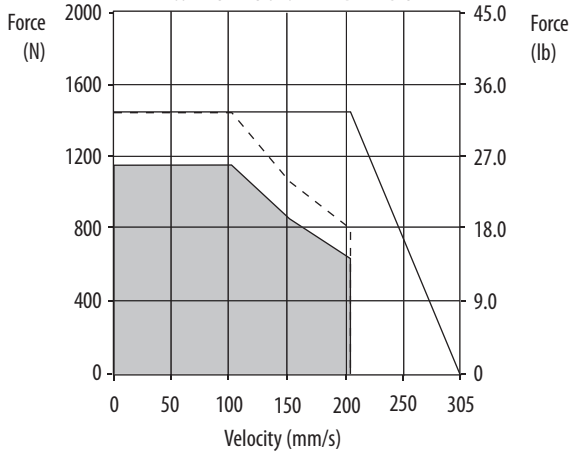
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300/350 Drives/MP-Series Heavy Duty (ball screw) Electric Cylinder Curves

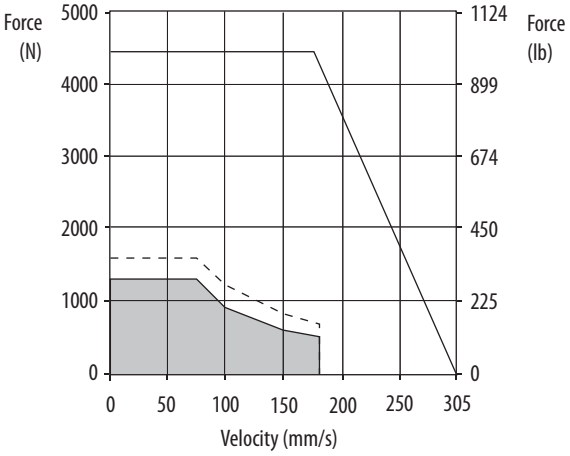
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and MPAI-A2076CV1
2097-V34PR3 and MPAI-B2076CV1



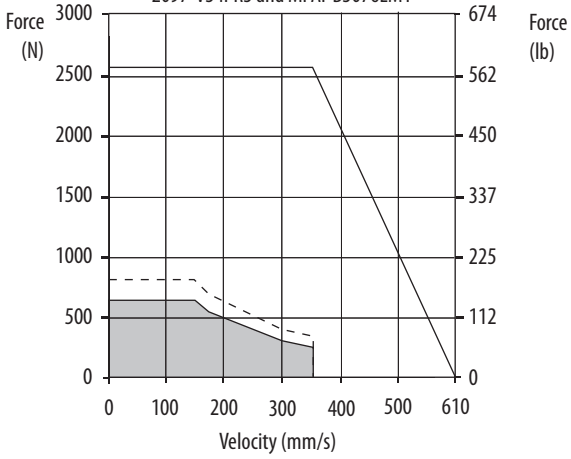
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and MPAI-A2*xxx*CV3
2097-V34PR3 and MPAI-B2*xxx*CV3



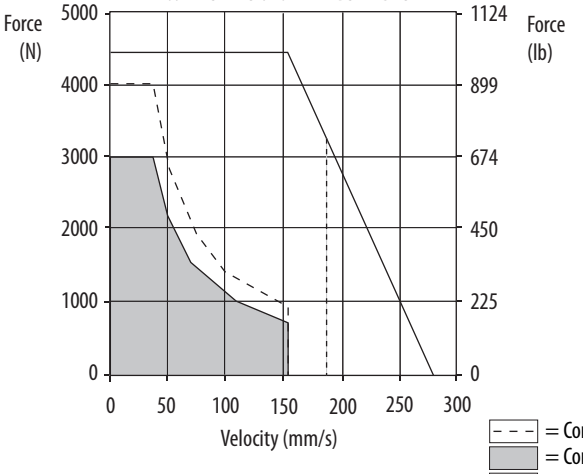
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3076CM1
2097-V34PR3 and MPAI-B3076CM1



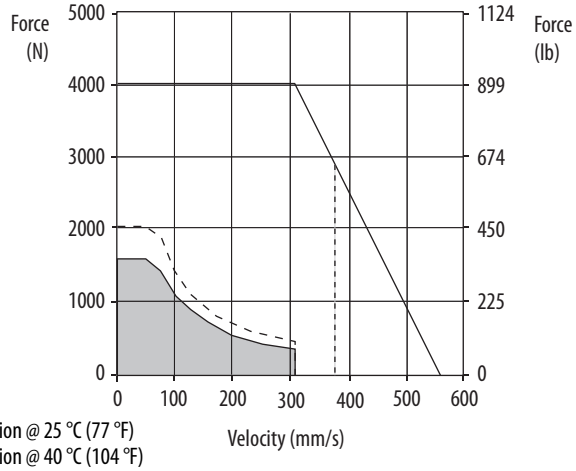
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3076EM1
2097-V34PR3 and MPAI-B3076EM1



2097-V31PR2, 2097-V32PR2, 2097-V33PR3
and MPAI-A3*xxx*CM3
2097-V34PR5 and MPAI-B3*xxx*CM3



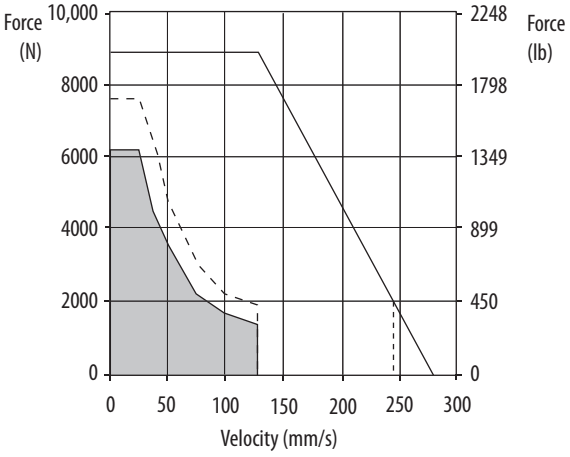
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3*xxx*EM3
2097-V34PR5 and MPAI-B3*xxx*EM3



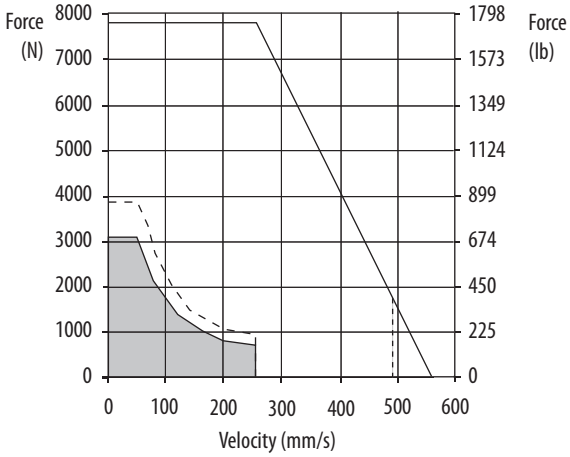
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 300/350 Drives/MP-Series Heavy Duty (ball screw) Electric Cylinder Curves (continued)

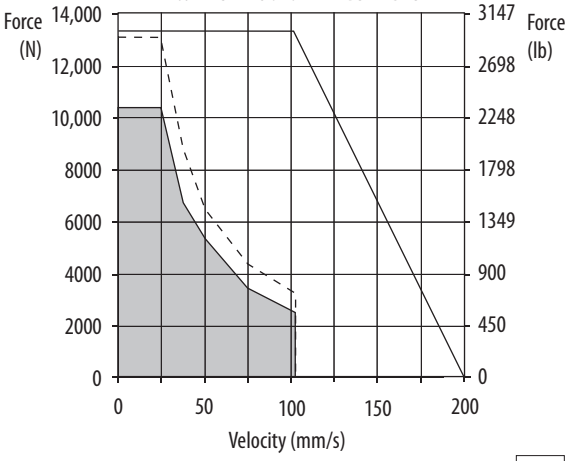
2097-V32PR4 or 2097-V33PR5 and MPAI-A4*xxx*CM3
2097-V34PR5 and MPAI-B4*xxx*CM3



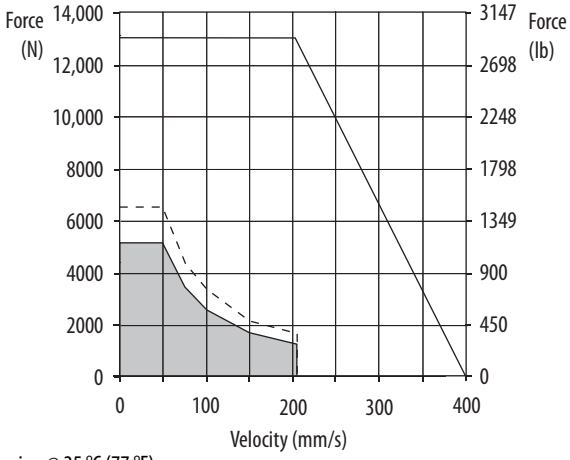
2097-V32PR4 or 2097-V33PR5 and MPAI-A4*xxx*EM3
2097-V34PR5 and MPAI-B4*xxx*EM3



2097-V33PR6 and MPAI-A5*xxx*CM3
2097-V34PR6 and MPAI-B5*xxx*CM3



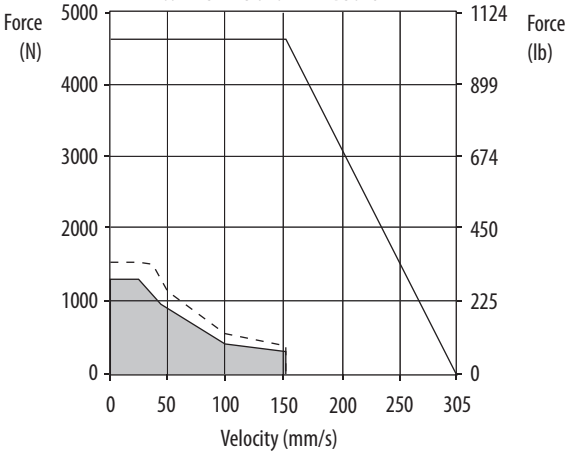
2097-V33PR6 and MPAI-A5*xxx*EM3
2097-V34PR6 and MPAI-B5*xxx*EM3



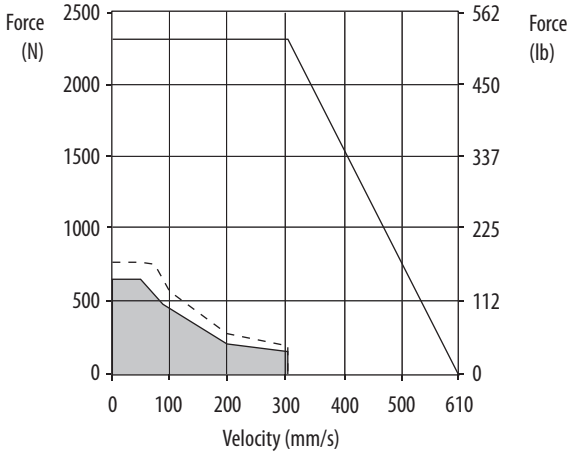
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 300/350 Drives/MP-Series Heavy Duty (roller screw) Electric Cylinder Curves

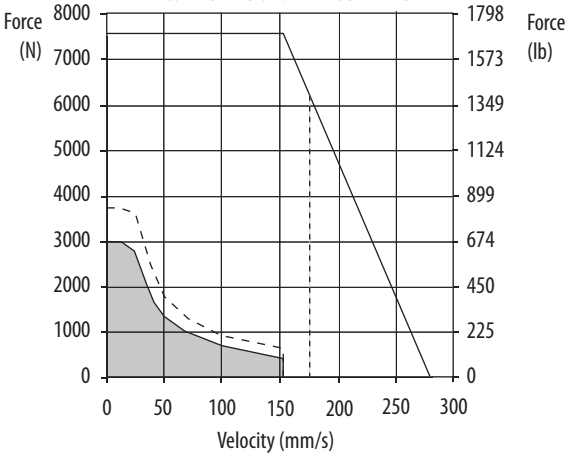
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3076RM1
2097-V34PR3 and MPAI-B3076RM1



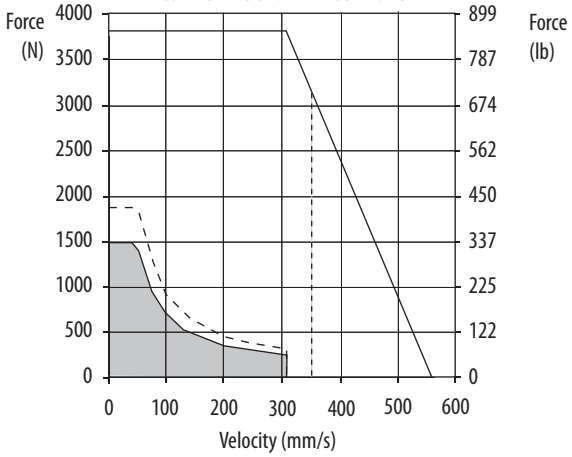
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3076SM1
2097-V34PR3 and MPAI-B3076SM1



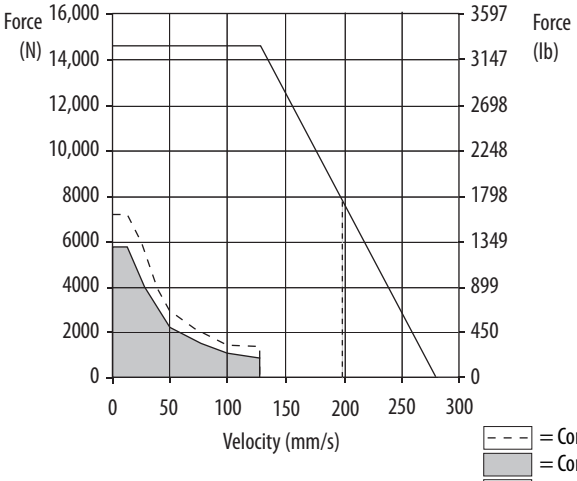
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3*xxx*RM3
2097-V34PR5 and MPAI-B3*xxx*RM3



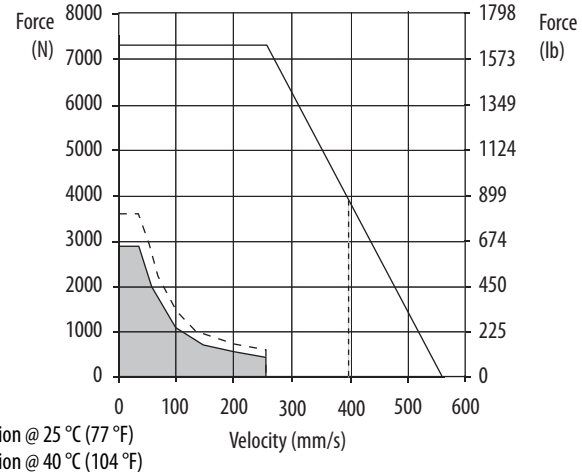
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and MPAI-A3*xxx*SM3
2097-V34PR5 and MPAI-B3*xxx*SM3



2097-V32PR4 or 2097-V33PR5 and MPAI-A4*xxx*RM3
2097-V34PR5 and MPAI-B4*xxx*RM3



2097-V32PR4 or 2097-V33PR5 and MPAI-A4*xxx*SM3
2097-V34PR5 and MPAI-B4*xxx*SM3



= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 300 (200V-class) Drives with LDC-Series Linear Motors

This section provides system combination information for the Kinetix 300 (200V-class) drives when matched with LDC-Series™ iron-core linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

IMPORTANT Only Kinetix 300 drives are compatible with LDC-Series linear motors.

LDC-Series Cable Combinations

Linear Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDC-C030100-DHT, LDC-C030200-DHT, LDC-C030200-EHT	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Sin/Cos or TTL Encoder Feedback
LDC-C050100-DHT, LDC-C050200-DHT, LDC-C050200-EHT, LDC-C050300-DHT, LDC-C050300-EHT		
LDC-C075200-DHT, LDC-C075200-EHT, LDC-C075300-DHT, LDC-C075300-EHT, LDC-C075400-DHT, LDC-C075400-EHT		
LDC-C100300-DHT, LDC-C100300-EHT, LDC-C100400-EHT, LDC-C150400-DHT		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

LDC-Series Performance Specifications with Kinetix 300 (200V-class) Drives

Performance Specifications with Kinetix 300 (200V-class, single-phase) Drives

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current (1) Amps 0-pk	System Continuous Stall Force (1) N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output (1) kW	Kinetix 300 (2) 200V-class Single-phase Drives
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2097-V33PR5 2097-V32PR4
LDC-C030200-EHT		4.1…6.1		12.1			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2097-V33PR5 2097-V32PR4
LDC-C050200-EHT		3.9…5.9		11.6			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDC-C050300-EHT		3.9…5.9	363…544 (82…122)	12.0	941 (212)	1.81…2.72	
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2097-V33PR5 2097-V32PR4
LDC-C075200-EHT		3.8…5.7		11.5			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDC-C075300-EHT		3.8…5.7	523…784 (117…176)	11.9	1368 (308)	2.61…3.92	
LDC-C075400-EHT		7.7…11.5	697…1045 (157…235)	23.7	1824 (410)	3.48…5.22	2097-V33PR5 2097-V32PR4

(1) Values represent the range between no cooling (low value) and water cooling (high value).
(2) Drives selected are for motors with no cooling.

Performance Specifications with Kinetix 300 (200V-class, single-phase) Drives (continued)

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current (1) Amps 0-pk	System Continuous Stall Force (1) N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output (1) kW	Kinetix 300 (2) 200V-class Single-phase Drives
LDC-C100300-DHT	10.0 (32.8)	11.1…16.7	674…1012 (152…227)	34.3	1767 (397)	3.37…5.06	2097-V33PR5 2097-V32PR4
LDC-C100300-EHT		3.7…5.6		11.4			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDC-C100400-EHT		7.4…11.1	899…1349 (202…303)	22.8	2356 (530)	4.49…6.74	2097-V33PR5 2097-V32PR4

(1) Values represent the range between no cooling (low value) and water cooling (high value).
(2) Drives selected are for motors with no cooling.

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Kinetix 300 (200V-class, three-phase) Drives

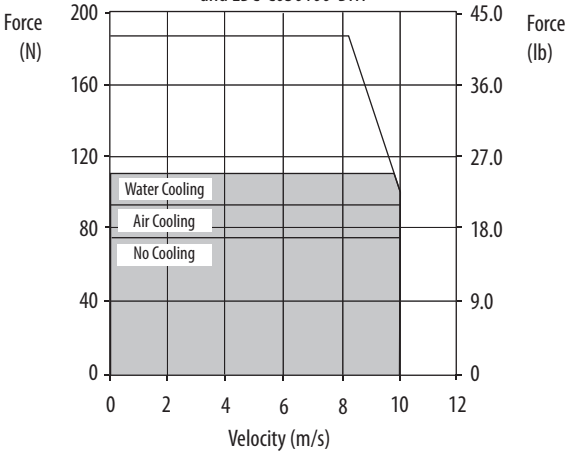
Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current (1) Amps 0-pk	System Continuous Stall Force (1) N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output (1) kW	Kinetix 300 (2) 200V-class Three-phase Drives
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2097-V33PR3
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2097-V33PR5
LDC-C030200-EHT		4.1…6.1		12.1			2097-V33PR3
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	2097-V33PR3
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2097-V33PR5
LDC-C050200-EHT		3.9…5.9		11.6			2097-V33PR3
LDC-C050300-DHT		11.8…17.7	363…544 (82…122)	35.9	941 (212)	1.81…2.72	2097-V33PR6
LDC-C050300-EHT		3.9…5.9		12.0			2097-V33PR3
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2097-V33PR5
LDC-C075200-EHT		3.8…5.7		11.5			2097-V33PR3
LDC-C075300-DHT		11.5…17.2	523…784 (117…176)	35.6	1368 (308)	2.61…3.92	2097-V33PR6
LDC-C075300-EHT		3.8…5.7		11.9			2097-V33PR3
LDC-C075400-DHT		15.3…23.0	697…1045 (157…235)	47.4	1824 (410)	3.48…5.22	2097-V33PR6
LDC-C075400-EHT		7.7…11.5		23.7			2097-V33PR5
LDC-C100300-DHT	10.0 (32.8)	11.1…16.7	674…1012 (152…227)	34.3	1767 (397)	3.37…5.06	2097-V33PR5
LDC-C100300-EHT		3.7…5.6		11.4			2097-V33PR3
LDC-C100400-DHT		14.8…22.2	899…1349 (202…303)	45.7	2356 (530)	4.49…6.74	2097-V33PR6
LDC-C100400-EHT		7.4…11.1		22.8			2097-V33PR5
LDC-C150400-DHT	10.0 (32.8)	14.1…21.1	1281…1922 (288…432)	45.2	3498 (786)	6.40…9.61	2097-V33PR6

(1) Values represent the range between no cooling (low value) and water cooling (high value).
(2) Drives selected are for motors with no cooling.

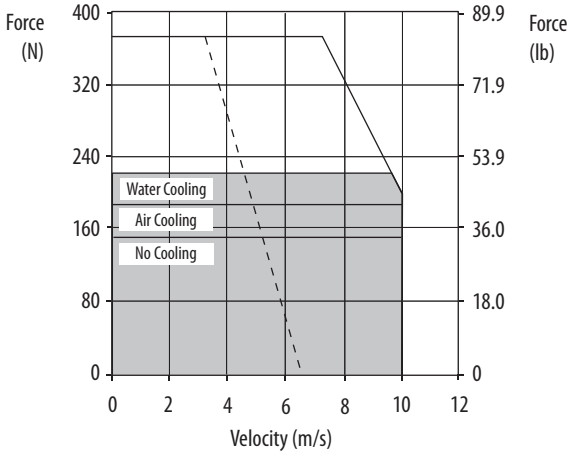
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300 (200V-class) Drives/LDC-Series Linear Motor Curves

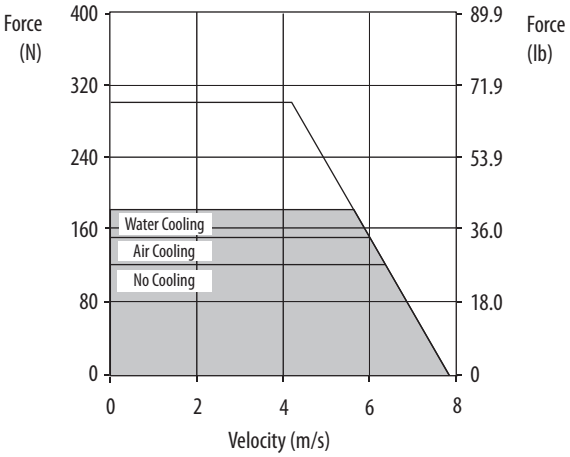
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C030100-DHT



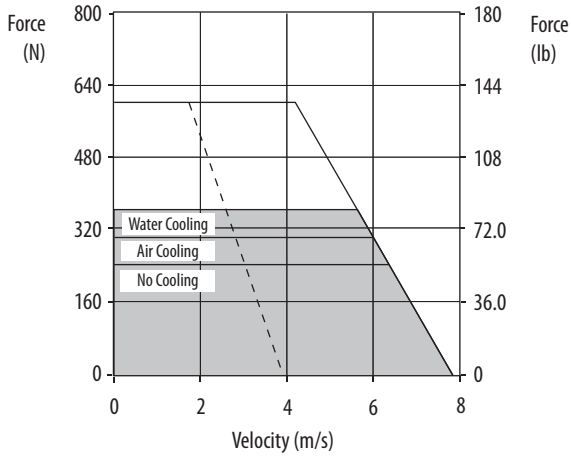
2097-V32PR4 or 2097-V33PR5 and LDC-C030200-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C030200-EHT



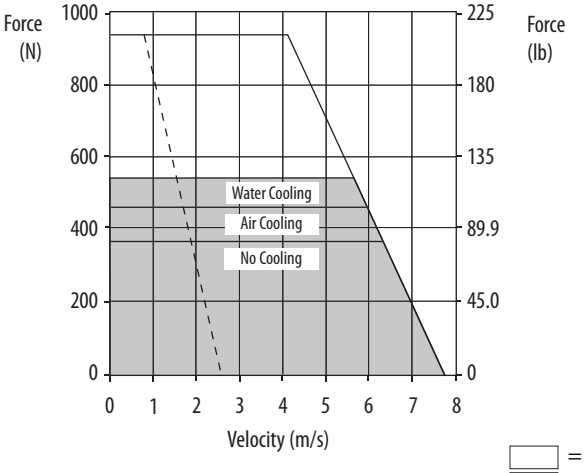
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C050100-DHT



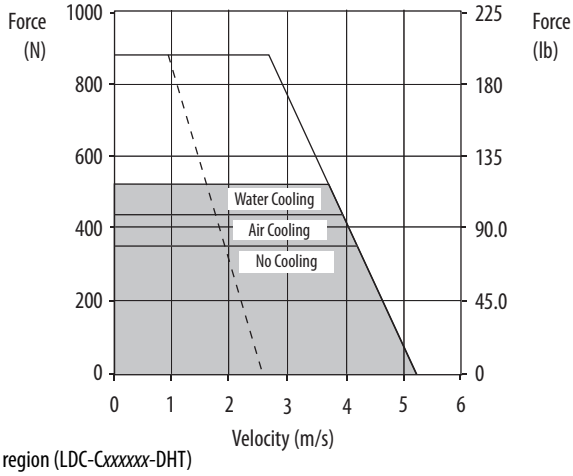
2097-V32PR4 or 2097-V33PR5 and LDC-C050200-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C050200-EHT



2097-V33PR6 and LDC-C050300-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C050300-EHT



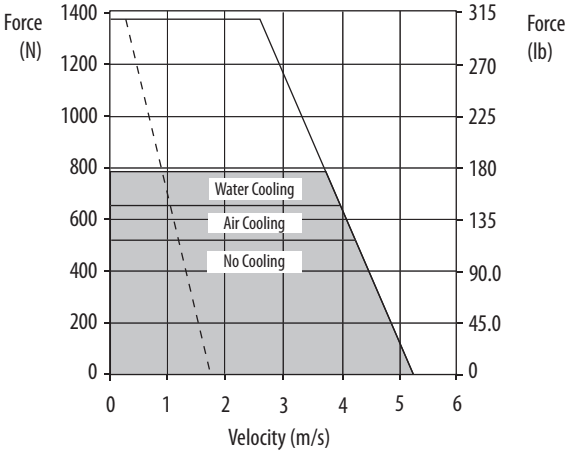
2097-V32PR4 or 2097-V33PR5 and LDC-C075200-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C075200-EHT



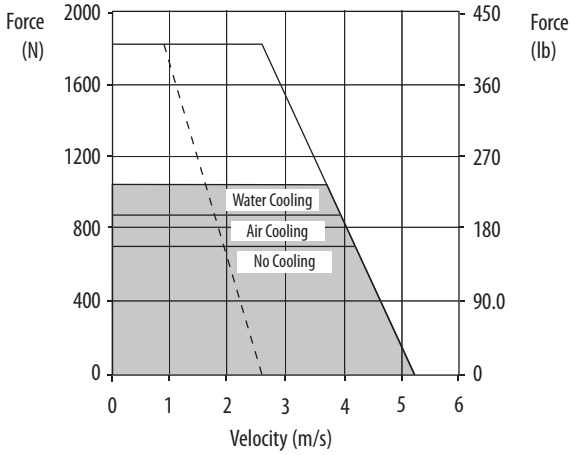
= Intermittent operating region (LDC-C*xxxxxx*-DHT)
= Intermittent operating region (LDC-C*xxxxxx*-EHT)
= Continuous operating region

Kinetix 300 (200V-class) Drives/LDC-Series Linear Motor Curves (continued)

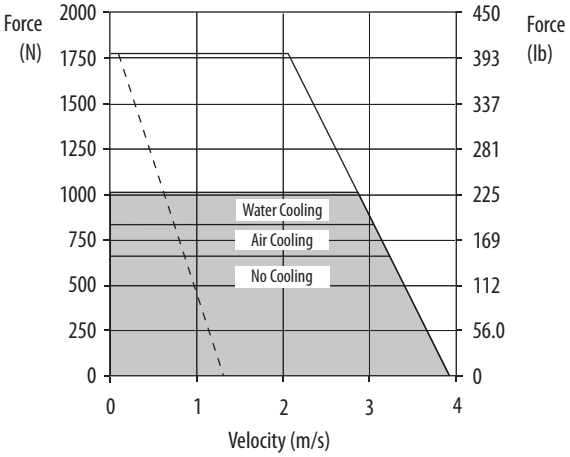
2097-V33PR6 and LDC-C075300-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C075300-EHT



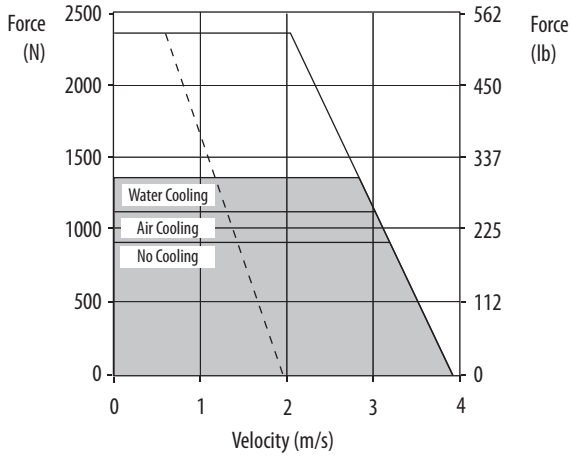
2097-V33PR6 and LDC-C075400-DHT
2097-V32PR4 or 2097-V33PR5 and LDC-C075400-EHT



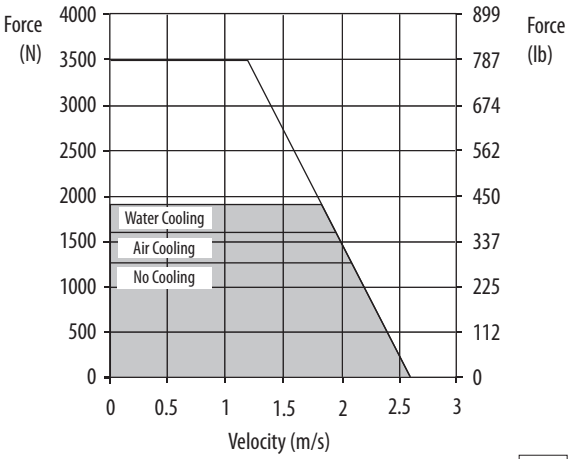
2097-V32PR4 or 2097-V33PR5 and LDC-C100300-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDC-C100300-EHT



2097-V33PR6 and LDC-C100400-DHT
2097-V32PR4 or 2097-V33PR5 and LDC-C100400-EHT



2097-V33PR6 and LDC-C150400-DHT



= Intermittent operating region (LDC-C*xxxxxx*-DHT)
= Intermittent operating region (LDC-C*xxxxxx*-EHT)
= Continuous operating region

Kinetix 300 (400V-class) Drives with LDC-Series Linear Motors

This section provides system combination information for the Kinetix 300 (400V-class) drives when matched with LDC-Series iron-core linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

IMPORTANT Only Kinetix 300 drives are compatible with LDC-Series linear motors.

LDC-Series Cable Combinations

Linear Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDC-C030100-DHT, LDC-C030200-DHT, LDC-C030200-EHT	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Sin/Cos or TTL Encoder Feedback
LDC-C050100-DHT, LDC-C050200-DHT, LDC-C050200-EHT, LDC-C050300-DHT, LDC-C050300-EHT		
LDC-C075200-DHT, LDC-C075200-EHT, LDC-C075300-EHT, LDC-C075400-EHT		
LDC-C100300-EHT, LDC-C100400-EHT, LDC-C150400-EHT		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

LDC-Series Performance Specifications with Kinetix 300 (400V-class) Drives

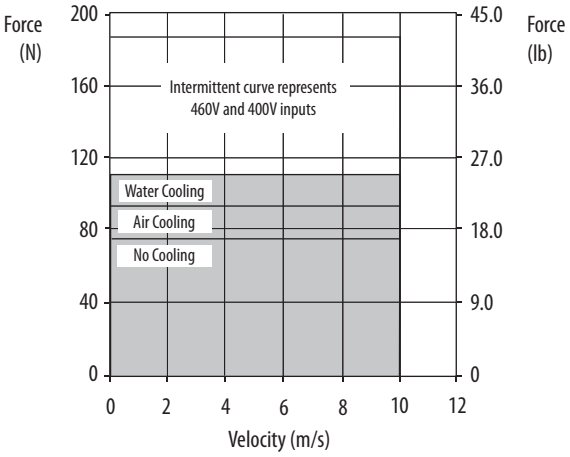
Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current (1) Amps 0-pk	System Continuous Stall Force (1) N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 300 400V-class Three-phase Drives
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2097-V34PR5
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2097-V34PR6
LDC-C030200-EHT		4.1…6.1		12.1			2097-V34PR5
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	2097-V34PR5
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2097-V34PR6
LDC-C050200-EHT		3.9…5.9		11.6			2097-V34PR5
LDC-C050300-DHT		11.8…17.7	363…544 (82…122)	35.9	941 (212)	1.81…2.72	2097-V34PR6
LDC-C050300-EHT		3.9…5.9		12.0			2097-V34PR5
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2097-V34PR6
LDC-C075200-EHT		3.8…5.7		11.5			2097-V34PR5
LDC-C075300-EHT		3.8…5.7	523…784 (117…176)	11.9	1368 (308)	2.61…3.92	2097-V34PR5
LDC-C075400-EHT		7.7…11.5	697…1045 (157…235)	23.7	1824 (410)	3.48…5.22	2097-V34PR6
LDC-C100300-EHT	10.0 (32.8)	3.7…5.6	674…1012 (152…227)	11.4	1767 (397)	3.37…5.06	2097-V34PR5
LDC-C100400-EHT		7.4…11.1	899…1349 (202…303)	22.8	2356 (530)	4.49…6.74	2097-V34PR6
LDC-C150400-EHT	10.0 (32.8)	7.0…10.6	1281…1922 (288…432)	22.6	3498 (786)	6.40…9.61	2097-V34PR6

(1) Values represent the range between no cooling (low value) and water cooling (high value).

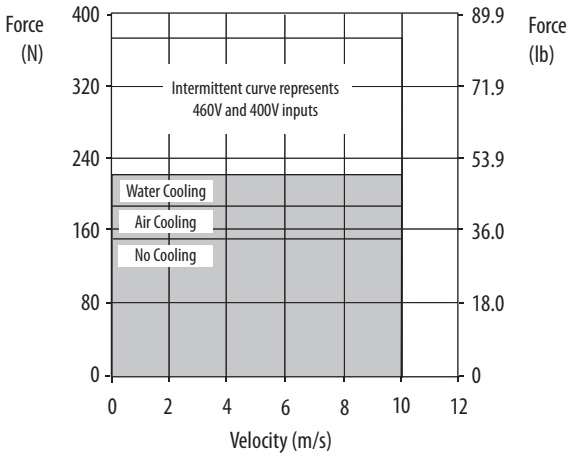
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300 (400V-class) Drives/LDC-Series Linear Motor Curves

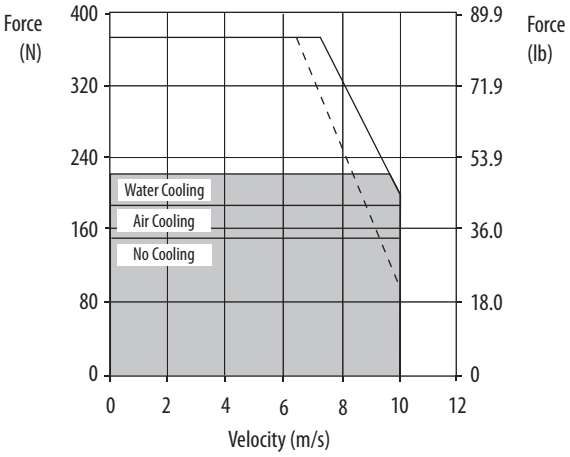
2097-V34PR5 and LDC-C030100-DHT



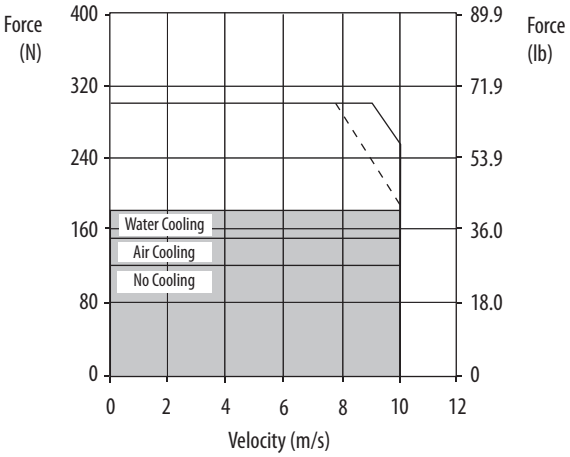
2097-V34PR6 and LDC-C030200-DHT



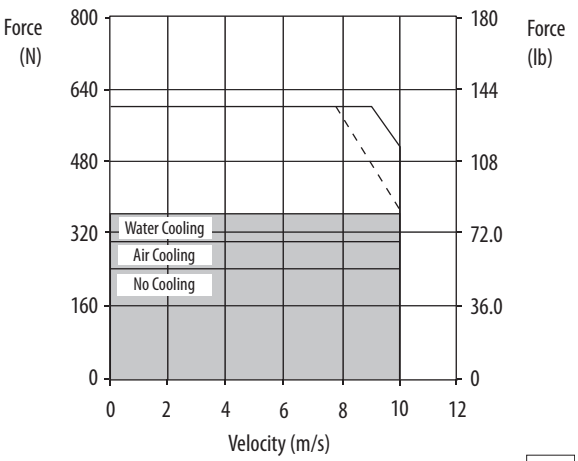
2097-V34PR5 and LDC-C030200-EHT



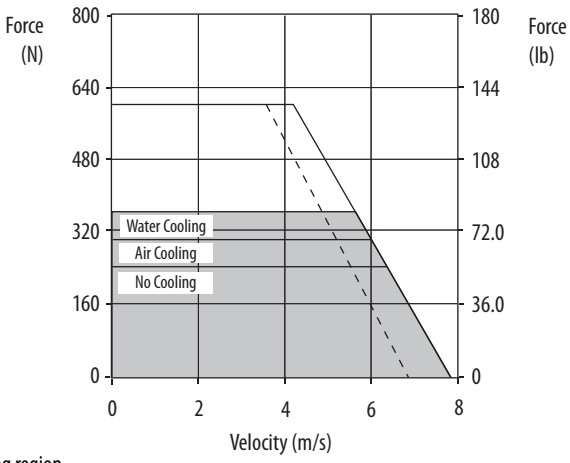
2097-V34PR5 and LDC-C050100-DHT



2097-V34PR6 and LDC-C050200-DHT



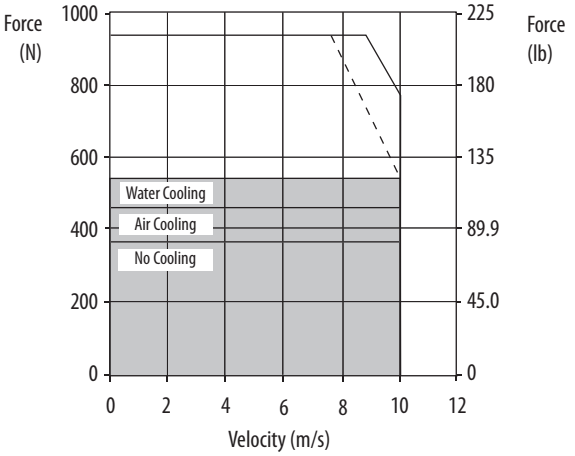
2097-V34PR5 and LDC-C050200-EHT



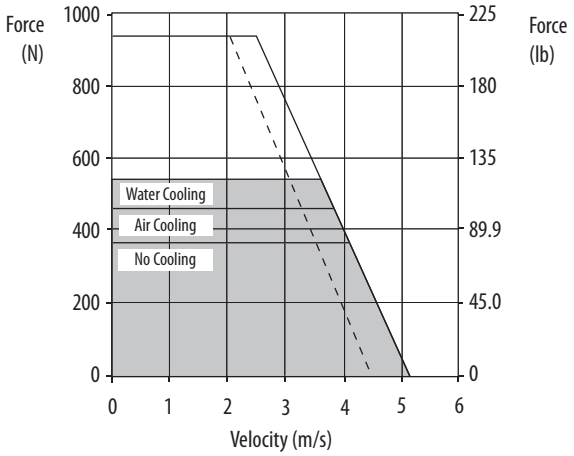
= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

Kinetix 300 (400V-class) Drives/LDC-Series Linear Motor Curves (continued)

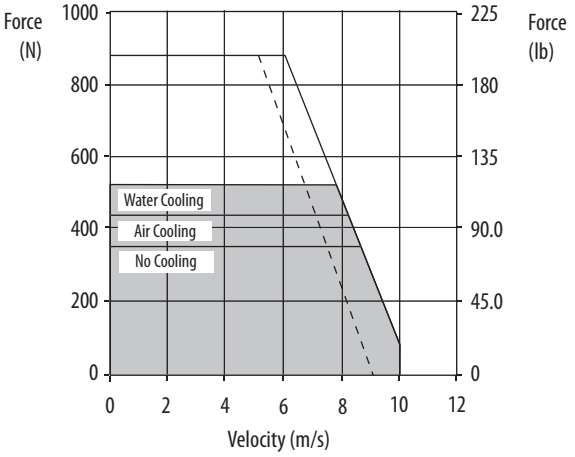
2097-V34PR6 and LDC-C050300-DHT



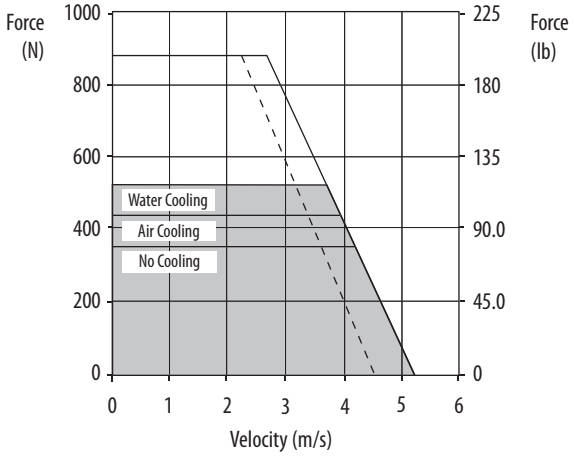
2097-V34PR5 and LDC-C050300-EHT



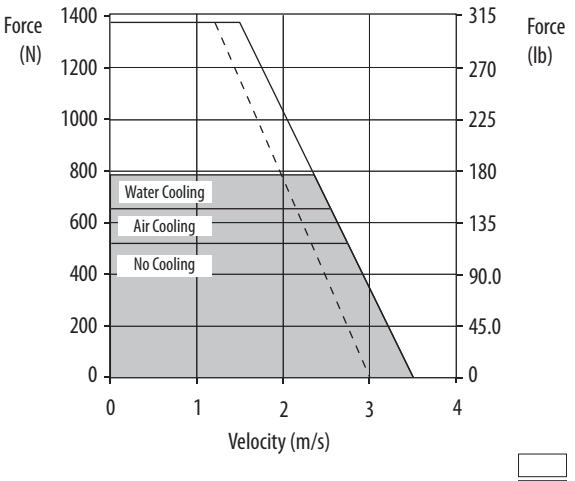
2097-V34PR6 and LDC-C075200-DHT



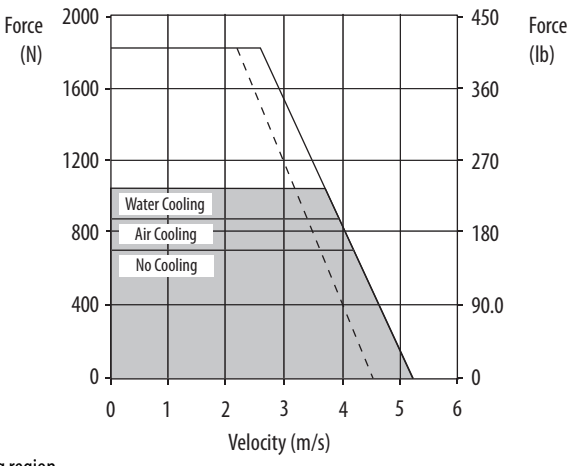
2097-V34PR5 and LDC-C075200-EHT



2097-V34PR5 and LDC-C075300-EHT



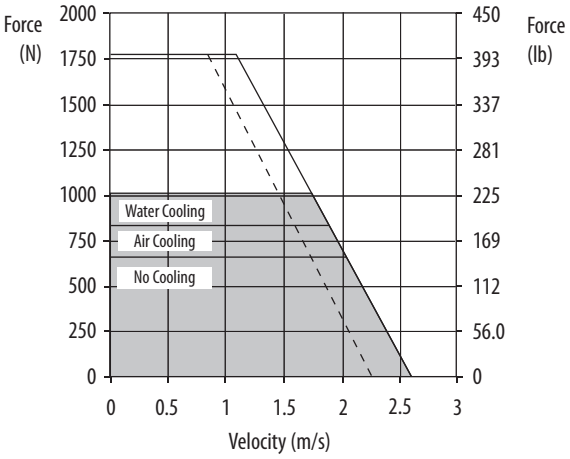
2097-V34PR6 and LDC-C075400-EHT



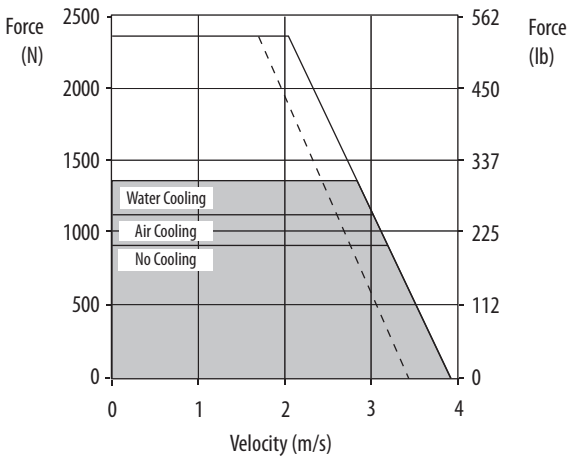
= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

Kinetix 300 (400V-class) Drives/LDC-Series Linear Motor Curves (continued)

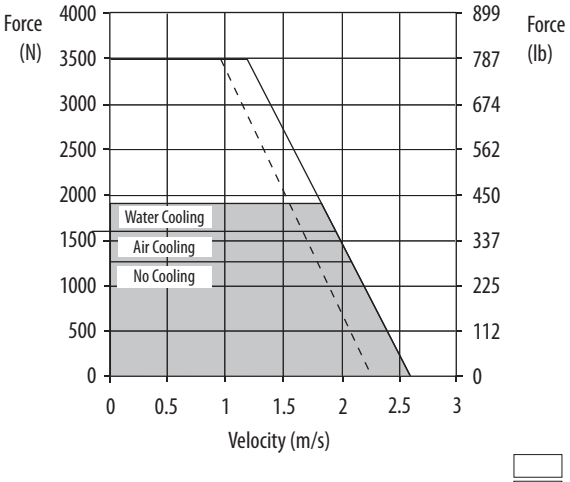
2097-V34PR5 and LDC-C100300-EHT



2097-V34PR6 and LDC-C100400-EHT



2097-V34PR6 and LDC-C150400-EHT



= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

Kinetix 300 (200V-class) Drives with LDL-Series Linear Motors

This section provides system combination information for the Kinetix 300 (200V-class) drives when matched with LDL-Series™ ironless linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

IMPORTANT Only Kinetix 300 drives are compatible with LDL-Series linear motors.

LDL-Series Cable Combinations

Linear Motors Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDL-N030120-DHT, LDL-N030240-DHT, LDL-N030240-EHT LDL-N050120-DHT, LDL-N050240-DHT, LDL-N050240-EHT, LDL-N050360-DHT, LDL-N050360-EHT, LDL-N050480-EHT LDL-N075480-DHT, LDL-N075480-EHT	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Sin/Cos or TTL Encoder Feedback
LDL-T030120-DHT, LDL-T030240-DHT, LDL-T030240-EHT LDL-T050120-DHT, LDL-T050240-DHT, LDL-T050240-EHT, LDL-T050360-DHT, LDL-T050480-EHT LDL-T075480-DHT, LDL-T075480-EHT		

(1) Use low-profile connector kit (catalog number 2090-K2CK-D15M) on the drive end. Refer to Required Drive Accessories on page 3.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 5.
Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power/brake and feedback cables. Refer to Optional Drive Accessories on page 4.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

LDL-Series Performance Specifications with Kinetix 300 (200V-class) Drives

Performance Specifications with Kinetix 300 (200V-class, single-phase) Drives

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 300 200V-class Single-phase Drives
LDL-N030120-DHT	10.0 (32.8)	3.0	63 (14)	9.9	209 (47)	0.31	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-N030240-DHT		6.0	126 (28)	19.9	417 (94)	0.63	2097-V33PR5 2097-V32PR4
LDL-N030240-EHT		3.0		9.9			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-T030120-DHT		3.0	72 (16)	9.9	239 (54)	0.36	
LDL-T030240-DHT		6.0	144 (32)	19.9	479 (108)	0.72	2097-V33PR5 2097-V32PR4
LDL-T030240-EHT		3.0		9.9			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-N050120-DHT		2.7	96 (22)	9.1	317 (71)	0.48	2097-V33PR1 2097-V32PR0 2097-V31PR0
LDL-N050240-DHT		5.5	191 (43)	18.1	635 (143)	0.95	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-N050240-EHT		2.7		9.1			2097-V33PR1 2097-V32PR0 2097-V31PR0

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Kinetix 300 (200V-class, single-phase) Drives (continued)

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 300 200V-class Single-phase Drives
LDL-N050360-DHT	10.0 (32.8)	8.2	287 (65)	27.2	952 (214)	1.43	2097-V33PR5 2097-V32PR4
LDL-N050360-EHT		2.7		9.1			2097-V33PR1 2097-V32PR0 2097-V31PR0
LDL-N050480-EHT		5.5	383 (86)	18.1	1269 (285)	1.91	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-T050120-DHT		2.7	110 (25)	9.1	364 (82)	0.55	2097-V33PR1 2097-V32PR0 2097-V31PR0
LDL-T050240-DHT		5.5	220 (49)	18.1	728 (164)	1.10	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-T050240-EHT		2.7		9.1			2097-V33PR1 2097-V32PR0 2097-V31PR0
LDL-T050360-DHT		8.2	329 (74)	27.2	1093 (246)	1.64	2097-V33PR5 2097-V32PR4
LDL-T050480-EHT		5.5	439 (99)	18.1	1457 (327)	2.19	2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-N075480-DHT		9.9	519 (117)	32.8	1723 (387)	2.59	2097-V33PR5 2097-V32PR4
LDL-N075480-EHT		4.9		16.4			2097-V33PR3 2097-V32PR2 2097-V31PR2
LDL-T075480-DHT		9.9	596 (134)	32.8	1977 (444)	2.98	2097-V33PR5 2097-V32PR4
LDL-T075480-EHT		4.9		16.4			2097-V33PR3 2097-V32PR2 2097-V31PR2

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Kinetix 300 (200V-class, three-phase) Drives

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 300 200V-class Three-phase Drives
LDL-N030120-DHT	10.0 (32.8)	3.0	63 (14)	9.9	209 (47)	0.31	2097-V33PR3
LDL-N030240-DHT		6.0	126 (28)	19.9	417 (94)	0.63	2097-V33PR5
LDL-N030240-EHT		3.0		9.9			2097-V33PR3
LDL-T030120-DHT		3.0	72 (16)	9.9	239 (54)	0.36	2097-V33PR3
LDL-T030240-DHT		6.0	144 (32)	19.9	479 (108)	0.72	2097-V33PR5
LDL-T030240-EHT		3.0		9.9			2097-V33PR3
LDL-N050120-DHT		2.7	96 (22)	9.1	317 (71)	0.48	2097-V33PR1
LDL-N050240-DHT		5.5	191 (43)	18.1	635 (143)	0.95	2097-V33PR3
LDL-N050240-EHT		2.7		9.1			2097-V33PR1
LDL-N050360-DHT		8.2	287 (65)	27.2	952 (214)	1.43	2097-V33PR5
LDL-N050360-EHT		2.7		9.1			2097-V33PR1

Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

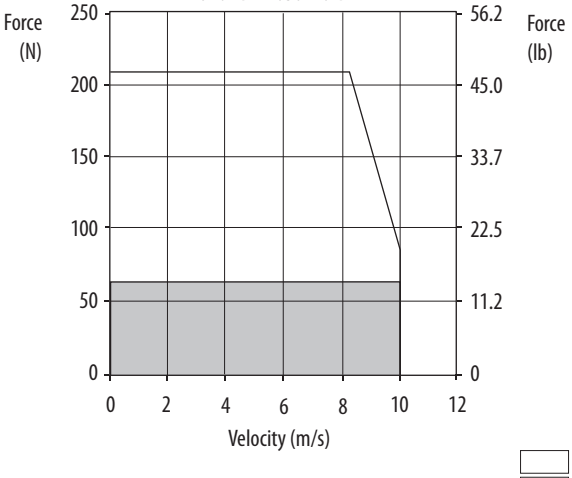
Performance Specifications with Kinetix 300 (200V-class, three-phase) Drives (continued)

Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 300 200V-class Three-phase Drives
LDL-N050480-DHT	10.0 (32.8)	10.9	383 (86)	36.3	1269 (285)	1.91	2097-V33PR6
LDL-N050480-EHT		5.5		18.1			2097-V33PR3
LDL-T050120-DHT		2.7	110 (25)	9.1	364 (82)	0.55	2097-V33PR1
LDL-T050240-DHT		5.5	220 (49)	18.1	728 (164)	1.10	2097-V33PR3
LDL-T050240-EHT		2.7		9.1			2097-V33PR1
LDL-T050360-DHT		8.2	329 (74)	27.2	1093 (246)	1.64	2097-V33PR5
LDL-T050480-DHT		10.9	439 (99)	36.3	1457 (327)	2.19	2097-V33PR6
LDL-T050480-EHT		5.5		18.1			2097-V33PR3
LDL-N075480-DHT		9.9	519 (117)	32.8	1723 (387)	2.59	2097-V33PR5
LDL-N075480-EHT		4.9		16.4			2097-V33PR3
LDL-T075480-DHT		9.9	596 (134)	32.8	1977 (444)	2.98	2097-V33PR5
LDL-T075480-EHT		4.9		16.4			2097-V33PR3

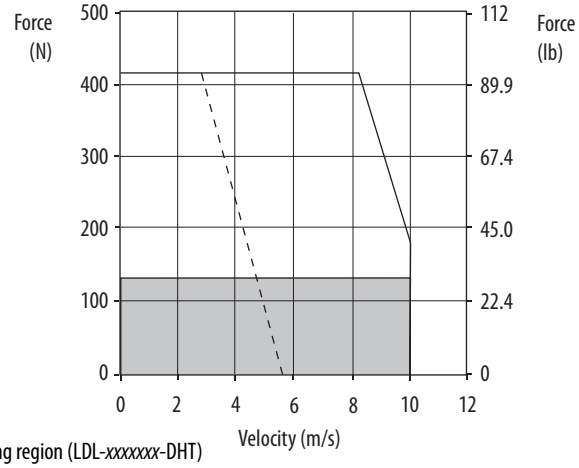
Performance specification data and curves reflect nominal system performance of a typical system with motor at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient, and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 300 (200V-class) Drives/LDL-Series Linear Motor Curves

2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-N030120-DHT



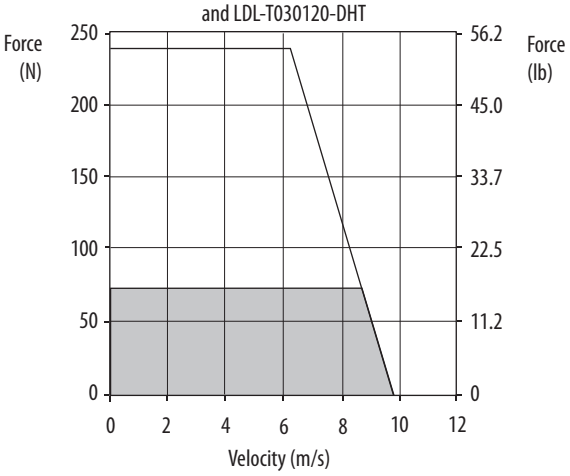
2097-V32PR4 or 2097-V33PR5 and LDL-N030240-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-N030240-EHT



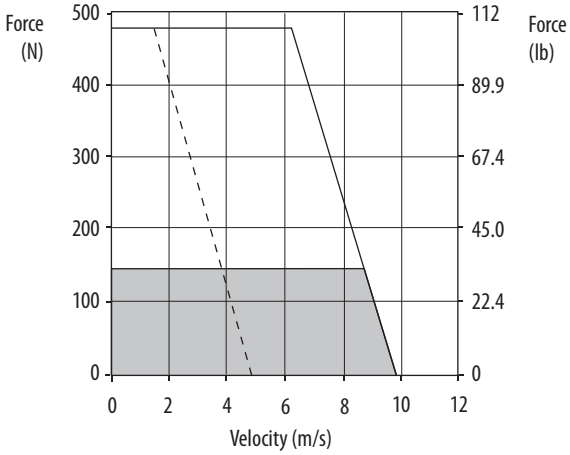
= Intermittent operating region (LDL-*xxxxxxx*-DHT)
= Intermittent operating region (LDL-*xxxxxxx*-EHT)
= Continuous operating region

Kinetix 300 (200V-class) Drives/LDL-Series Linear Motor Curves (continued)

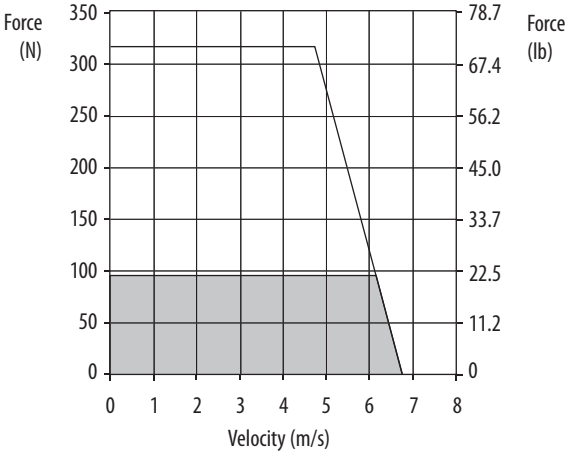
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3
and LDL-T030120-DHT



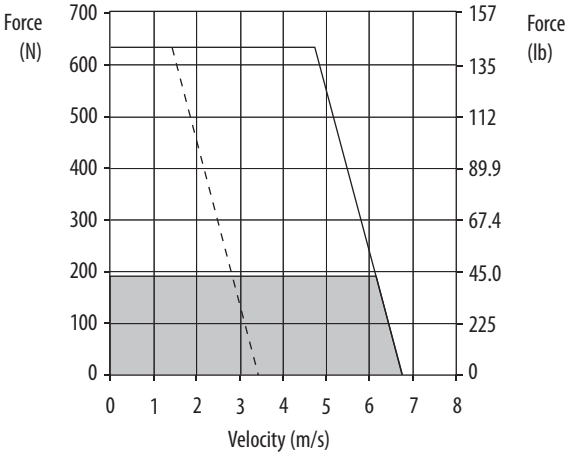
2097-V32PR4 or 2097-V33PR5 and LDL-T030240-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-T030240-EHT



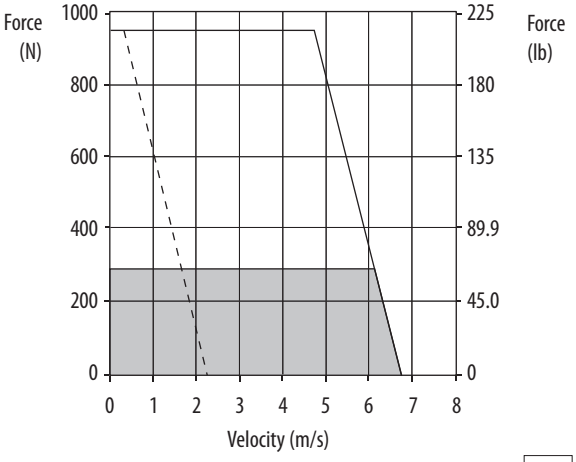
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and LDL-N050120-DHT



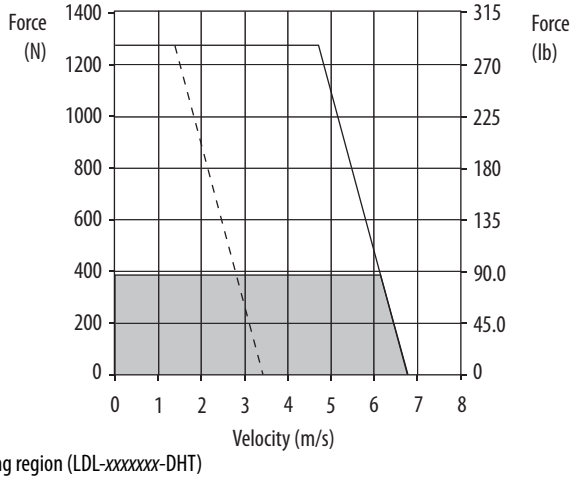
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-N050240-DHT
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and LDL-N050240-EHT



2097-V32PR4 or 2097-V33PR5 and LDL-N050360-DHT
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and LDL-N050360-EHT



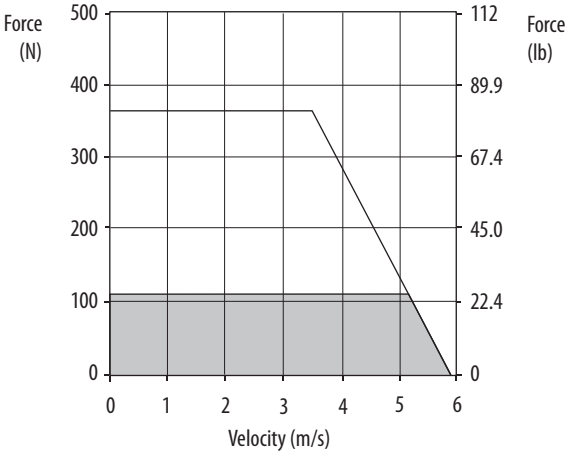
2097-V33PR6 and LDL-N050480-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-N050480-EHT



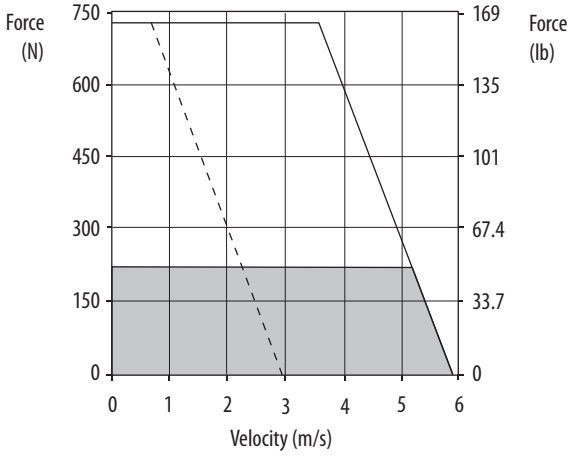
= Intermittent operating region (LDL-*xxxxxxx*-DHT)
= Intermittent operating region (LDL-*xxxxxxx*-EHT)
= Continuous operating region

Kinetix 300 (200V-class) Drives/LDL-Series Linear Motor Curves (continued)

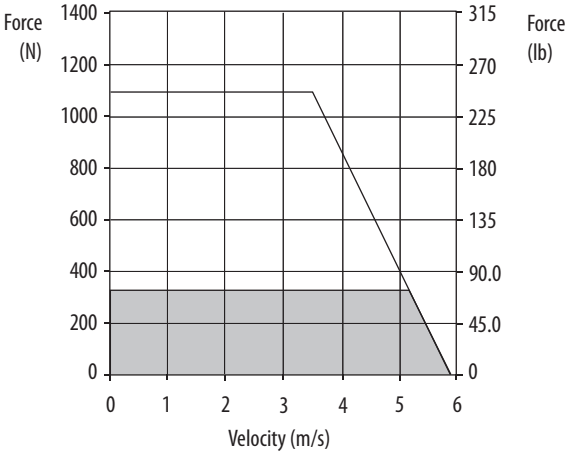
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1
and LDL-T050120-DHT



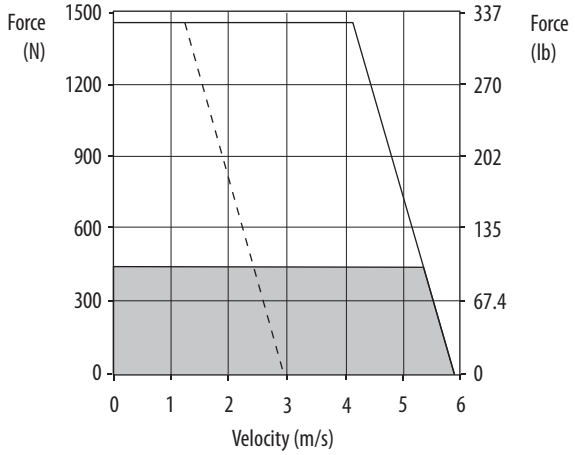
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-T050240-DHT
2097-V31PR0, 2097-V32PR0, or 2097-V33PR1 and LDL-T050240-EHT



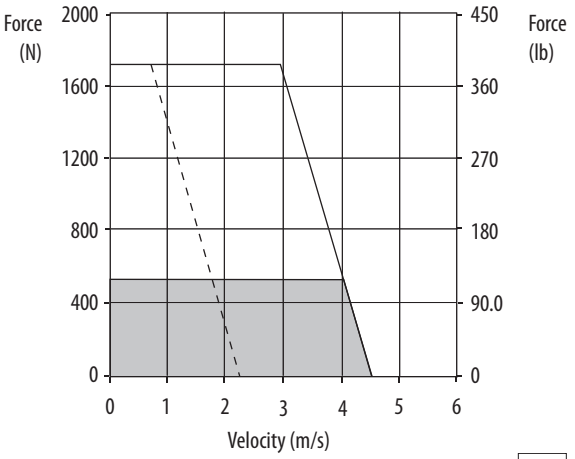
2097-V32PR4 or 2097-V33PR5
and LDL-T050360-DHT



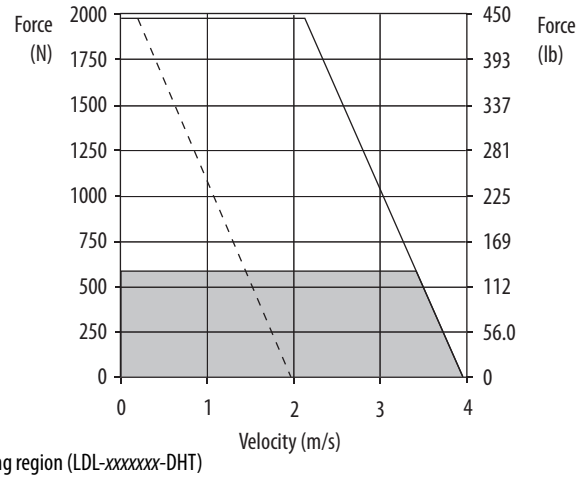
2097-V33PR6 and LDL-T050480-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-T050480-EHT



2097-V32PR4 or 2097-V33PR5 and LDL-N075480-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-N075480-EHT



2097-V32PR4 or 2097-V33PR5 and LDL-T075480-DHT
2097-V31PR2, 2097-V32PR2, or 2097-V33PR3 and LDL-T075480-EHT



= Intermittent operating region (LDL-*xxxxxxx*-DHT)
= Intermittent operating region (LDL-*xxxxxxx*-EHT)
= Continuous operating region

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Kinetix Rotary Motion Specifications, publication KNX-TD001	Provides product specifications for MP-Series (Bulletin MPL, MPM, MPF, MPS), TL-Series, and HPK-Series™ rotary motors.
Kinetix Linear Motion Specifications, publication KNX-TD002	Provides product specifications for Bulletin MPAS and MPMA linear stages, Bulletin MPAR and MPAI electric cylinders, and LDC-Series and LDL-Series linear motors.
Kinetix Servo Drives Specifications, publication KNX-TD003	Provides product specifications for Kinetix Integrated Motion over the EtherNet/IP network, Integrated Motion over Sercos interface, EtherNet/IP networking, and component servo drive families.
Kinetix Motion Accessories Specifications, publication KNX-TD004	Provides product specifications for Bulletin 2090 motor and interface cables, low-profile connector kits, drive power components, and other servo drive accessory items.
Kinetix Motion Control Selection Guide, publication KNX-SG001	Provides an overview of Kinetix servo drives, motors, actuators, and motion accessories designed to help make initial decisions for the motion control products best suited for your system requirements.
Kinetix 5500 Drive Systems Design Guide, publication KNX-RM009	Provides information to determine and select the required (drive specific) drive module, power accessory, connector kit, motor cable, and interface cable catalog numbers for your drive and motor/actuator motion control system. Includes system performance specifications and torque/speed curves (rotary motion) and force/velocity curves (linear motion) for your motion application.
Kinetix 5700 Drive Systems, publication KNX-RM010	
Kinetix 6000 and Kinetix 6200/6500 Drive Systems Design Guide, publication KNX-RM003	
Kinetix 3 Drive Systems Design Guide, publication KNX-RM005	
Kinetix 2000 Drive Systems Design Guide, publication KNX-RM006	
Kinetix 7000 Drive Systems Design Guide, publication GMC-RM007	
Kinetix 300 EtherNet/IP Indexing Servo Drives User Manual, publication 2097-UM001	Provides information on installing, configuring, startup, troubleshooting, and applications for your Kinetix servo drive system.
Kinetix 350 Single-axis EtherNet/IP Servo Drives User Manual, publication 2097-UM002	
System Design for Control of Electrical Noise Reference Manual, publication GMC-RM001	Provides information, examples, and techniques designed to minimize system failures caused by electrical noise.
ControlLogix Selection Guide, publication 1756-SG001	Provides information to determine which ControlLogix® controller fits your application and the product specifications to help design a ControlLogix system and select the appropriate components.
CompactLogix Selection Guide, publication 1769-SG001	Provides information to determine which CompactLogix controller fits your application and the product specifications to help design a CompactLogix system and select the appropriate components.
Industrial Ethernet Media Brochure, publication 1585-BR001	Provides information to determine which Bulletin 1585 Ethernet cable fits your application and the product specifications to help select the appropriate components.
Motion Analyzer System Sizing and Selection Tool https://motionanalyzer.rockwellautomation.com/	Comprehensive motion application sizing tool used for analysis, optimization, selection, and validation of your Kinetix Motion Control system.
Rockwell Automation Product Selection website http://www.rockwellautomation.com/global/support/selection.page	Online product selection and system configuration tools, including AutoCAD (DXF) drawings.

You can view or download publications at http://www.rockwellautomation.com/global/literature-library/overview.page.

Notes:

Rockwell Automation Support

Use the following resources to access support information.

Technical Support Center	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	www.rockwellautomation.com/knowledgebase
Local Technical Support Phone Numbers	Locate the phone number for your country.	www.rockwellautomation.com/global/support/get-support-now.page
Direct Dial Codes	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	www.rockwellautomation.com/global/support/direct-dial.page
Literature Library	Installation Instructions, Manuals, Brochures, and Technical Data.	www.rockwellautomation.com/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	www.rockwellautomation.com/global/support/pcdc.page

Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete the How Are We Doing? form at http://literature.rockwellautomation.com/idc/groups/literature/documents/du/ra-du002_-en-e.pdf.

Rockwell Automation maintains current product environmental information on its website at http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page.

Allen-Bradley, CompactLogix, ControlLogix, HPK-Series, Kinetix, LDC-Series, LDL-Series, LISTEN. THINK. SOLVE., MP-Series, PanelView, POINT I/O, Rockwell Automation, Rockwell Software, RSLogix 5000, Stratix, Studio 5000 Logix Designer, and TL-Series are trademarks of Rockwell Automation, Inc.

EtherNet/IP is a trademark of ODVA, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Publication KNX-RM004B-EN-P - February 2019
Supersedes Publication KNX-RM004A-EN-P - February 2017

Copyright © 2019 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.