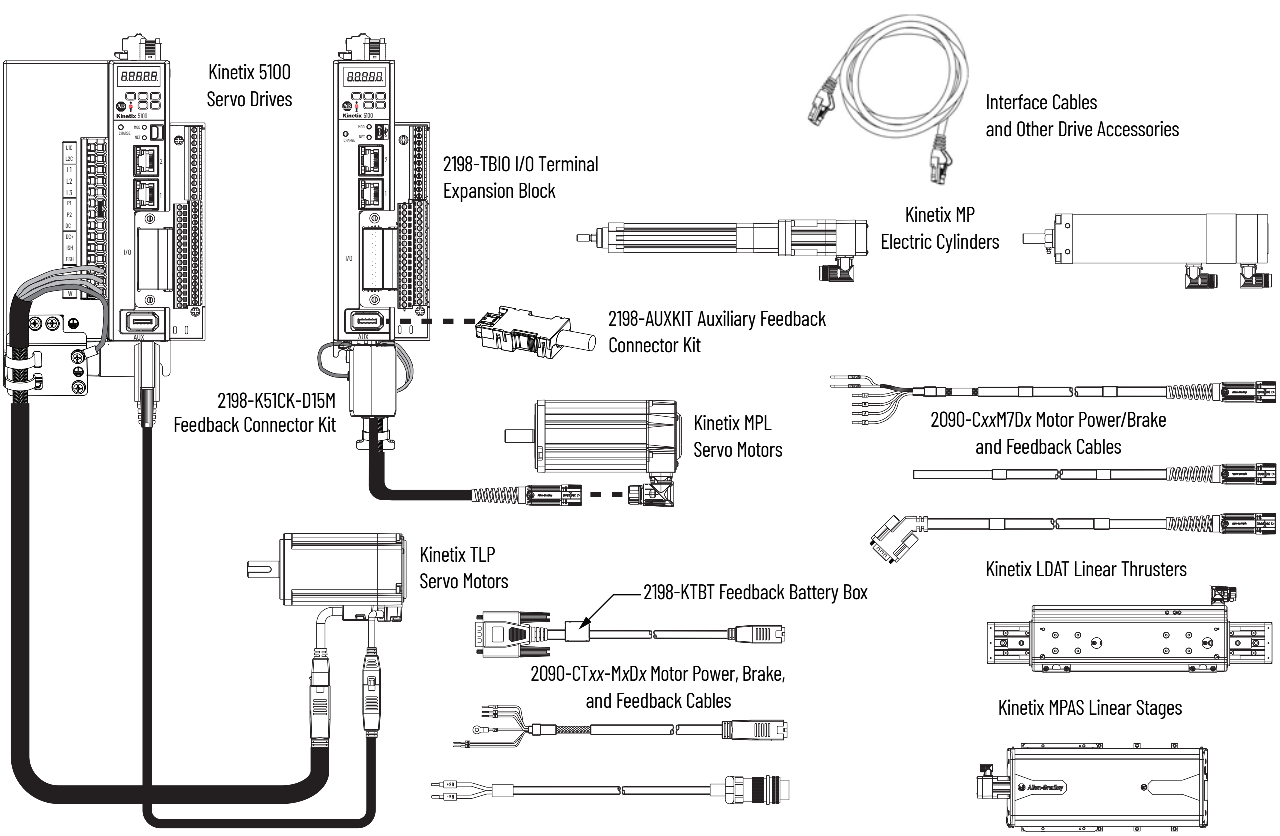
Design Guide

Original Instructions

Kinetix 5100 Drive Systems

Catalog Numbers 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, 2198-E1020-ERS, 2198-E2030-ERS, 2198-E2055-ERS, 2198-E2075-ERS, 2198-E2150-ERS, 2198-E4004-ERS, 2198-E4007-ERS, 2198-E4015-ERS, 2198-E4020-ERS, 2198-E4030-ERS, 2198-E4055-ERS, 2198-E4075-ERS, 2198-E4150-ERS



Summary of Changes

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

Topic	Page
Updated Kinetix MPL Motor Performance Specifications with Kinetix 5100 (200V-class) Drives for MPL-A540K and MPL-A560F motors	25
Updated Kinetix 5100 (200V-class) Drives/Kinetix MPL Servo Motor Curves for MPL-A540K and MPL-A560F motors	29
Added performance specifications for Kinetix LDAT Integrated Linear Thrusters.	66
Added performance specifications for Kinetix MPAS (200V-class) Linear Stages.	86
Added performance specifications for Kinetix MPAS (400V-class) Linear Stages.	89
Added performance specifications for Kinetix MPAR Electric Cylinders.	92
Added performance specifications for Kinetix MPAI Heavy Duty Electric Cylinders.	94
Added performance specifications for Kinetix LDC (200V-class) Linear Motors.	99
Added performance specifications for Kinetix LDC (400V-class) Linear Motors.	103
Added performance specifications for Kinetix LDL (200V-class) Linear Motors.	108

Introduction

Use this publication if your application includes the Kinetix® 5100 drive family and Kinetix TLP servo motors or any of the other compatible Allen-Bradley® motors. The 2198-K51CK-D15M feedback connector kit is available for use when Kinetix MPL, MPM, MPF, MPS or Kinetix TL and TLY rotary motors and linear actuators are used with flying-lead cables. For more Kinetix drive and motor information, see the Kinetix Motion Control Selection Guide, publication KNX-SG001, or Motion Analyzer software.

The purpose of this publication is to assist you in identifying the drive system components and accessory items that you need for your Kinetix 5100 drive and motor combination. Diagrams in this publication illustrate how many of the common drive accessory items are used in a typical system. See the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed accessory descriptions and specifications.

Drive/motor system combinations also include the following:

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

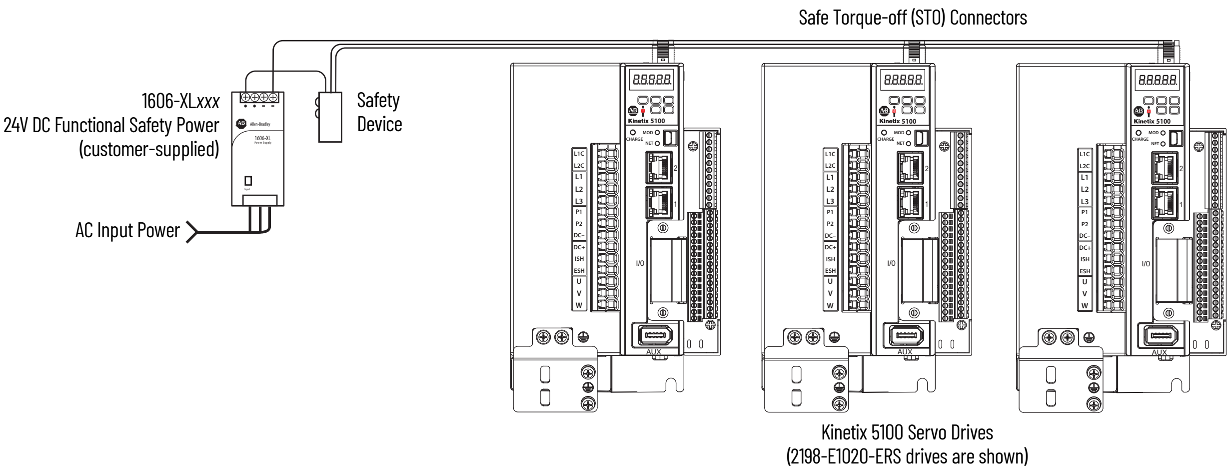
Performance specification data and curves reflect nominal system performance of a typical system with motor and drive at the rated ambient temperature and line voltage. For additional information on ambients, line conditions, and valid combinations that are not shown in this publication, refer to the 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 Motion Analyzer at https://motionanalyzer.rockwellautomation.com.

Hardwired Safety Configuration

Kinetix 5100 servo drives are capable of safe torque-off (STO) safety functions via hardwired connections. In this example, the safe torque-off (STO) connectors are wired to external safety devices with cascading hardwired safety-connections from one drive to another.

Hardwired Safe Torque-off



Determine What You Need

For each Kinetix 5100 drive system, the drive and servo motor catalog numbers are required to determine the motor power and feedback cable catalog numbers. A 24V DC power supply is also required for digital I/O circuitry, motor brake circuitry, and control power on 2198-E4*xxx*-ERS (400V-class) drives.

- For applications with Kinetix TLP servo motors, use 2090-CTFB-MxDD feedback cables with drive-end (D-sub) connector for direct connection to the Kinetix 5100 drive. If you build your own flying-lead cables, 2198-K51CK-D15M feedback connector kits are available.
- For applications with Kinetix MPL, MPM, MPF, and MPS servo motors, use 2090-CFBM7DD feedback cables with drive-end (D-sub) connector for direct connection to the Kinetix 5100 drive. Use 2198-K51CK-D15M connector kits with 2090-CFBM7DF flying-lead feedback cables.
- For applications with Kinetix TLY servo motors, use 2090-CFBM6DD feedback cables with drive-end (D-sub) connector for direct connection to the Kinetix 5100 drive when battery backup is not required. When battery backup is required, use 2198-K51CK-D15M connector kits with 2090-CFBM6DF flying-lead feedback cables.
- For applications with Kinetix TL servo motors, use 2090-DANFCT-S*xx* feedback cables and remove the drive-end connector. Use 2198-K51CK-D15M connector kits for making feedback connections and include a customer-supplied battery when battery-backup of position data is required.
- 2198-TBIO I/O terminal block
- 2198-USBC USB cable and 2198-USBF USB filter

Optional equipment includes the following:

- Bulletin 2198 AC line filters
- 2198-AUXKIT auxiliary feedback connector kit
- Bulletin 2097 or 2198 shunt resistors
- 1585J-M8CBJM-*x* (shielded) Ethernet cable

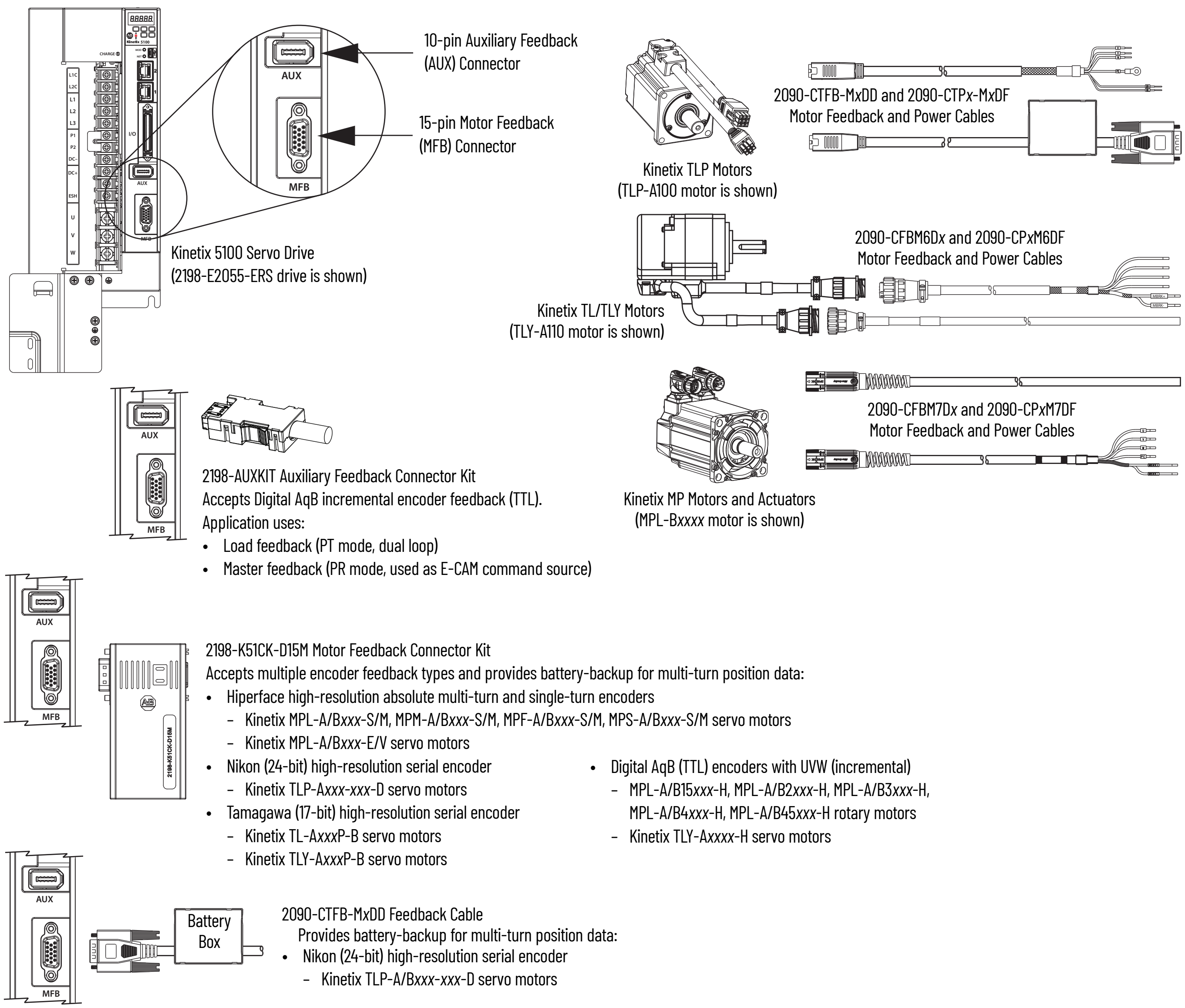
Example diagrams of the required and optional equipment are provided.

Kinetix 5100 EtherNet/IP Indexing Servo Drives

Drive Cat. No.	Input Voltage	Continuous Output Power kW	Continuous Output Current A (rms)	Peak Output Current A (rms)	Features
2198-E1004-ERS	95…132V rms single-phase 170…253V rms single-phase 170…253V rms three-phase	0.20 0.40 0.40	2.60	6.50	• Designed for optimum performance with Kinetix TLP servo motors • EtherNet/IP™ Indexing • Standalone (pulse train, Digital I/O, and analog I/O control) • Safe torque-off
2198-E1007-ERS		0.375 0.75 0.75	5.10	15.4	
2198-E1015-ERS		0.75 1.50 1.50	7.90	23.7	
2198-E1020-ERS		1.00 2.00 2.00	13.4	40.6	
2198-E2030-ERS	170…253V rms three-phase	3.00	17.9	55.95	
2198-E2055-ERS		5.50	41.3	91.4	
2198-E2075-ERS		7.50	49.0	127.5	
2198-E2150-ERS		15.00	78.0	162.0	
2198-E4004-ERS	342…528V rms three-phase	0.40	1.60	5.4	
2198-E4007-ERS		0.75	3.19	8.0	
2198-E4015-ERS		1.50	6.05	15.11	
2198-E4020-ERS		2.00	7.42	20.78	
2198-E4030-ERS		3.00	13.95	26.08	
2198-E4055-ERS		5.50	24.8	37.65	
2198-E4075-ERS		7.50	31.0	53.32	
2198-E4150-ERS		15.0	41.26	70.14	

Motor feedback connections are made at the 15-pin motor feedback (MFB) connector. These examples illustrate how you can use the 2198-K51CK-D15M connector kit for making these connections. Auxiliary feedback connections are made at the 10-pin auxiliary feedback connector (AUX) with the 2198-AUXKIT auxiliary feedback connector kit. This port supports incremental encoder types only.

Feedback Configuration Examples

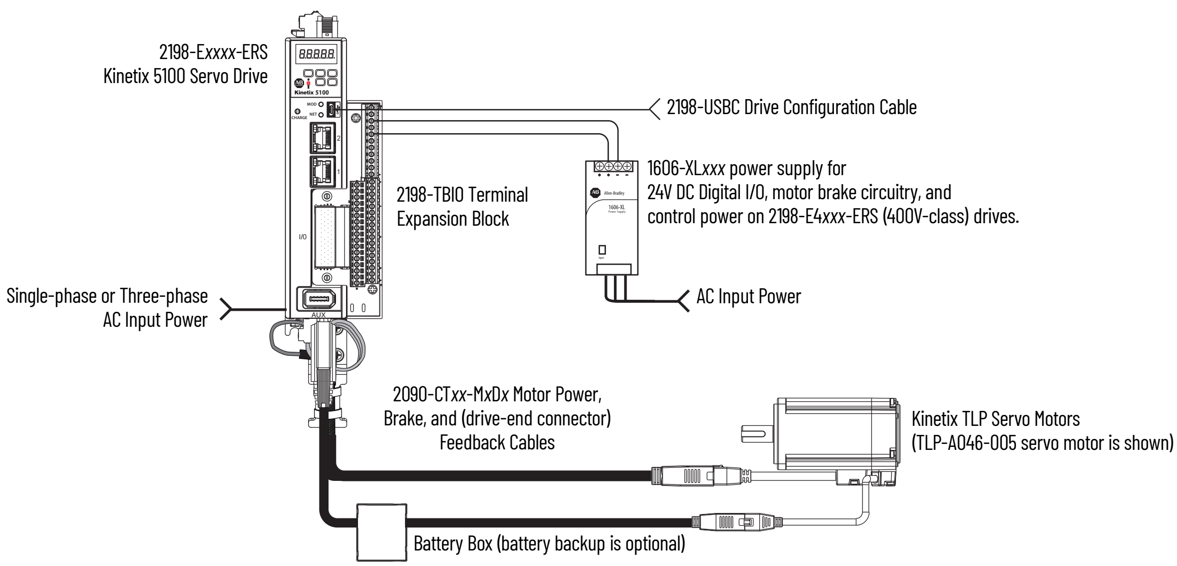


Required Drive Accessories

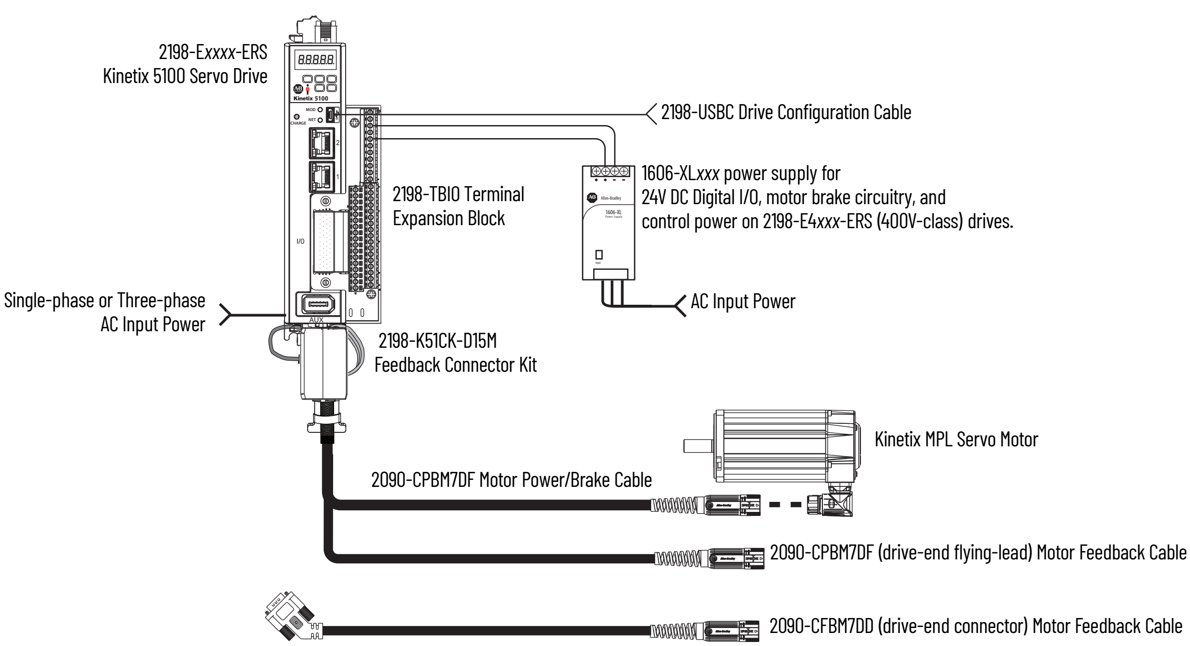
Drive Accessory	Description	Cat. No.
Motor feedback connector kit	Motor feedback connector kit (required for flying-lead feedback cable).	2198-K51CK-D15M (1)
I/O terminal expansion block	Provides termination points for 50-pin I/O connector.	2198-TBIO (1)
USB cable	For connection to PC with KNX5100C software to configure the drive.	2198-USBC (1)
USB filter	To reduce interference and maintain a reliable connection to the PC.	2198-USBF (1)
Motor cables	Kinetix TLP servo motors with high-resolution absolute encoder. (2)	Refer to the specific drive/motor combination for the motor cables required for your system.
	Kinetix MPL, MPM, MPF, and MPS servo motors with high-resolution absolute or incremental encoders.	
	Kinetix TL and TLY servo motors with high-resolution absolute or incremental encoders. (2)	
24V power supply	24V DC for digital I/O circuitry, motor brake circuitry, and control power on 2198-E4*xxx*-ERS (400V-class) drives.	1606-XL*xxx*

(1) Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and specifications for these drive accessories.
(2) battery backup required with high-resolution absolute encoders for position retention during a power loss.

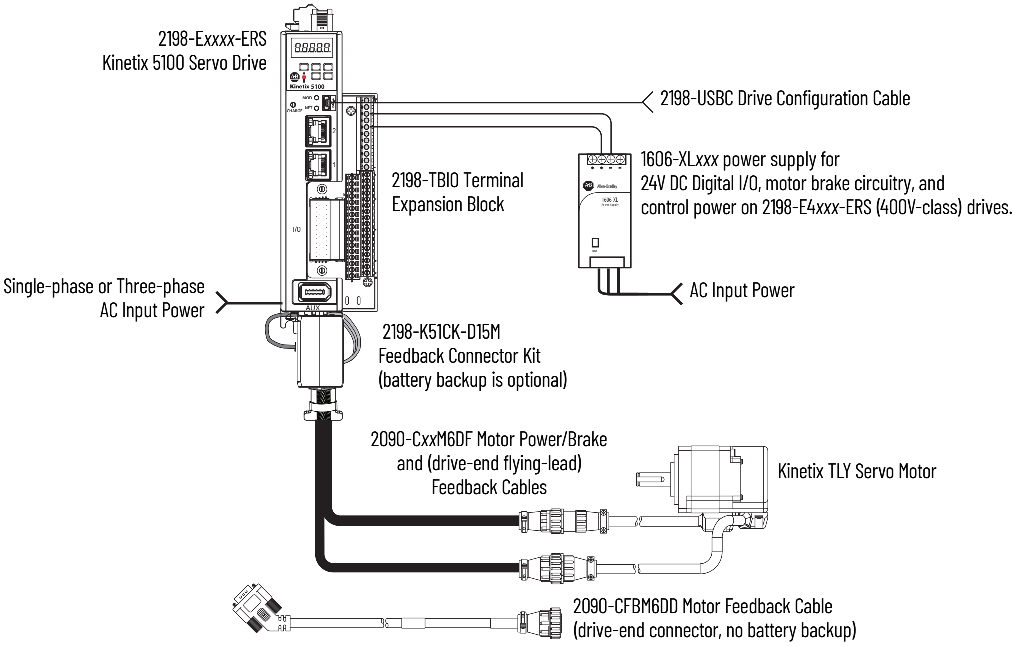
Kinetix 5100 Drive with Kinetix TLP Servo Motor



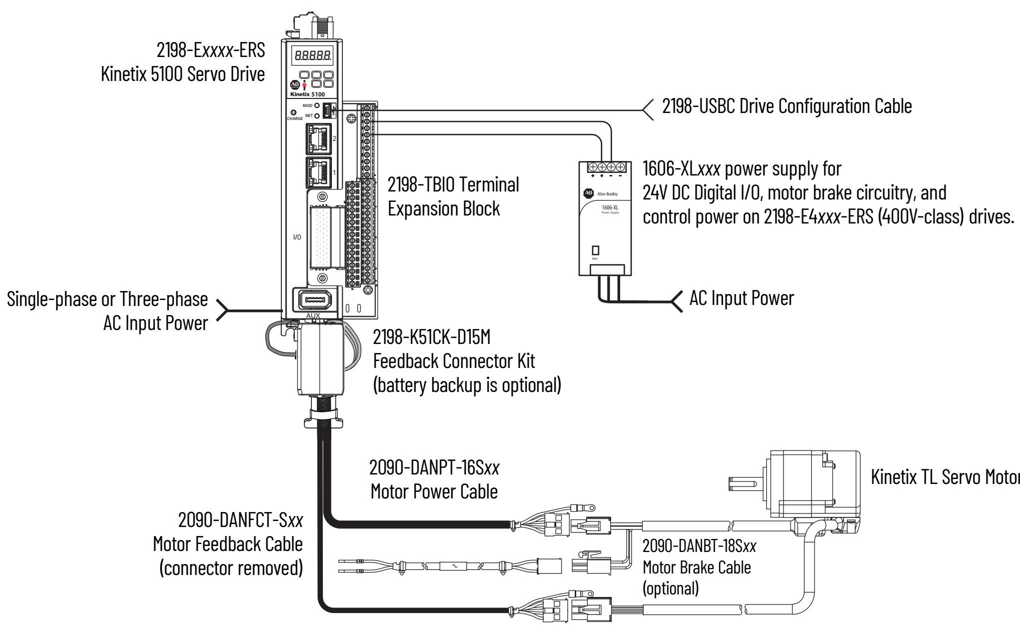
Kinetix 5100 Drive with Kinetix MPL, MPM, MPF, and MPS Servo Motor



Kinetix 5100 Drive with Kinetix TLY Servo Motors



Kinetix 5100 Drive with Kinetix TL Servo Motors

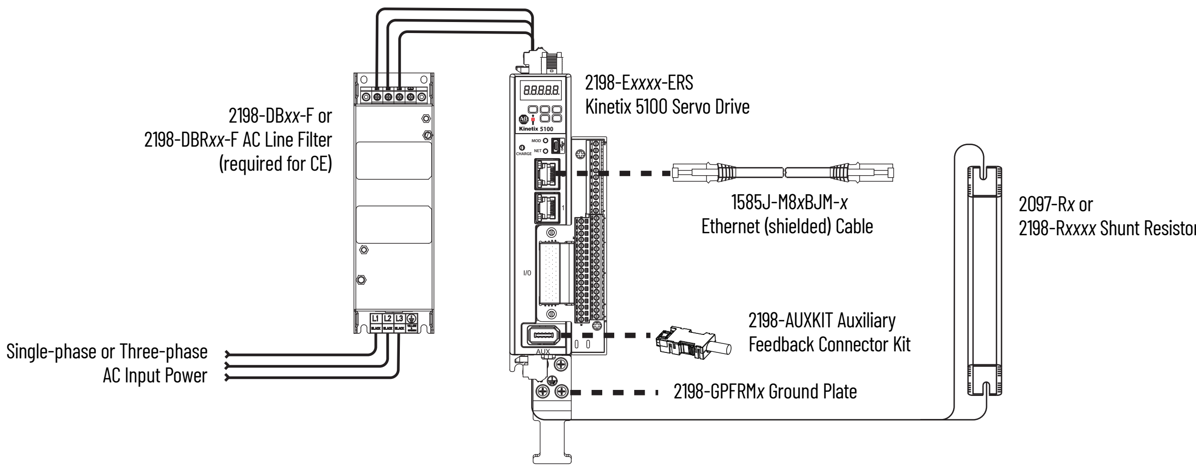


Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5100 drive family.

Optional Drive Accessories

Drive Accessory	Description	Cat. No.
Auxiliary feedback connector kit	Provides termination points for the auxiliary feedback (AUX) connector.	2198-AUXKIT
Ethernet network cables	Double-ended, non-flex, shielded.	1585J-M8CBJM-*x*
	Double-ended, high-flex, shielded.	1585J-M8UBJM-*x*
AC line filters	AC line filter for CE compliance.	• 2198-DBR*xx*-F • 2198-DB*xx*-F
Bulletin 2097 and 2198 shunt resistors	Panel-mount shunt resistor.	• 2097-R*x* • 2198-R*xxxx*
Ground plate	Ground plate provides termination points for motor power ground and cable shield for better EMC performance and is included with each drive. Replacement ground plates are also available.	2198-GPFRM*x*

Kinetix 5100 Optional Accessories



Replacement Drive Accessories

Drive Accessory	Description	Cat. No.
Connector set	Replacement input power, motor power, shunt, and STO wiring plugs (included with 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS drives).	2198-CONKIT-PKG
Connector set (STO only)	Replacement STO wiring plug (included with 2198-E1020-ERS, 2198-E2030-ERS, 2198-E2055-ERS, 2198-E2075-ERS, 2198-E2150-ERS, and all 2198-E4*xxx*-ERS drives).	2198-CONKIT-STO

Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5100 drive accessories.

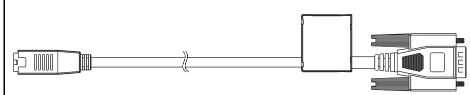
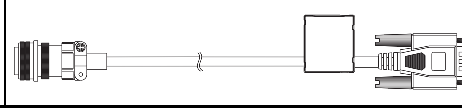
Kinetix TLP Motor Cables Overview

These cables apply to Kinetix TLP servo motors. For maximum motor-cable lengths with Kinetix 5100 drives, see the Kinetix 5100 EtherNet/IP Indexing Servo Drives User Manual, publication 2198-UM004.

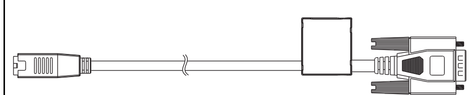
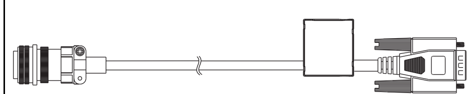
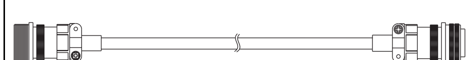
2090-CTFB-M*xx*D Feedback Cables

Feedback cables include the battery box wired and attached to the cable. Replacement 2198-KTBT battery boxes are also available. 2090-CTFB-MADD cables attach to on-motor rectangular motor connectors. 2090-CTFB-MFDD cables attach to military-style motor connectors.

Feedback Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CTFB-MADD-CFA*xx*	• Applies to TLP-*x*046…TLP-*x*100 motors (MA) • Drive-end 15-pin connector (DD) • With battery box attached • Feedback wires (FB)			Rectangular
2090-CTFB-MFDD-CFA*xx*	• Applies to TLP-A/B115…TLP-A/B235 motors (MF) • Drive-end 15-pin connector (DD) • With battery box attached • Feedback wires (FB)			Military style

Feedback Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CTFB-MADD-CFF*xx*	• Applies to TLP-*x*046…TLP-*x*100 motors (MA) • Drive-end 15-pin connector (DD) • With battery box attached • Feedback wires (FB)			Rectangular
2090-CTFB-MFDD-CFF*xx*	• Applies to TLP-A/B115…TLP-A/B235 motors (MF) • Drive-end 15-pin connector (DD) • With battery box attached • Feedback wires (FB)			Military style
2090-CTFB-MAET-CFF*xx*	• Applies to TLP-*x*046…TLP-*x*100 motors (MA) • Drive-end (male) connector, extension (ET) • Feedback wires (FB)			Rectangular
2090-CTFB-MFET-CFF*xx*	• Applies to TLP-A/B115…TLP-A/B235 motors (MF) • Drive-end (male) connector, extension (ET) • Feedback wires (FB)			Military style

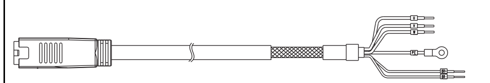
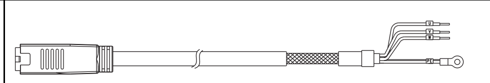
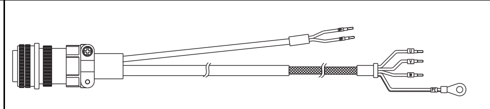
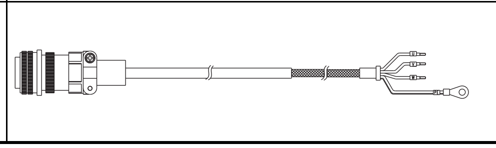
2090-CTFB-MxET extension cables provide continuous-flex cable technology between your standard (non-flex) cable and the continuous-flex application.

Motor-end cable connector kits for use when building your own cables are also available. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.

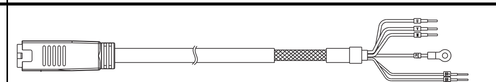
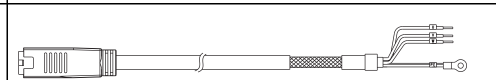
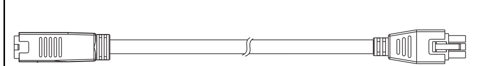
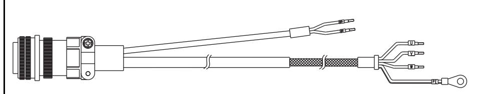
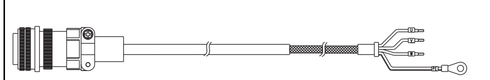
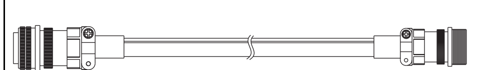
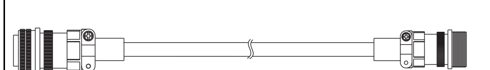
2090-CTP*x*-M*xxx* Power/Brake Cables

2090-CTP*x*-MADF cables attach to the on-motor cable. 2090-CTP*x*-MC/D/E cables attach to the motor connector. Drive-end flying leads are prepared specifically for Kinetix TLP servo motors.

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

Standard Cable Cat. No.	Description	Cable Configuration Motor End / Drive End	Motor Connector
2090-CTPB-MADF-*xx*A*xx*	• Applies to TLP-*x*046...TLP-*x*100 motors (MA) • Drive-end flying-leads (DF) • Power/brake wires (PB)		Rectangular
2090-CTPW-MADF-*xx*A*xx*	• Applies to TLP-*x*046...TLP-*x*100 motors (MA) • Drive-end flying-leads (DF) • Power wires only (PW)		
2090-CTPB-MCDF-*xx*A*xx* 2090-CTPB-MDDF-*xx*A*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 (MD) • Drive-end flying-leads (DF) • Power/brake wires (PB)		Military style
2090-CTPW-MCDF-*xx*A*xx* 2090-CTPW-MDDF-*xx*A*xx* 2090-CTPW-MEDF-*xx*A*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 motors (MD) • Applies to TLP-A/B200...TLP-A/B235 motors (ME) • Drive-end flying-leads (DF) • Power wires only (PW)		

Power/Brake Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration Motor End / Drive End	Motor Connector
2090-CTPB-MADF-*xx*F*xx*	• Applies to TLP-*x*046...TLP-*x*100 motors (MA) • Drive-end flying-leads (DF) • Power/brake wires (PB)		Rectangular
2090-CTPW-MADF-*xx*F*xx*	• Applies to TLP-*x*046...TLP-*x*100 motors (MA) • Drive-end flying-leads (DF) • Power wires only (PW)		
2090-CTPB-MAET-*xx*F*xx* 2090-CTPW-MAET-*xx*F*xx*	• Applies to TLP-*x*046...TLP-*x*100 motors (MA) • Drive-end (male) connector, extension (ET) • Power/brake wires (PB) • Power wires only (PW)		
2090-CTPB-MCDF-*xx*F*xx* 2090-CTPB-MDDF-*xx*F*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 motors (MD) • Drive-end flying-leads (DF) • Power/brake wires (PB)		Military style
2090-CTPW-MCDF-*xx*F*xx* 2090-CTPW-MDDF-*xx*F*xx* 2090-CTPW-MEDF-*xx*F*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 motors (MD) • Applies to TLP-A/B200 motors (ME) • Drive-end flying-leads (DF) • Power wires only (PW)		
2090-CTPB-MCET-*xx*F*xx* 2090-CTPB-MDET-*xx*F*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 (MD) • Drive-end (male) connector, extension (ET) • Power/brake wires (PB)		Military style
2090-CTPW-MCET-*xx*F*xx* 2090-CTPW-MDET-*xx*F*xx* 2090-CTPW-MEET-*xx*F*xx*	• Applies to TLP-A/B115...TLP-A/B145 motors (MC) • Applies to TLP-A/B200 motors (MD) • Applies to TLP-A/B200...TLP-A/B235 motors (ME) • Drive-end (male) connector, extension (ET) • Power wires only (PW)		

2090-CTP*x*-M*x*ET extension cables provide continuous-flex cable technology between your standard (non-flex) cable and the continuous-flex application.

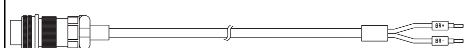
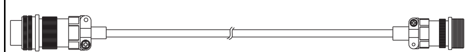
2090-CTBK-MB*xx* Brake Cables

Brake wires for TLP-A/B200-550, TLP-A/B200-750, and TLP-A/B235-*xxx* servo motors are in a separate cable.

Brake Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CTBK-MBDF-20A*xx*	• Applies to TLP-A/B200-550, TLP-A/B200-750, and TLP-A/B235-*xxx* motors (MB) • Drive-end flying-leads (DF) • Brake wires (BK)			Military style

Brake Cable Descriptions (continuous-flex)

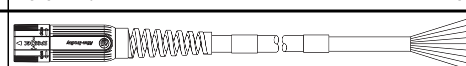
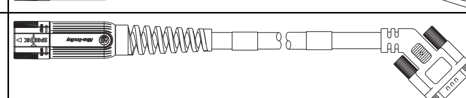
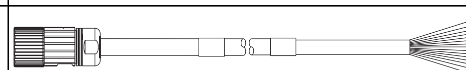
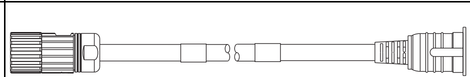
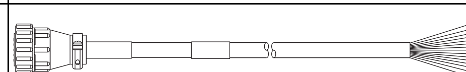
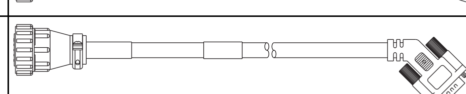
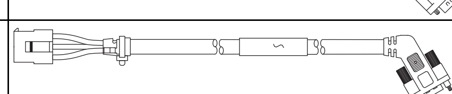
Continuous-flex Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CTBK-MBDF-20F*xx*	• Applies to TLP-A/B200-550, TLP-A/B200-750, and TLP-A/B235-*xxx* motors (MB) • Drive-end flying-leads (DF) • Brake wires (BK)			Military style
2090-CTBK-MBET-20F*xx*	• Applies to TLP-A/B200-550, TLP-A/B200-750, and TLP-A/B235-*xxx* motors (MB) • Drive-end (male) connector, extension (ET) • Brake wires (BK)			

2090-CTBK-MBET extension cables provide continuous-flex cable technology between your standard (non-flex) cable and the continuous-flex application. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications.

Kinetix Motor Power/Brake and Feedback Cables Overview

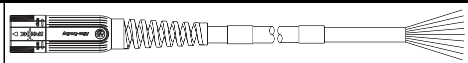
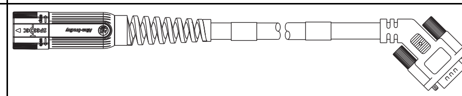
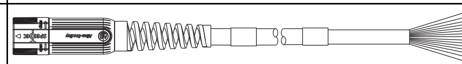
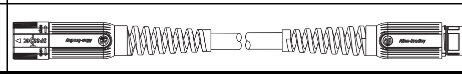
These cables apply to Kinetix MPL, MPM, MPF, MPS and Kinetix TL and TLY motors with high-resolution absolute encoders. For maximum motor-cable lengths with Kinetix 5100 drives, see the Kinetix 5100 Single-axis EtherNet/IP Servo Drives User Manual, publication 2198-UM004.

Feedback Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor 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)			
2090-DANFCT-S*xx*	• Drive-end 20-pin connector • High-resolution applications			Rectangular Plastic

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

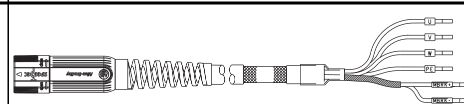
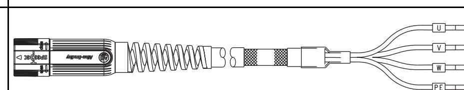
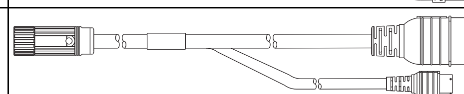
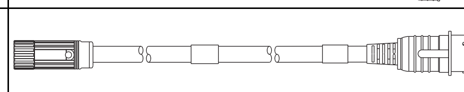
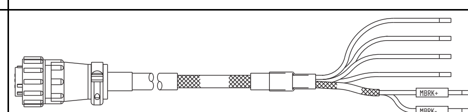
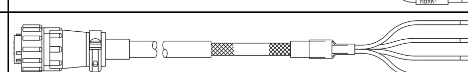
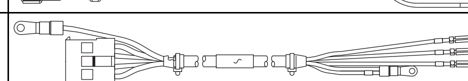
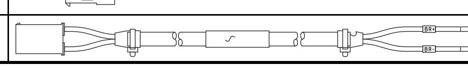
Feedback Cable Descriptions (continuous-flex)

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

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

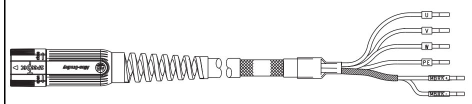
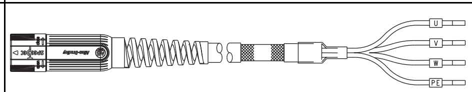
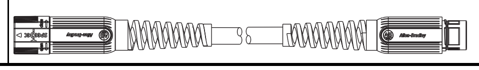
Motor-end cable connector kits, for use when building your own cables are also available. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.

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

Standard Cable Cat. No.	Description	Cable Configuration Motor End / Drive End	Motor/Actuator Connector
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-CPBM4E2-*xx*TR	• Drive-end bayonet (E2), transition (TR) cable (1) • Motor-end threaded DIN (M4) • Power/brake wires (PB)		Threaded DIN (M4)
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)		
2090-DANPT-16S*xx*	• Drive-end flying-leads • Power wires only		Rectangular Plastic
2090-DANBT-18S*xx*	Drive-end flying-lead brake wires		

(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 Connector
		Motor End	Drive End	
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)			

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

Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications.

Kinetix 5100 (200V-class) Drives with Kinetix TLP Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix TLP (200V-class) multi-purpose servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and optimum torque/speed curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (with 230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix TLP Motor and Cable Combinations

Rotary Motor (200V-class) (1) Cat. No.	Motor Power/Brake Cable (2)	Feedback Cable Cat. No. (2)	Brake Cat. No. (2)
TLP-A046-*xxx*, TLP-A070-*xxx*, TLP-A090-*xxx*, (3) TLP-A100-*xxx*	2090-CTP*x*-MADF-18A*xx* (standard) or 2090-CTP*x*-MADF-18F*xx* (continuous-flex)	2090-CTFB-MADD-CFA*xx* (standard) or 2090-CTFB-MADD-CFF*xx* (continuous-flex)	Not applicable. Brake conductors are included in the power cable.
TLP-A115-100, (4) TLP-A145-050, TLP-A145-100	2090-CTP*x*-MCDF-16A*xx* (standard) or 2090-CTP*x*-MCDF-16F*xx* (continuous-flex)	2090-CTFB-MFDD-CFA*xx* (standard) or 2090-CTFB-MFDD-CFF*xx* (continuous-flex)	
TLP-A115-200, TLP-A145-090, TLP-A145-150, TLP-A145-250	2090-CTP*x*-MCDF-12A*xx* (standard) or 2090-CTP*x*-MCDF-12F*xx* (continuous-flex)		
TLP-A200-200, TLP-A200-300, TLP-A200-350 (5)	2090-CTP*x*-MDDF-12A*xx* (standard) or 2090-CTP*x*-MDDF-12F*xx* (continuous-flex)		
TLP-A200-450	2090-CTP*x*-MDDF-08A*xx* (standard) or 2090-CTP*x*-MDDF-08F*xx* (continuous-flex)		
TLP-A200-550, TLP-A200-750, TLP-A235-11K (6) (7)	2090-CTPW-MEDF-06A*xx* (standard) or 2090-CTPW-MEDF-06F*xx* (continuous-flex)		2090-CTBK-MBDF-20A*xx* (standard) or 2090-CTBK-MBDF-20F*xx* (continuous-flex)
TLP-A235-15K (8) (7)	2090-CTPW-MEDF-04A*xx* (standard) or 2090-CTPW-MEDF-04F*xx* (continuous-flex)		

(1) The TLP-A046...TLP-A100 frame on-motor cables include 18 AWG conductors that are compatible with 2090-CTP*x*-MADF-18*xxx* cable conductors.
(2) Refer to the Kinetix Motion Accessories Specifications Technical Data, publication KNX-TD004, for cable specifications.
(3) For TLP-A090-*xxx* motors, use 2090-CTP*x*-MADF-16*xxx* motor power/brake cable to comply with NFPA 79 requirements.
(4) For TLP-A115-100 motors, use 2090-CTP*x*-MCDF-12*xxx* motor power/brake cable to comply with NFPA 79 requirements.
(5) For TLP-A200-350 motors, use 2090-CTP*x*-MDDF-08*xxx* motor power/brake cable to comply with NFPA 79 requirements.
(6) For TLP-A235-11K motors, use 2090-CTP*x*-MEDF-04*xxx* motor power cable to comply with NFPA 79 requirements.
(7) Only these motors have separate brake connectors and brake cables. All other motors have brake wires included with the motor power/brake connector.
(8) For TLP-A235-15K motors, you must build your own motor power cable to comply with NFPA 79 requirements.

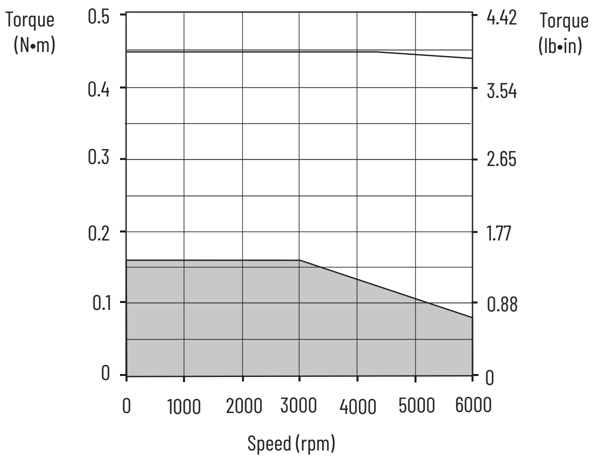
Kinetix TLP Motor Performance Specifications with Kinetix 5100 (200V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A rms	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A rms	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5100 Drives (230V AC input)
TLP-A046-005	3000	6000	0.70	0.16 (1.42)	2.286	0.447 (3.96)	0.05 (0.067)	2198-E1004-ERS
TLP-A046-010	3000	6000	0.96	0.32 (2.83)	3.370	1.034 (9.15)	0.10 (0.134)	2198-E1004-ERS
TLP-A070-020	3000	6000	1.65	0.64 (5.66)	5.500	2.160 (19.12)	0.20 (0.268)	2198-E1004-ERS
TLP-A070-040	3000	6000	2.60	1.22 (10.8)	6.500	2.91 (25.80)	0.38 (0.509)	2198-E1004-ERS
			2.70	1.27 (11.2)	9.500	4.275 (37.84)	0.40 (0.536)	2198-E1007-ERS
TLP-A090-075	3000	6000	4.50	2.39 (21.2)	15.41	7.505 (66.42)	0.75 (1.005)	2198-E1007-ERS
TLP-A100-100	3000	3000	4.31	3.18 (28.2)	12.37	8.740 (77.36)	1.0 (1.34)	2198-E1007-ERS
								2198-E1015-ERS
TLP-A115-100	3000	5000	7.45	3.18 (28.2)	23.70	8.455 (74.83)	1.0 (1.34)	2198-E1015-ERS
TLP-A115-200	3000	5000	12.50	6.37 (56.4)	40.58	17.48 (154.7)	2.0 (2.68)	2198-E1020-ERS
TLP-A145-050	2000	3000	3.26	2.39 (21.6)	9.180	6.81 (60.27)	0.50 (0.670)	2198-E1007-ERS
TLP-A145-090	1000	2000	7.90	8.30 (73.5)	21.80	20.52 (181.6)	0.87 (1.167)	2198-E1015-ERS
			8.12	8.59 (76.0)			0.90 (1.206)	2198-E1020-ERS
TLP-A145-100	2000	3000	6.11	4.77 (42.2)	19.73	13.30 (117.7)	1.0 (1.34)	2198-E1015-ERS
TLP-A145-150	2000	3000	7.90	6.22 (55.1)	23.70	15.92 (140.9)	1.3 (1.74)	2198-E1015-ERS
			8.80	7.16 (63.4)	29.13	19.66 (174.0)	1.5 (2.01)	2198-E1020-ERS
TLP-A145-250	**3000**	**4500**	**15.32**	**7.96 (70.5)**	**55.95**	**24.51 (216.9)**	**2.5 (3.35)**	**2198-E2030-ERS**
TLP-A200-200	2000	3000	12.30	9.55 (84.3)	33.66	21.85 (193.4)	2.0 (2.68)	2198-E1020-ERS
TLP-A200-300	1500	2500	17.90	16.81 (148.8)	55.95	45.62 (403.7)	2.6 (3.49)	2198-E2030-ERS
			20.25	19.10 (169.1)	57.50	47.03 (416.3)	3.0 (4.02)	2198-E2055-ERS
TLP-A200-350	2000	3000	22.16	16.71 (147.9)	65.40	43.23 (382.6)	3.5 (4.69)	2198-E2055-ERS
TLP-A200-450	1500	3000	37.07	28.65 (253.6)	91.40	64.04 (566.8)	4.5 (6.03)	2198-E2055-ERS
TLP-A200-550	1500	3000	41.13	35.01 (309.9)	91.40	67.67 (598.9)	5.5 (7.37)	2198-E2055-ERS
					108.0	79.96 (707.7)		2198-E2075-ERS
TLP-A200-750	1500	2500	49.0	45.36 (401.4)	127.5	104.30 (923.1)	7.1 (9.52)	2198-E2075-ERS
			49.80	47.74 (422.5)			7.5 (10.1)	2198-E2150-ERS
TLP-A235-11K	1500	2000	57.72	70.0 (619.6)	129.5	144.30 (1277)	11.0 (14.7)	2198-E2150-ERS
TLP-A235-15K	1500	2000	75.40	95.40 (844.4)	162.0	184.57 (1634)	15.0 (20.1)	2198-E2150-ERS

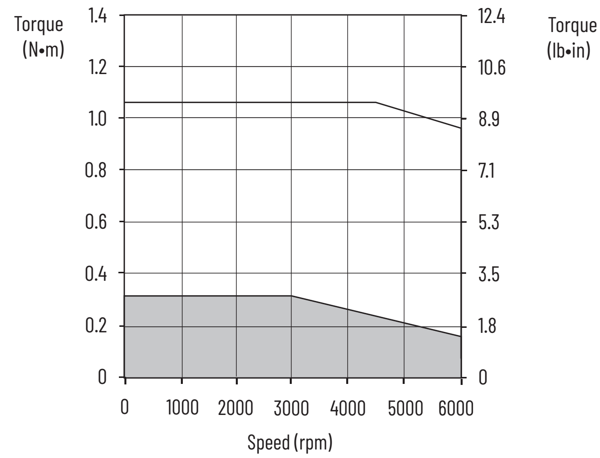
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix TLP Servo Motor Curves

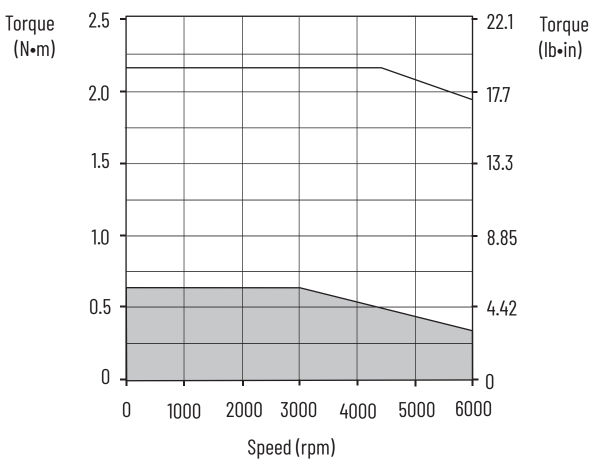
2198-E1004-ERS and TLP-A046-005



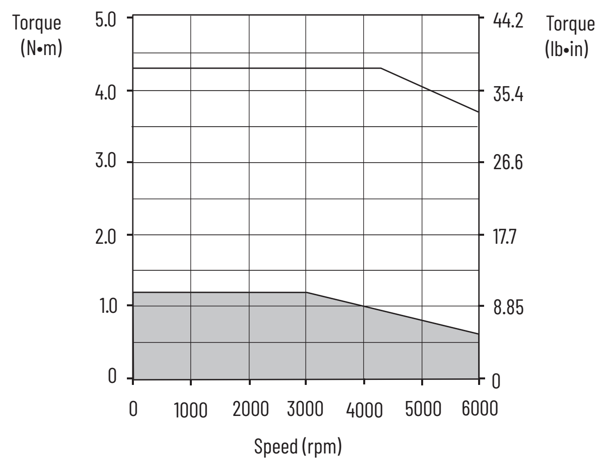
2198-E1004-ERS and TLP-A046-010



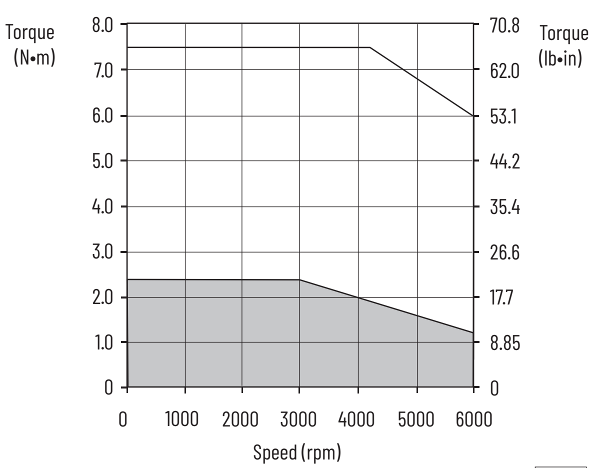
2198-E1004-ERS and TLP-A070-020



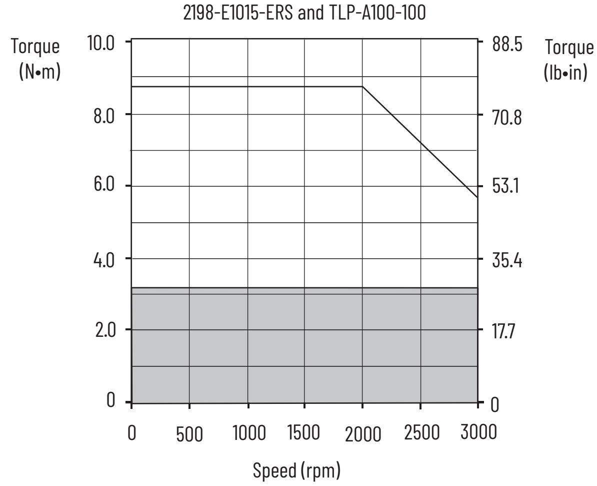
2198-E1007-ERS and TLP-A070-040



2198-E1007-ERS and TLP-A090-075

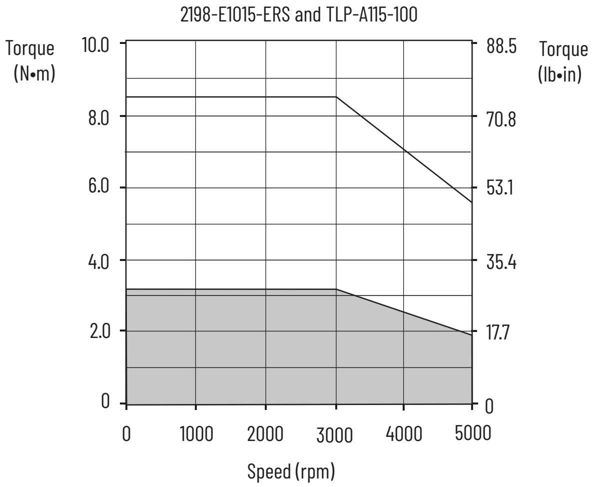


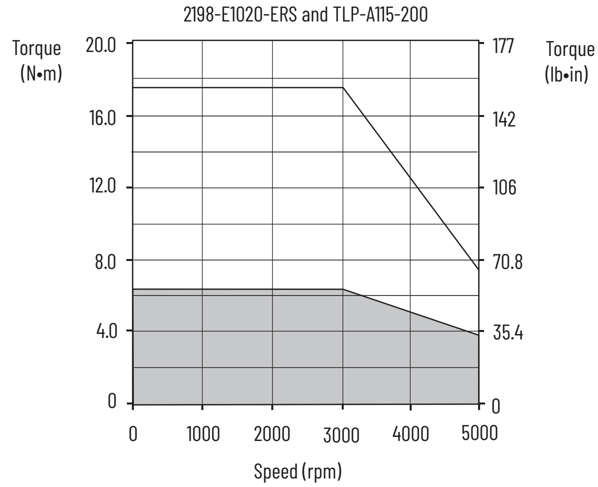
2198-E1015-ERS and TLP-A100-100

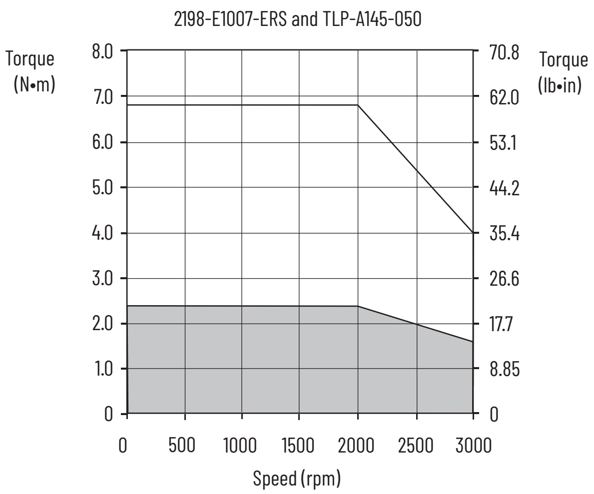


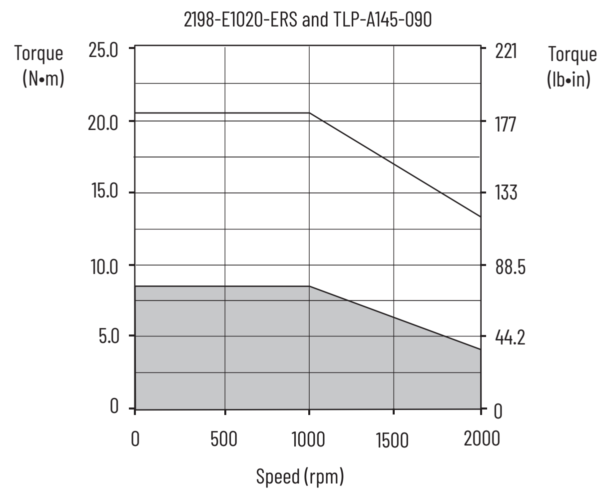
= Intermittent operating region
= Continuous operating region

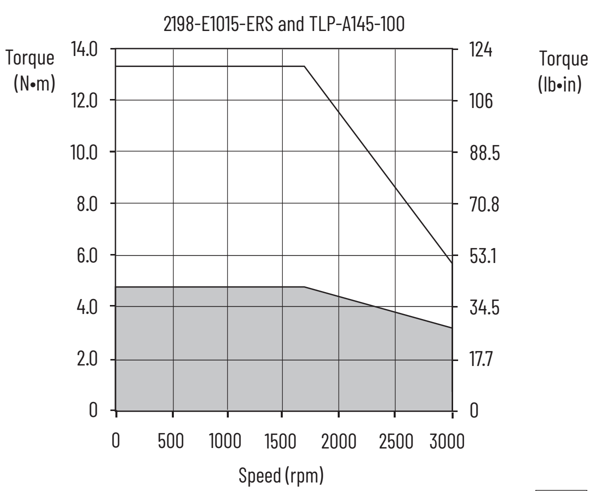
Kinetix 5100 (200V-class) Drives/Kinetix TLP Servo Motor Curves (continued)

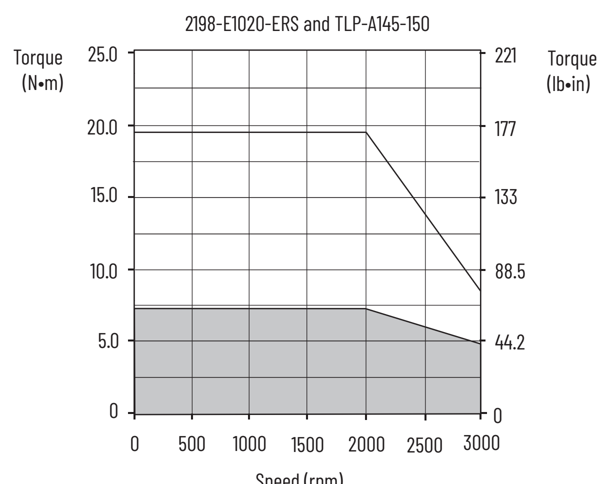








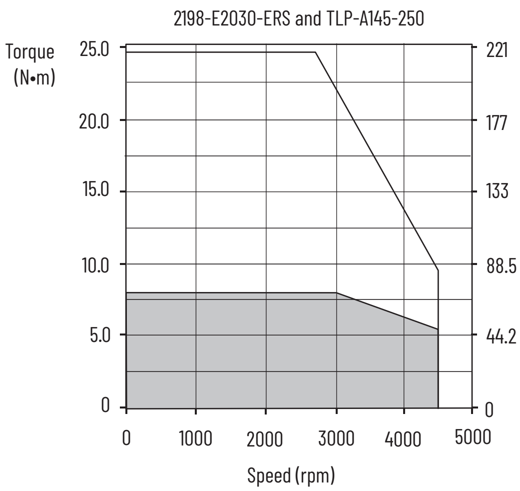


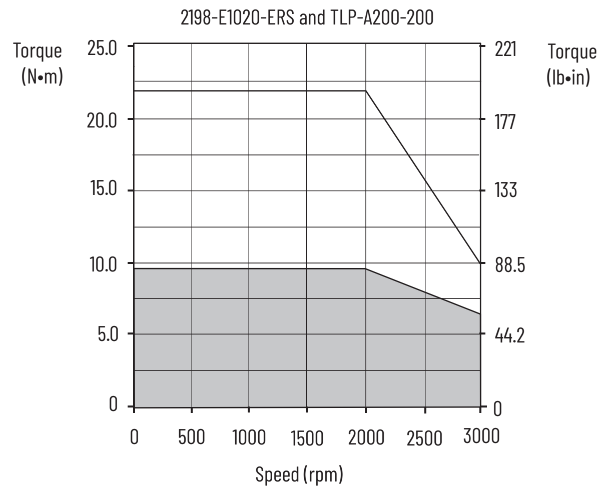


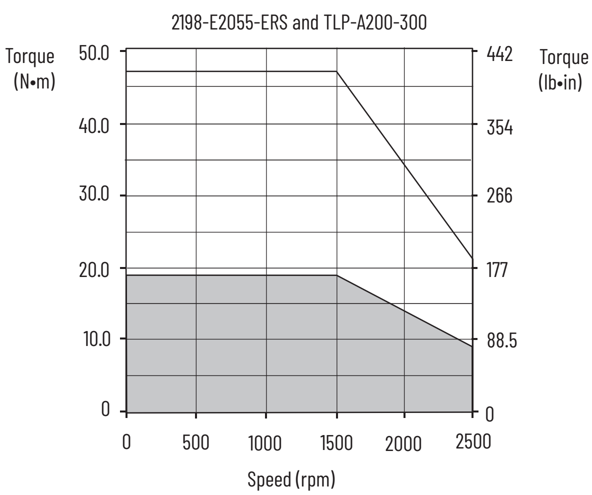
= Intermittent operating region

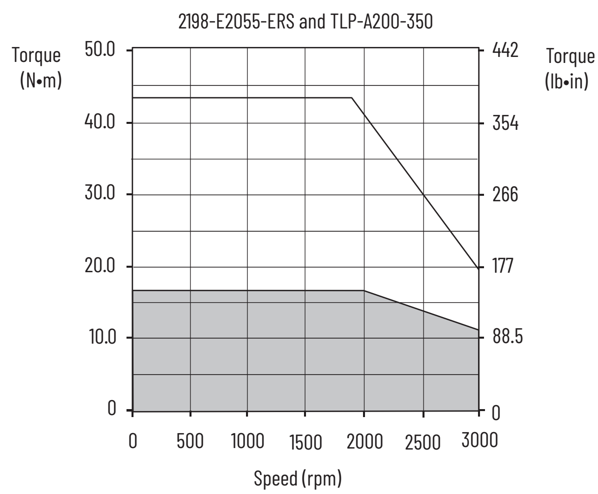
= Continuous operating region

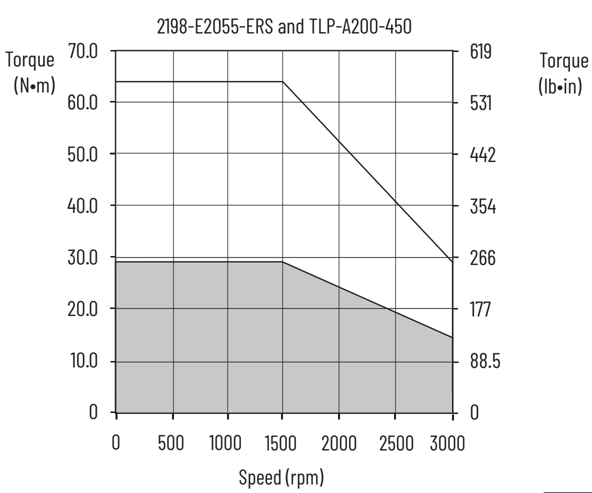
Kinetix 5100 (200V-class) Drives/Kinetix TLP Servo Motor Curves (continued)

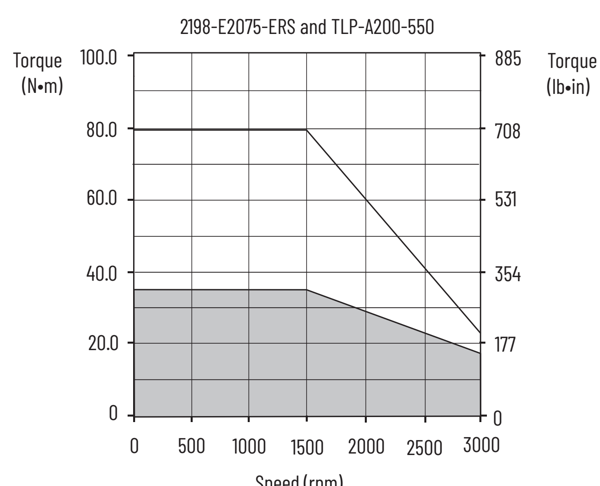








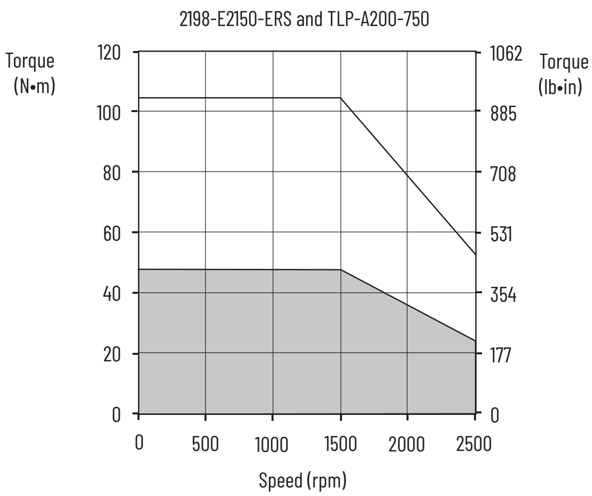


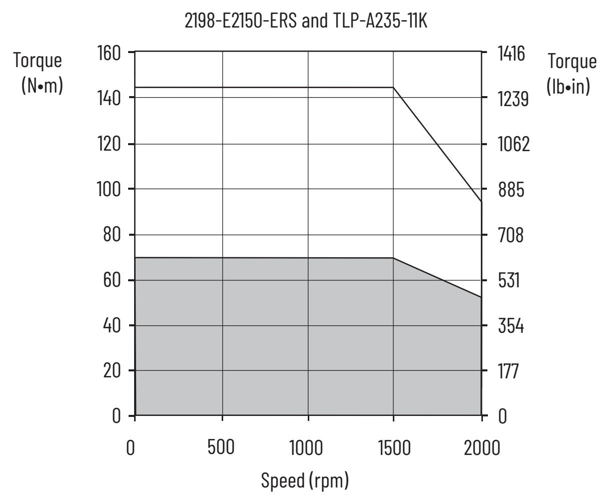


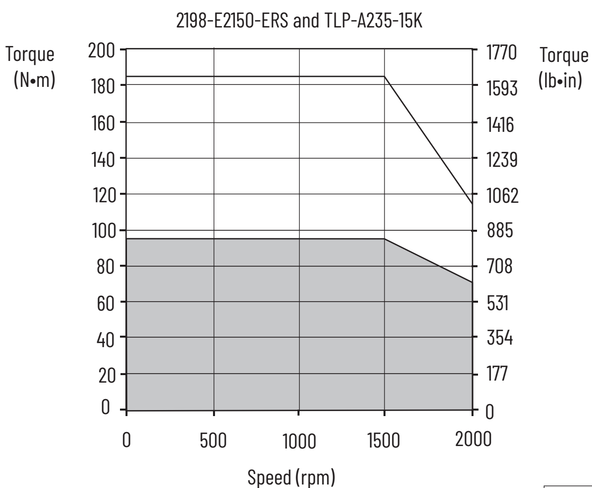
= Intermittent operating region

= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix TLP Servo Motor Curves (continued)







Kinetix 5100 (400V-class) Drives with Kinetix TLP Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 380 or 480V, nominal input) when matched with Kinetix TLP (400V-class) multi-purpose servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and optimum torque/speed curves.

Kinetix TLP Motor and Cable Combinations

<table>
<tr><th>Rotary Motor (400V-class) (1)
Cat. No.</th><th>Motor Power/Brake Cable (2)</th><th>Feedback Cable Cat. No. (2)</th><th>Brake Cat. No. (2)</th></tr>
<tr><td>TLP-B070-040
TLP-B090-075</td><td>2090-CTPx-MADF-18Axx (standard) or
2090-CTPx-MADF-18Fxx (continuous-flex)</td><td>2090-CTFB-MADD-CFAxx (standard) or 2090-CTFB-MADD-CFFxx (continuous-flex)</td><td rowspan="5">Not applicable. Brake conductors are included in the power cable.</td></tr>
<tr><td>TLP-B115-100, TLP-B115-200 (3)
TLP-B145-050, TLP-B145-100
TLP-B145-150, TLP-B145-200</td><td>2090-CTPx-MCDF-16Axx (standard) or
2090-CTPx-MCDF-16Fxx (continuous-flex)</td><td rowspan="5">2090-CTFB-MFDD-CFAxx (standard) or 2090-CTFB-MFDD-CFFxx (continuous-flex)</td></tr>
<tr><td>TLP-B145-250</td><td>2090-CTPx-MCDF-12Axx (standard) or
2090-CTPx-MCDF-12Fxx (continuous-flex)</td></tr>
<tr><td>TLP-B200-300, TLP-B200-450</td><td>2090-CTPx-MDDF-12Axx (standard) or
2090-CTPx-MDDF-12Fxx (continuous-flex)</td></tr>
<tr><td>TLP-B200-550, TLP-B200-750</td><td>2090-CTPx-MDDF-08Axx (standard) or
2090-CTPx-MDDF-08Fxx (continuous-flex)</td></tr>
<tr><td>TLP-B235-11K, TLP-B235-14K (4)</td><td>2090-CTPW-MEDF-06Axx (standard) or
2090-CTPW-MEDF-06Fxx (continuous-flex)</td><td>2090-CTBK-MBDF-20Axx (standard) or 2090-CTBK-MBDF-20Fxx (continuous-flex)</td></tr>
</table>

(1) The TLP-B070-040 and TLP-B090-075 frame on-motor cables include 18 AWG conductors that are compatible with 2090-CTP*x*-MADF-18*xxx* cable conductors.
(2) Refer to the Kinetix Motion Accessories Specifications Technical Data, publication KNX-TD004, for cable specifications.
(3) For TLP-B115-200 motors, use 2090-CTP*x*-MCDF-12*xxx* motor power/brake cable to comply with NFPA 79 requirements.
(4) Only these motors have separate brake connectors and brake cables. All other motors have brake wires included with the motor power/brake connector.

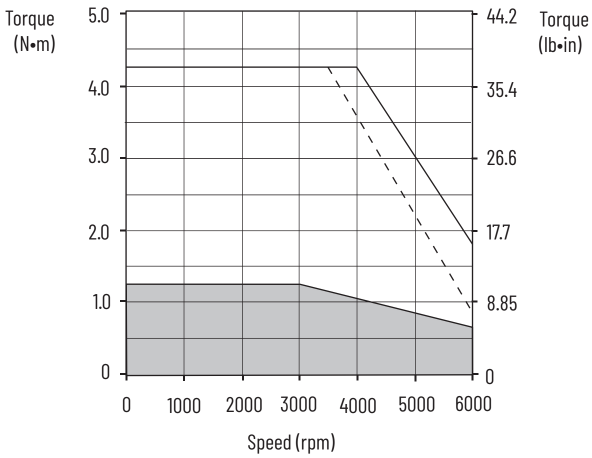
Kinetix TLP Motor Performance Specifications with Kinetix 5100 (400V-class) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Speed, max** rpm	**System Continuous Stall Current** A rms	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A rms	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5100 Drives (380/480V AC input)**
TLP-B070-040	3000	6000	1.47	1.27 (11.2)	5.30	4.25 (37.6)	0.40 (0.54)	2198-E4004-ERS
TLP-B090-075	3000	6000	2.99	2.39 (21.2)	8.0	5.94 (52.5)	0.75 (1.01)	2198-E4007-ERS
					10.85	8.05 (71.2)		2198-E4015-ERS
TLP-B115-100	3000	5000	4.30	3.18 (28.1)	15.11	9.34 (82.7)	1.0 (1.34)	2198-E4015-ERS
TLP-B115-200	3000	5000	7.0	6.37 (56.4)	20.78	15.63 (138.3)	2.0 (2.68)	2198-E4020-ERS
					25.40	19.10 (169.0)		2198-E4030-ERS
TLP-B145-050	2000	3000	1.89	2.39 (21.2)	5.49	6.93 (61.3)	0.50 (0.67)	2198-E4007-ERS
TLP-B145-100	2000	3000	3.54	4.77 (42.2)	12.29	13.03 (115.3)	1.0 (1.34)	2198-E4015-ERS
TLP-B145-150	2000	3000	5.20	7.16 (63.4)	15.11	16.92 (149.8)	1.5 (2.01)	2198-E4015-ERS
					18.34	20.54 (181.8)		2198-E4020-ERS
TLP-B145-200	2000	3000	6.85	9.55 (84.5)	20.78	23.74 (210.2)	2.0 (2.68)	2198-E4020-ERS
					21.35	24.40 (215.9)		2198-E4030-ERS
TLP-B145-250	3000	4500	8.60	7.96 (70.4)	26.08	20.54 (181.7)	2.5 (3.35)	2198-E4030-ERS
					33.40	26.30 (232.8)		2198-E4055-ERS
TLP-B200-300	1500	2500	11.65	19.1 (169.0)	26.08	36.56 (323.5)	3.0 (4.02)	2198-E4030-ERS
					34.10	47.8 (423.0)		2198-E4055-ERS
TLP-B200-450	1500	3000	21.18	28.7 (254.0)	37.65	43.6 (385.6)	4.5 (6.03)	2198-E4055-ERS
					53.32	61.7 (546.1)		**2198-E4075-ERS**
					58.41	67.6 (598.3)		2198-E4150-ERS
TLP-B200-550	1500	3000	23.62	35.0 (309.8)	37.65	47.4 (419.3)	5.5 (7.38)	2198-E4055-ERS
					53.32	67.1 (546.1)		**2198-E4075-ERS**
					66.60	83.8 (741.6)		2198-E4150-ERS
TLP-B200-750	1500	2500	28.90	47.7 (422.1)	53.32	77.2 (682.9)	7.5 (10.06)	2198-E4075-ERS
					70.0	101.3 (896.5)		2198-E4150-ERS
TLP-B235-11K	1500	2000	29.60	70.0 (620.0)	70.0	158.5 (1403)	11.0 (14.75)	2198-E4075-ERS
TLP-B235-14K	1500	2000	40.30	89.1 (789.0)	70.0	143.6 (1271)	14.0 (18.77)	2198-E4150-ERS

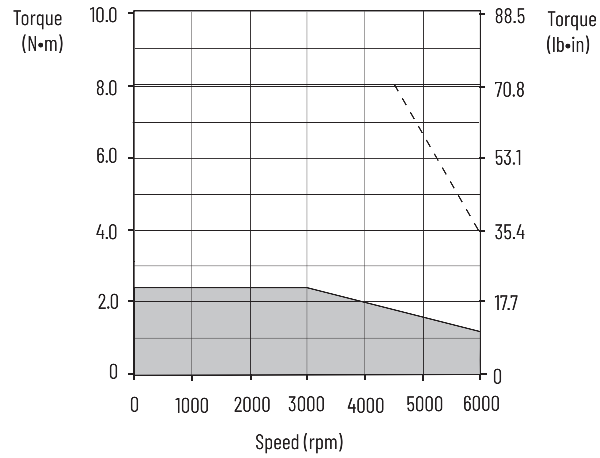
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix TLP Servo Motor Curves

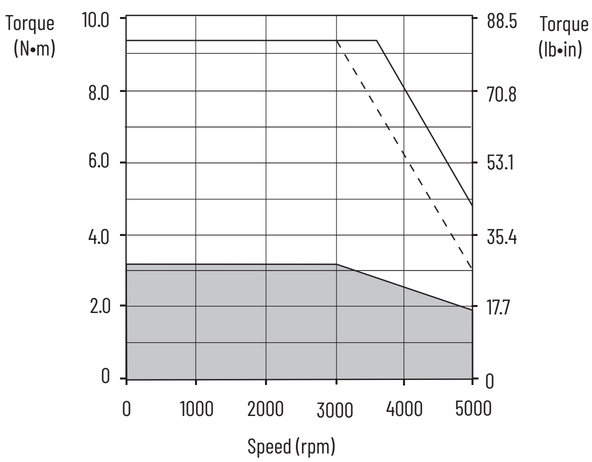
2198-E4004-ERS and TLP-B070-040



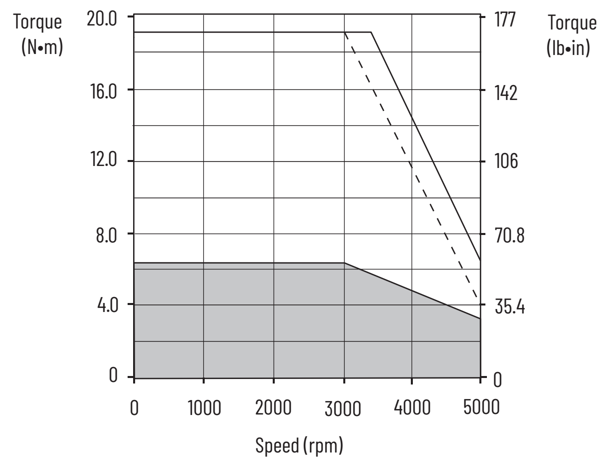
2198-E4015-ERS and TLP-B090-075



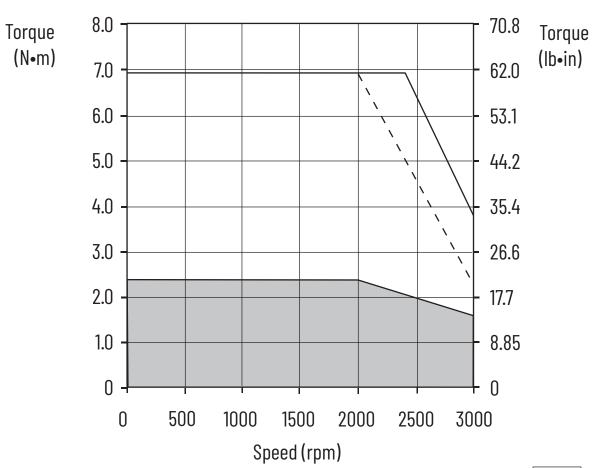
2198-E4015-ERS and TLP-B115-100



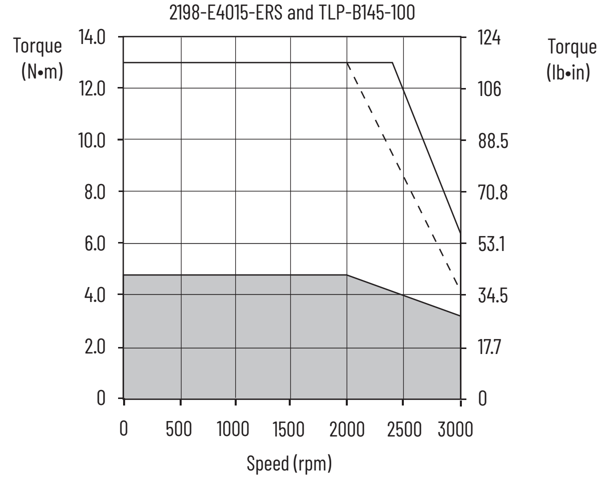
2198-E4030-ERS and TLP-B115-200



2198-E4007-ERS and TLP-B145-050

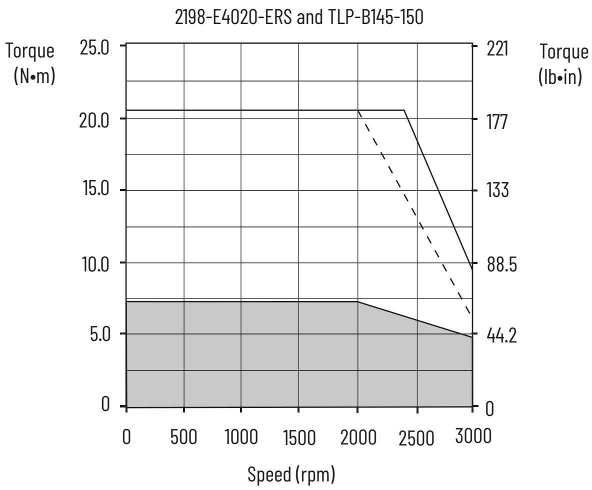


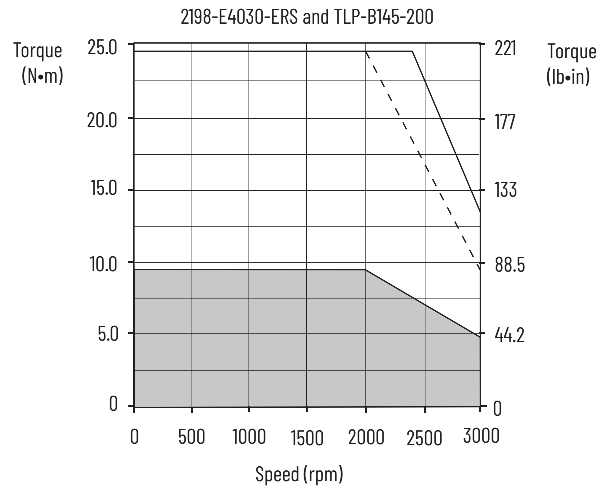
2198-E4015-ERS and TLP-B145-100

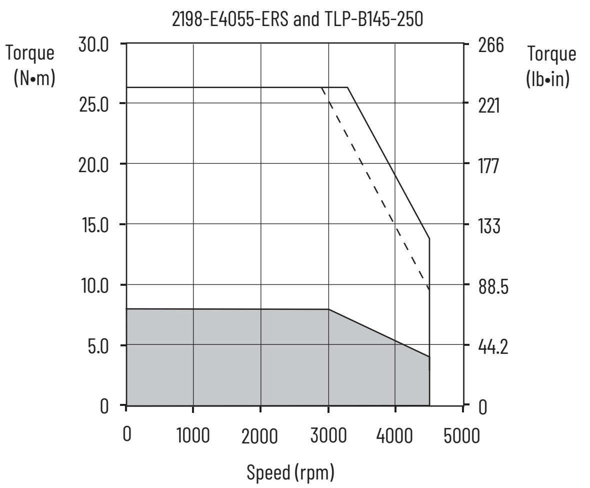


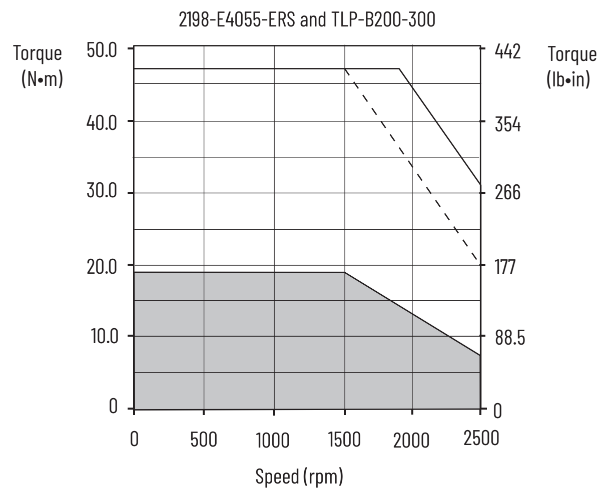
= Intermittent operating region
= Continuous operating region
= Drive operation with 380V AC rms input voltage

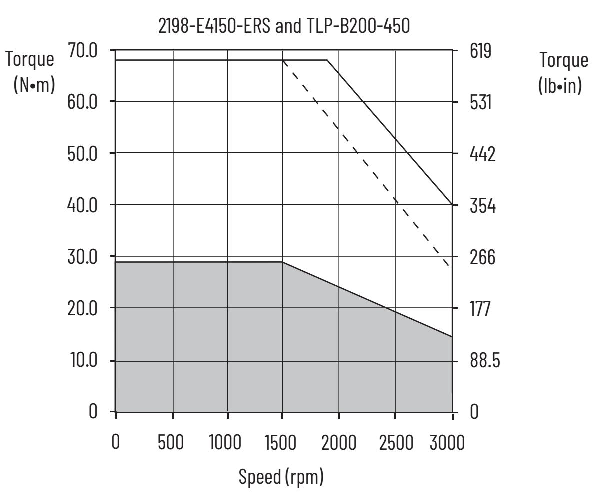
Kinetix 5100 (400V-class) Drives/Kinetix TLP Servo Motor Curves (continued)

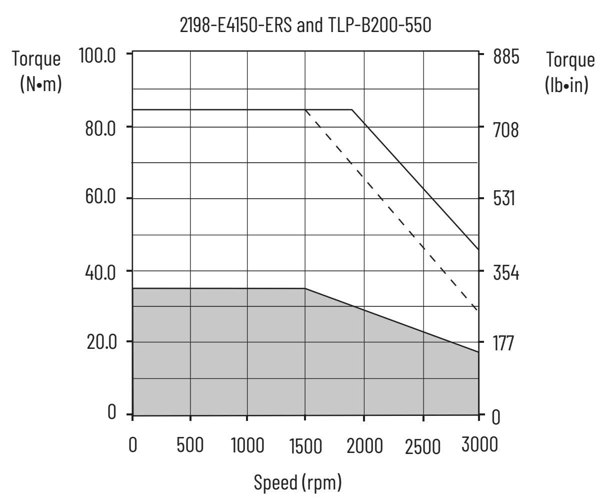






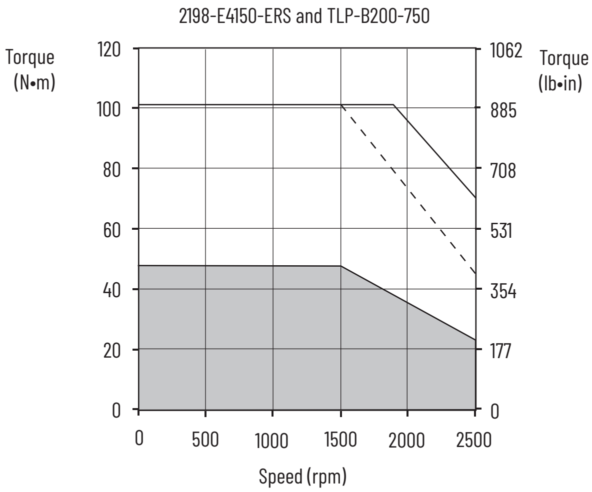


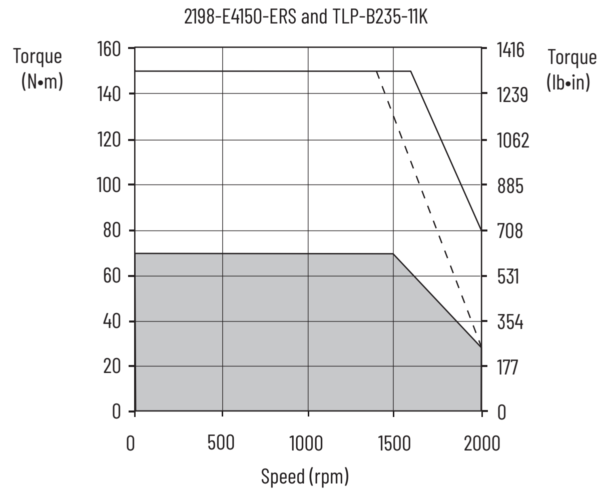


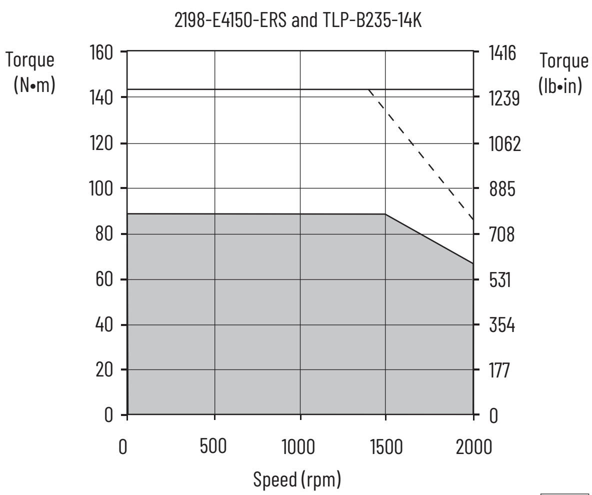


= Intermittent operating region
= Continuous operating region
= Drive operation with 380V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix TLP Servo Motor Curves (continued)







= Intermittent operating region
= Continuous operating region
= Drive operation with 380V AC rms input voltage

Kinetix 5100 (200V-class) Drives with Kinetix MPL Motors

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix MPL (200V-class) low-inertia servo motors with absolute high-resolution encoders or TTL incremental encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

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

Kinetix MPL Motor and Cable Combinations

Rotary Motor (200V-class) Cat. No.	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 2090-XXNFMF-S*xx* (standard, non-flex) [4] 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental 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		
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		
MPL-A4560F-*xx*7*x*AA	2090-CP*x*M7DF-12AA*xx* (standard, non-flex)	
MPL-A520K-*xx*7*x*AA	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPL-A540K-*xx*7*x*AA, MPL-A560F-*xx*7*x*AA	2090-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-08AF*xx* (continuous-flex)	

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.
(2) Applies to Kinetix 5100 drives and MPL-A3*xxx*-M/S…MPL-A5*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 5100 drives and MPL-A15*xxx*-V/E…MPL-A2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 5100 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 Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

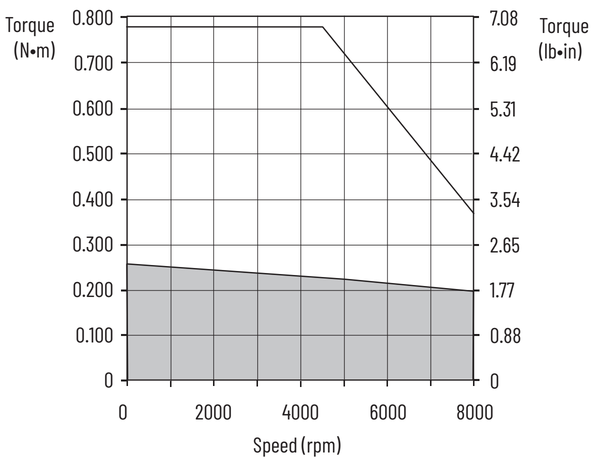
Kinetix MPL Motor Performance Specifications with Kinetix 5100 (200V-class) Drives

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 5100 Drives (230V AC input)
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16	2198-E1004-ERS
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-E1004-ERS
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	9.19	2.57 (22.7)	0.39	2198-E1004-ERS
					10.1	2.82 (24.9)		2198-E1007-ERS
MPL-A210V	8000	8000	3.09	0.55 (4.8)	9.19	1.37 (12.1)	0.37	2198-E1004-ERS
					10.2	1.52 (13.4)		2198-E1007-ERS
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62	2198-E1007-ERS
MPL-A230P	5000	5000	5.40	2.10 (18.6)	21.79	7.77 (68.8)	0.86	2198-E1007-ERS
					23.0	8.2 (73.0)		2198-E1015-ERS
MPL-A310F	3000	3000	3.20	1.58 (14.0)	9.19	3.61 (31.9)	0.46	2198-E1004-ERS
MPL-A310P	5000	5000	4.85	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-E1007-ERS
MPL-A320H	3500	3500	6.10	3.05 (27.0)	19.3	7.91 (70.0)	1.0	2198-E1007-ERS
MPL-A320P	5000	5000	9.00	3.05 (27.0)	29.5	7.91 (70.0)	1.3	2198-E1015-ERS
MPL-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.1 (98.2)	1.8	2198-E1020-ERS
MPL-A420P	5000	5000	12.7	4.79 (42.3)	46.0	13.5 (120)	2.0	2198-E1020-ERS
MPL-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.8 (175)	1.8	2198-E1020-ERS
MPL-A430P	5000	5000	16.80	5.99 (52.9)	57.39	16.96 (150)	2.2	2198-E1020-ERS
					67.0	19.8 (175)		2198-E2030-ERS
MPL-A4530F	2800	2800	13.40	8.36 (74.0)	42.0	20.3 (179)	1.9	2198-E1020-ERS
MPL-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.3 (179)	2.5	2198-E2030-ERS
MPL-A4540C	1500	1500	9.40	10.30 (91.1)	29.0	27.1 (239)	1.5	2198-E1015-ERS
MPL-A4540F	3000	3000	18.40	10.19 (90.1)	57.39	27.1 (239)	2.6	2198-E1020-ERS
MPL-A4560F	3000	3000	22.0	14.1 (125)	66.0	34.4 (305)	3.0	2198-E2030-ERS
MPL-A520K	4000	4000	23.0	10.77 (95.2)	65.0	24.3 (215)	3.5	2198-E2030-ERS
MPL-A540K	4000	4000	41.5	19.4 (172)	120.0	48.6 (430)	5.5	2198-E2055-ERS
MPL-A560F	3000	3000	42.0	26.8 (237)	120.0	61.0 (540)	5.3	2198-E2055-ERS

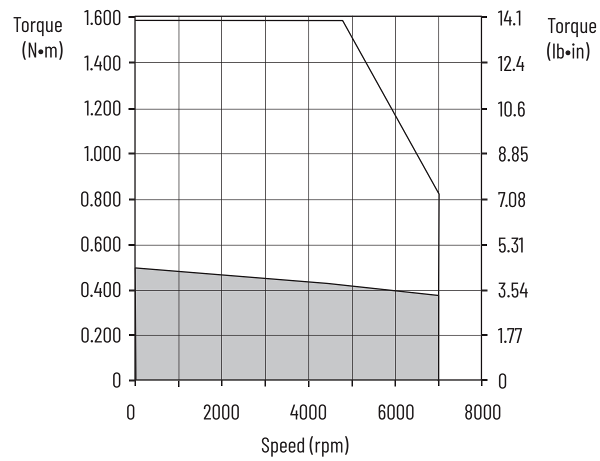
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix MPL Servo Motor Curves

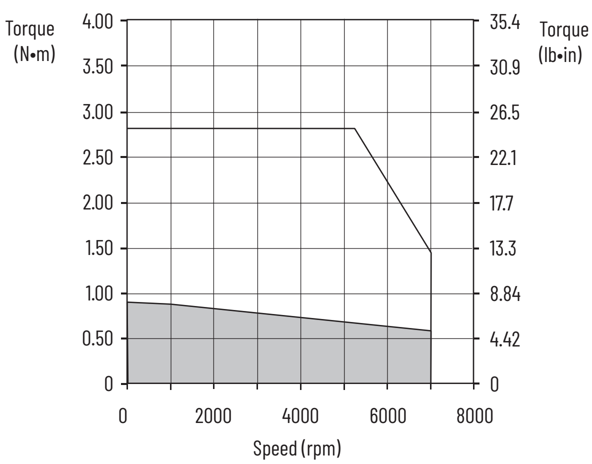
2198-E1004-ERS and MPL-A1510V



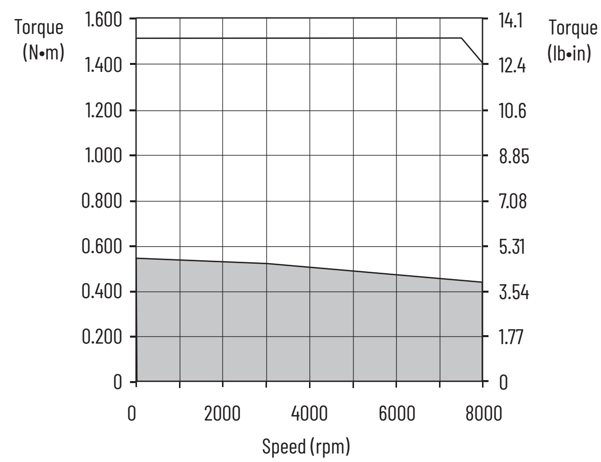
2198-E1004-ERS and MPL-A1520U



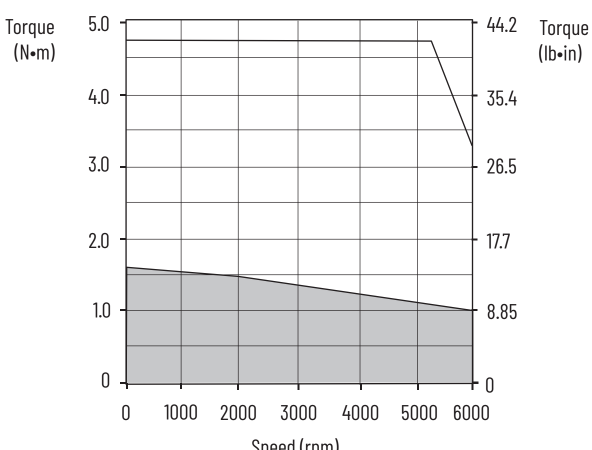
2198-E1007-ERS and MPL-A1530U



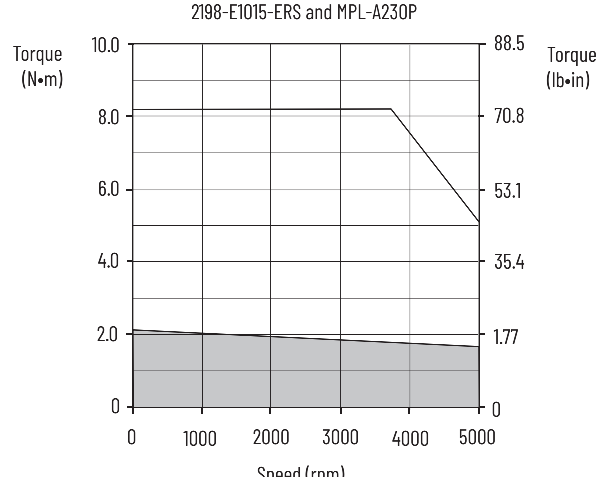
2198-E1007-ERS and MPL-A210V



2198-E1007-ERS and MPL-A220T



2198-E1015-ERS and MPL-A230P

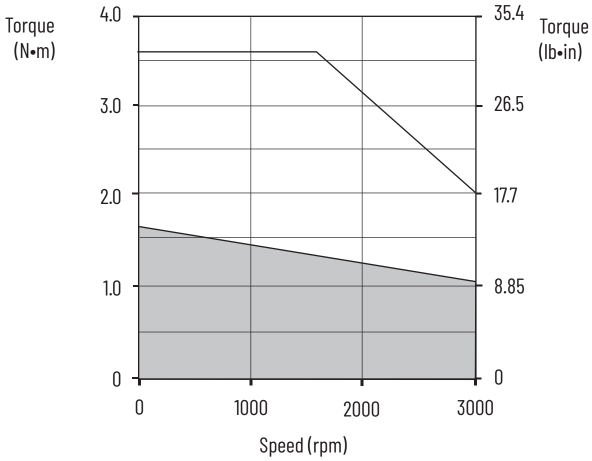


= Intermittent operating region

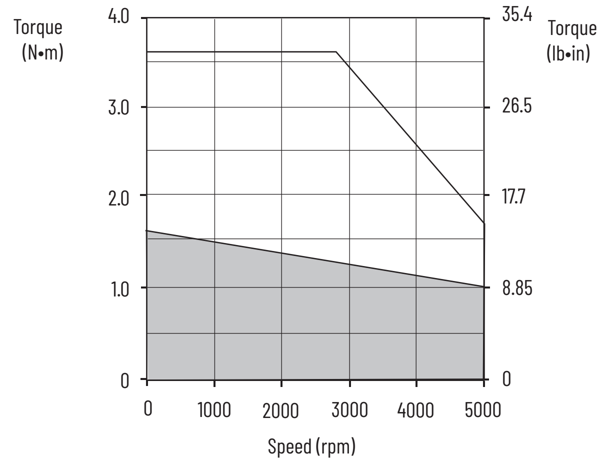
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

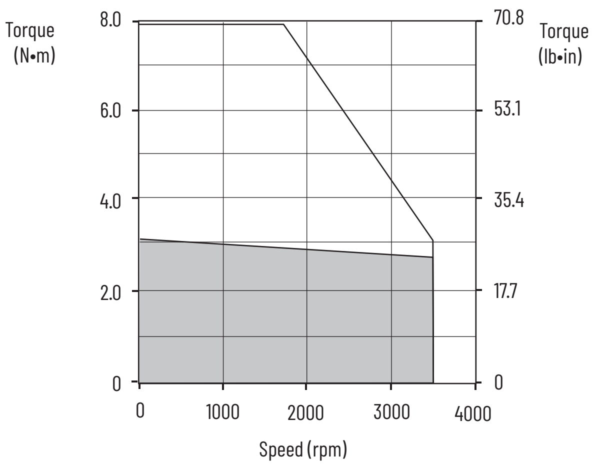
2198-E1004-ERS and MPL-A310F



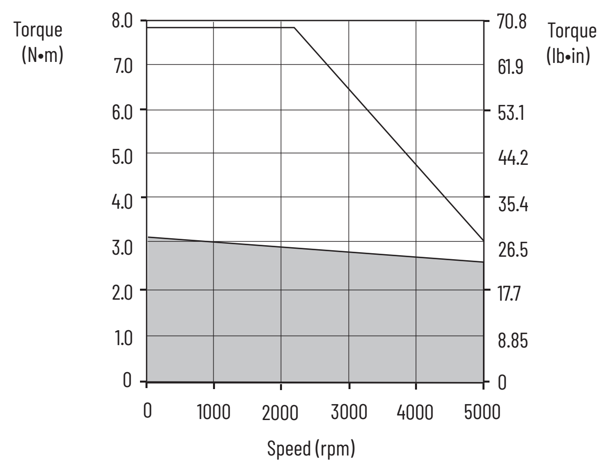
2198-E1007-ERS and MPL-A310P



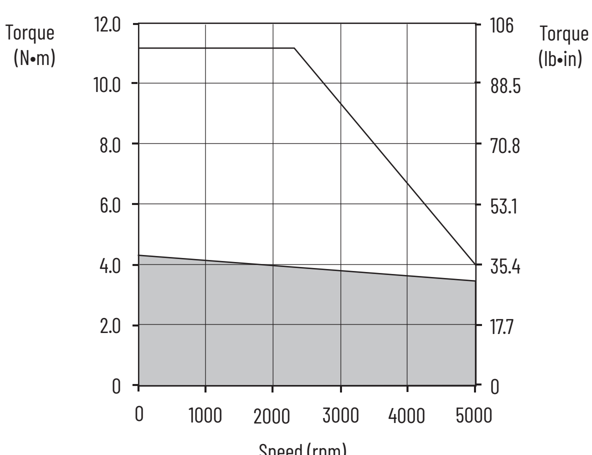
2198-E1007-ERS and MPL-A320H



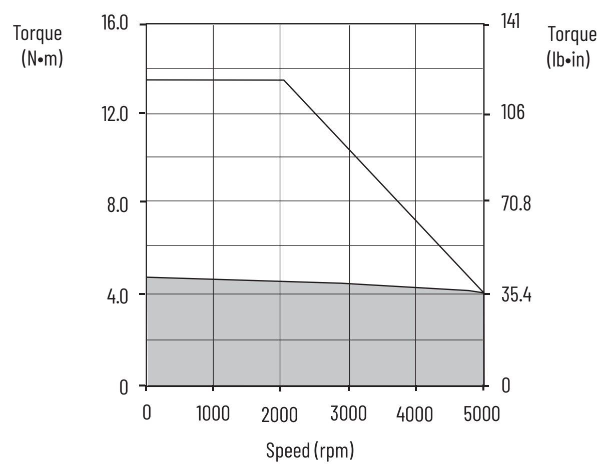
2198-E1015-ERS and MPL-A320P



2198-E1020-ERS and MPL-A330P

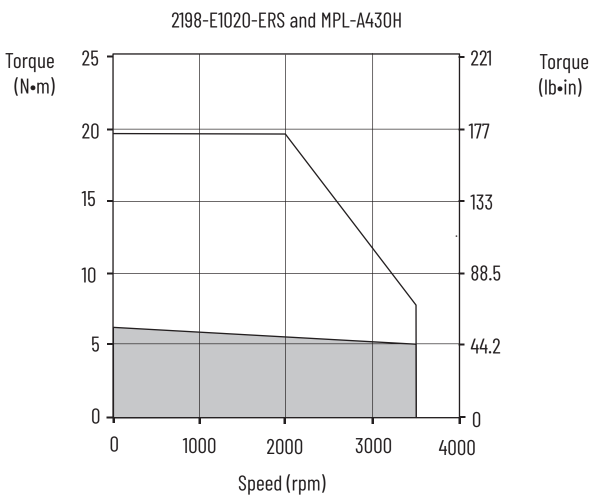


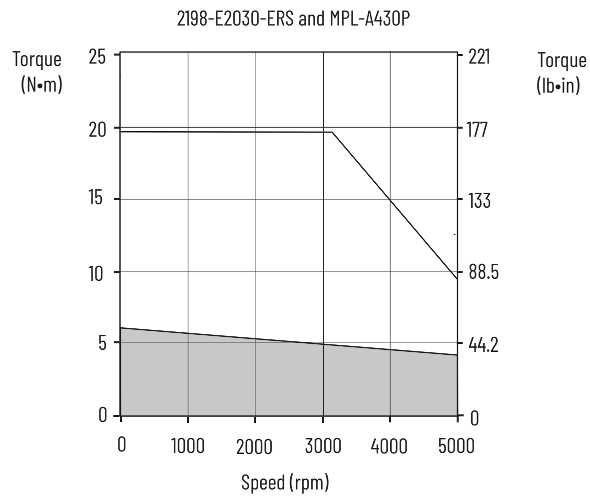
2198-E1020-ERS and MPL-A420P

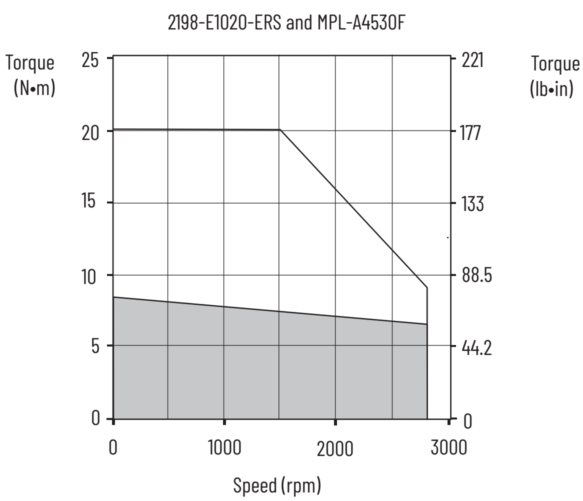


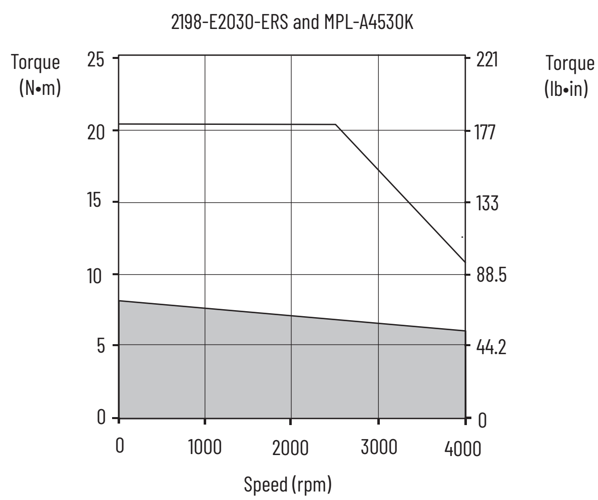
= Intermittent operating region
= Continuous operating region

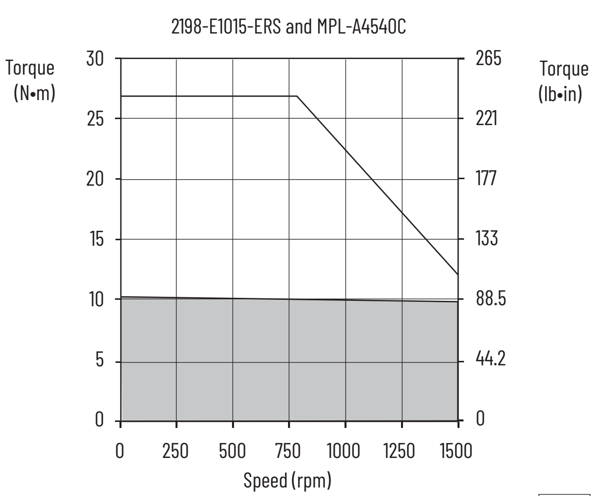
Kinetix 5100 (200V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

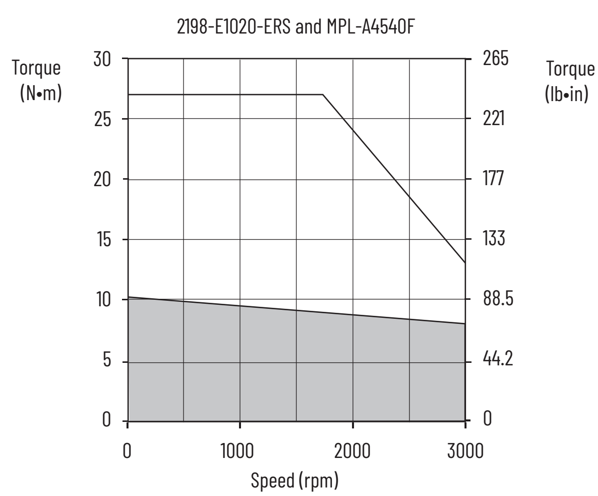






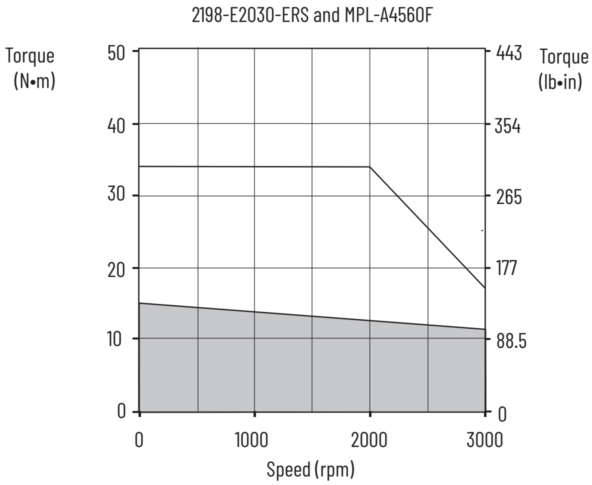


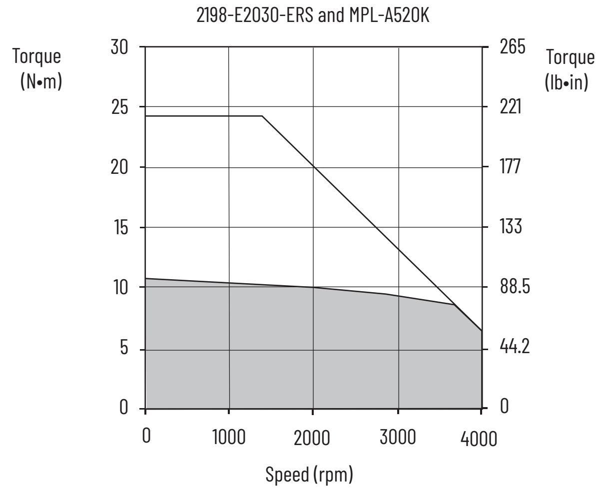


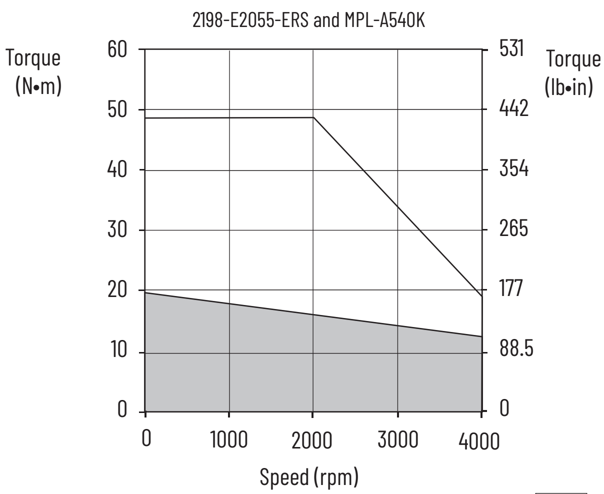


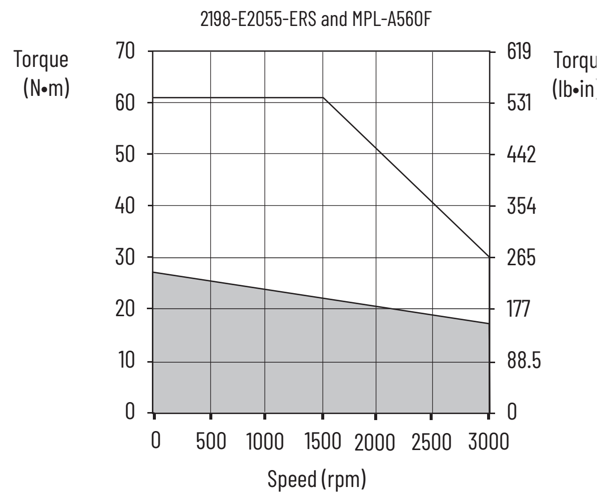
= Intermittent operating region
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix MPL Servo Motor Curves (continued)









= Intermittent operating region
= Continuous operating region

Kinetix 5100 (400V-class) Drives with Kinetix MPL Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 400 and 480V, nominal input) when matched with Kinetix MPL (400V-class) low-inertia motors with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

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

Kinetix MPL Motor Cable Combinations

<table>
<tr><th>Rotary Motor (400V-class)
Cat. No.</th><th>Motor Power/Brake Cable</th><th>Motor Feedback Cable (1)</th></tr>
<tr><td>MPL-B1510V-xx7xAA, MPL-B1520U-xx7xAA, MPL-B1530U-xx7xAA</td><td rowspan="6">2090-CPxM7DF-16AAxx (standard, non-flex)
2090-CPxM7DF-16AFxx (continuous-flex)</td><td rowspan="12">2090-CFBM7DF-CEAAxx or (2) (3)
2090-CFBM7DD-CEAAxx (standard, non-flex)
2090-CFBM7DF-CEAFxx or
2090-CFBM7DD-CEAFxx (continuous-flex)
Absolute High-resolution Feedback

2090-XXNFMF-Sxx (standard, non-flex) (4)
2090-CFBM7DF-CDAFxx (continuous-flex)
Incremental Feedback</td></tr>
<tr><td>MPL-B210V-xx7xAA, MPL-B220T-xx7xAA, MPL-B230P-xx7xAA</td></tr>
<tr><td>MPL-B310P-xx7xAA, MPL-B320P-xx7xAA, MPL-B330P-xx7xAA</td></tr>
<tr><td>MPL-B420P-xx7xAA, MPL-B430P-xx7xAA</td></tr>
<tr><td>MPL-B4530F-xx7xAA, MPL-B4530K-xx7xAA,
MPL-B4540F-xx7xAA, MPL-B4560F-xx7xAA</td></tr>
<tr><td>MPL-B520K-xx7xAA</td></tr>
<tr><td>MPL-B540D-xx7xAA, MPL-B540K-xx7xAA, MPL-B560F-xx7xAA</td><td>2090-CPxM7DF-14AAxx (standard, non-flex)
2090-CPxM7DF-14AFxx (continuous-flex)</td></tr>
<tr><td>MPL-B580F-xx7xAA, MPL-B580J-xx7xAA,
MPL-B640F-xx7xAA</td><td>2090-CPxM7DF-10AAxx (standard, non-flex)
2090-CPxM7DF-10AFxx (continuous-flex)</td></tr>
<tr><td>MPL-B660F-xx7xAA, MPL-B680D-xx7xAA
MPL-B960B-xx7xAA, MPL-B980B-xx7xAA</td><td>2090-CPxM7DF-08AAxx (standard, non-flex)
2090-CPxM7DF-08AAxx (continuous-flex)</td></tr>
<tr><td>MPL-B680F-xx7xAA, MPL-B680H-xx7xAA,
MPL-B860D-xx7xAA, MPL-B880C-xx7xAA
MPL-B960C-xx7xAA</td><td>2090-CPxM7DF-06AAxx (standard, non-flex)
2090-CPxM7DF-06AAxx (continuous-flex)</td></tr>
<tr><td>MPL-B880D-xx7xAA
MPL-B980C-xx7xAA</td><td>2090-CPxM7DF-04AAxx (standard, non-flex)
2090-CPxM7DF-04AAxx (continuous-flex)</td></tr>
</table>

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.
(2) Applies to Kinetix 5100 drives and MPL-B3*xxx*-M/S…MPL-B9*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 5100 drives and MPL-B15*xxx*-V/E…MPL-B2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 5100 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 Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

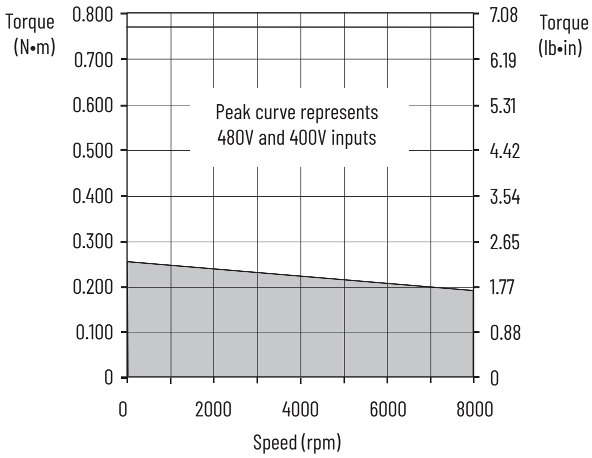
Kinetix MPL Motor Performance Specifications with Kinetix 5100 (400V-class) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** 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 5100 Drives (480V AC input)**
MPL-B1510V	8000	8000	0.95	0.26 (2.3)	3.10	0.77 (6.8)	0.16	2198-E4004-ERS
MPL-B1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-E4004-ERS
MPL-B1530U	7000	7000	2.0	0.90 (8.0)	7.20	2.82 (24.9)	0.39	2198-E4004-ERS
MPL-B210V	8000	8000	1.75	0.55 (4.9)	5.80	1.52 (13.4)	0.37	2198-E4004-ERS
MPL-B220T	6000	6000	3.30	1.61 (14.2)	11.3	4.74 (41.9)	0.62	2198-E4007-ERS
MPL-B230P	5000	5000	2.60	2.10 (18.6)	11.3	8.20 (73.0)	0.86	2198-E4007-ERS
MPL-B310P	5000	5000	2.4	1.6 (14.1)	7.10	3.6 (32.0)	0.77	2198-E4007-ERS
MPL-B320P	5000	5000	4.5	3.10 (27)	11.3	6.6 (58.4)	1.5	2198-E4007-ERS
					14.0	8.2 (72.5)		2198-E4015-ERS
MPL-B330P	5000	5000	6.1	4.18 (37)	19.0	11.1 (98.2)	1.8	2198-E4015-ERS
MPL-B420P	5000	5000	6.4	4.74 (42)	21.4	13.1 (116)	1.9	2198-E4015-ERS
					22.0	13.5 (119)		2198-E4020-ERS
MPL-B430P	5000	5000	9.2	6.55 (58)	29.4	18.2 (161)	2.2	2198-E4020-ERS
					32.0	19.8 (175)		2198-E4030-ERS
MPL-B4530F	3000	3000	7.0	8.25 (73)	21.0	20.3 (180)	2.1	2198-E4015-ERS
MPL-B4530K	4000	4000	11.0	8.25 (73)	31.0	20.3 (179)	2.6	2198-E4030-ERS
MPL-B4540F	3000	3000	9.1	10.20 (90)	29.0	27.1 (240)	2.6	2198-E4020-ERS
MPL-B4560F	3000	3000	11.8	14.0 (124)	36.0	34.4 (304)	3.2	2198-E4030-ERS
MPL-B520K	3500	4000	11.5	10.7 (95)	33.0	23.2 (205)	3.5	2198-E4030-ERS
MPL-B540D	2000	2000	10.5	19.4 (172)	23.0	41.0 (362)	3.4	2198-E4020-ERS
MPL-B540K	4000	4000	20.5	19.4 (172)	53.2	43.1 (381)	5.4	2198-E4055-ERS
					60.0	48.6 (430)		2198-E4075-ERS
MPL-B560F	3000	3000	20.6	26.8 (237)	53.2	53.0 (469)	5.5	2198-E4055-ERS
					68.0	67.8 (600)		2198-E4075-ERS
MPL-B580F	3000	3000	26.0	34.0 (301)	53.2	49.2 (435)	7.1	2198-E4055-ERS
					94.0	87.0 (770)		2198-E4150-ERS
MPL-B580J	3800	3800	32.0	34.0 (301)	53.2	45.8 (405)	7.9	2198-E4055-ERS
					94.0	81.0 (717)		2198-E4150-ERS
MPL-B640F	2000	3000	32.1	36.7 (325)	53.2	59.2 (524)	6.1	2198-E4055-ERS
					65.0	72.3 (640)		2198-E4075-ERS
MPL-B660F	2000	3000	38.5	48.0 (425)	75.4	79.4 (703)	6.1	2198-E4075-ERS
					96.0	101.1 (895)		2198-E4150-ERS
MPL-B680D	2000	2000	34.0	62.8 (556)	53.2	87.3 (772)	9.3	2198-E4055-ERS
					94.0	154.2 (1365)		2198-E4150-ERS
MPL-B680F	2000	3000	48.0	60.0 (531)	96.0	108.5 (960)	7.5	2198-E4150-ERS
MPL-B680H	2000	3500	51.0	60.0 (531)	140	146.9 (1300)	7.5	2198-E4150-ERS
MPL-B860D	2000	2000	47.5	83.0 (735)	95.5	152.5 (1350)	12.5	2198-E4150-ERS
MPL-B880C	1500	1500	47.5	110 (973)	97.5	203 (1797)	12.6	2198-E4150-ERS
MPL-B880D	2000	2000	67.0	110 (973)	96.0	147 (1301)	12.6	2198-E4150-ERS
MPL-B960B	1200	1200	42.5	130 (1150)	75.4	185 (1640)	12.7	2198-E4075-ERS
					94.0	231 (2044)		2198-E4150-ERS
MPL-B960C	1500	1500	55.0	124.3 (1100)	125	226 (2000)	14.8	2198-E4150-ERS
MPL-B980B	1000	1000	40.0	162.7 (1444)	75.4	223 (1973)	15.2	2198-E4075-ERS
					94.0	278 (2460)		2198-E4150-ERS
MPL-B980C	1500	1500	68.2	158.2 (1400)	140	271.2 (2400)	16.8	2198-E4150-ERS

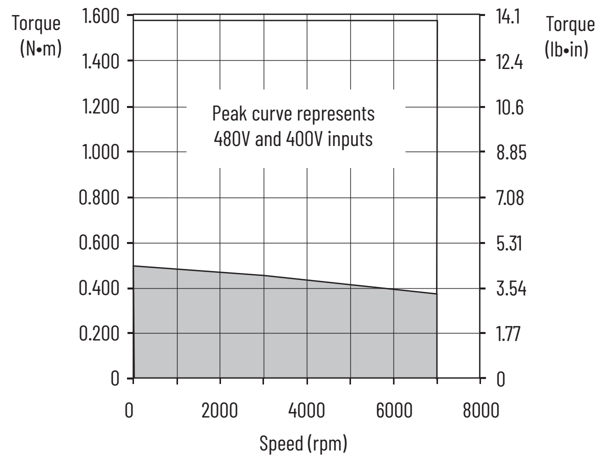
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves

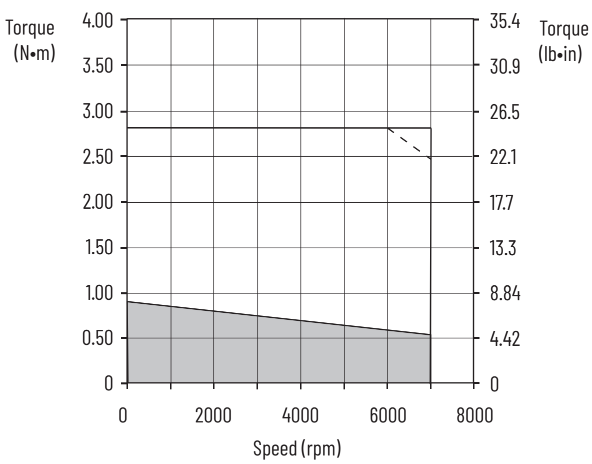
2198-E4004-ERS and MPL-B1510V



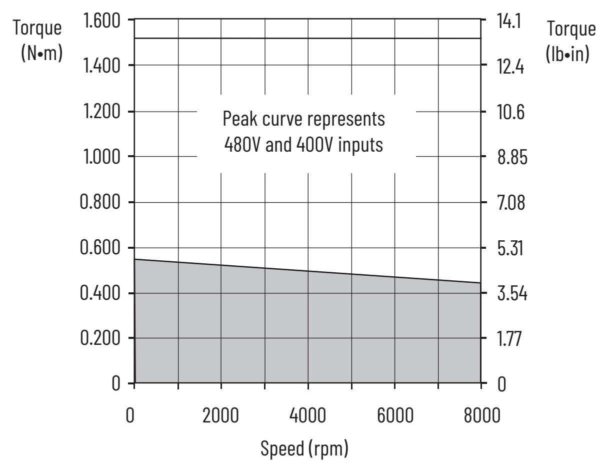
2198-E4004-ERS and MPL-B1520U



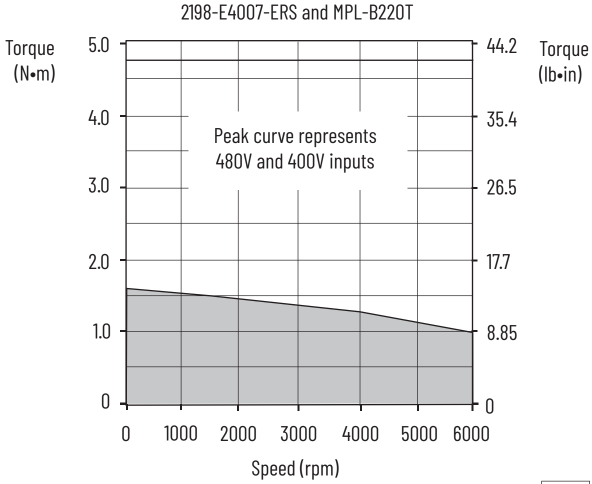
2198-E4004-ERS and MPL-B1530U



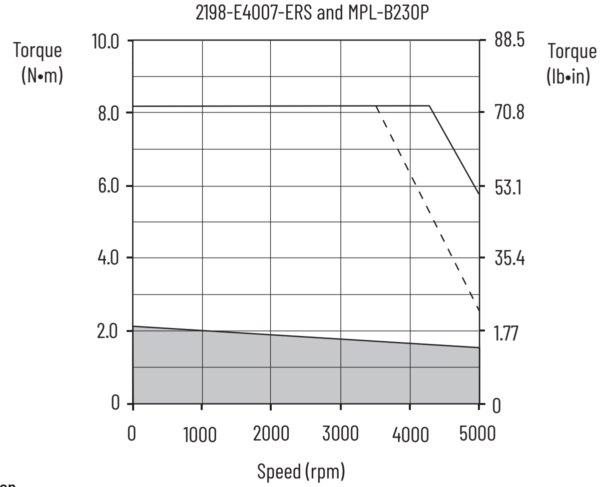
2198-E4004-ERS and MPL-B210V



2198-E4007-ERS and MPL-B220T



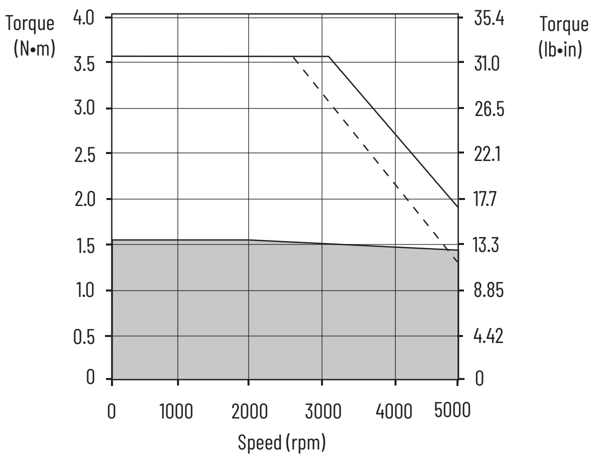
2198-E4007-ERS and MPL-B230P



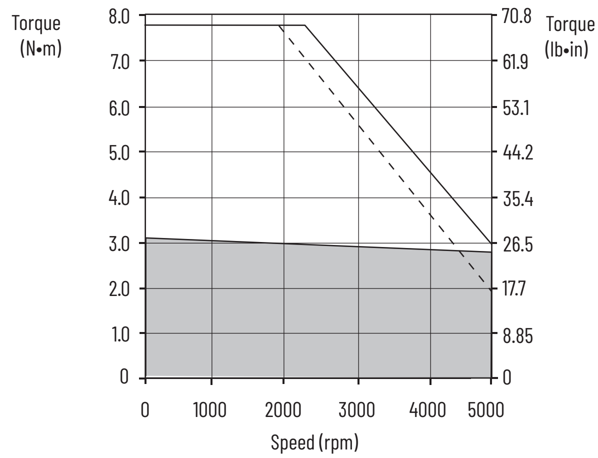
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

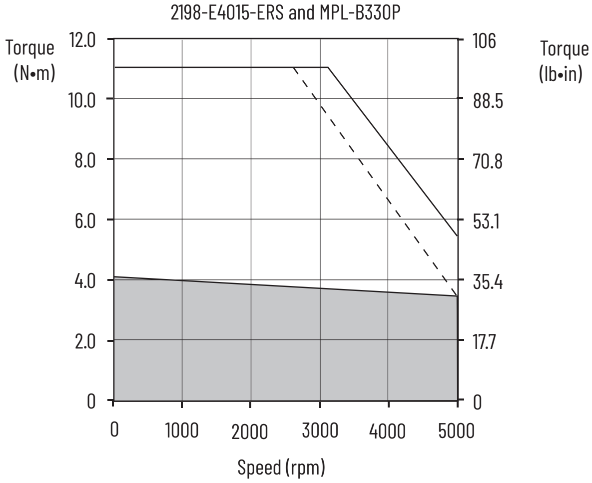
2198-E4007-ERS and MPL-B310P



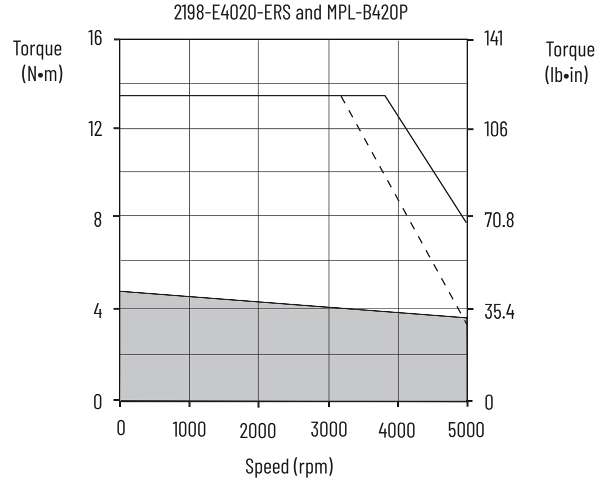
2198-E4015-ERS and MPL-B320P



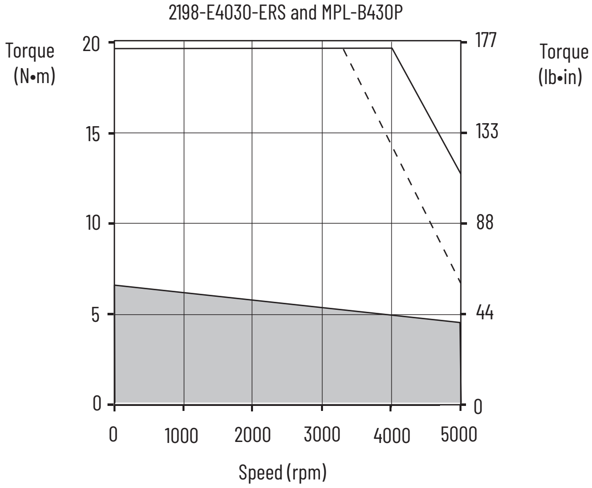
2198-E4015-ERS and MPL-B330P



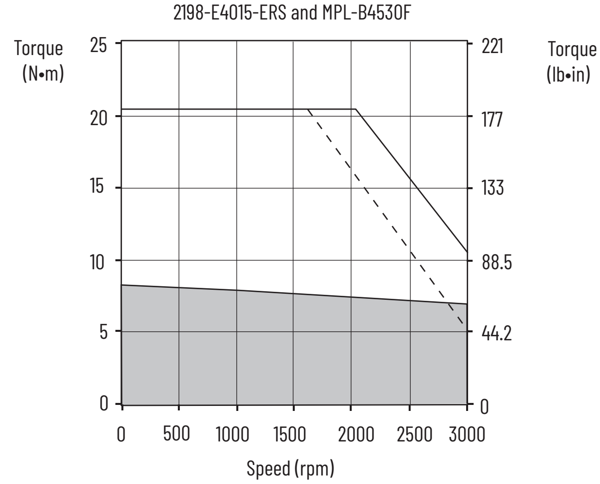
2198-E4020-ERS and MPL-B420P



2198-E4030-ERS and MPL-B430P



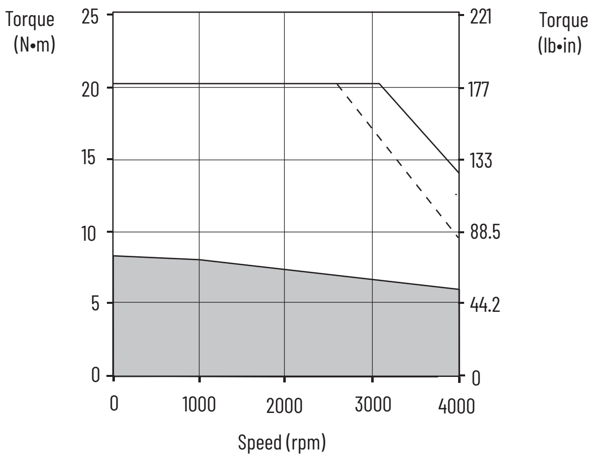
2198-E4015-ERS and MPL-B4530F



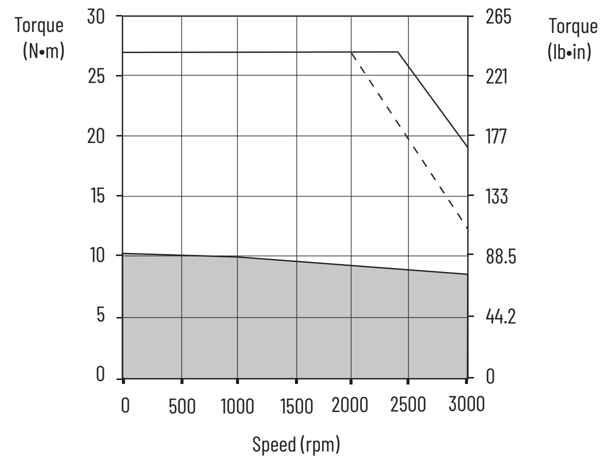
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

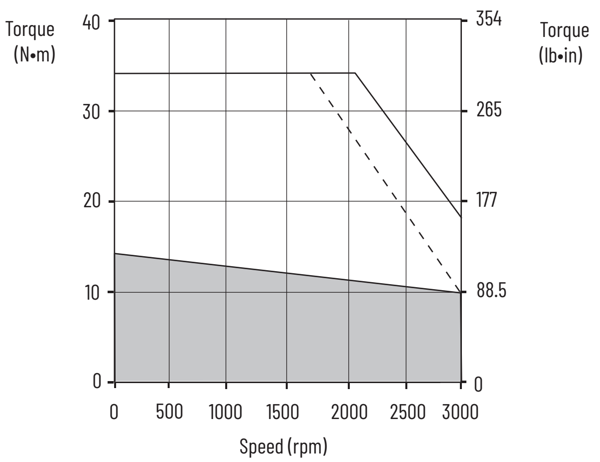
2198-E4030-ERS and MPL-B4530K



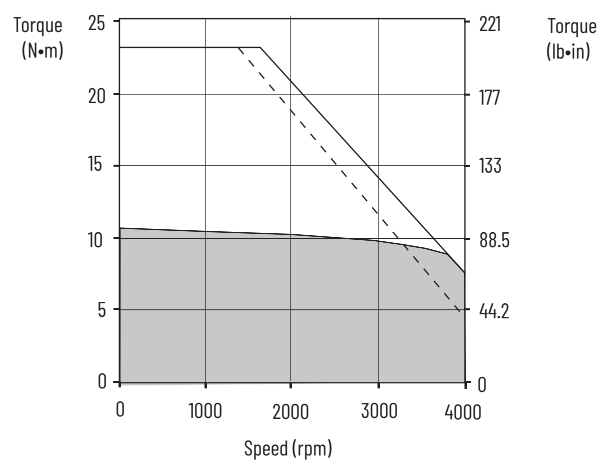
2198-E4020-ERS and MPL-B4540F



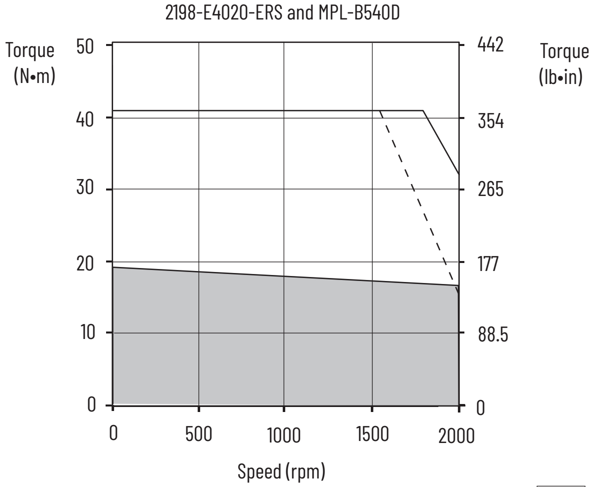
2198-E4030-ERS and MPL-B4560F



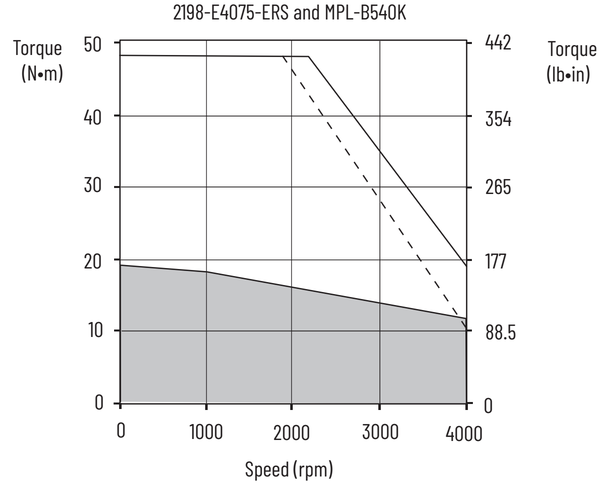
2198-E4030-ERS and MPL-B520K



2198-E4020-ERS and MPL-B540D



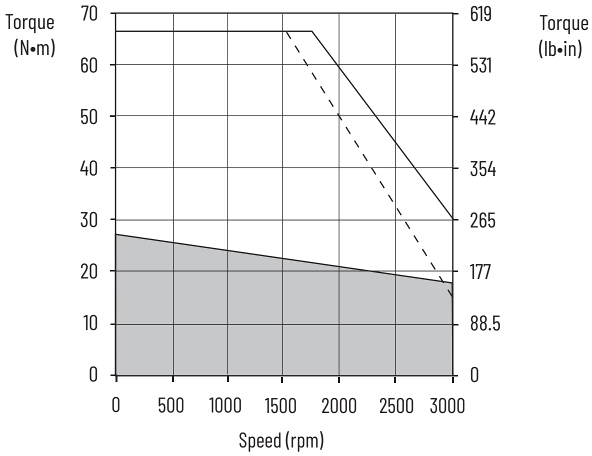
2198-E4075-ERS and MPL-B540K



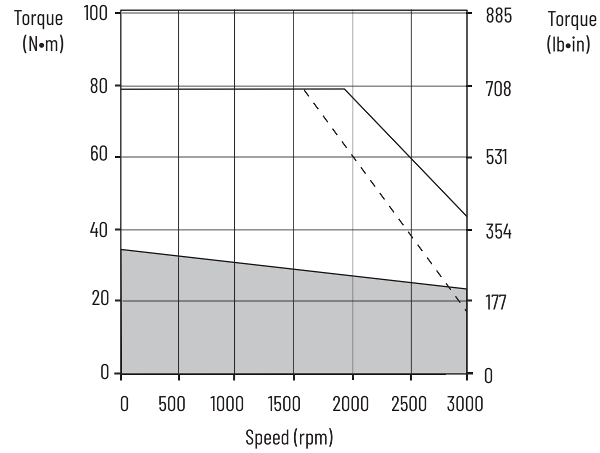
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

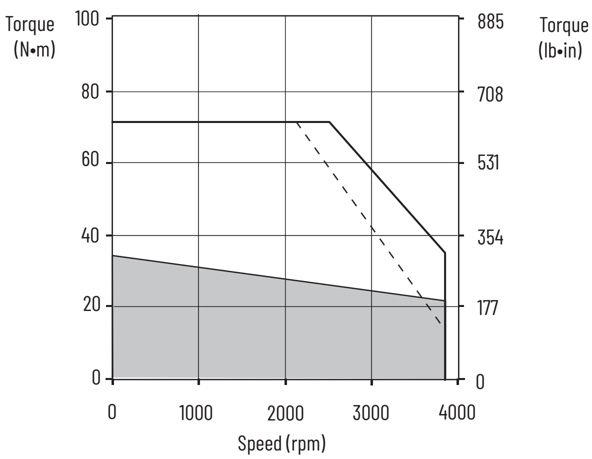
2198-E4075-ERS and MPL-B560F



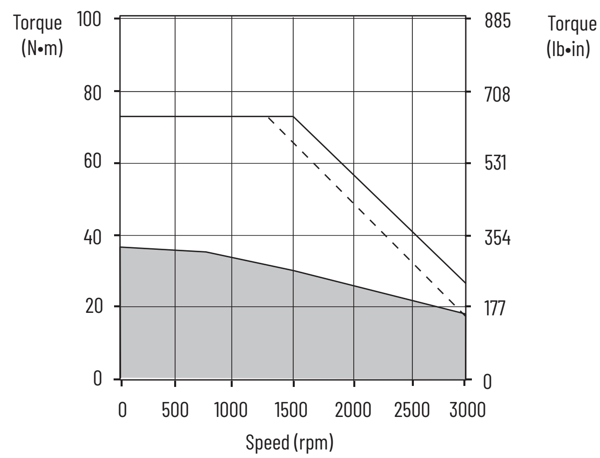
2198-E4150-ERS and MPL-B580F



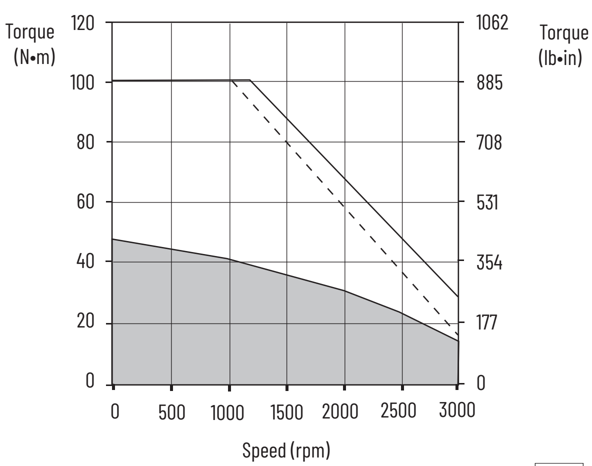
2198-E4150-ERS and MPL-B580J



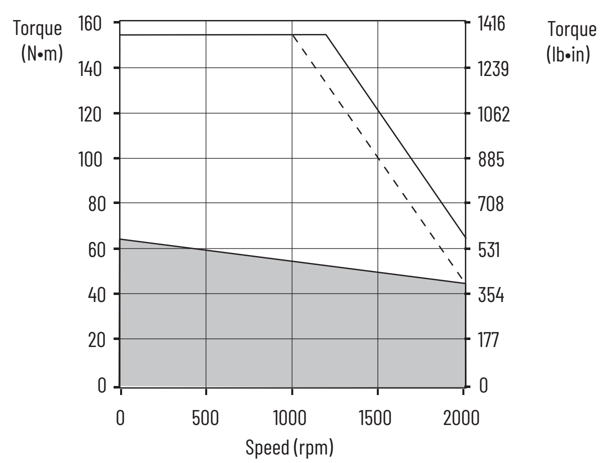
2198-E4075-ERS and MPL-B640F



2198-E4150-ERS and MPL-B660F



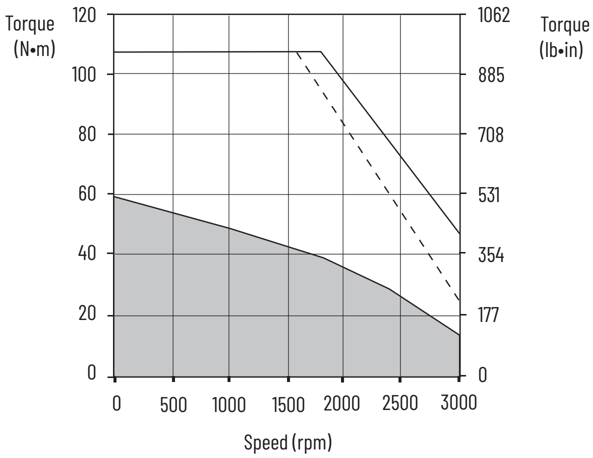
2198-E4150-ERS and MPL-B680D



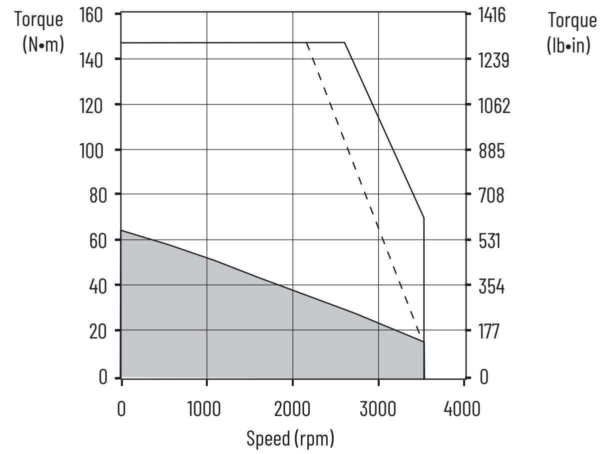
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

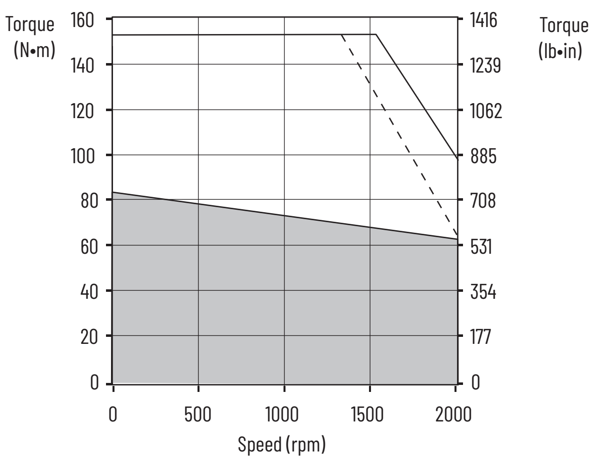
2198-E4150-ERS and MPL-B680F



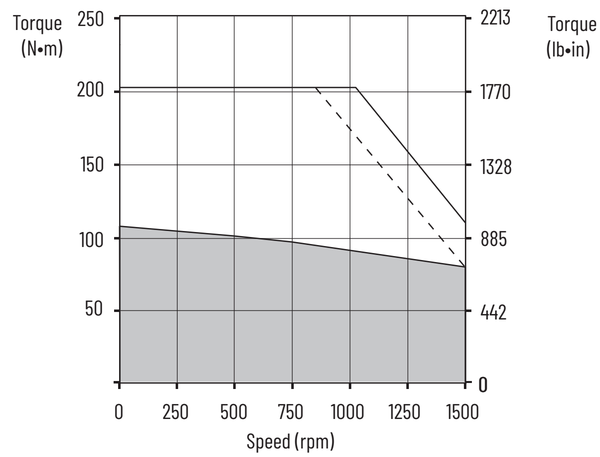
2198-E4150-ERS and MPL-B680H



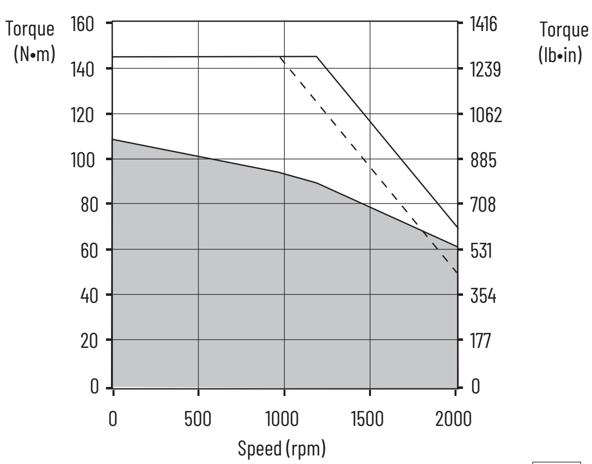
2198-E4150-ERS and MPL-B860D



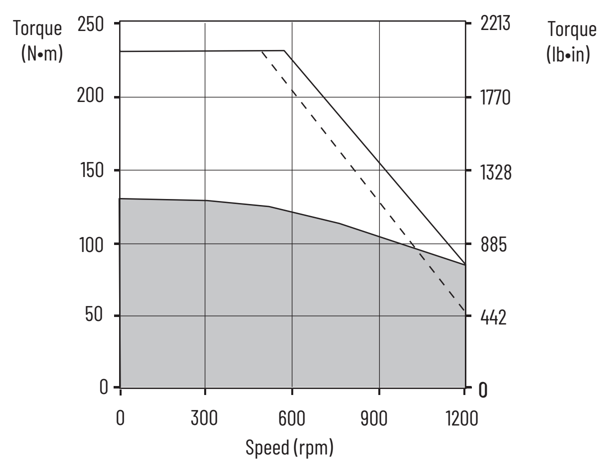
2198-E4150-ERS and MPL-B880C



2198-E4150-ERS and MPL-B880D



2198-E4150-ERS and MPL-B960B

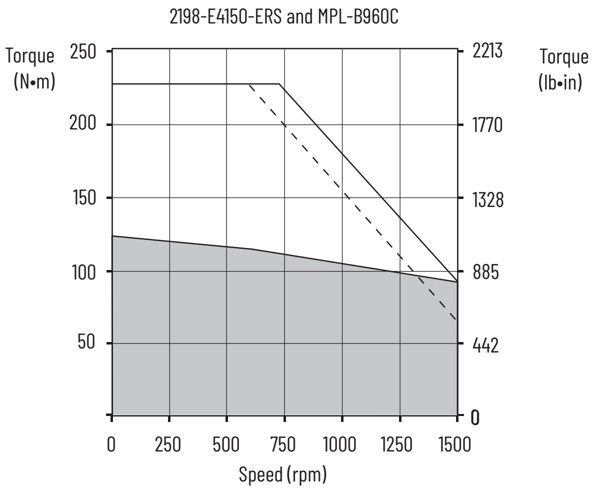


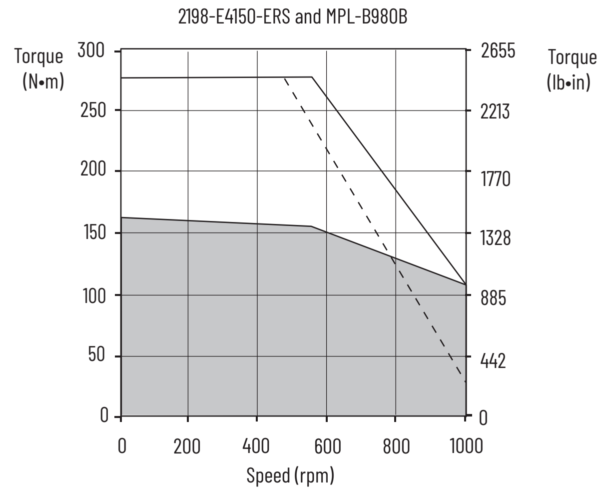
= Intermittent operating region

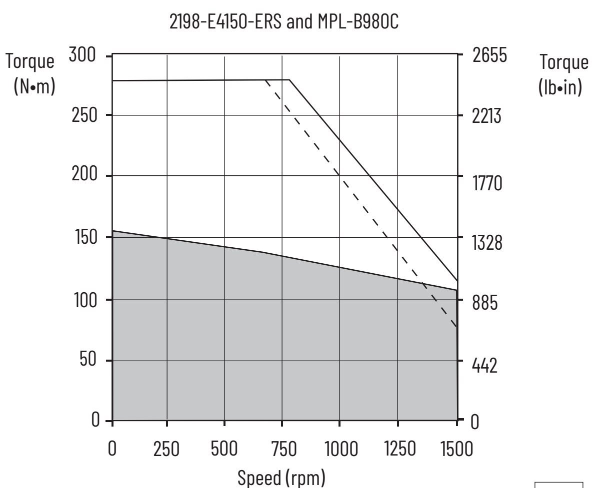
= Continuous operating region

= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPL Servo Motor Curves (continued)







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

Kinetix 5100 (200V-class) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix MPM (200V-class) medium-inertia servo motors with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPM Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable [1]
MPM-A1151M, MPM-A1152F, MPM-A1153F	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-A1302F	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPM-A1304F	2090-CPxM7DF-12AA*xx* (standard, non-flex)	
MPM-A1651F	2090-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-10AF*xx* (continuous-flex)	
MPM-A1652F, MPM-A1653F	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	
MPM-A2152F, MPM-A2153F, MPM-A2154C, MPM-A2154E	2090-CPBM7DF-06AA*xx* (standard, non-flex)	

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

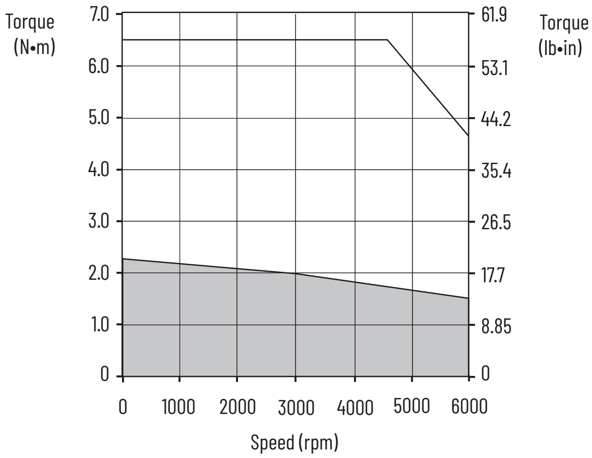
Kinetix MPM Motor Performance Specifications with Kinetix 5100 (200V-class) Drives

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 5100 Drives (230V AC input)
MPM-A1151M	4500	5000	6000	7.65	2.18 (19.3)	30.5	6.6 (58.4)	0.90	2198-E1015-ERS
MPM-A1152F	3000	4000	5000	11.93	4.7 (41.6)	44.8	13.5 (119)	1.40	2198-E1020-ERS
MPM-A1153F	3000	4000	5000	16.18	6.5 (57.5)	57.4	17.61 (156)	1.45	2198-E1020-ERS
						64.5	19.8 (175)		2198-E2030-ERS
MPM-A1302F	3000	4000	4500	17.28	5.99 (53.0)	50.28	13.5 (119)	1.65	2198-E1020-ERS
MPM-A1304F	3000	3500	4000	19.65	9.3 (82.0)	48.39	19.3 (171)	2.20	2198-E2030-ERS
MPM-A1651F	3000	3000	5000	30.96	10.7 (94.7)	73.8	20.5 (181)	2.50	2198-E2055-ERS
MPM-A1652F	3000	3500	4000	33.54	13.5 (119)	103.2	36.0 (319)	4.03	2198-E2055-ERS
MPM-A1653F	3000	3000	4000	42.4	18.6 (165)	119.1	42.0 (372)	5.10	2198-E2055-ERS
MPM-A2152F	3000	2000	4000	58.4	27.0 (239)	125.8	56.0 (495)	5.20	2198-E2055-ERS
MPM-A2153F	3000	2000	3600	59.65	34.0 (301)	120.4	58.0 (513)	5.80	2198-E2075-ERS
MPM-A2154C	1500	1750	2000	58.68	55.0 (487)	127.3	106 (938)	6.50	2198-E2075-ERS
MPM-A2154E	2250	2000	3000	59.67	44.0 (389)	128.2	84.0 (743)	7.00	2198-E2075-ERS

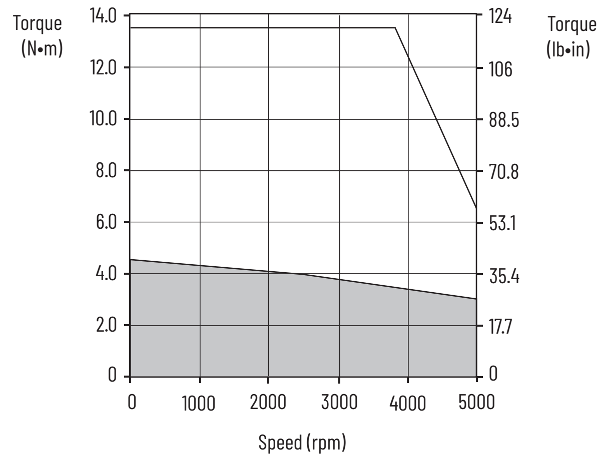
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix MPM Servo Motor Curves

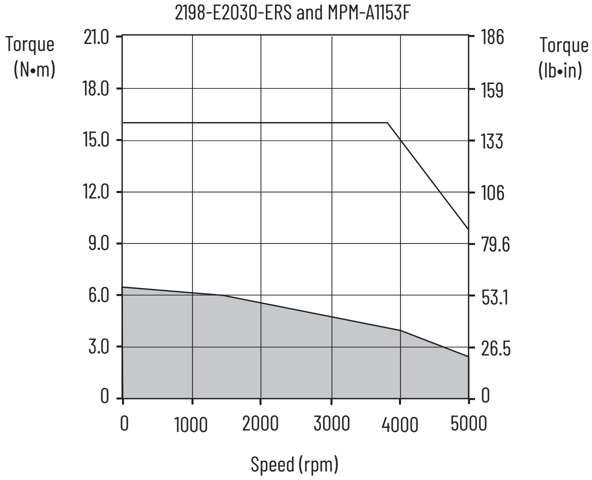
2198-E1015-ERS and MPM-A1151M



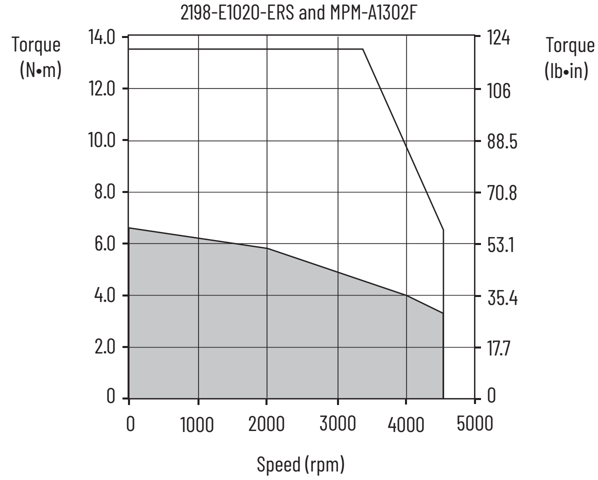
2198-E1020-ERS and MPM-A1152F



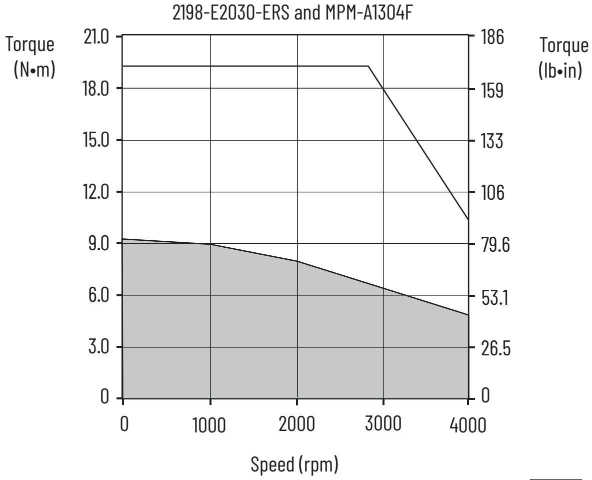
2198-E2030-ERS and MPM-A1153F



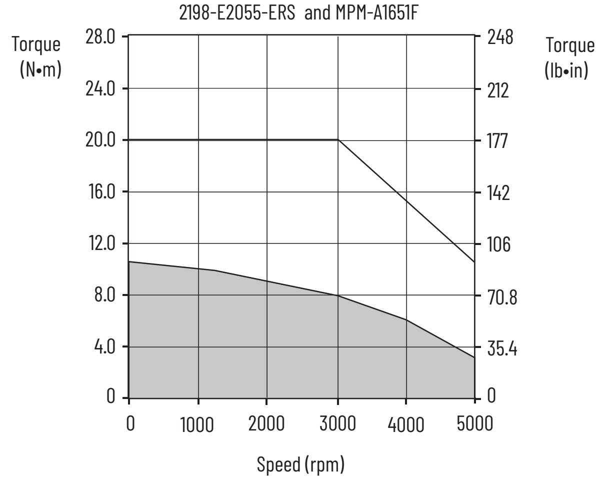
2198-E1020-ERS and MPM-A1302F



2198-E2030-ERS and MPM-A1304F



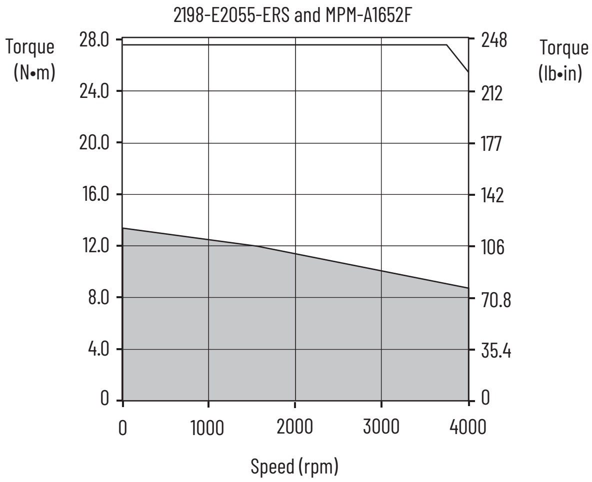
2198-E2055-ERS and MPM-A1651F

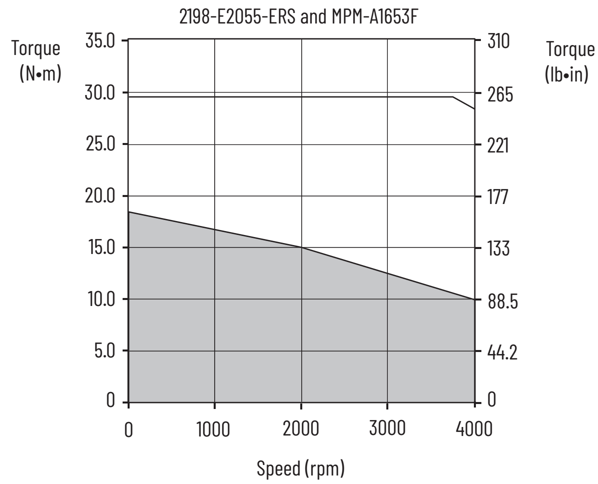


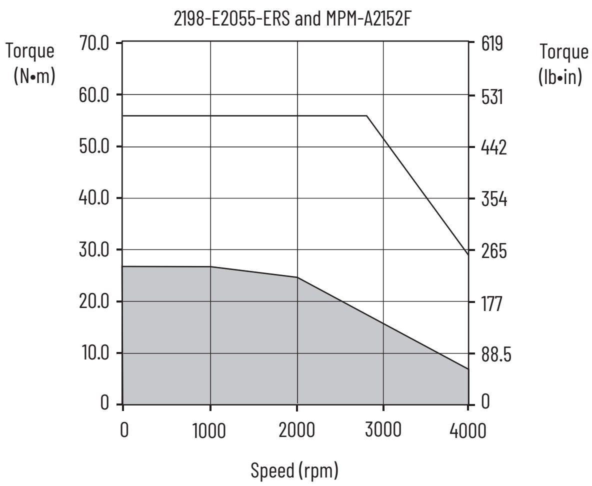
= Intermittent operating region

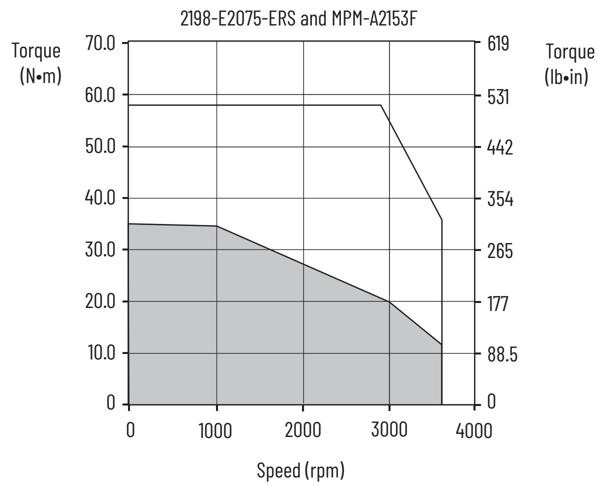
= Continuous operating region

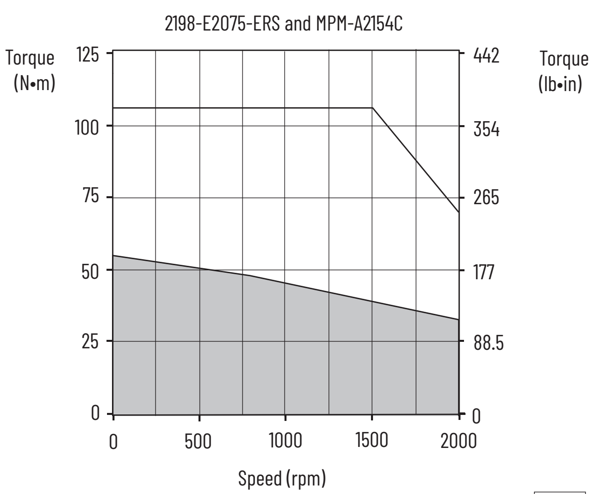
Kinetix 5100 (200V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

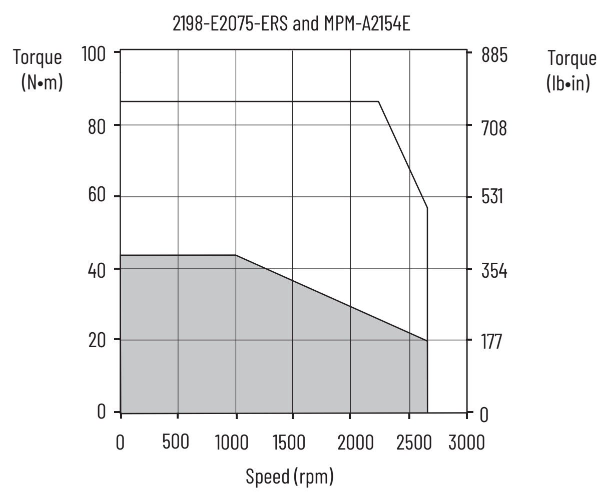












= Intermittent operating region
= Continuous operating region

Kinetix 5100 (400V-class) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 400 and 480V, nominal input) when matched with Kinetix MPM (400V-class) medium-inertia motors with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix MPM Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPM-B1151*x*, MPM-B1152*x*, MPM-B1153E, MPM-B1153F	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* or (2) 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-B1302M, MPM-B1304C, MPM-B1304E		
MPM-B1651C, MPM-B1652C		
MPM-B1153T	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPM-B1302T, MPM-B1304M		
MPM-B1651F, MPM-B1653C		
MPM-B1651M, MPM-B1652E, MPM-B1652F, MPM-B1653E	2090-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-10AF*xx* (continuous-flex)	
MPM-B2152C, MPM-B2153B		
MPM-B1653F	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	
MPM-B2152F, MPM-B2152M, MPM-B2153E, MPM-B2153F MPM-B2154B, MPM-B2154E, MPM-B2154F		

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.
(2) Applies to Kinetix 5100 drives and MPM-B1*xxxx*-M/S through MPM-B2*xxxx*-M/S motors with absolute high-resolution feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix MPM Motor Performance with Kinetix 5100 (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 5100 Drives (480V AC input)
MPM-B1151F	3000	4000	5000	2.71	2.3 (20.3)	9.91	6.6 (58.0)	0.75	2198-E4007-ERS
MPM-B1151T	6000	5000	7000	5.62	2.3 (20.3)	20.53	5.9 (52.2)	0.90	2198-E4015-ERS
MPM-B1152C	1500	2500	3000	3.61	5.0 (44.2)	11.30	12.3 (109)	1.20	2198-E4007-ERS
						12.42	13.5 (119)		2198-E4015-ERS
MPM-B1152F	3000	4000	5200	6.17	5.0 (44.2)	21.19	13.5 (119)	1.40	2198-E4015-ERS
MPM-B1152T	6000	4000	7000	11.02	5.0 (44.2)	36.90	13.1 (116)	1.40	2198-E4030-ERS
						37.90	13.5 (119)		2198-E4055-ERS
MPM-B1153E	2250	3000	3500	6.21	6.5 (57.5)	21.61	19.8 (175)	1.40	2198-E4015-ERS
MPM-B1153F	3000	4000	5500	9.20	6.5 (57.5)	29.40	18.19 (161)	1.40	2198-E4020-ERS
						32.0	19.8 (175)		2198-E4030-ERS
MPM-B1153T	6000	4000	7000	15.95	6.5 (57.5)	36.90	11.0 (97.1)	1.45	2198-E4030-ERS
						55.47	16.5(146)		2198-E4075-ERS
MPM-B1302F	3000	4000	4500	8.57	6.6 (58.4)	21.40	13.1 (116)	1.65	2198-E4015-ERS
						22.12	13.5 (119)		2198-E4020-ERS
MPM-B1302M	4500	4000	6000	12.57	6.6 (58.4)	32.44	13.5 (119)	1.65	2198-E4030-ERS
MPM-B1302T	6000	4000	7000	16.83	6.7 (59.3)	36.90	11.5 (102)	1.65	2198-E4030-ERS
						43.44	13.5 (119)		2198-E4055-ERS
MPM-B1304C	1500	1870	2750	7.00	10.3 (91.1)	21.40	26.0 (230)	2.00	2198-E4015-ERS
						22.30	27.1 (240)		2198-E4020-ERS
MPM-B1304E	2250	3500	4000	10.49	9.9 (87.6)	29.40	23.3 (206)	2.20	2198-E4020-ERS
				10.75	10.2 (90.3)	34.25	27.1 (240)		2198-E4030-ERS
MPM-B1304M	4500	3500	6000	19.02	10.4 (92.0)	36.90	16.5 (146)	2.20	2198-E4030-ERS
						60.60	27.1 (240)		2198-E4075-ERS
MPM-B1651C	1500	3000	3500	10.21	11.4 (101)	29.29	23.2 (205)	2.50	2198-E4020-ERS

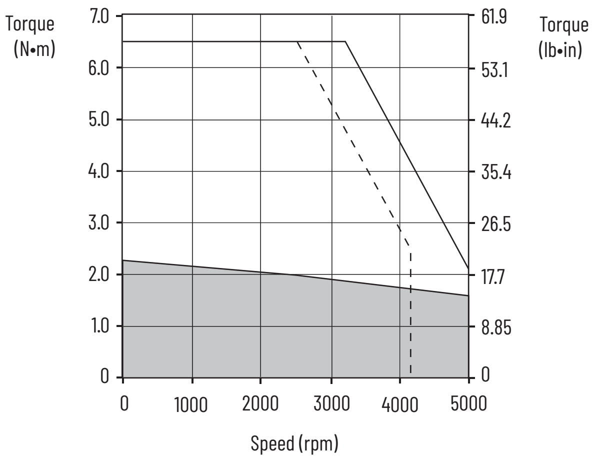
Kinetix MPM Motor Performance with Kinetix 5100 (400V-class) Drives (continued)

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 5100 Drives (480V AC input)**
MPM-B1651F	3000	3000	5000	17.75	11.4 (101)	36.90	16.8 (149)	2.50	2198-E4030-ERS
						50.93	23.2 (205)		2198-E4055-ERS
MPM-B1651M	4500	3000	5000	22.46	11.4 (101)	36.90	15.0 (133)	2.50	2198-E4055-ERS
						56.89	23.2 (205)		2198-E4075-ERS
MPM-B1652C	1500	2500	2500	11.51	16.0 (142)	33.63	40.0 (354)	3.80	2198-E4030-ERS
MPM-B1652E	2250	3500	3500	20.94	21.1 (187)	53.20	42.2 (374)	4.30	2198-E4055-ERS
						60.53	48.0 (425)		2198-E4075-ERS
MPM-B1652F	3000	3500	4500	28.74	21.1 (187)	75.39	43.02 (381)	4.30	2198-E4075-ERS
						84.12	48.0 (425)		2198-E4150-ERS
MPM-B1653C	1500	2000	2500	20.05	26.7 (236)	36.90	42.2 (374)	4.60	2198-E4030-ERS
						59.26	67.8 (600)		2198-E4075-ERS
MPM-B1653E	2250	3000	3500	27.00	26.8 (237)	53.20	45.2 (400)	5.10	2198-E4055-ERS
						72.97	62.0 (549)		2198-E4075-ERS
MPM-B1653F	3000	3000	4000	34.94	31.0 (274)	53.20	31.6 (280)	5.10	2198-E4055-ERS
						94.36	56.1 (496)		2198-E4150-ERS
MPM-B2152C	1500	2000	2500	27.40	36.7 (325)	53.20	69.3 (613)	5.60	2198-E4055-ERS
						55.49	72.3 (640)		2198-E4075-ERS
MPM-B2152F	3000	2500	4500	43.54	34.1 (302)	98.06	72.2 (639)	5.90	2198-E4150-ERS
MPM-B2152M	4500	2500	5000	44.58	34.1 (302)	76.37	50.0 (442)	5.90	2198-E4150-ERS
MPM-B2153B	1250	1750	2000	24.06	48.0 (425)	53.20	89.6 (793)	6.80	2198-E4055-ERS
						60.0	101.1 (895)		2198-E4075-ERS
MPM-B2153E	2250	2000	3000	39.63	47.9 (424)	75.40	77.4 (685)	7.20	2198-E4075-ERS
						98.43	101 (895)		2198-E4150-ERS
MPM-B2153F	3000	2000	3800	43.86	45.6 (403)	98.4	98.9 (875)	7.20	2198-E4150-ERS
MPM-B2154B	1250	1750	2000	35.46	62.7 (555)	75.40	118 (1048)	6.90	2198-E4075-ERS
						98.02	154 (1363)		2198-E4150-ERS
MPM-B2154E	2250	2000	3000	43.68	55.9 (495)	98.37	112 (991)	7.50	2198-E4150-ERS
MPM-B2154F	3000	2000	3300	44.40	56.2 (497)	83.86	87.9 (778)	7.50	2198-E4150-ERS

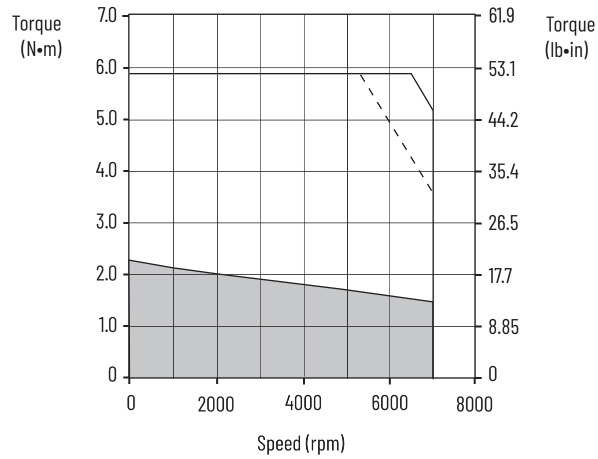
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves

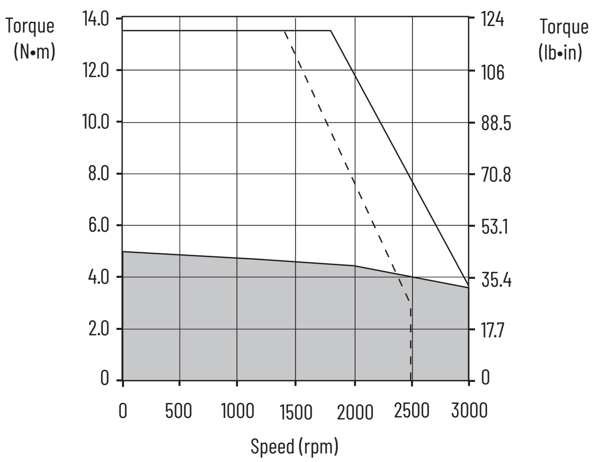
2198-E4007-ERS and MPM-B1151F



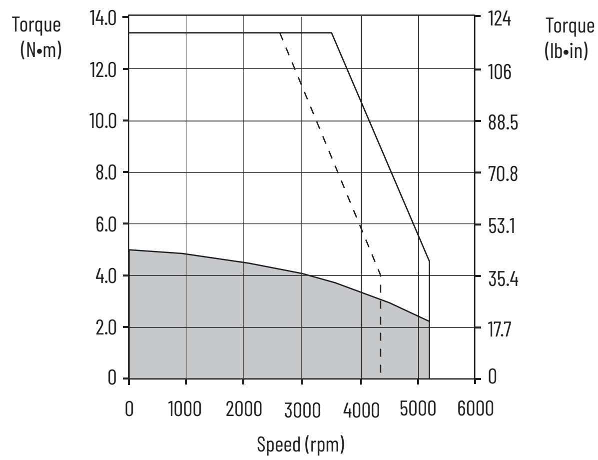
2198-E4015-ERS and MPM-B1151T



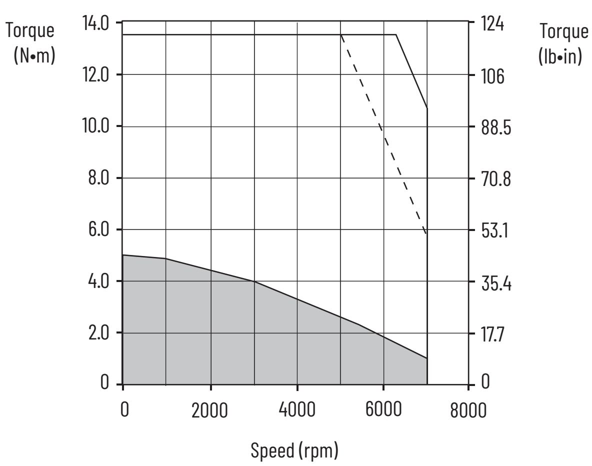
2198-E4015-ERS and MPM-B1152C



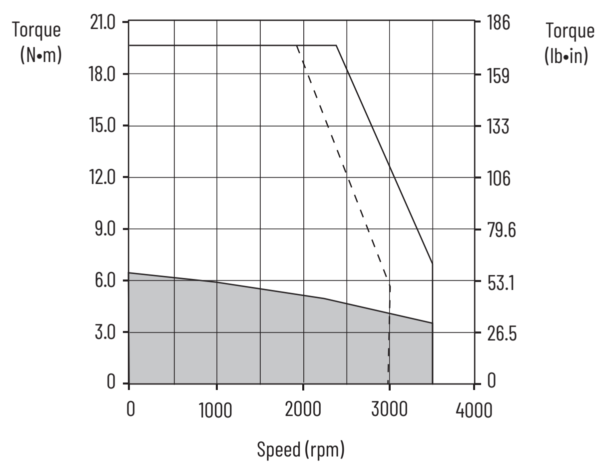
2198-E4015-ERS and MPM-B1152F



2198-E4055-ERS and MPM-B1152T



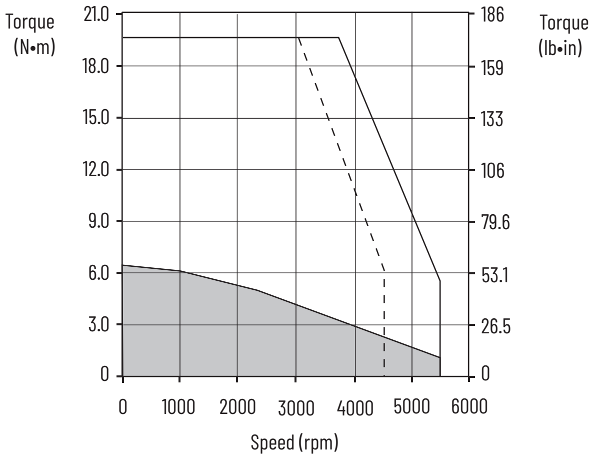
2198-E4015-ERS and MPM-B1153E



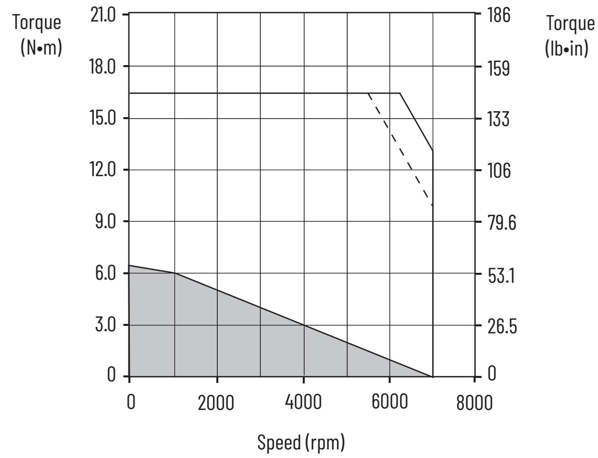
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

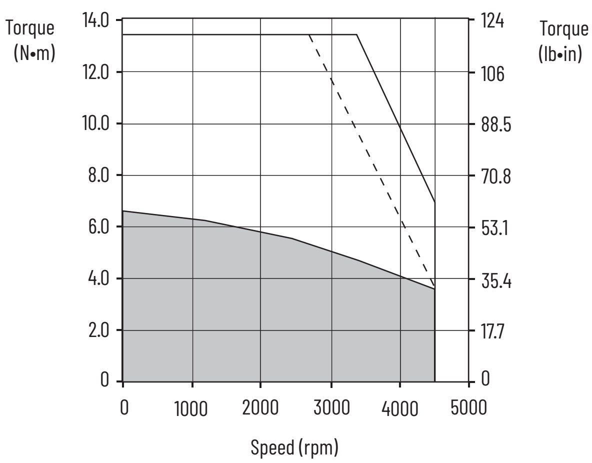
2198-E4020-ERS and MPM-B1153F



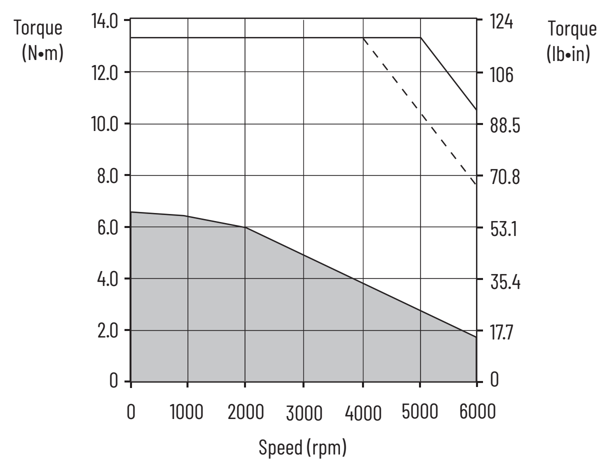
2198-E4075-ERS and MPM-B1153T



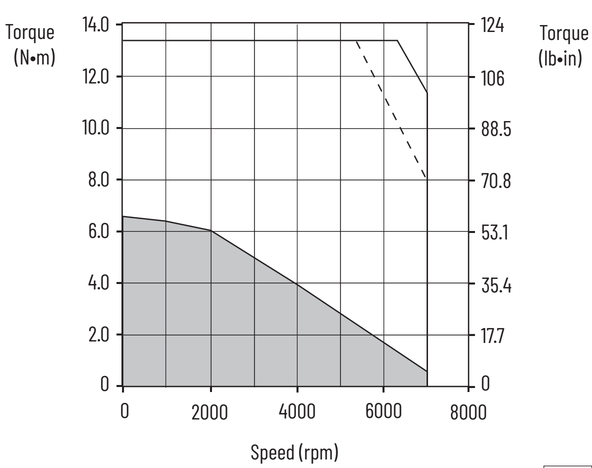
2198-E4020-ERS and MPM-B1302F



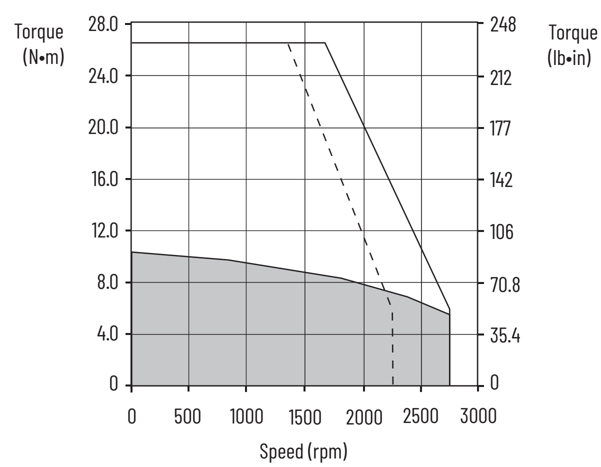
2198-E4030-ERS and MPM-B1302M



2198-E4055-ERS and MPM-B1302T

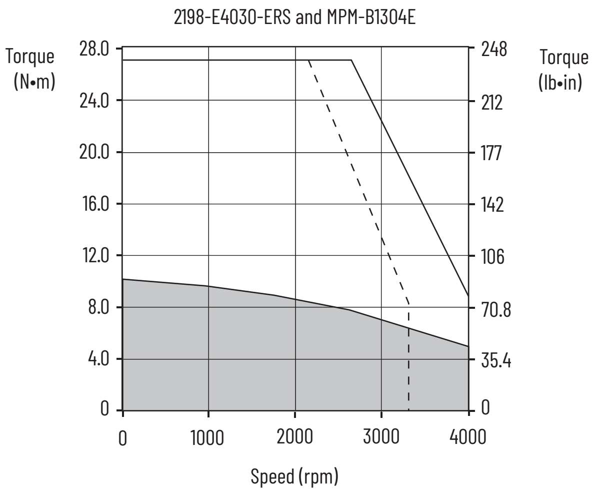


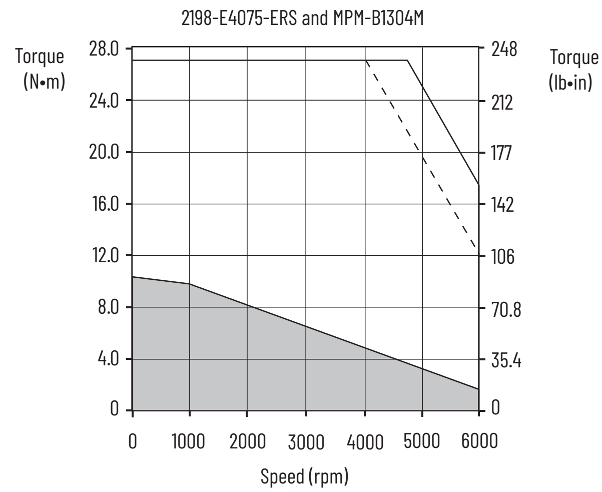
2198-E4020-ERS and MPM-B1304C

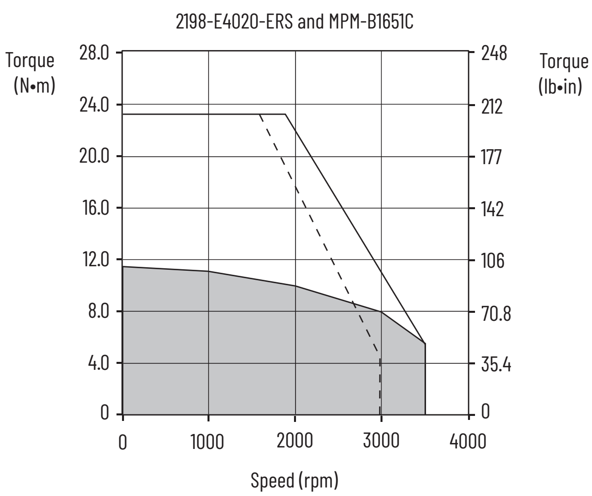


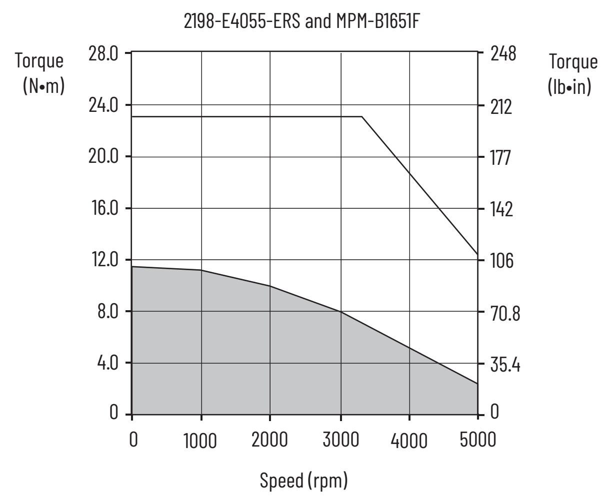
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

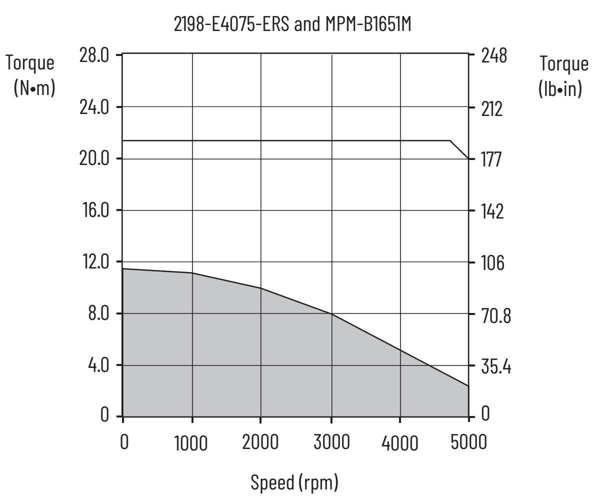
Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

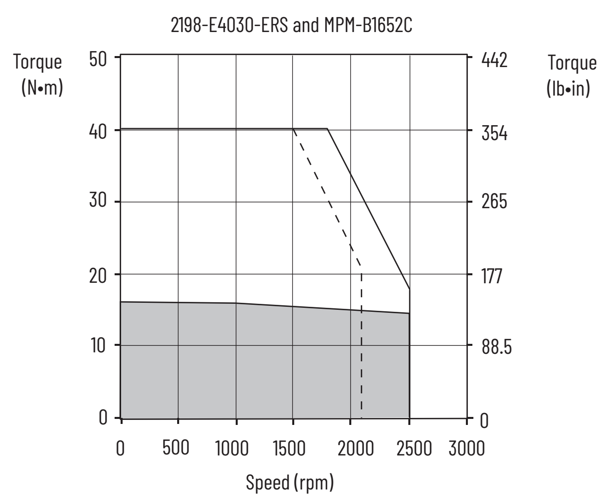








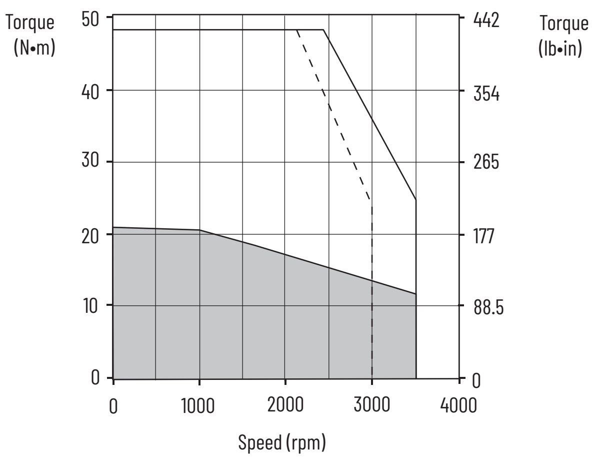




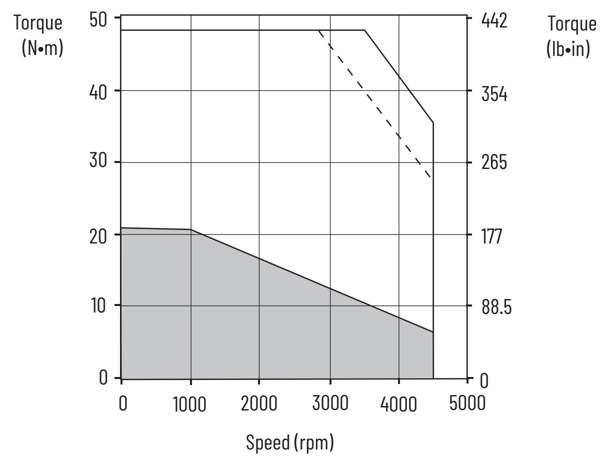
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

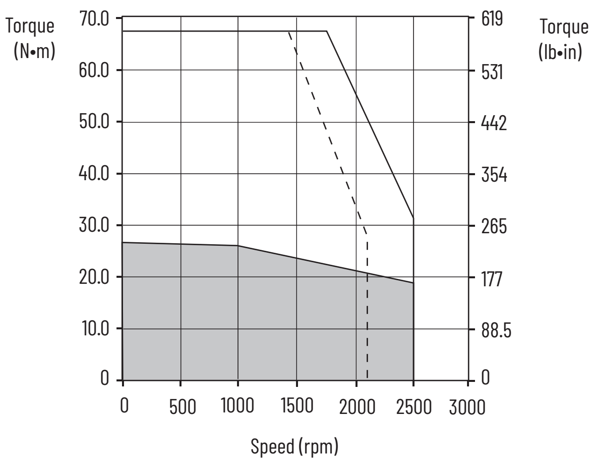
2198-E4075-ERS and MPM-B1652E



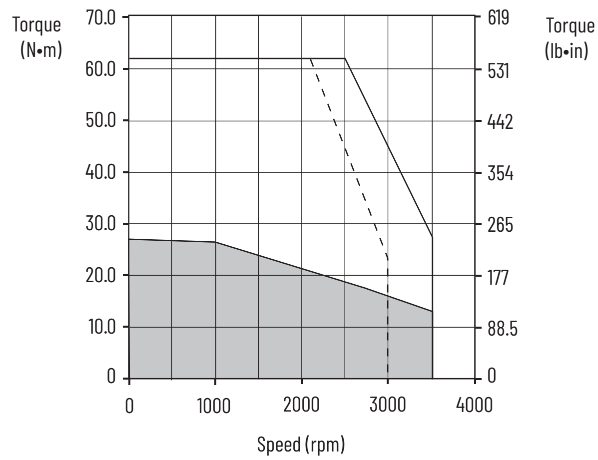
2198-E4075-ERS and MPM-B1652F



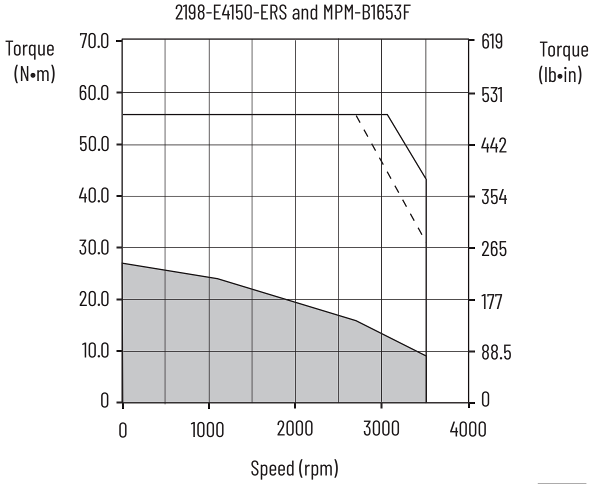
2198-E4075-ERS and MPM-B1653C



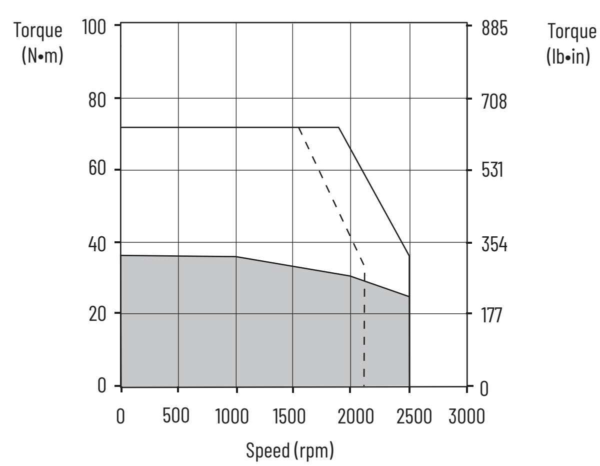
2198-E4075-ERS and MPM-B1653E



2198-E4150-ERS and MPM-B1653F



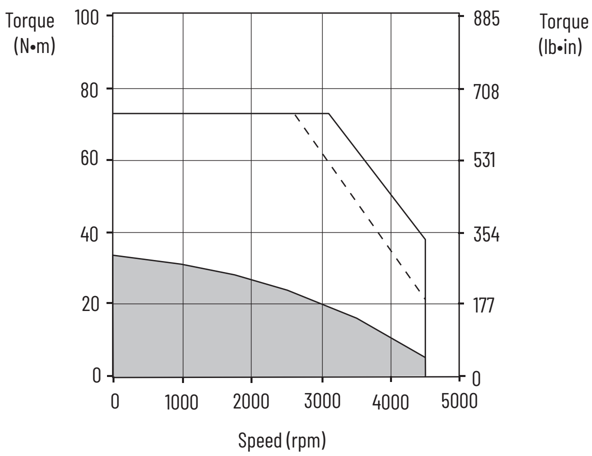
2198-E4075-ERS and MPM-B2152C



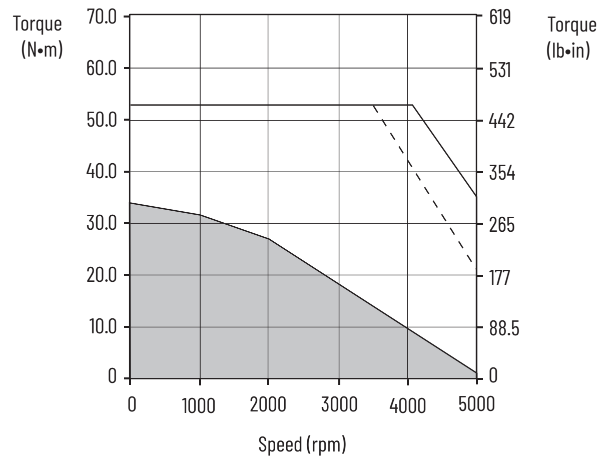
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

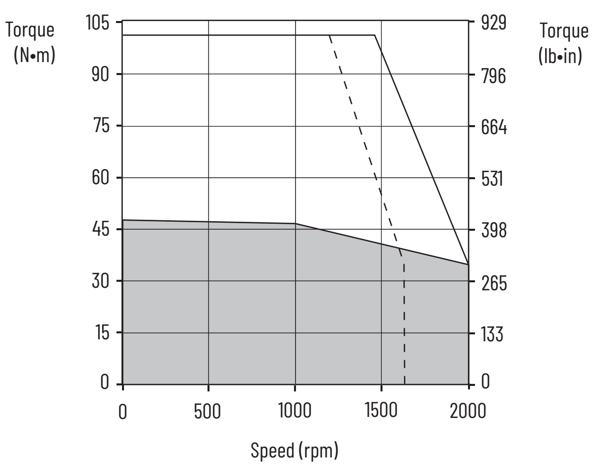
2198-E4150-ERS and MPM-B2152F



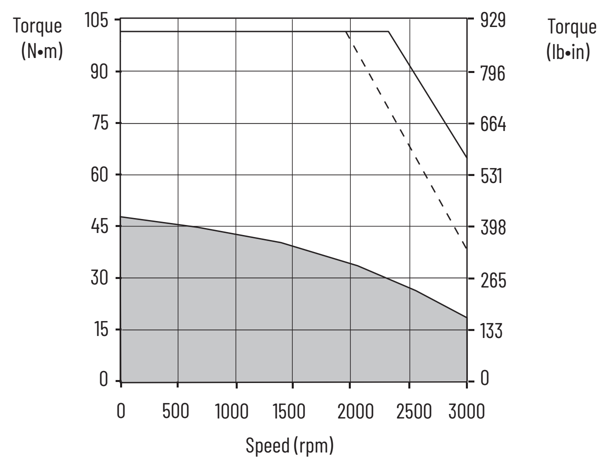
2198-E4150-ERS and MPM-B2152M



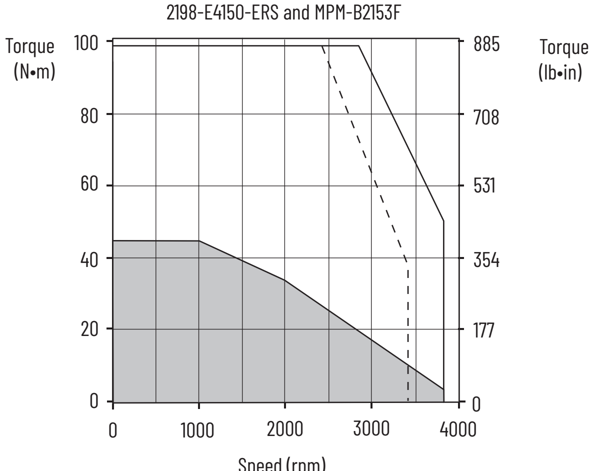
2198-E4055-ERS and MPM-B2153B



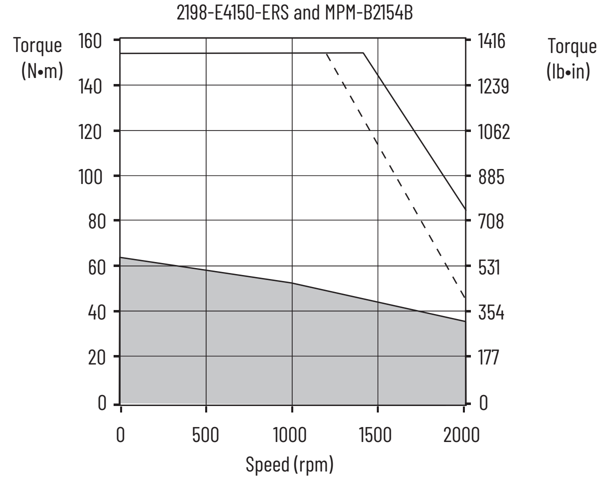
2198-E4150-ERS and MPM-B2153E



2198-E4150-ERS and MPM-B2153F

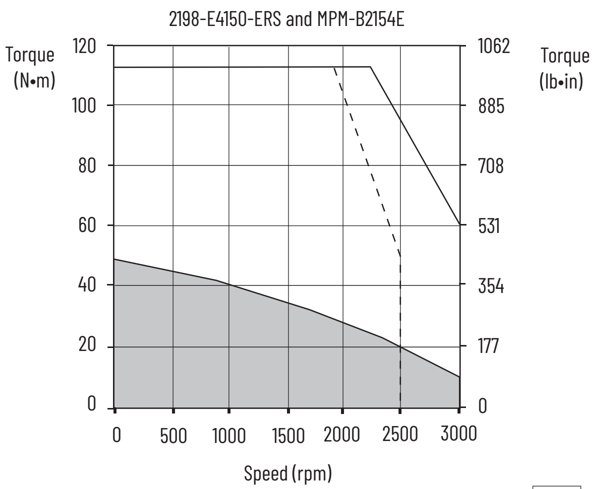


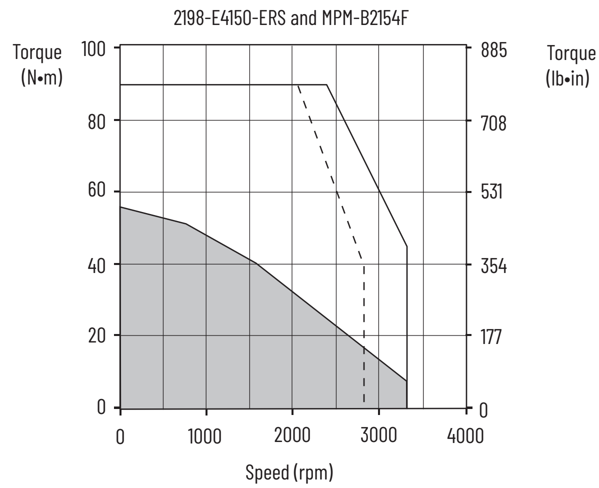
2198-E4150-ERS and MPM-B2154B



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

Kinetix 5100 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)





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

Kinetix 5100 (200V-class) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix MPF (200V-class) servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPF Servo Motor and Cable Combinations

Rotary Motor (200V-class) Cat. No.	**Motor Power/Brake Cable**	**Motor Feedback Cable** [1]
MPF-A310P, MPF-A320H, MPF-A320P, MPF-A330P	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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		
MPF-A430P MPF-A4540F, MPF-A4530K	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPF-A540K	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

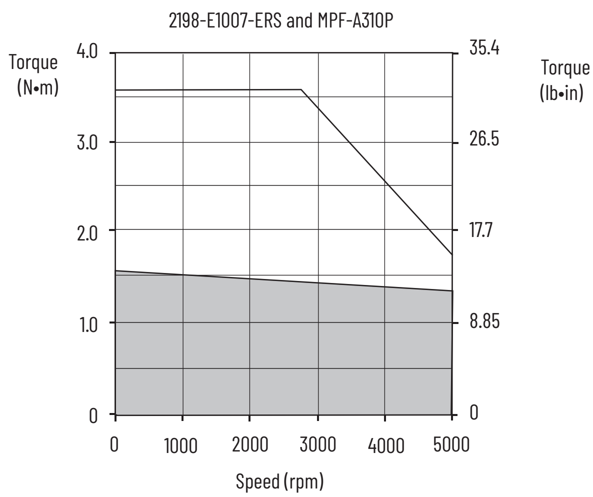
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

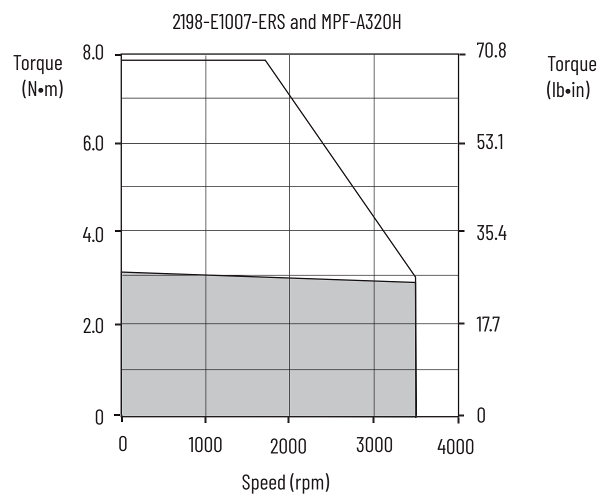
Kinetix MPF Motor Performance Specifications with Kinetix 5100 (200V-class) Drives

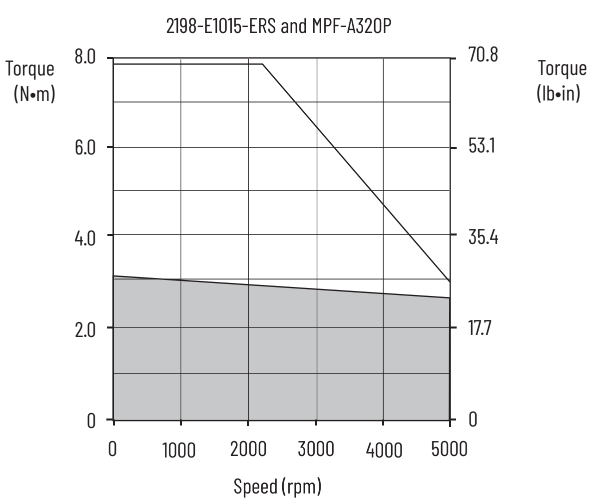
Rotary Motor Cat. No.	**Rated Speed** rpm	**Speed, max** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW	**Kinetix 5100 Drives (230V AC input)**
MPF-A310P	4750	5000	4.85	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-E1007-ERS
MPF-A320H	3350	3500	6.10	3.05 (27.0)	19.3	7.91 (70.0)	1.0	2198-E1007-ERS
MPF-A320P	4750	5000	9.00	3.05 (27.0)	29.5	7.91 (70.0)	1.3	2198-E1015-ERS
MPF-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.10 (98.2)	1.6	2198-E1020-ERS
MPF-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.80 (175)	1.8	2198-E1020-ERS
MPF-A430P	5000	5000	16.80	5.99 (53.0)	57.4	16.96 (150)	1.9	2198-E1020-ERS
					67.0	19.80 (175)		2198-E2030-ERS
MPF-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.30 (179)	2.3	2198-E2030-ERS
MPF-A4540F	3000	3000	18.40	10.20 (90.3)	57.4	27.10 (239)	2.5	2198-E1020-ERS
MPF-A540K	4000	4000	41.50	19.40 (172)	120.0	48.60 (430)	4.1	2198-E2055-ERS

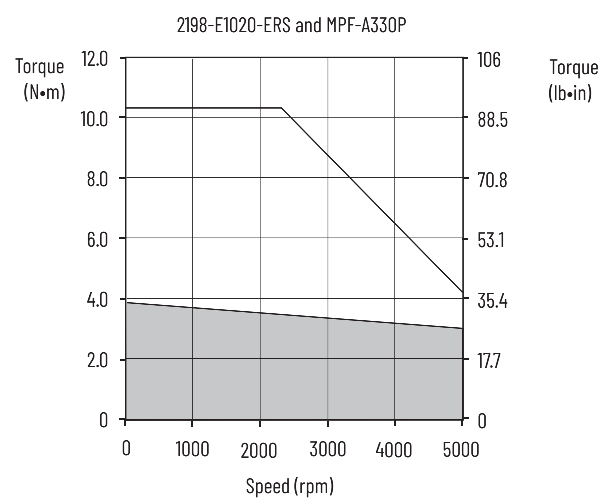
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix MPF Servo Motor Curves



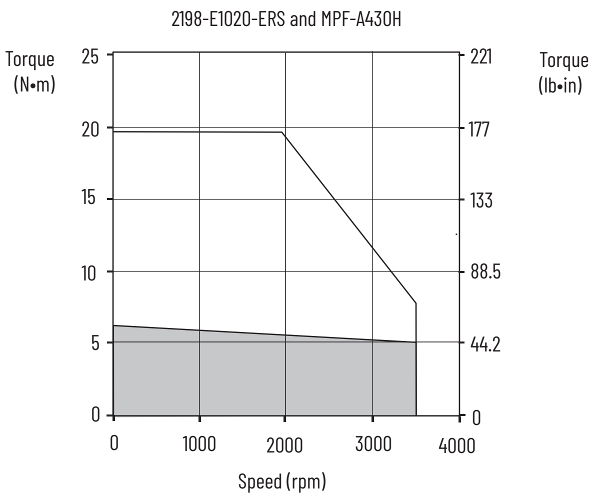


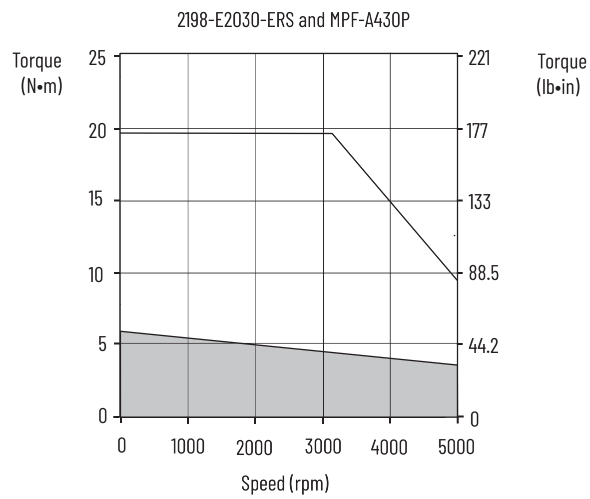


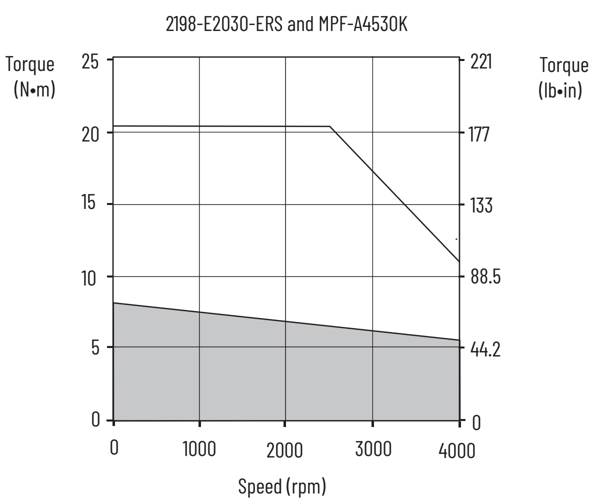


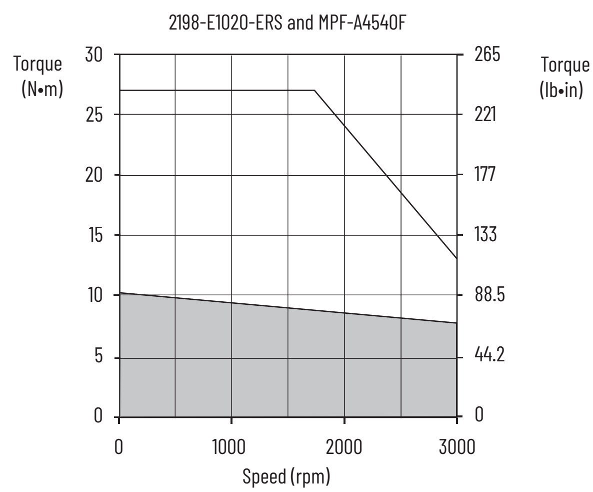
= Intermittent operating region
= Continuous operating region

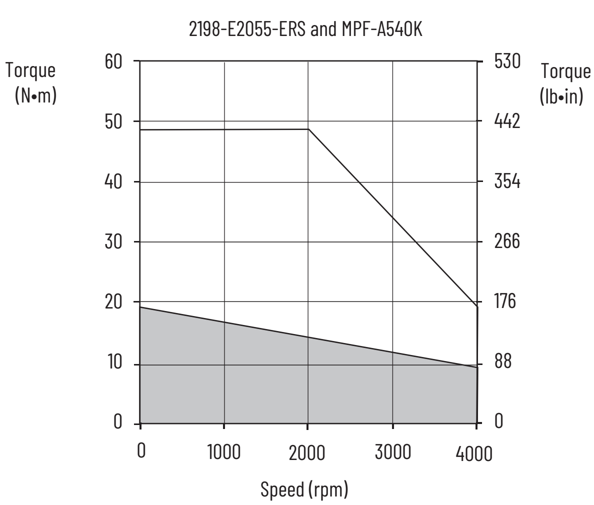
Kinetix 5100 (200V-class) Drives/Kinetix MPF Servo Motor Curves (continued)

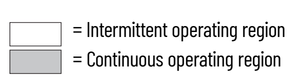












Kinetix 5100 (400V-class) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 400 and 480V, nominal input) when matched with Kinetix MPF (400V-class) food-grade motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix MPF Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPF-B310P, MPF-B320P, MPF-B330P	2090-CPxM7DF-16AAxx (standard, non-flex) 2090-CPxM7DF-16AFxx (continuous-flex)	2090-CFBM7DF-CEAAxx or 2090-CFBM7DD-CEAAxx (standard, non-flex) 2090-CFBM7DF-CEAFxx or 2090-CFBM7DD-CEAFxx (continuous-flex) Absolute High-resolution Feedback
MPF-B430P		
MPF-B4530K, MPF-B4540F		
MPF-B540K	2090-CPxM7DF-10AAxx (standard, non-flex) 2090-CPxM7DF-10AFxx (continuous-flex)	

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

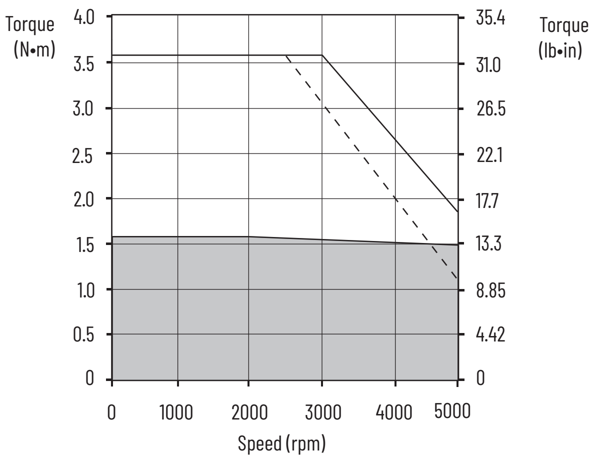
Kinetix MPF Motor Performance Specifications with Kinetix 5100 (400V-class) Drives

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 5100 Drives (480V AC input)
MPF-B310P	5000	5000	2.40	1.60 (14.2)	7.10	3.6 (31.9)	0.77	2198-E4007-ERS
MPF-B320P	5000	5000	4.50	3.10 (27.4)	11.3	6.3 (55.7)	1.5	2198-E4007-ERS
					14.0	7.8 (69.0)		2198-E4015-ERS
MPF-B330P	5000	5000	6.10	4.18 (37.0)	19.0	11.1 (98.2)	1.6	2198-E4015-ERS
MPF-B430P	5000	5000	9.20	6.55 (58.0)	29.4	18.2 (161)	2.0	2198-E4020-ERS
					32.0	19.8 (175)		2198-E4030-ERS
MPF-B4530K	4000	4000	11.0	8.25 (73.0)	29.4	19.2 (170)	2.4	2198-E4020-ERS
					31.0	20.3 (179)		2198-E4030-ERS
MPF-B4540F	3000	3000	9.10	10.20 (90.3)	29.0	27.1 (240)	2.5	2198-E4020-ERS
MPF-B540K	4000	4000	20.5	19.4 (171)	53.2	43.1 (381)	4.1	2198-E4055-ERS
					60.0	48.6 (430)		2198-E4075-ERS

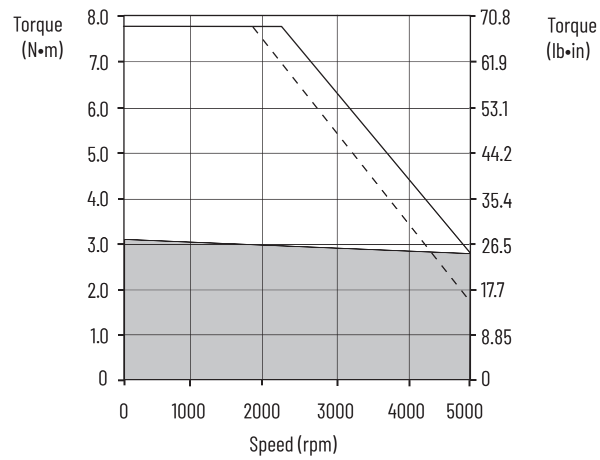
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix MPF Servo Motor Curves

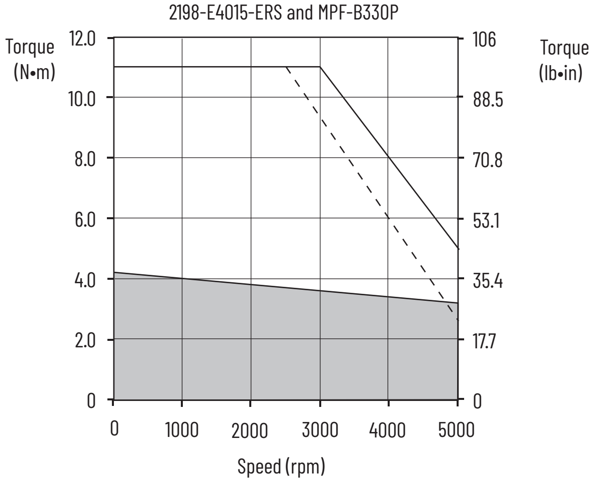
2198-E4004-ERS and MPF-B310P



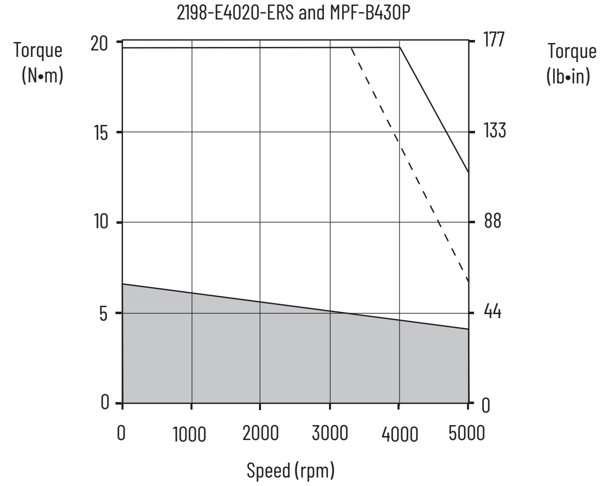
2198-E4015-ERS and MPF-B320P



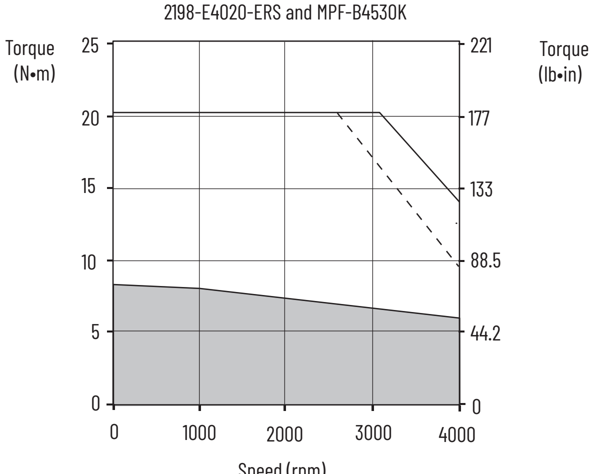
2198-E4015-ERS and MPF-B330P



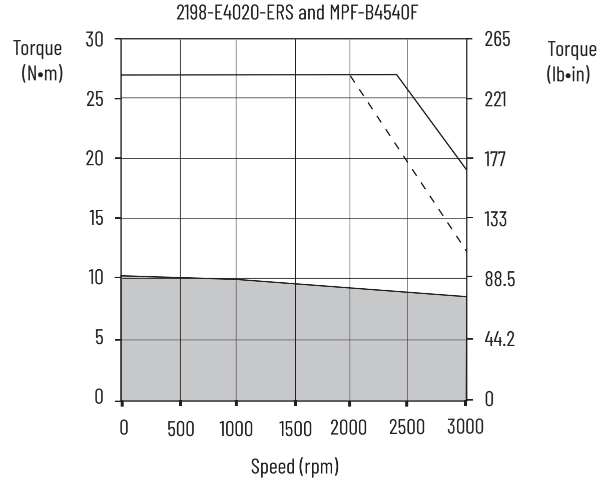
2198-E4020-ERS and MPF-B430P



2198-E4020-ERS and MPF-B4530K

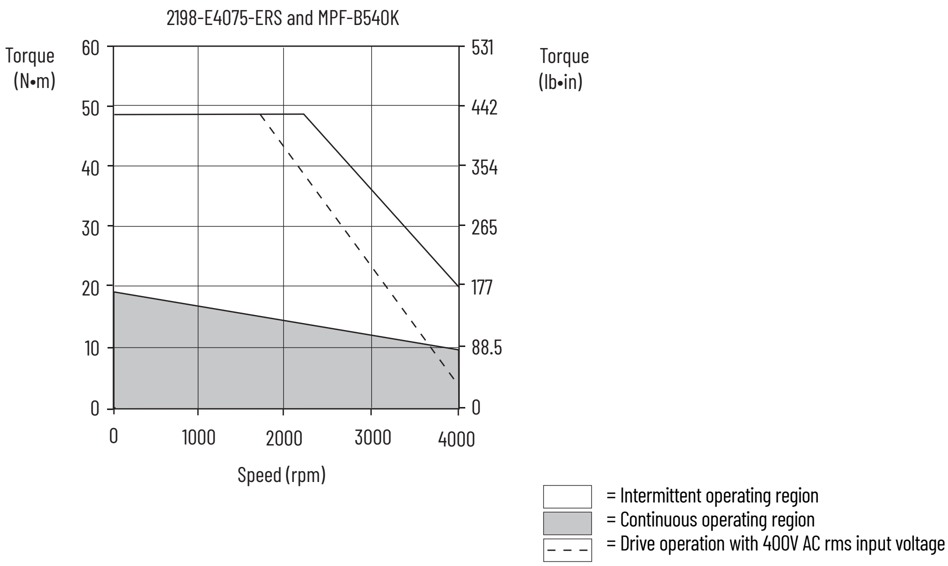


2198-E4020-ERS and MPF-B4540F



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

Kinetix 5100 (400V-class) Drives/Kinetix MPF Servo Motor Curves (continued)



Kinetix 5100 (200V-class) Drives with Kinetix MPS Stainless Steel Motors

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix MPS (200V-class) servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPS Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPS-A330P	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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 the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

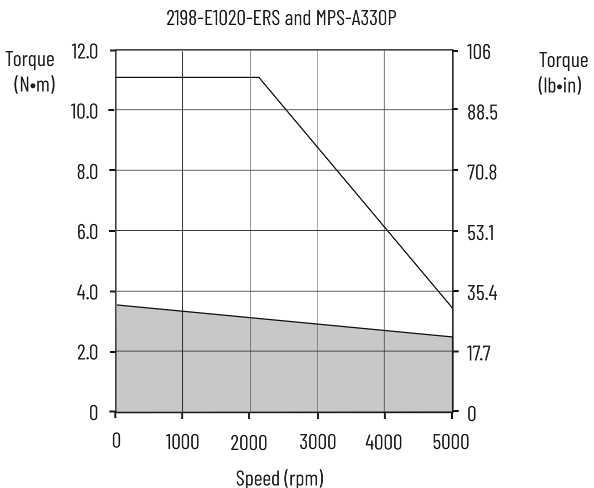
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

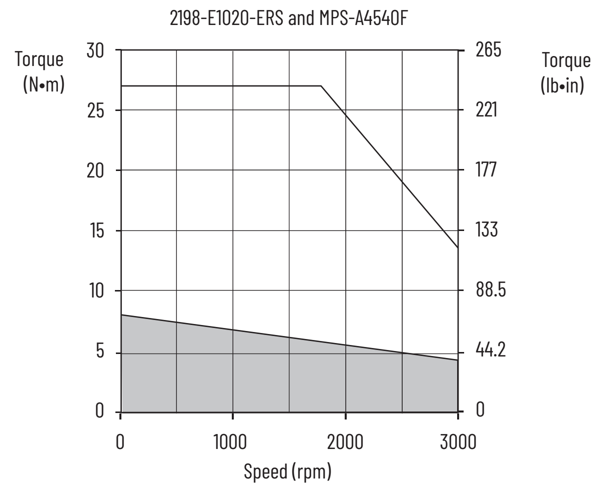
Kinetix MPS Motor Performance Specifications with Kinetix 5100 (200V-class) Drives

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 5100 Drives (230V AC input)**
MPS-A330P	5000	5000	9.80	3.60 (32.0)	33.5	9.79 (86.6)	1.3	2198-E1015-ERS
					38.0	11.10 (98.2)		2198-E1020-ERS
MPS-A4540F	3000	3000	14.4	8.1 (72)	56.0	27.1 (240)	1.4	2198-E1020-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix MPS Servo Motor Curves





= Intermittent operating region
= Continuous operating region

Kinetix 5100 (400V-class) Drives with Kinetix MPS Servo Motors

This section provides system combination information for the Kinetix 5100 drives (with 400 and 480V, nominal input) when matched with Kinetix MPS (400V-class) stainless-steel motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix MPS Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	**Motor Power Cable**	**Motor Feedback Cable (1)**
MPS-B330P	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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		
MPS-B560F	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	

(1) Use the 2198-K51CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

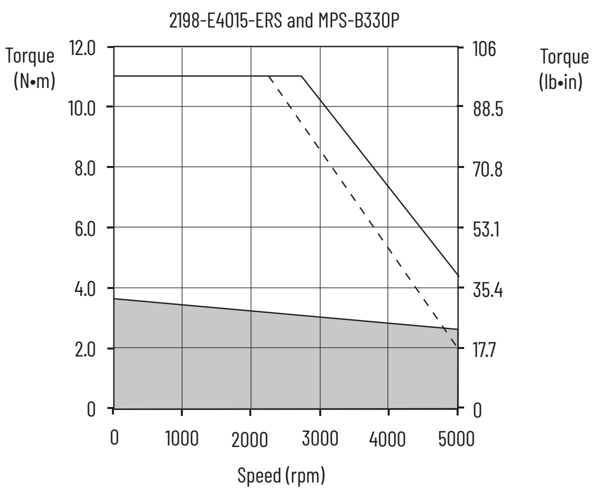
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

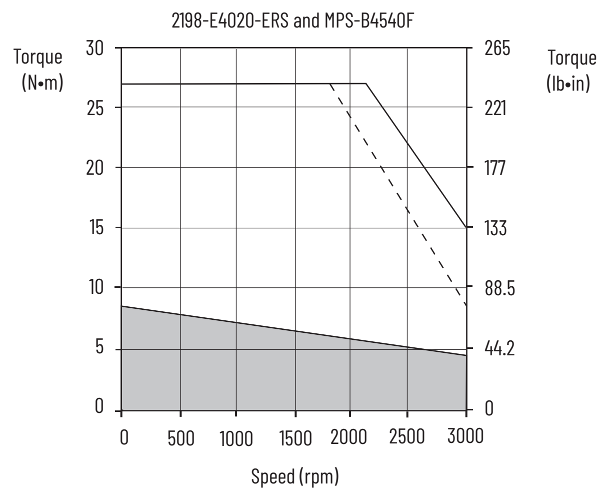
Kinetix MPS Motor Performance Specifications with Kinetix 5100 (400V-class) Drives

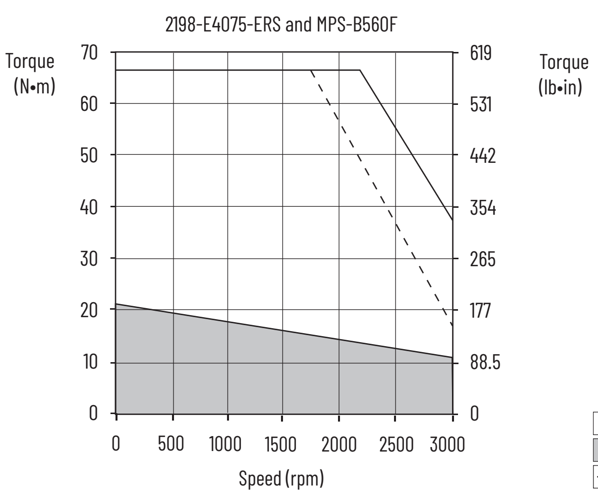
Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5100 Drives (480V AC input)
MPS-B330P	5000	5000	4.9	3.60 (32)	19.0	11.0 (97.2)	1.3	2198-E4015-ERS
MPS-B4540F	3000	3000	7.1	8.1 (72)	21.4	22.3 (197)	1.4	2198-E4015-ERS
					26.0	27.1 (240)		2198-E4020-ERS
MPS-B560F	3000	3000	17.0	21.5 (190)	36.9	36.8 (326)	3.5	2198-E4030-ERS
					68.0	67.8 (600)		2198-E4075-ERS

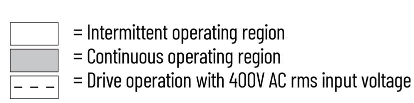
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix MPS Servo Motor Curves









Kinetix 5100 (200V-class) Drives with Kinetix TLY Servo Motors

This section provides system combination information for the Kinetix 5100 drives when matched with Kinetix TLY compact servo motors. Compatible Kinetix TLY 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.

Kinetix 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-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	2090-CPBM6DF-16AA*xx* (standard, non-flex) (with brake)	
TLY-A310M		

(1) For TLY-A*xxxx*-H motors with incremental encoder feedback, use 2090-CFBM6DF-CBAA*xx* flying-lead cables and 2198-K51CK-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 6 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 2198-K51CK-D15M connector kit (battery required).

Kinetix 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 Kinetix TLP Motor Cables Overview beginning on page 9.
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 8.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix TLY (non-brake) Motor Performance Specifications with Kinetix 5100 Drives

Performance Specifications (non-brake) with Kinetix 5100 (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 5100 Drives (230V AC input)
TLY-A110*x*	5000	6000 (1)	0.55	0.096 (0.85)	1.30	0.20 (1.75)	0.041	2198-E1004
TLY-A120*x*	5000		1.03	0.181 (1.60)	2.50	0.36 (3.20)	0.086	2198-E1004
TLY-A130*x*	5000		1.85	0.325 (2.88)	4.90	0.76 (6.70)	0.14	2198-E1004
TLY-A220*x*	5000		3.50	0.836 (7.40)	7.90	1.48 (13.1)	0.35	2198-E1004
TLY-A230*x*	5000		5.50	1.30 (11.5)	15.5	3.05 (27.0)	0.44	2198-E1007
TLY-A2530P	4400	5000	10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.69	2198-E1015
TLY-A2540P	4575		10.0	2.94 (26.0)	24.8	7.10 (63.0)	0.86	2198-E1015
TLY-A310M	4000	4500	10.0	3.61 (31.9)	30.0	9.0 (79.6)	0.95	2198-E1015

(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 ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix TLY (brake) Motor Performance Specifications with Kinetix 5100 Servo Drives

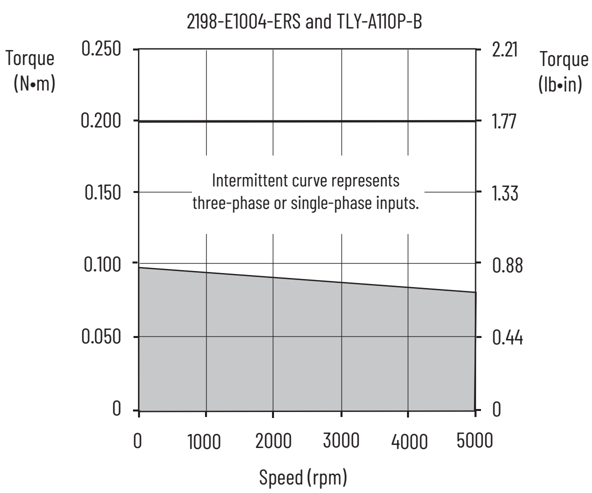
Performance Specifications (brake) with Kinetix 5100 (200V-class) Drives

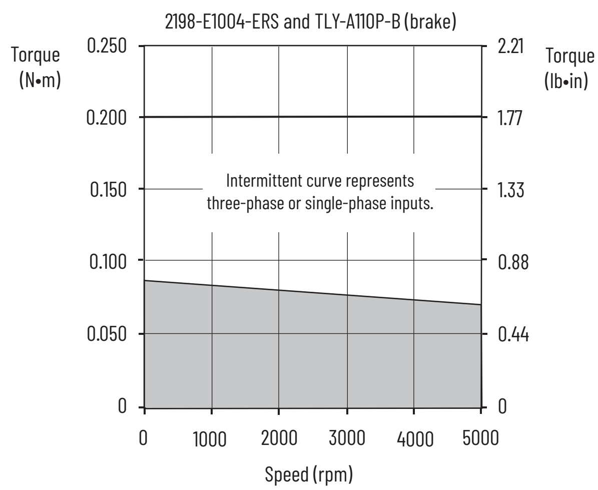
Rotary Motor Cat. No.	Rated Speed rpm	Speed, max rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5100 Drives (230V AC input)
TLY-A110*x*	5000	6000 (1)	0.50	0.086 (0.76)	1.30	0.20 (1.75)	0.037	2198-E1004
TLY-A120*x*	5000		0.93	0.163 (1.44)	2.50	0.36 (3.20)	0.077	2198-E1004
TLY-A130*x*	5000		1.67	0.293 (2.59)	4.90	0.76 (6.70)	0.13	2198-E1004
TLY-A220*x*	5000		3.15	0.757 (6.70)	7.90	1.48 (13.1)	0.24	2198-E1004
TLY-A230*x*	4250		4.95	1.16 (10.3)	15.5	3.05 (27.0)	0.32	2198-E1007
TLY-A2530P	3650	5000	10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.55	2198-E1015
TLY-A2540P	3750		10.0	2.94 (26.0)	24.8	7.10 (63.0)	0.66	2198-E1015
TLY-A310M	3900	4500	10.0	3.61 (31.9)	30.0	9.0 (79.6)	0.90	2198-E1015

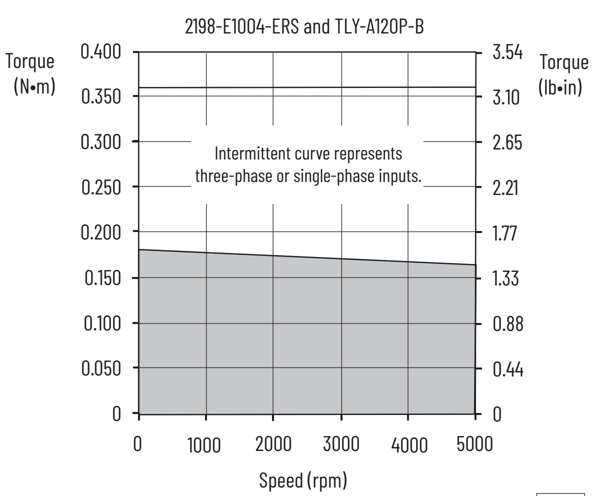
(1) Applies to TLY-A*xxx*T-H motors with incremental feedback. The TLY-A*xxx*T-B motors with absolute high-resolution encoders are rated for 5000 rpm.

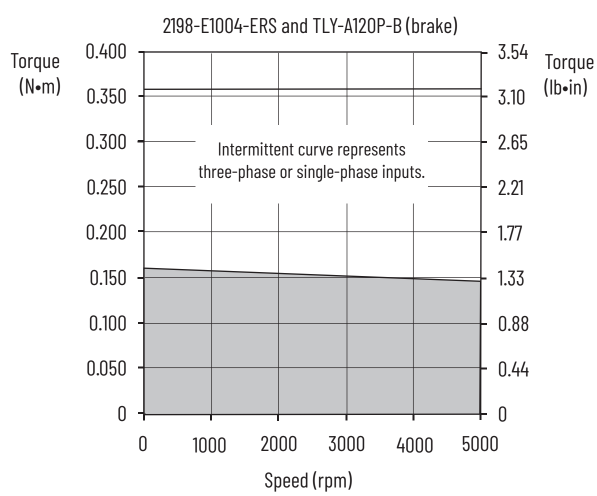
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/TLY-A*xxx*P-B (absolute high-resolution) Motor Curves





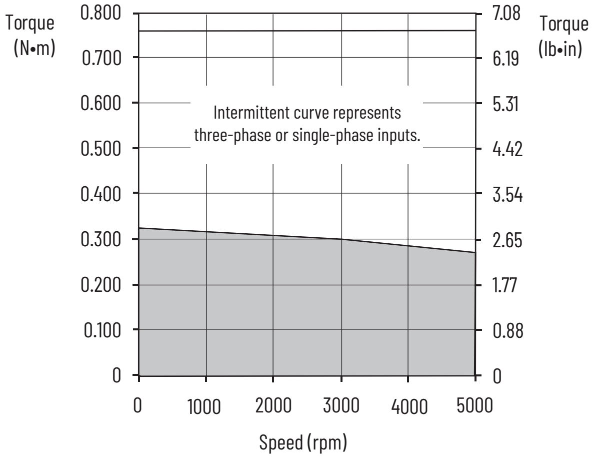




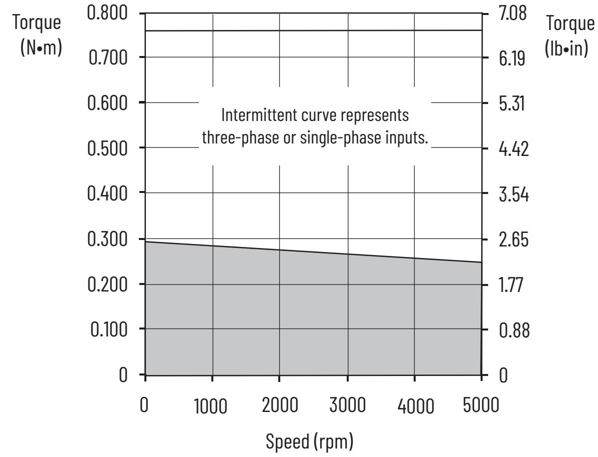
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 5100 (200V-class) Drives/TLY-A*xxx*P-B (absolute high-resolution) Motor Curves (continued)

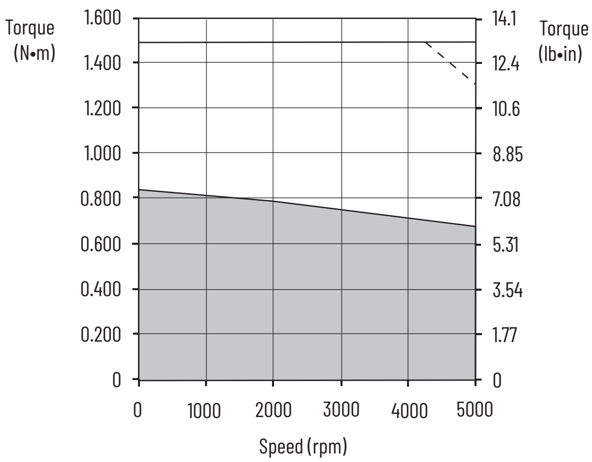
2198-E1004-ERS and TLY-A130P-B



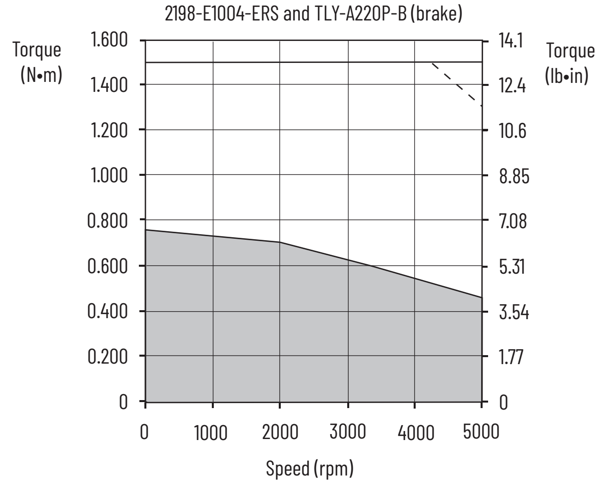
2198-E1004-ERS and TLY-A130P-B (brake)



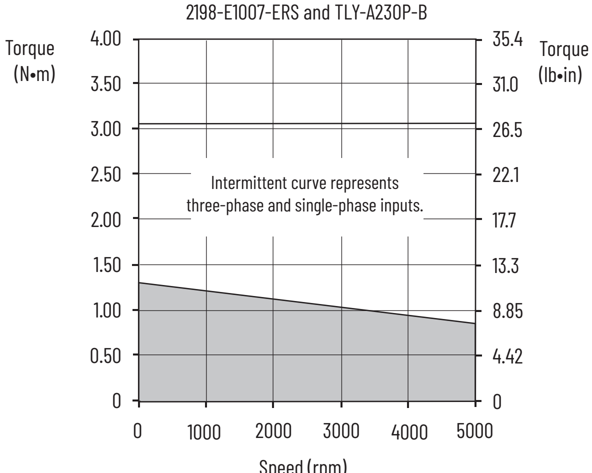
2198-E1004-ERS and TLY-A220P-B



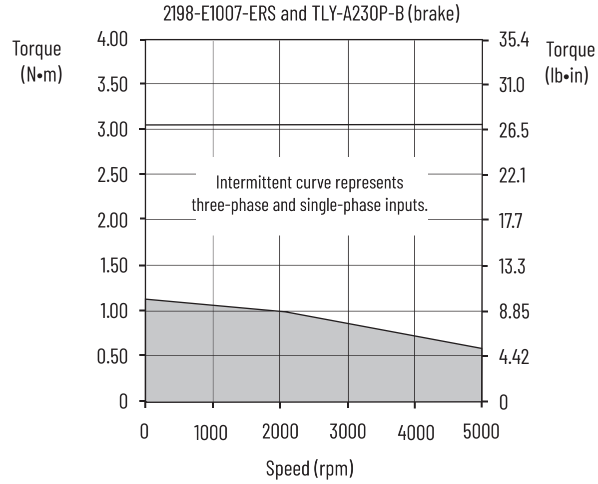
2198-E1004-ERS and TLY-A220P-B (brake)



2198-E1007-ERS and TLY-A230P-B

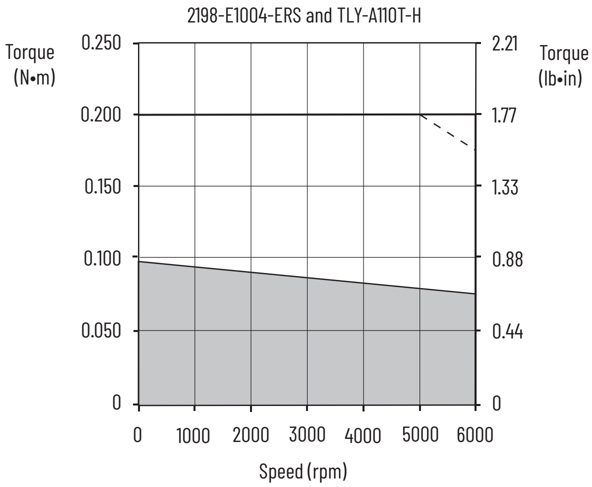


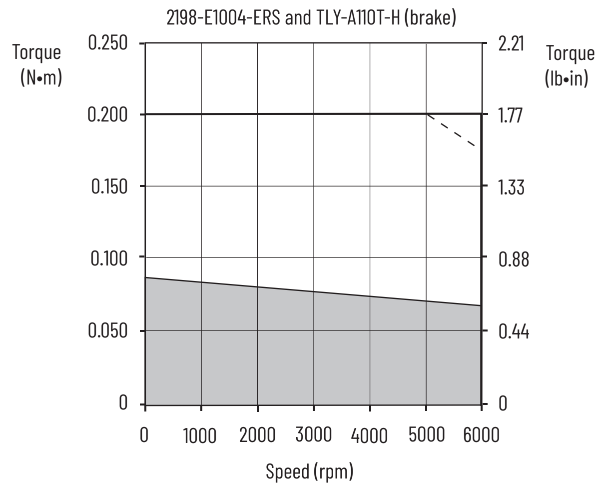
2198-E1007-ERS and TLY-A230P-B (brake)

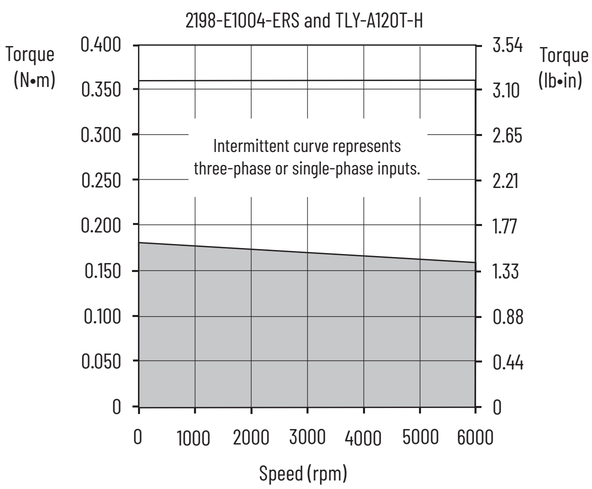


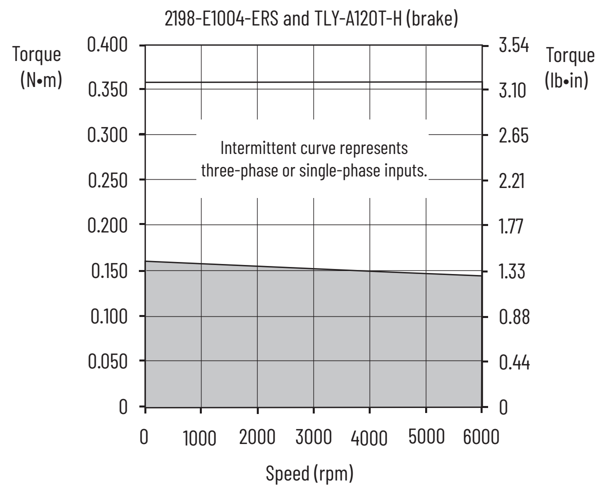
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

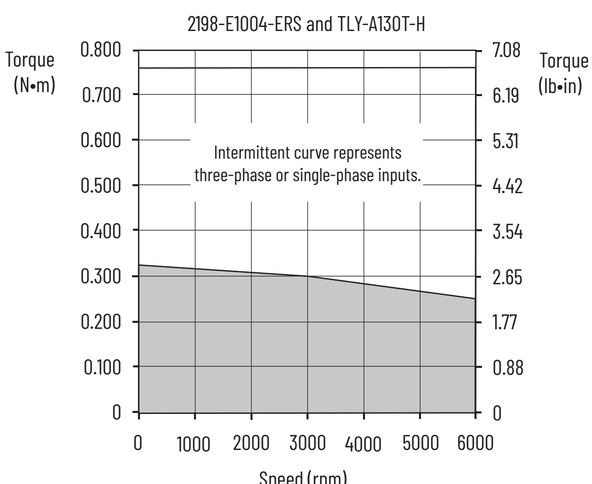
Kinetix 5100 (200V-class) Drives/TLY-A*xxx*T-H (incremental) Motor Curves

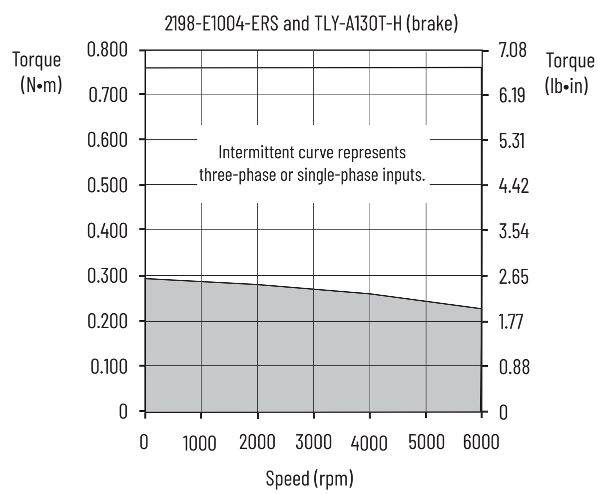






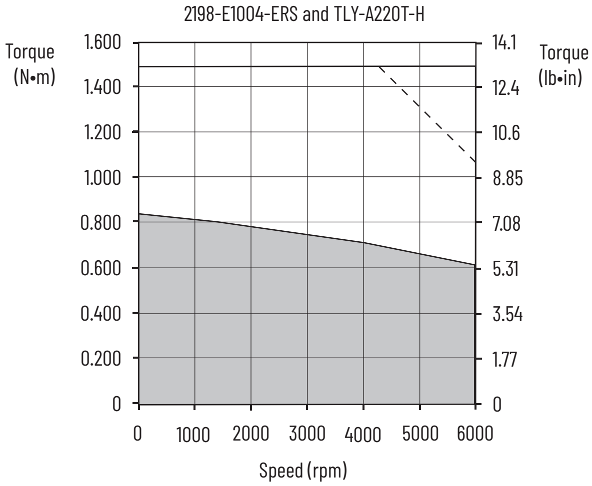


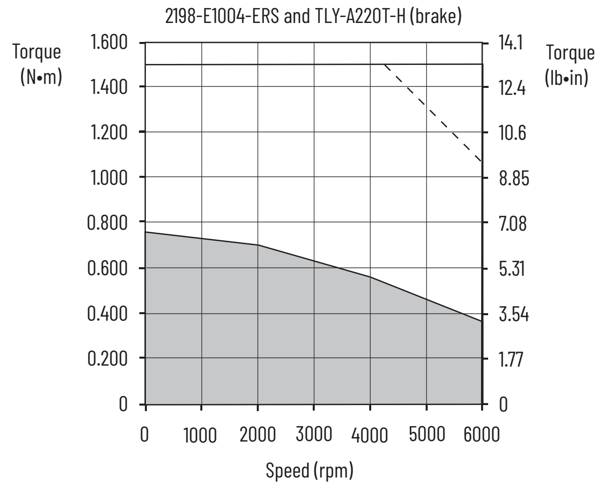


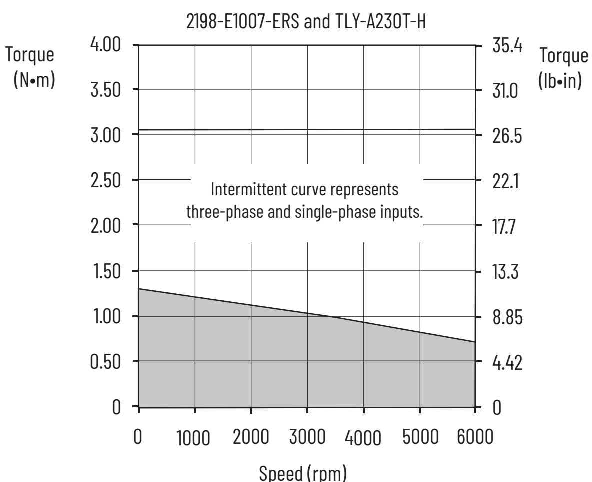


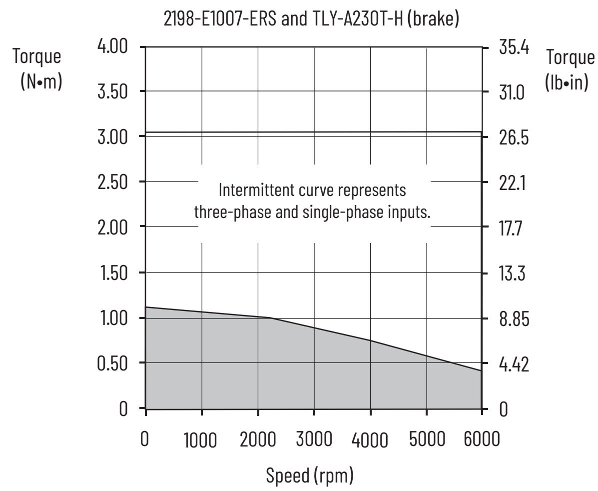
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 5100 (200V-class) Drives/TLY-A*xxx*T-H (incremental) Motor Curves (continued)





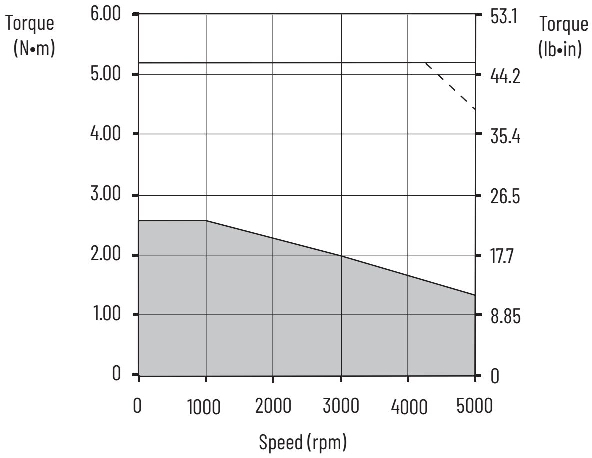




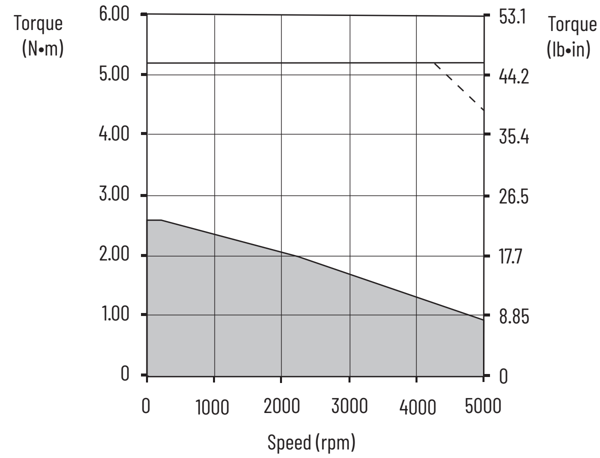
= Intermittent operating region
= Continuous operating region
= Drive operation (single-phase input)

Kinetix 5100 (200V-class) Drives/TLY-A*xxxx*-*x* Motor Curves

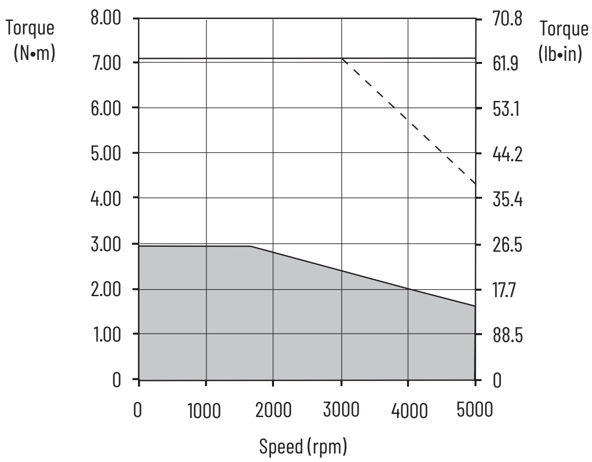
2198-E1015-ERS and TLY-A2530P-x



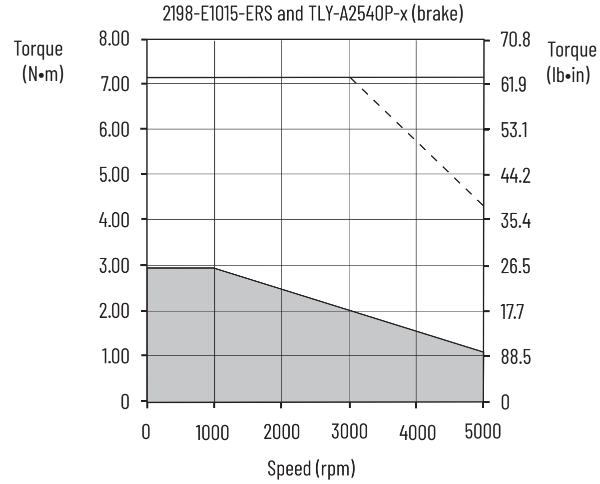
2198-E1015-ERS and TLY-A2530P-x (brake)



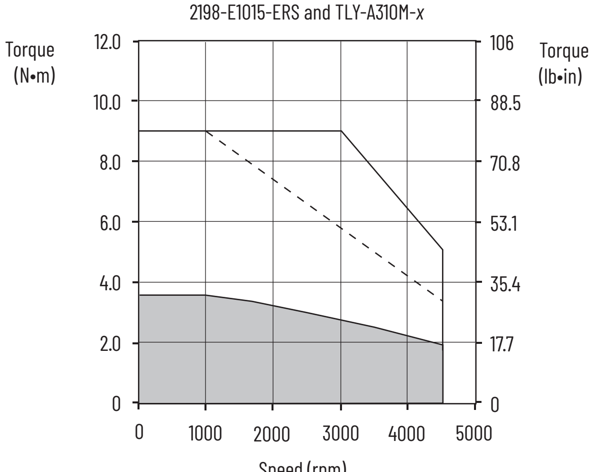
2198-E1015-ERS and TLY-A2540P-x



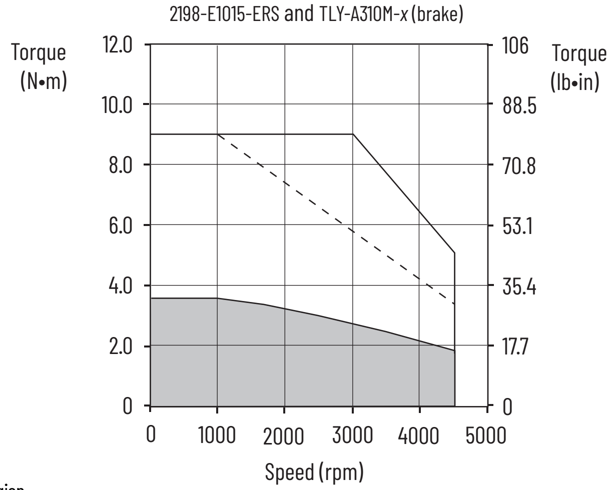
2198-E1015-ERS and TLY-A2540P-x (brake)

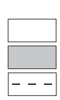


2198-E1015-ERS and TLY-A310M-*x*



2198-E1015-ERS and TLY-A310M-*x* (brake)





Kinetix 5100 (200V-class) Drives with Kinetix TL Servo Motors

This section provides system combination information for the Kinetix 5100 servo drives when matched with Kinetix TL compact servo motors. Compatible Kinetix TL motors are equipped with absolute high-resolution encoder feedback. Included in this section are motor power, feedback, and brake cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix TL Motor Cable Combinations

Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1) (2)	Motor Brake Cable
TL-A110P, TL-A120P, TL-A130P	2090-DANPT-16S*xx*	2090-DANFCT-S*xx* Absolute High-resolution	2090-DANBT-18S*xx*
TL-A220P, TL-A230P			
TL-A2530P, TL-A2540P			
TL-A410M			

(1) For applications where battery backup is required use 2090-DANFCT-Sxx cable, but remove the drive-end connector and prepare flying leads for termination in the 2198-K51CK-D15M connector kit (with customer-supplied battery).
(2) For applications where battery backup is not required use 2090-DANFCT-Sxx cable and plug the drive-end connector into the 15-pin motor feedback connector.

Kinetix TL-Axxxx-B motors are characterized as having 300 mm (11.8 in.) cable extensions with rectangular connectors.
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix TL (non-brake) Performance Specifications with Kinetix 5100 (200V-class) Drives

Rotary Motor	Rated Speed rpm	Maximum Speed 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 5100 Drives (230V AC input)
TL-A110P	5000	5000	0.55	0.096 (0.85)	1.30	0.20 (1.75)	0.041	2198-E1004
TL-A120P			1.03	0.181 (1.60)	2.50	0.36 (3.20)	0.086	2198-E1004
TL-A130P			1.85	0.325 (2.88)	4.90	0.76 (6.70)	0.14	2198-E1004
TL-A220P			3.50	0.836 (7.40)	7.90	1.48 (13.1)	0.35	2198-E1004
TL-A230P			5.50	1.30 (11.5)	15.5	3.05 (27.0)	0.44	2198-E1007
TL-A2530P	4400		10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.69	2198-E1015
TL-A2540P	4575	4500	10.0	2.94 (26.0)	24.8	7.10 (63.0)	0.86	2198-E1015
TL-A410M	4500		15.5	5.42 (48.0)	43.4	13.0 (115.0)	2.0	2198-E1020

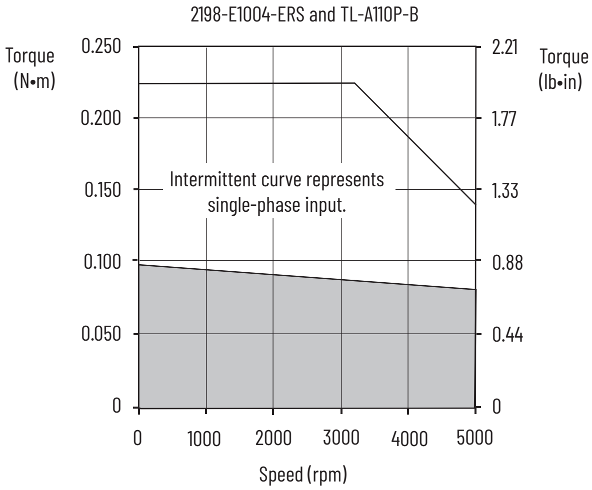
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

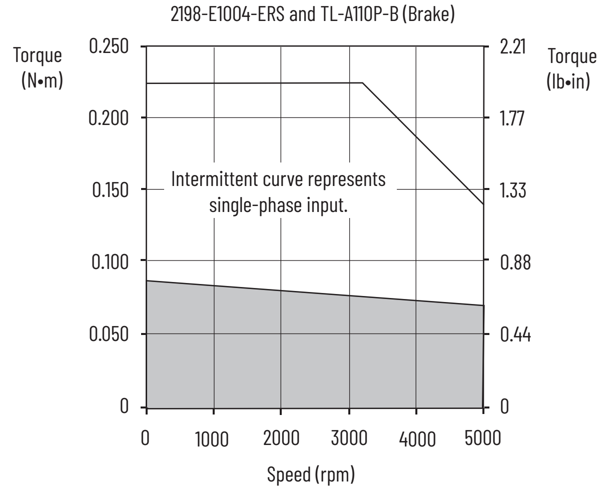
Kinetix TL (brake) Performance Specifications with Kinetix 5100 (200V-class) Drives

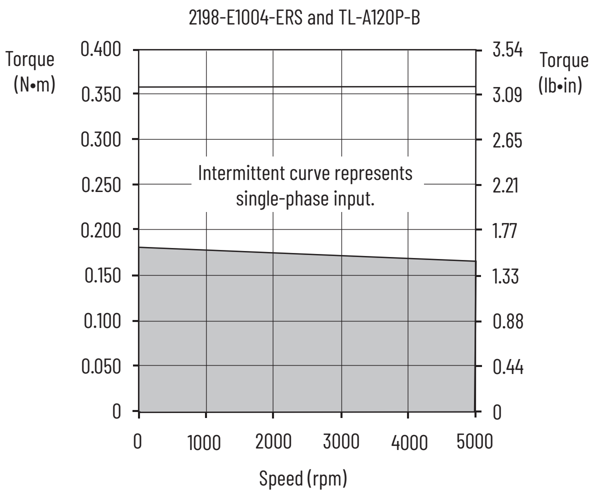
Rotary Motor	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5100 Drives (230V AC input)
TL-A110P	5000	5000	0.50	0.086 (0.76)	1.30	0.20 (1.75)	0.037	2198-E1004
TL-A120P			0.93	0.163 (1.44)	2.50	0.36 (3.20)	0.077	2198-E1004
TL-A130P			1.67	0.293 (2.59)	4.90	0.76 (6.70)	0.13	2198-E1004
TL-A220P			3.15	0.757 (6.70)	7.90	1.48 (13.10)	0.24	2198-E1004
TL-A230P			4.95	1.160 (10.30)	15.5	3.05 (27.0)	0.32	2198-E1007
TL-A2530P	3650		10.0	2.60 (23.0)	21.0	5.20 (46.0)	0.55	2198-E1015
TL-A2540P	3750		10.0	2.940 (26.00)	24.8	7.10 (63.0)	0.66	2198-E1015
TL-A410M	4500	4500	14.0	4.860 (43.0)	43.4	13.0 (115.0)	1.80	2198-E1020

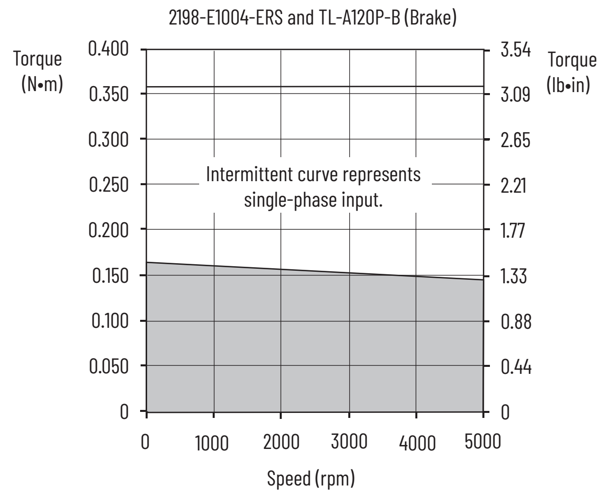
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

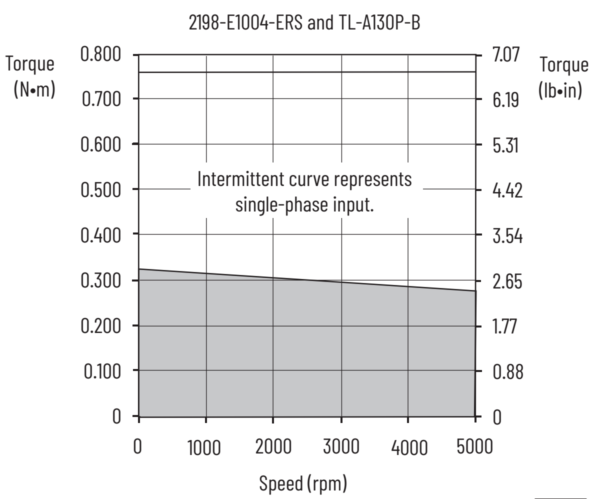
Kinetix 5100 (200V-class) Drives/TL-A*xxxx*-B (absolute high-resolution) Motor Curves

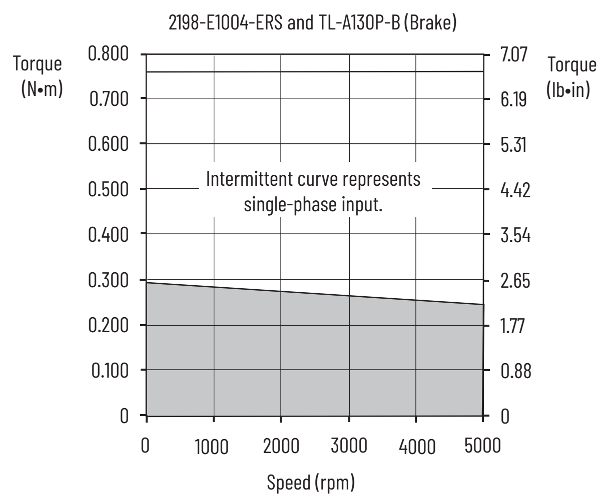






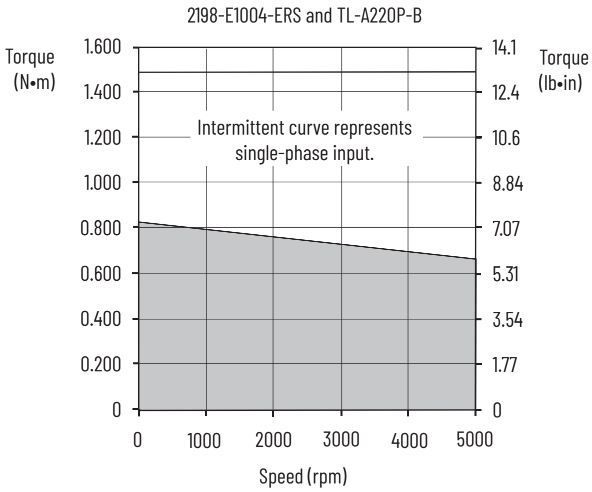


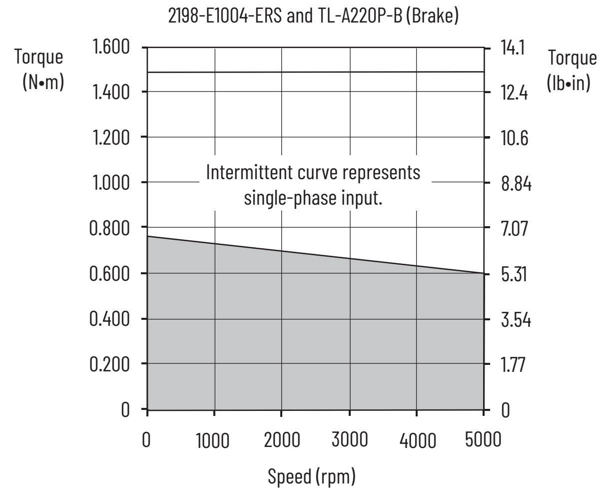


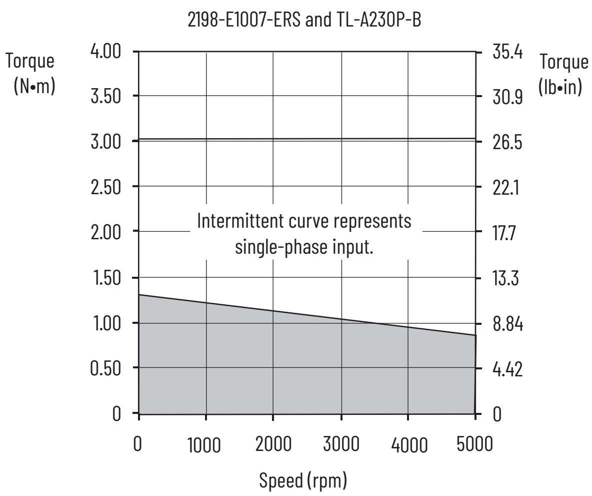


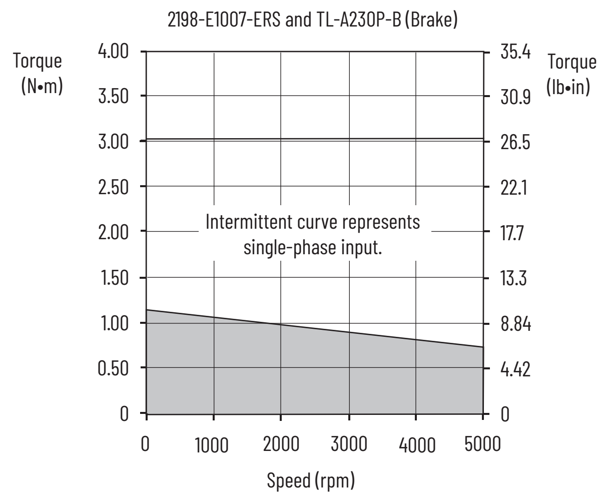
= Intermittent operating region
= Continuous operating region

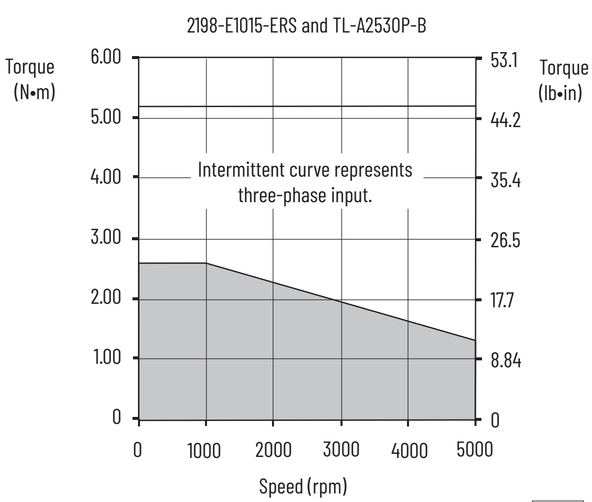
Kinetix 5100 (200V-class) Drives/TL-A*xxxx*-B (absolute high-resolution) Motor Curves (continued)

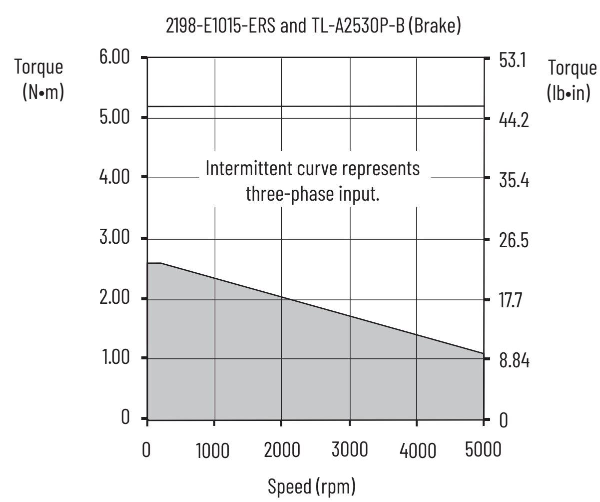






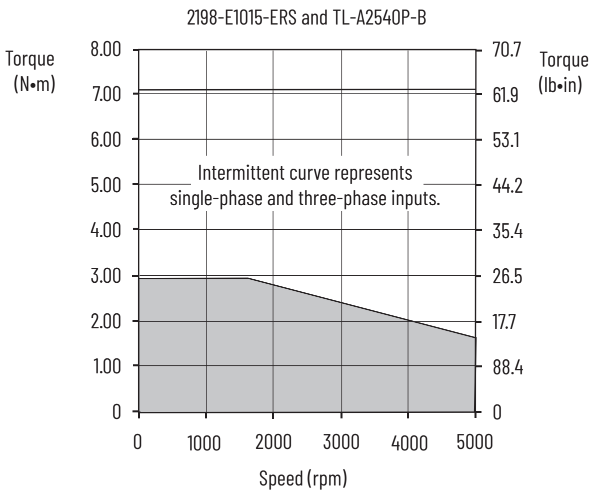


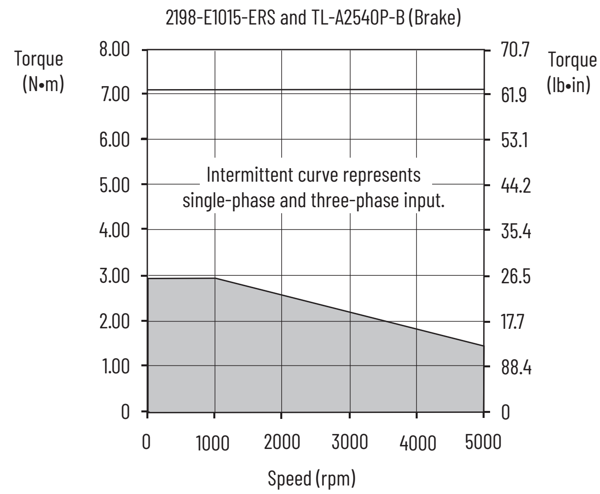


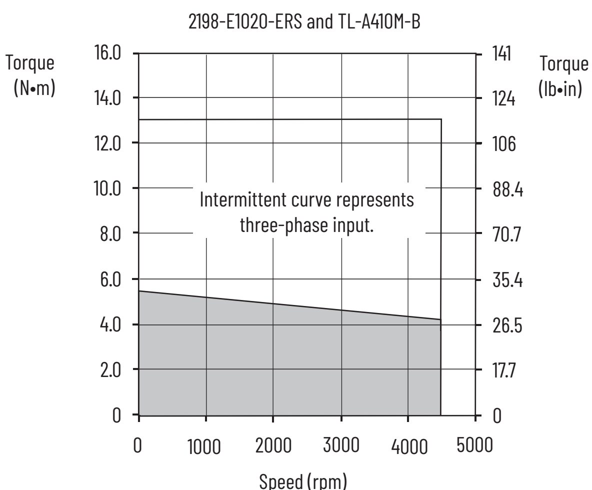


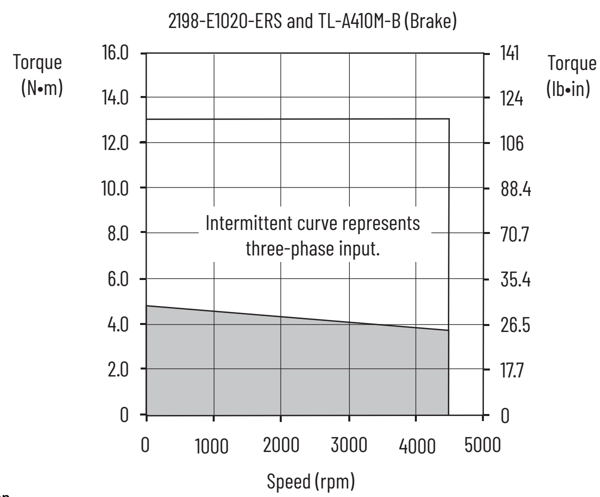
= Intermittent operating region
= Continuous operating region

Kinetix 5100 (200V-class) Drives/TL-Axxxx-B (absolute high-resolution) Motor Curves (continued)









= Intermittent operating region

= Continuous operating region

Kinetix 5100 Servo Drives with Kinetix LDAT Integrated Linear Thrusters

This section provides system combination information for the Kinetix 5100 drives (with 230V and 480V, nominal input) when matched with Kinetix LDAT integrated linear thrusters. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix LDAT Cable Combinations

<table>
<tr><th>Linear Thruster Cat. No.</th><th>Motor Power Cable</th><th>Motor Feedback Cable (1)</th></tr>
<tr><td>LDAT-S031xxx-xxx, LDAT-S032xxx-xxx, LDAT-S033xxx-xxx</td><td rowspan="5">2090-CPWM7DF-16AAxx (standard, non-flex)
2090-CPWM7DF-16AFxx (continuous-flex)</td><td rowspan="8">2090-CFBM7DF-CEAAxx (standard, non-flex) (2)
2090-CFBM7DF-CEAFxx (continuous-flex)
Absolute High-resolution Feedback

2090-XXNFMF-Sxx (standard, non-flex) (3)
2090-CFBM7DF-CDAFxx (continuous-flex)
Incremental Feedback</td></tr>
<tr><td>LDAT-S051xxx-xxx, LDAT-S052xxx-xxx, LDAT-S053xxx-xxx, LDAT-S054xxx-xxx</td></tr>
<tr><td>LDAT-S072xxx-xxx, LDAT-S073xxx-xxx, LDAT-S074xxx-xxx, LDAT-S076xxx-Exx</td></tr>
<tr><td>LDAT-S102xxx-xxx, LDAT-S103xxx-xxx, LDAT-S104xxx-xxx, LDAT-S106xxx-Exx</td></tr>
<tr><td>LDAT-S152xxx-xxx, LDAT-S153xxx-xxx, LDAT-S154xxx-xxx, LDAT-S156xxx-Exx</td></tr>
<tr><td>LDAT-S076xxx-Dxx</td><td rowspan="3">2090-CPWM7DF-14AAxx (standard, non-flex)
2090-CPWM7DF-14AFxx (continuous-flex)</td></tr>
<tr><td>LDAT-S106xxx-Dxx</td></tr>
<tr><td>LDAT-S156xxx-Dxx</td></tr>
</table>

(1) Use the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.
(2) Applies to Kinetix 5100 drives and LDAT-S*xxxxxx-x*D*x* linear thrusters with absolute high-resolution feedback.
(3) Applies to Kinetix 5100 drives and LDAT-S*xxxxxx-x*B*x* linear thrusters with incremental feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix LDAT Performance Specifications with Kinetix 5100 (200V-class) Drives

Performance Specifications with Frame 30 Linear Thrusters

<table>
<tr><th>Linear Thruster Cat. No.</th><th>Velocity, max 230V AC
m/s</th><th>System Continuous Stall Current
Amps 0-pk</th><th>System Continuous Stall Force
N (lb)</th><th>System Peak Stall Current
Amps 0-pk</th><th>System Peak Stall Force
N (lb)</th><th>Rated Output 230V AC
kW</th><th>Kinetix 5100 Drives (230V AC input)</th></tr>
<tr><td>LDAT-S031010-Dxx</td><td>2.4</td><td rowspan="4">4.8</td><td rowspan="4">81 (18)</td><td rowspan="4">12.2</td><td rowspan="4">168 (38)</td><td>0.20</td><td rowspan="4">2198-E1007-ERS</td></tr>
<tr><td>LDAT-S031020-Dxx</td><td>3.1</td><td>0.25</td></tr>
<tr><td>LDAT-S031030-Dxx</td><td>3.5</td><td>0.29</td></tr>
<tr><td>LDAT-S031040-Dxx</td><td>3.8</td><td>0.31</td></tr>
<tr><td>LDAT-S032010-Dxx</td><td>3.1</td><td rowspan="4">7.4</td><td rowspan="8">126 (28)</td><td rowspan="4">24.3</td><td rowspan="8">336 (76)</td><td>0.44</td><td rowspan="4">2198-E1015-ERS</td></tr>
<tr><td>LDAT-S032020-Dxx</td><td>4.1</td><td>0.52</td></tr>
<tr><td>LDAT-S032030-Dxx</td><td>4.7</td><td>0.59</td></tr>
<tr><td>LDAT-S032040-Dxx</td><td>5.0</td><td>0.63</td></tr>
<tr><td>LDAT-S032010-Exx</td><td>3.1</td><td rowspan="4">3.7</td><td rowspan="4">12.2</td><td>0.40</td><td rowspan="4">2198-E1007-ERS</td></tr>
<tr><td>LDAT-S032020-Exx</td><td>4.1</td><td>0.47</td></tr>
<tr><td>LDAT-S032030-Exx</td><td>4.7</td><td>0.52</td></tr>
<tr><td>LDAT-S032040-Exx</td><td>5.0</td><td>0.55</td></tr>
</table>

Performance Specifications with Frame 30 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 5100 Drives (230V AC input)**
LDAT-S033010-D*xx*	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2198-E1020-ERS
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	2198-E1007-ERS
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 ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (230V AC input)**
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.31	2198-E1007-ERS
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	2198-E1015-ERS
LDAT-S052020-D*xx*	4.8					0.97	
LDAT-S052030-D*xx*	5.0					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	2198-E1007-ERS
LDAT-S053010-D*xx*	4.1	9.4	378 (85)	34.2	1093 (246)	1.31	2198-E1020-ERS
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	2198-E1007-ERS
LDAT-S054010-D*xx*	4.4	12.4	509 (114)	45.5	1453 (327)	1.87	2198-E1020-ERS
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	2198-E1015-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (230V AC input)
LDAT-S072010-D*xx* … LDAT-S072070-D*xx*	3.5	6.0	364 (82)	22.0	1055 (237)	1.03	2198-E1015-ERS
LDAT-S072010-E*xx* … LDAT-S072070-E*xx*	1.7	3.0		11.0		0.47	2198-E1004-ERS
LDAT-S073010-D*xx* … LDAT-S073070-D*xx*	3.5	9.0	554 (125)	32.8	1576 (354)	1.57	2198-E1015-ERS
LDAT-S073010-E*xx* … LDAT-S073070-E*xx*	1.2	3.0		10.9		0.41	2198-E1007-ERS
LDAT-S074010-D*xx* … LDAT-S074070-D*xx*	3.5	11.9	730 (164)	43.5	2088 (469)	2.08	2198-E1020-ERS
LDAT-S074010-E*xx* … LDAT-S074070-E*xx*	1.8	6.0		21.7		0.95	2198-E1007-ERS
LDAT-S076010-D*xx* … LDAT-S076070-D*xx*	3.5	18.2	1122 (252)	66.4	3189 (717)	3.17	2198-E2030-ERS
LDAT-S076010-E*xx* … LDAT-S076070-E*xx*	1.8	9.1		33.2		1.45	2198-E1015-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (230V AC input)
LDAT-S102010-DD*x* … LDAT-S102090-DD*x*	2.6	5.7	456 (103)	21.0	1289 (290)	0.96	2198-E1007-ERS
LDAT-S102010-ED*x* … LDAT-S102090-ED*x*	1.3	2.9		10.5		0.42	2198-E1007-ERS
LDAT-S103010-DD*x* … LDAT-S103090-DD*x*	2.7	8.6	702 (158)	31.5	1935 (435)	1.47	2198-E1015-ERS
LDAT-S103010-ED*x* … LDAT-S103090-ED*x*	0.9	2.9		10.5	1388 (312)	0.30	2198-E1007-ERS
LDAT-S104010-DD*x* … LDAT-S104090-DD*x*	2.7	11.5	929 (209)	42.0	2578 (580)	2.07	2198-E1020-ERS
LDAT-S104010-ED*x* … LDAT-S104090-ED*x*	1.3	5.7		21.0		0.86	2198-E1007-ERS
LDAT-S106010-DD*x* … LDAT-S106090-DD*x*	2.7	17.3	1403 (315)	63.0	3871 (870)	2.94	2198-E2030-ERS
LDAT-S106010-ED*x* … LDAT-S106090-ED*x*	1.3	8.6		31.5		1.28	2198-E1015-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

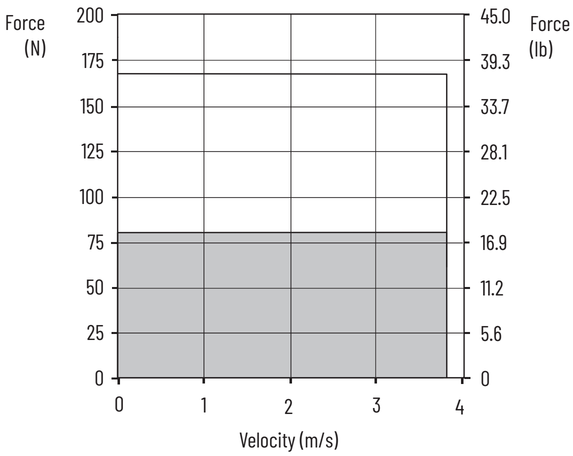
Performance Specifications with Frame 150 Linear Thrusters

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 5100 Drives (230V AC input)**
LDAT-S152010-DD*x* … LDAT-S152090-DD*x*	1.8	5.3	643 (145)	19.5	1799 (404)	0.87	2198-E1007-ERS
LDAT-S152010-ED*x* … LDAT-S152090-ED*x*	0.9	2.7		9.8	1679 (377)	0.34	2198-E1007-ERS
LDAT-S153010-DD*x* … LDAT-S153090-DD*x*	1.8	8.0	978 (220)	29.1	2680 (602)	1.33	2198-E1015-ERS
LDAT-S154010-DD*x* … LDAT-S154090-DD*x*	1.8	10.7	1306 (294)	39.1	3597 (809)	1.78	2198-E1020-ERS
LDAT-S154010-ED*x* … LDAT-S154090-ED*x*	0.9	5.3		19.5	3383 (761)	0.70	2198-E1007-ERS
LDAT-S156010-DD*x* … LDAT-S156090-DD*x*	1.8	16.3	1997 (449)	59.4	5469 (1229)	2.71	2198-E2030-ERS
LDAT-S156010-ED*x* … LDAT-S156090-ED*x*	0.9	8.1		19.8	5110 (1149)	1.05	2198-E1015-ERS

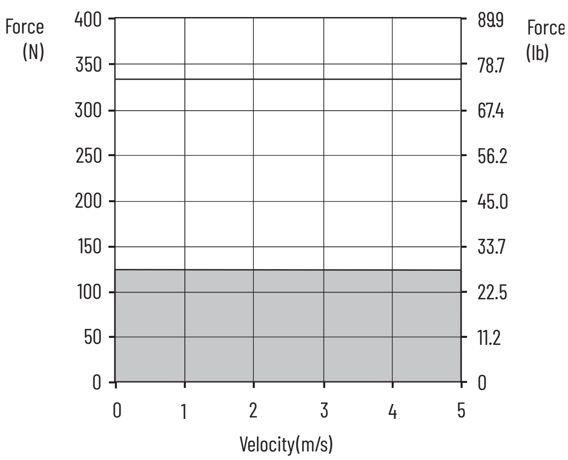
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves

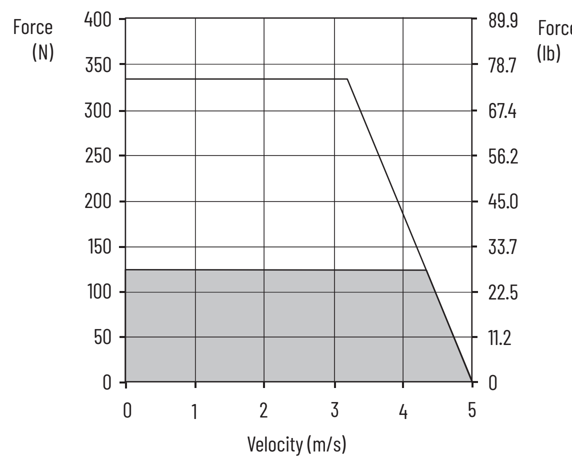
2198-E1007-ERS and LDAT-S031040-Dxx



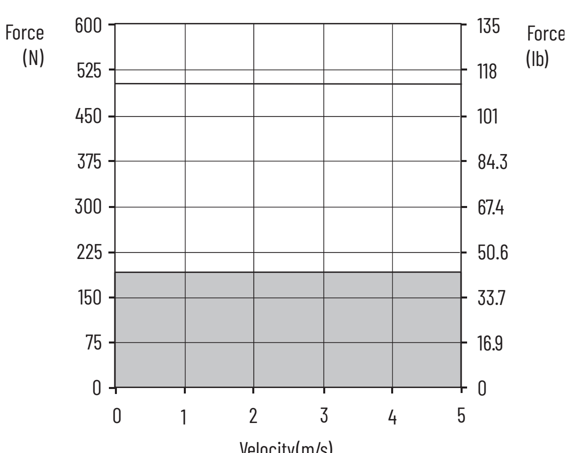
2198-E1015-ERS and LDAT-S032040-Dxx



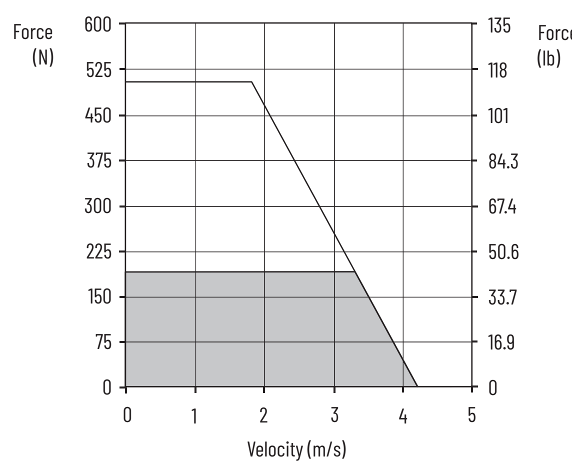
2198-E1004-ERS and LDAT-S032040-Exx



2198-E1020-ERS and LDAT-S033040-Dxx



2198-E1007-ERS and LDAT-S033040-Exx

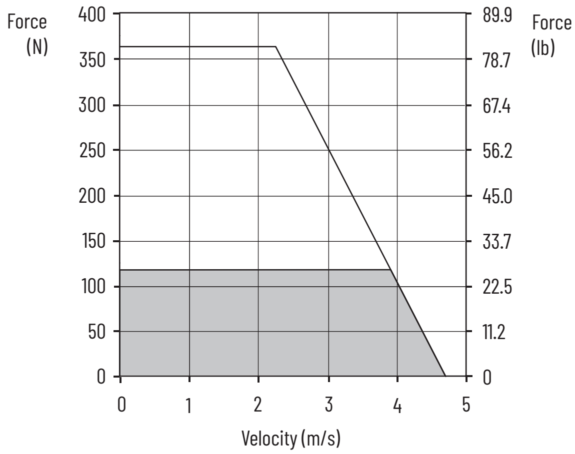


= Intermittent operating region

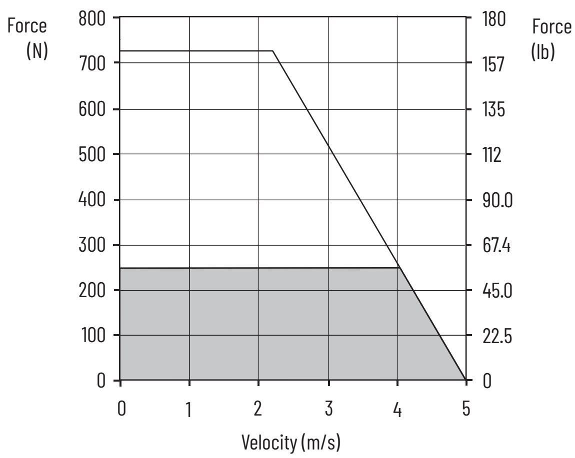
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

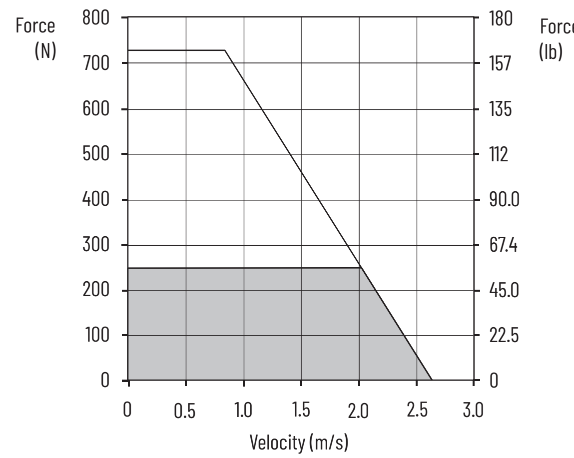
2198-E1007-ERS and LDAT-S051050-Dxx



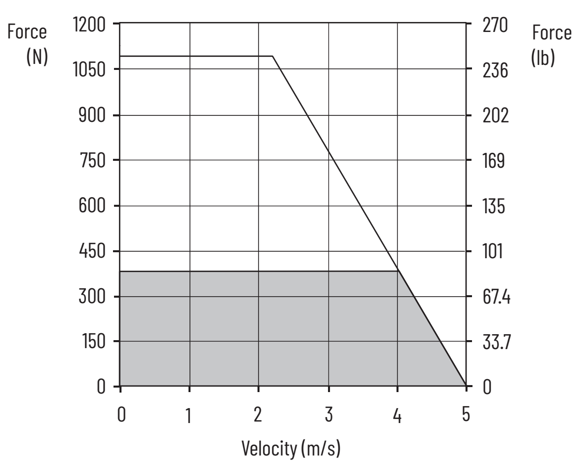
2198-E1015-ERS and LDAT-S052050-Dxx



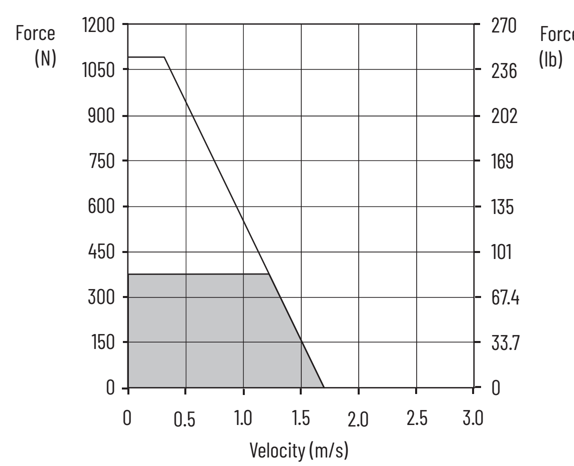
2198-E1007-ERS and LDAT-S052050-Exx



2198-E1020-ERS and LDAT-S053050-Dxx



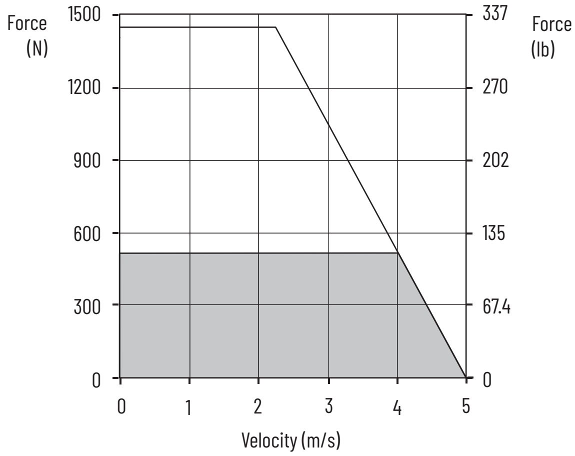
2198-E1007-ERS and LDAT-S053050-Exx



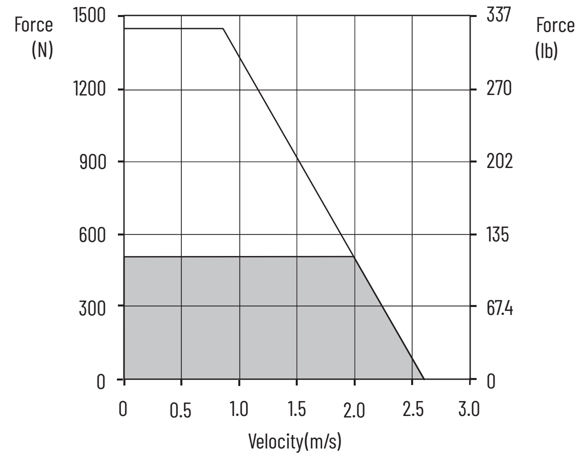
= Intermittent operating region
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

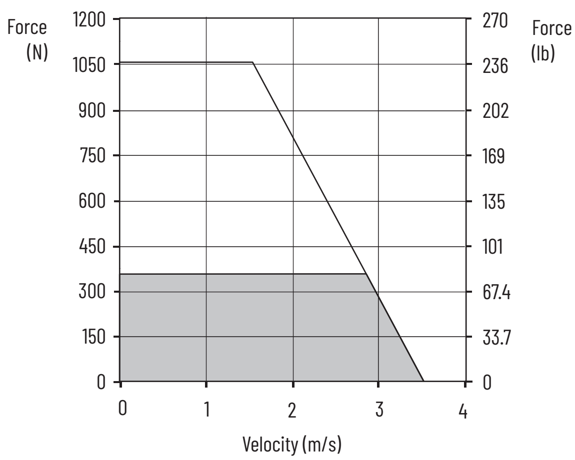
2198-E1020-ERS and LDAT-S054050-D*xx*



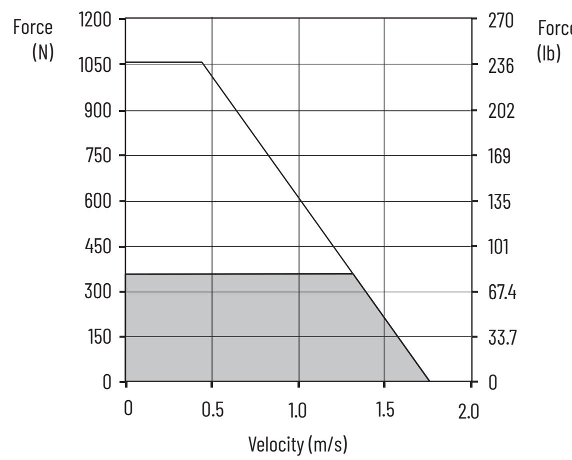
2198-E1015-ERS and LDAT-S054050-E*xx*



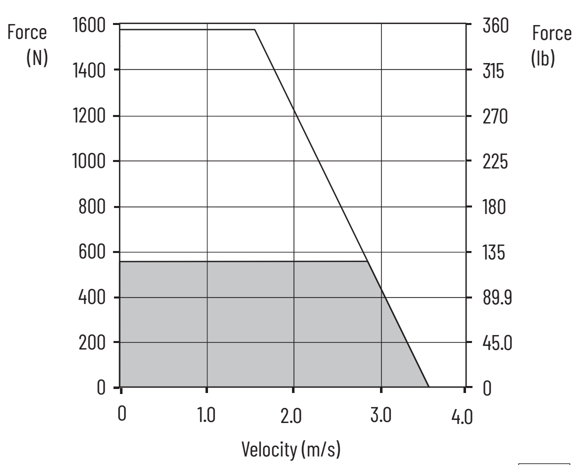
2198-E1015-ERS and LDAT-S072070-D*xx*



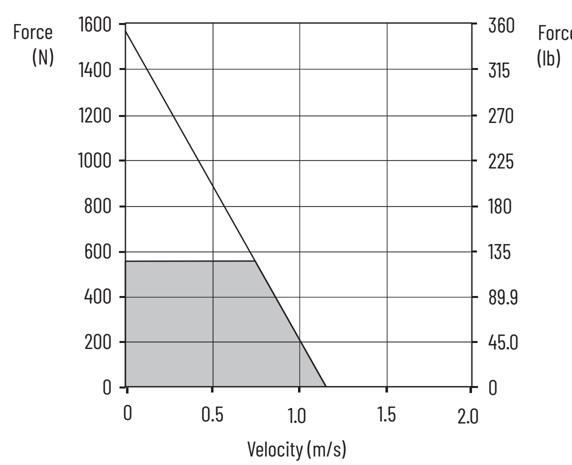
2198-E1004-ERS and LDAT-S072070-E*xx*



2198-E1015-ERS and LDAT-S073070-D*xx*

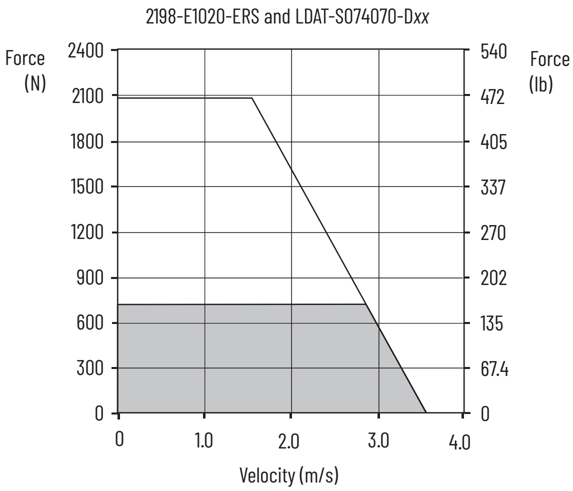


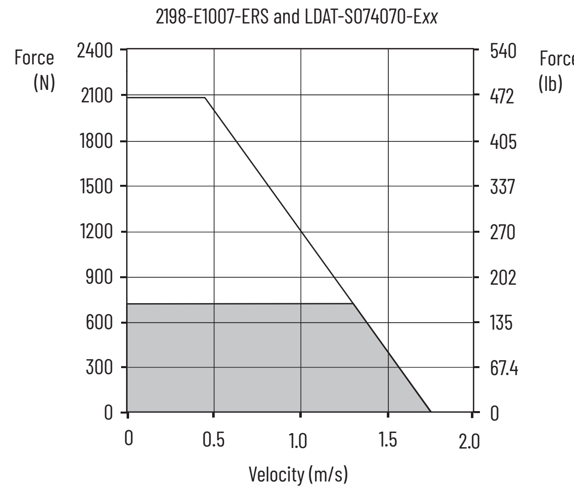
2198-E1007-ERS and LDAT-S073070-E*xx*

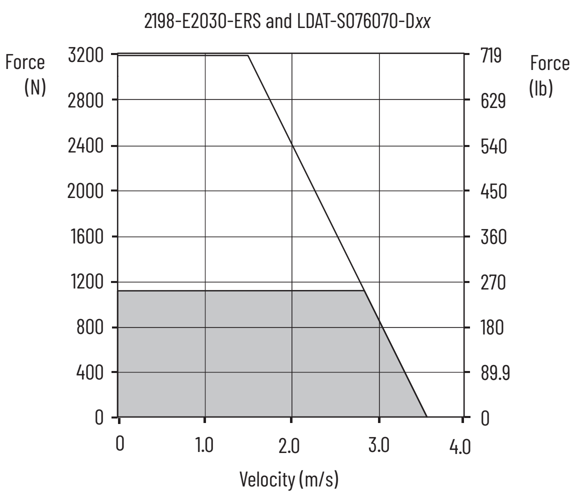


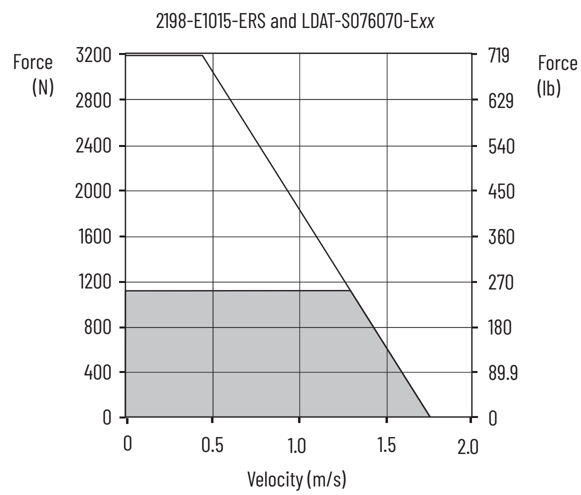
= Intermittent operating region
= Continuous operating region

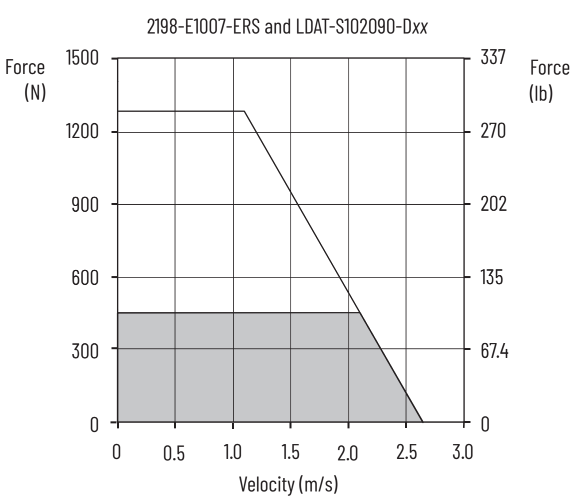
Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

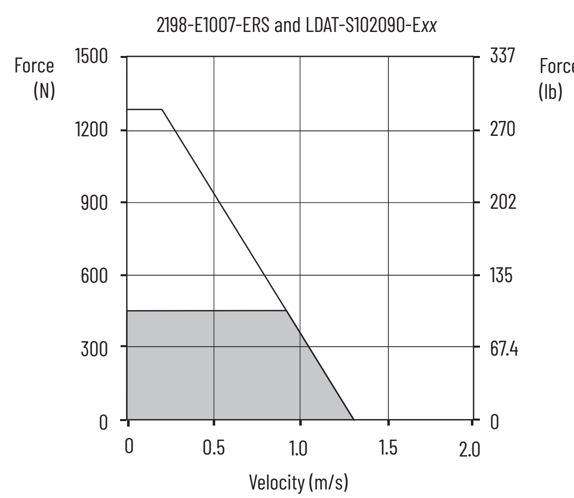








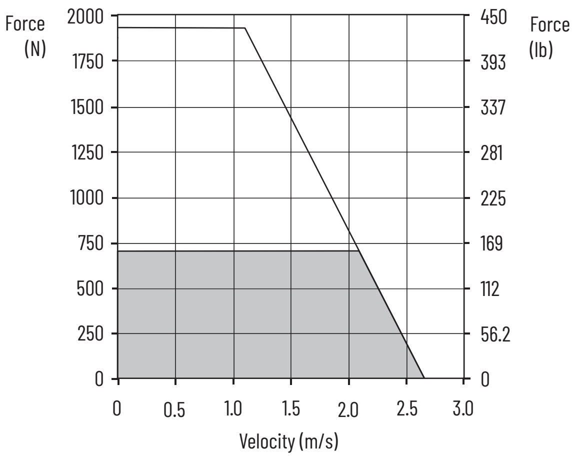




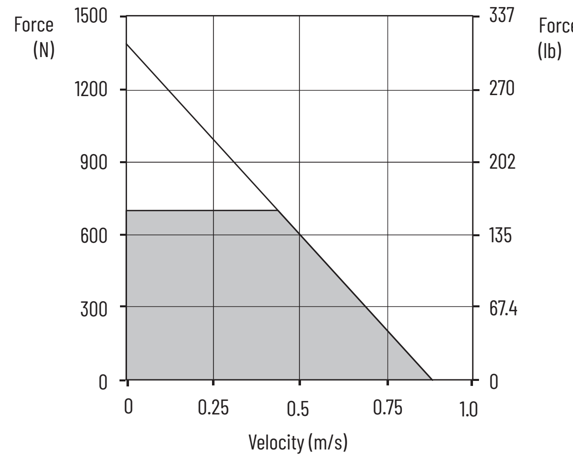
= Intermittent operating region
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

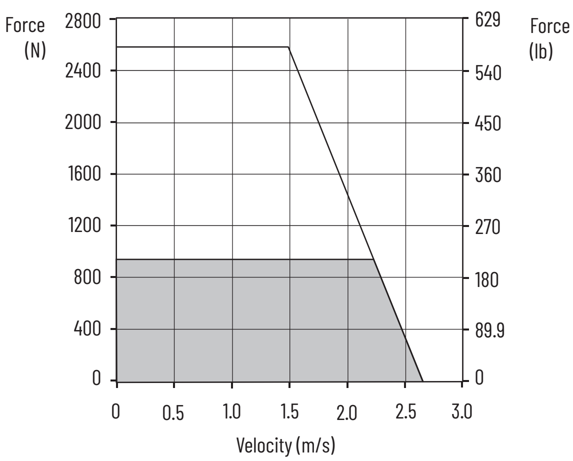
2198-E1015-ERS and LDAT-S103090-D*xx*



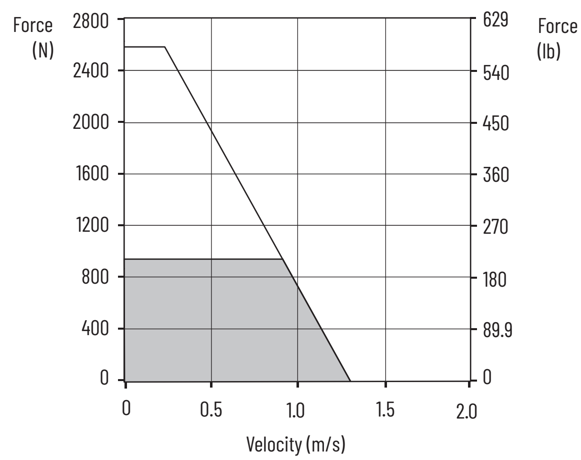
2198-E1007-ERS and LDAT-S103090-E*xx*



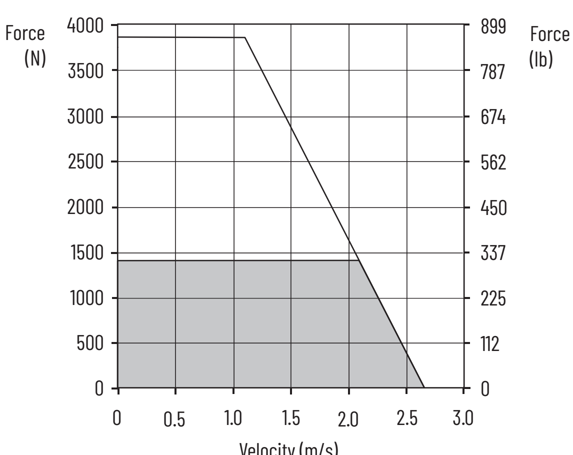
2198-E1020-ERS and LDAT-S104090-D*xx*



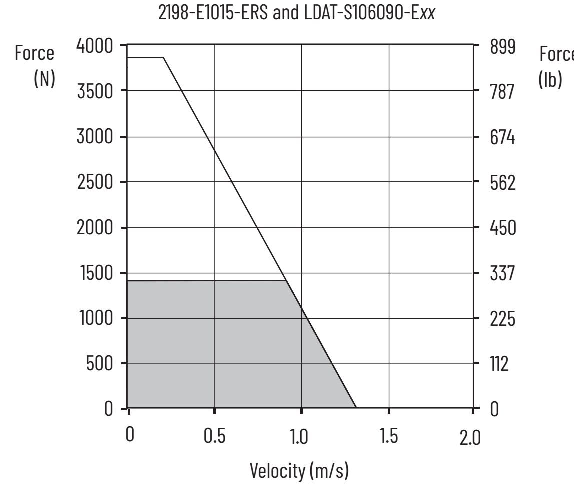
2198-E1007-ERS and LDAT-S104090-E*xx*



2198-E2030-ERS and LDAT-S106090-D*xx*

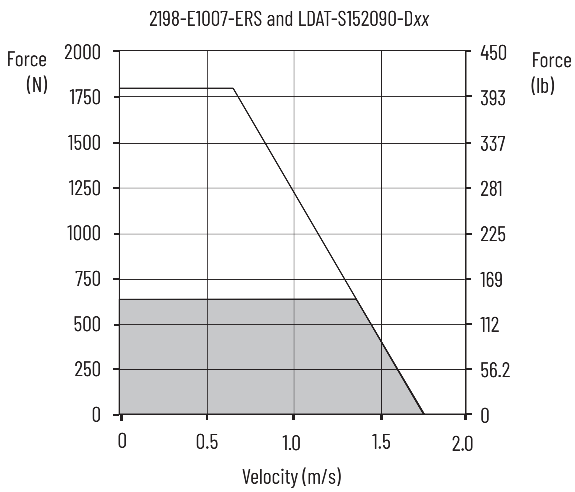


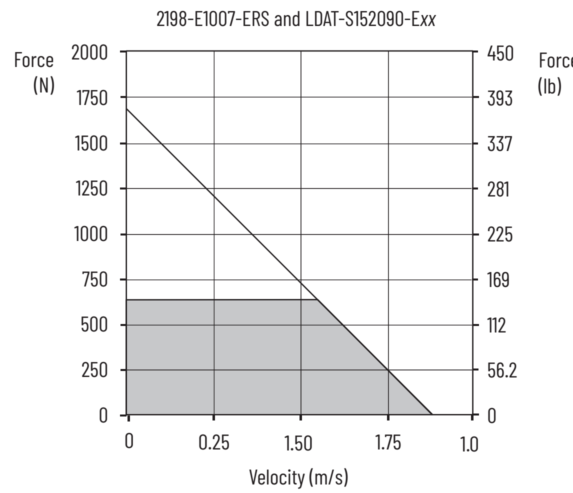
2198-E1015-ERS and LDAT-S106090-E*xx*

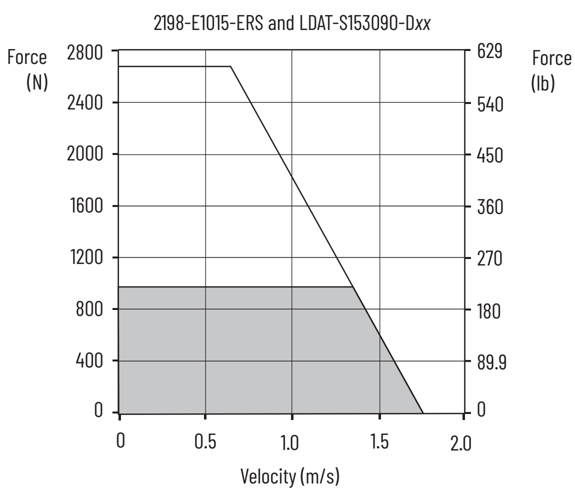


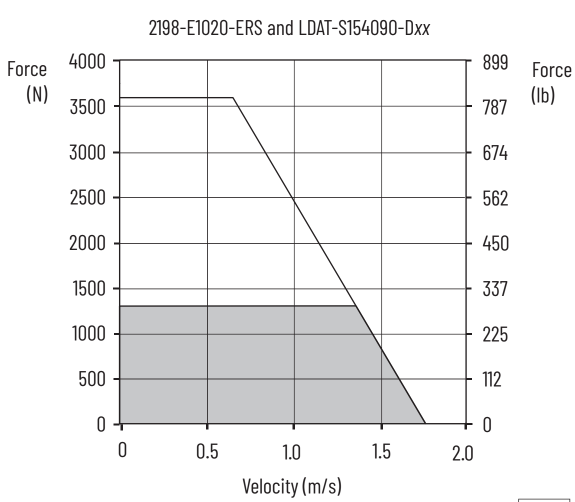
= Intermittent operating region
= Continuous operating region

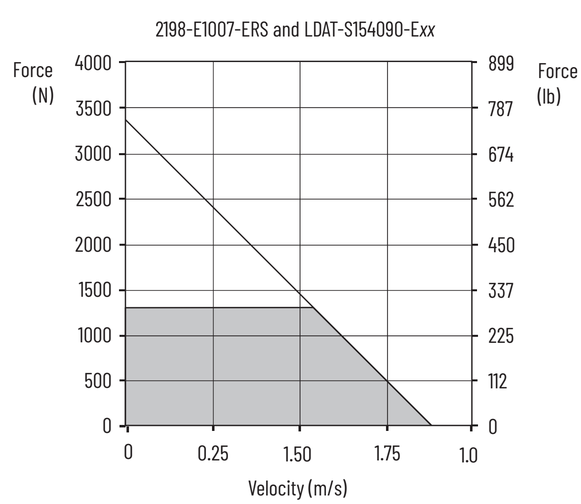
Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

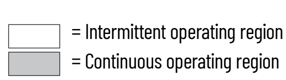




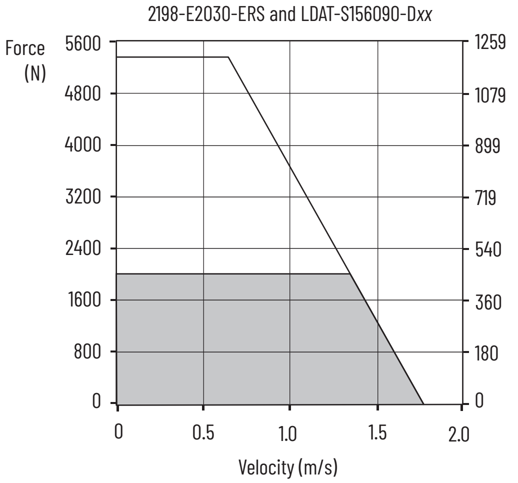


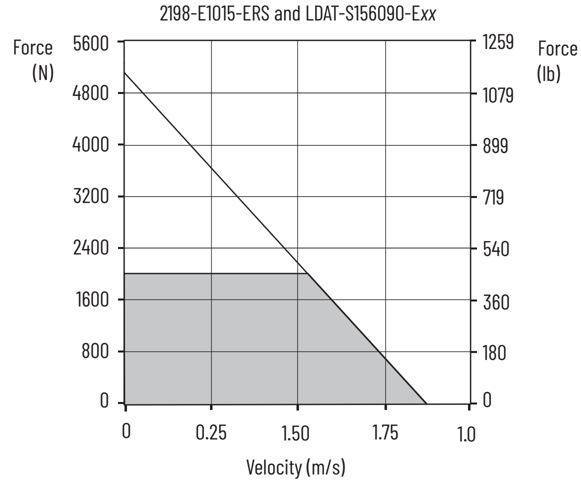






Kinetix 5100 (200V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)





= Intermittent operating region
= Continuous operating region

Kinetix LDAT Performance Specifications with Kinetix 5100 (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 5100 Drives (480V AC input)
LDAT-S031010-D*xx*	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2198-E4015-ERS
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	2198-E4020-ERS
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	2198-E4015-ERS
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-D*xx*	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2198-E4030-ERS
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		0.67	2198-E4015-ERS
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 ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (480V AC input)
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.34	2198-E4015-ERS
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	2198-E4020-ERS
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	2198-E4015-ERS
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-D*xx*	4.1	9.4	378 (85)	34.2	1093 (246)	1.56	2198-E4030-ERS
LDAT-S053020-D*xx*	5.0					1.87	
LDAT-S053030-D*xx* … LDAT-S053050-D*xx*							
LDAT-S053010-E*xx* … LDAT-S053050-E*xx*	3.5	3.1		11.4		1.04	2198-E4015-ERS
LDAT-S054010-D*xx*	4.4	12.4	509 (114)	45.5	1453 (327)	2.26	2198-E4055-ERS
LDAT-S054020-D*xx* … LDAT-S054050-D*xx*	5.00					2.53	
LDAT-S054010-E*xx*	4.4	6.2		22.7		1.87	2198-E4020-ERS
LDAT-S054020-E*xx* … LDAT-S054050-E*xx*	5.0					2.05	

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (480V AC input)
LDAT-S072010-D*xx*	3.9	6.0	364 (82)	22.0	1055 (237)	1.37	2198-E4020-ERS
LDAT-S072020-D*xx*	5.0					1.64	
LDAT-S072030-D*xx* … LDAT-S072070-D*xx*							
LDAT-S072010-E*xx*	3.5	3.0		11.0		1.03	2198-E4007-ERS
LDAT-S072020-E*xx* … LDAT-S072070-E*xx*							
LDAT-S073010-D*xx*	4.4	9.0	554 (125)	32.8	1576 (354)	2.27	2198-E4030-ERS
LDAT-S073020-D*xx* … LDAT-S073070-D*xx*	5.0					2.50	
LDAT-S073010-E*xx* … LDAT-S073070-E*xx*	2.4	3.0		10.9		1.01	2198-E4007-ERS

Performance Specifications with Frame 70 Linear Thrusters (continued)

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 5100 Drives (480V AC input)
LDAT-S074010-Dxx	4.7	11.9	730 (164)	43.5	2088 (469)	3.15	2198-E4055-ERS
LDAT-S074020-Dxx … LDAT-S074070-Dxx	5.0					3.30	
LDAT-S074010-Exx … LDAT-S074070-Exx	3.5	6.0		21.7		2.08	2198-E4020-ERS
LDAT-S076010-Dxx	5.0	18.2	1122 (252)	66.4	3189 (717)	5.02	2198-E4075-ERS
LDAT-S076020-Dxx … LDAT-S076070-Dxx							
LDAT-S076010-Exx … LDAT-S076070-Exx	3.5	9.1		33.2		3.18	2198-E4030-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), 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 5100 Drives (480V AC input)
LDAT-S102010-Dxx	3.4	5.7	456 (103)	21.0	1289 (290)	1.44	2198-E4015-ERS
LDAT-S102020-Dxx	4.4					1.74	
LDAT-S102030-Dxx	5.0					1.91	
LDAT-S102040-Dxx							
LDAT-S102050-Dxx … LDAT-S102090-Dxx							
LDAT-S102010-Exx … LDAT-S102090-Exx	2.6	2.9		10.5		0.96	2198-E4007-ERS
LDAT-S103010-Dxx	3.8	8.6	702 (158)	31.5	1935 (435)	2.41	2198-E4030-ERS
LDAT-S103020-Dxx	5.0					2.93	
LDAT-S103030-Dxx … LDAT-S103090-Dxx							
LDAT-S103010-Exx … LDAT-S103090-Exx	1.8	2.9		10.5		0.92	2198-E4007-ERS
LDAT-S104010-Dxx	4.1	11.5	929 (209)	42.0	2578 (580)	3.76	2198-E4055-ERS
LDAT-S104020-Dxx	5.0					4.29	
LDAT-S104030-Dxx … LDAT-S104090-Dxx							
LDAT-S104010-Exx … LDAT-S104090-Exx	2.7	5.7		21.0		2.07	2198-E4015-ERS
LDAT-S106010-Dxx	4.5	17.3	1403 (315)	63.0	3871 (870)	5.41	2198-E4075-ERS
LDAT-S106020-Dxx … LDAT-S106090-Dxx	5.0					5.87	
LDAT-S106010-Exx … LDAT-S106090-Exx	2.7	8.6		31.5		2.94	2198-E4030-ERS

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

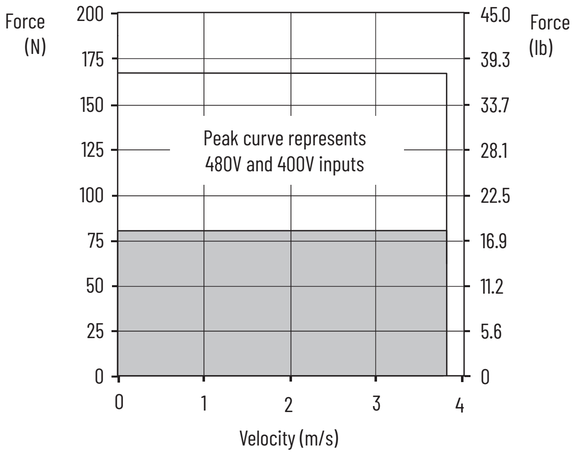
Performance Specifications with Frame 150 Linear Thrusters

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 5100 Drives (480V AC input)
LDAT-S152010-D*xx*	3.2	5.3	643 (145)	19.5	1799 (404)	1.76	2198-E4015-ERS
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	2198-E4007-ERS
LDAT-S153010-D*xx* … LDAT-S153090-D*xx*	3.6	8.0	978 (220)	29.1	2680 (602)	2.87	2198-E4020-ERS
LDAT-S153010-E*xx* … LDAT-S153090-E*xx*	1.2	2.7		9.1		0.80	2198-E4007-ERS
LDAT-S154010-D*xx* … LDAT-S154090-D*xx*	3.5	10.7	1306 (294)	39.1	3597 (809)	3.83	2198-E4055-ERS
LDAT-S154010-E*xx* … LDAT-S154090-E*xx*	1.8	5.3		19.5		1.78	2198-E4015-ERS
LDAT-S156010-D*xx* … LDAT-S156090-D*xx*	3.6	16.3	1997 (449)	59.4	5469 (1229)	5.85	2198-E4075-ERS
LDAT-S156010-E*xx* … LDAT-S156090-E*xx*	1.8	8.1		19.8		2.71	2198-E4020-ERS

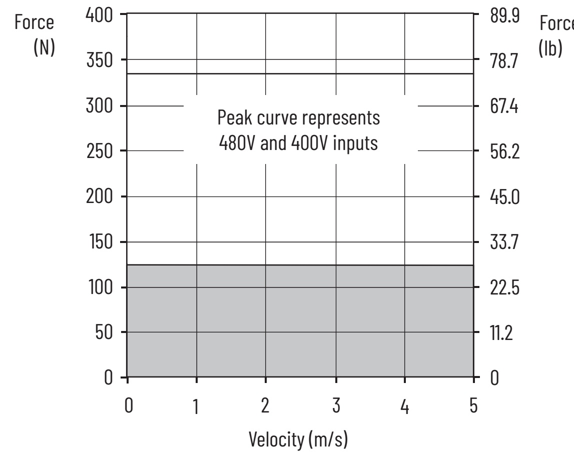
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves

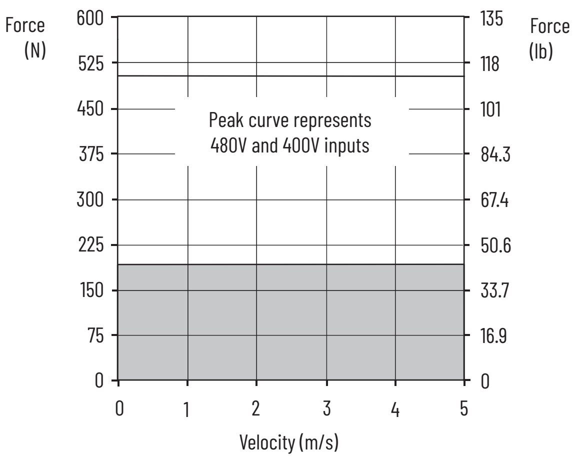
2198-E4015-ERS and LDAT-S031040-Dxx



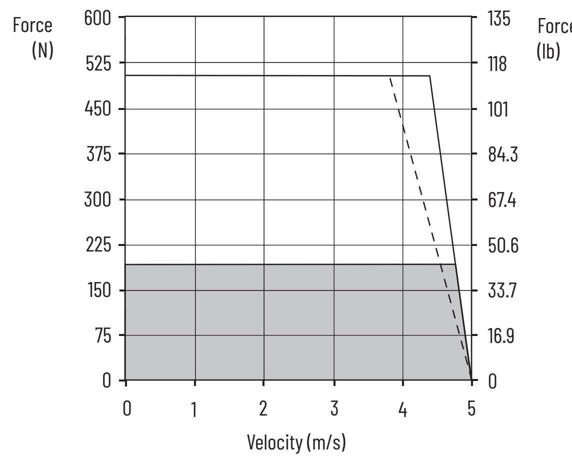
2198-E4020-ERS and LDAT-S032040-D*xx*
2198-E4015-ERS and LDAT-S032040-E*xx*



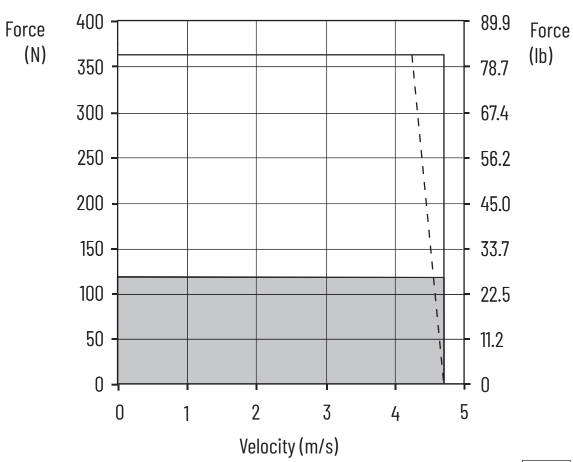
2198-E4030-ERS and LDAT-S033040-D*xx*



2198-E4015-ERS and LDAT-S033040-E*xx*



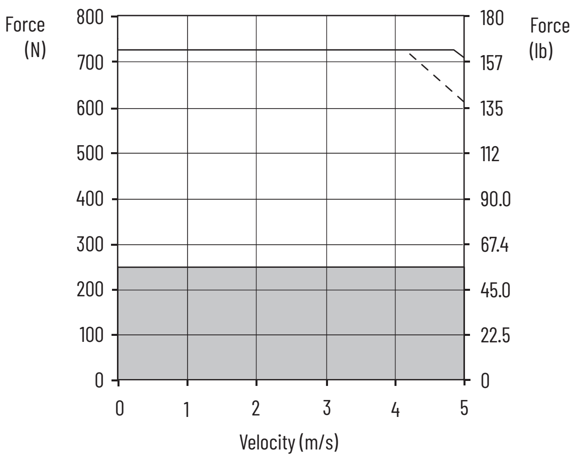
2198-E4015-ERS and LDAT-S051050-D*xx*



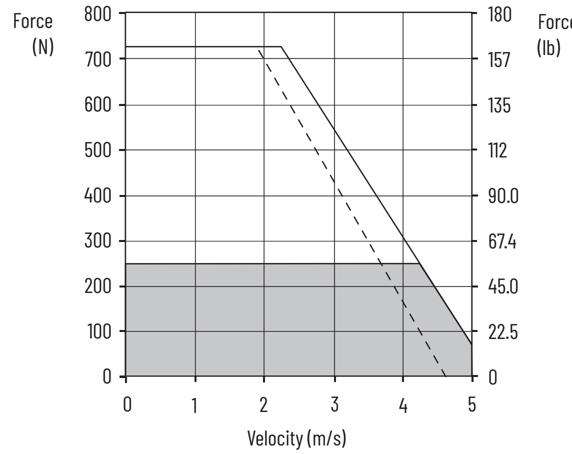
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

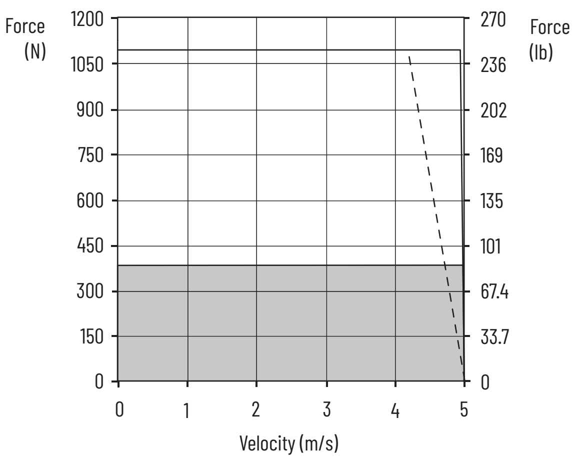
2198-E4020-ERS and LDAT-S052050-Dxx



2198-E4015-ERS and LDAT-S052050-Exx

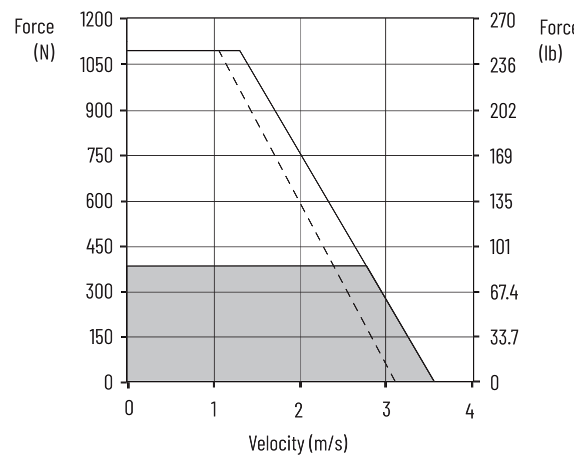


2198-E4030-ERS and LDAT-S053050-Dxx

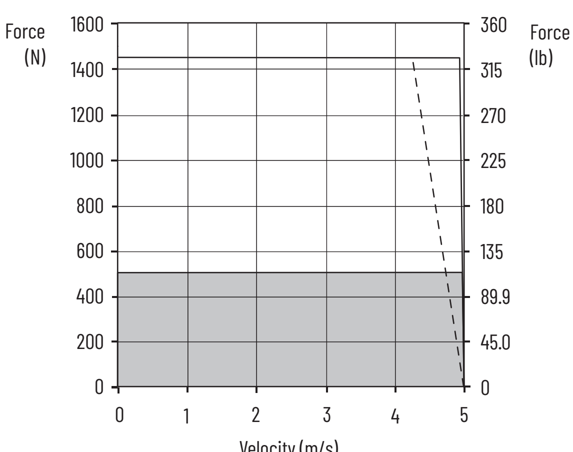


No Match

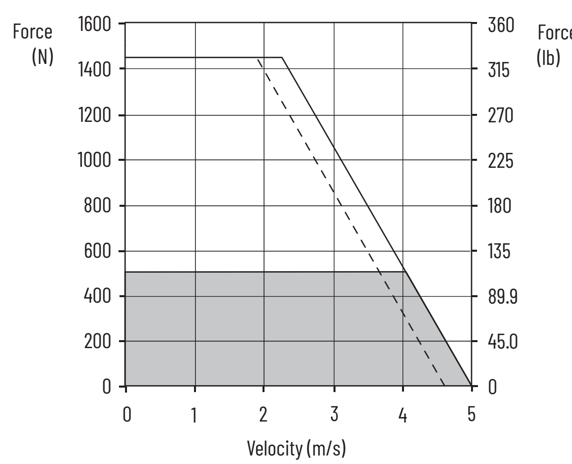
2198-E4015-ERS and LDAT-S053050-Exx



2198-E4055-ERS and LDAT-S054050-Dxx



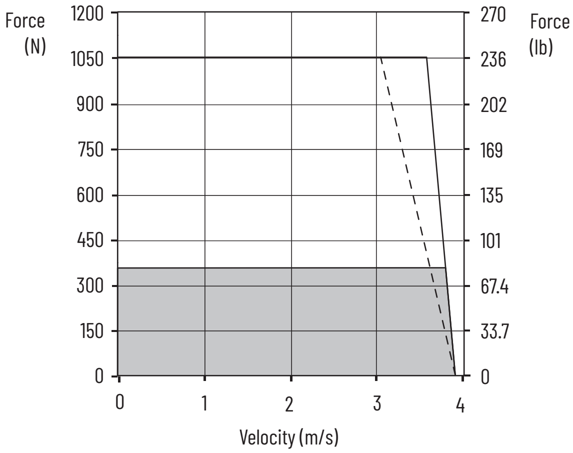
2198-E4020-ERS and LDAT-S054050-Exx



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

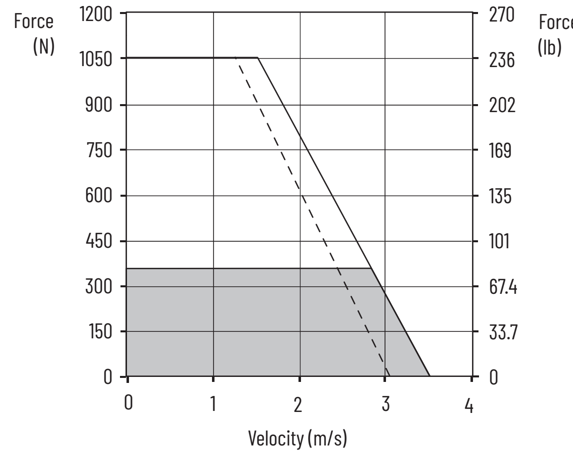
Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

2198-E4020-ERS and LDAT-S072070-D*xx*

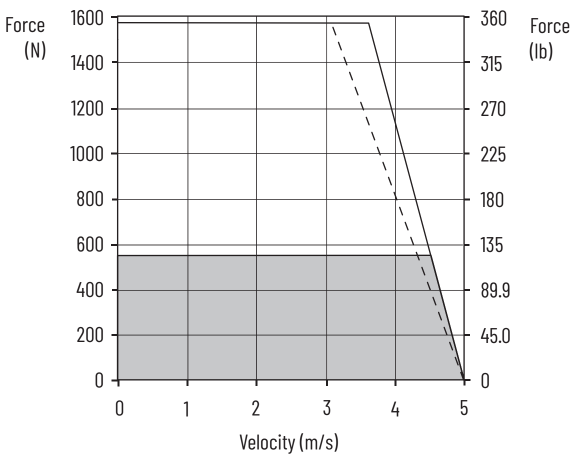


No Match

2198-E4007-ERS and LDAT-S072070-E*xx*

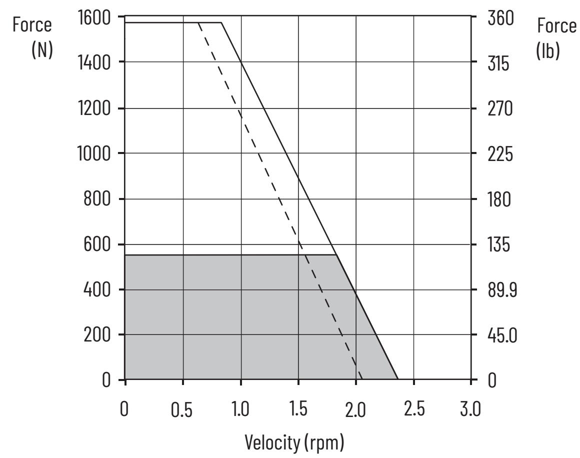


2198-E4030-ERS and LDAT-S073070-D*xx*

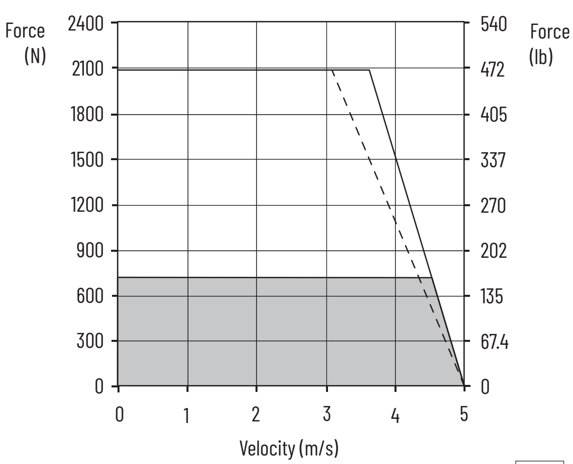


No Match

2198-E4007-ERS and LDAT-S073070-E*xx*

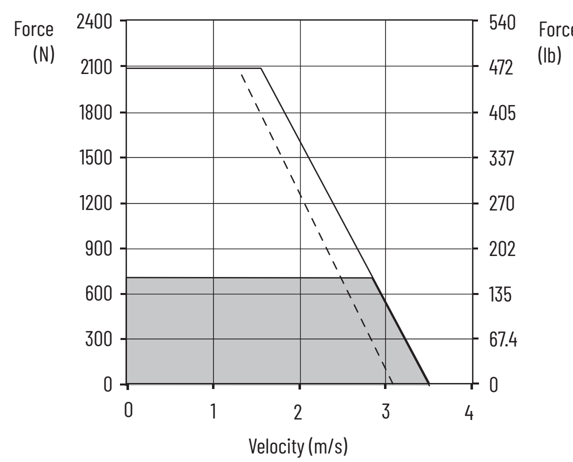


2198-E4055-ERS and LDAT-S074070-D*xx*



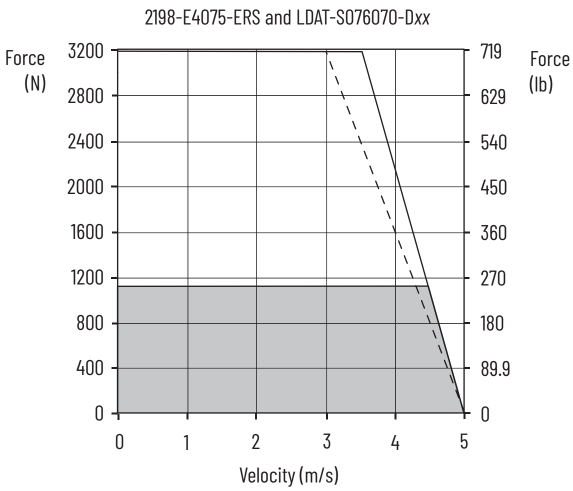
No Match

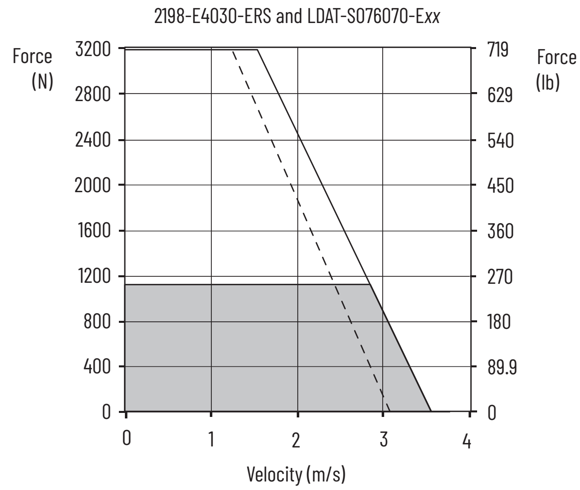
2198-E4020-ERS and LDAT-S074070-E*xx*

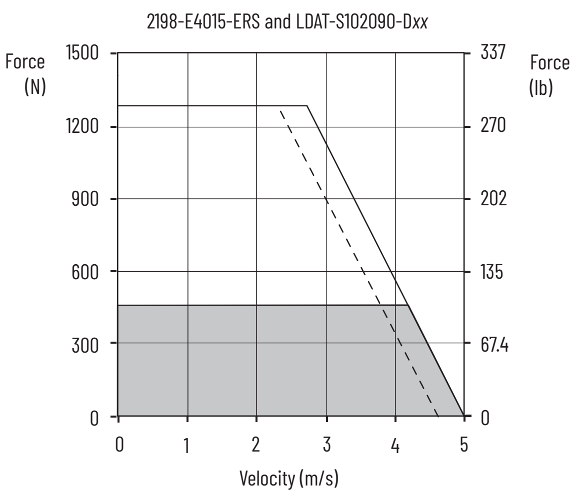


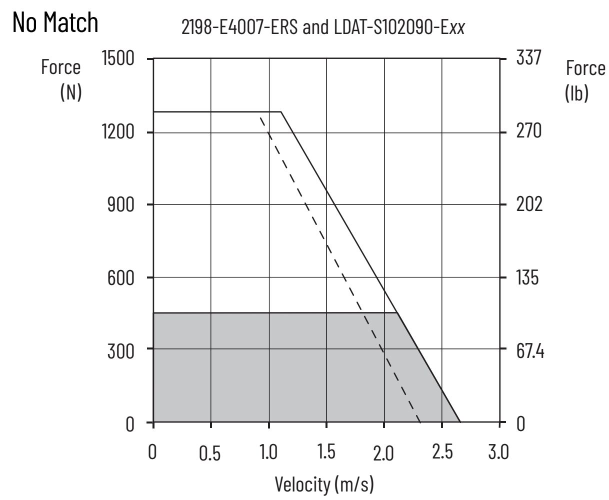
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

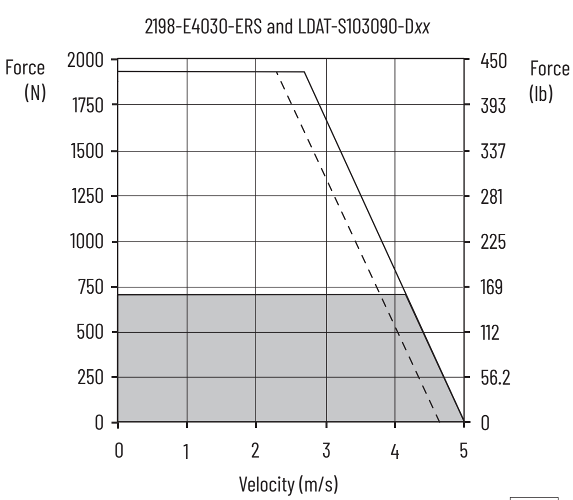
Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

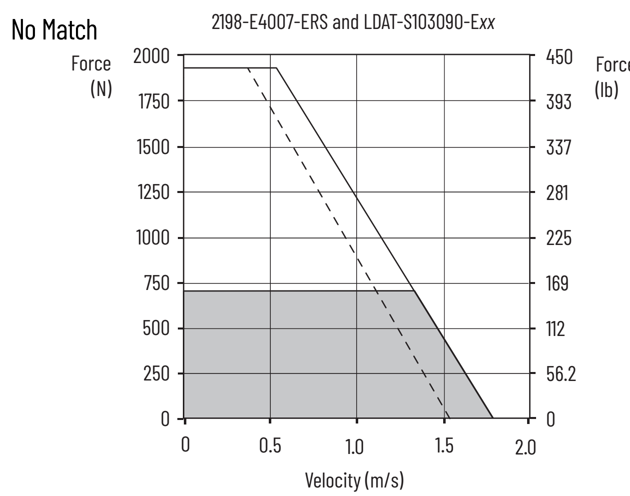








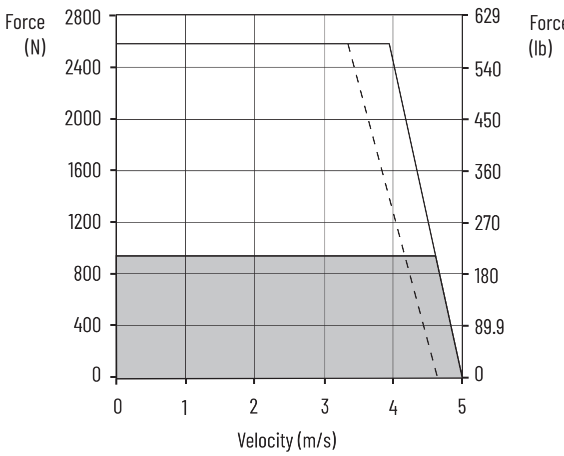




= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

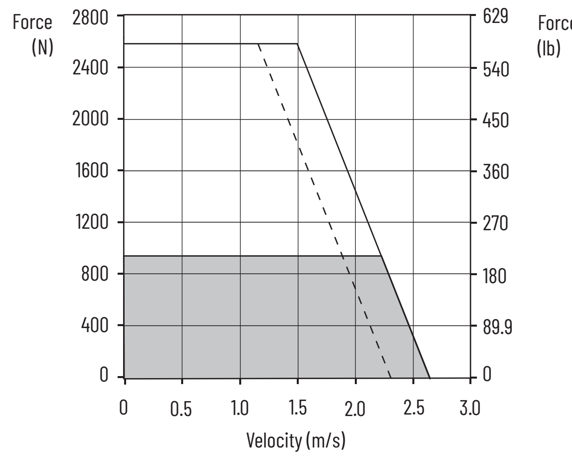
Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

2198-E4055-ERS and LDAT-S104090-D*xx*

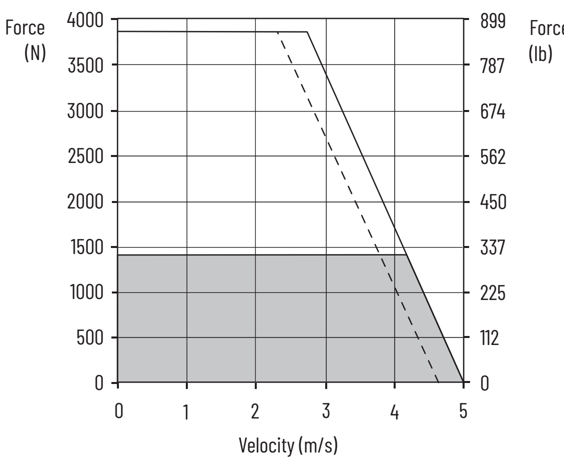


No Match

2198-E4015-ERS and LDAT-S104090-E*xx*

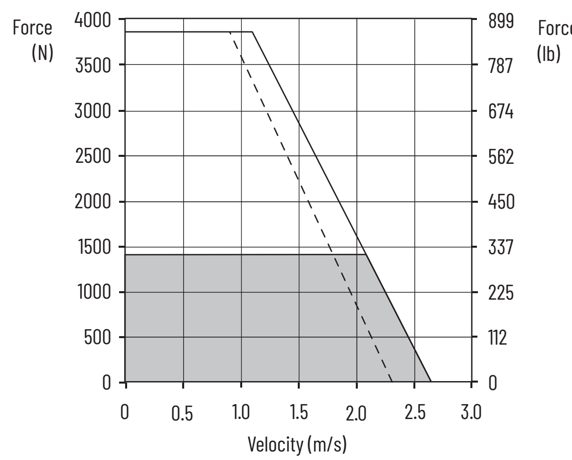


2198-E4075-ERS and LDAT-S106090-D*xx*

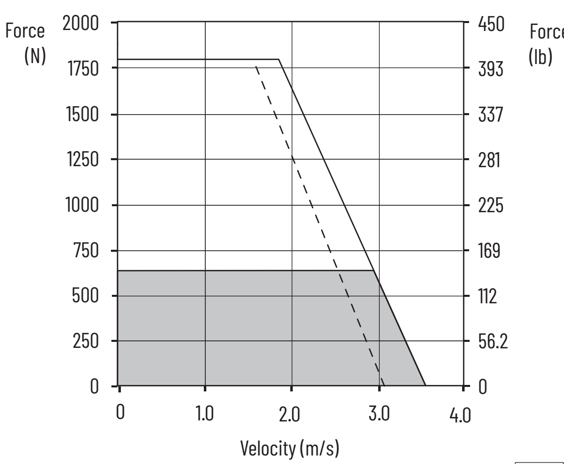


No Match

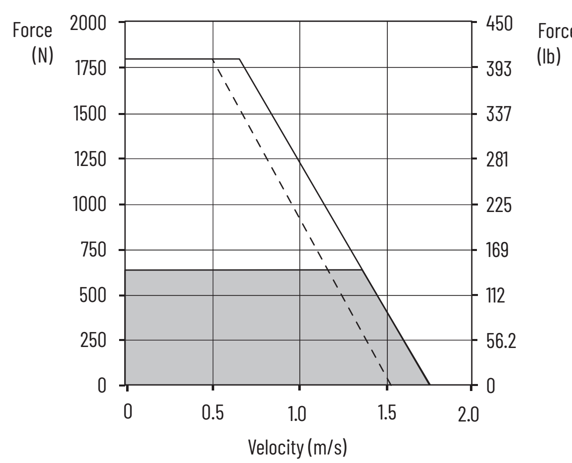
2198-E4030-ERS and LDAT-S106090-E*xx*



2198-E4015-ERS and LDAT-S152090-D*xx*

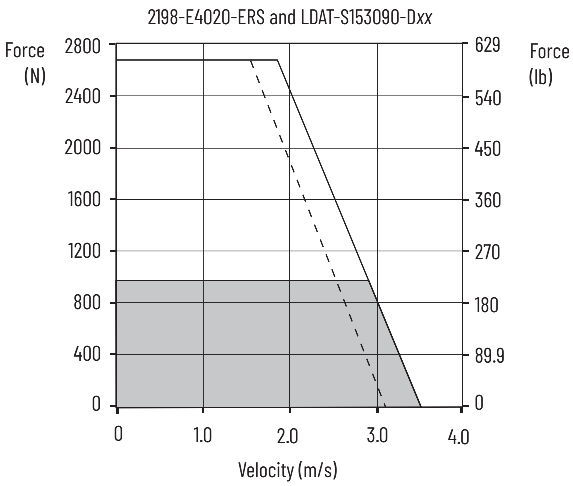


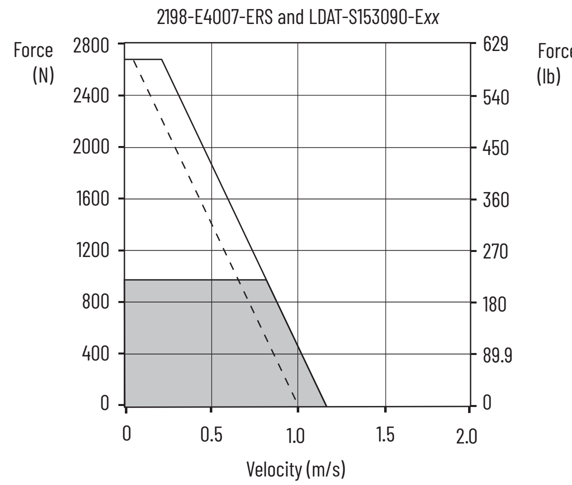
2198-E4007-ERS and LDAT-S152090-E*xx*

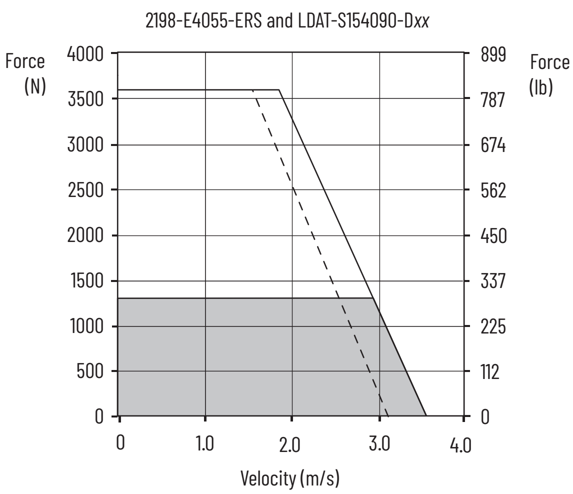


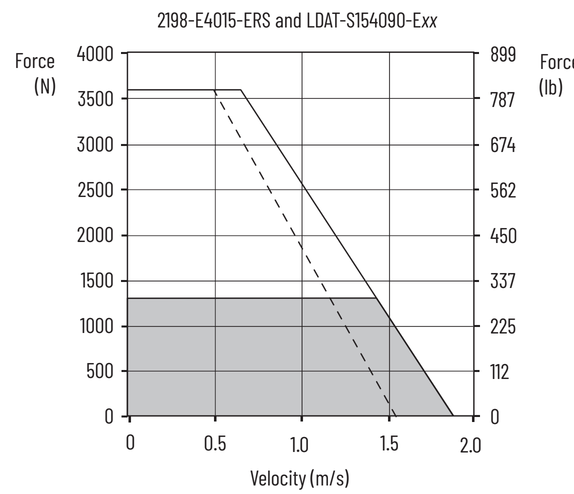
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

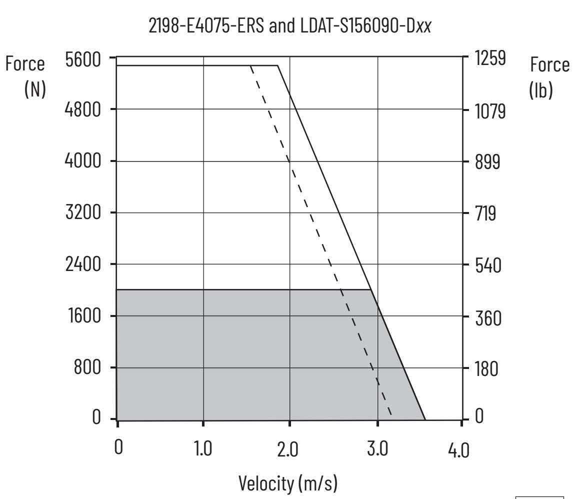
Kinetix 5100 (400V-class) Drives/Kinetix LDAT Integrated Linear Thruster Curves (cont.)

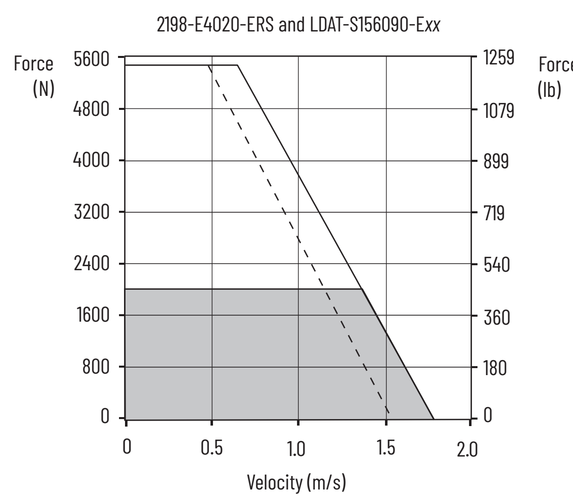












= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5100 (200V-class) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5100 drives (with 230V, nominal input) when matched with Kinetix MPAS (400V-class) integrated (ballscrew) linear stages with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPAS Cable Combinations

Linear Stage (200V-class) Cat. No.	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, 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
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 the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix MPAS Performance Specifications with Kinetix 5100 (200V-class) Drives

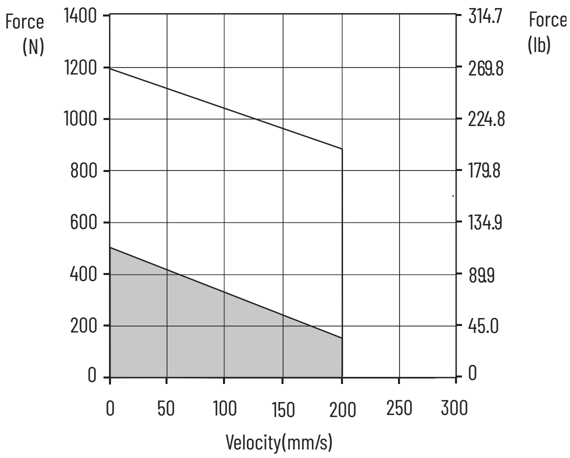
Linear Stage Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5100 Drives (230V AC input)
MPAS-A*xxxx*1-V05S*x*A	200 (7.9) (1)	3.09	521 (117)	6.10	1212 (272)	0.37	2198-E1004-ERS
MPAS-A*xxxx*2-V20S*x*A	1124 (44.3) (2)	4.54	462 (104)	9.10	968 (218)	0.62	2198-E1007-ERS
MPAS-A6*xxx*B-ALM02C	5000 (200)	5.3	105 (23.6)	15.8	359 (80.7)	0.32	2198-E1007-ERS
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	2198-E1007-ERS
MPAS-A8*xxx*E-ALMS2C		6.3	159 (35.7)	16.7	399 (89.7)	0.48	2198-E1007-ERS
MPAS-A9*xxx*K-ALM02C		6.7	285 (64.1)	18.3	680 (153)	0.77	2198-E1007-ERS
MPAS-A9*xxx*K-ALMS2C		6.1	245 (55.1)	16.5	601 (135)	0.69	2198-E1007-ERS

(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).

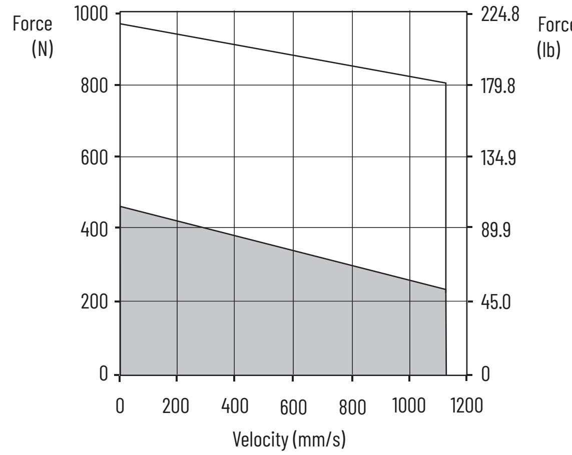
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix MPAS Integrated Linear Stage Curves

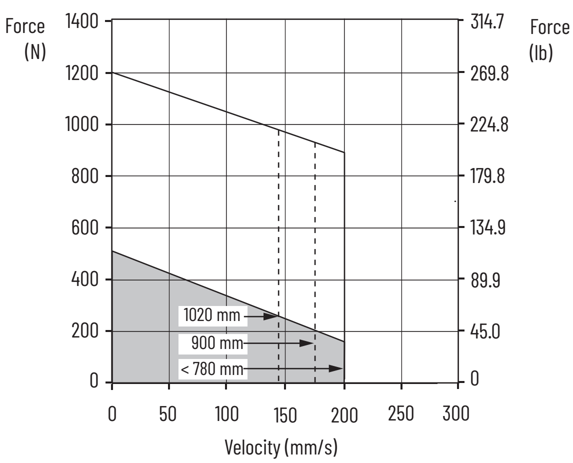
2198-E1004-ERSand MPAS-A6*xxx*1-V05SxA



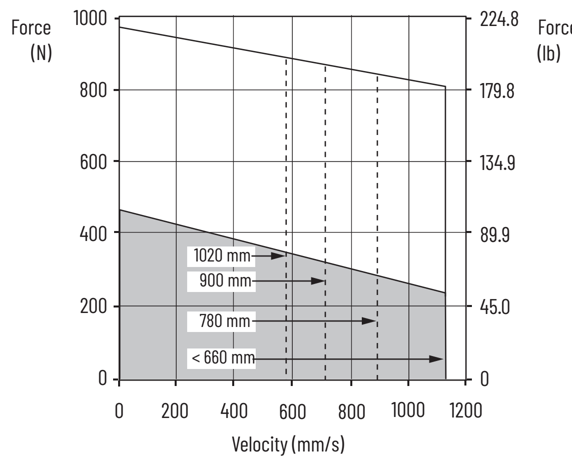
2198-E1007-ERS and MPAS-A6*xxx*2-V20SxA



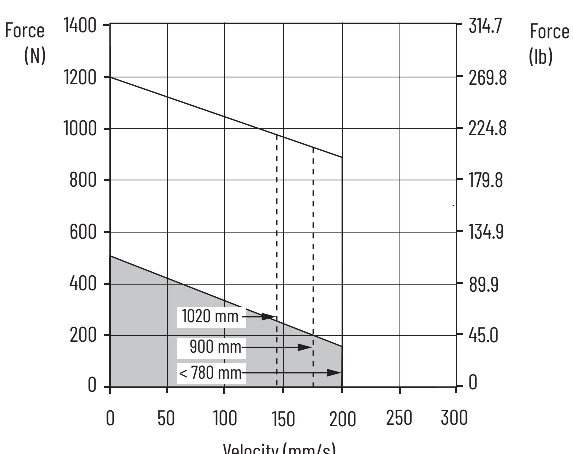
2198-E1004-ERS and MPAS-A8*xxx*1-V05SxA



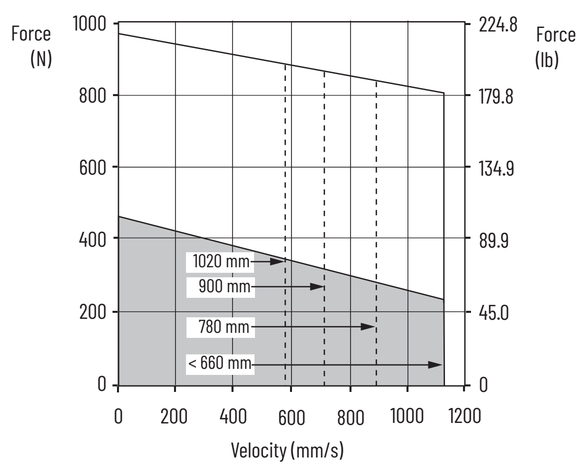
2198-E1007-ERS and MPAS-A8*xxx*2-V20SxA



2198-E1004-ERS and MPAS-A9*xxx*1-V05SxA



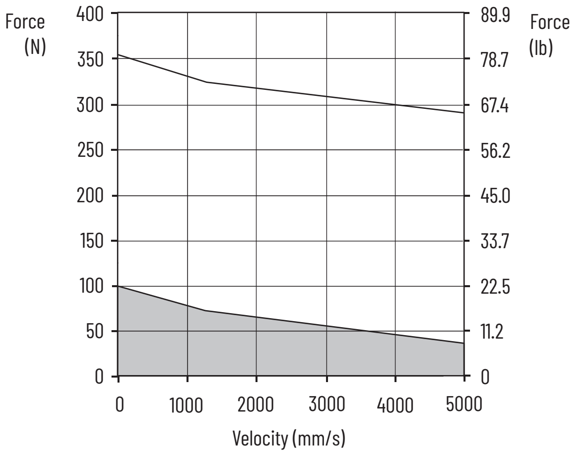
2198-E1007-ERS and MPAS-A9*xxx*2-V20SxA



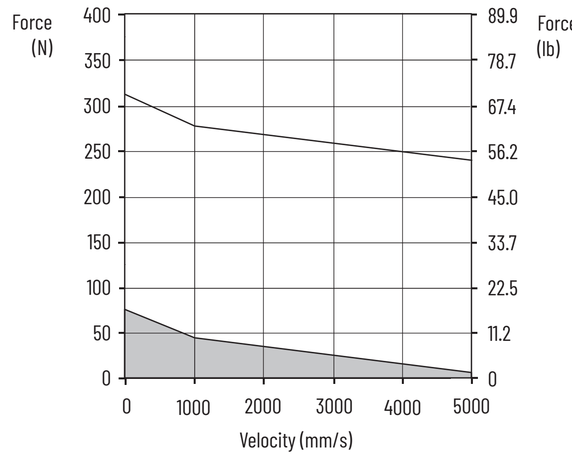
= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 5100 (200V-class) Drives/Kinetix MPAS Integrated Linear Stage Curves (continued)

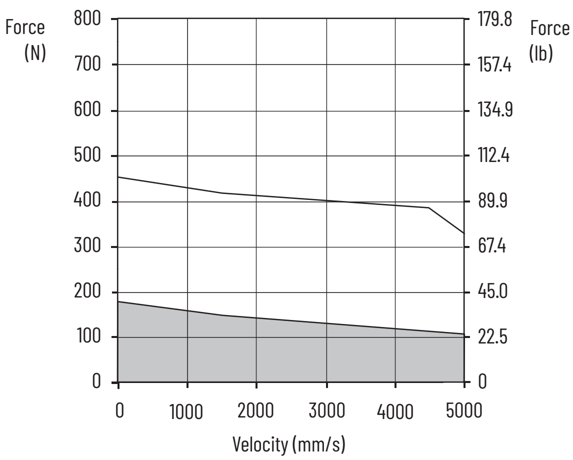
2198-E1007-ERS and MPAS-A6*xxx*B-ALM02C



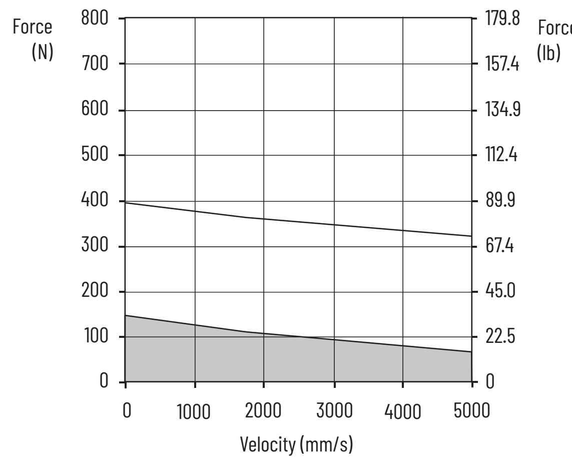
2198-E1007-ERS and MPAS-A6*xxx*B-ALMS2C



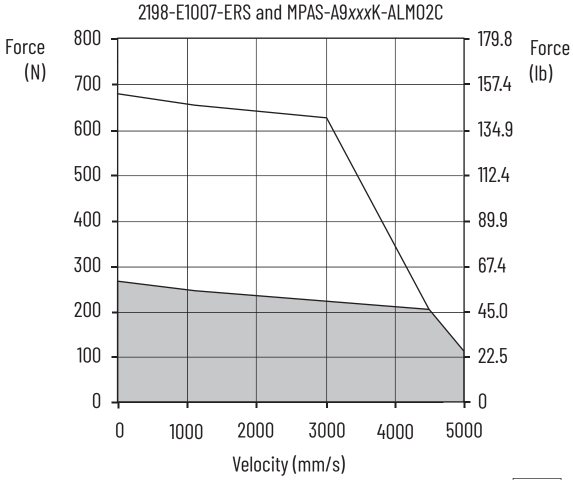
2198-E1007-ERS and MPAS-A8*xxx*E-ALM02C



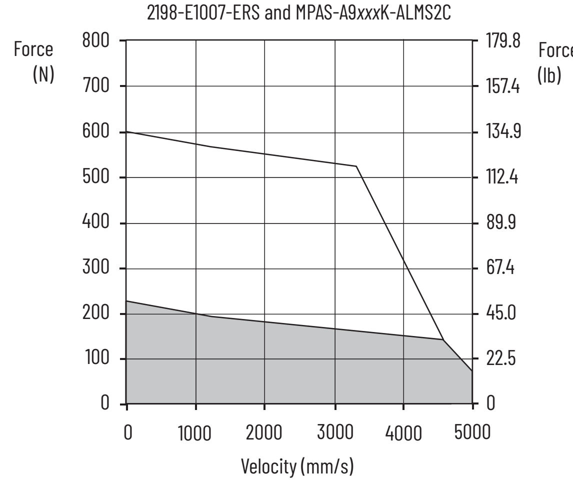
2198-E1007-ERS and MPAS-A8*xxx*E-ALMS2C



2198-E1007-ERS and MPAS-A9*xxx*K-ALM02C



2198-E1007-ERS and MPAS-A9*xxx*K-ALMS2C



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

Kinetix 5100 (400V-class) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5100 drives (with 480V, nominal input) when matched with Kinetix MP (400V-class) integrated (ballscrew) linear stages with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix MPAS Cable Combinations

Linear Stage (400V-class) Cat. No.	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, 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
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 the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix MPAS Performance Specifications with Kinetix 5100 (400V-class) Drives

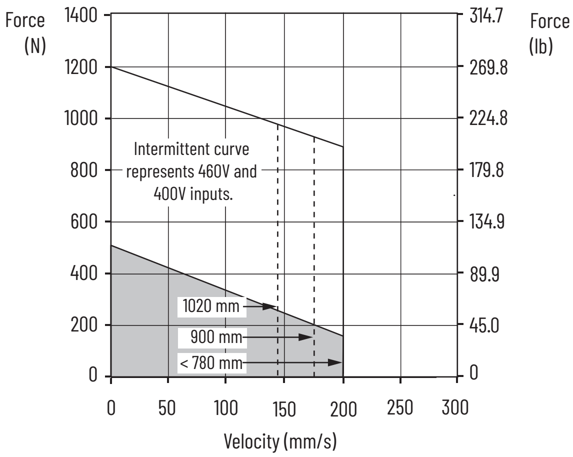
Linear Stage Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5100 Drives (480V AC input)
MPAS-B*xxxx*1-V05S*x*A	200 (7.9) (1)	1.75	521 (117)	3.50	1212 (272)	0.37	2198-E4004-ERS
MPAS-B*xxxx*2-V20S*x*A	1124 (44.3) (2)	3.30	462 (104)	6.60	968 (218)	0.62	2198-E4007-ERS
MPAS-B8*xxx*F-ALM02C	5000 (200)	3.50	189 (42.5)	9.30	456 (103)	0.527	2198-E4007-ERS
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).

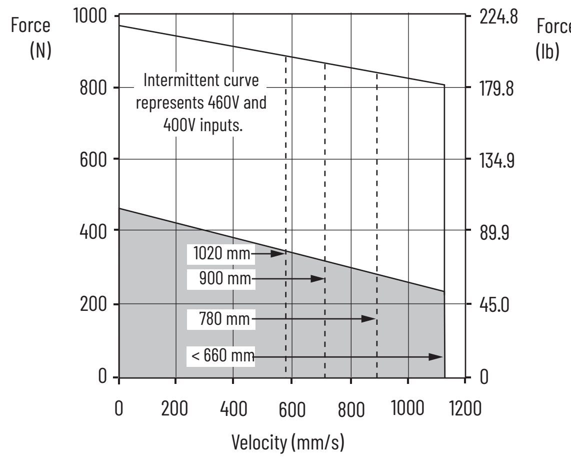
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix MPAS Integrated Linear Stage Curves

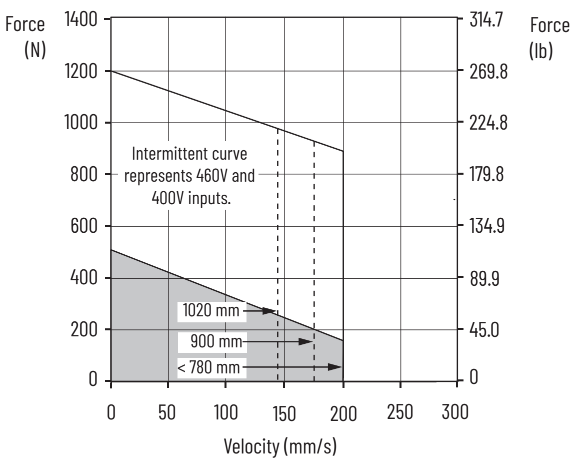
2198-E4004-ERS and MPAS-B8*xxx*1-V05S*x*A



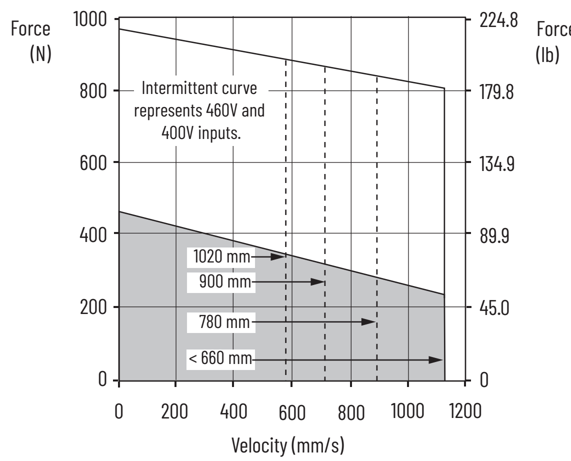
2198-E4007-ERS and MPAS-B8*xxx*2-V20S*x*A



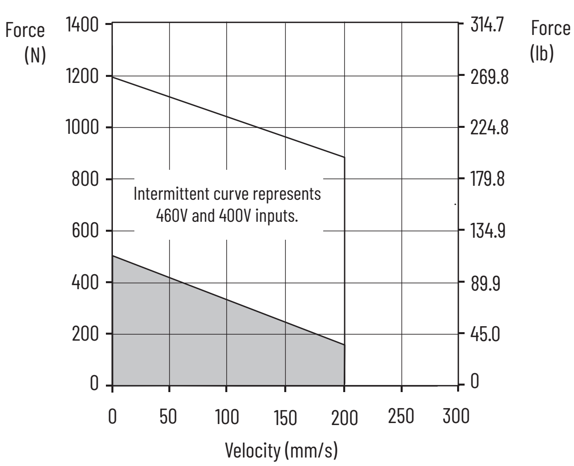
2198-E4004-ERS and MPAS-B9*xxx*1-V05S*x*A



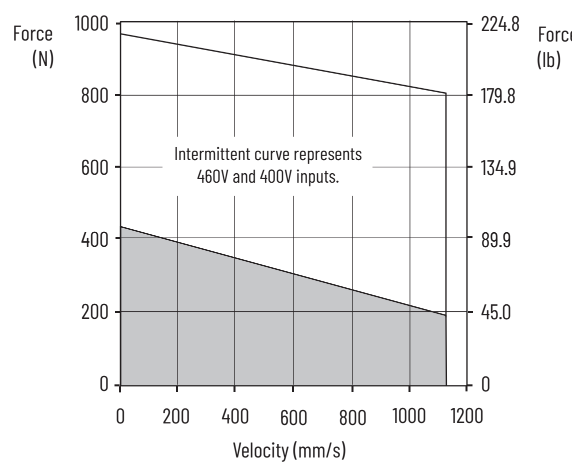
2198-E4007-ERS and MPAS-B9*xxx*2-V20S*x*A



2198-E4004-ERS and MPAS-B6*xxx*1-V05S*x*A



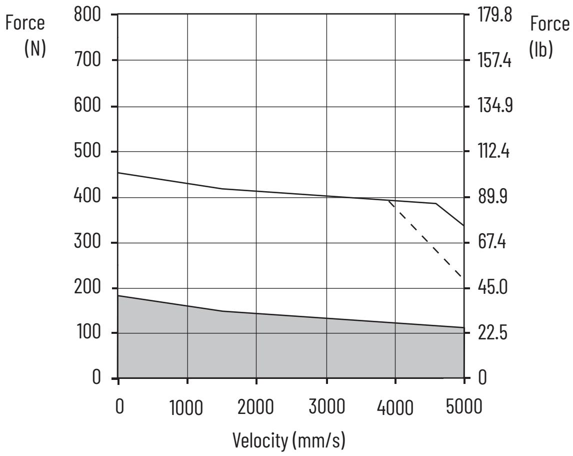
2198-E4007-ERS and MPAS-B6*xxx*2-V20S*x*A



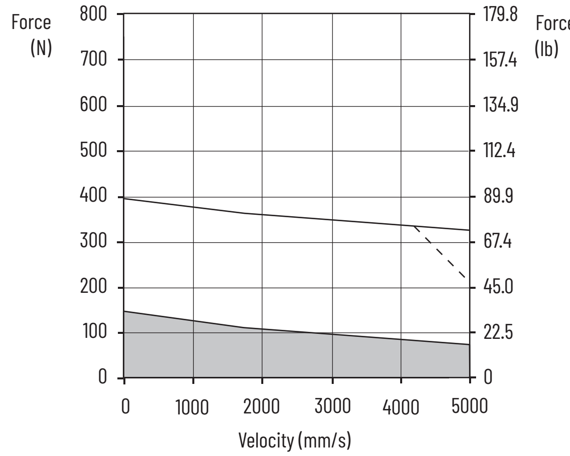
= Intermittent operating region
= Continuous operating region
= System operation for specified stroke length

Kinetix 5100 (400V-class) Drives/Kinetix MPAS Integrated Linear Stage Curves (cont.)

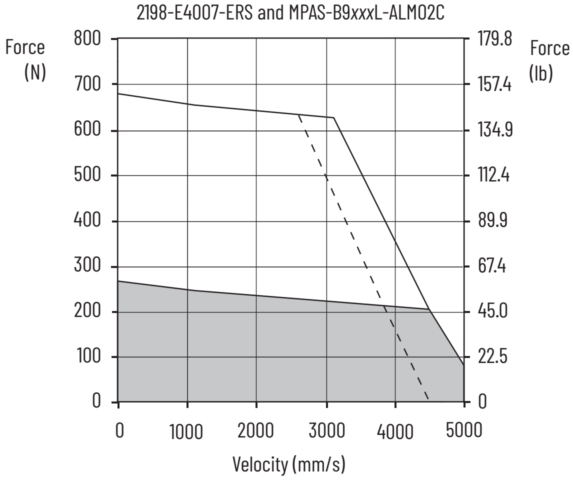
2198-E4007-ERS and MPAS-B8*xxx*F-ALM02C



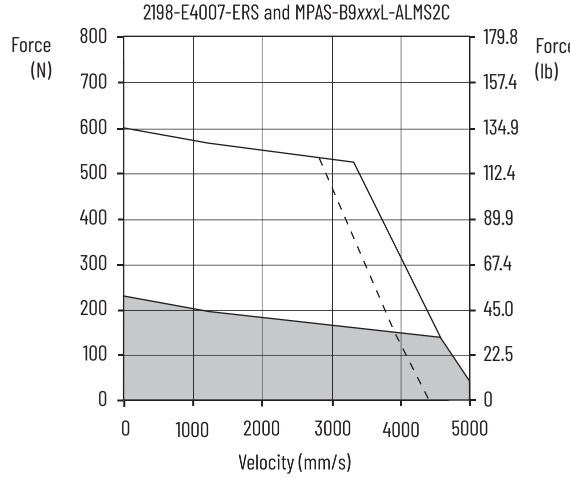
2198-E4007-ERS and MPAS-B8*xxx*F-ALMS2C



2198-E4007-ERS and MPAS-B9*xxx*L-ALM02C



2198-E4007-ERS and MPAS-B9*xxx*L-ALMS2C



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

Kinetix 5100 Drives with Kinetix MPAR Electric Cylinders

This section provides system combination information for the Kinetix 5100 drives (with 230V and 480V, nominal input) when matched with Kinetix MPAR electric cylinders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPAR Cable Combinations

Electric Cylinder (200V and 400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAR-A1*xxx*B, MPAR-A1*xxx*E MPAR-A2*xxx*C, MPAR-A2*xxx*F MPAR-A3*xxx*E, MPAR-A3*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
MPAR-B1*xxx*B, MPAR-B1*xxx*E MPAR-B2*xxx*C, MPAR-B2*xxx*F MPAR-B3*xxx*E, MPAR-B3*xxx*H		

(1) Use the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix MPAR Performance Specifications with Kinetix 5100 Drives

Performance Specifications with Kinetix 5100 (200V-class) Drives

Electric Cylinder Cat. No.	Maximum Speed 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 Output Power Rating kW	Kinetix 5100 Drives (230V AC input)
MPAR-A1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2198-E1004-ERS
MPAR-A1*xxx*E	500	2.16	280 (62.9)	2.48	350 (78.7)	0.140	2198-E1004-ERS
MPAR-A2*xxx*C	250	2.42	420 (94.4)	2.72	525 (118)	0.105	2198-E1004-ERS
MPAR-A2*xxx*F	640	4.54	640 (144)	5.41	800 (180)	0.410	2198-E1007-ERS
MPAR-A3*xxx*E	500	10.33	2000 (450)	12.34	2500 (562)	1.00	2198-E1015-ERS
MPAR-A3*xxx*H	1000	12.20	1300 (292)	16.40	1625 (365)	1.30	2198-E1020-ERS

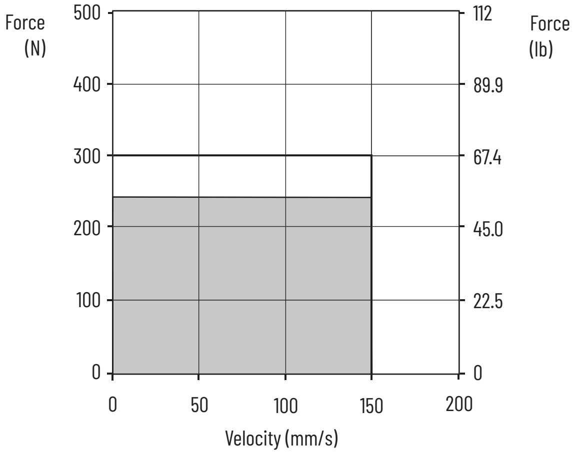
Performance Specifications with Kinetix 5100 (400V-class) Drives

Electric Cylinder Cat. No.	Maximum Speed 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 Output Power Rating kW	Kinetix 5100 Drives (480V AC input)
MPAR-B1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2198-E4004-ERS
MPAR-B1*xxx*E	500	1.49	280 (62.9)	1.71	350 (78.7)	0.140	2198-E4004-ERS
MPAR-B2*xxx*C	250	1.67	420 (94.4)	1.90	525 (118)	0.105	2198-E4004-ERS
MPAR-B2*xxx*F	640	3.29	640 (144)	3.93	800 (180)	0.410	2198-E4007-ERS
MPAR-B3*xxx*E	500	5.16	2000 (450)	6.17	2500 (562)	1.00	2198-E4015-ERS
MPAR-B3*xxx*H	1000	6.13	1300 (292)	6.79	1625 (365)	1.30	2198-E4015-ERS

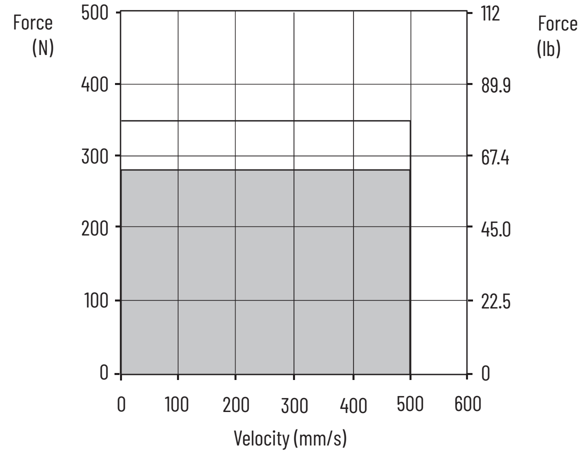
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 Drives/Kinetix MPAR Electric Cylinder Curves

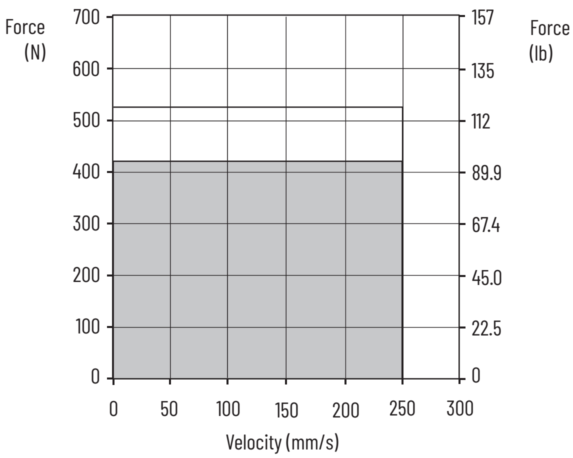
2198-E1004-ERS and MPAR-A1*xxx*B-VxA
2198-E4004-ERS and MPAR-B1*xxx*B-VxA



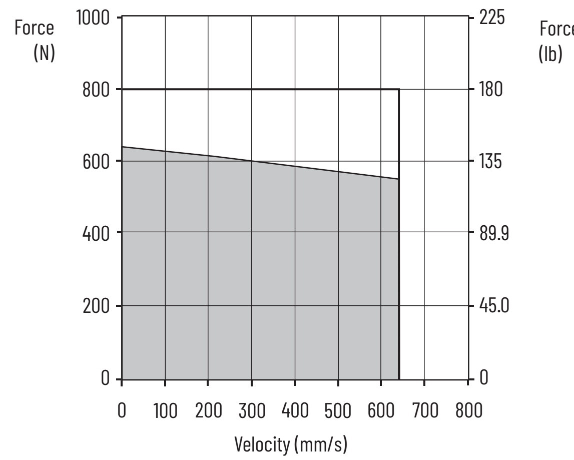
2198-E1004-ERS and MPAR-A1*xxx*E-VxA
2198-E4004-ERS and MPAR-B1*xxx*E-VxA



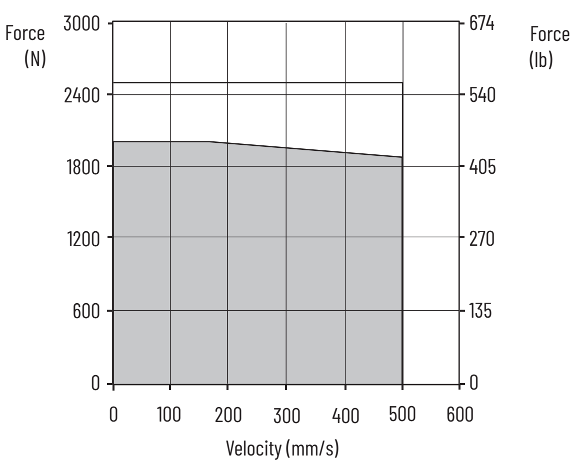
2198-E1004-ERS and MPAR-A2*xxx*C-VxA
2198-E4004-ERS and MPAR-B2*xxx*C-VxA



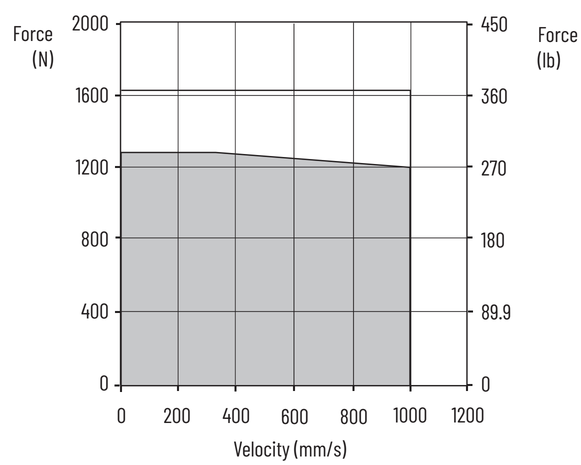
2198-E1007-ERS and MPAR-A2*xxx*F-VxA
2198-E4007-ERS and MPAR-B2*xxx*F-VxA



2198-E1015-ERS and MPAR-A3*xxx*E-MxA
2198-E4015-ERS and MPAR-B3*xxx*E-MxA



2198-E1020-ERS and MPAR-A3*xxx*H-MxA
2198-E4015-ERS and MPAR-B3*xxx*H-MxA



= Intermittent operating region
= Continuous operating region

Kinetix 5100 Drives with Kinetix MPAI Heavy Duty Electric Cylinders

This section provides system combination information for the Kinetix 5100 drives (with 230V and 480V, nominal input) when matched with Kinetix MPAI heavy-duty electric cylinders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix MPAI Cable Combinations

Electric Cylinder (200V and 400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAI-A/B2*xxx*C	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	

(1) Use the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix MPAI Performance Specifications with Kinetix 5100 (200V-class) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb) 25 °C (77 °F)	System Continuous Stall Force N (lb) 40 °C (104 °F)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5100 Drives (230V AC input)
MPAI-A2076CV1	305 (12)	1.80	890 (200)	706 (159)	4.50	1446 (325)	0.22	2198-E1004-ERS
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	
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	2198-E1007-ERS
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	2198-E1015-ERS
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	2198-E1020-ERS
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 ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Performance Specifications with Roller Screw Electric Cylinders

Electric Cylinder Cat. No.	**Maximum Speed** 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 Output Power Rating** kW	**Kinetix 5100 Drives (230V AC input)**
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A3076RM1	305 (12)	2.87	1557 (350)	1237 (278)	8.90	4862 (1093)	0.27	2198-E1004-ERS
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	2198-E1007-ERS
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	2198-E1015-ERS
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 ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix MPAI Performance Specifications with Kinetix 5100 (400V-class) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	**Maximum Speed** 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 Output Power Rating** kW	**Kinetix 5100 Drives (480V AC input)**
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-B2076CV1	305 (12)	0.90	890 (200)	706 (159)	2.30	1446 (325)	0.22	2198-E4004-ERS
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	
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	2198-E4007-ERS
MPAI-B3300CM3								
MPAI-B3450CM3	188 (7.3)							
MPAI-B3150EM3	559 (22)		2002 (450)	1588 (357)	7.07	4003 (900)		2198-E4007-ERS
MPAI-B3300EM3								
MPAI-B3450EM3	376 (15)							
MPAI-B4150CM3	279 (11)	5.61	7784 (1750)	6179 (1389)	8.68	8896 (2000)	0.43	2198-E4015-ERS
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	2198-E4015-ERS
MPAI-B5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	16.70	13,122 (2950)		

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

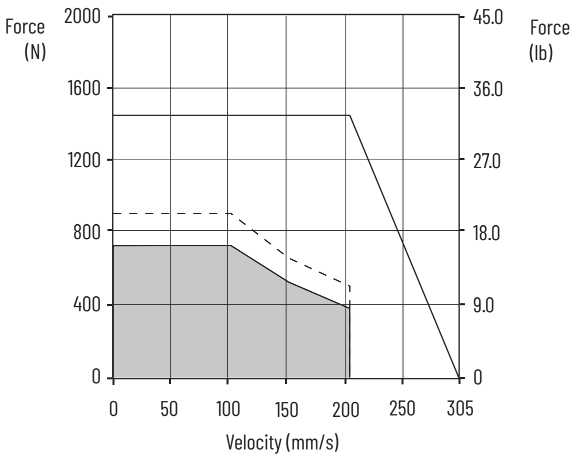
Performance Specifications with Roller Screw Electric Cylinders

Electric Cylinder Cat. No.	Maximum Speed 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 Output Power Rating kW	Kinetix 5100 Drives (480V AC input)
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-B3076RM1	305 (12)	1.45	1557 (350)	1237 (278)	4.57	4862 (1093)	0.27	2198-E4004-ERS
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	2198-E4007-ERS
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	2198-E4015-ERS
MPAI-B4300RM3								
MPAI-B4450RM3	196 (7.6)							
MPAI-B4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-B4300SM3								
MPAI-B4450SM3	393 (15)							

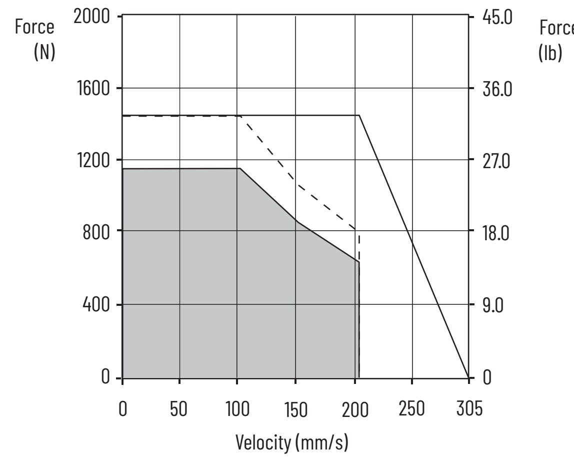
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves

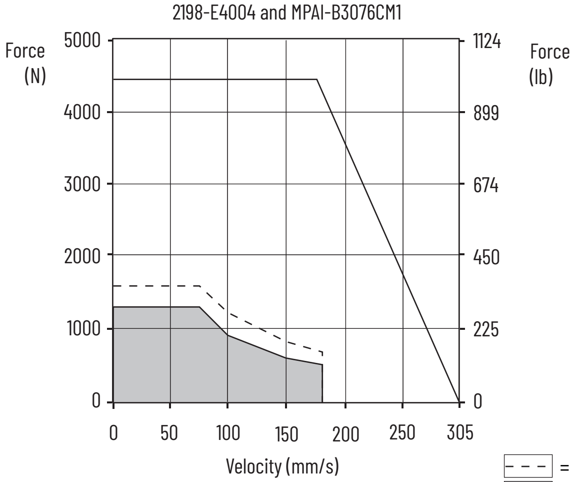
2198-E1004 and MPAI-A2076CV1
2198-E4004 and MPAI-B2076CV1



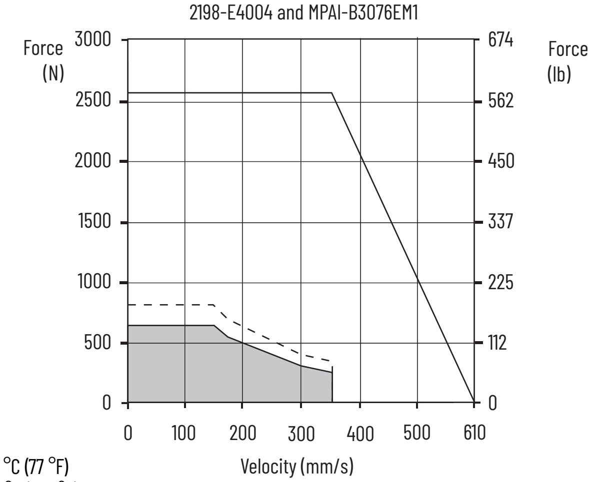
2198-E1004 and MPAI-A2xxxCV3
2198-E4004 and MPAI-B2xxxCV3



2198-E1004 and MPAI-A3076CM1
2198-E4004 and MPAI-B3076CM1



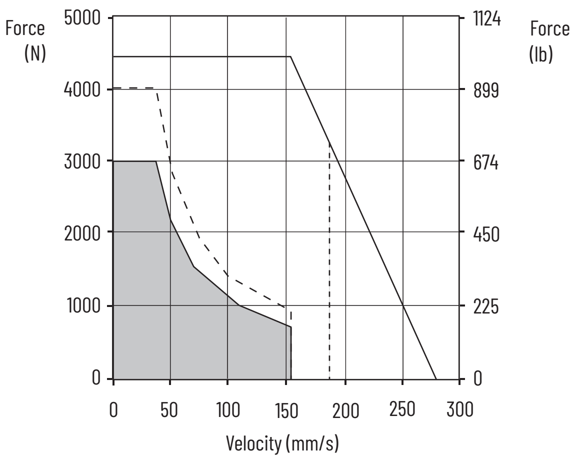
2198-E1004 and MPAI-A3076EM1
2198-E4004 and MPAI-B3076EM1



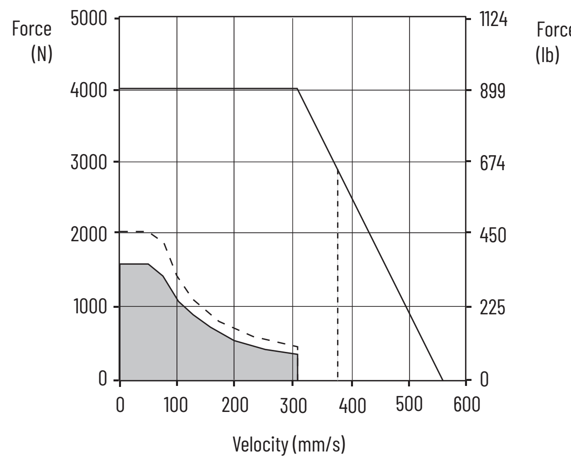
- - - = Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 5100 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves (continued)

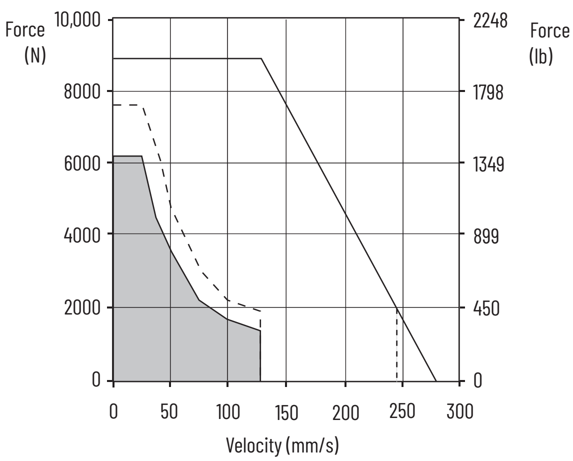
2198-E1007 and MPAI-A3*xxx*CM3
2198-E4004 and MPAI-B3*xxx*CM3



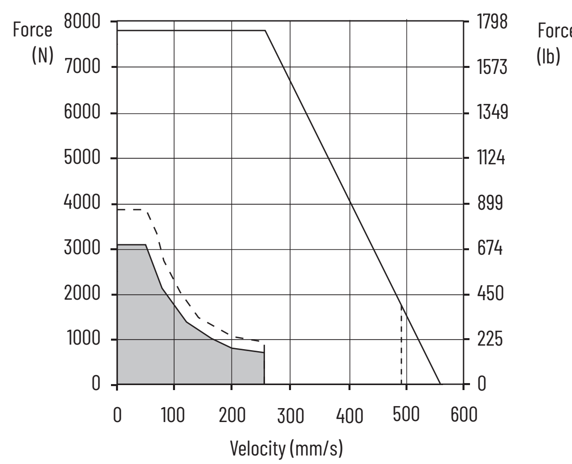
2198-E1007 and MPAI-A3*xxx*EM3
2198-E4004 and MPAI-B3*xxx*EM3



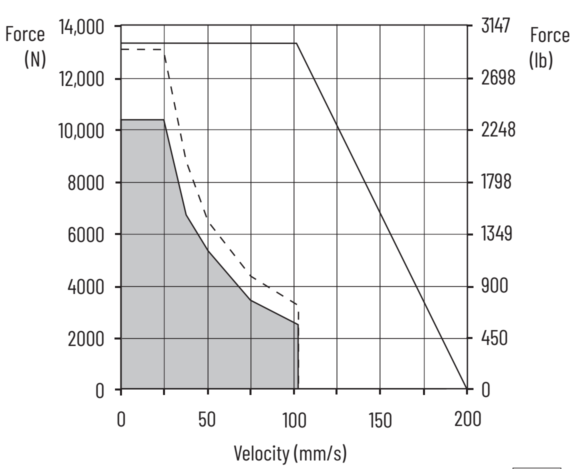
2198-E1015 and MPAI-A4*xxx*CM3
2198-E4015 and MPAI-B4*xxx*CM3



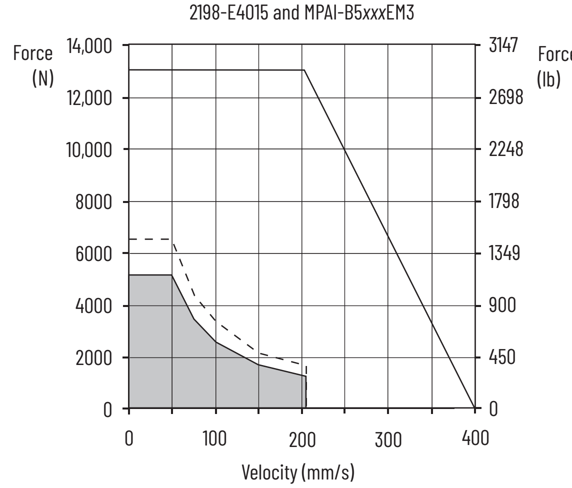
2198-E1015 and MPAI-A4*xxx*EM3
2198-E4015 and MPAI-B4*xxx*EM3



2198-E1020 and MPAI-A5*xxx*CM3
2198-E4015 and MPAI-B5*xxx*CM3



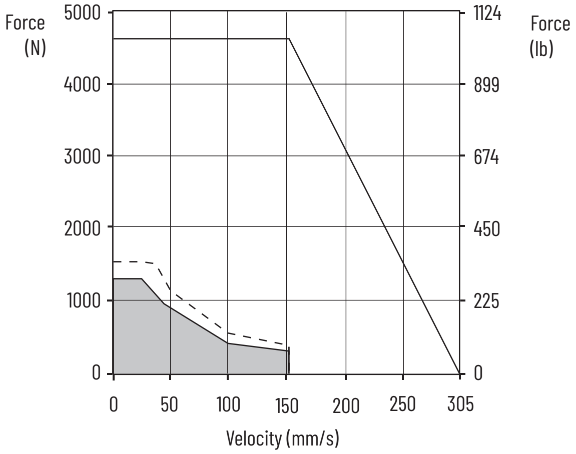
2198-E1020 and MPAI-A5*xxx*EM3
2198-E4015 and MPAI-B5*xxx*EM3



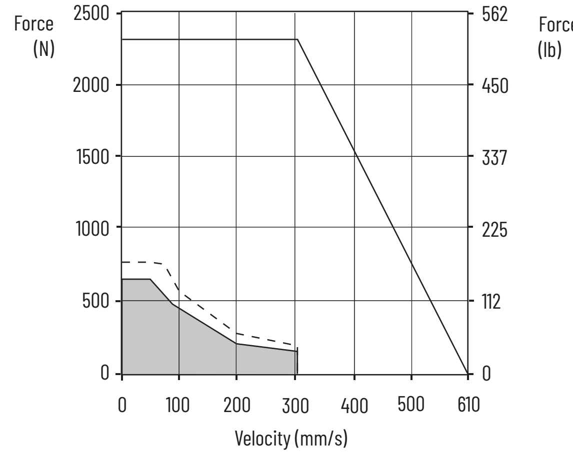
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 5100 Drives/Kinetix MPAI (roller screw) Electric Cylinder Curves

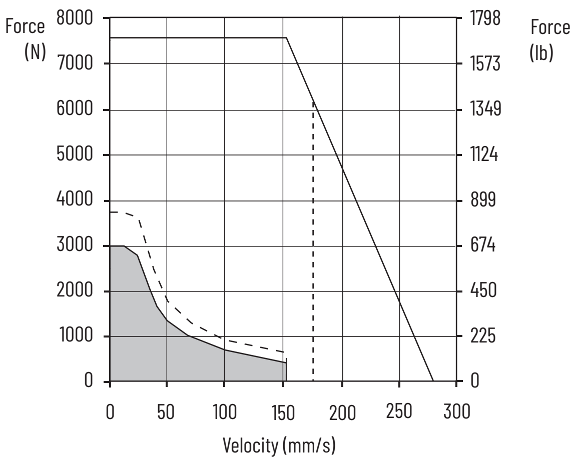
2198-E1004 and MPAI-A3076RM1
2198-E4004 and MPAI-B3076RM1



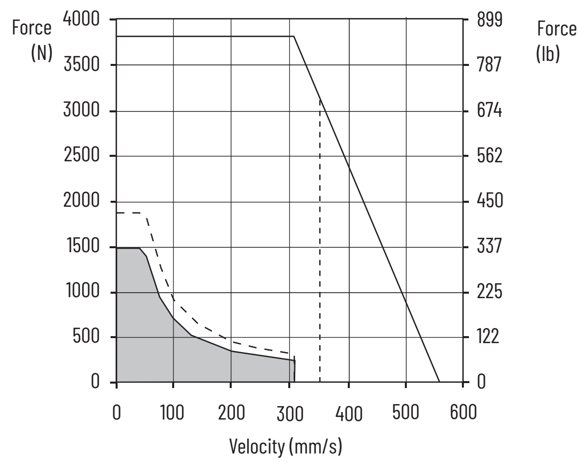
2198-E1004 and MPAI-A3076SM1
2198-E4004 and MPAI-B3076SM1



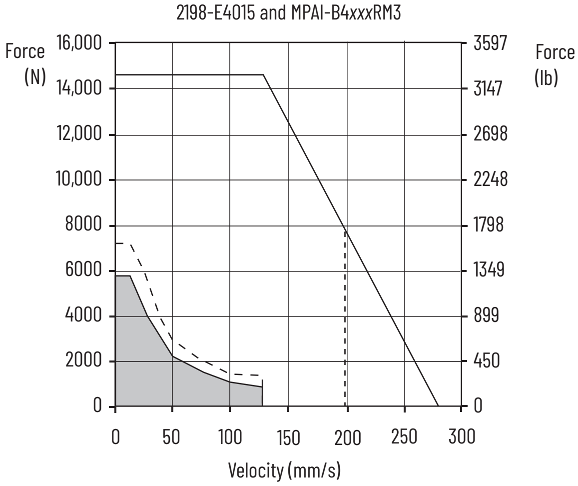
2198-E1007 and MPAI-A3*xxx*RM3
2198-E4004 and MPAI-B3*xxx*RM3



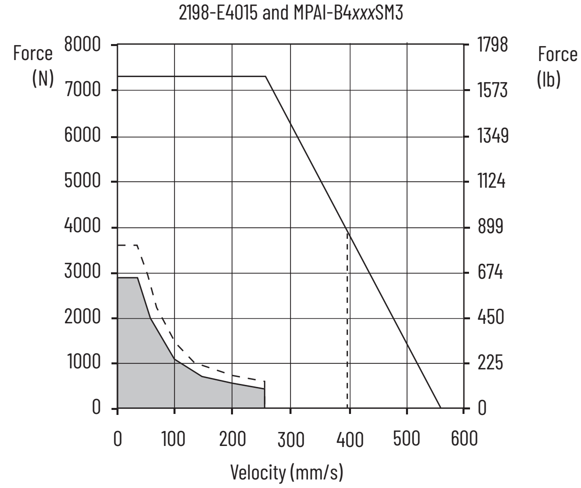
2198-E1007 and MPAI-A3*xxx*SM3
2198-E4004 and MPAI-B3*xxx*SM3



2198-E1015 and MPAI-A4*xxx*RM3
2198-E4015 and MPAI-B4*xxx*RM3



2198-E1015 and MPAI-A4*xxx*SM3
2198-E4015 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 5100 (200V-class) Drives with Kinetix LDC Linear Motors

This section provides system combination information for the Kinetix 5100 (200V-class) drives when matched with Kinetix LDC iron-core linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation (230V, nominal input) with 200V-class motors; however, only 2198-E1004-ERS, 2198-E1007-ERS, 2198-E1015-ERS, and 2198-E1020-ERS drives are capable of single-phase operation.

Kinetix LDC Cable Combinations

Linear Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDC-C030100-DHT, LDC-C030200-DHT, LDC-C030200-EHT	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-DHT, LDC-C100400-EHT, LDC-C100600-DHT		
LDC-C150400-DHT, LDC-C150600-DHT		

(1) Use the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
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 8.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix LDC Performance Specifications with Kinetix 5100 (200V-class) Drives

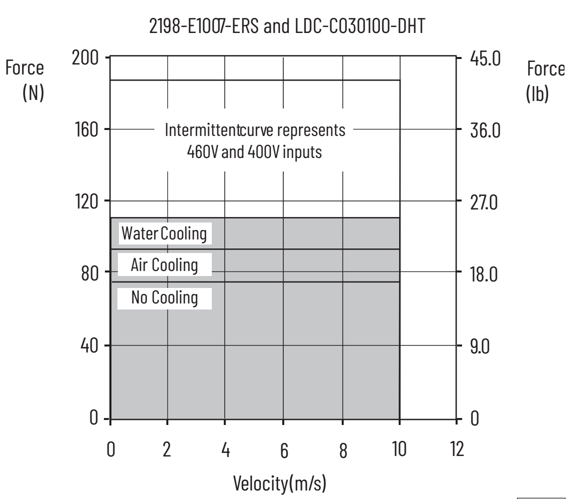
Performance Specifications with Kinetix 5100 (200V-class) Drives

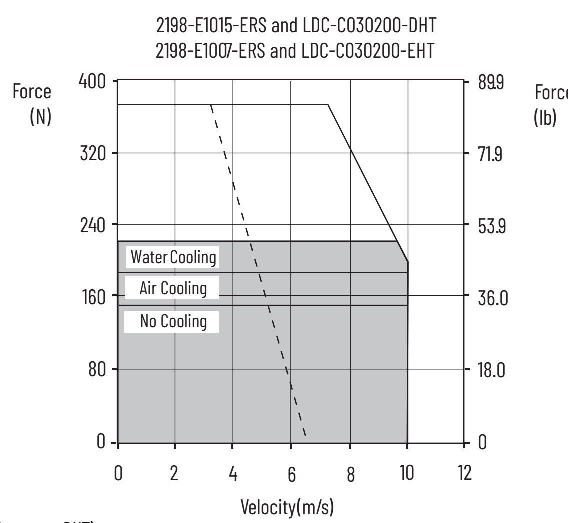
Linear Motor Cat. No.	**Speed, max** m/s (ft/s)	**System Continuous [1] Stall Current** Amps 0-pk	**System Continuous [1] Stall Force** N (lb)	**System Peak Stall Current** Amps 0-pk	**System Peak Stall Force** N (lb)	**Linear Motor Rated [1] Output** kW	**Kinetix 5100 Drives [2] (230V AC input)**
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2198-E1007-ERS
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2198-E1015-ERS
LDC-C030200-EHT		4.1…6.1		12.1			2198-E1007-ERS
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	2198-E1007-ERS
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2198-E1015-ERS
LDC-C050200-EHT		3.9…5.9		11.6			2198-E1007-ERS
LDC-C050300-DHT		11.8…17.7	363…544 (82…122)	35.9	941 (212)	1.81…2.72	2198-E1020-ERS
LDC-C050300-EHT		3.9…5.9		12.0			2198-E1007-ERS
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2198-E1015-ERS
LDC-C075200-EHT		3.8…5.7		11.5			2198-E1007-ERS
LDC-C075300-DHT		11.5…17.2	523…784 (117…176)	35.6	1368 (308)	2.61…3.92	2198-E1020-ERS
LDC-C075300-EHT		3.8…5.7		11.9			2198-E1007-ERS
LDC-C075400-DHT		15.3…23.0	697…1045 (157…235)	47.4	1824 (410)	3.48…5.22	2198-E1020-ERS
LDC-C075400-EHT		7.7…11.5		23.7			2198-E1015-ERS
LDC-C100300-DHT	10.0 (32.8)	11.1…16.7	674…1012 (152…227)	34.3	1767 (397)	3.37…5.06	2198-E1020-ERS
LDC-C100300-EHT		3.7…5.6		11.4			2198-E1007-ERS
LDC-C100400-DHT		14.8…22.2	899…1349 (202…303)	45.7	2356 (530)	4.49…6.74	2198-E1020-ERS
LDC-C100400-EHT		7.4…11.1		22.8			2198-E1015-ERS
LDC-C100600-DHT		22.2…33.3	1349…2023 (303…455)	68.5	3534 (794)	6.74…10.11	2198-E2030-ERS
LDC-C150400-DHT	10.0 (32.8)	14.1…21.1	1281…1922 (288…432)	45.2	3498 (786)	6.40…9.61	2198-E1020-ERS
LDC-C150600-DHT		21.1…31.7	1922…2882 (432…648)	67.8	5246 (1179)	9.61…14.41	2198-E2030-ERS

(1) Values represent the range between no cooling (low value) and water cooling (high value).
(2) Drives selected are for motors with no cooling. System current, force, and power ratings can be limited by the drive for air and water cooled motors. In those situations, use a higher power drive to achieve full-system ratings for air and water cooled motors.

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix LDC Linear Motor Curves

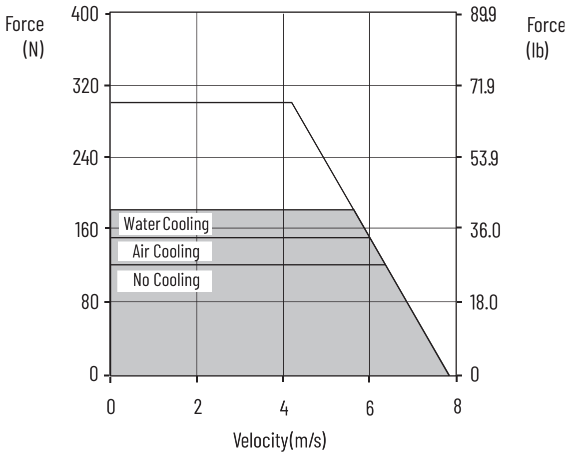




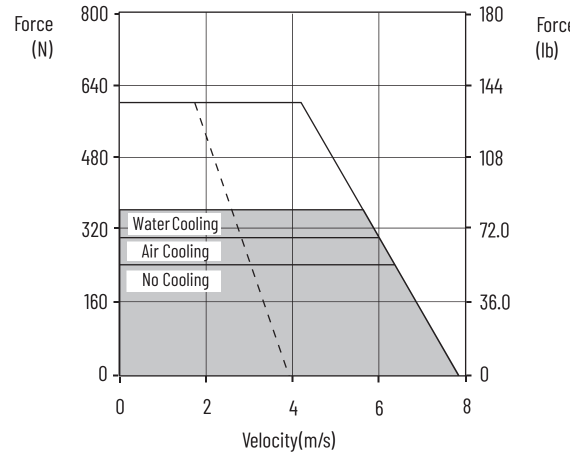
= Intermittent operating region (LDC-*xxxxxx*-DHT)
= Intermittent operating region (LDC-*xxxxxx*-EHT)
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

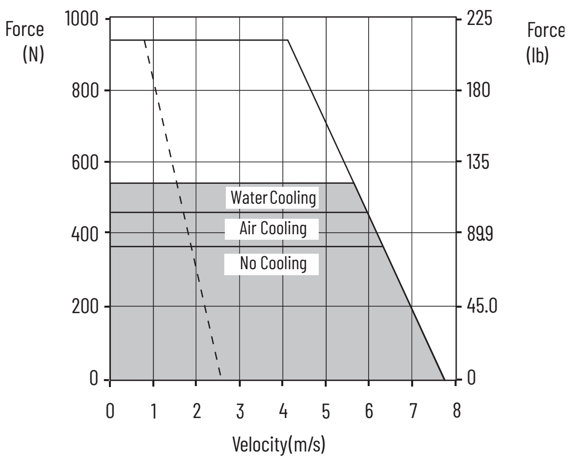
2198-E1007-ERS and LDC-C050100-DHT



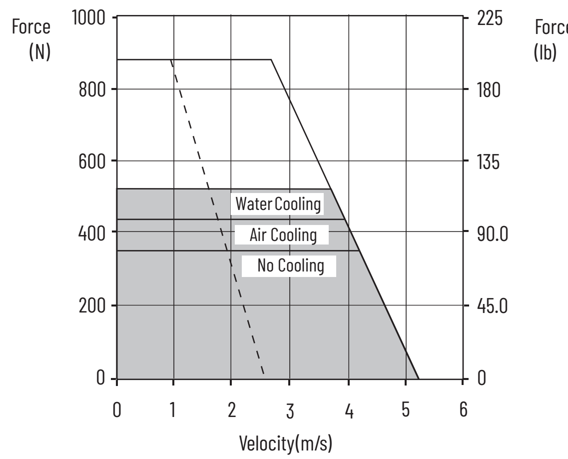
2198-E1015-ERS and LDC-C050200-DHT
2198-E1007-ERS and LDC-C050200-EHT



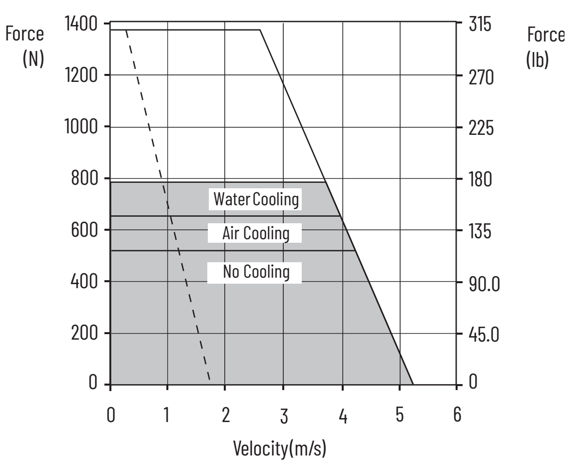
2198-E1020-ERSand LDC-C050300-DHT
2198-E1007-ERS and LDC-C050300-EHT



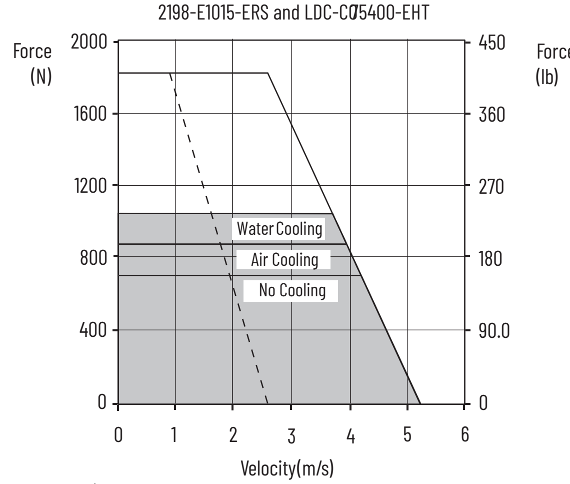
2198-E1015-ERS and LDC-C075200-DHT
2198-E1007-ERS and LDC-C075200-EHT



2198-E1020-ERS and LDC-C075300-DHT
2198-E1007-ERS and LDC-C075300-EHT



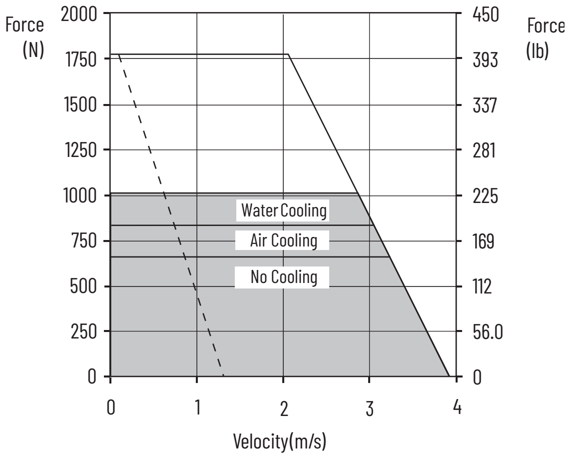
2198-E1020-ERS and LDC-C075400-DHT
2198-E1015-ERS and LDC-C075400-EHT



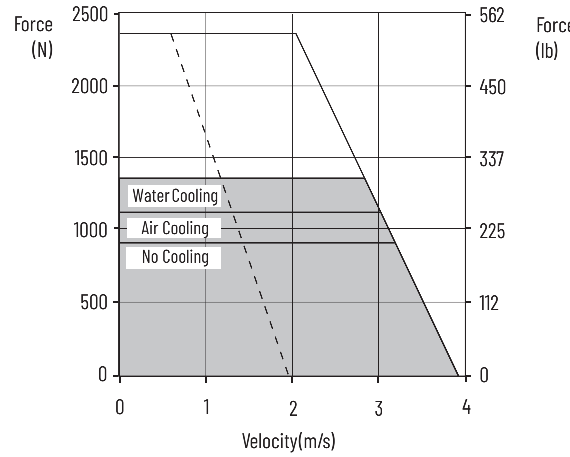
= Intermittent operating region (LDC-*xxxxxx*-DHT)
= Intermittent operating region (LDC-*xxxxxx*-EHT)
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

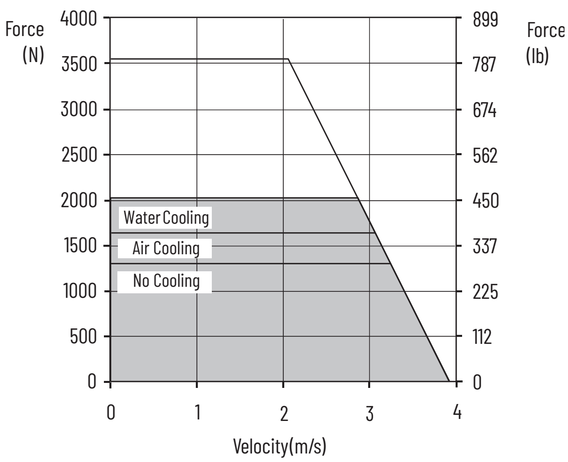
2198-E1020-ERS and LDC-C100300-DHT
2198-E1007-ERS and LDC-C100300-EHT



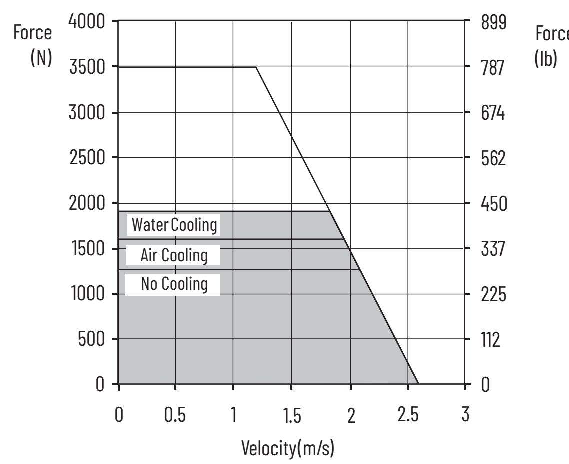
2198-E1020-ERS and LDC-C100400-DHT
2198-E1015-ERS and LDC-C100400-EHT



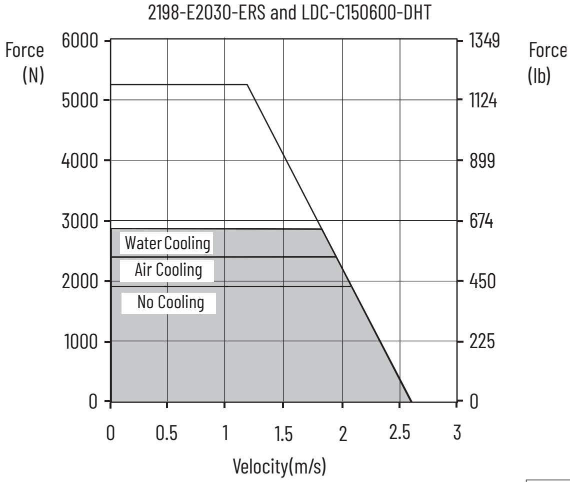
2198-E2030-ERS and LDC-C100600-DHT



2198-E1020-ERS and LDC-C150400-DHT



2198-E2030-ERS and LDC-C150600-DHT



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

Kinetix 5100 (400V-class) Drives with Kinetix LDC Linear Motors

This section provides system combination information for the Kinetix 5100 (400V-class) drives when matched with Kinetix LDC iron-core linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix LDC 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-DHT, LDC-C075300-EHT, LDC-C075400-DHT, LDC-C075400-EHT		
LDC-C100300-DHT, LDC-C100300-EHT, LDC-C100400-DHT, LDC-C100400-EHT, LDC-C100600-DHT, LDC-C100600-EHT		
LDC-C150400-DHT, LDC-C150400-EHT, LDC-C150600-DHT, LDC-C150600-EHT		

(1) Use the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
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 8.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix LDC Performance Specifications with Kinetix 5100 (400V-class) Drives

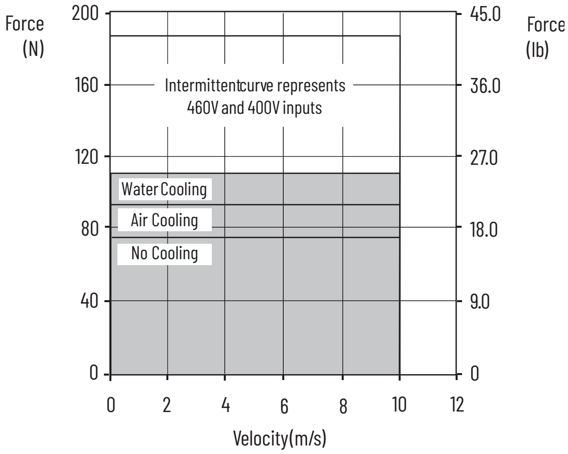
Linear Motor Cat. No.	Speed, max m/s (ft/s)	System Continuous Stall Current (1) Amps 0-pk	System Continuous Stall Force (1) N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 5100 Drives (480V AC input)
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2198-E4015-ERS
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2198-E4020-ERS
LDC-C030200-EHT		4.1…6.1		12.1			2198-E4015-ERS
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	2198-E4015-ERS
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2198-E4020-ERS
LDC-C050200-EHT		3.9…5.9		11.6			2198-E4015-ERS
LDC-C050300-DHT		11.8…17.7	363…544 (82…122)	35.9	941 (212)	1.81…2.72	2198-E4030-ERS
LDC-C050300-EHT		3.9…5.9		12.0			2198-E4015-ERS
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2198-E4020-ERS
LDC-C075200-EHT		3.8…5.7		11.5			2198-E4020-ERS
LDC-C075300-DHT		11.5…17.2	523…784 (117…176)	35.6	1368 (308)	2.61…3.92	2198-E4030-ERS
LDC-C075300-EHT		3.8…5.7		11.9			2198-E4015-ERS
LDC-C075400-DHT		15.3…23.0	697…1045 (157…235)	47.4	1824 (410)	3.48…5.22	2198-E4055-ERS
LDC-C075400-EHT		7.7…11.5		23.7			2198-E4020-ERS
LDC-C100300-DHT	10.0 (32.8)	11.1…16.7	674…1012 (152…227)	34.3	1767 (397)	3.37…5.06	2198-E4030-ERS
LDC-C100300-EHT		3.7…5.6		11.4			2198-E4015-ERS
LDC-C100400-DHT		14.8…22.2	899…1349 (202…303)	45.7	2356 (530)	4.49…6.74	2198-E4055-ERS
LDC-C100400-EHT		7.4…11.1		22.8			2198-E4020-ERS
LDC-C100600-DHT		22.2…33.3	1349…2023 (303…455)	68.5	3534 (794)	6.74…10.11	2198-E4075-ERS
LDC-C100600-EHT		11.1…16.7		34.3			2198-E4030-ERS
LDC-C150400-DHT	10.0 (32.8)	14.1…21.1	1281…1922 (288…432)	45.2	3498 (786)	6.40…9.61	2198-E4055-ERS
LDC-C150400-EHT		7.0…10.6		22.6			2198-E4020-ERS
LDC-C150600-DHT		21.1…31.7	1922…2882 (432…648)	67.8	5246 (1179)	9.61…14.41	2198-E4075-ERS
LDC-C150600-EHT		10.6…15.8		33.9			2198-E4030-ERS

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

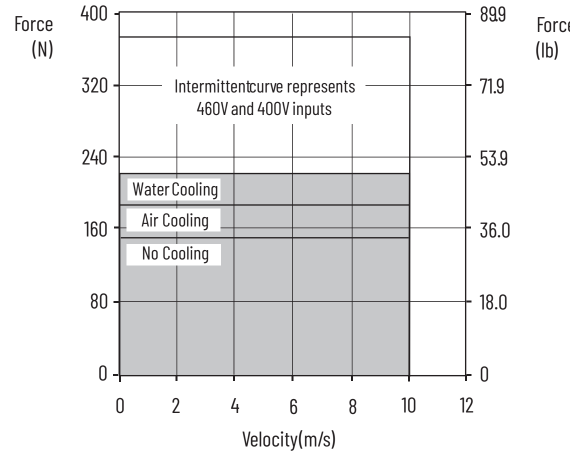
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (400V-class) Drives/Kinetix LDC Linear Motor Curves

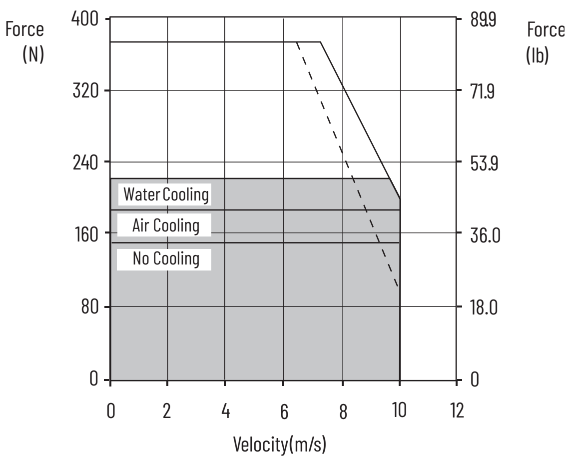
2198-E4007-ERS and LDC-C030100-DHT



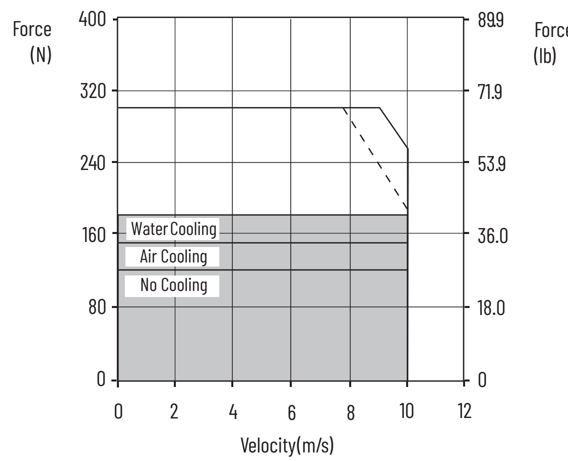
2198-E4020-ERS and LDC-C030200-DHT



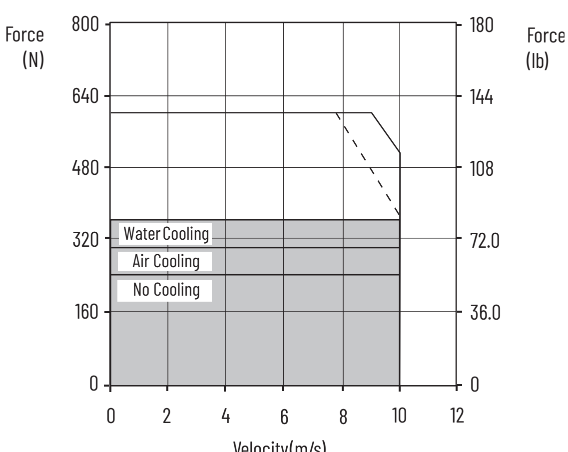
2198-E4007-ERS and LDC-C030200-EHT



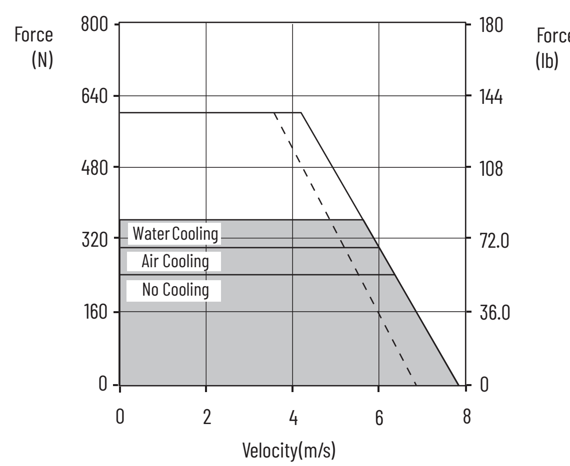
2198-E4007-ERS and LDC-C050100-DHT



2198-E4020-ERS and LDC-C050200-DHT



2198-E4007-ERS and LDC-C050200-EHT



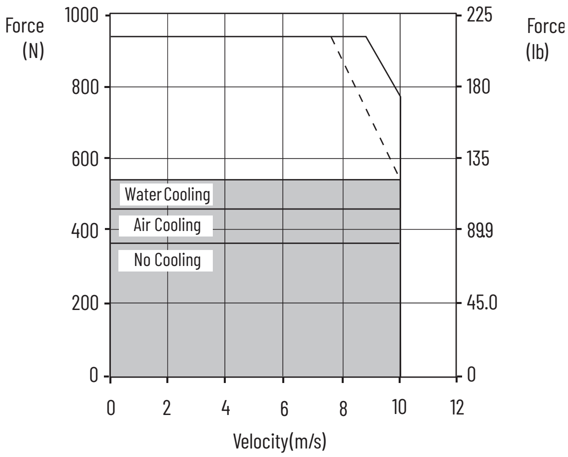
= Intermittent operating region

= Intermittent operating region with 400V AC rms input voltage

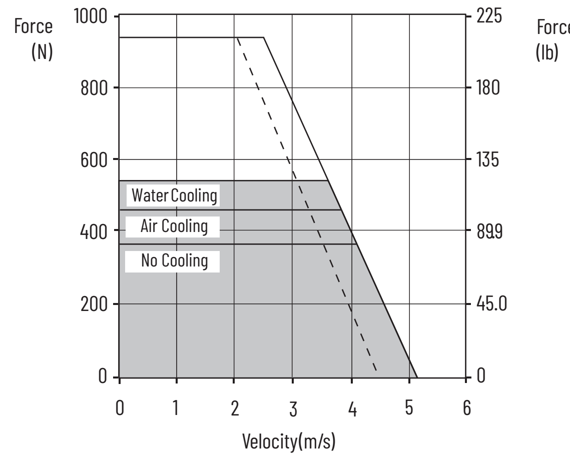
= Continuous operating region

Kinetix 5100 (400V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

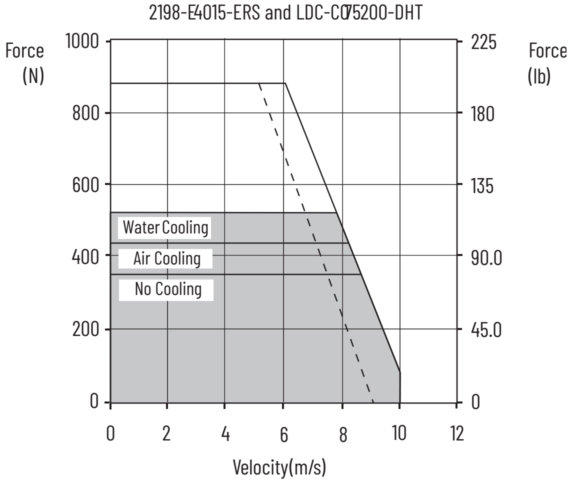
2198-E4030-ERS and LDC-C050300-DHT



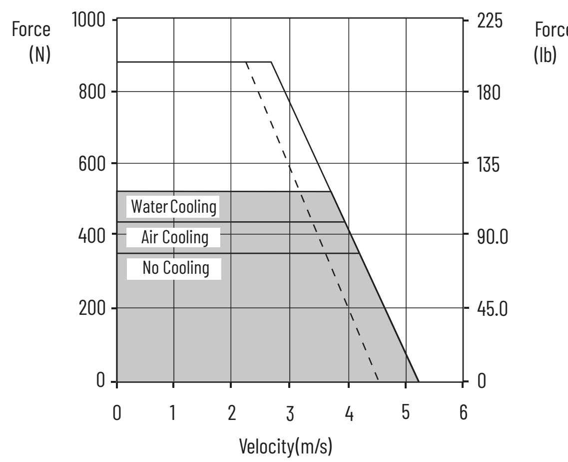
2198-E4007-ERS and LDC-C050300-EHT



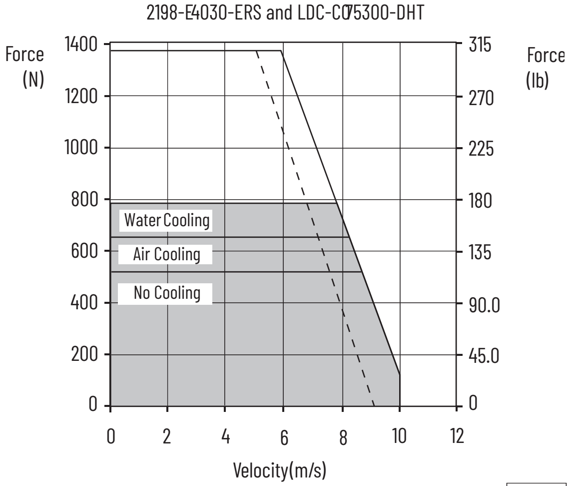
2198-E4015-ERS and LDC-C075200-DHT



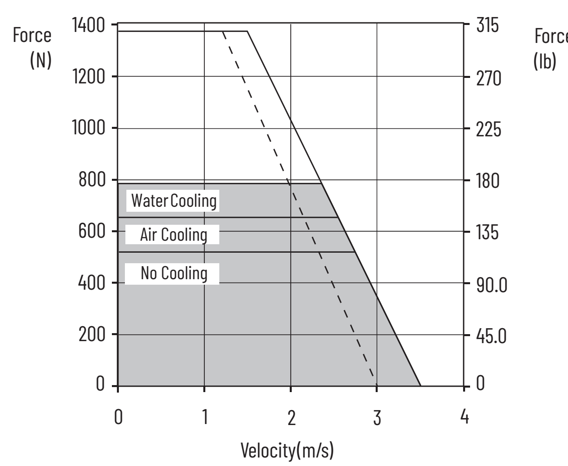
2198-E4015-ERS and LDC-C075200-EHT



2198-E4030-ERS and LDC-C075300-DHT



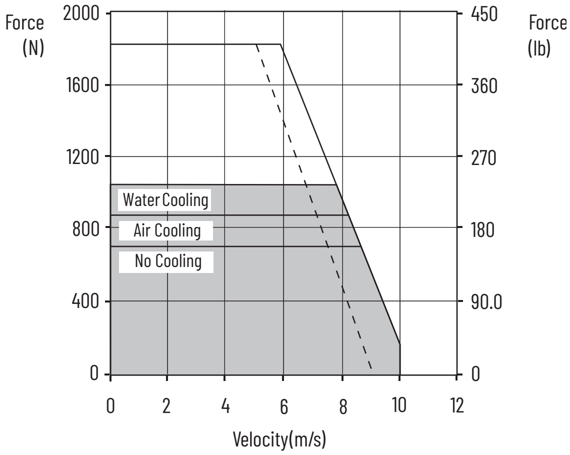
2198-E4007-ERS and LDC-C075300-EHT



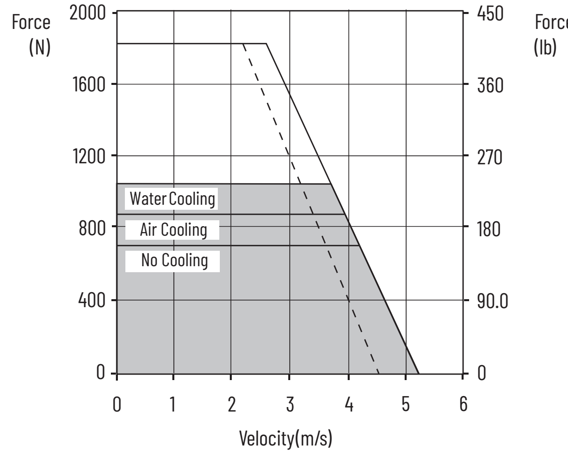
= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

Kinetix 5100 (400V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

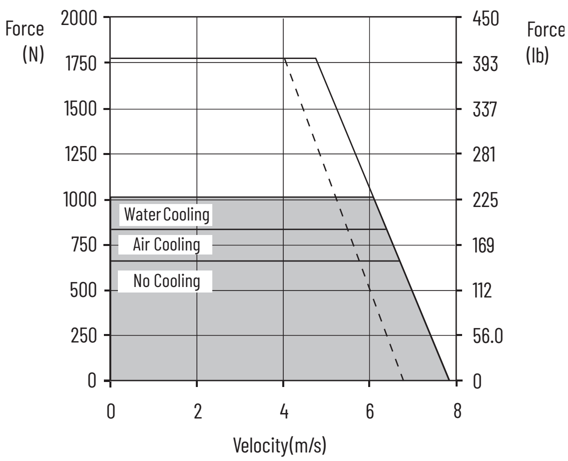
2198-E4030-ERS and LDC-C075400-DHT



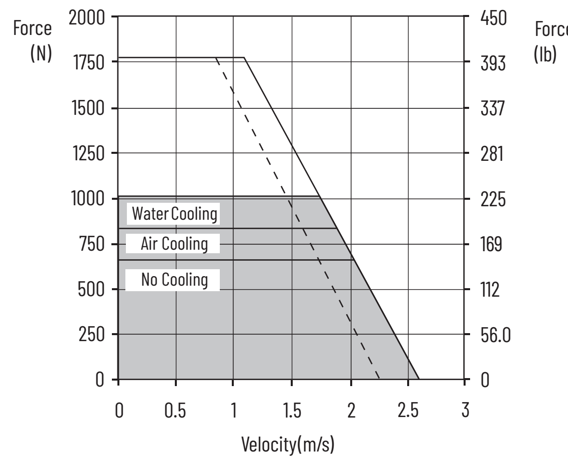
2198-E4030-ERS and LDC-C075400-EHT



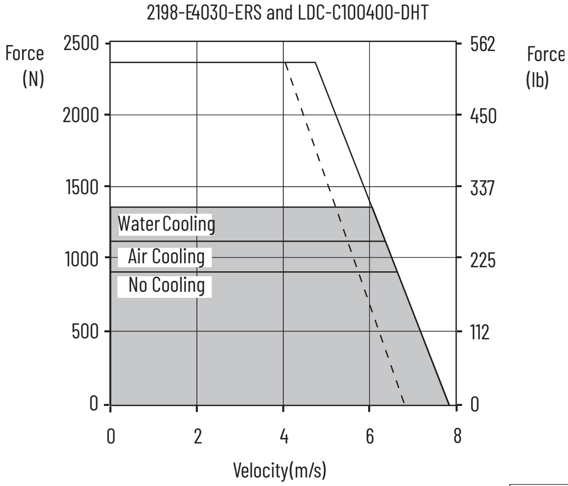
2198-E4030-ERS and LDC-C100300-DHT



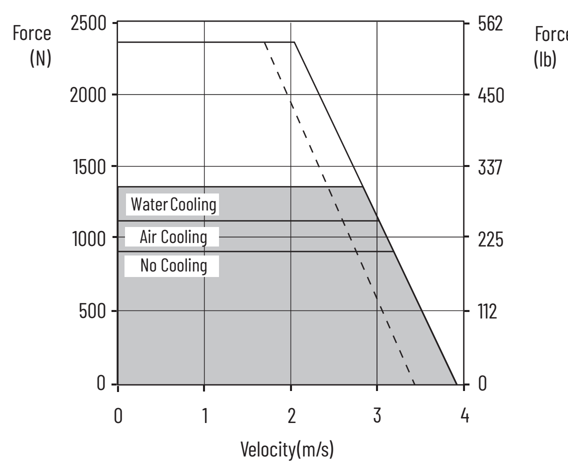
2198-E4007-ERS and LDC-C100300-EHT



2198-E4030-ERS and LDC-C100400-DHT

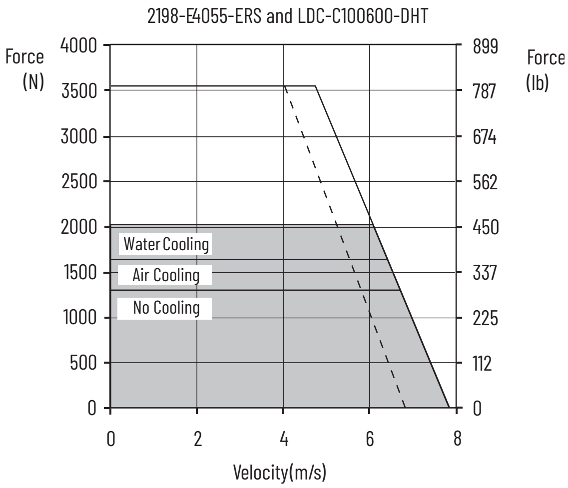


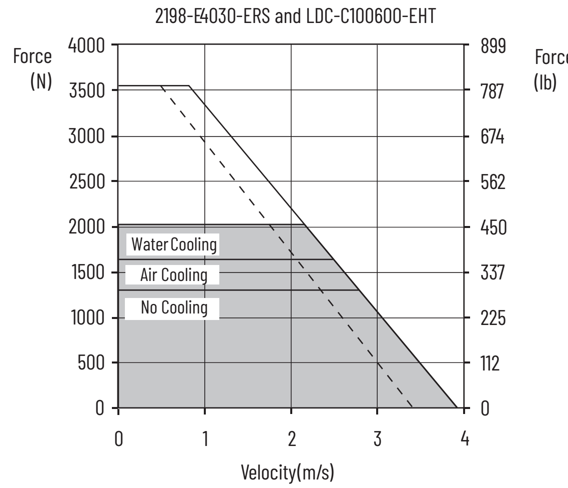
2198-E4015-ERS and LDC-C100400-EHT

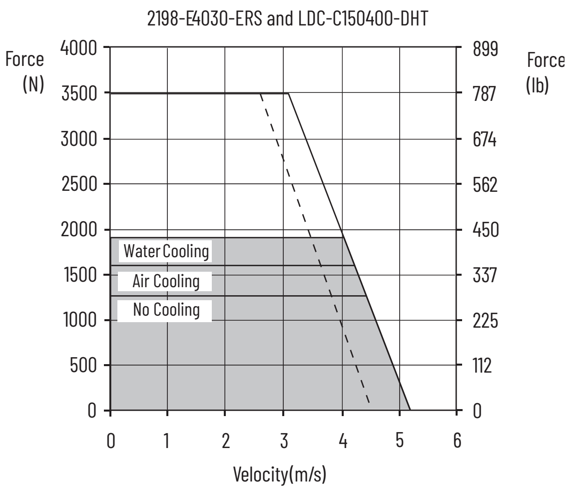


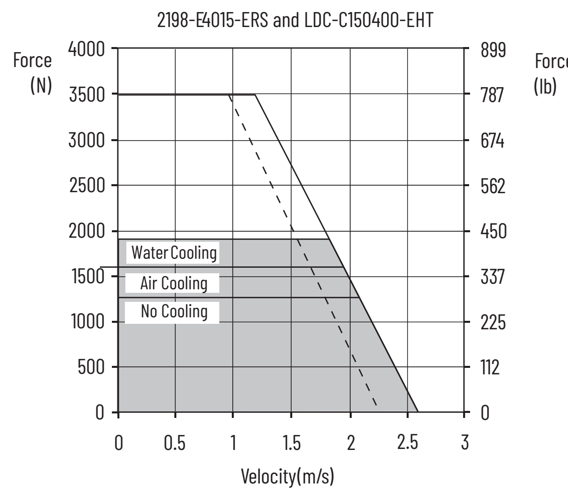
= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

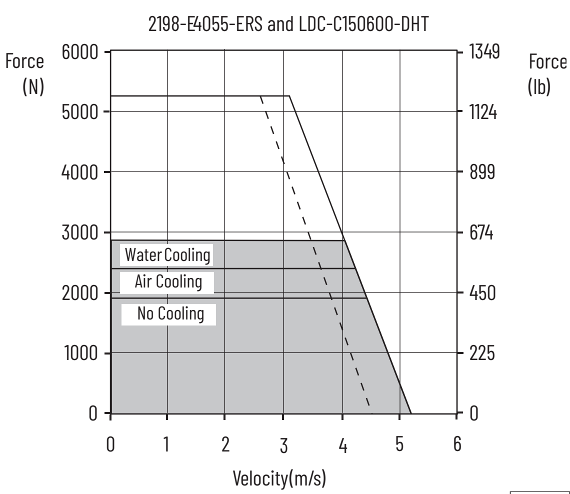
Kinetix 5100 (400V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

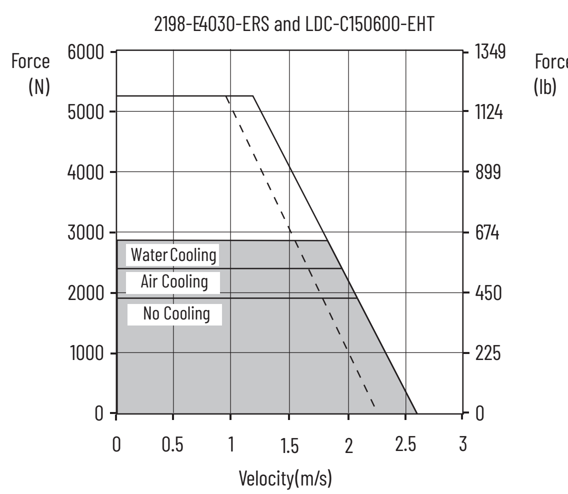












= Intermittent operating region
= Intermittent operating region with 400V AC rms input voltage
= Continuous operating region

Kinetix 5100 (200V-class) Drives with Kinetix LDL Linear Motors

This section provides system combination information for the Kinetix 5100 (200V-class) drives when matched with Kinetix LDL ironless linear motors. Included are power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix LDL 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 the 2198-K53CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 6.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix Motor Power/Brake and Feedback Cables Overview beginning on page 11.
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 8.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

Kinetix LDL Performance Specifications with Kinetix 5100 (200V-class) Drives

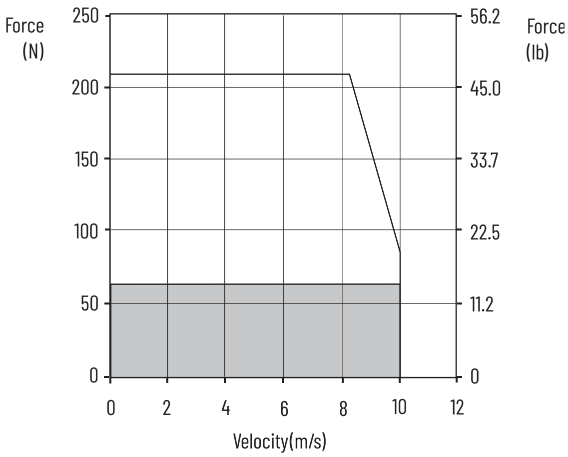
Performance Specifications with Kinetix 5100 (200V-class) Drives

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 5100 Drives (230V AC input)
LDL-N030120-DHT	10.0 (32.8)	3.0	63 (14)	9.9	209 (47)	0.31	2198-E1007-ERS
LDL-N030240-DHT		6.0	126 (28)	19.9	417 (94)	0.63	2198-E1007-ERS
LDL-N030240-EHT		3.0		9.9			2198-E1007-ERS
LDL-T030120-DHT	10.0 (32.8)	3.0	72 (16)	9.9	239 (54)	0.36	2198-E1007-ERS
LDL-T030240-DHT		6.0	144 (32)	19.9	479 (108)	0.72	2198-E1007-ERS
LDL-T030240-EHT		3.0		9.9			2198-E1007-ERS
LDL-N050120-DHT	10.0 (32.8)	2.7	96 (22)	9.1	317 (71)	0.48	2198-E1004-ERS
LDL-N050240-DHT		5.5	191 (43)	18.1	635 (143)	0.95	2198-E1007-ERS
LDL-N050240-EHT		2.7		9.1			2198-E1004-ERS
LDL-N050360-DHT		8.2	287 (65)	27.2	952 (214)	1.43	2198-E1015-ERS
LDL-N050360-EHT		2.7		9.1			2198-E1004-ERS
LDL-N050480-DHT		10.9	383 (86)	36.3	1269 (285)	1.91	2198-E1020-ERS
LDL-N050480-EHT		5.5		18.1			2198-E1007-ERS
LDL-T050120-DHT	10.0 (32.8)	2.7	110 (25)	9.1	364 (82)	0.55	2198-E1004-ERS
LDL-T050240-DHT		5.5	220 (49)	18.1	728 (164)	1.10	2198-E1007-ERS
LDL-T050240-EHT		2.7		9.1			2198-E1004-ERS
LDL-T050360-DHT		8.2	329 (74)	27.2	1093 (246)	1.64	2198-E1015-ERS
LDL-T050480-DHT		10.9	439 (99)	36.3	1457 (327)	2.19	2198-E1020-ERS
LDL-T050480-EHT		5.5		18.1			2198-E1007-ERS
LDL-N075480-DHT	10.0 (32.8)	9.9	519 (117)	32.8	1723 (387)	2.59	2198-E1015-ERS
LDL-N075480-EHT		4.9		16.4			2198-E1007-ERS
LDL-T075480-DHT	10.0 (32.8)	9.9	596 (134)	32.8	1977 (444)	2.98	2198-E1015-ERS
LDL-T075480-EHT		4.9		16.4			2198-E1007-ERS

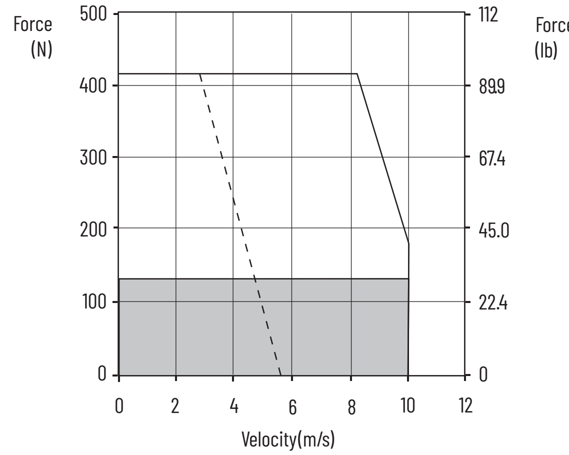
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5100 (200V-class) Drives/Kinetix LDL Linear Motor Curves

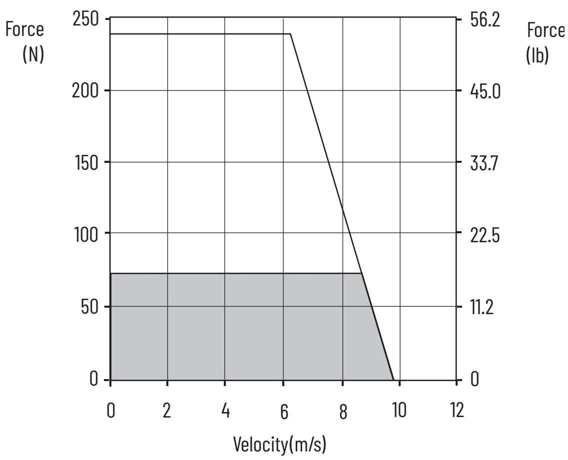
2198-E1007-ERS and LDL-N030120-DHT



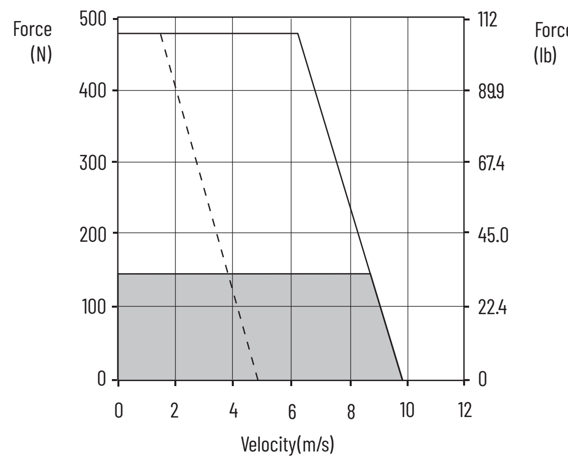
2198-E1007-ERS and LDL-N030240-DHT
2198-E1007-ERS and LDL-N030240-EHT



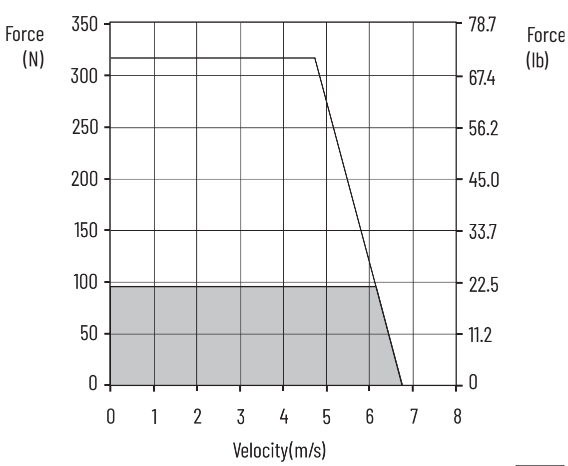
2198-E1004-ERSand LDL-T030120-DHT



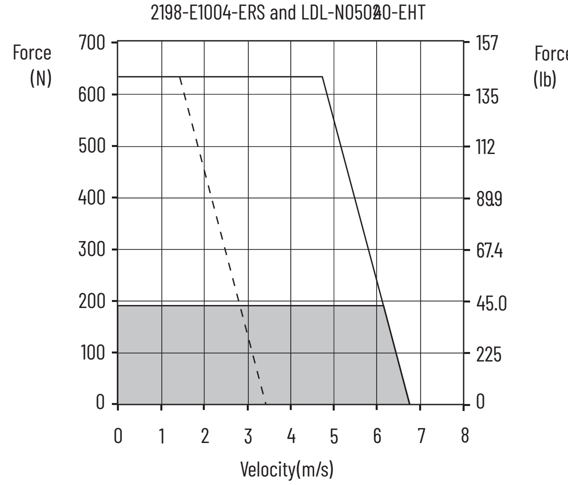
2198-E1007-ERS and LDL-T030240-DHT
2198-E1004-ERS and LDL-T030240-EHT



2198-E1004-ERSand LDL-N050120-DHT



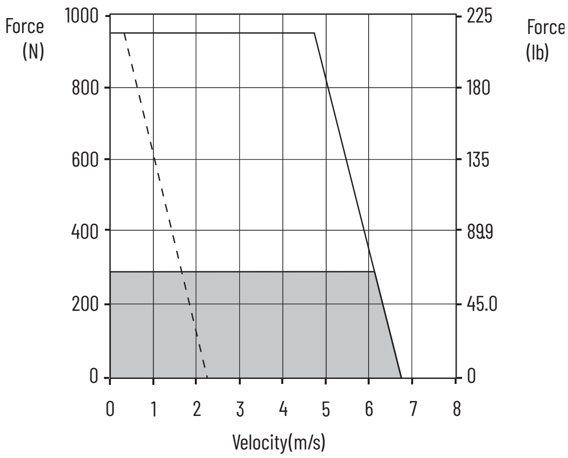
2198-E1007-ERS and LDL-N050240-DHT
2198-E1004-ERS and LDL-N050240-EHT



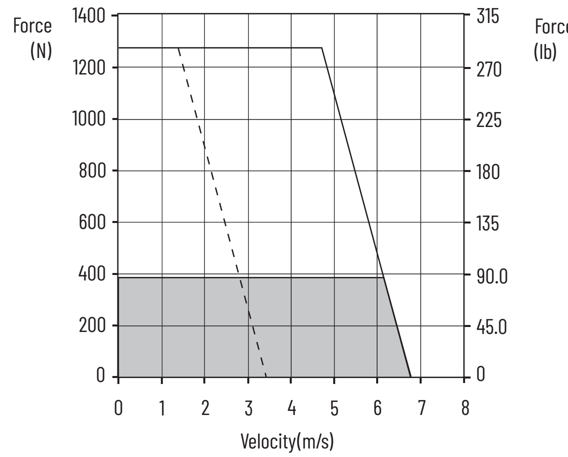
= Intermittent operating region (LDL-*xxxxxxx*-DHT)
= Intermittent operating region (LDL-*xxxxxxx*-EHT)
= Continuous operating region

Kinetix 5100 (200V-class) Drives/Kinetix LDL Linear Motor Curves (continued)

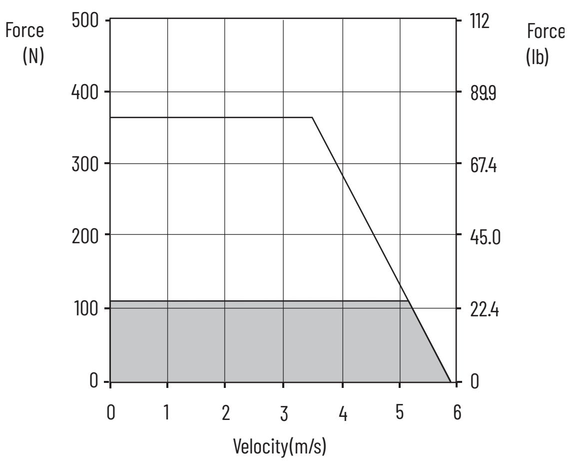
2198-E1015-ERS and LDL-N050360-DHT
2198-E1004-ERS and LDL-N050360-EHT



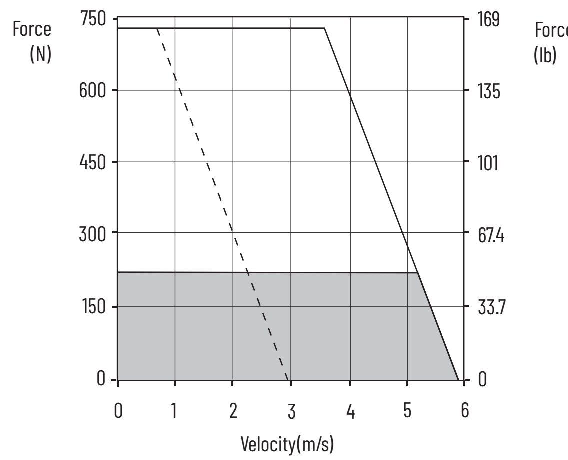
2198-E1015-ERS and LDL-N050480-DHT
2198-E1007-ERS and LDL-N050480-EHT



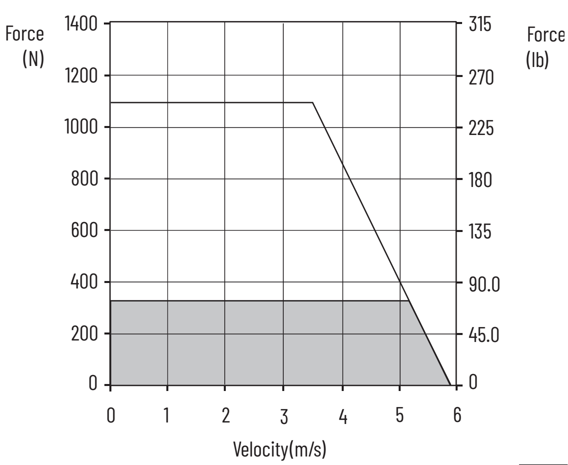
2198-E1004-ERSand LDL-T050120-DHT



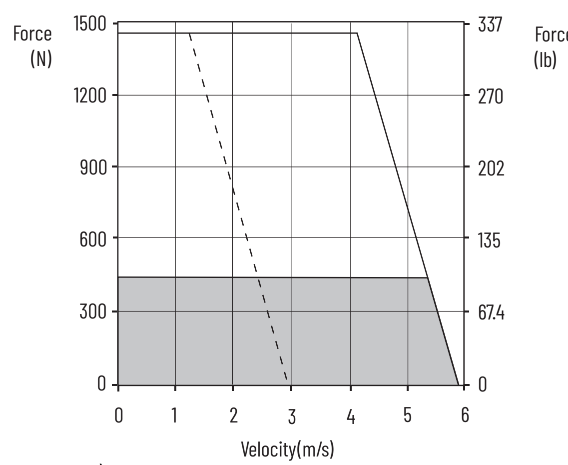
2198-E1007-ERS and LDL-T050240-DHT
2198-E1004-ERS and LDL-T050240-EHT



2198-E1015-ERSand LDL-T050360-DHT

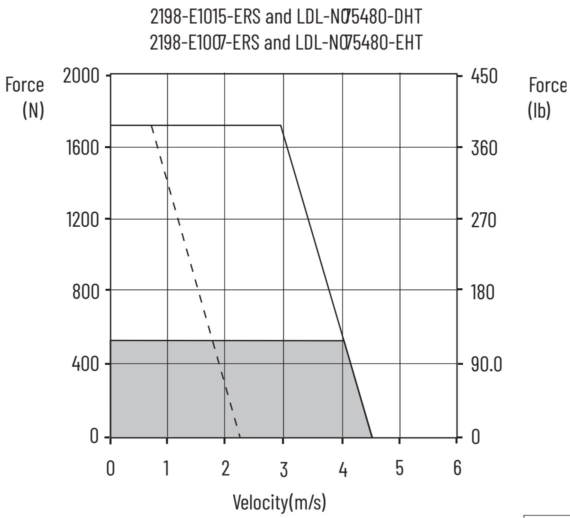


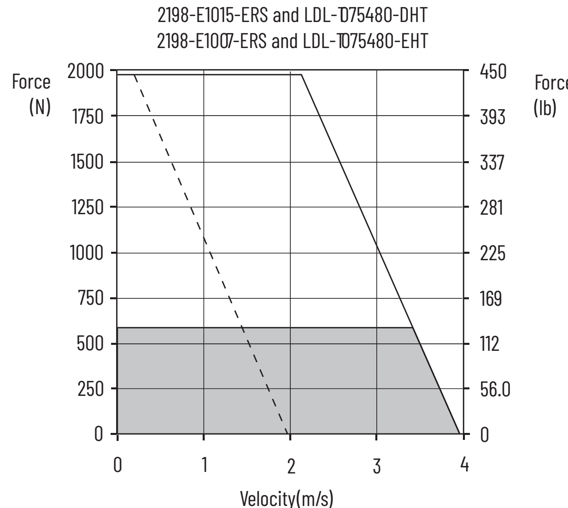
2198-E1015-ERS and LDL-T050480-DHT
2198-E1007-ERS and LDL-T050480-EHT



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

Kinetix 5100 (200V-class) Drives/Kinetix LDL Linear Motor Curves (continued)





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

Notes:

Additional Resources

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

Resource	Description
Kinetix Rotary Motion Specifications Technical Data, publication KNX-TD001	Product specifications for Kinetix VPL, VPC, VPF, VPH, and VPS; Kinetix MPL, MPM, MPF, and MPS; Kinetix TLY and TL; Kinetix HPK; and Kinetix MMA rotary motors.
Kinetix Linear Motion Specifications Technical Data, publication KNX-TD002	Product specifications for Kinetix MPAS and MPMA linear stages, Kinetix MPAR and MPAI electric cylinders, and Kinetix LDC and LDL linear motors.
Kinetix 5700, 5500, 5300, and 5100 Servo Drives Specifications, publication KNX-TD003	Provides product specifications for Kinetix Integrated Motion over the EtherNet/IP™ network and EtherNet/IP networking servo drive families.
Kinetix Rotary and Linear Motion Cable Specifications Technical Data, publication KNX-TD004	Product specifications for Kinetix 2090 motor and interface cables.
Kinetix Servo Drive Performance Specifications per Ecodesign Regulation (EU) 2019/1781 technical data, publication KNX-TD006	Provides energy efficiency performance data for Rockwell Automation Kinetix Servo drives. This data supports IE2 compliance of Kinetix Servo drives per EU 2019/1781.
Kinetix 5100 Single-axis EtherNet/IP Servo Drives User Manual, publication 2198-UM004	Information on installing, configuring, startup, troubleshooting, and applications for your Kinetix servo drive system.
Kinetix 5700 Drive Systems, publication KNX-RM010	System design guide 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. Included are system performance specifications and torque/speed curves (rotary motion) and force/velocity curves (linear motion) for your motion application.
Kinetix 5500 Drive Systems, publication KNX-RM009	
Kinetix 5300 Drive Systems, publication KNX-RM012	
Kinetix Motion Control Selection Guide, publication KNX-SG001	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.
System Design for Control of Electrical Noise Reference Manual, publication GMC-RM001	Information, examples, and techniques designed to minimize system failures caused by electrical noise.
Servo Drive Installation Best Practices Application Technique publication MOTION-AT004	Best practice examples to help reduce the number of potential noise or electromagnetic interference (EMI) sources in your system and to make sure that the noise sensitive components are not affected by the remaining noise.
MicroLogix™ 1100 Programmable Controllers User Manual, publication 1763-UM001	Provides information on how to install, wire, and troubleshoot the MicroLogix programmable controllers.
MicroLogix 1200 Programmable Controllers User Manual, publication 1762-UM001	
MicroLogix 1400 Programmable Controllers User Manual, publication 1766-UM001	
Micro810® Programmable Controllers User Manual, publication 2080-UM001	Provides information on how to install, wire, and troubleshoot the Micro800™ programmable controllers.
Micro820™ Programmable Controllers User Manual, publication 2080-UM005	
Micro830®, Micro850®, Micro870™, Programmable Controllers User Manual, publication 2080-UM002	
GuardLogix 5570 Controllers User Manual, publication 1756-UM022	Provides information on how to install, configure, program, and use ControlLogix® controllers and GuardLogix® controllers in Studio 5000 Logix Designer® projects.
GuardLogix 5580 Controllers User Manual, publication 1756-UM543	
Compact GuardLogix 5370 Controllers User Manual, publication 1769-UM022	Provides information on how to install, configure, program, and use CompactLogix™ and Compact GuardLogix controllers.
Compact GuardLogix 5380 Controllers User Manual, publication 5069-UM001	
GuardLogix 5570 and Compact GuardLogix 5370 Controller Systems Safety Reference Manual, publication 1756-RM099	Provides information on how to achieve and maintain Safety Integrity Level (SIL) and Performance Level (PL) safety application requirements for GuardLogix and Compact GuardLogix controllers.
GuardLogix 5580 and Compact GuardLogix 5380 Controller Systems Safety Reference Manual, publication 1756-RM012	
Industrial Ethernet Media Brochure, publication 1585-BR001	Information to determine which Bulletin 1585 Ethernet cable fits your application and the product specifications to help select the appropriate components.
Rockwell Automation Product Selection website, rok.auto/systemtools	Online product selection and system configuration tools, including AutoCAD (DXF) drawings.
Motion Analyzer System Sizing and Selection Tool website https://motionanalyzer.rockwellautomation.com/	Comprehensive motion application sizing tool used for analysis, optimization, selection, and validation of your Kinetix Motion Control system.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.
Rockwell Automation Industrial Automation Glossary, publication AG-7.1	A glossary of industrial automation terms and abbreviations.

You can view or download publications at rok.auto/literature.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	rok.auto/support
Knowledgebase	Access Knowledgebase articles.	rok.auto/knowledgebase
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

Documentation Feedback

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

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-RM011D-EN-P - September 2021
Supersedes Publication KNX-RM011C-EN-P - January 2021