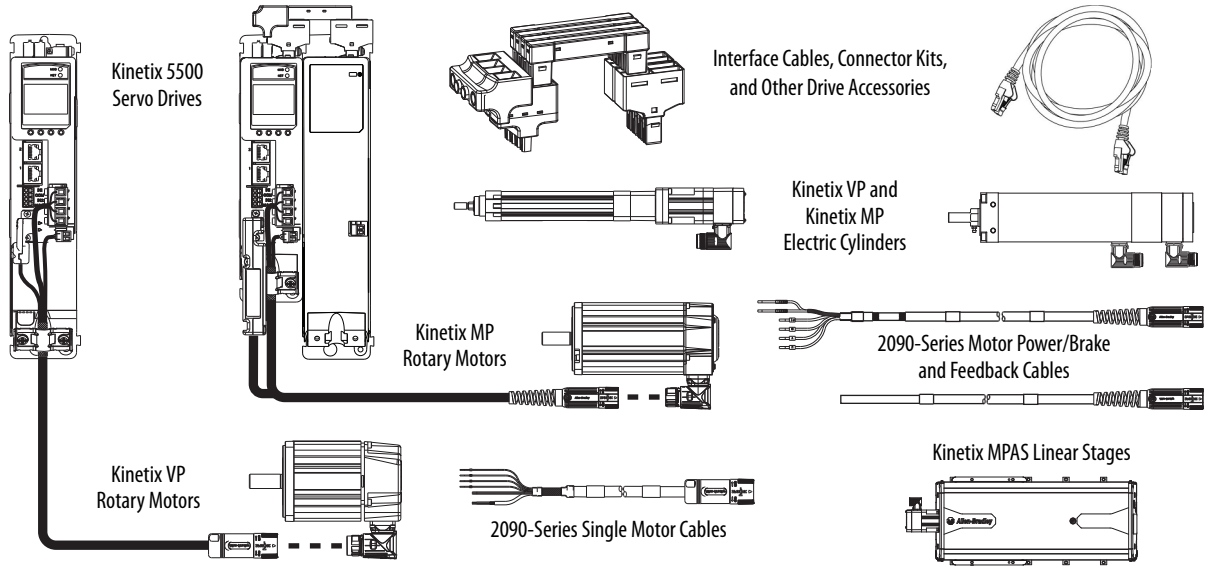
Allen-Bradley

Kinetix 5500 Drive Systems

Catalog Numbers 2198-H003-ERS, 2198-H008-ERS, 2198-H015-ERS, 2198-H025-ERS, 2198-H040-ERS, 2198-H070-ERS, 2198-H003-ERS2, 2198-H008-ERS2, 2198-H015-ERS2, 2198-H025-ERS2, 2198-H040-ERS2, 2198-H070-ERS2, 2198-CAPMOD-1300



LISTEN. THINK. SOLVE.®

Summary of Changes

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

Topic	Page
Added compatibility with 2090-CS*x*M1*xx*-*xx*VA*xx* (PVC) and 2090-CSBM1*xx*-*xx*LF*xx* (Halogen-free PUR) single motor cables.	13 and throughout
Corrected Kinetix VPL (200V-class) motor cable combinations (errors in Kinetix VPL motor and cable AWG).	16
Corrected Kinetix VPL (400V-class) motor cable combinations (errors in Kinetix VPL motor and cable AWG).	23
Corrected Kinetix VPF (200V-class) motor cable combinations (errors in Kinetix VPF motor and cable AWG).	32
Corrected Kinetix VPF (400V-class) motor cable combinations (errors in Kinetix VPF motor and cable AWG).	37
Corrected Kinetix VPH (200V-class) motor cable combinations (errors in Kinetix VPH motor and cable AWG).	43
Corrected Kinetix VPH (200V-class) motor performance specifications (errors in Kinetix VPH peak stall-current values).	43…46
Corrected Kinetix VPH (400V-class) motor cable combinations (errors in Kinetix VPH motor and cable AWG).	47
Corrected Kinetix VPH (400V-class) motor performance specifications (errors in Kinetix VPH peak stall-current values).	47…51

Introduction

Use this publication if your application includes the Kinetix® 5500 drive family and Kinetix VP motors and actuators or any of the other compatible Allen-Bradley® motors and actuators. LDAT-Series linear thrusters and Kinetix MP motors and actuators require the 2198-H2DCK feedback converter kit. 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 you need for your Kinetix 5500 drive and motor/actuator 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/drive at rated ambient temperature and line voltage. For additional information on ambients, line conditions, and valid combinations that are not shown in this publication, 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.

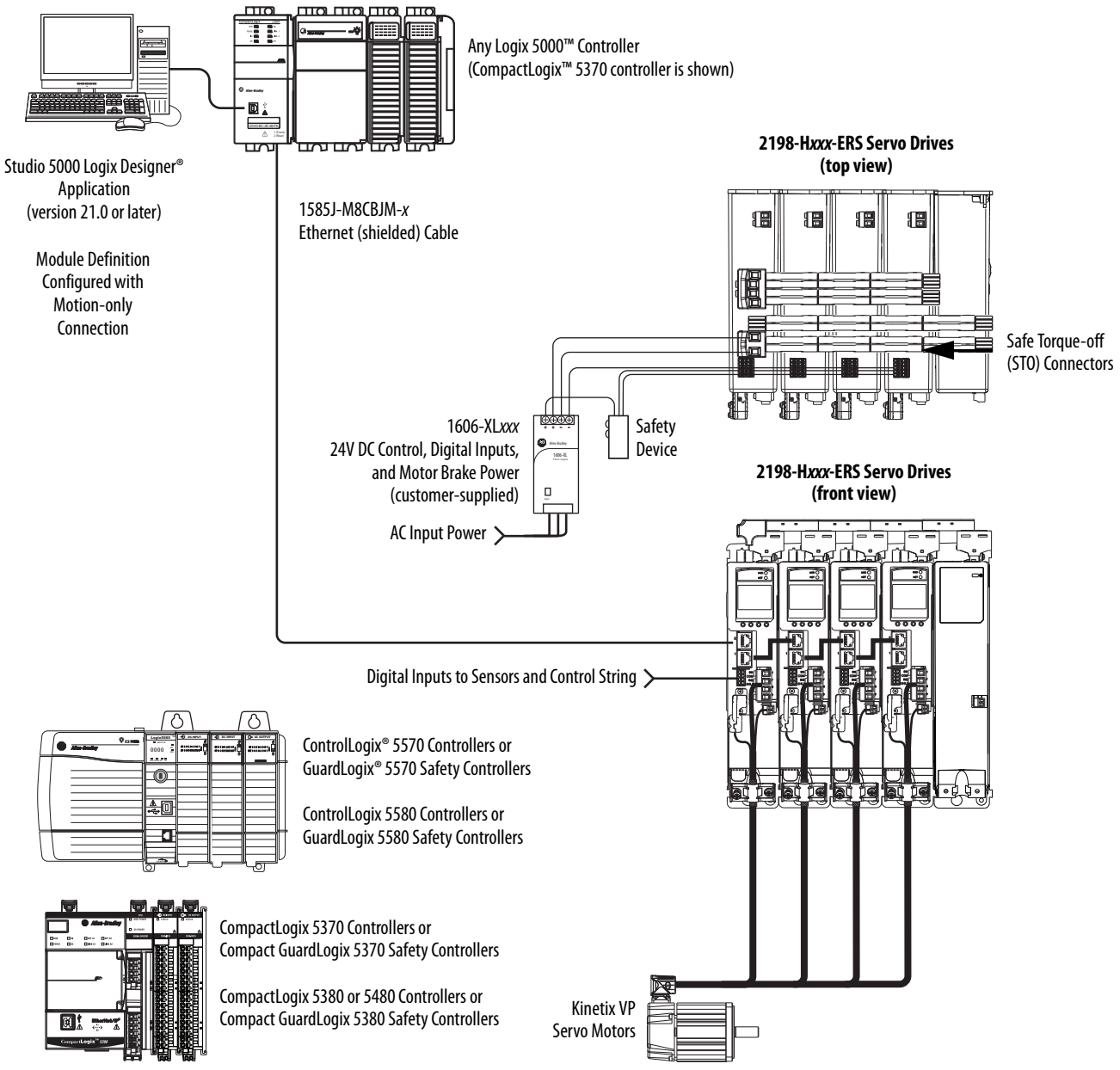
Safe Torque-off Configuration Options

Kinetix 5500 servo drives are available with safe torque-off over hardwired connections or integrated over the EtherNet/IP™ network. These examples illustrate the safe torque-off configuration options.

Hardwired Safety Configuration

The 2198-H*xxx*-ERS drives use the safe torque-off (STO) connector for wiring external safety devices and cascading hardwired safety connections from one drive to another.

Safe Torque-off (hardwired) Configuration



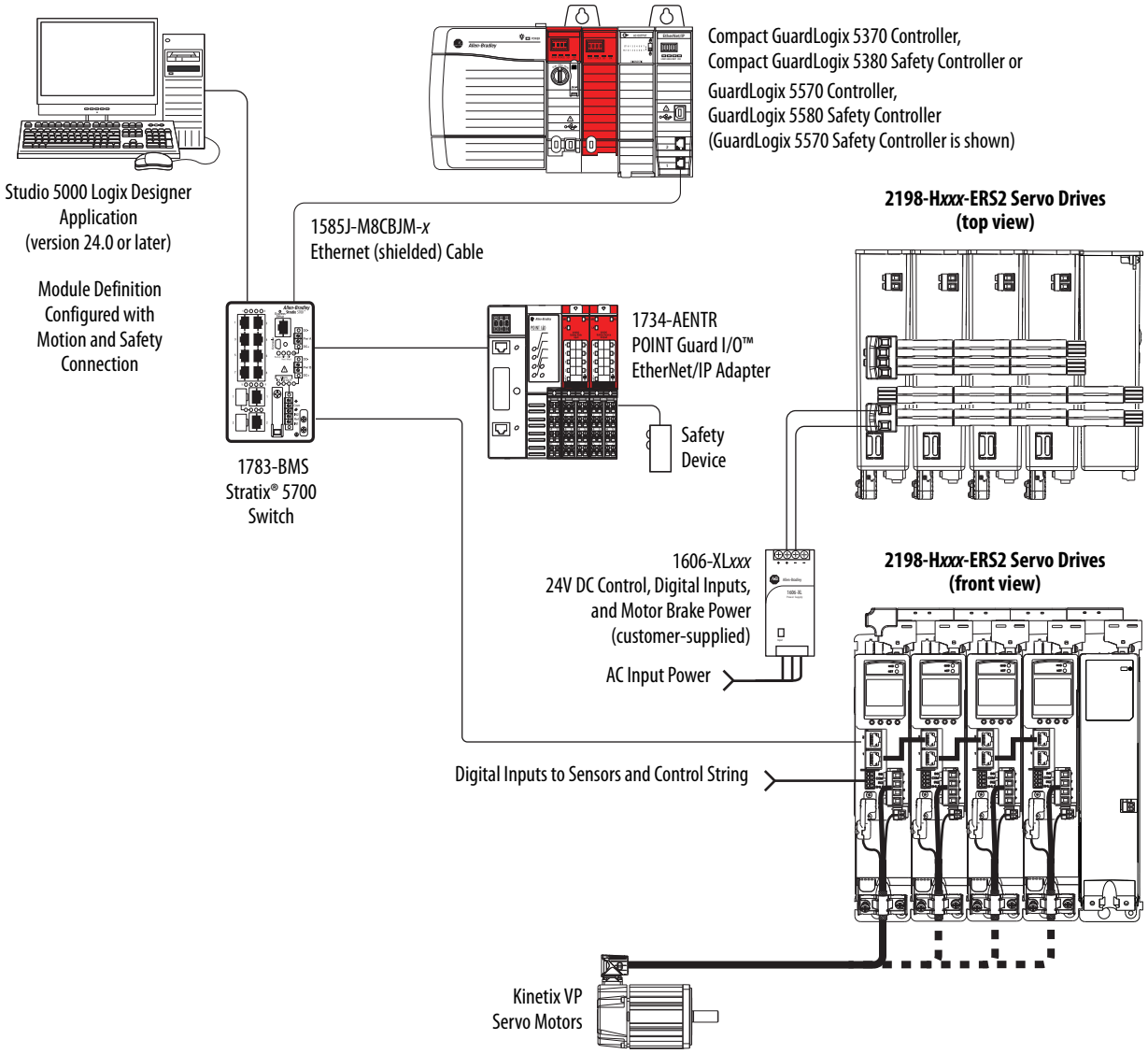
Integrated Safety Configurations

The GuardLogix 5570 or Compact GuardLogix 5370 safety controller issues the safe torque-off (STO) command over the EtherNet/IP network and the 2198-H*xxx*-ERS2 drive executes the STO command.

In this example, a single GuardLogix safety controller makes the Motion and Safety connections with the 2198-H*xxx*-ERS2 integrated safety drives.

IMPORTANT If only one controller is used in an application with Motion and Safety connections, it must be a GuardLogix 5570 or Compact GuardLogix 5370 safety controller.

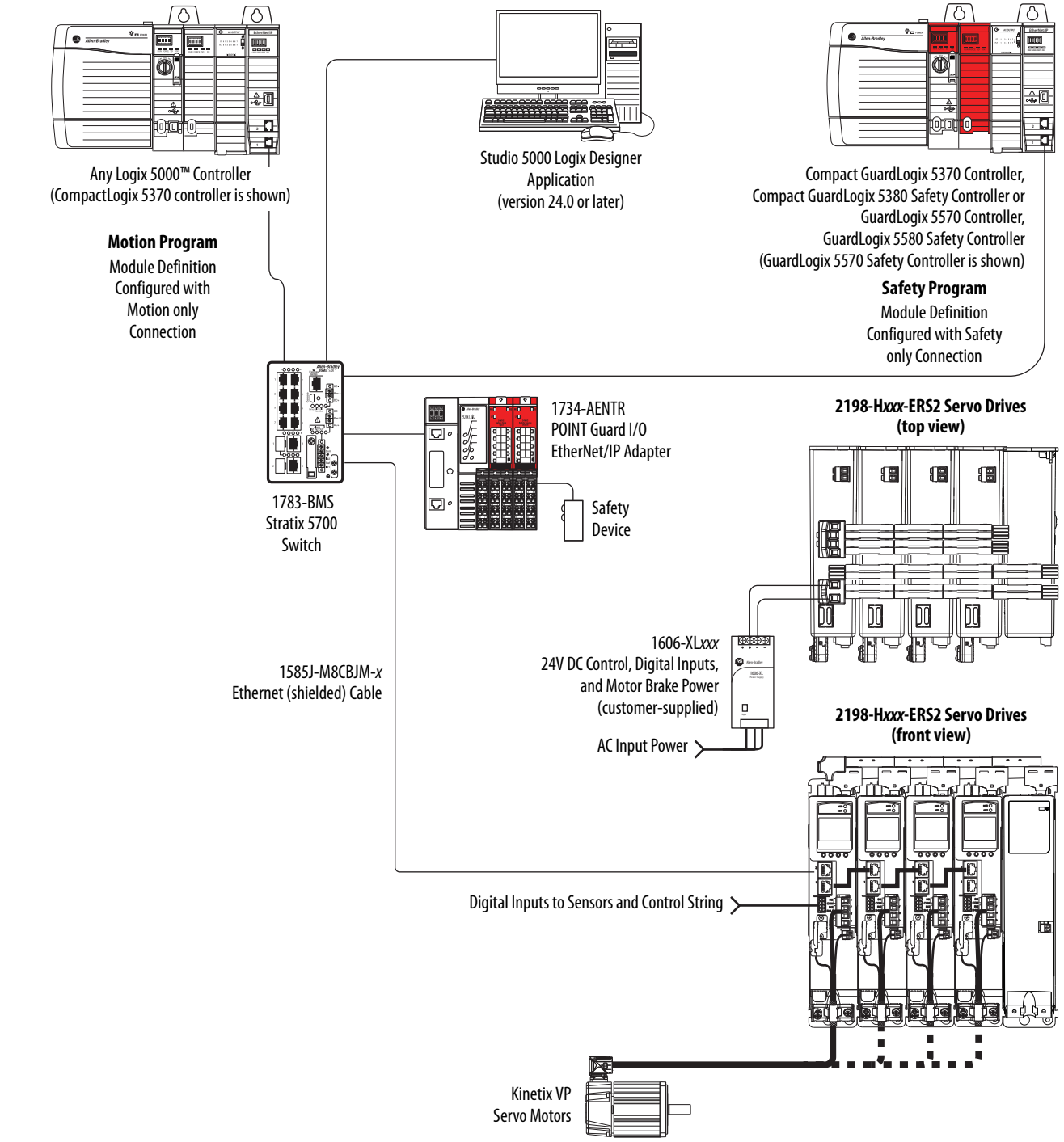
Motion and Safety Configuration (single controller)



In this example, a non-safety controller makes the Motion-only connection and a separate GuardLogix safety controller makes the Safety-only connection with the 2198-H*xxx*-ERS2 integrated safety drives.

IMPORTANT If two controllers are used in an application with Motion-only and Safety-only connections, the Safety-only connection must be a GuardLogix 5570 or Compact GuardLogix 5370 safety controller and the Motion-only connection must be a ControlLogix 5570 or CompactLogix 5370 controller.

Motion and Safety Configuration (multi-controller)



Determine What You Need

For each Kinetix 5500 drive system, the drive and motor/actuator catalog numbers are required to determine the motor cable catalog number. Ethernet cables and a 24V DC power supply are also required.

- 2198-KITCON-DSL (2-pin) connector kits are used for motor feedback from Kinetix VP motors (high-resolution absolute feedback). Kits are included with the drive and can also be purchased separately. Use these kits with 2090-CS*x*M1DF or 2090-CS*x*M1DG cables.
- 2198-H2DCK feedback converter kits (2-pin, Hiperface-to-DSL, series B or later) feedback converter kits are required for LDAT-Series linear thrusters and Kinetix MP motors and actuators. Use these kits with 2090-CFBM7DF feedback cables.
- Shared-bus connector kits are required for shared-bus configurations.

Optional equipment includes the following:

- Kinetix 5500 capacitor module
- 2198-ABQE encoder output module
- Bulletin 2198 AC line filters
- Bulletin 2097 shunt resistors

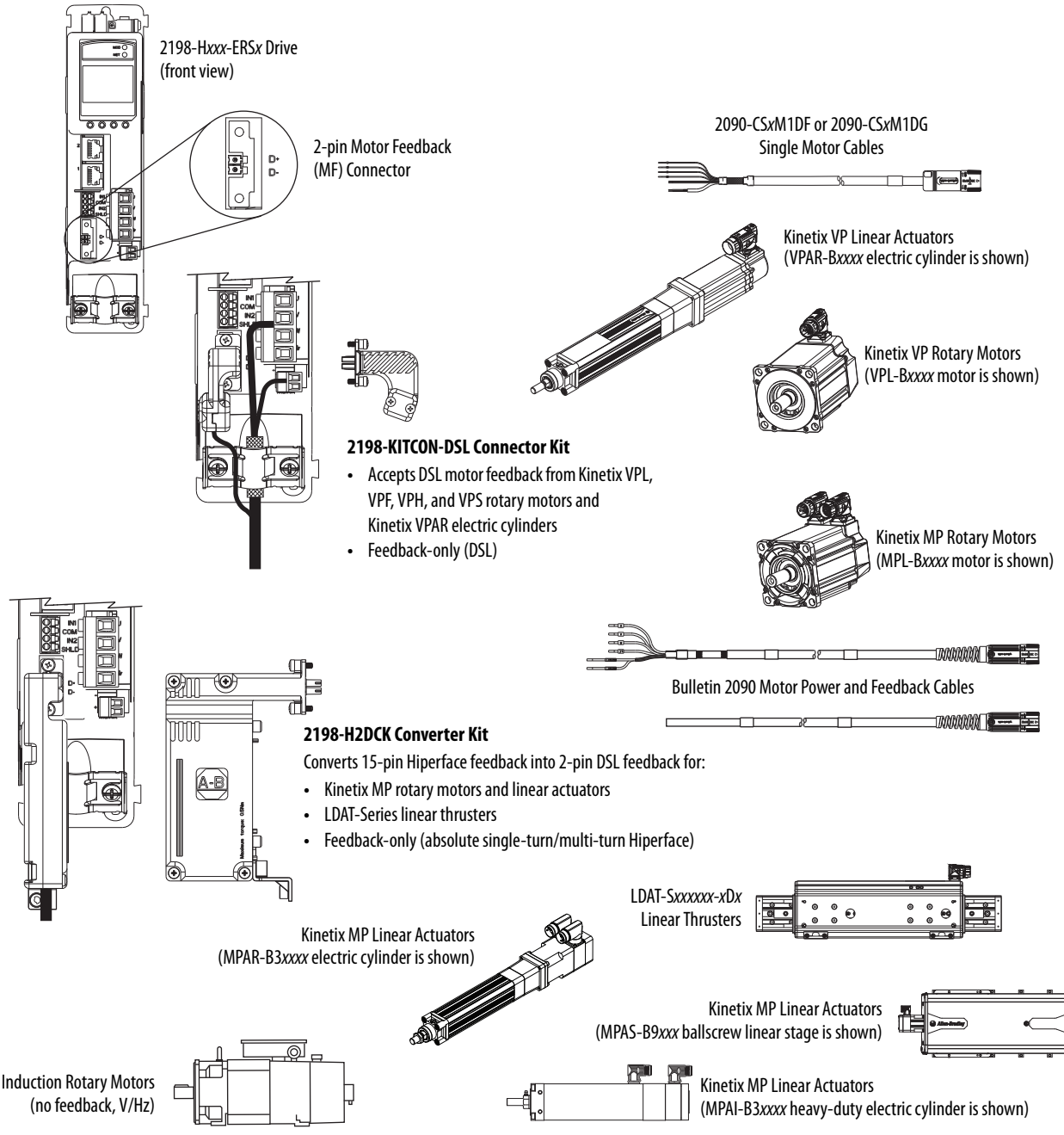
Example diagrams of the required and optional equipment are provided.

Kinetix 5500 Servo Drives

Drive Cat. No. (hardwired STO)	Drive Cat. No. (integrated STO)	Frame	Input Voltage	Continuous Output Power kW	Continuous Output Current A 0-pk	Features
2198-H003-ERS	2198-H003-ERS2	1	195…264V rms, single-phase 195…264V rms, three-phase 324…528V rms, three-phase	0.2 kW 0.3 kW 0.6 kW	1.4	• Single-axis, single or three-phase • Multi-axis, three-phase bus-sharing • Designed for optimum performance with Kinetix VP servo motors • Single cable technology • Safe torque-off
2198-H008-ERS	2198-H008-ERS2			0.5 kW 0.8 kW 1.6 kW	3.5	
2198-H015-ERS	2198-H015-ERS2	2		1.0 kW 1.5 KW 3.2 kW	7.1	
2198-H025-ERS	2198-H025-ERS2		195…264V rms, three-phase 324…528V rms, three-phase	2.4 kW 5.1 kW	11.3	• Single-axis, three-phase • Multi-axis, three-phase bus-sharing • Designed for optimum performance with Kinetix VP servo motors • Single cable technology • Safe Torque-off
2198-H040-ERS	2198-H040-ERS2			4.0 kW 8.3 kW	18.4	
2198-H070-ERS	2198-H070-ERS2	3		7.0 kW 14.6 kW	32.5	

Feedback connections are made at the 2-pin motor feedback (MF) connector. These examples illustrate how you can use the Bulletin 2198 connector kits for making these connections. These examples illustrate how you can use the Bulletin 2198 connector kits for making these connections.

Feedback Configuration Examples



IMPORTANT In 2198-H2DCK converter kit applications, you can replace the 2090-CP*x*M7DF power/brake cable with a 2090-CS*x*M1DF/DG single motor cable, and reuse the 2090-CFBM7DF feedback cable. This increases the maximum cable length for 18 and 14 AWG single cables to 50 m (164 ft). 2090-CSBM1DF-10AF*xx* or 2090-CSBM1DG-10*xxxx* (10 AWG) cables do not support this 50 m (164 ft) option.

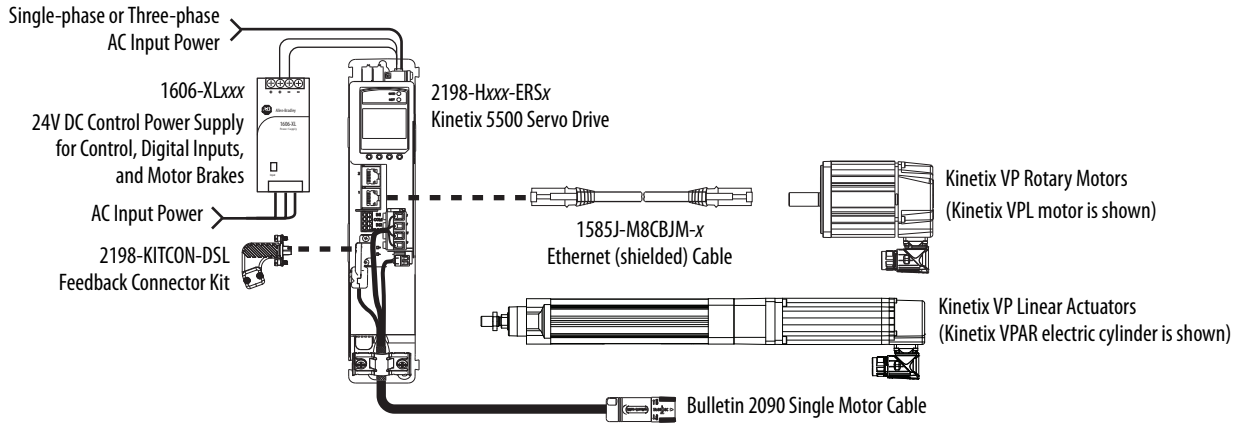
Required Drive Accessories

Drive Accessory	Description	Cat. No.
24V power supply	24V DC for control power and motor brakes.	1606-XL*xxx*
Ethernet network cables	Double-ended, non-flex, shielded.	1585J-M8CBJM-*x*
	Double-ended, high-flex, shielded.	1585J-M8UBJM-*x*
Motor cables	Kinetix VPL, VPF, VPH, and VPS rotary motors. (1)	Refer to the specific drive/motor combination for the motor cables required for your system.
	Kinetix VPAR electric cylinders. (1)	
	Kinetix MPL, MPM, MPF, and MPS rotary motors with high-resolution absolute encoders.	
	Kinetix MPAS ballscrew, MPAR, and MPAI linear actuators.	
	LDAT-Series linear thrusters.	
Shared-bus connection system	Input wiring connectors and DC-bus T connectors for use between frame 1, 2, and 3 servo drives (frame 3:2, frame 2:1, frame 1:1, and frame 2:2). Required for shared-bus configurations.	2198-H040-*x*-*x*
	Input wiring connectors and DC-bus T connectors for use between frame 3 servo drives (frame 3:3).	2198-H070-*x*-*x*
Hiperface-to-DSL feedback converter kit (2)	Converts Hiperface high-resolution absolute encoder feedback to Hiperface DSL feedback. Required for feedback connections to LDAT-Series linear thrusters and Kinetix MP motors and actuators.	2198-H2DCK

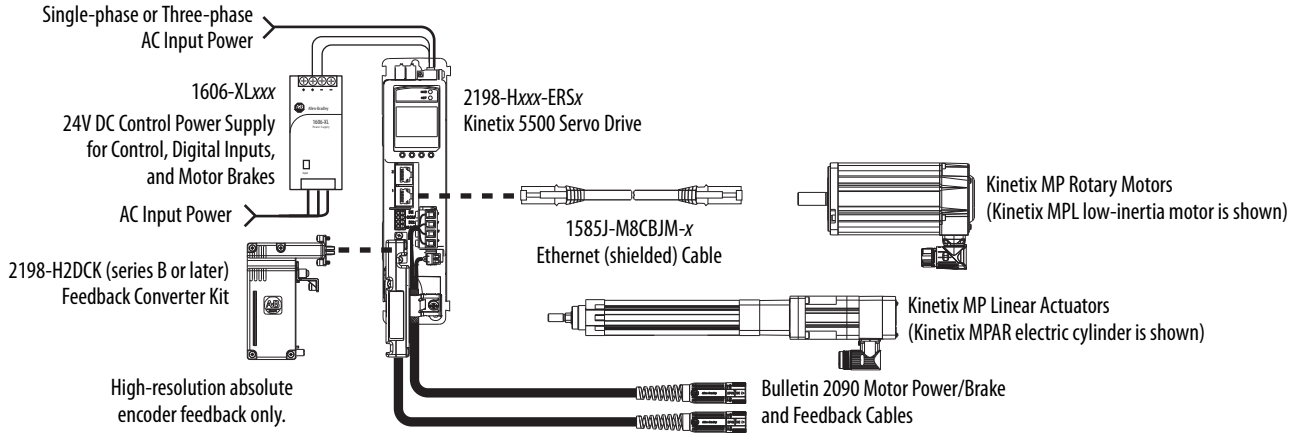
(1) The 2198-KITCON-DSL feedback connector kit is required for Kinetix VP motors and actuators and is included with each Kinetix 5500 servo drive. Replacement kits are also available.

(2) The maximum cable length is reduced to 20 m (65.6 ft) for these systems and typical system performance, as documented in this publication, requires the motor and drive at 40 °C (104 °F) ambient and rated line voltage.

Kinetix 5500 Drive with Kinetix VP Motor



Kinetix 5500 Drive with Kinetix MP Motor or Actuator

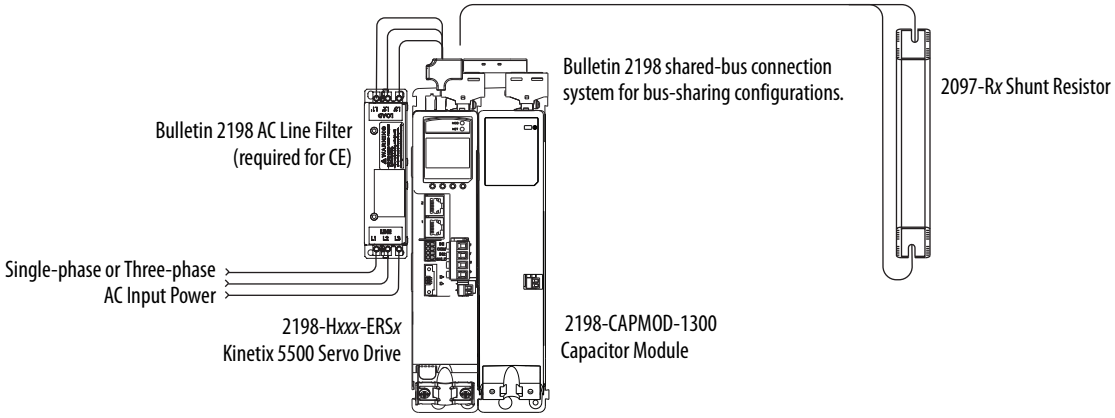


Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5500 drive family.

Optional Drive Accessories

Drive Accessory	Description	Cat. No.
Shared-bus connector kits	24V input wiring connectors, T-connectors, and bus bars for the 24V shared-bus connection system	• 2198-TCON-24VDCIN36 • 2198-*xxxx*-P-T
Capacitor module	Capacitor bank for energy storage and/or to improve performance in applications that produce regenerative energy and require shorter duty cycles (1360 µf).	2198-CAPMOD-1300
Encoder output module	The Allen-Bradley encoder output module is a DIN-rail mounted EtherNet/IP network-based standalone module capable of outputting encoder pulses to a customer-supplied peripheral device.	2198-ABQE
AC line filters	AC line conditioning for EMC.	• 2198-DBR*xx*-F • 2198-DB*xx*-F
Bulletin 2097 shunt resistor	Panel-mount shunt resistor.	2097-R*x*
External auxiliary encoders	Allen-Bradley Integrated Motion encoder on the EtherNet/IP network provides a feedback-only axis.	Bulletin 842E-CM

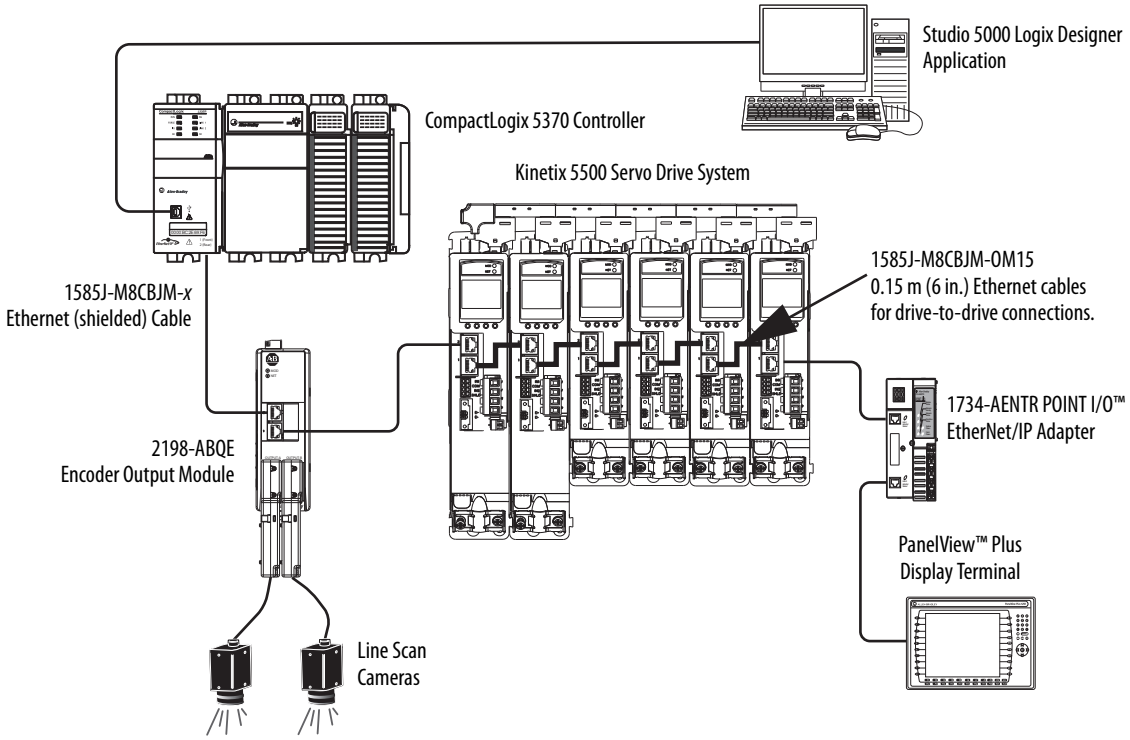
Kinetix 5500 Optional Accessories



Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5500 drive accessories.

In this example, the encoder output module outputs encoder pulses to cameras used in line-scan vision systems. The module supports real and virtual axes for systems using the integrated motion on EtherNet/IP network.

Encoder Output Module Example



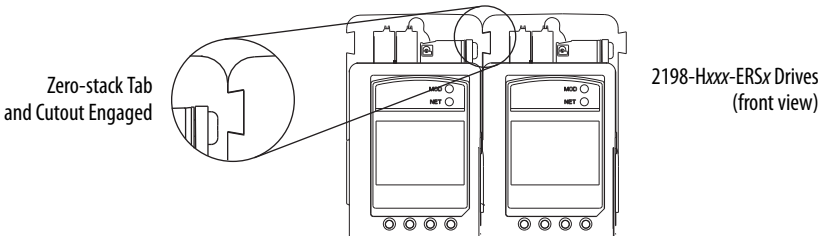
Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5500 drive accessories.

Kinetix 5500 Shared-bus System Examples

These system examples illustrate how Kinetix 5500 servo drives and shared-bus accessories are used in typical shared-bus configurations. In these examples, frame 1 and 2 drives are used, so the shared-bus accessories are all catalog number 2198-H040-*x*-*x*.

Engaging the zero-stack tab and cutout from drive-to-drive makes efficient use of panel space for installations with multiple drives. Engaging the zero-stack tab and cutout from drive-to-drive is required for shared-bus multi-axis drive systems. This is done to make sure the drive connectors are spaced properly to accept the shared-bus connection system.

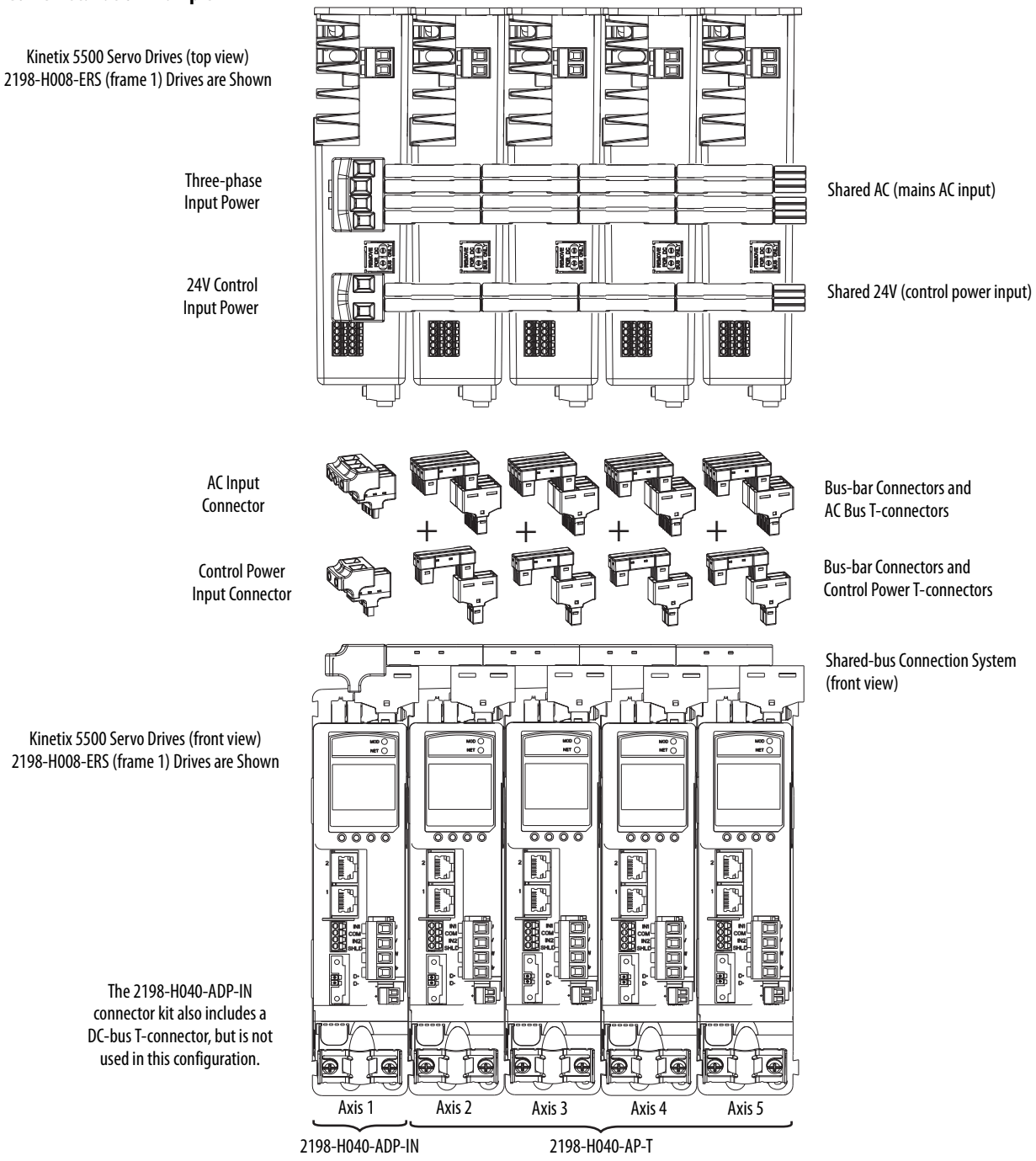
Zero-stack Tab and Cutout Example



Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and catalog numbers for the shared-bus connector kits.

In this example, three-phase AC power and 24V control power is shared in a shared-AC configuration. All drives must have the same power rating (catalog number).

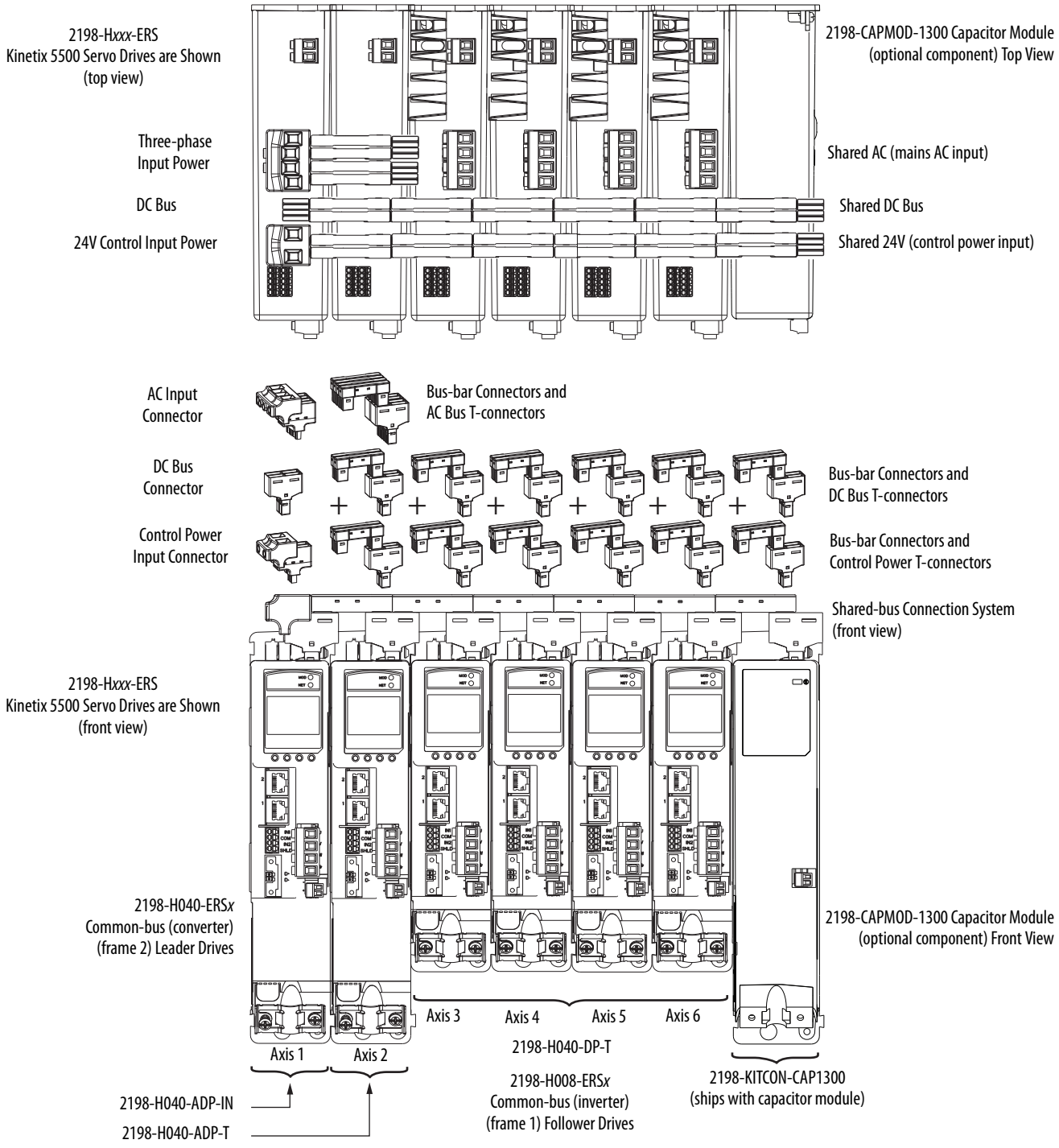
Shared AC Installation Example



IMPORTANT In shared AC configurations, all drives must have the same power rating. Shared AC configurations do not support the Bulletin 2198 capacitor module. Refer to the Kinetix 5500 Servo Drives User Manual, publication 2198-UM001, for system sizing information, including restrictions on how many drives can be connected in the shared AC configuration.

In this example, three-phase AC input power is supplied to two converter drives with the same power rating. This parallel converter configuration increases the DC power supplied to the inverter drives.

Shared AC/DC Bus Hybrid Installation Example



IMPORTANT In shared AC/DC hybrid configurations, the two converter drives must have the same power rating and must be greater than or equal to the inverter drives. Refer to the Kinetix 5500 Servo Drives User Manual, publication 2198-UM001, for system sizing information, including restrictions on how many drives can be connected in the shared AC/DC, shared DC (common bus), and hybrid configurations.

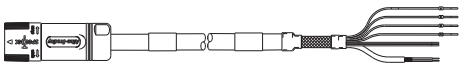
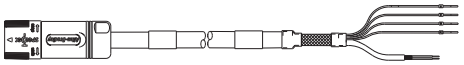
2090-Series Single Motor Cable Overview

These cables apply to Kinetix VP rotary motors and linear actuators. When using single cables, system performance of a typical system with the motor at 40 °C (104 °F) and drive at 50 °C (122 °F) ambient applies. For maximum motor-cable lengths with Kinetix 5500 drives, see the Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

IMPORTANT Because of the unique characteristics of single cable technology, building your own cables, using field modified Rockwell Automation® factory-delivered cable, or using third-party cables with Kinetix VPL, VPF, VPH, and VPS motors, and Kinetix VPAR electric cylinders is not an option.

2090-CS*x*M1DF cable conductors have flying-leads and lead preparation that is designed specifically for Kinetix 5500 servo drives. No on-site lead preparation is required. 2090-CS*x*M1DG cable conductors have flying-leads and lead preparation that is designed for either Kinetix 5500 or Kinetix 5700 servo drives. No on-site lead preparation is required; however, 2090-CS*x*M1DG cable leads are longer than 2090-CS*x*M1DF cable leads to accommodate either drive family.

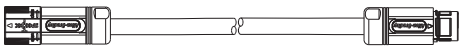
Single Motor Cable Descriptions (flying leads)

Single Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CSBM1DF-*xx*AA*xx* 2090-CSBM1DF-*xx*AF*xx* 2090-CSBM1DG-*xxx*A*xx* 2090-CSBM1DG-*xxx*F*xx*	• Drive-end flying-leads (DF) (DG = longer lead lengths) • Power/feedback/brake wires (SB) • Standard, non-flex (AA, VA) • Continuous-flex (AF, LF)			SpeedTec DIN
2090-CSWM1DF-*xx*AA*xx* 2090-CSWM1DG-*xxx*A*xx*	• Drive-end flying-leads (DF) (DG = longer lead lengths) • Power/feedback wires only (SW) • Standard, non-flex (AA, VA)			

Optimize the placement of your continuous-flex application with extension cables. Use standard (non-flex) extension cables to cover distances that are outside of the continuous-flex application. For example, attach a standard (non-flex) extension cable to the motor and use a continuous-flex flying lead cable for applications that require flexing closer to the drive. The stationary portion of cable can stay routed permanently throughout the application while the continuous-flex cable can be placed in the location that may need maintenance, changeovers, replacement, or general services.

The IP rating for extension cables is consistent with the motor/actuator and cable combination they are extending. Extension cables are available with 18, 14, 10, 8, and 6 AWG power conductors and lengths up to 30 m (98.4 ft).

Single Extension Cable Description

Cable Cat. No.	Description	Cable Configuration		Motor Connector
		Motor End	Drive End	
2090-CSBM1E1-*xxx*F*xx* 2090-CSBM1E1-*xx*VA*xx*	• Drive-end (male) connector, extension (E1) (1) • Motor-end SpeedTec DIN cable plug (M1) • Standard, non-flex (VA) • Continuous-flex (AF, LF)			SpeedTec DIN

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

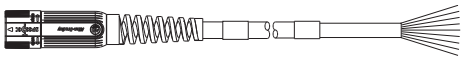
Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications.

2090-Series Motor Power/Brake and Feedback Cables Overview

These cables apply to LDAT-Series linear thrusters and Kinetix MP motors and actuators with high-resolution absolute encoders. When using these cables, system performance of a typical system with the motor/actuator at 40 °C (104 °F) and drive at 40 °C (104 °F) ambient applies. Maximum motor power cable length is 20 m (65.6 ft) for Kinetix 5500 drive systems using these cables.

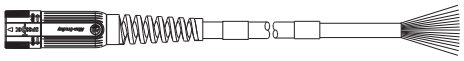
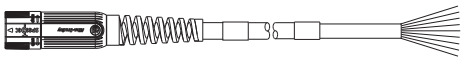
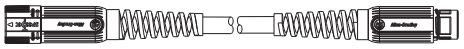
IMPORTANT To increase the maximum motor power cable length to 50 m (164 ft) and the system ambient to motor at 40 °C (104 °F) and drive at 50 °C (122 °F), use the 2090-CSBM1DF/DG (single) cable for motor power/brake, and the 2090-CFBM7DF cable for motor feedback.

Feedback Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CFBM7DF-CEAA*xx*	• Drive-end flying-leads (DF) • High-resolution or resolver applications (CE)			SpeedTec DIN (M7)
2090-CFBM4E2-CATR	• Drive-end bayonet (E2), transition (TR) cable (1) • Motor-end threaded DIN (M4) • All feedback types (CA)			Threaded DIN (M4)

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

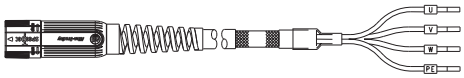
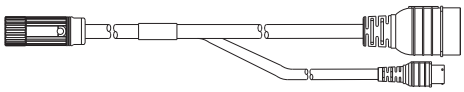
Feedback Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CFBM7DF-CDAF*xx*	• Drive-end flying-leads (DF) • High-resolution or incremental applications (CD)			SpeedTec DIN (M7)
2090-CFBM7DF-CEAF*xx*	• Drive-end flying-leads (DF) • High-resolution or resolver applications (CE)			
2090-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.

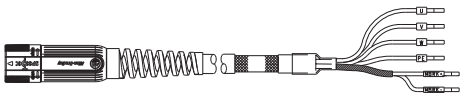
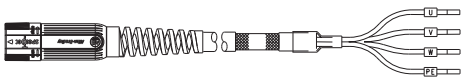
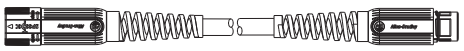
Motor-end cable connector kits, for use when building your own cables are also available. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.

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

Standard Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CPBM7DF-*xx*AA*xx*	• Drive-end flying-leads (DF) • Power/brake wires (PB)			SpeedTec DIN (M7)
2090-CPWM7DF-*xx*AA*xx*	• Drive-end flying-leads (DF) • Power wires only (PW)			
2090-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)			

(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/Actuator 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 5500 (200V-class operation) Drives with Kinetix VPL Low-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 200 and 240V, nominal input) when matched with Kinetix VPL (200V-class) servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

Kinetix VPL Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPL-A0631*x*, VPL-A0632F, VPL-A0633*x*	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPL-A0751E, VPL-A0752*x*, VPL-A0753*x*		
VPL-A1001C, VPL-A1003*x*		
VPL-A1001M, VPL-A1002*x*	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPL-A1152*x*, VPL-A1153*x*		
VPL-A1303*x*, VPL-A1304*x*, VPL-A1306*x*		

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPL Motor Performance Specifications with Kinetix 5500 (200V-class operation) 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 (Hp)	Kinetix 5500 Drives (240V AC Input)
VPL-A0631E	4500	4500	1.20	0.46 (4.0)	3.50	1.12 (9.91)	0.19 (0.25)	2198-H003-ERS*x*
					4.20	1.33 (12.0)		2198-H008-ERS*x*
VPL-A0631M	7200	7200	1.92	0.46 (4.0)	6.48	1.33 (12.0)	0.28 (0.38)	2198-H008-ERS*x*
VPL-A0632F	4800	4800	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.39 (0.52)	2198-H008-ERS*x*
VPL-A0633C	3000	3000	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.37 (0.50)	2198-H008-ERS*x*
VPL-A0633F	4500	4500	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.44 (0.59)	2198-H008-ERS*x*
					12.60	4.09 (36.0)		2198-H015-ERS*x*
VPL-A0751E	4800	4800	2.90	1.01 (9.0)	8.80	2.20 (19.0)	0.50 (0.67)	2198-H008-ERS*x*
					9.12	2.27 (20.0)		2198-H015-ERS*x*
VPL-A0752C	3300	3300	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.49 (0.66)	2198-H015-ERS*x*
VPL-A0752E	4800	4800	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.66 (0.88)	2198-H015-ERS*x*
					18.90	4.39 (39.0)		2198-H025-ERS*x*
VPL-A0753C	3300	3300	4.90	2.16 (19.0)	17.70	6.55 (58.0)	0.59 (0.79)	2198-H015-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*
VPL-A0753E	4600	4600	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.80 (1.07)	2198-H015-ERS*x*
					25.34	7.35 (65.0)		2198-H025-ERS*x*
VPL-A1001C	2800	2800	3.61	1.93 (17.0)	8.80	3.22 (28.0)	0.56 (0.75)	2198-H008-ERS*x*
					10.38	3.78 (33.0)		2198-H015-ERS*x*

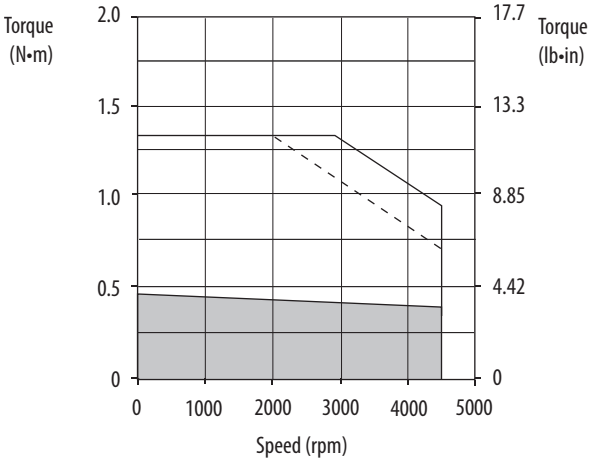
Kinetix VPL Motor Performance Specifications with Kinetix 5500 (200V-class operation) Drives (cont.)

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 (Hp)	Kinetix 5500 Drives (240V AC Input)
VPL-A1001M	6500	6500	7.15	1.95 (17.0)	17.70	3.31 (29.0)	1.29 (1.73)	2198-H015-ERS*x*
					20.20	3.78 (33.0)		2198-H025-ERS*x*
VPL-A1002C	3000	3000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.03 (1.38)	2198-H015-ERS*x*
					20.33	7.82 (69.0)		2198-H025-ERS*x*
VPL-A1002F	5000	5000	10.04	3.26 (29.0)	28.30	6.77 (60.0)	1.60 (2.14)	2198-H025-ERS*x*
					34.30	7.82 (69.0)		2198-H040-ERS*x*
VPL-A1003C	2250	2250	6.14	4.18 (37.0)	17.70	9.76 (86.0)	0.87 (1.17)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPL-A1003E	3750	3750	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.31 (1.76)	2198-H025-ERS*x*
					28.80	11.15 (99.0)		2198-H040-ERS*x*
VPL-A1003F	5500	5500	15.62	4.18 (37.0)	45.90	10.25 (90.0)	1.90 (2.55)	2198-H040-ERS*x*
					50.0	11.15 (99.0)		2198-H070-ERS*x*
VPL-A1152B	2150	2150	6.17	5.10 (45.0)	17.70	10.95 (96.0)	1.02 (1.37)	2198-H015-ERS*x*
					21.19	13.12 (116)		2198-H025-ERS*x*
VPL-A1152E	3300	3300	10.60	5.08 (45.0)	28.30	12.14 (107)	1.47 (1.97)	2198-H025-ERS*x*
					32.10	13.12 (116)		2198-H040-ERS*x*
VPL-A1152F	5000	5000	13.56	4.70 (42.0)	45.80	13.12 (116)	2.16 (2.90)	2198-H040-ERS*x*
VPL-A1153C	2300	2300	8.88	6.55 (58.0)	28.30	18.30 (162)	1.35 (1.81)	2198-H025-ERS*x*
					33.0	20.33 (180)		2198-H040-ERS*x*
VPL-A1303B	1950	1950	10.34	8.80 (78.0)	28.30	19.85 (175)	1.61 (2.16)	2198-H025-ERS*x*
					31.0	20.72 (183)		2198-H040-ERS*x*
VPL-A1303F	4000	4000	18.60	7.75 (69.0)	45.90	15.36 (136)	2.50 (3.35)	2198-H040-ERS*x*
					62.0	20.72 (183)		2198-H070-ERS*x*
VPL-A1304A	1600	1600	9.43	10.29 (91.0)	28.30	25.03 (221)	1.55 (2.08)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPL-A1304D	3000	3000	18.40	10.20 (90.0)	45.90	21.48 (190)	2.60 (3.50)	2198-H040-ERS*x*
					58.0	27.10 (240)		2198-H070-ERS*x*
VPL-A1306C	2000	2000	14.78	13.38 (118)	45.90	28.50 (252)	2.13 (2.86)	2198-H040-ERS*x*
					55.83	34.62 (306)		2198-H070-ERS*x*

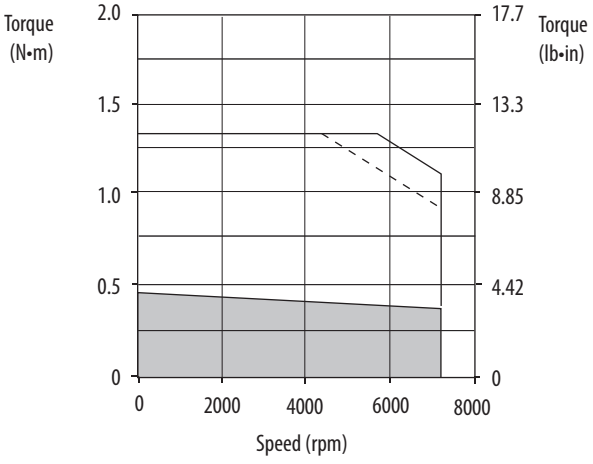
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix VPL Servo Motor Curves

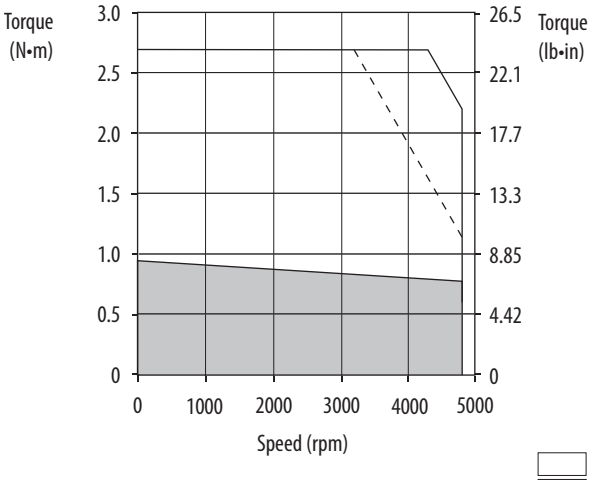
2198-H008-ERS*x* and VPL-A0631E



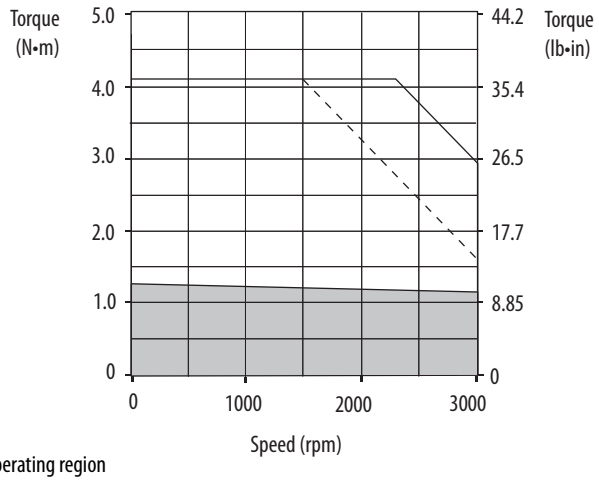
2198-H008-ERS*x* and VPL-A0631M



2198-H008-ERS*x* and VPL-A0632F



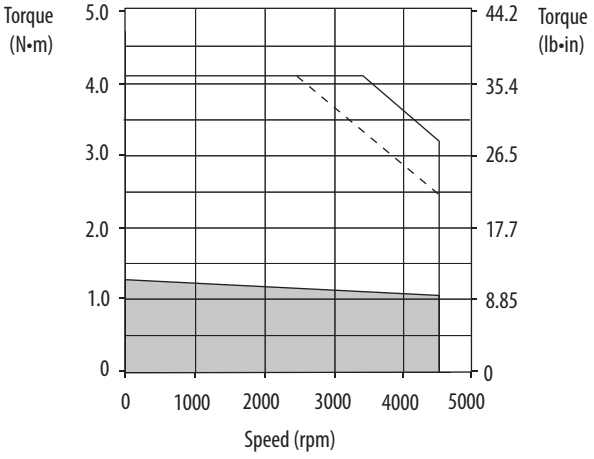
2198-H008-ERS*x* and VPL-A0633C



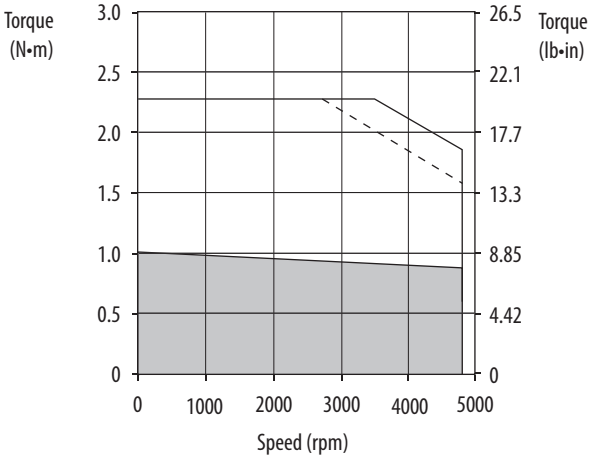
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

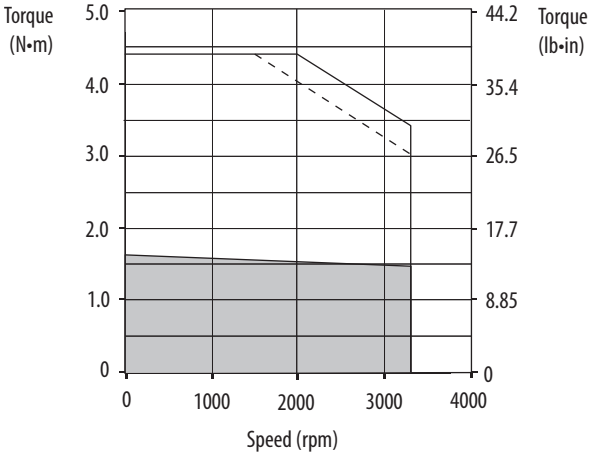
2198-H015-ERS*x* and VPL-A0633F



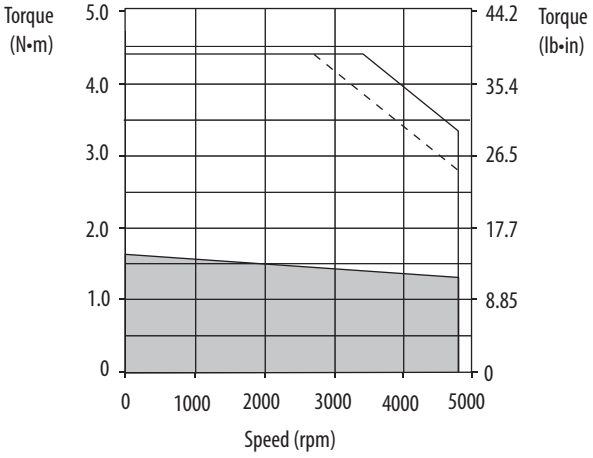
2198-H015-ERS*x* and VPL-A0751E



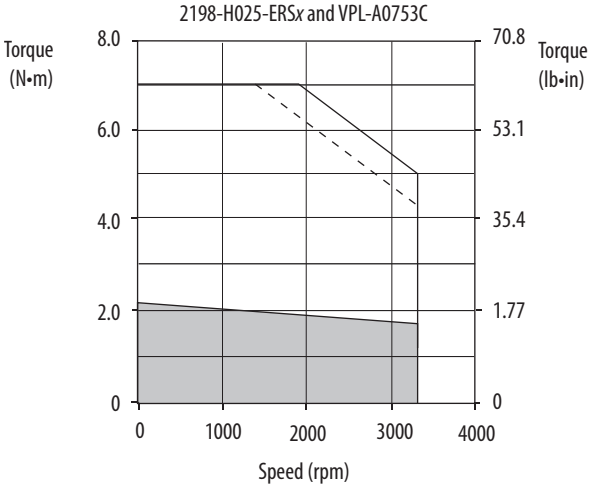
2198-H015-ERS*x* and VPL-A0752C



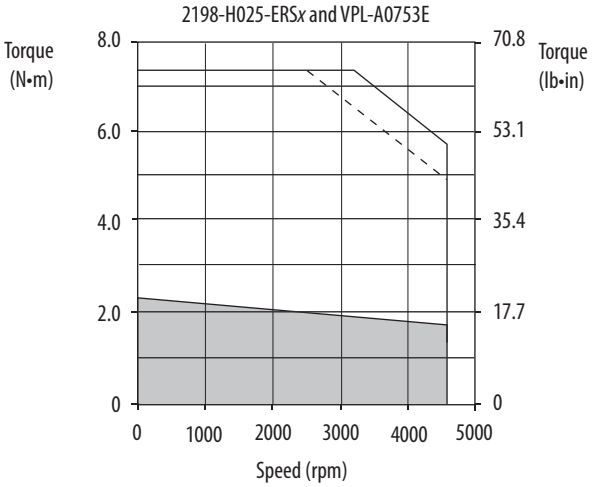
2198-H025-ERS*x* and VPL-A0752E



2198-H025-ERS*x* and VPL-A0753C



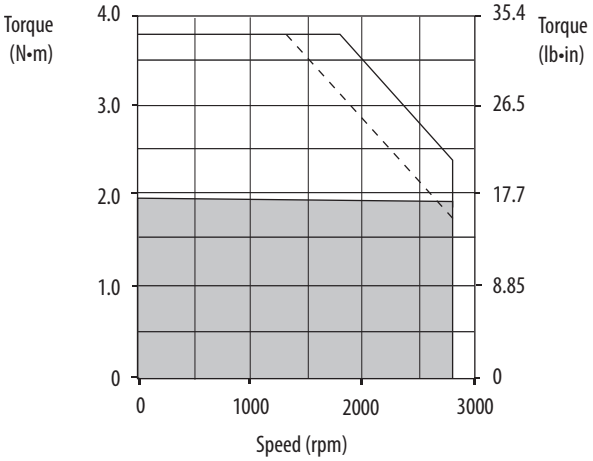
2198-H025-ERS*x* and VPL-A0753E



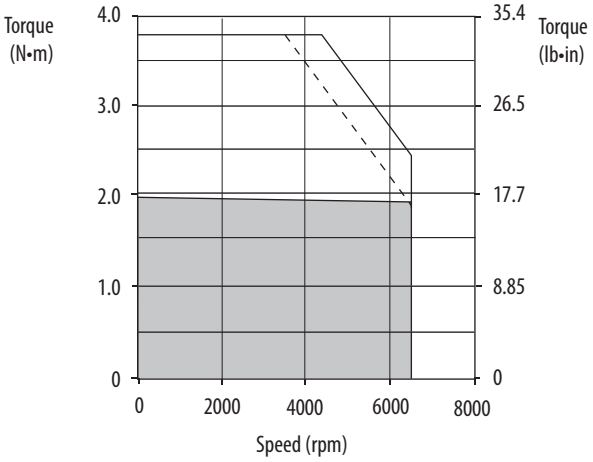
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

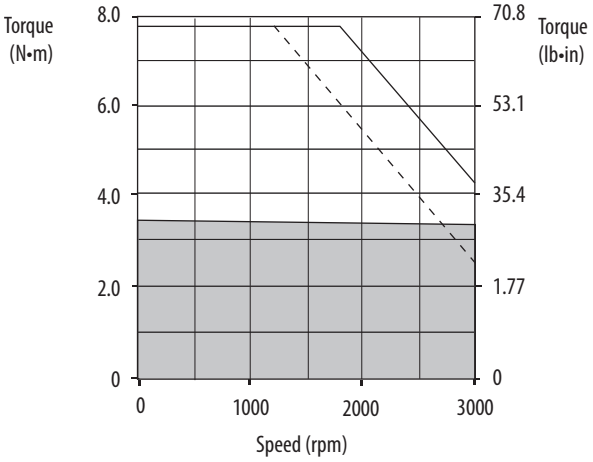
2198-H015-ERS*x* and VPL-A1001C



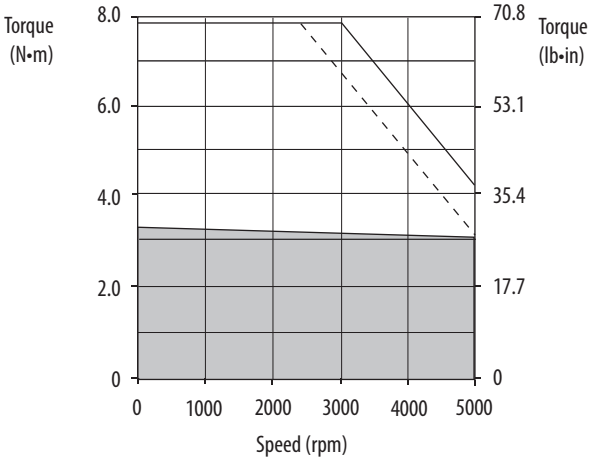
2198-H025-ERS*x* and VPL-A1001M



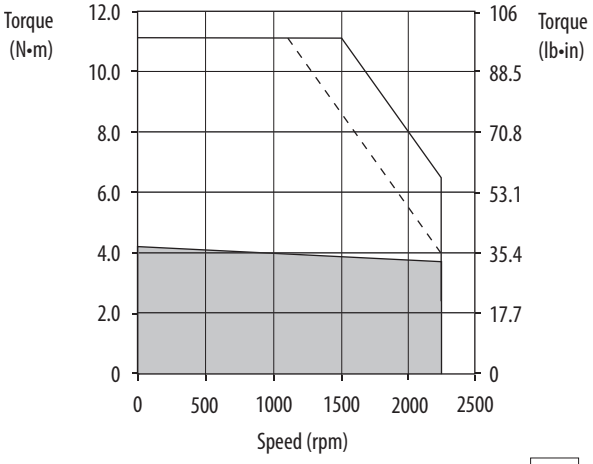
2198-H025-ERS*x* and VPL-A1002C



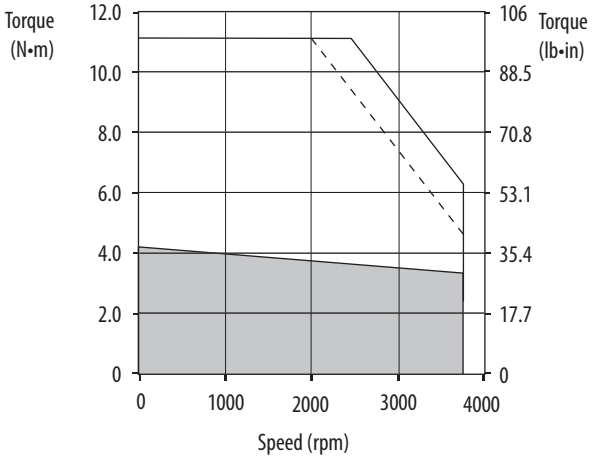
2198-H040-ERS*x* and VPL-A1002F



2198-H025-ERS*x* and VPL-A1003C



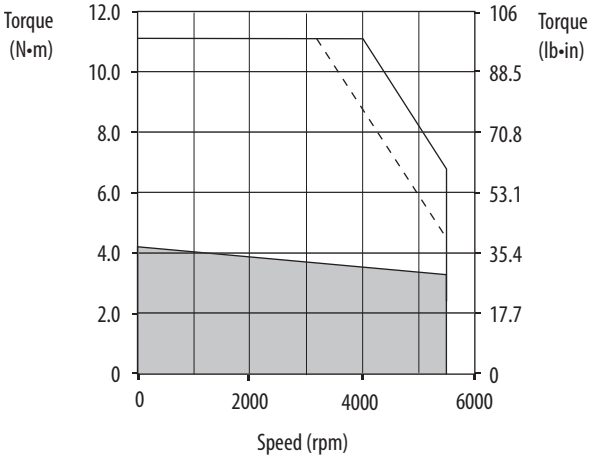
2198-H040-ERS*x* and VPL-A1003E



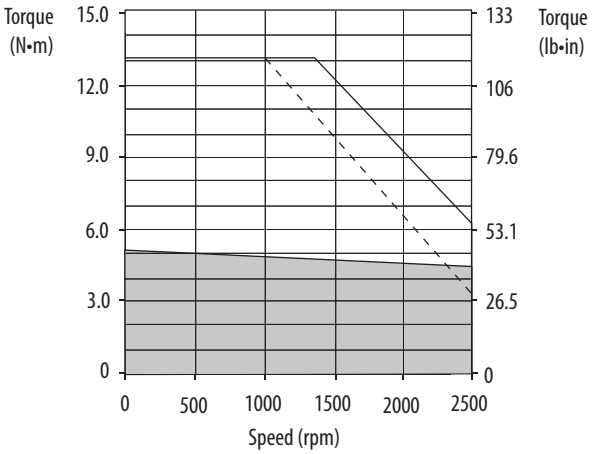
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

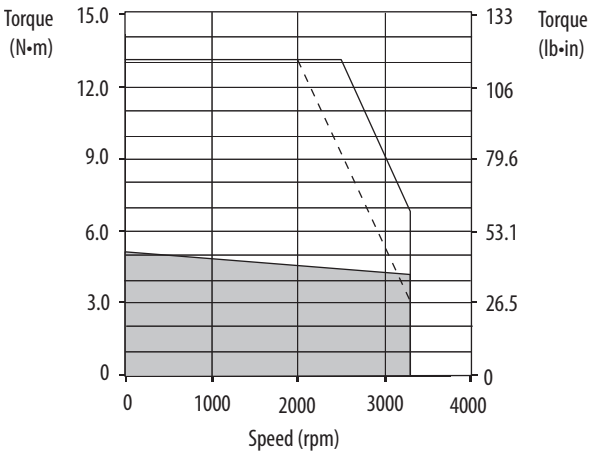
2198-H070-ERS*x* and VPL-A1003F



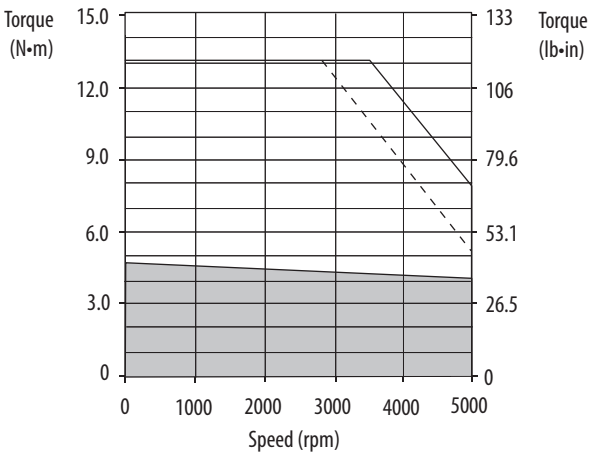
2198-H025-ERS*x* and VPL-A1152B



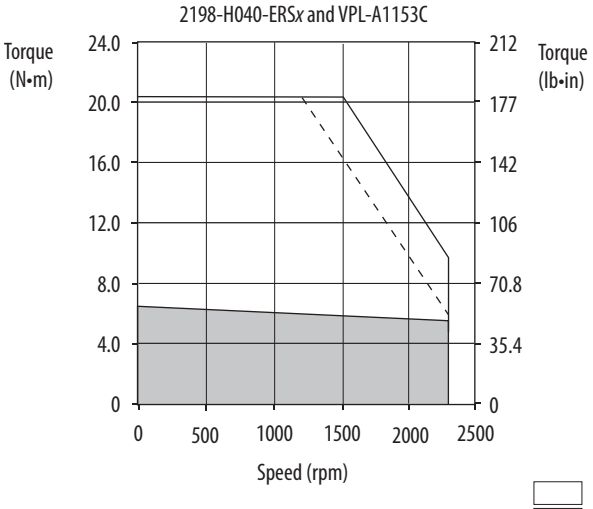
2198-H040-ERS*x* and VPL-A1152E



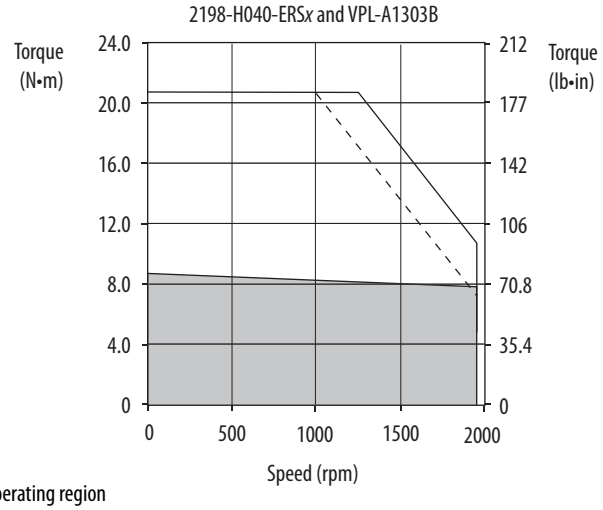
2198-H040-ERS*x* and VPL-A1152F



2198-H040-ERS*x* and VPL-A1153C



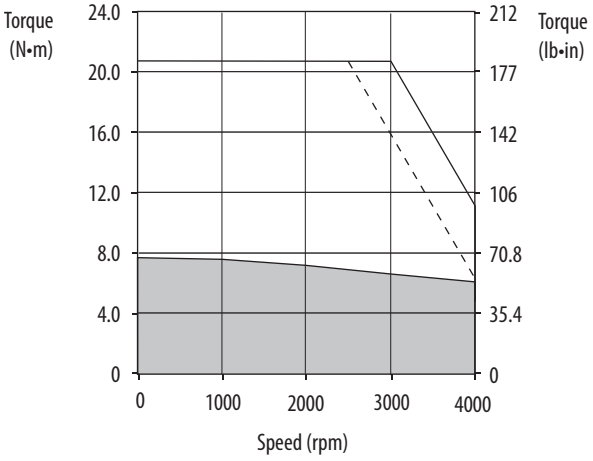
2198-H040-ERS*x* and VPL-A1303B



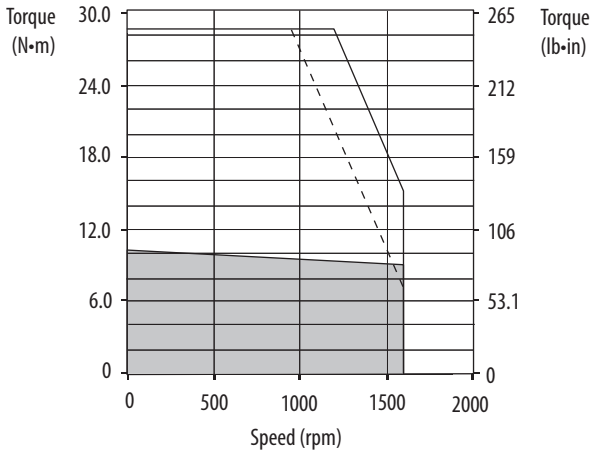
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

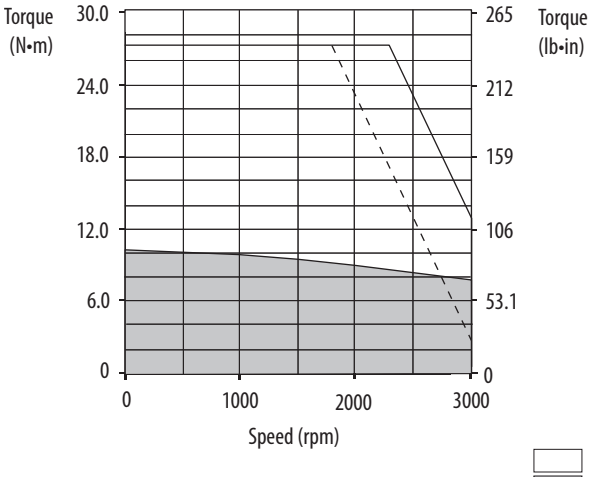
2198-H070-ERS*x* and VPL-A1303F



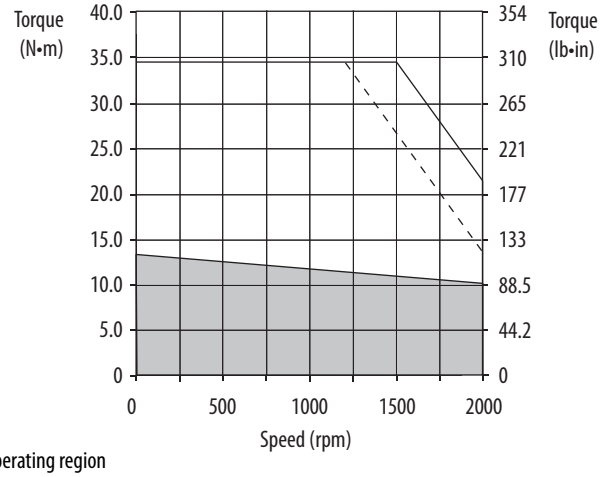
2198-H040-ERS*x* and VPL-A1304A



2198-H070-ERS*x* and VPL-A1304D



2198-H070-ERS*x* and VPL-A1306C



= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives with Kinetix VPL Low-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix VPL (400V-class) servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

Kinetix VPL Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPL-B0631*x*, VPL-B0632*x*, VPL-B0633*x*	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPL-B0751M, VPL-B0752*x*, VPL-B0753*x*		
VPL-B1001M, VPL-B1002E, VPL-B1003C, VPL-B1003F		
VPL-B1152C, VPL-B1153E		
VPL-B1002M, VPL-B1003T	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPL-B1152F, VPL-B1152T, VPL-B1153F		
VPL-B1303*x*, VPL-B1304*x*, VPL-B1306*x*		
VPL-B1651C, VPL-B1651F, VPL-B1652C, VPL-B1652F, VPL-B1653C, VPL-B1653D, VPL-B1654B		
VPL-B1654D	2090-CSBM1D*x*-10F*xx* (continuous-flex), 2090-CSBM1D*x*-10VA*xx* (standard, non-flex)	

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPL Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 (Hp)	Kinetix 5500 Drives (480V AC input)
VPL-B0631T	8000	8000	1.20	0.46 (4.0)	3.50	1.12 (10.0)	0.31 (0.42)	2198-H003-ERS*x*
					4.20	1.33 (12.0)		2198-H008-ERS*x*
VPL-B0631U	8000	8000	1.92	0.46 (4.0)	6.48	1.33 (12.0)	0.31 (0.42)	2198-H008-ERS*x*
VPL-B0632F	4600	4600	1.20	0.93 (8.0)	3.50	2.26 (20.0)	0.37 (0.50)	2198-H003-ERS*x*
					4.20	2.69 (24.0)		2198-H008-ERS*x*
VPL-B0632T	8000	8000	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.54 (0.72)	2198-H008-ERS*x*
VPL-B0633M	6500	6700	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.57 (0.76)	2198-H008-ERS*x*
VPL-B0633T	6500	8000	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.57 (0.76)	2198-H008-ERS*x*
					12.60	4.09 (36.0)		2198-H015-ERS*x*
VPL-B0751M	8000	8000	2.90	1.01 (9.0)	8.80	2.20 (19.0)	0.54 (0.72)	2198-H008-ERS*x*
					9.12	2.27 (20.0)		2198-H015-ERS*x*
VPL-B0752E	4900	4900	2.70	1.61 (14.0)	8.80	4.10 (36.0)	0.67 (0.90)	2198-H008-ERS*x*
					9.45	4.39 (39.0)		2198-H015-ERS*x*
VPL-B0752F	7000	7000	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.80 (1.07)	2198-H015-ERS*x*
VPL-B0752M	8000	8000	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.81 (1.09)	2198-H015-ERS*x*
					18.90	4.39 (39.0)		2198-H025-ERS*x*
VPL-B0753E	4500	4500	3.80	2.28 (20.0)	13.30	7.35 (65.0)	0.81 (1.09)	2198-H015-ERS*x*
VPL-B0753F	4500	6600	4.09	2.16 (19.0)	17.70	6.55 (58.0)	0.65 (0.87)	2198-H015-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*

Kinetix VPL Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives (cont.)

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 (Hp)	Kinetix 5500 Drives (480V AC input)
VPL-B0753M	6000	8000	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.82 (1.10)	2198-H015-ERS*x*
					25.34	7.35 (65.0)		2198-H025-ERS*x*
VPL-B1001M	6000	6000	3.61	1.93 (17.0)	8.80	3.22 (28.0)	1.14 (1.53)	2198-H008-ERS*x*
					10.38	3.78 (33.0)		2198-H015-ERS*x*
VPL-B1002E	3300	3300	3.44	3.39 (30.0)	8.80	6.47 (57.0)	1.12 (1.50)	2198-H008-ERS*x*
					10.69	7.82 (69.0)		2198-H015-ERS*x*
VPL-B1002M	6000	6000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.86 (2.49)	2198-H015-ERS*x*
					20.33	7.82 (69.0)		2198-H025-ERS*x*
VPL-B1003C	2500	2500	3.41	4.18 (37.0)	8.80	9.29 (82.0)	0.96 (1.29)	2198-H008-ERS*x*
					10.61	11.15 (99.0)		2198-H015-ERS*x*
VPL-B1003F	4750	4750	6.14	4.18 (37.0)	17.70	9.76 (86.0)	1.65 (2.21)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPL-B1003T	7000	7000	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.77 (2.37)	2198-H025-ERS*x*
					28.80	11.15 (99.0)		2198-H040-ERS*x*
VPL-B1152C	2250	2250	3.13	5.10 (45.0)	8.80	10.80 (95.0)	1.06 (1.42)	2198-H008-ERS*x*
					10.74	13.12 (116)		2198-H015-ERS*x*
VPL-B1152F	4000	4500	6.17	5.10 (45.0)	17.70	10.95 (97.0)	1.40 (1.88)	2198-H015-ERS*x*
					21.19	13.12 (116)		2198-H025-ERS*x*
VPL-B1152T	6500	6500	10.81	5.08 (45.0)	28.30	12.14 (107)	2.29 (3.07)	2198-H025-ERS*x*
					32.10	13.12 (116)		2198-H040-ERS*x*
VPL-B1153E	3200	3200	6.13	6.55 (58.0)	17.70	16.85 (149)	1.75 (2.35)	2198-H015-ERS*x*
					21.33	20.33 (180)		2198-H025-ERS*x*
VPL-B1153F	5000	5000	8.88	6.55 (58.0)	28.30	18.30 (162)	2.30 (3.08)	2198-H025-ERS*x*
					33.0	20.33 (180)		2198-H040-ERS*x*
VPL-B1303C	2250	2250	6.30	8.80 (78.0)	17.70	19.83 (175)	1.83 (2.45)	2198-H015-ERS*x*
					18.47	20.72 (183)		2198-H025-ERS*x*
VPL-B1303F	4000	4000	10.10	8.80 (78.0)	28.30	19.85 (175)	2.82 (3.78)	2198-H025-ERS*x*
					31.0	20.72 (183)		2198-H040-ERS*x*
VPL-B1304C	2150	2150	7.0	10.29 (91.0)	17.70	22.55 (199)	1.75 (2.35)	2198-H015-ERS*x*
					22.3	28.45 (252)		2198-H025-ERS*x*
VPL-B1304E	3500	3500	9.44	10.29 (91.0)	28.30	25.03 (221)	2.82 (3.78)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPL-B1306C	2500	2500	10.80	13.38 (118)	28.30	31.21 (276)	2.46 (3.30)	2198-H025-ERS*x*
					32.94	34.62 (306)		2198-H040-ERS*x*
VPL-B1306F	4250	4250	14.78	13.38 (118)	45.90	28.50 (252)	2.95 (3.95)	2198-H040-ERS*x*
					55.83	34.62 (306)		2198-H070-ERS*x*
VPL-B1651C	2750	2750	10.21	11.50 (102)	28.30	21.68 (192)	2.32 (3.11)	2198-H025-ERS*x*
					29.29	22.45 (199)		2198-H040-ERS*x*
VPL-B1651F	4750	4750	17.60	11.43 (101)	45.90	18.02 (159)	4.38 (5.87)	2198-H040-ERS*x*
					57.27	22.45 (199)		2198-H070-ERS*x*
VPL-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.60)	2198-H040-ERS*x*
					49.88	48.60 (430)		2198-H070-ERS*x*

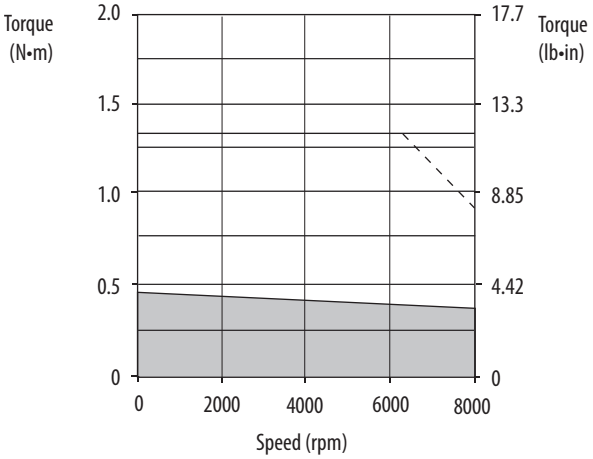
Kinetix VPL Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives (cont.)

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 (Hp)	Kinetix 5500 Drives (480V AC input)
VPL-B1652F	4000	4000	18.60	17.60 (156)	60.00	48.60 (430)	4.77 (6.40)	2198-H070-ERS*x*
VPL-B1653C	2300	2300	17.75	25.76 (228)	45.90	55.14 (488)	4.38 (5.87)	2198-H040-ERS*x*
					55.60	66.70 (590)		2198-H070-ERS*x*
VPL-B1653D	3000	3000	18.60	24.20 (214)	68.00	67.80 (600)	5.50 (7.30)	2198-H070-ERS*x*
VPL-B1654B	1850	1850	15.54	32.97 (292)	45.90	65.38 (578)	5.55 (7.44)	2198-H040-ERS*x*
					55.75	79.30 (702)		2198-H070-ERS*x*
VPL-B1654D	3000	3000	24.47	32.0 (283)	81.30	75.30 (666)	7.16 (9.60)	2198-H070-ERS*x*

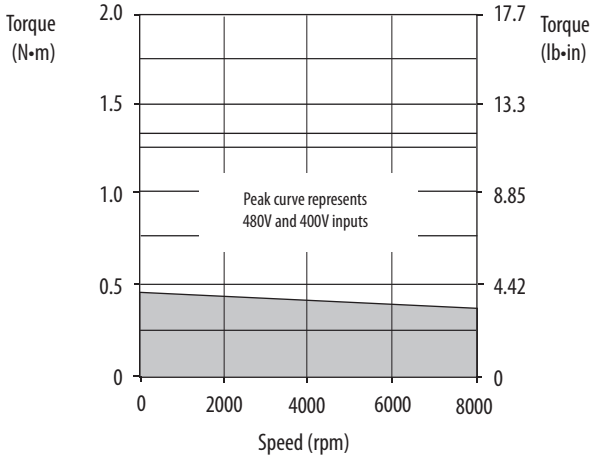
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves

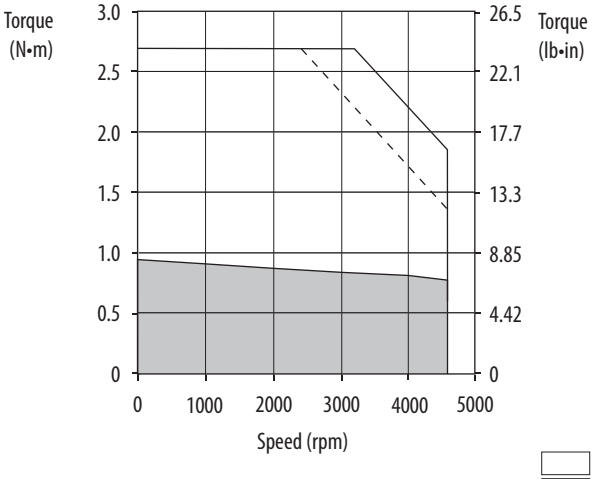
2198-H008-ERS*x* and VPL-B0631T



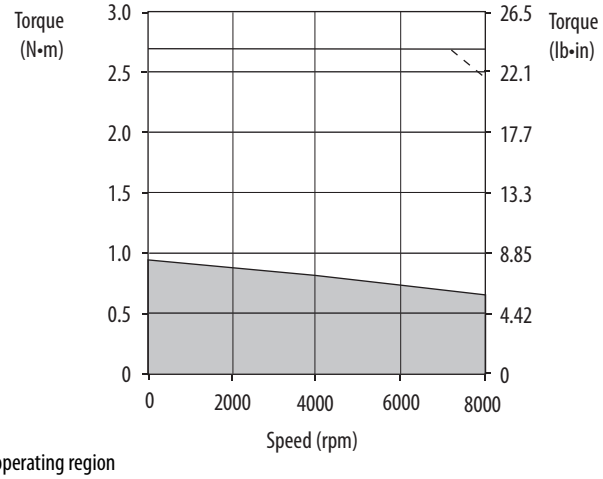
2198-H008-ERS*x* and VPL-B0631U



2198-H008-ERS*x* and VPL-B0632F



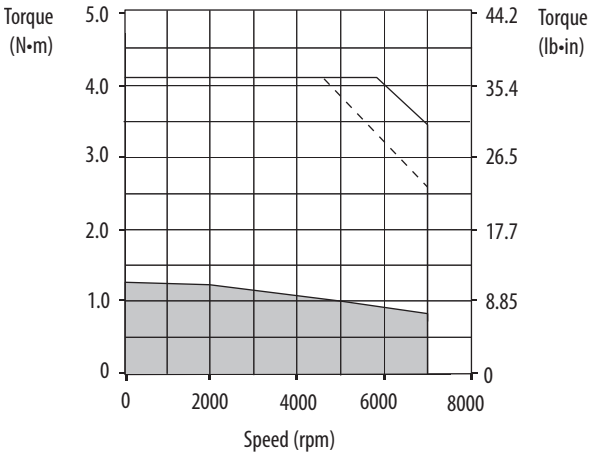
2198-H008-ERS*x* and VPL-B0632T



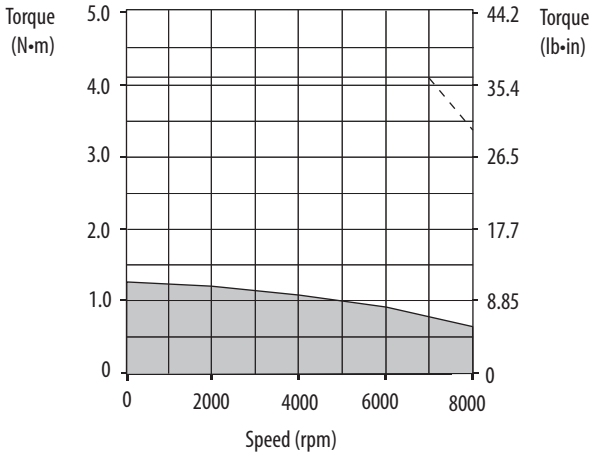
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

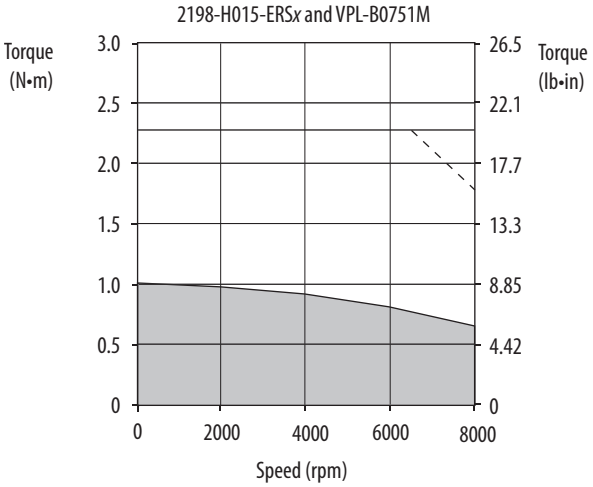
2198-H008-ERS*x* and VPL-B0633M



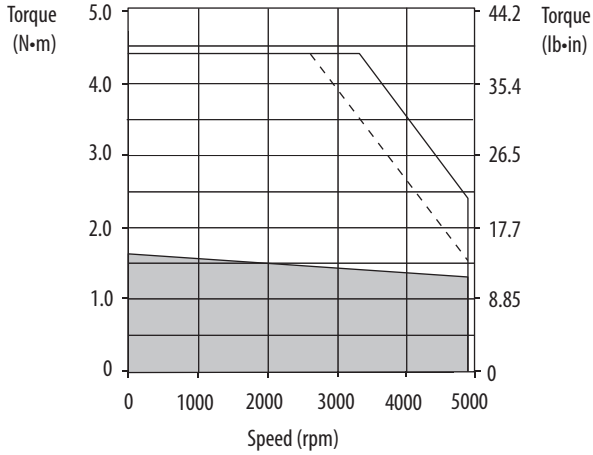
2198-H015-ERS*x* and VPL-B0633T



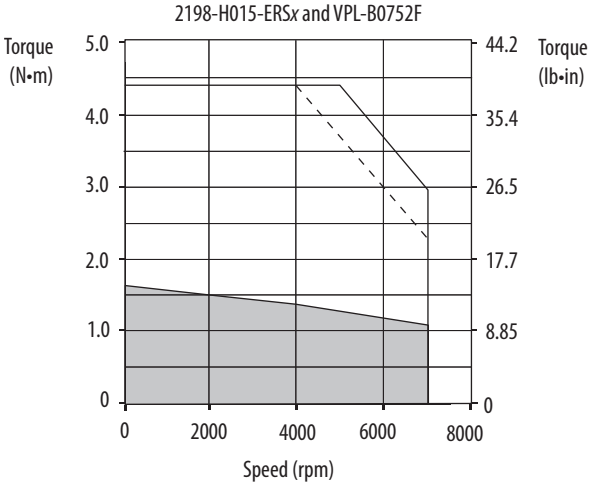
2198-H015-ERS*x* and VPL-B0751M



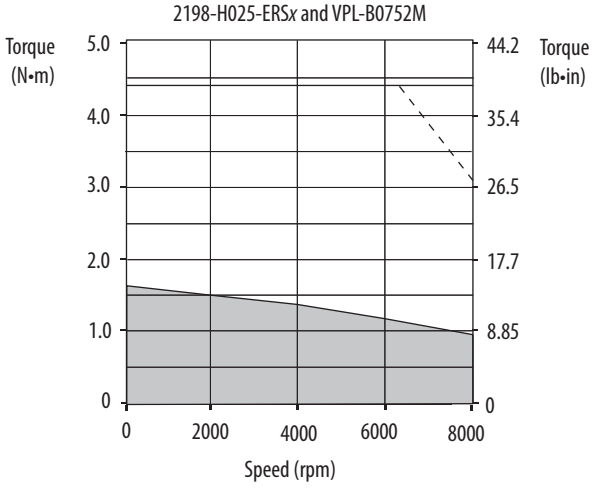
2198-H015-ERS*x* and VPL-B0752E



2198-H015-ERS*x* and VPL-B0752F



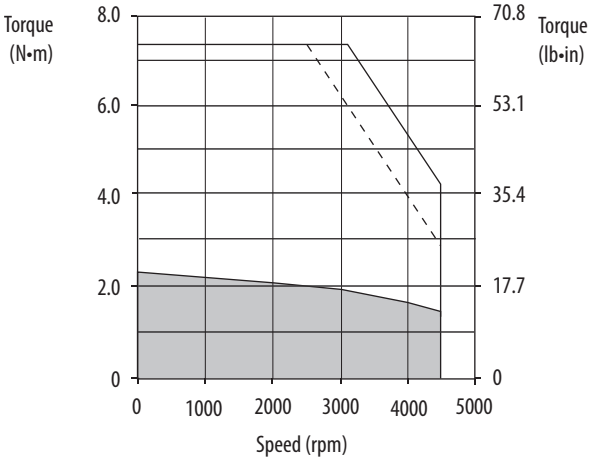
2198-H025-ERS*x* and VPL-B0752M



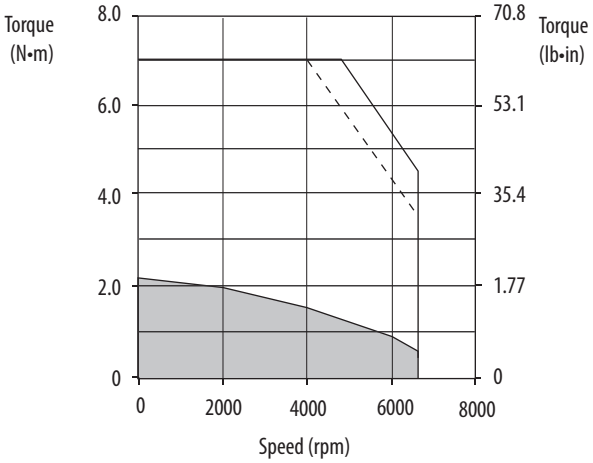
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

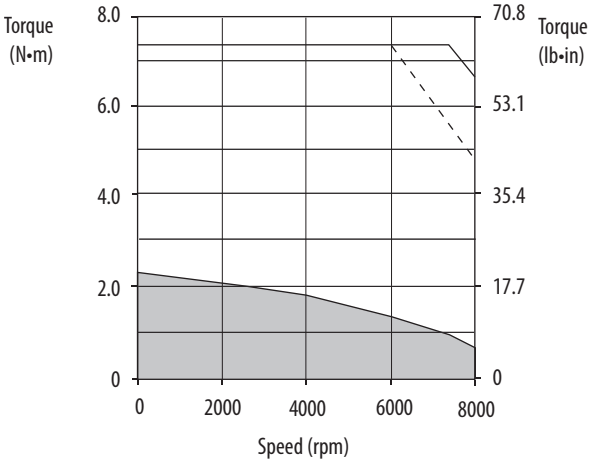
2198-H015-ERS*x* and VPL-B0753E



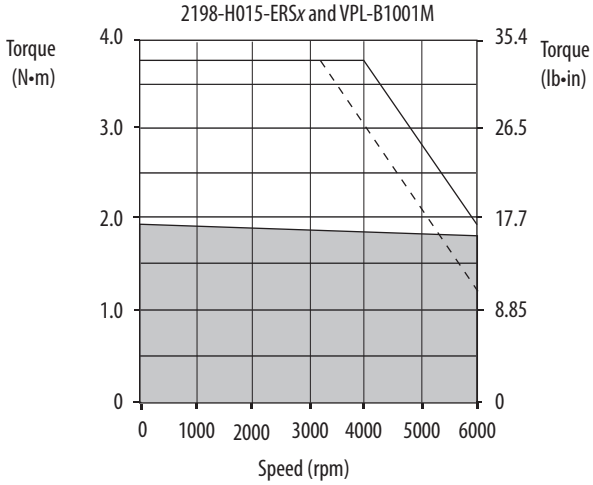
2198-H025-ERS*x* and VPL-B0753F



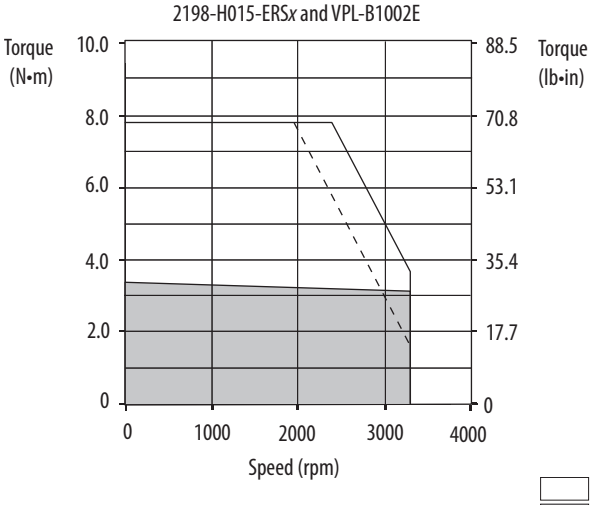
2198-H025-ERS*x* and VPL-B0753M



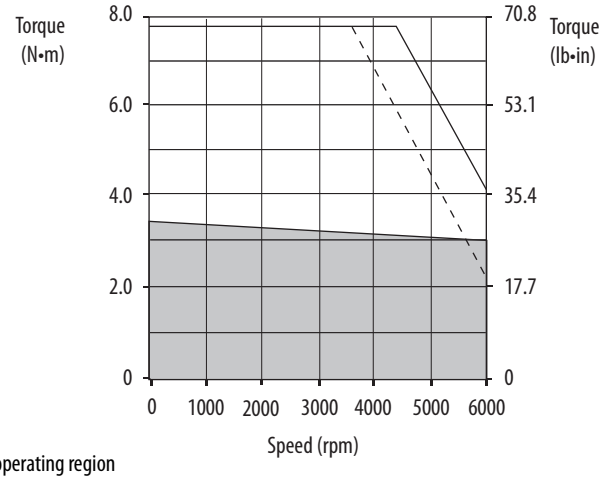
2198-H015-ERS*x* and VPL-B1001M



2198-H015-ERS*x* and VPL-B1002E



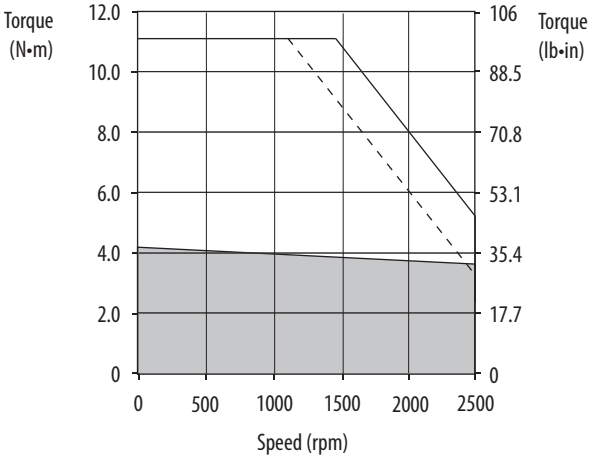
2198-H025-ERS*x* and VPL-B1002M



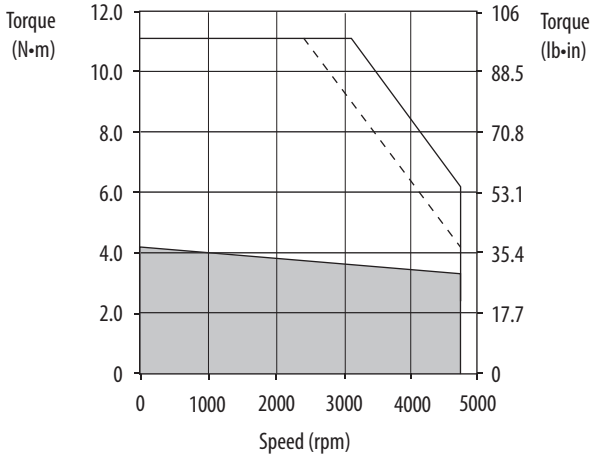
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

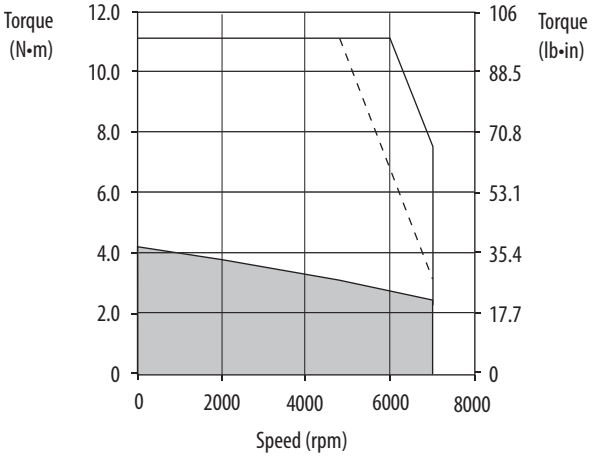
2198-H015-ERS*x* and VPL-B1003C



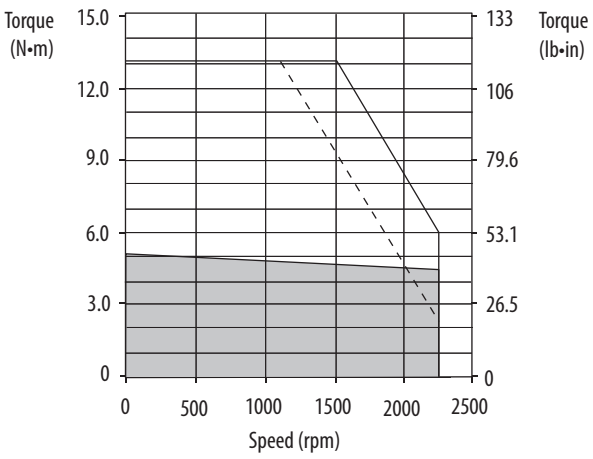
2198-H025-ERS*x* and VPL-B1003F



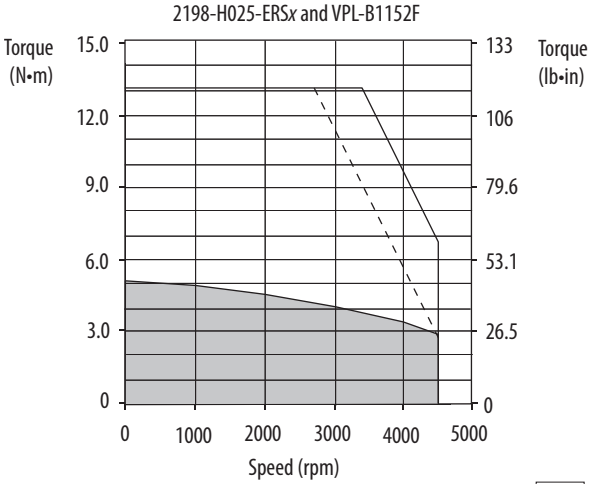
2198-H040-ERS*x* and VPL-B1003T



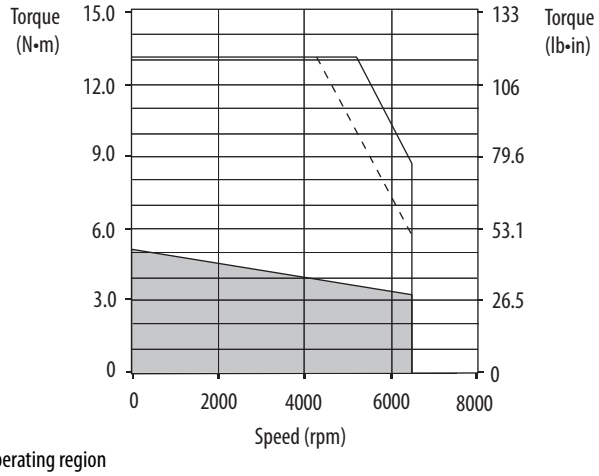
2198-H015-ERS*x* and VPL-B1152C



2198-H025-ERS*x* and VPL-B1152F



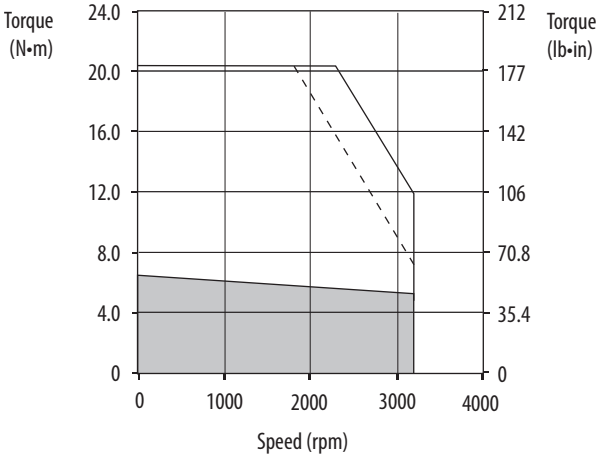
2198-H040-ERS*x* and VPL-B1152T



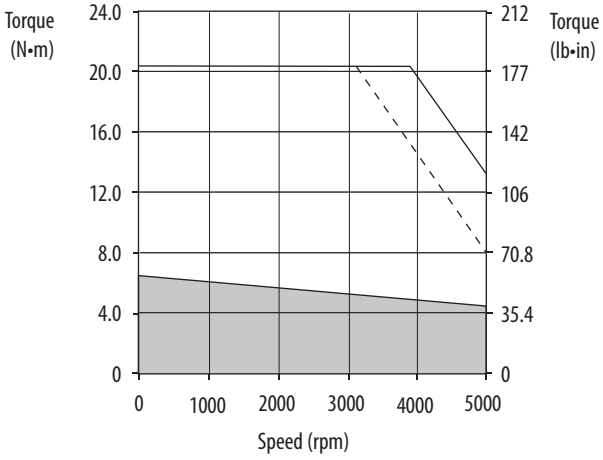
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

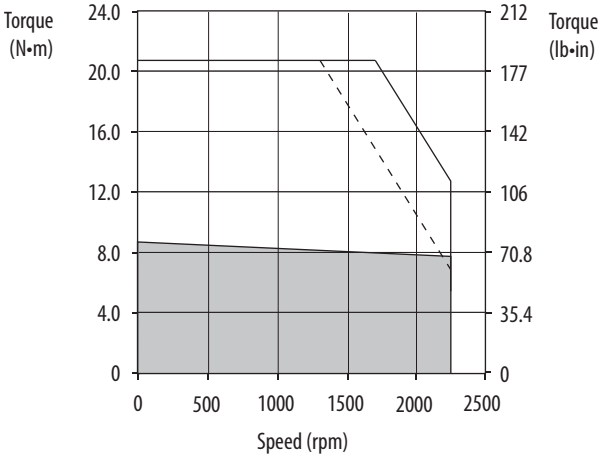
2198-H025-ERS*x* and VPL-B1153E



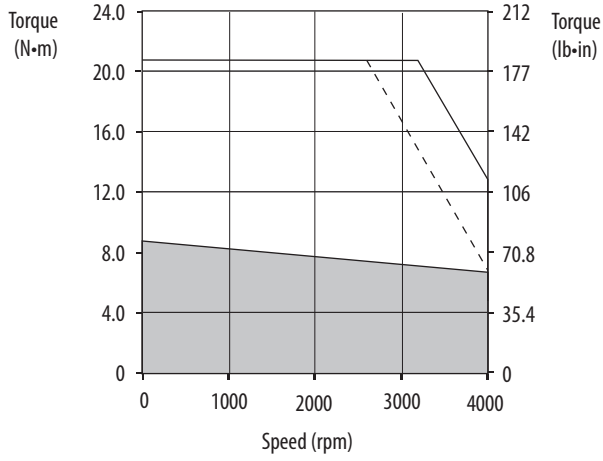
2198-H040-ERS*x* and VPL-B1153F



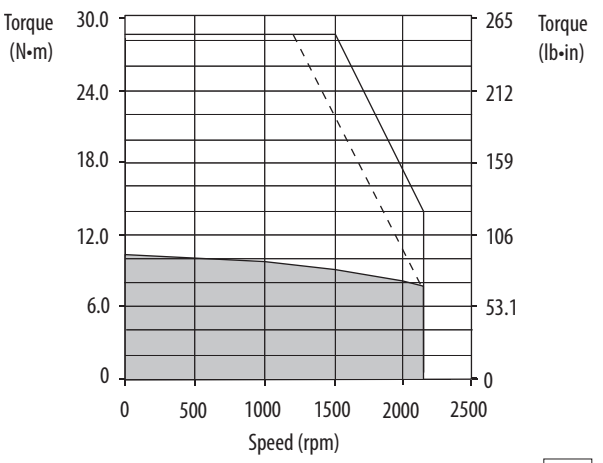
2198-H025-ERS*x* and VPL-B1303C



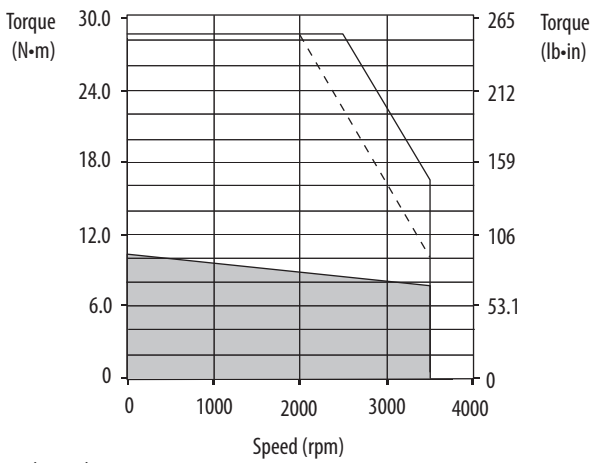
2198-H040-ERS*x* and VPL-B1303F



2198-H025-ERS*x* and VPL-B1304C



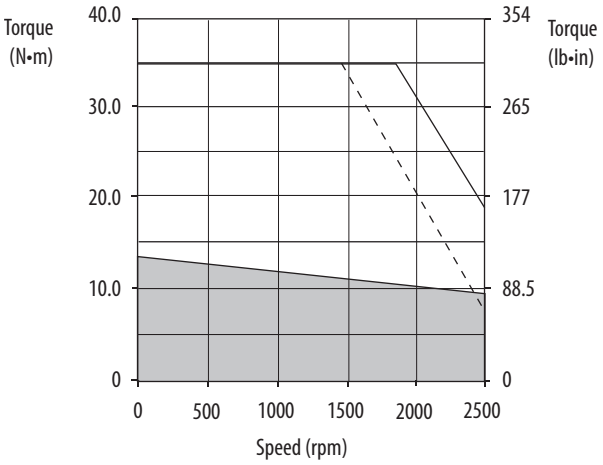
2198-H040-ERS*x* and VPL-B1304E



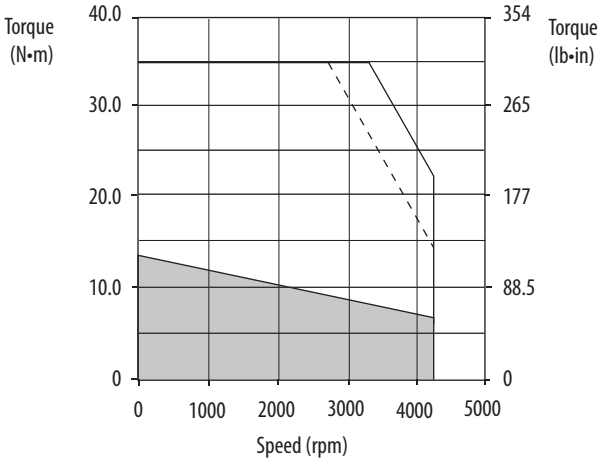
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

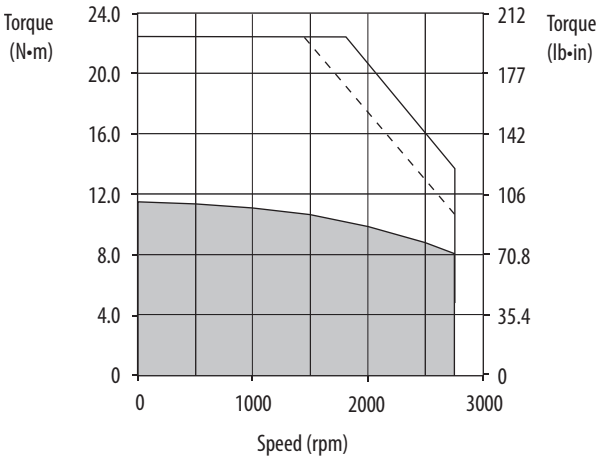
2198-H040-ERS*x* and VPL-B1306C



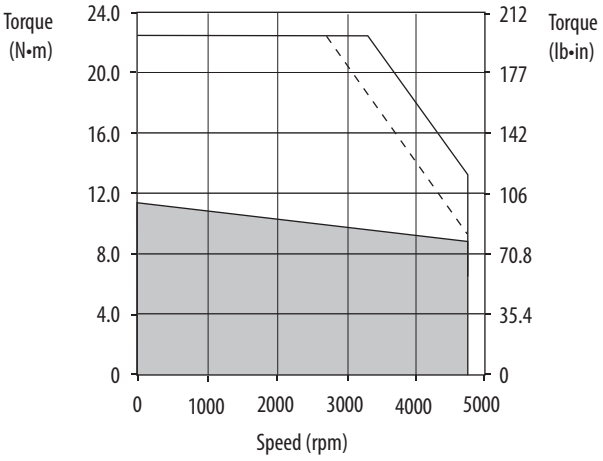
2198-H070-ERS*x* and VPL-B1306F



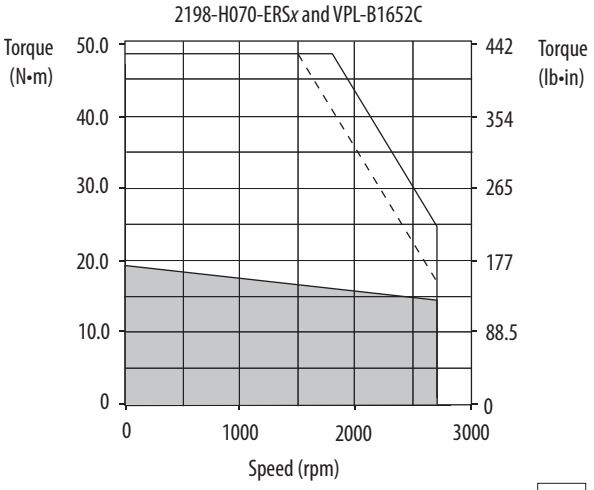
2198-H040-ERS*x* and VPL-B1651C



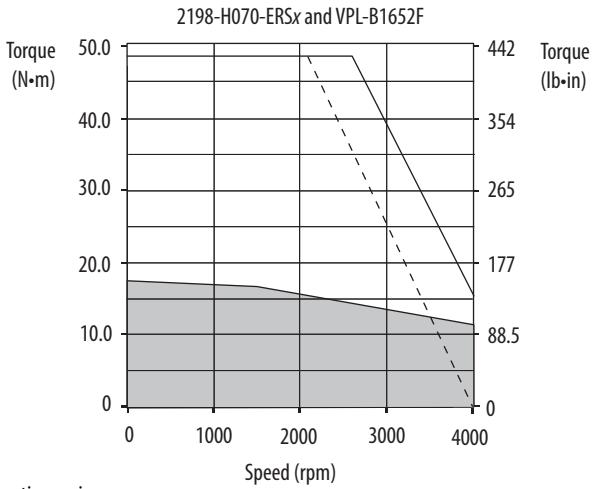
2198-H070-ERS*x* and VPL-B1651F



2198-H070-ERS*x* and VPL-B1652C



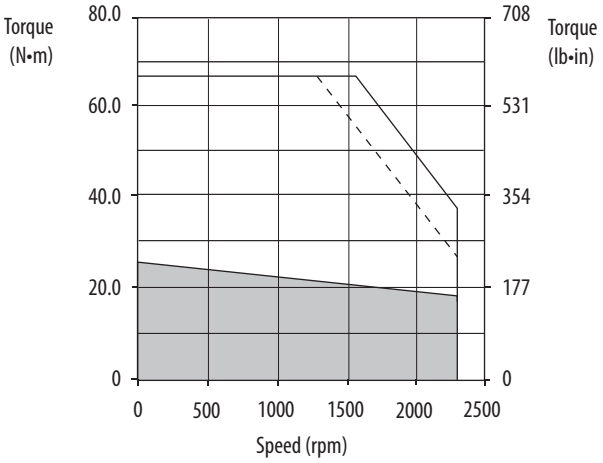
2198-H070-ERS*x* and VPL-B1652F



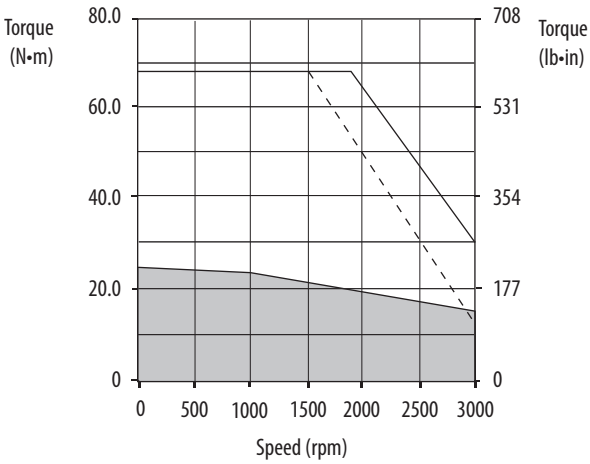
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPL Servo Motor Curves (continued)

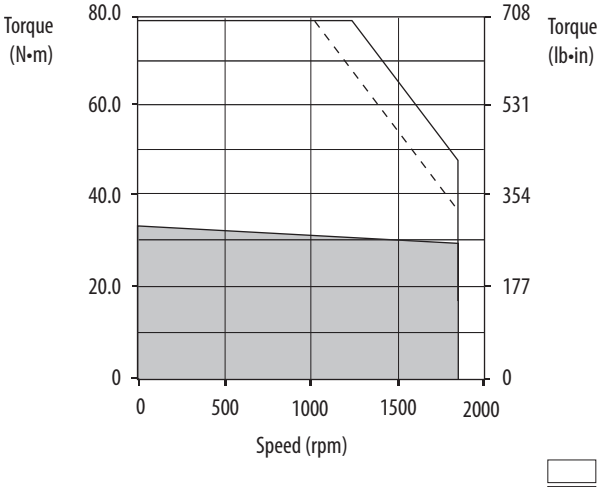
2198-H070-ERS*x* and VPL-B1653C



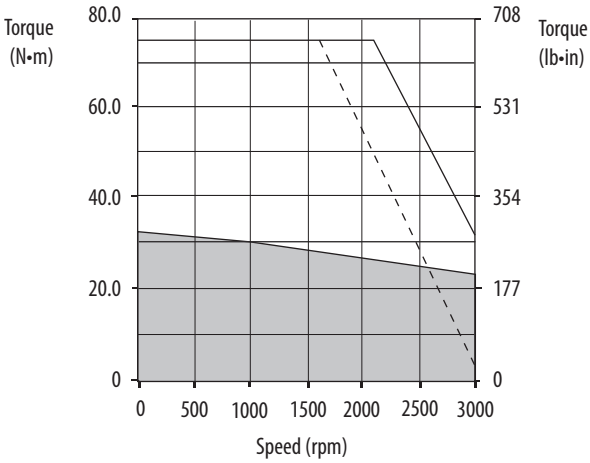
2198-H070-ERS*x* and VPL-B1653D



2198-H070-ERS*x* and VPL-B1654B



2198-H070-ERS*x* and VPL-B1654D



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

Kinetix 5500 (200V-class operation) Drives with Kinetix VPF Food-grade Motors

This section provides system combination information for the Kinetix 5500 drives (with 200 and 240V, nominal input) when matched with Kinetix VPF (200V-class) servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

Kinetix VPF Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPF-A0632F, VPF-A0633C, VPF-A0633F	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPF-A0752*x*, VPF-A0753*x*		
VPF-A1001C, VPF-A1003C		
VPF-A1001M, VPF-A1002C, VPF-A1002F, VPF-A1003E, VPF-A1003F	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPF-A1153C		
VPF-A1303B, VPF-A1303F, VPF-A1304A, VPF-A1304D		

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

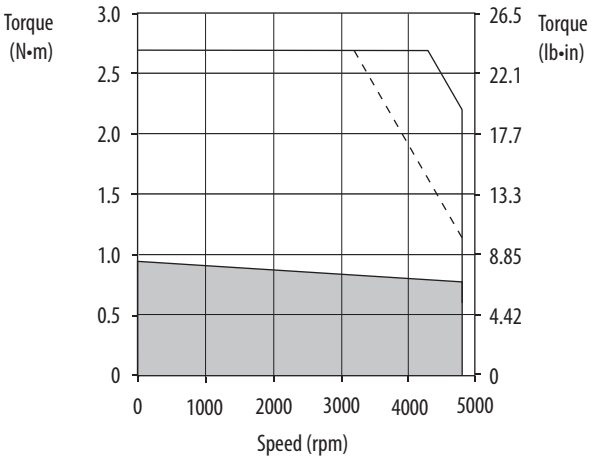
Kinetix VPF Motor Performance Specifications with Kinetix 5500 (200V-class operation) Drives

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 (Hp)	Kinetix 5500 Drives (240V AC Input)
VPF-A0632F	4800	4800	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.36 (0.48)	2198-H008-ERS*x*
VPF-A0633C	3000	3000	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.37 (0.50)	2198-H008-ERS*x*
VPF-A0633F	4500	4500	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.47 (0.63)	2198-H008-ERS*x*
					12.60	4.09 (36.0)		2198-H015-ERS*x*
VPF-A0752C	3300	3300	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.49 (0.66)	2198-H015-ERS*x*
VPF-A0752E	4800	4800	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.63 (0.84)	2198-H015-ERS*x*
					18.90	4.39 (39.0)		2198-H025-ERS*x*
VPF-A0753C	3300	3300	4.09	2.16 (19.0)	17.70	6.55 (58.0)	0.59 (0.79)	2198-H015-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*
VPF-A0753E	4600	4600	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.76 (1.02)	2198-H015-ERS*x*
					25.34	7.35 (65.0)		2198-H025-ERS*x*
VPF-A1001C	2800	2800	3.61	1.93 (17.0)	8.80	3.22 (28.0)	0.56 (0.75)	2198-H008-ERS*x*
					10.38	3.78 (33.0)		2198-H015-ERS*x*
VPF-A1001M	6500	6500	7.15	1.95 (17.0)	17.70	3.31 (29.0)	1.29 (1.73)	2198-H015-ERS*x*
					20.20	3.78 (33.0)		2198-H025-ERS*x*
VPF-A1002C	3000	3000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.03 (1.38)	2198-H015-ERS*x*
					20.33	7.82 (69.0)		2198-H025-ERS*x*
VPF-A1002F	5000	5000	10.04	3.26 (29.0)	28.30	6.77 (60.0)	1.60 (2.14)	2198-H025-ERS*x*
					34.30	7.82 (69.0)		2198-H040-ERS*x*
VPF-A1003C	2250	2250	6.14	4.18 (37.0)	17.70	9.76 (86.0)	0.83 (1.11)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPF-A1003E	3750	3750	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.25 (1.67)	2198-H025-ERS*x*
					28.80	11.15 (99.0)		2198-H040-ERS*x*
VPF-A1003F	5500	5500	15.62	4.18 (37.0)	45.90	10.25 (90.0)	1.81 (2.42)	2198-H040-ERS*x*
					50.0	11.15 (99.0)		2198-H070-ERS*x*
VPF-A1153C	2300	2300	8.88	6.50 (58.0)	28.30	18.30 (162)	1.16 (1.56)	2198-H025-ERS*x*
					33.0	20.33 (180)		2198-H040-ERS*x*
VPF-A1303B	1950	1950	10.34	8.80 (78.0)	28.30	19.85 (175)	1.53 (2.05)	2198-H025-ERS*x*
					31.0	20.72 (183)		2198-H040-ERS*x*
VPF-A1303F	4000	4000	18.60	7.75 (69.0)	45.90	15.36 (136)	2.25 (3.02)	2198-H040-ERS*x*
					62.0	20.72 (183)		2198-H070-ERS*x*
VPF-A1304A	1600	1600	9.43	10.29 (91.0)	28.30	25.03 (221)	1.47 (1.98)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPF-A1304D	3000	3000	18.40	10.20 (90.0)	45.90	21.48 (190)	1.98 (2.65)	2198-H040-ERS*x*
					58.0	27.10 (240)		2198-H070-ERS*x*

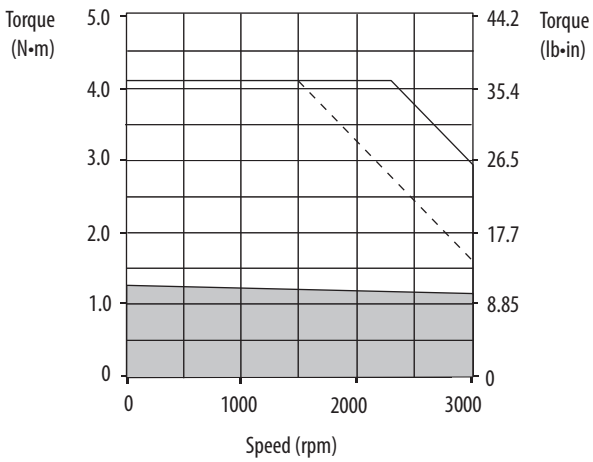
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix VPF Servo Motor Curves

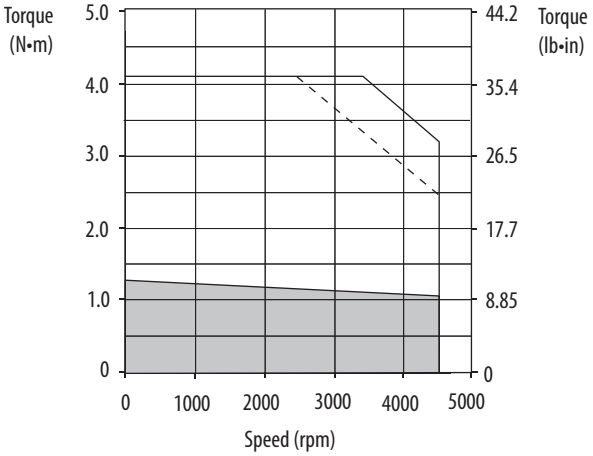
2198-H008-ERS*x* and VPF-A0632F



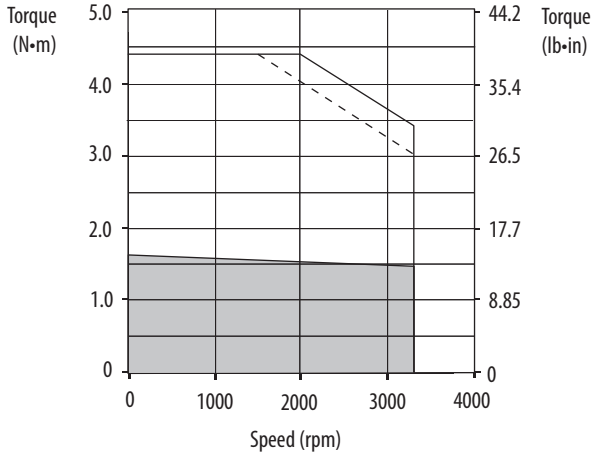
2198-H008-ERS*x* and VPF-A0633C



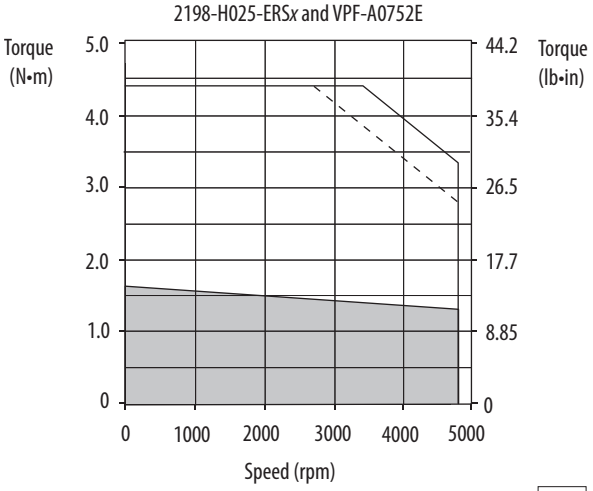
2198-H015-ERS*x* and VPF-A0633F



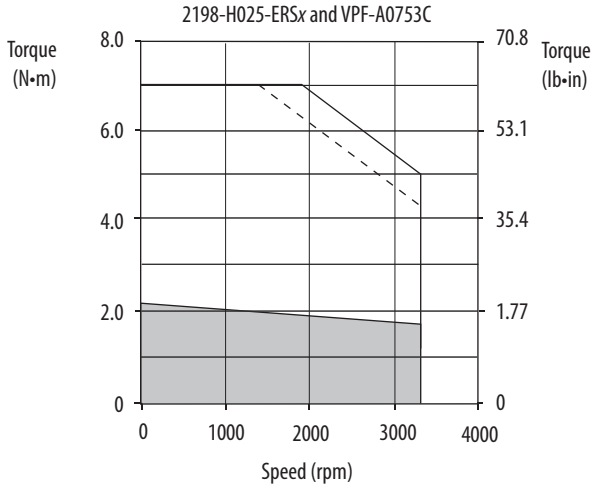
2198-H015-ERS*x* and VPF-A0752C



2198-H025-ERS*x* and VPF-A0752E



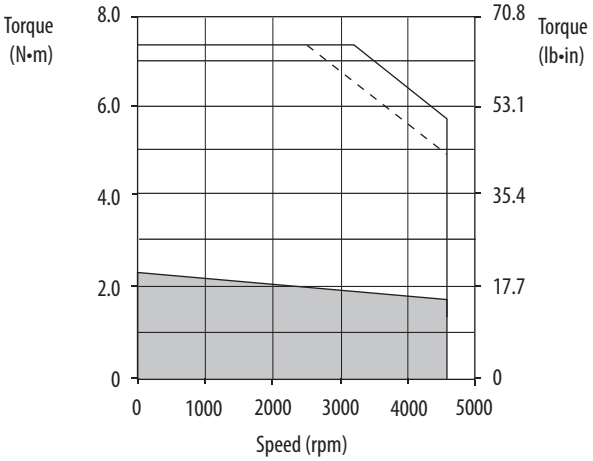
2198-H025-ERS*x* and VPF-A0753C



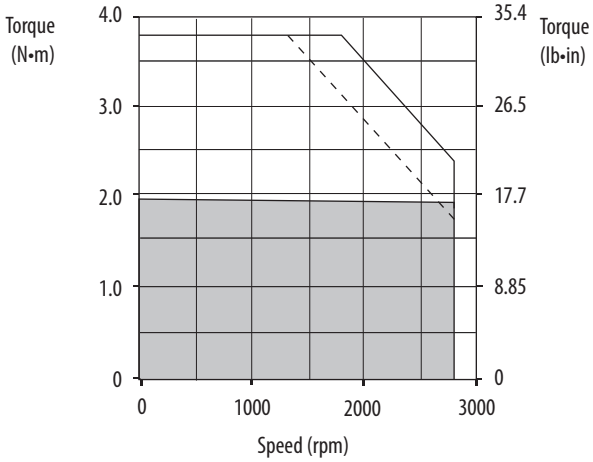
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)

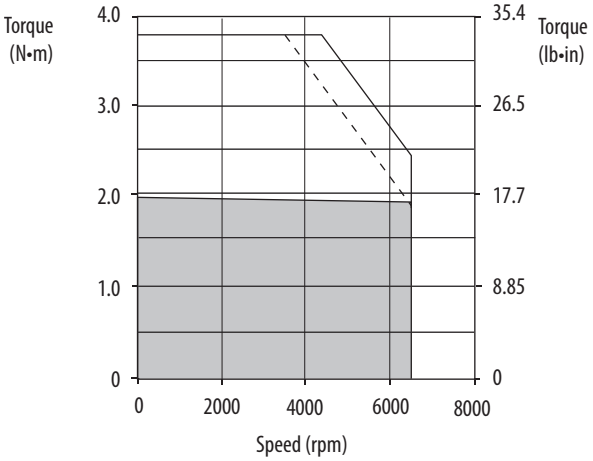
2198-H025-ERS*x* and VPF-A0753E



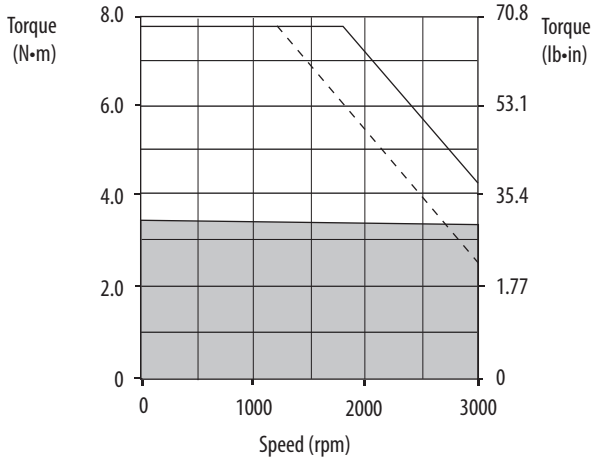
2198-H015-ERS*x* and VPF-A1001C



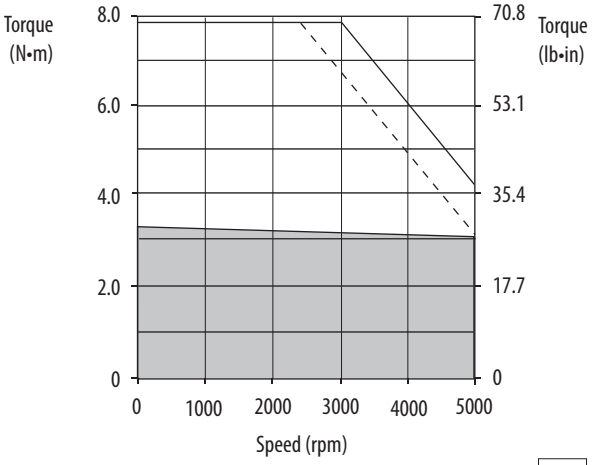
2198-H025-ERS*x* and VPF-A1001M



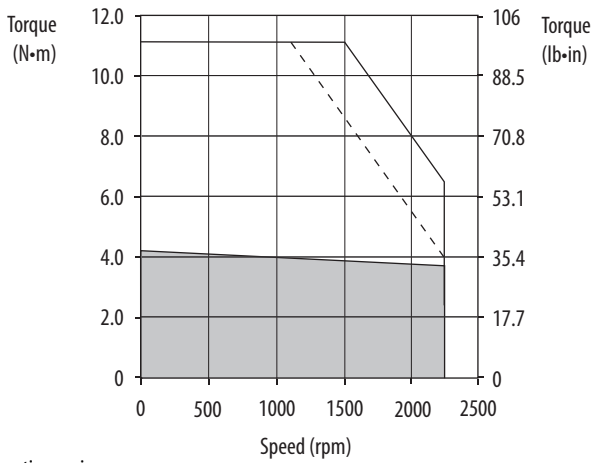
2198-H025-ERS*x* and VPF-A1002C



2198-H040-ERS*x* and VPF-A1002F



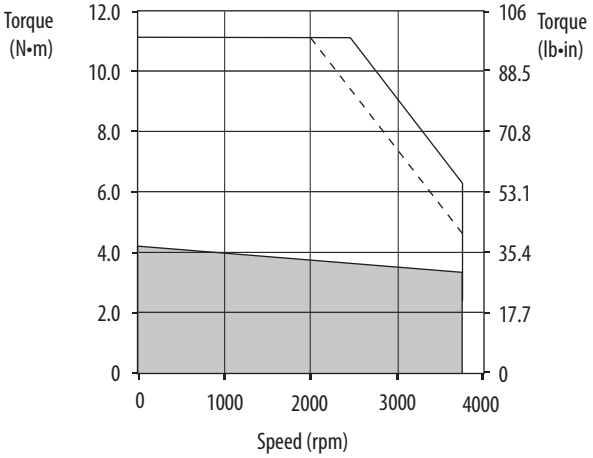
2198-H025-ERS*x* and VPF-A1003C



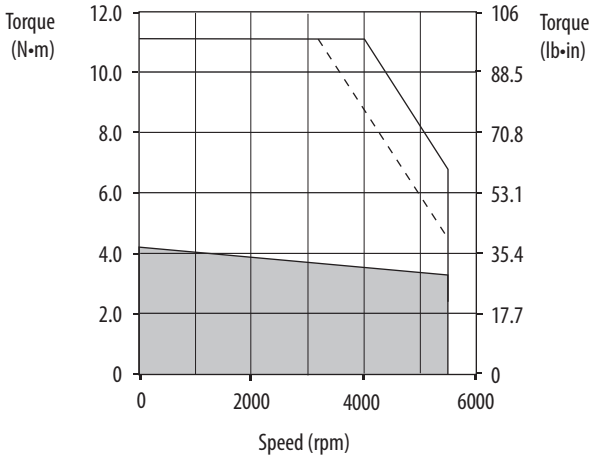
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)

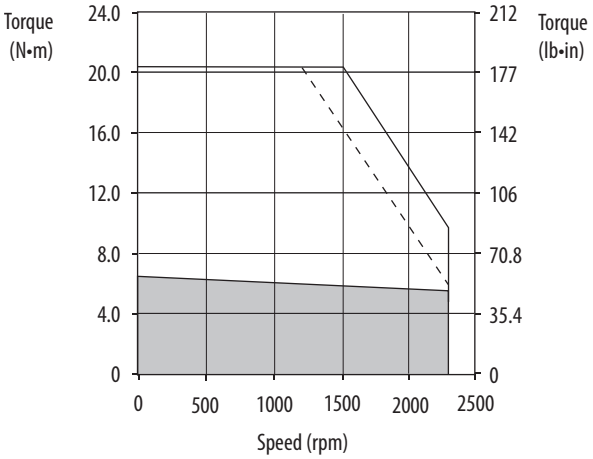
2198-H040-ERS*x* and VPF-A1003E



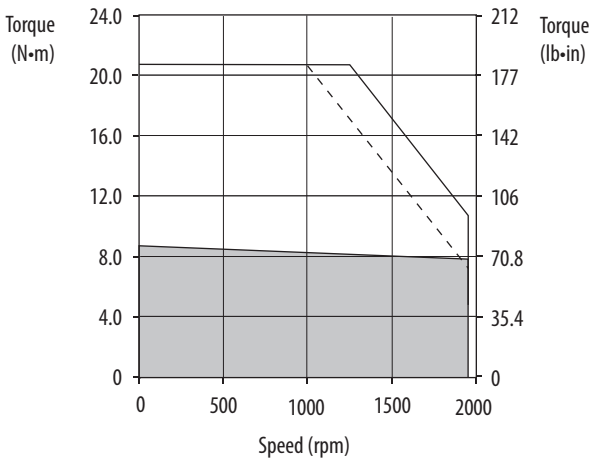
2198-H070-ERS*x* and VPF-A1003F



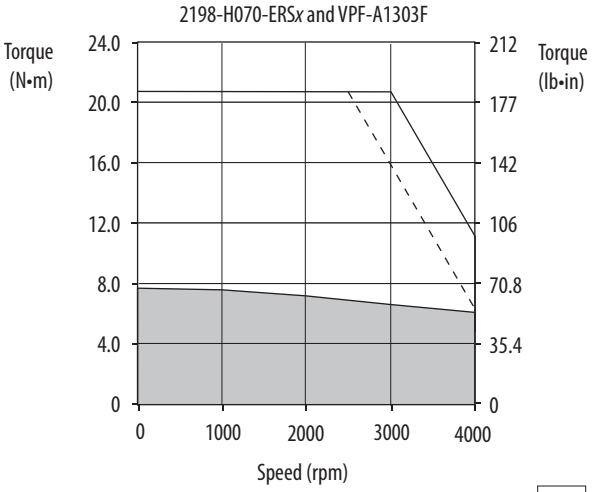
2198-H040-ERS*x* and VPF-A1153C



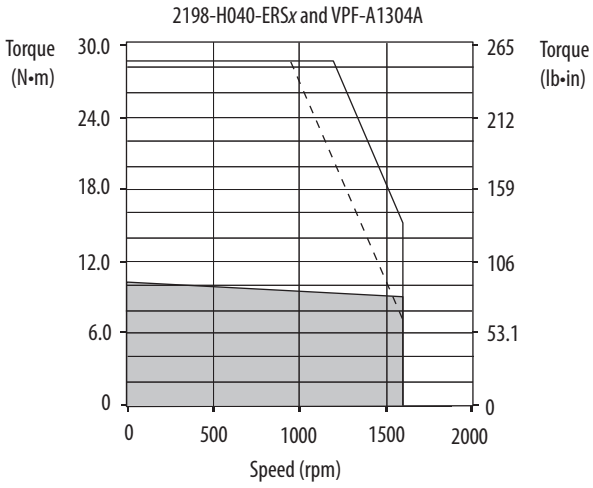
2198-H040-ERS*x* and VPF-A1303B



2198-H070-ERS*x* and VPF-A1303F

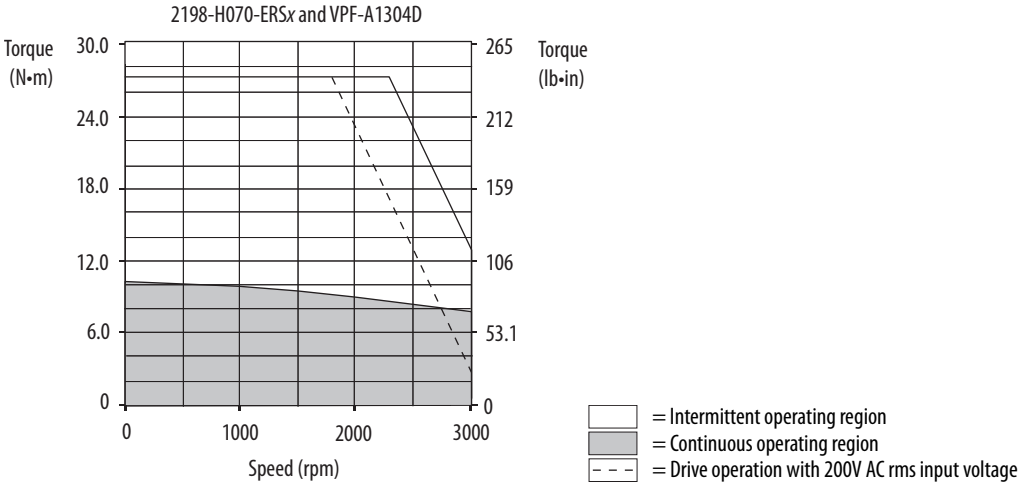


2198-H040-ERS*x* and VPF-A1304A



= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5500 (200V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)



Kinetix 5500 (400V-class operation) Drives with Kinetix VPF Food-grade Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix VP (400V-class) servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

Kinetix VPF Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPF-B0632F, VPF-B0632T, VPF-B0633M, VPF-B0633T	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPF-B0752E, VPF-B0752F, VPF-B0752M, VPF-B0753E, VPF-B0753F, VPF-B0753M		
VPF-B1001M, VPF-B1002E, VPF-B1003C, VPF-B1003F		
VPF-B1153E		
VPF-B1002M, VPF-B1003T	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPF-B1153F		
VPF-B1303C, VPF-B1303F, VPF-B1304C, VPF-B1304E		
VPF-B1652C		

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPF Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 (Hp)	Kinetix 5500 Drives (480V AC input)
VPF-B0632F	4600	4600	1.20	0.93 (8.0)	3.50	2.26 (20.0)	0.34 (0.46)	2198-H003-ERS*x*
					4.20	2.69 (24.0)		2198-H008-ERS*x*
VPF-B0632T	8000	8000	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.41 (0.55)	2198-H008-ERS*x*

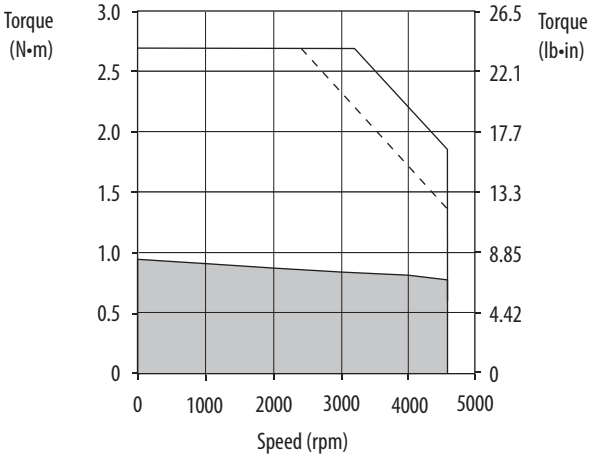
Kinetix VPF Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives (cont.)

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 (Hp)	Kinetix 5500 Drives (480V AC input)
VPF-B0633M	6700	6700	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.49 (0.66)	2198-H008-ERS*x*
VPF-B0633T	8000	8000	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.48 (0.64)	2198-H008-ERS*x*
					12.60	4.09 (36.0)		2198-H015-ERS*x*
VPF-B0752E	4900	4900	2.70	1.61 (14.0)	8.80	4.10 (36.0)	0.64 (0.86)	2198-H008-ERS*x*
					9.45	4.39 (39.0)		2198-H015-ERS*x*
VPF-B0752F	7000	7000	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.76 (1.02)	2198-H015-ERS*x*
VPF-B0752M	8000	8000	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.77 (1.04)	2198-H015-ERS*x*
					18.90	4.39 (39.0)		2198-H025-ERS*x*
VPF-B0753E	4500	4500	3.80	2.28 (20.0)	13.30	7.35 (65.0)	0.77 (1.04)	2198-H015-ERS*x*
VPF-B0753F	6600	6600	4.09	2.16 (19.0)	17.70	6.55 (58.0)	0.61 (0.82)	2198-H015-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*
VPF-B0753M	8000	8000	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.78 (1.05)	2198-H015-ERS*x*
					25.34	7.35 (65.0)		2198-H025-ERS*x*
VPF-B1001M	6000	6000	3.61	1.93 (17.0)	8.80	3.22 (28.0)	1.14 (1.53)	2198-H008-ERS*x*
					10.38	3.78 (33.0)		2198-H015-ERS*x*
VPF-B1002E	3300	3300	3.44	3.39 (30.0)	8.80	6.47 (57.0)	1.12 (1.50)	2198-H008-ERS*x*
					10.69	7.82 (69.0)		2198-H015-ERS*x*
VPF-B1002M	6000	6000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.86 (2.49)	2198-H015-ERS*x*
					20.33	7.82 (69.0)		2198-H025-ERS*x*
VPF-B1003C	2500	2500	3.41	4.18 (37.0)	8.80	9.29 (82.0)	0.91 (1.23)	2198-H008-ERS*x*
					10.61	11.15 (99.0)		2198-H015-ERS*x*
VPF-B1003F	4750	4750	6.14	4.18 (37.0)	17.70	9.76 (86.0)	1.57 (2.10)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPF-B1003T	7000	7000	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.68 (2.25)	2198-H025-ERS*x*
					28.80	11.15 (99.0)		2198-H040-ERS*x*
VPF-B1153E	3200	3200	6.13	6.50 (58.0)	17.70	16.85 (149)	1.40 (1.88)	2198-H015-ERS*x*
					21.33	20.33 (180)		2198-H025-ERS*x*
VPF-B1153F	5000	5000	8.88	6.50 (58.0)	28.30	18.30 (162)	1.49 (2.00)	2198-H025-ERS*x*
					33.0	20.33 (180)		2198-H040-ERS*x*
VPF-B1303C	2250	2250	6.30	8.80 (78.0)	17.70	19.83 (175)	1.74 (2.33)	2198-H015-ERS*x*
					18.47	20.72 (183)		2198-H025-ERS*x*
VPF-B1303F	4000	4000	10.10	8.80 (78.0)	28.30	19.85 (175)	2.54 (3.40)	2198-H025-ERS*x*
					31.0	20.72 (183)		2198-H040-ERS*x*
VPF-B1304C	2150	2150	7.0	10.29 (91.0)	17.70	22.55 (199)	1.49 (2.00)	2198-H015-ERS*x*
					22.3	28.45 (252)		2198-H025-ERS*x*
VPF-B1304E	3500	3500	9.44	10.29 (91.0)	28.30	25.03 (221)	2.40 (3.21)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPF-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.60)	2198-H040-ERS*x*
					49.88	48.60 (430)		2198-H070-ERS*x*

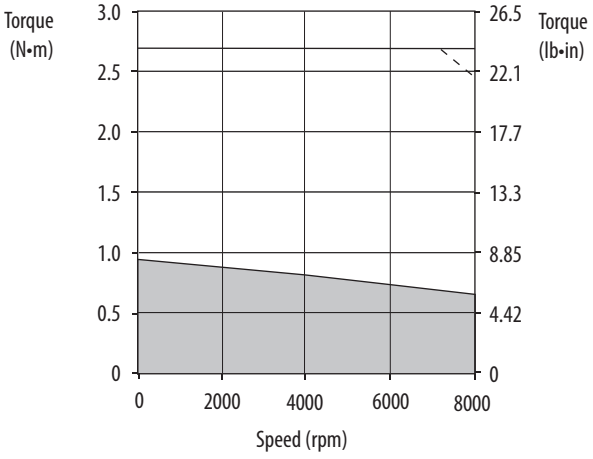
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix VPF Servo Motor Curves

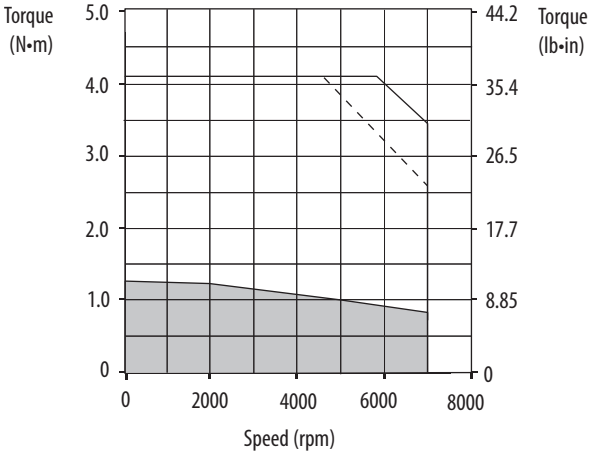
2198-H008-ERS*x* and VPF-B0632F



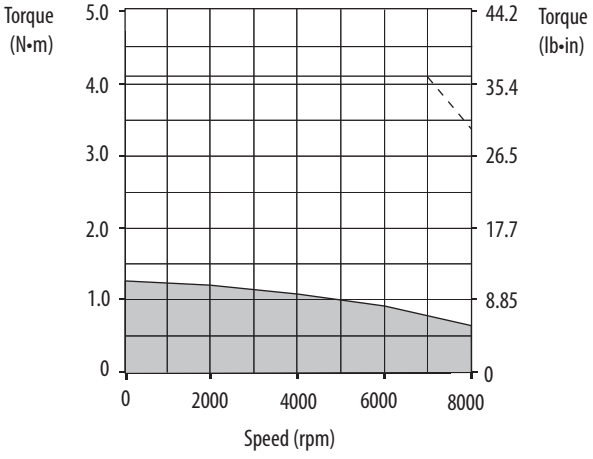
2198-H008-ERS*x* and VPF-B0632T



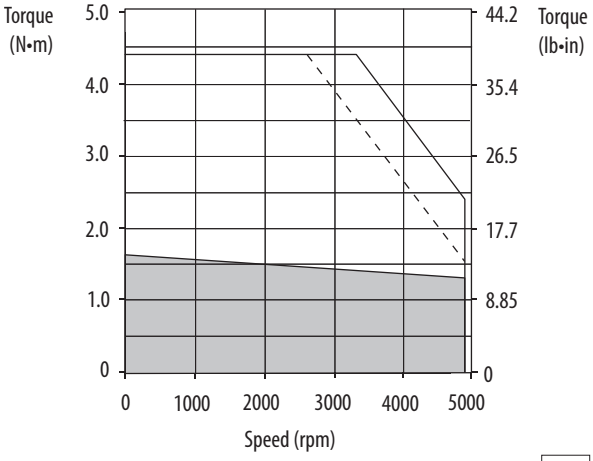
2198-H008-ERS*x* and VPF-B0633M



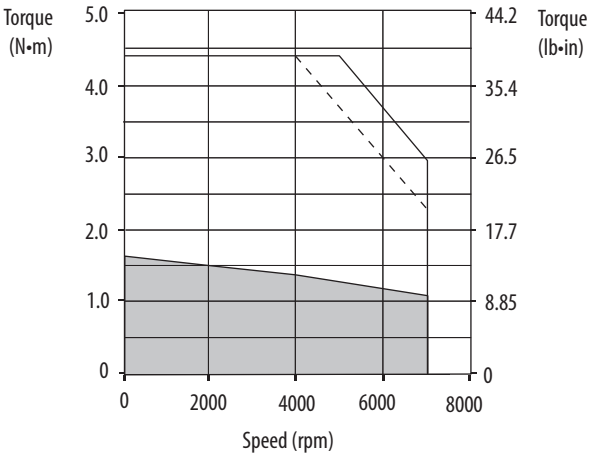
2198-H015-ERS*x* and VPF-B0633T



2198-H015-ERS*x* and VPF-B0752E



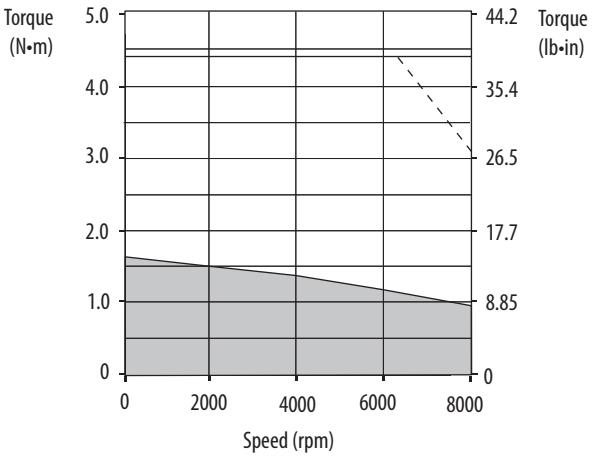
2198-H015-ERS*x* and VPF-B0752F



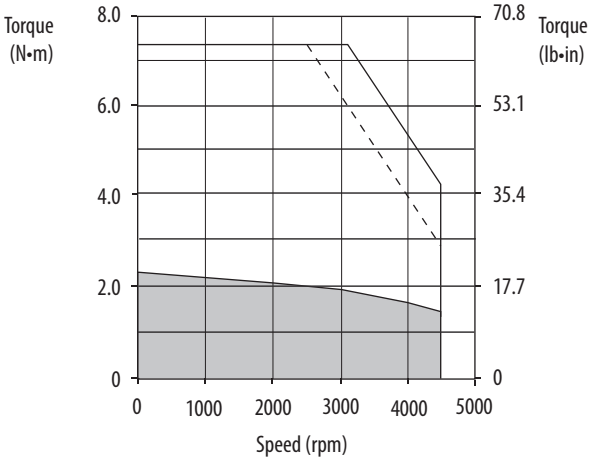
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)

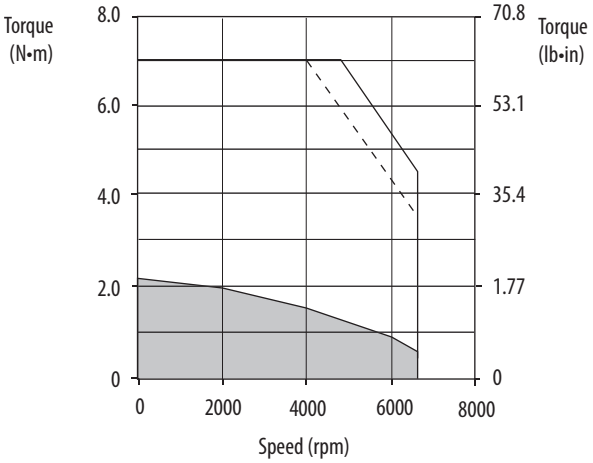
2198-H025-ERS*x* and VPF-B0752M



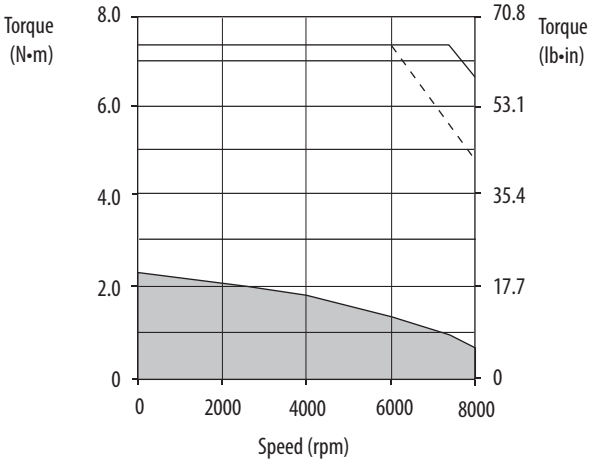
2198-H015-ERS*x* and VPF-B0753E



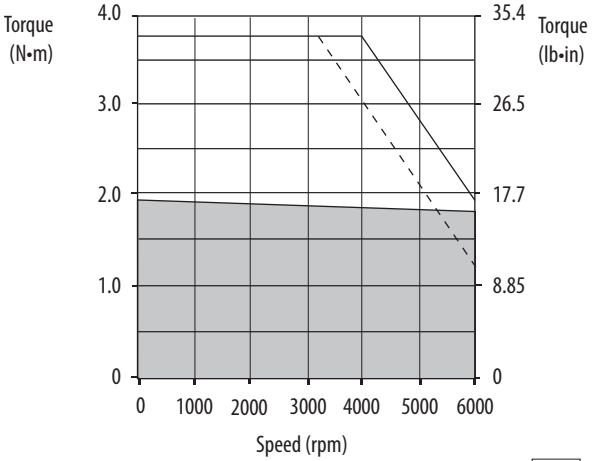
2198-H025-ERS*x* and VPF-B0753F



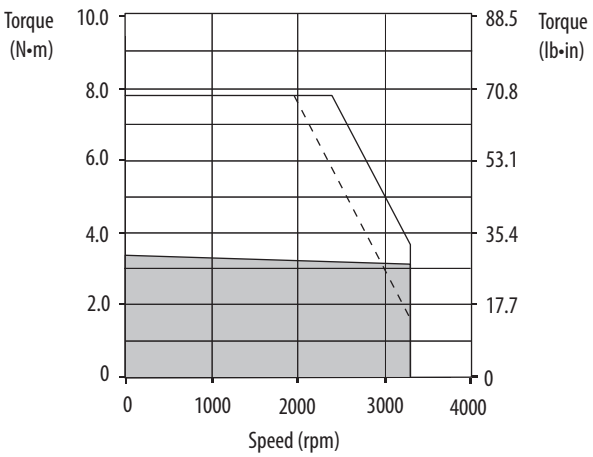
2198-H025-ERS*x* and VPF-B0753M



2198-H015-ERS*x* and VPF-B1001M



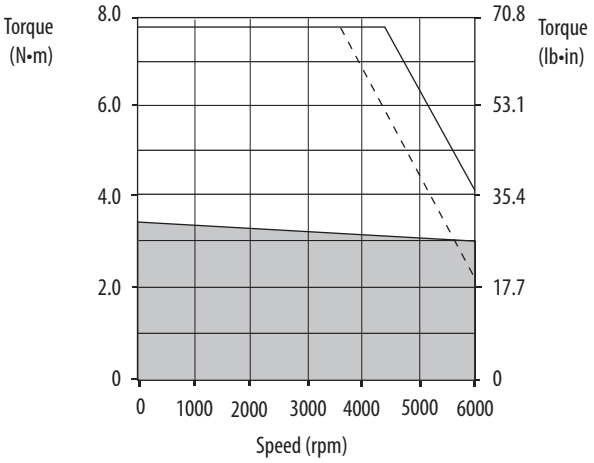
2198-H015-ERS*x* and VPF-B1002E



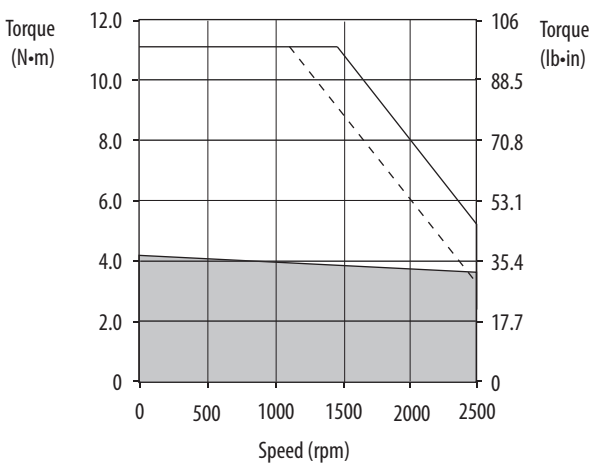
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)

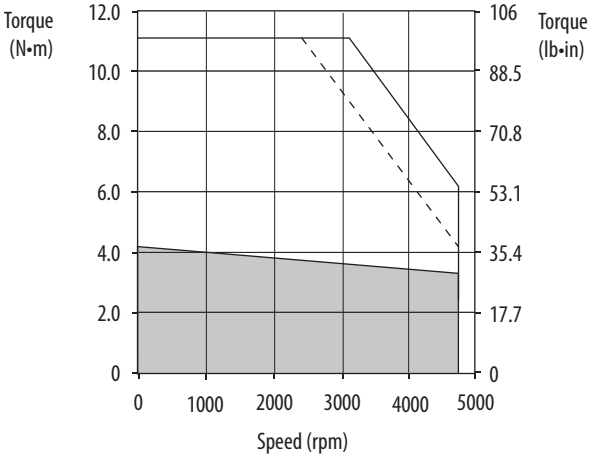
2198-H025-ERS*x* and VPF-B1002M



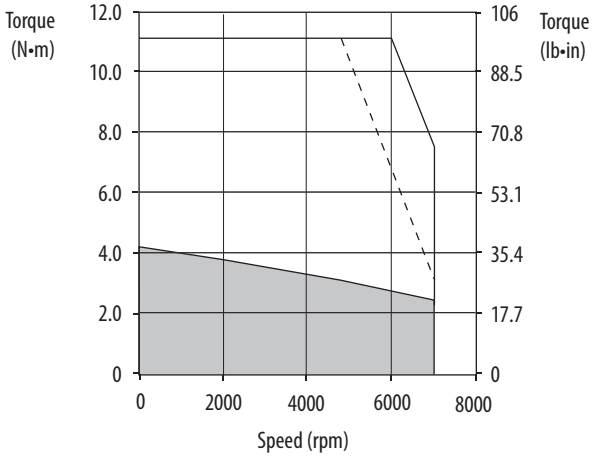
2198-H015-ERS*x* and VPF-B1003C



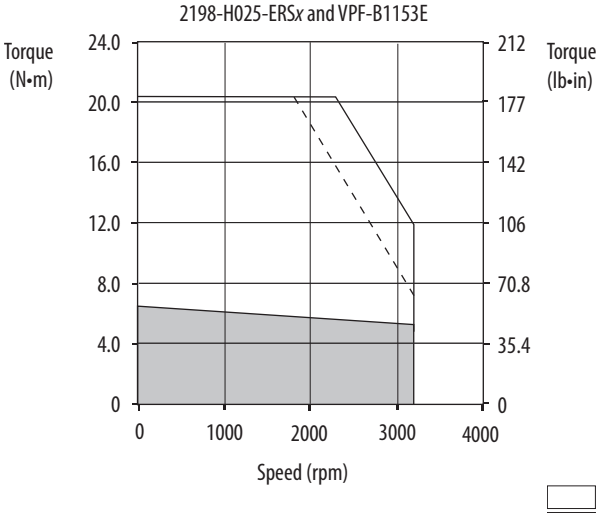
2198-H025-ERS*x* and VPF-B1003F



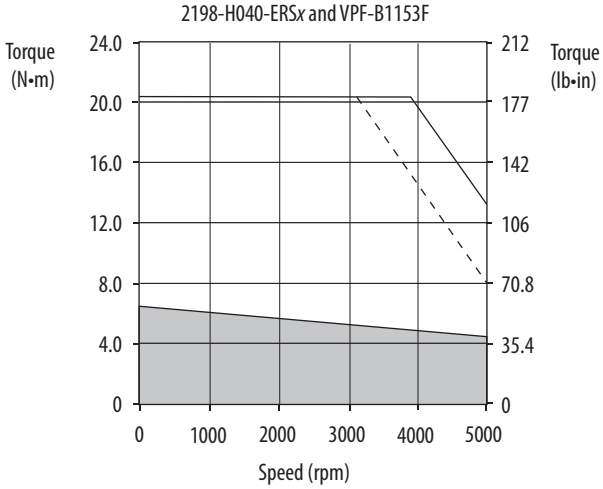
2198-H040-ERS*x* and VPF-B1003T



2198-H025-ERS*x* and VPF-B1153E



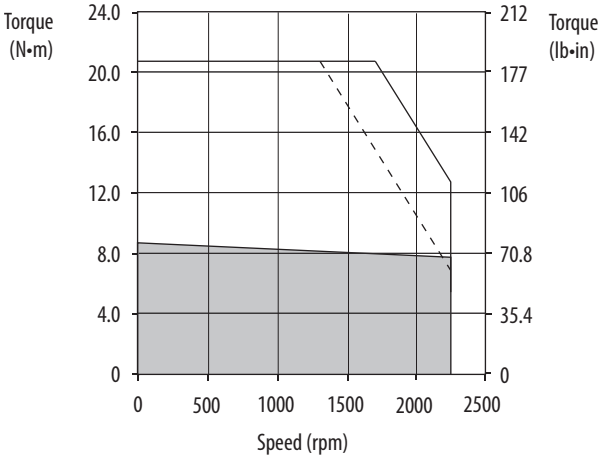
2198-H040-ERS*x* and VPF-B1153F



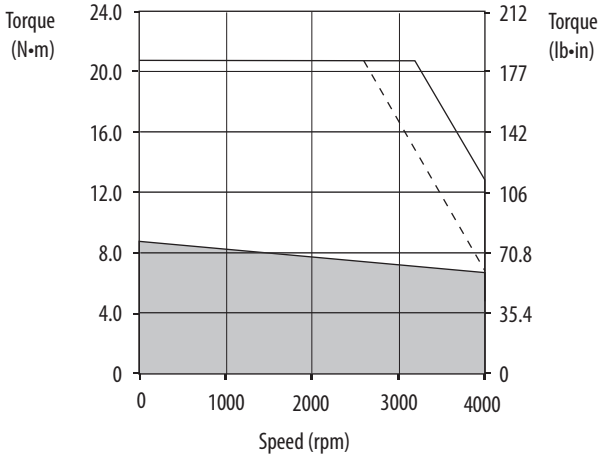
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix VPF Servo Motor Curves (continued)

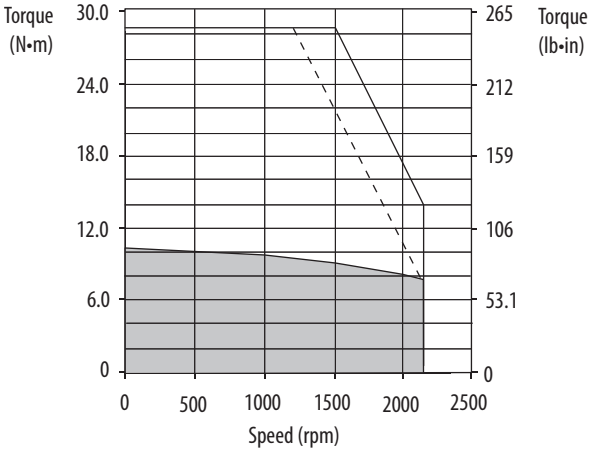
2198-H025-ERS*x* and VPF-B1303C



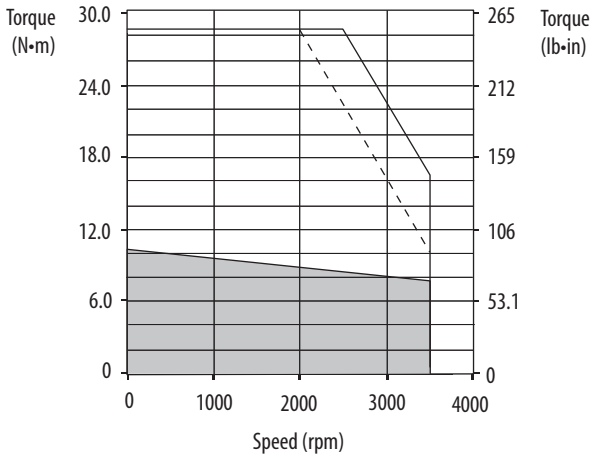
2198-H040-ERS*x* and VPF-B1303F



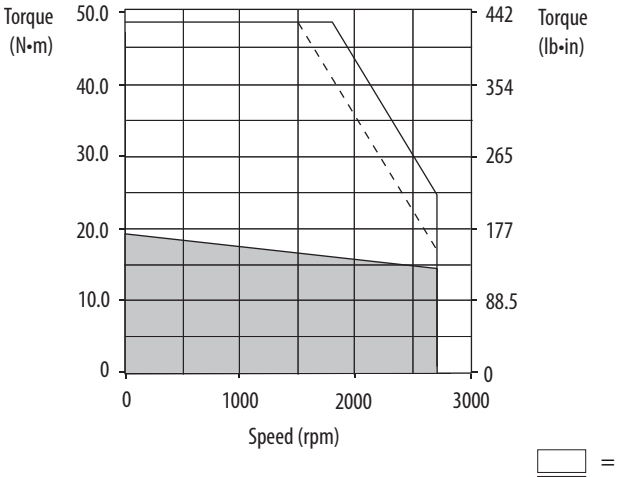
2198-H025-ERS*x* and VPF-B1304C



2198-H040-ERS*x* and VPF-B1304E



2198-H070-ERS*x* and VPF-B1652C



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

Kinetix 5500 (200V-class) Drives with Kinetix VPH Hygienic Stainless-steel Motors

This section provides system combination information for the Kinetix 5500 drives (with 240V, nominal input) when matched with Kinetix VPH (200V-class) hygienic servo motors. Single-cable catalog numbers, system performance specifications, and optimum torque/speed curves are included.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

Kinetix VPH Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPH-A0633F VPH-A0753F	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPH-A1003F VPH-A1152E VPH-A1153C	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPH-A1304D		

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPH (non-brake) Motor Performance Specifications with Kinetix 5500 (200V-class operation) 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 (Hp)	Kinetix 5500 Drives (240V AC operation)
VPH-A0633F-*xxx*2	4500	4500	2.91	1.09 (9.7)	8.80	2.86 (25.3)	0.45 (0.61)	2198-H008-ERS*x*
					12.60	4.09 (36.2)		2198-H015-ERS*x*
VPH-A0753F-*xxx*2	4600	4600	5.28	1.90 (16.8)	17.70	4.89 (43.3)	0.68 (0.92)	2198-H015-ERS*x*
					25.34	7.00 (62.0)		2198-H025-ERS*x*
VPH-A1003F-*xxx*2	5500	5500	11.95	3.41 (30.1)	45.90	10.24 (90.6)	1.32 (1.77)	2198-H040-ERS*x*
					50.00	11.15 (98.7)		2198-H070-ERS*x*
VPH-A1152E-*xxx*2	3300	3300	8.01	4.04 (35.8)	28.30	11.57 (102.4)	1.07 (1.43)	2198-H025-ERS*x*
					32.10	13.12 (116.1)		2198-H040-ERS*x*
VPH-A1153C-*xxx*2	2300	2300	7.05	5.17 (45.8)	17.70	10.90 (96.5)	1.11 (1.49)	2198-H015-ERS*x*
					33.00	20.33 (179.9)		2198-H040-ERS*x*
VPH-A1304D-*xxx*2	3000	3000	14.18	8.44 (74.7)	45.90	21.45 (189.9)	1.79 (2.40)	2198-H040-ERS*x*
					58.00	27.10 (239.9)		2198-H070-ERS*x*

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.

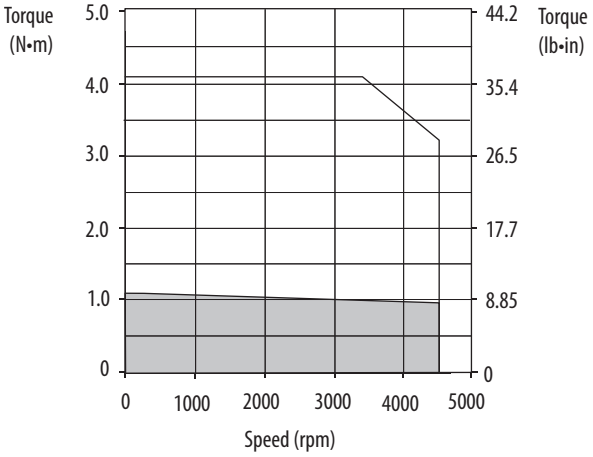
Kinetix VPH (brake) Motor Performance Specifications with Kinetix 5500 (200V-class operation) Drives

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 (Hp)	**Kinetix 5500 Drives (240V AC operation)**
VPH-A0633F-*xxx*4	4500	4500	2.91	1.07 (9.5)	8.80	2.86 (25.3)	0.43 (0.57)	2198-H008-ERS*x*
					12.60	4.09 (36.2)		2198-H015-ERS*x*
VPH-A0753F-*xxx*4	4600	4600	5.00	1.73 (15.3)	17.70	4.89 (43.3)	0.60 (0.80)	2198-H015-ERS*x*
					25.34	7.00 (62.0)		2198-H025-ERS*x*
VPH-A1003F-*xxx*4	5500	5500	11.70	3.18 (28.2)	45.90	10.24 (90.6)	1.06 (1.42)	2198-H040-ERS*x*
					50.00	11.15 (98.7)		2198-H070-ERS*x*
VPH-A1152E-*xxx*4	3300	3300	7.83	4.00 (35.4)	28.30	11.57 (102.4)	1.07 (1.43)	2198-H025-ERS*x*
					32.10	13.12 (116.1)		2198-H040-ERS*x*
VPH-A1153C-*xxx*4	2300	2300	6.93	5.03 (44.5)	17.70	10.90 (96.5)	1.11 (1.49)	2198-H015-ERS*x*
					33.00	20.33 (179.9)		2198-H040-ERS*x*
VPH-A1304D-*xxx*4	3000	3000	13.72	8.27 (73.2)	45.90	21.45 (189.9)	1.79 (2.40)	2198-H040-ERS*x*
					58.00	27.10 (139.9)		2198-H070-ERS*x*

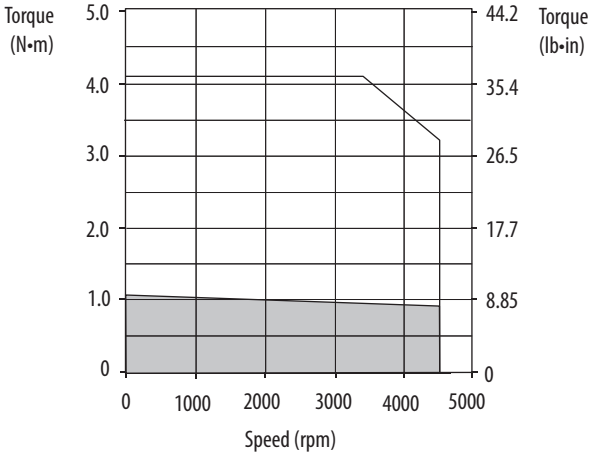
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix VPH Hygienic Servo Motor Curves

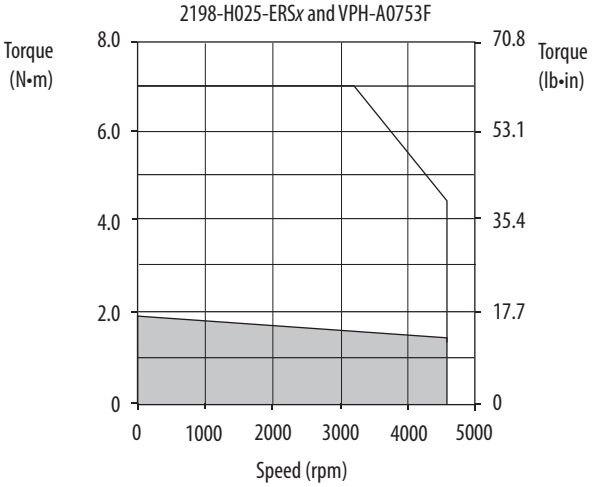
2198-H015-ERS*x* and VPH-A0633F



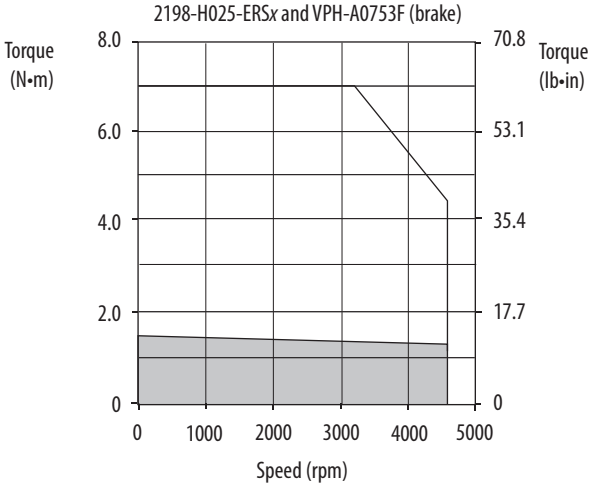
2198-H015-ERS*x* and VPH-A0633F (brake)



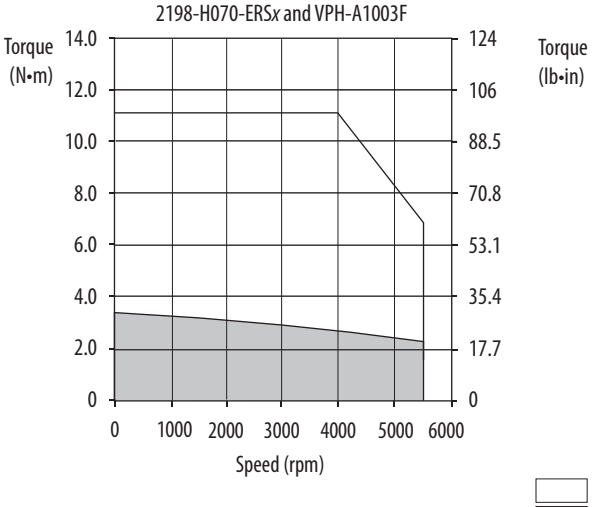
2198-H025-ERS*x* and VPH-A0753F



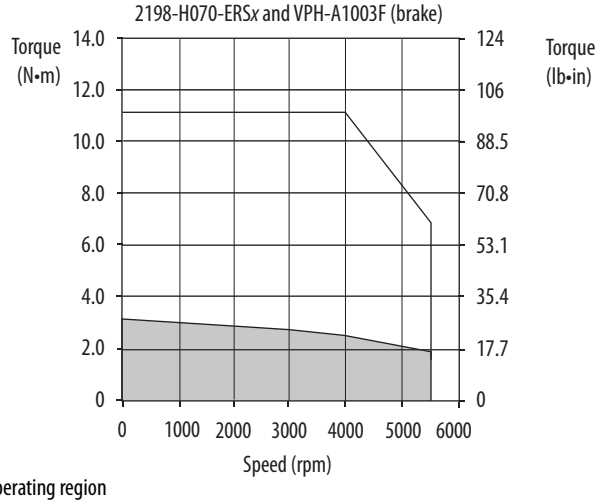
2198-H025-ERS*x* and VPH-A0753F (brake)



2198-H070-ERS*x* and VPH-A1003F



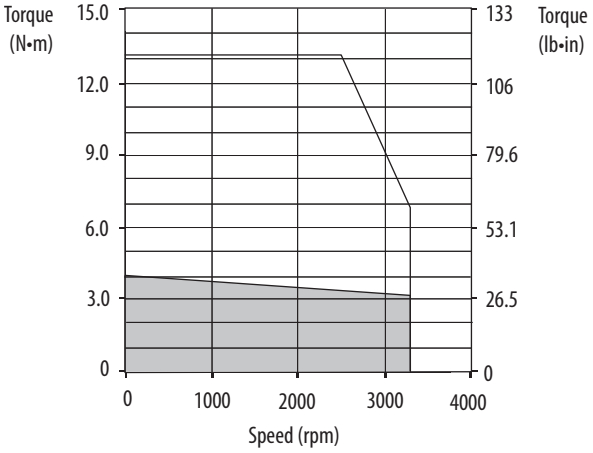
2198-H070-ERS*x* and VPH-A1003F (brake)



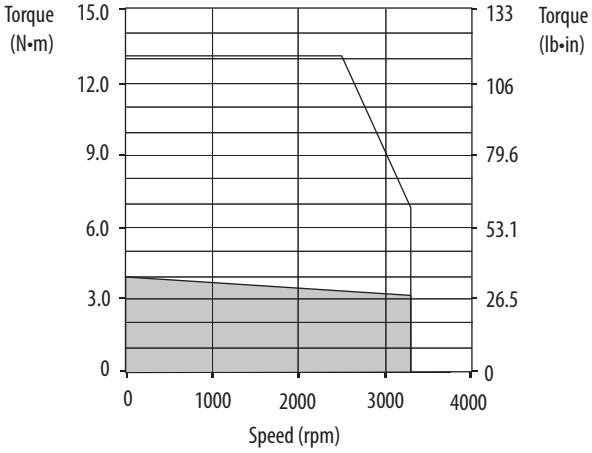
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

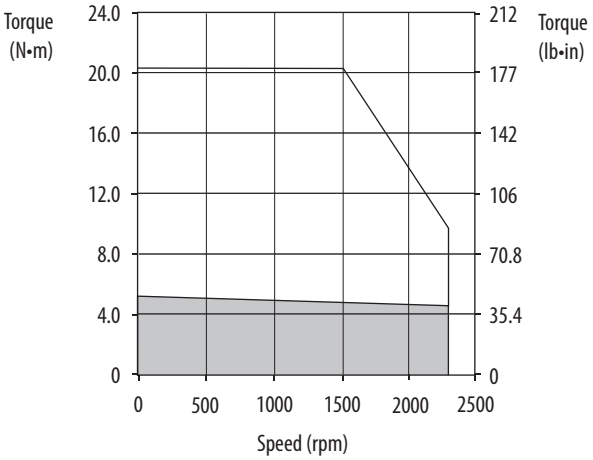
2198-H040-ERS*x* and VPH-A1152E



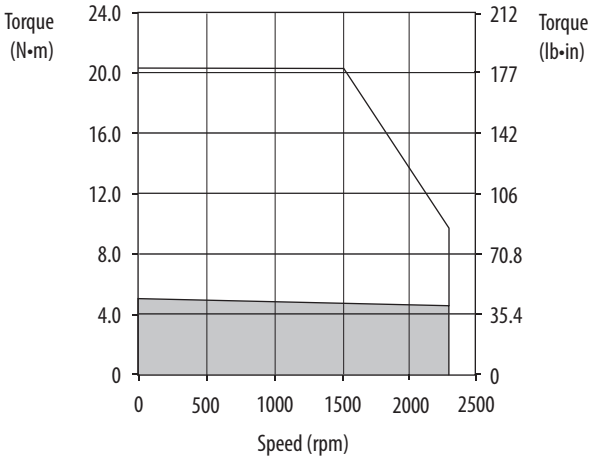
2198-H040-ERS*x* and VPH-A1152E (brake)



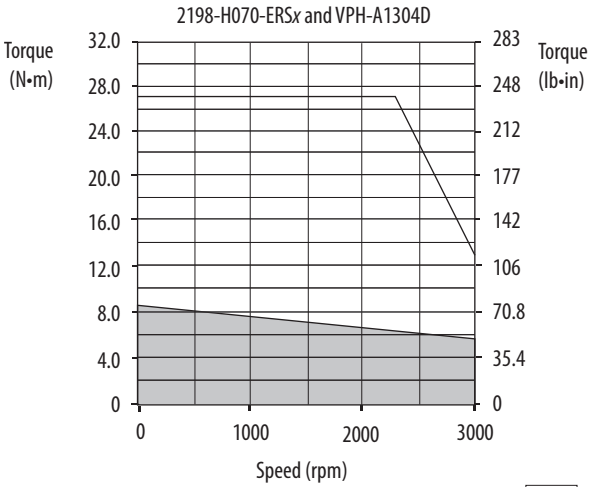
2198-H040-ERS*x* and VPH-A1153C



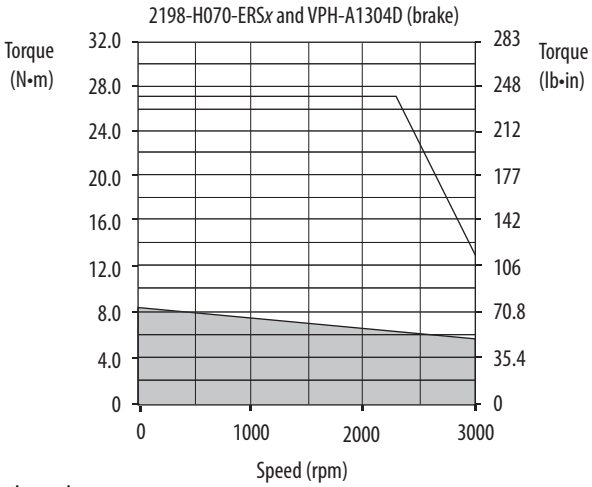
2198-H040-ERS*x* and VPH-A1153C (brake)



2198-H070-ERS*x* and VPH-A1304D



2198-H070-ERS*x* and VPH-A1304D (brake)



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class) Drives with Kinetix VPH Hygienic Stainless-steel Motors

This section provides system combination information for the Kinetix 5500 drives (with 480V, nominal input) when matched with Kinetix VPH (400V-class) hygienic servo motors. Single cable catalog numbers, system performance specifications, and optimum torque/speed curves are included.

Kinetix VPH Motor Cable Combinations

Rotary Motor (400V-class) [1] Cat. No.	Single Cable Cat. No. [2]	Feedback Type
VPH-B0632T, VPH-B0633M	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPH-B0753F		
VPH-B1001F, VPH-B1003F		
VPH-B1152F		
VPH-B1153E	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	
VPH-B1304E		
VPH-B1653D		

(1) The VPH-B100*xx* and VPH-B1152F frame on-motor cables include 14 AWG conductors and are also compatible with 2090-CS*x*M1D*x*-14*xxxx* cable.

(2) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPH (non-brake) Motor Performance Specifications with Kinetix 5500 (400V-class operation) 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 (Hp)	Kinetix 5500 Drives (480V AC operation)
VPH-B0632T-*xxx*2	8000	8000	2.44	0.84 (7.5)	8.75	2.69 (24.0)	0.52 (0.69)	2198-H008-ERS*x*
VPH-B0633M-*xxx*2	6700	6700	2.05	1.03 (9.2)	8.75	4.09 (36.0)	0.50 (0.67)	2198-H008-ERS*x*
VPH-B0753F-*xxx*2	6600	6600	3.68	1.87 (16.6)	17.70	6.57 (58.0)	0.74 (0.99)	2198-H015-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*
VPH-B1001F-*xxx*2	5000	5000	2.19	1.44 (12.8)	7.10	3.61 (32.0)	0.70 (0.93)	2198-H008-ERS*x*
VPH-B1003F-*xxx*2	4750	4750	4.93	3.43 (30.4)	17.70	9.77 (86.0)	1.36 (1.83)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPH-B1152F-*xxx*2	4500	4500	5.15	4.03 (35.7)	17.70	10.95 (97.0)	1.37 (1.84)	2198-H015-ERS*x*
					21.19	13.12 (116)		2198-H025-ERS*x*
VPH-B1153E-*xxx*2	3900	5000	7.09	5.13 (45.4)	17.70	10.90 (97.0)	1.27 (1.70)	2198-H015-ERS*x*
					33.00	20.33 (180)		2198-H040-ERS*x*
VPH-B1304E-*xxx*2	3500	3500	8.10	8.41 (74.5)	28.30	23.82 (211)	2.15 (2.88)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPH-B1653D-*xxx*2	3000	3000	14.72	18.67 (165)	45.90	45.77 (405)	3.16 (4.23)	2198-H040-ERS*x*
					68.0	67.80 (600)		2198-H070-ERS*x*

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.

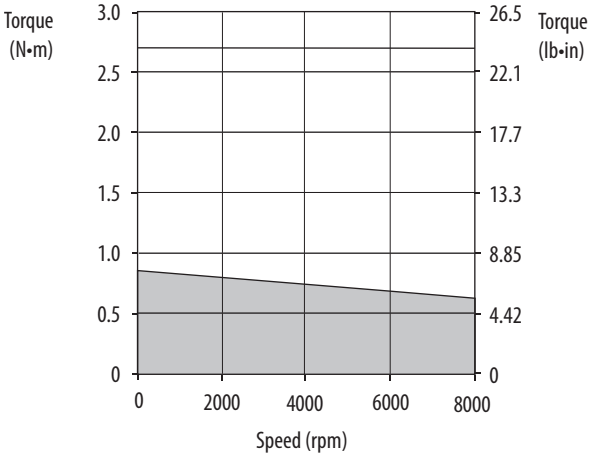
Kinetix VPH (brake) Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 (Hp)	**Kinetix 5500 Drives (480V AC operation)**
VPH-B0632T-*xxx*4	7200	8000	2.43	0.80 (7.1)	8.75	2.69 (24.0)	0.40 (0.54)	2198-H008-ERS*x*
VPH-B0633M-*xxx*4	6700	6700	1.97	1.01 (9.0)	8.75	4.09 (36.0)	0.50 (0.67)	2198-H008-ERS*x*
VPH-B0753F-*xxx*4	6600	6600	3.49	1.81 (16.0)	8.80	3.27 (29.0)	0.68 (0.92)	2198-H008-ERS*x*
					18.90	7.02 (62.0)		2198-H025-ERS*x*
VPH-B1001F-*xxx*4	5000	5000	2.20	1.42 (12.6)	7.10	3.61 (32.0)	0.68 (0.91)	2198-H008-ERS*x*
VPH-B1003F-*xxx*4	4750	4750	4.89	3.29 (29.1)	17.70	9.77 (86.0)	1.16 (1.56)	2198-H015-ERS*x*
					20.20	11.15 (99.0)		2198-H025-ERS*x*
VPH-B1152F-*xxx*4	4500	4500	5.15	4.03 (35.7)	17.70	10.95 (97.0)	1.37 (1.84)	2198-H015-ERS*x*
					21.19	13.12 (116)		2198-H025-ERS*x*
VPH-B1153E-*xxx*4	3900	5000	7.05	5.13 (45.4)	17.70	10.90 (97.0)	1.08 (1.45)	2198-H015-ERS*x*
					33.00	20.33 (180)		2198-H040-ERS*x*
VPH-B1304E-*xxx*4	3500	3500	8.27	8.24 (73.0)	28.30	23.82 (211)	1.76 (2.36)	2198-H025-ERS*x*
					33.76	28.45 (252)		2198-H040-ERS*x*
VPH-B1653D-*xxx*4	3000	3000	14.92	18.67 (165)	45.90	45.77 (405)	2.91 (3.91)	2198-H025-ERS*x*
					68.00	67.80 (600)		2198-H070-ERS*x*

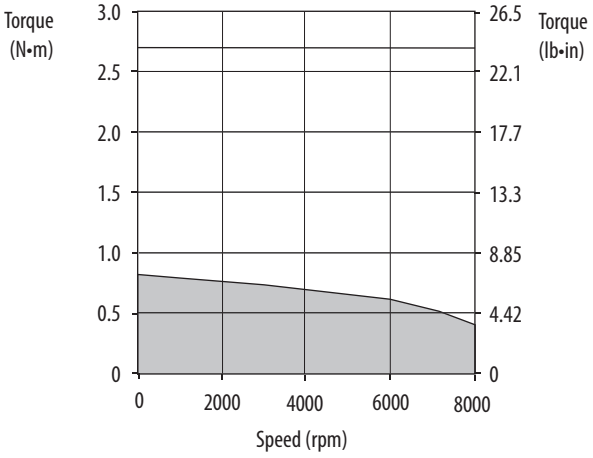
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix VPH Hygienic Servo Motor Curves

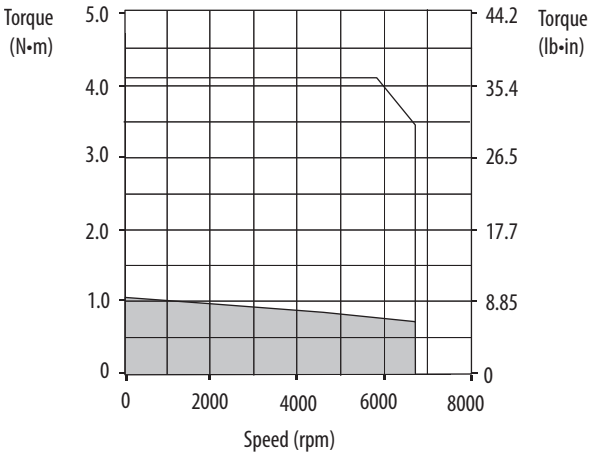
2198-H008-ERS*x* and VPH-B0632T



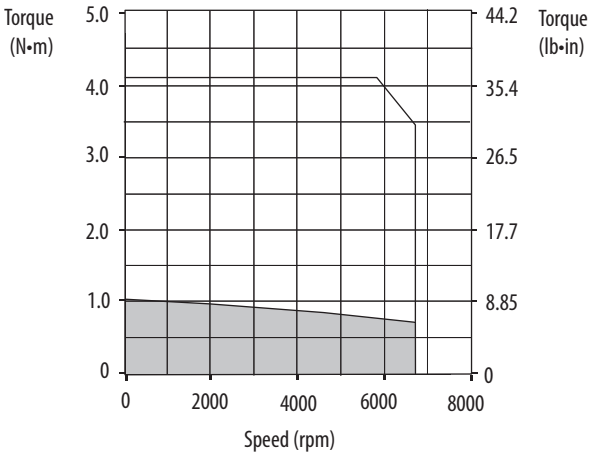
2198-H008-ERS*x* and VPH-B0632T (brake)



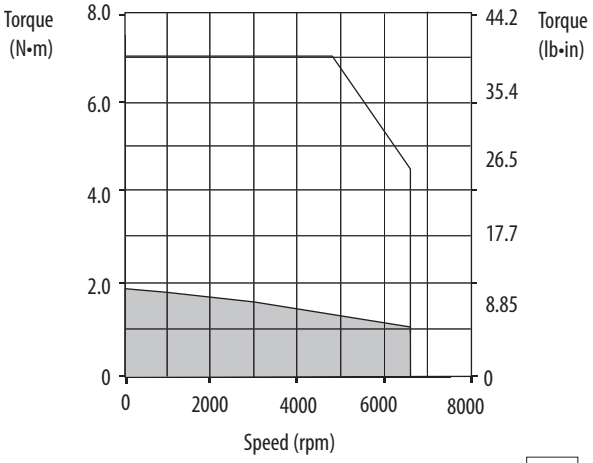
2198-H008-ERS*x* and VPH-B0633M



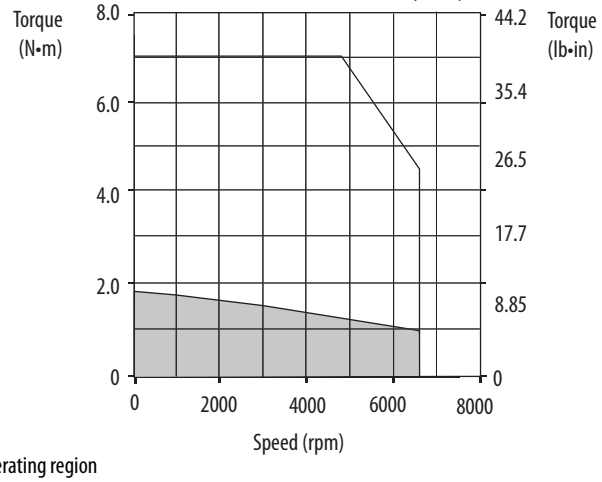
2198-H008-ERS*x* and VPH-B0633M (brake)

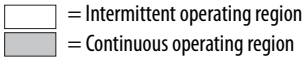


2198-H025-ERS*x* and VPH-B0753F



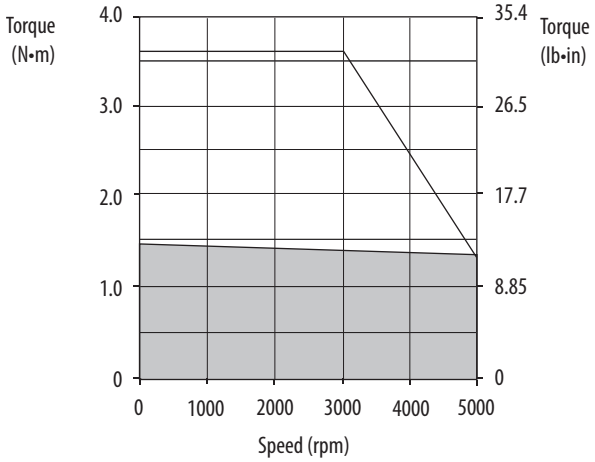
2198-H025-ERS*x* and VPH-B0753F (brake)



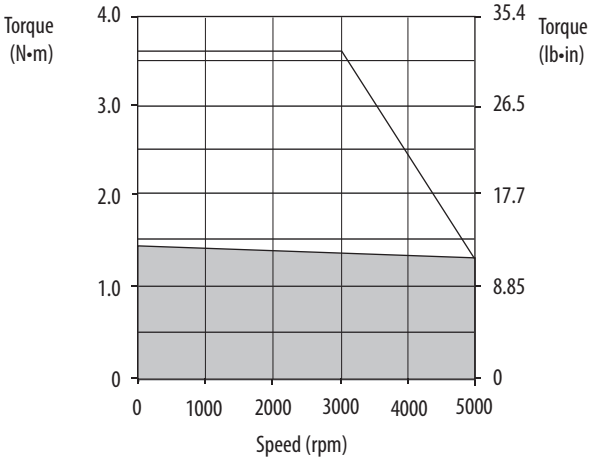


Kinetix 5500 (400V-class operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

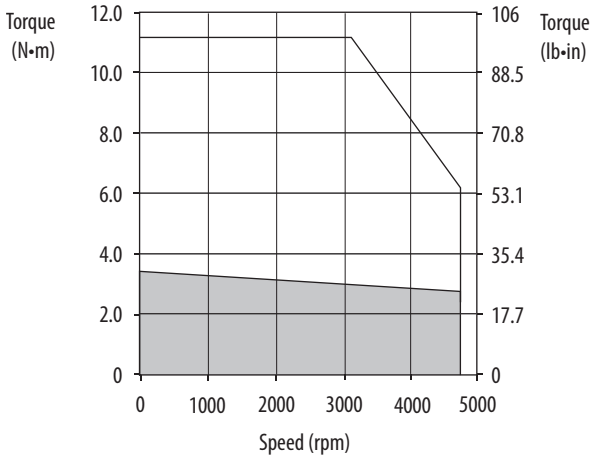
2198-H008-ERS*x* and VPH-B1001F



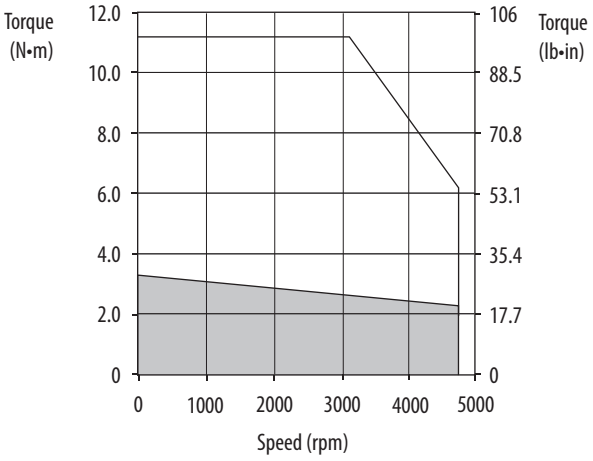
2198-H008-ERS*x* and VPH-B1001F (brake)



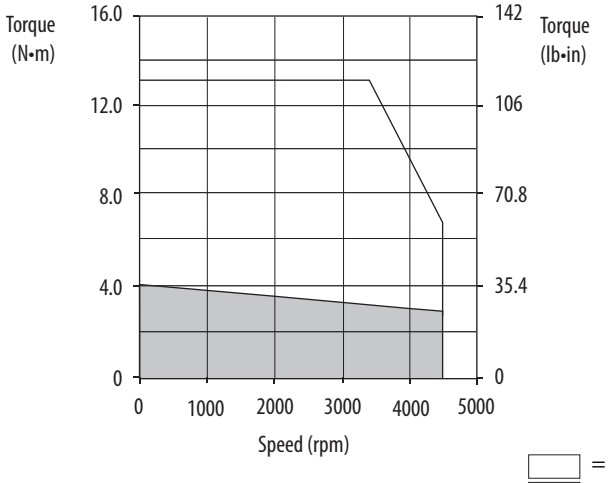
2198-H025-ERS*x* and VPH-B1003F



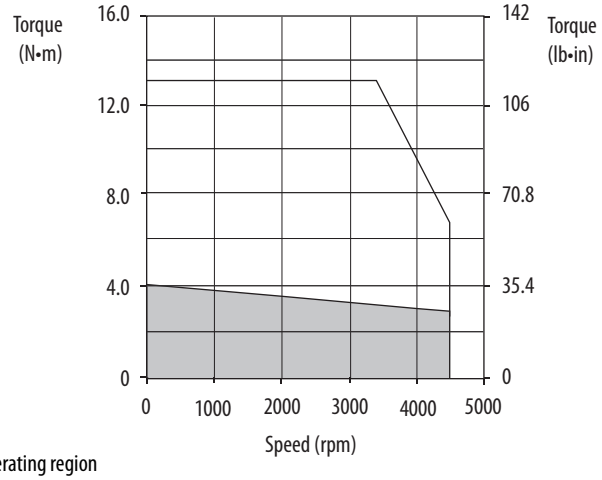
2198-H025-ERS*x* and VPH-B1003F (brake)



2198-H025-ERS*x* and VPH-B1152F



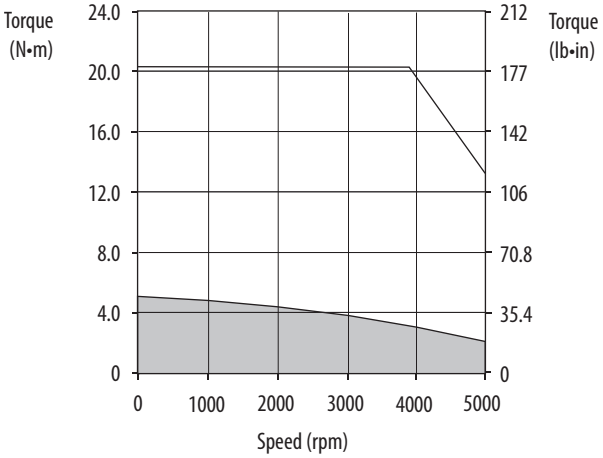
2198-H025-ERS*x* and VPH-B1152F (brake)



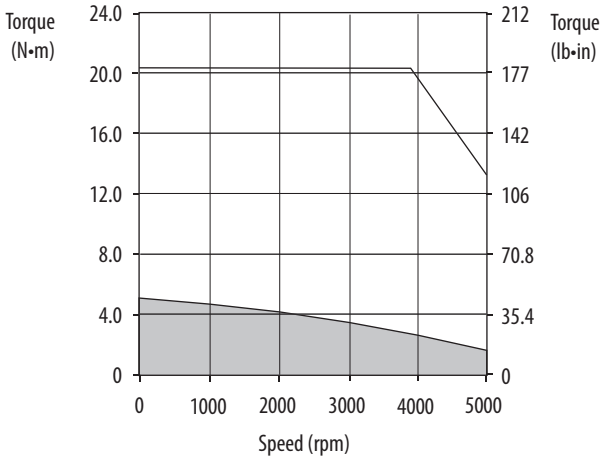
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

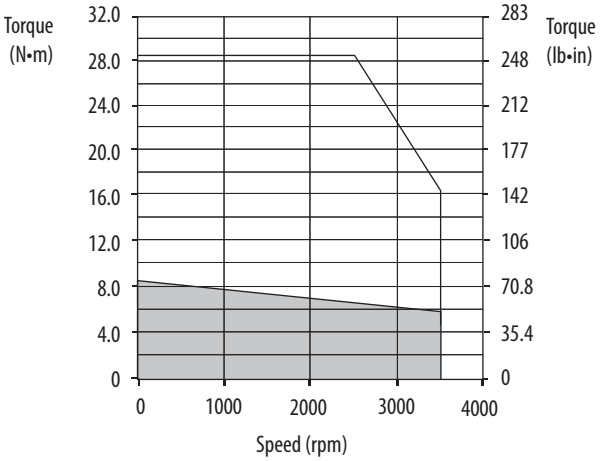
2198-H040-ERS*x* and VPH-B1153E



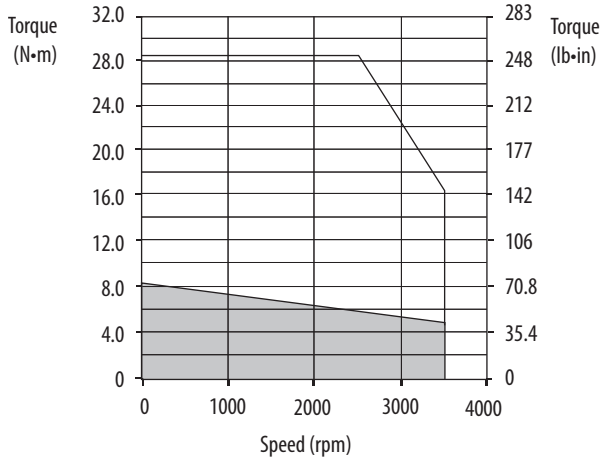
2198-H040-ERS*x* and VPH-B1153E (brake)



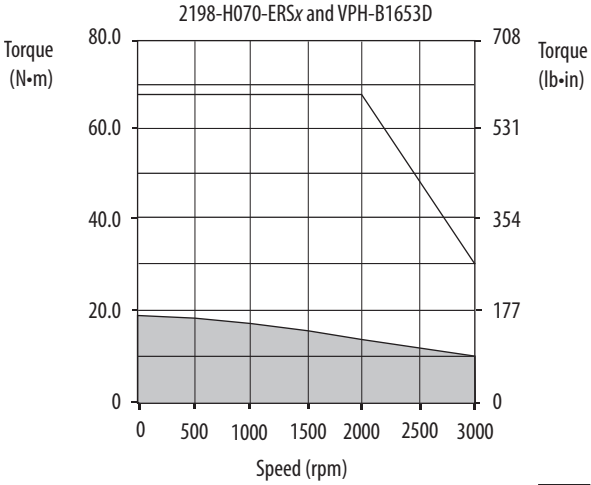
2198-H040-ERS*x* and VPH-B1304E



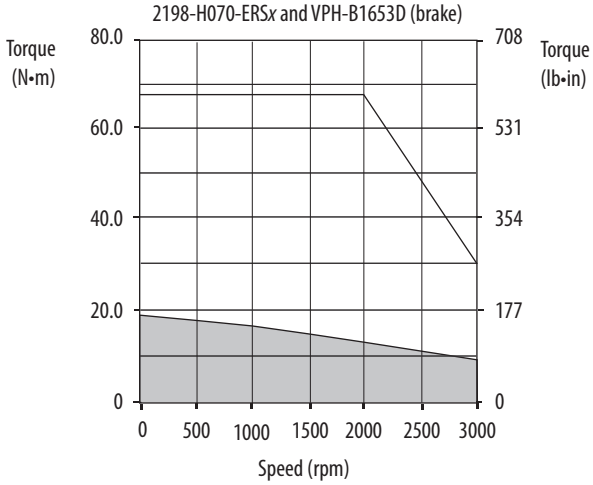
2198-H040-ERS*x* and VPH-B1304E (brake)



2198-H070-ERS*x* and VPH-B1653D



2198-H070-ERS*x* and VPH-B1653D (brake)



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives with Kinetix VPS Stainless-steel Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix VPS (400V-class) servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

Kinetix VPS Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Feedback Cable (1)	Feedback Type
VPS-B1304D	2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	Absolute, Multi-turn Digital Encoder with Hiperface DSL Protocol
VPS-B1653D		

(1) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

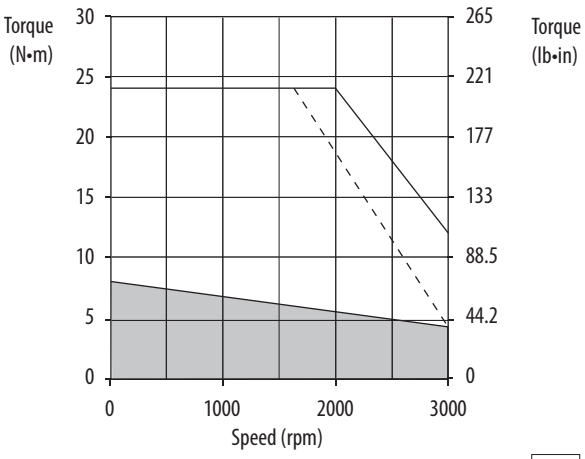
Kinetix VPS Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 (Hp)	Kinetix 5700 Drives (480V AC input)
VPS-B1304D	3000	3000	7.1	8.1 (72.0)	17.7	17.9 (158)	1.40 (1.9)	2198-H015-ERS*x*
					26.0	27.1 (240)		2198-H025-ERS*x*
VPS-B1653D	3000	3000	17.0	21.0 (186)	45.9	50.1 (443)	3.29 (4.4)	2198-H040-ERS*x*
					68.0	67.8 (600)		2198-H070-ERS*x*

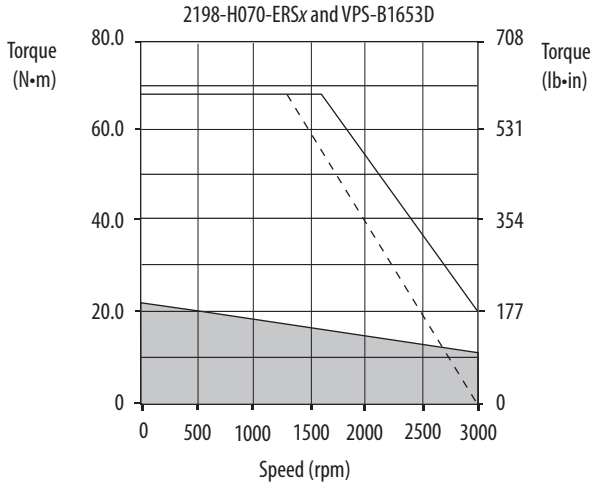
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix VPS Servo Motor Curves

2198-H025-ERS*x* and VPS-B1304D



2198-H070-ERS*x* and VPS-B1653D



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

Kinetix 5500 (200V-class operation) Drives with Kinetix MPL Low-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 240V, nominal input) when matched with Kinetix MPL (200V-class) 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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

IMPORTANT The Kinetix MPL servo 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

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* (2) (3) (standard, non-flex) or 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPL-A210V-*xx*7*x*AA, MPL-A220T-*xx*7*x*AA, MPL-A230P-*xx*7*x*AA		
MPL-A310F-*xx*7*x*AA, MPL-A310P-*xx*7*x*AA, MPL-A320H-*xx*7*x*AA, MPL-A320P,-*xx*7*x*AA, MPL-A330P-*xx*7*x*AA		
MPL-A420P-*xx*7*x*AA, MPL-A430H-*xx*7*x*AA		
MPL-A4530F-*xx*7*x*AA, MPL-A4540C-*xx*7*x*AA		
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)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

(2) Applies to Kinetix 5500 drives and MPL-A3*xxx*-M/S through MPL-A5*xxx*-M/S motors with absolute high-resolution feedback.

(3) Applies to Kinetix 5500 drives and MPL-A15*xxx*-V/E through MPL-A2*xxx*-V/E motors with absolute high-resolution feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

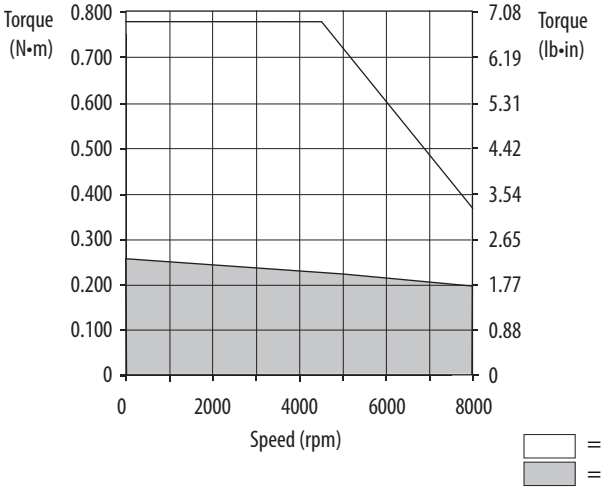
Kinetix MPL Motor Performance Specifications with Kinetix 5500 (200V-class operation) Drives

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 5500 (240V AC input)
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16	2198-H003-ERS*x*
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-H008-ERS*x*
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	10.1	2.82 (24.9)	0.39	2198-H015-ERS*x*
MPL-A210V	8000	8000	3.09	0.55 (4.8)	10.2	1.52 (13.4)	0.37	2198-H015-ERS*x*
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62	2198-H015-ERS*x*
MPL-A230P	5000	5000	5.40	2.10 (18.6)	23.0	8.2 (73.0)	0.86	2198-H025-ERS*x*
MPL-A310F	3000	3000	3.24	1.58 (14.0)	8.80	3.44 (30.4)	0.46	2198-H008-ERS*x*
					9.30	3.61 (31.9)		2198-H015-ERS*x*
MPL-A310P	5000	5000	4.91	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-H015-ERS*x*
MPL-A320H	3500	3500	6.10	3.05 (27.0)	19.3	7.91 (70.0)	1.0	2198-H025-ERS*x*
MPL-A320P	5000	5000	9.00	3.05 (27.0)	28.3	7.60 (44.8)	1.3	2198-H025-ERS*x*
					29.5	7.91 (70.0)		2198-H040-ERS*x*
MPL-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.1 (98.2)	1.8	2198-H040-ERS*x*
MPL-A420P	5000	5000	12.9	4.79 (42.3)	46.0	13.6 (119)	2.0	2198-H040-ERS*x*
MPL-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.8 (175)	1.8	2198-H040-ERS*x*
MPL-A430P	5000	5000	16.80	5.99 (52.9)	67.0	19.8 (175)	2.2	2198-H070-ERS*x*
MPL-A4530F	2800	2800	13.40	8.36 (74.0)	42.0	20.3 (179)	1.9	2198-H040-ERS*x*
MPL-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.3 (179)	2.5	2198-H070-ERS*x*
MPL-A4540C	1500	1500	9.55	10.30 (91.1)	28.3	26.23 (232)	1.5	2198-H025-ERS*x*
					29.0	27.1 (239)		2198-H040-ERS*x*
MPL-A4540F	3000	3000	18.40	10.19 (90.1)	45.9	22.09 (195)	2.6	2198-H040-ERS*x*
					58.0	27.1 (239)		2198-H070-ERS*x*
MPL-A4560F	3000	3000	22.0	14.1 (125)	66.0	34.4 (305)	3.0	2198-H070-ERS*x*
MPL-A520K	4000	4000	15.0	10.77 (95.2)	65.0	24.2 (214)	3.5	2198-H070-ERS*x*

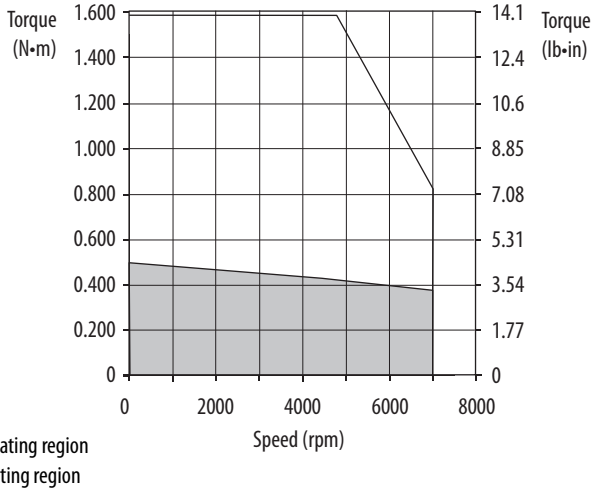
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/ Kinetix MPL Servo Motor Curves

2198-H003-ERS*x* and MPL-A1510V



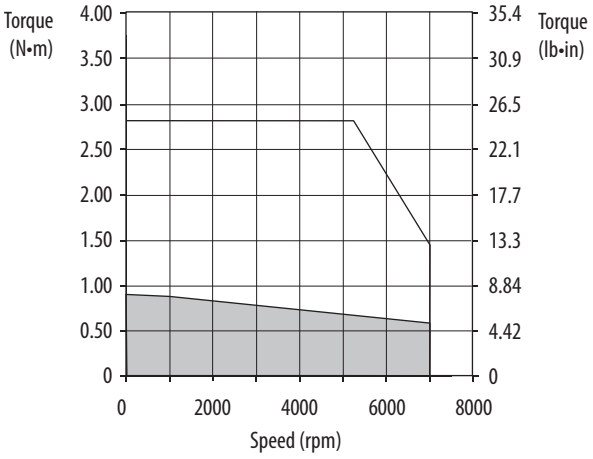
2198-H008-ERS*x* and MPL-A1520U



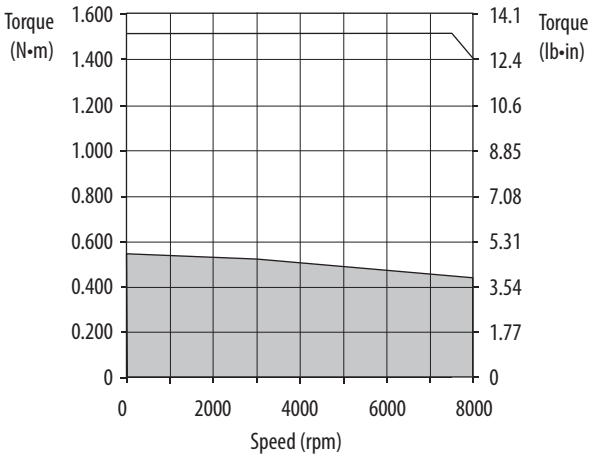
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

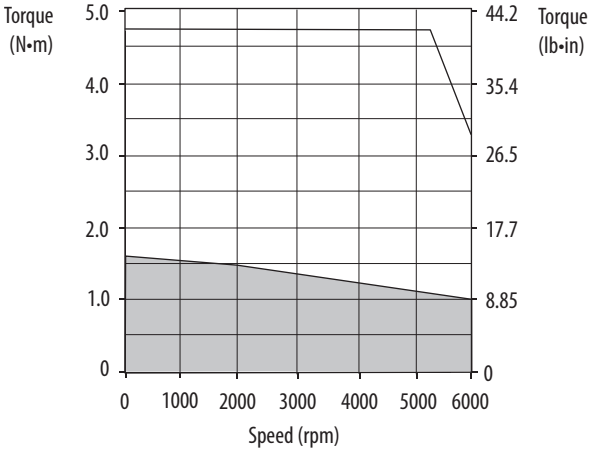
2198-H015-ERS*x* and MPL-A1530U



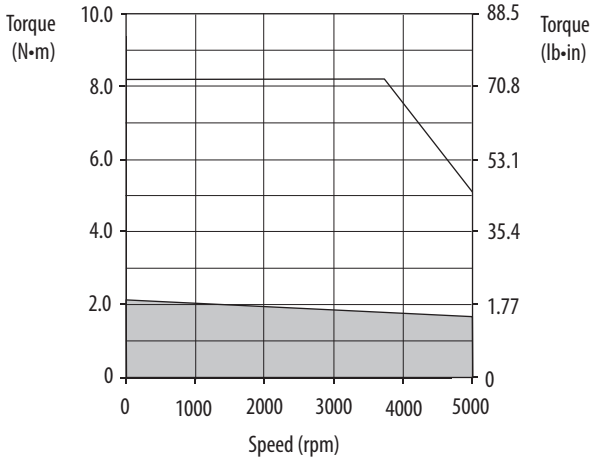
2198-H015-ERS*x* and MPL-A210V



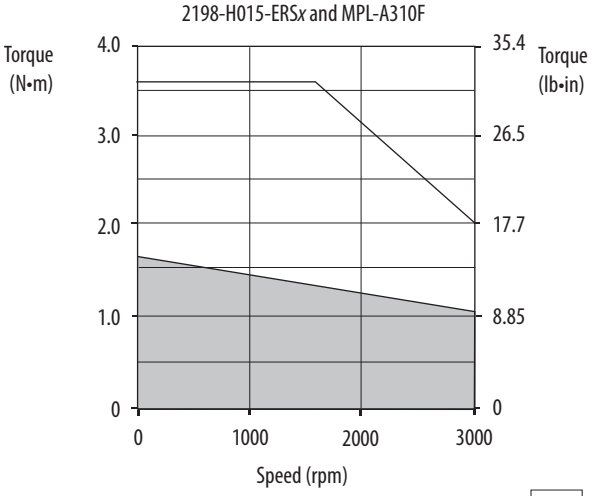
2198-H015-ERS*x* and MPL-A220T



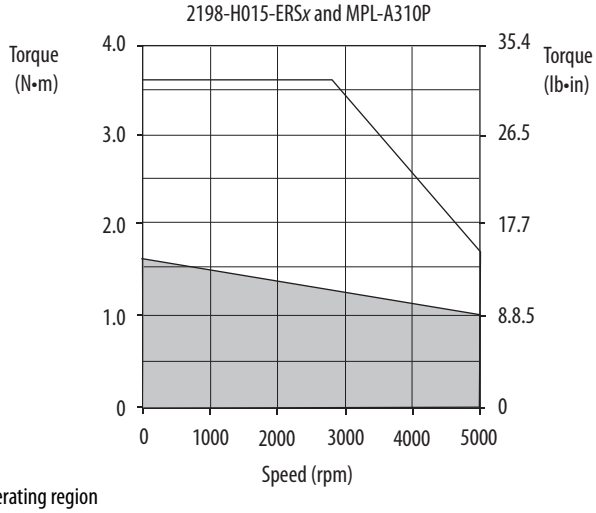
2198-H025-ERS*x* and MPL-A230P



2198-H015-ERS*x* and MPL-A310F



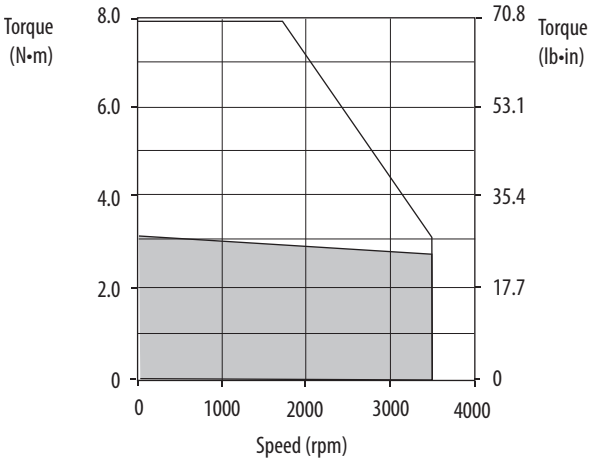
2198-H015-ERS*x* and MPL-A310P



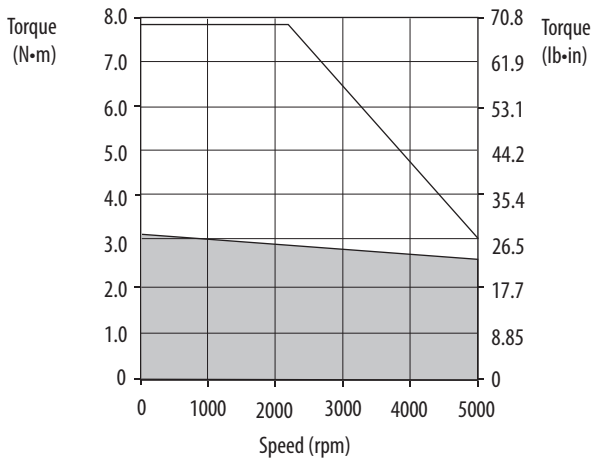
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

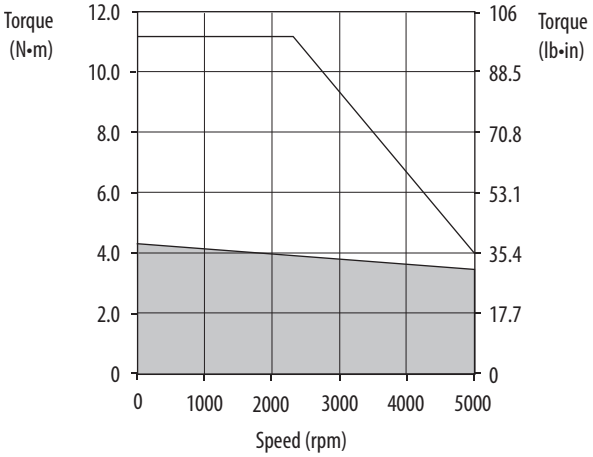
2198-H025-ERS*x* and MPL-A320H



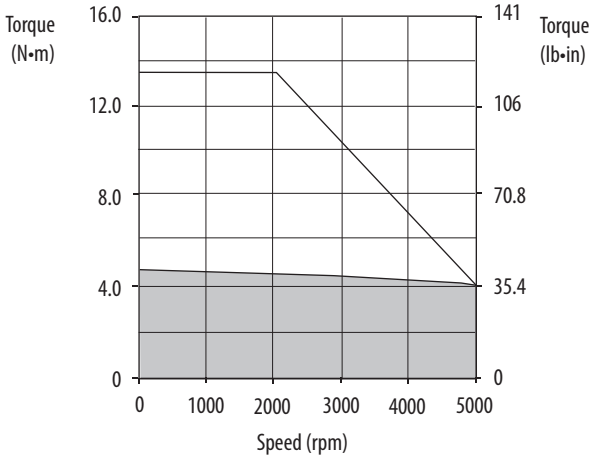
2198-H040-ERS*x* and MPL-A320P



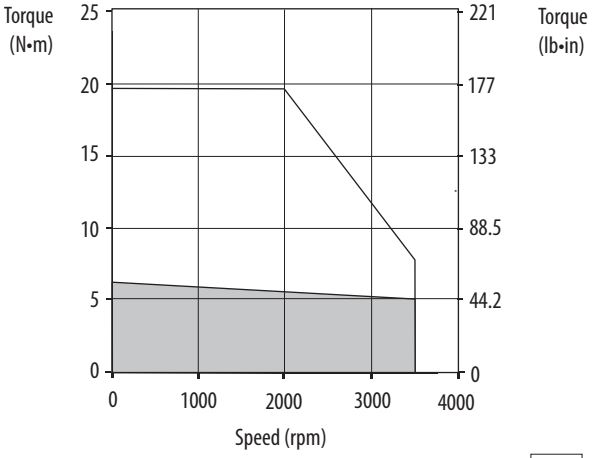
2198-H040-ERS*x* and MPL-A330P



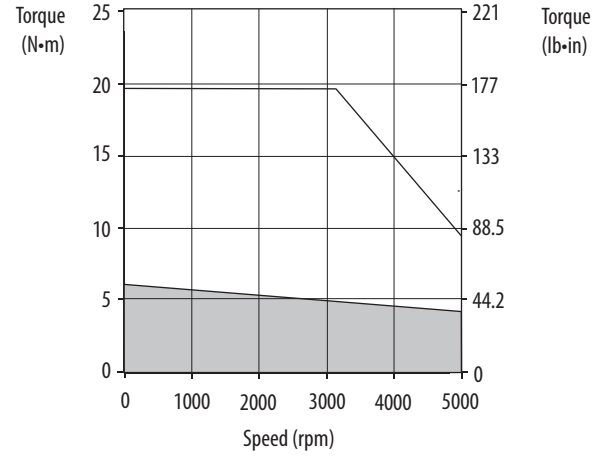
2198-H040-ERS*x* and MPL-A420P



2198-H040-ERS*x* and MPL-A430H



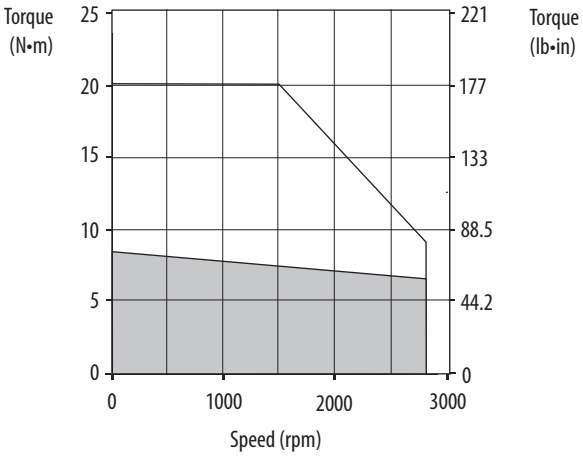
2198-H070-ERS*x* and MPL-A430P



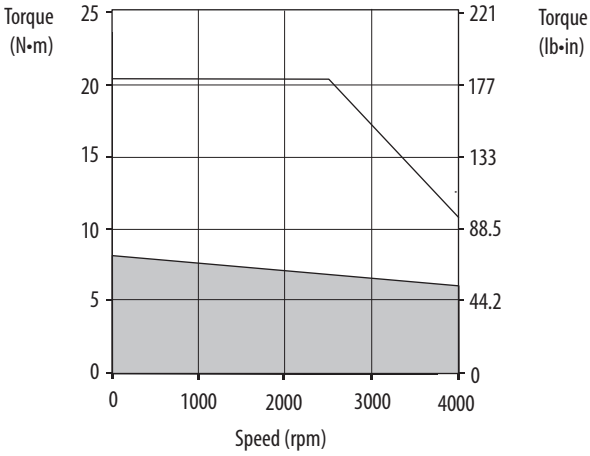
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

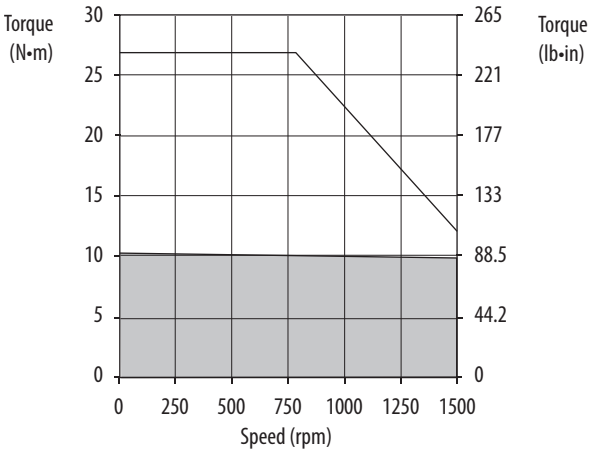
2198-H040-ERS*x* and MPL-A4530F



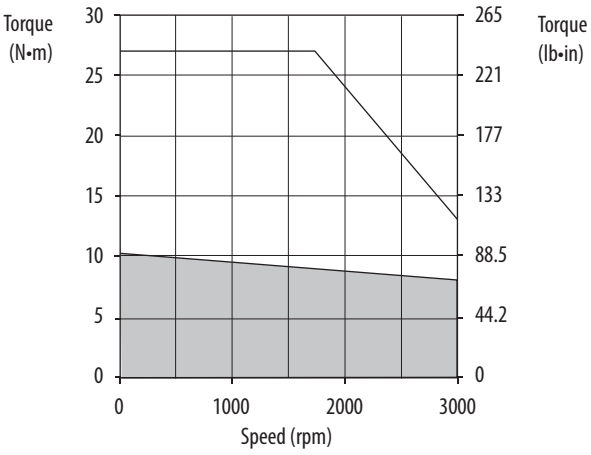
2198-H070-ERS*x* and MPL-A4530K



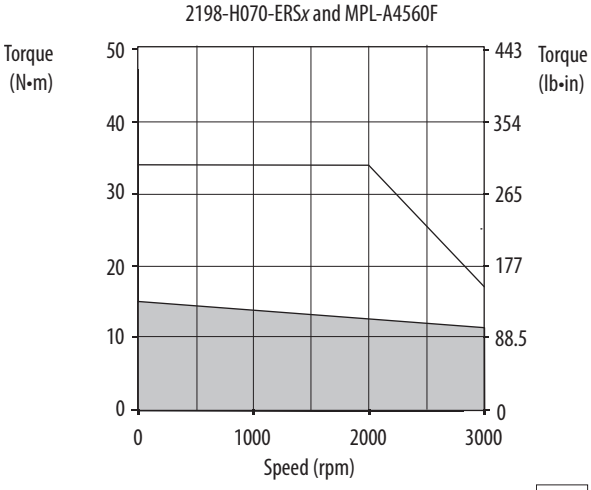
2198-H040-ERS*x* and MPL-A4540C



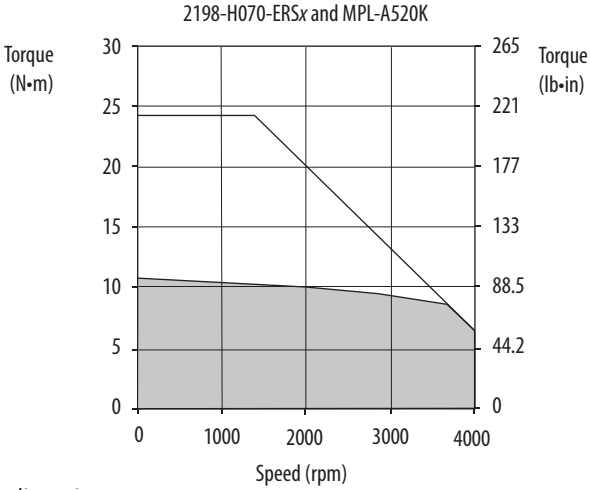
2198-H070-ERS*x* and MPL-A4540F



2198-H070-ERS*x* and MPL-A4560F



2198-H070-ERS*x* and MPL-A520K



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives with Kinetix MPL Low-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix MPL (400V-class) 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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

IMPORTANT The Kinetix MPL servo 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

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPL-B1510V-*xx*7*x*AA, MPL-B1520U-*xx*7*x*AA, MPL-B1530U-*xx*7*x*AA	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (2) (3) (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPL-B210V-*xx*7*x*AA, MPL-B220T-*xx*7*x*AA, MPL-B230P-*xx*7*x*AA		
MPL-B310P-*xx*7*x*AA, MPL-B320P-*xx*7*x*AA, MPL-B330P-*xx*7*x*AA		
MPL-B420P-*xx*7*x*AA, MPL-B430P-*xx*7*x*AA		
MPL-B4530F-*xx*7*x*AA, MPL-B4530K-*xx*7*x*AA, MPL-B4540F-*xx*7*x*AA, MPL-B4560F-*xx*7*x*AA		
MPL-B520K-*xx*7*x*AA		
MPL-B540D-*xx*7*x*AA, MPL-B540K-*xx*7*x*AA, MPL-B560F-*xx*7*x*AA	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPL-B580F-*xx*7*x*AA, MPL-B580J-*xx*7*x*AA, MPL-B640F-*xx*7*x*AA	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

(2) Applies to Kinetix 5500 drives and MPL-B3*xxx*-M/S through MPL-B6*xxx*-M/S motors with absolute high-resolution feedback.

(3) Applies to Kinetix 5500 drives and MPL-B15*xxx*-V/E through MPL-B2*xxx*-V/E motors with absolute high-resolution feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

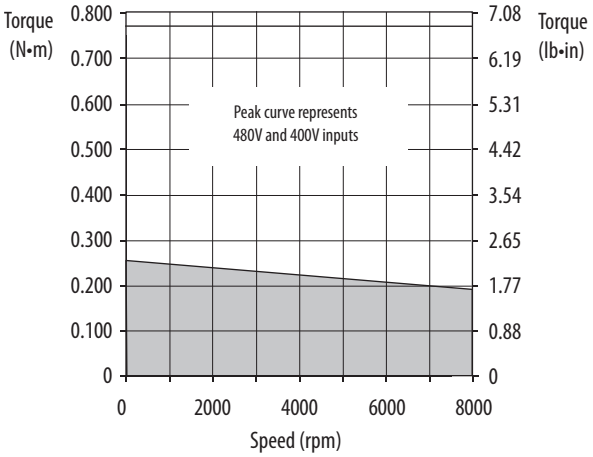
Kinetix MPL Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 5500 (480V AC input)
MPL-B1510V	8000	8000	0.95	0.26 (2.3)	3.10	0.77 (6.8)	0.16	2198-H003-ERS*x*
MPL-B1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-H008-ERS*x*
MPL-B1530U	7000	7000	2.0	0.90 (8.0)	7.20	2.82 (24.9)	0.39	2198-H008-ERS*x*
MPL-B210V	8000	8000	1.75	0.55 (4.9)	5.80	1.52 (13.4)	0.37	2198-H008-ERS*x*
MPL-B220T	6000	6000	3.30	1.61 (14.2)	8.80	3.67 (32.5)	0.62	2198-H008-ERS*x*
					11.3	4.74 (41.9)		2198-H015-ERS*x*
MPL-B230P	5000	5000	2.60	2.10 (18.6)	8.80	6.39 (56.6)	0.86	2198-H008-ERS*x*
					11.3	8.20 (73.0)		2198-H015-ERS*x*
MPL-B310P	5000	5000	2.4	1.6 (14.1)	7.10	3.6 (32)	0.77	2198-H008-ERS*x*
MPL-B320P	5000	5000	4.5	3.10 (27)	14.0	8.2 (72.5)	1.5	2198-H015-ERS*x*
MPL-B330P	5000	5000	6.1	4.18 (37)	17.7	10.4 (92.0)	1.8	2198-H015-ERS*x*
					19.0	11.1 (98)		2198-H025-ERS*x*
MPL-B420P	5000	5000	6.3	4.74 (42)	17.7	11.3 (100)	1.9	2198-H015-ERS*x*
					22.0	13.5 (119)		2198-H025-ERS*x*
MPL-B430P	5000	5000	9.2	6.55 (58)	28.3	17.6 (156)	2.2	2198-H025-ERS*x*
					32.0	19.8 (175)		2198-H040-ERS*x*
MPL-B4530F	3000	3000	6.7	8.36 (74)	17.7	17.7 (157)	2.1	2198-H015-ERS*x*
					21.0	20.3 (180)		2198-H025-ERS*x*
MPL-B4530K	4000	4000	9.9	8.25 (73)	28.3	18.7 (166)	2.6	2198-H025-ERS*x*
					31.0	20.3 (179)		2198-H040-ERS*x*
MPL-B4540F	3000	3000	9.1	10.20 (90)	28.3	26.2 (232)	2.6	2198-H025-ERS*x*
					29.0	27.1 (240)		2198-H040-ERS*x*
MPL-B4560F	3000	3000	11.3	13.85 (123)	28.3	28.4 (251)	3.2	2198-H025-ERS*x*
			11.8	14.0 (124)	36.0	34.4 (304)		2198-H040-ERS*x*
MPL-B520K	3500	4000	11.3	10.4 (92)	28.3	20.6 (182)	3.5	2198-H025-ERS*x*
			11.5	10.7 (95)	33.0	23.2 (205)		2198-H040-ERS*x*
MPL-B540D	2000	2000	10.5	19.4 (172)	23.0	41.0 (362)	3.4	2198-H025-ERS*x*
MPL-B540K	4000	4000	20.4	19.4 (171)	60.0	48.6 (430)	5.4	2198-H070ERS*x*
MPL-B560F	3000	3000	20.6	26.8 (237)	68.0	67.8 (600)	5.5	2198-H070-ERS*x*
MPL-B580F	3000	3000	26.0	34.0 (300)	81.3	78.9 (698)	7.1	2198-H070-ERS*x*
MPL-B580J	3800	3800	32.0	34.0 (301)	81.3	71.52 (633)	7.9	2198-H070-ERS*x*
MPL-B640F	2000	3000	32.0	36.7 (325)	65.0	72.3 (640)	6.1	2198-H070-ERS*x*

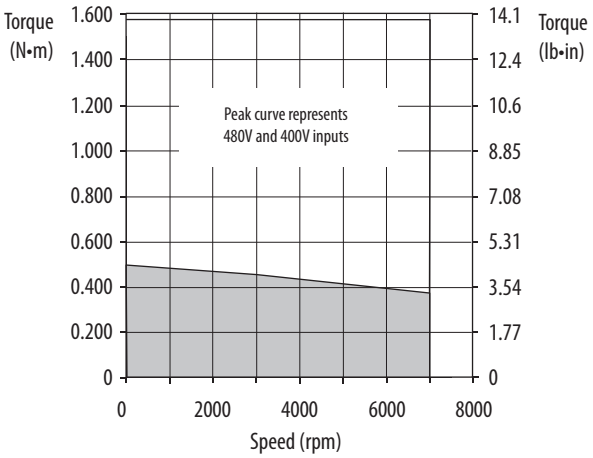
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix MPL Servo Motor Curves

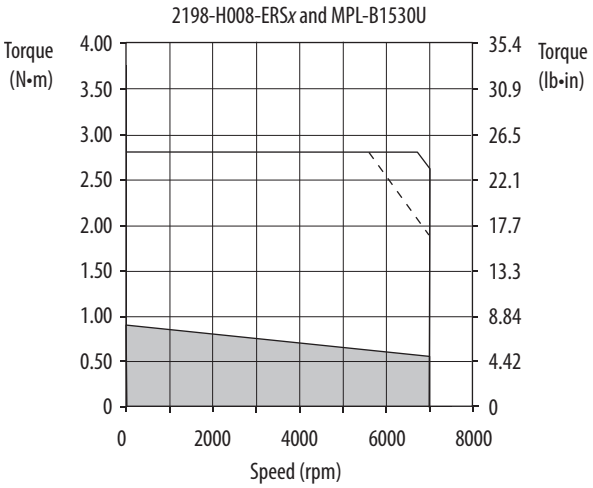
2198-H003-ERS*x* and MPL-B1510V



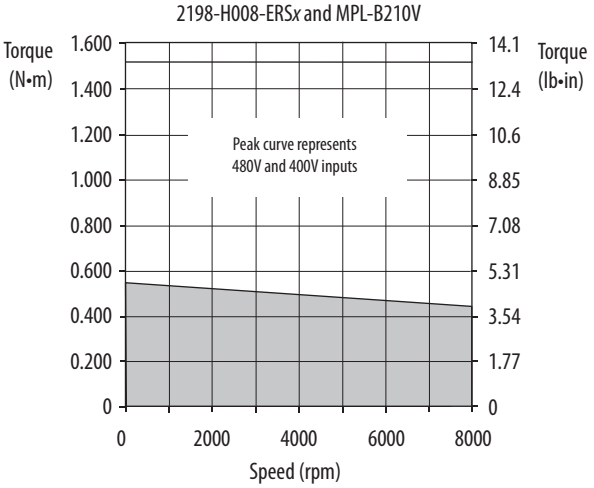
2198-H008-ERS*x* and MPL-B1520U



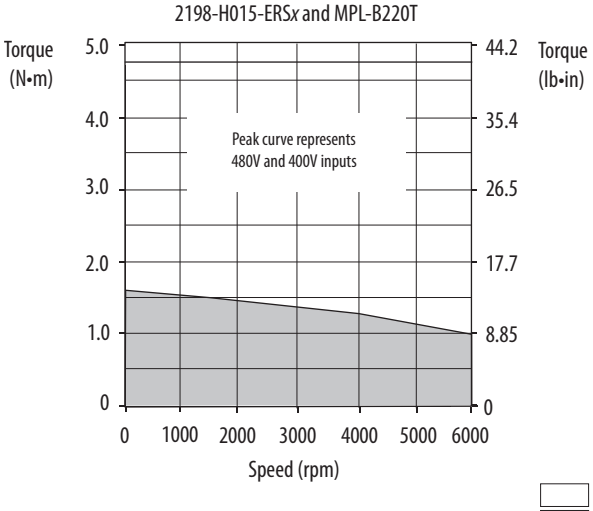
2198-H008-ERS*x* and MPL-B1530U



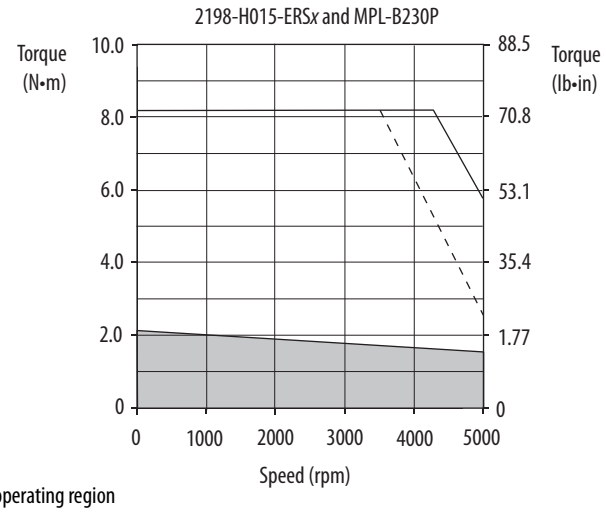
2198-H008-ERS*x* and MPL-B210V



2198-H015-ERS*x* and MPL-B220T



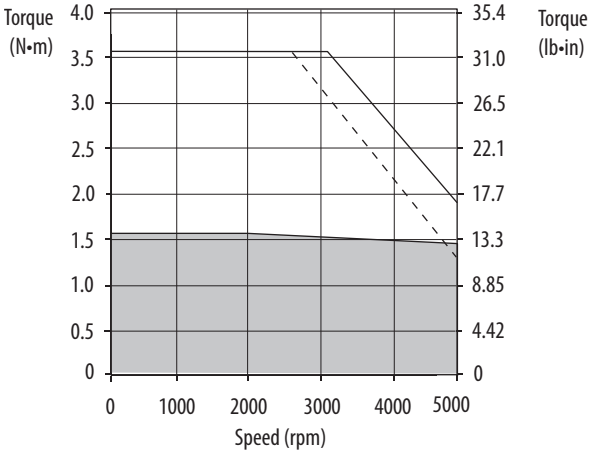
2198-H015-ERS*x* and MPL-B230P



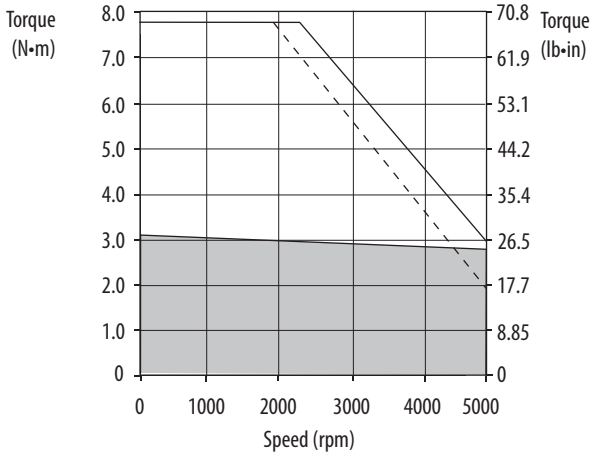
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

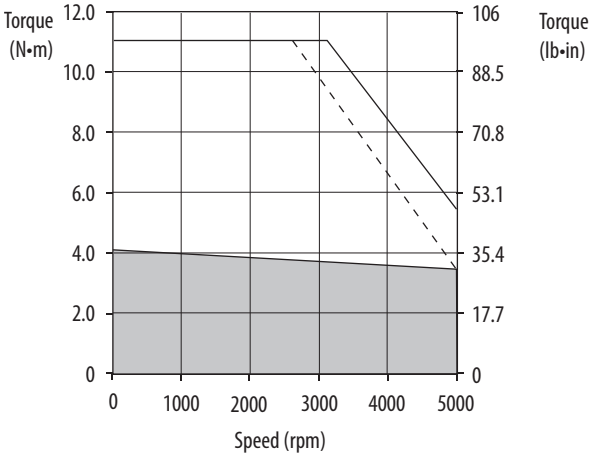
2198-H008-ERS*x* and MPL-B310P



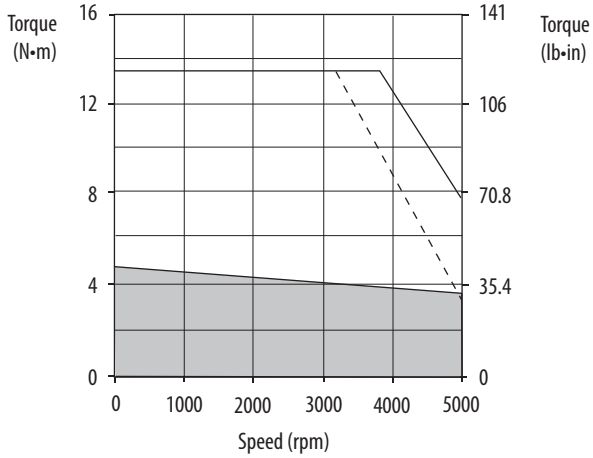
2198-H015-ERS*x* and MPL-B320P



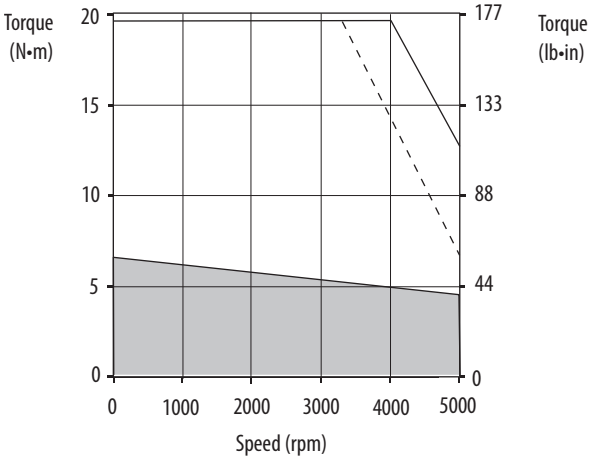
2198-H025-ERS*x* and MPL-B330P



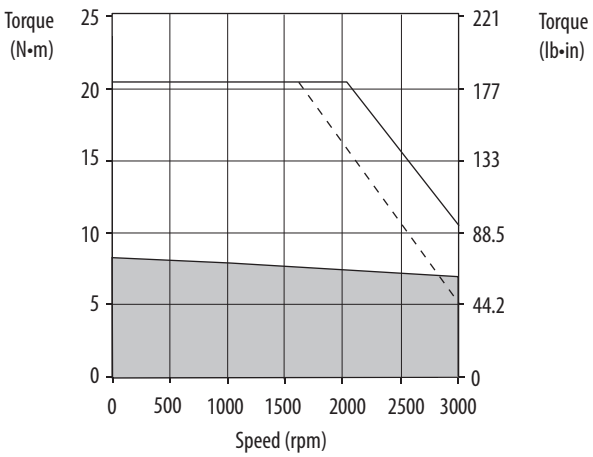
2198-H025-ERS*x* and MPL-B420P



2198-H040-ERS*x* and MPL-B430P



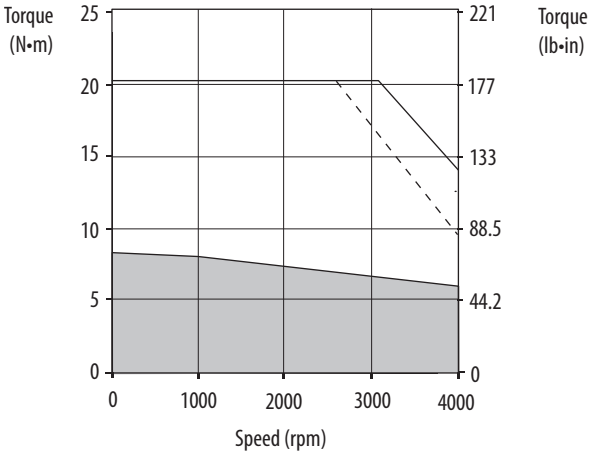
2198-H025-ERS*x* and MPL-B4530F



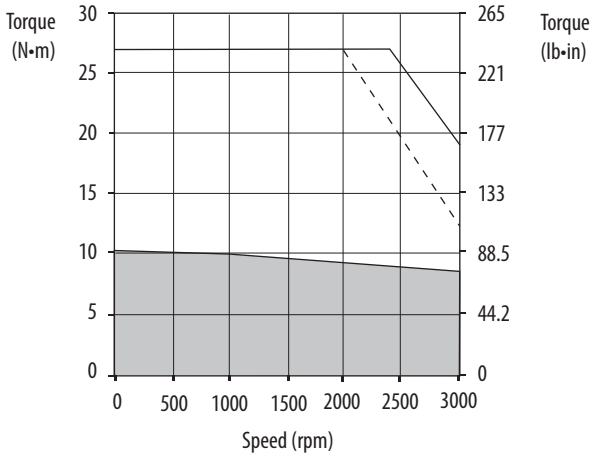
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

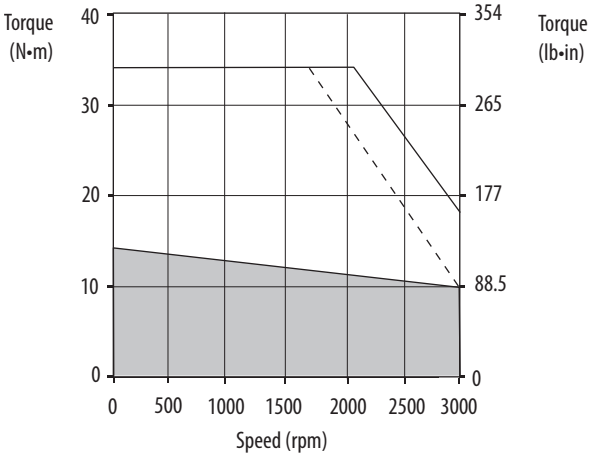
2198-H040-ERS*x* and MPL-B4530K



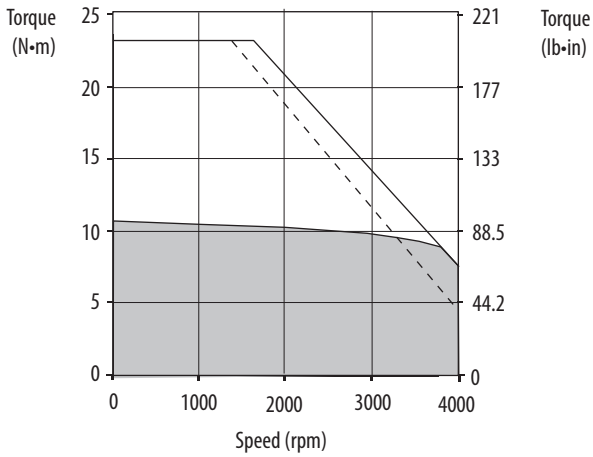
2198-H040-ERS*x* and MPL-B4540F



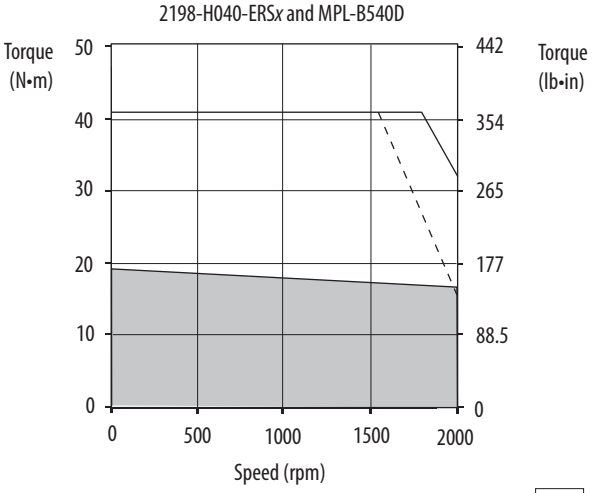
2198-H040-ERS*x* and MPL-B4560F



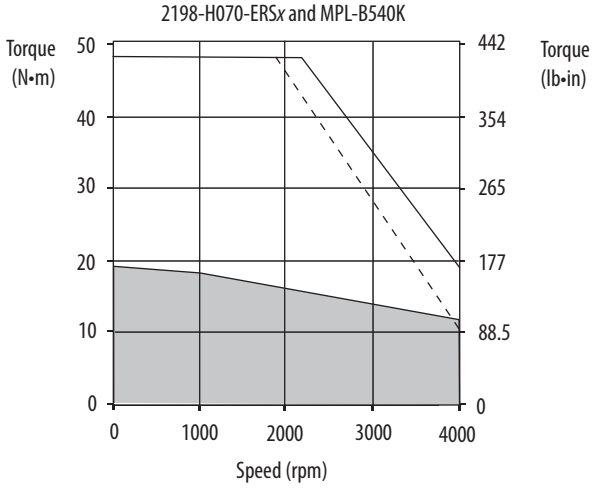
2198-H040-ERS*x* and MPL-B520K



2198-H040-ERS*x* and MPL-B540D



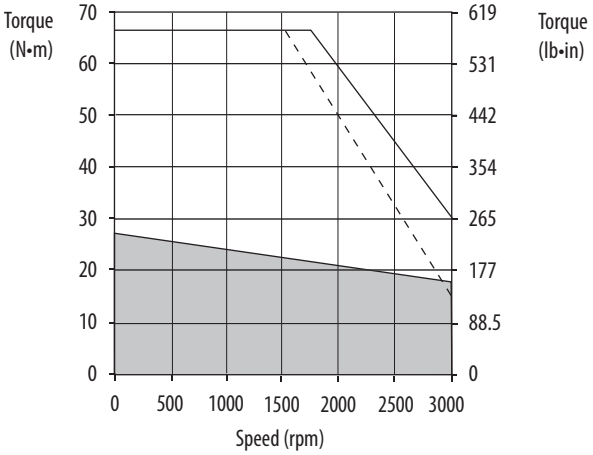
2198-H070-ERS*x* and MPL-B540K



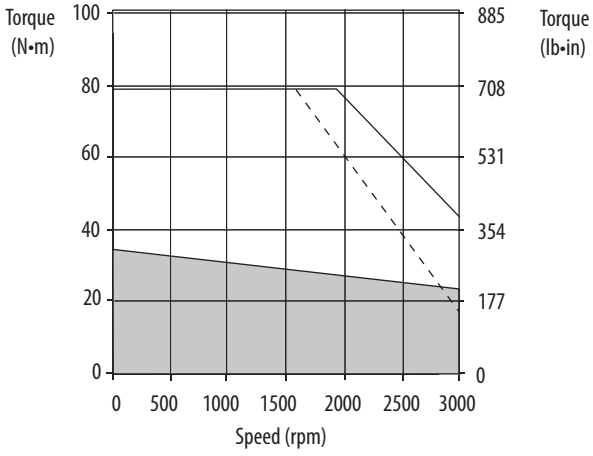
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPL Servo Motor Curves (continued)

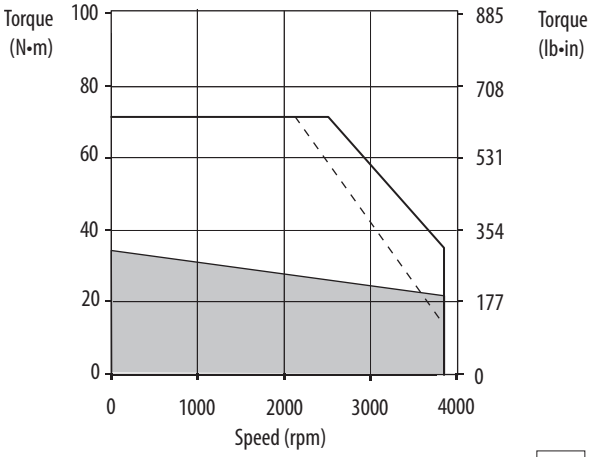
2198-H070-ERS*x* and MPL-B560F



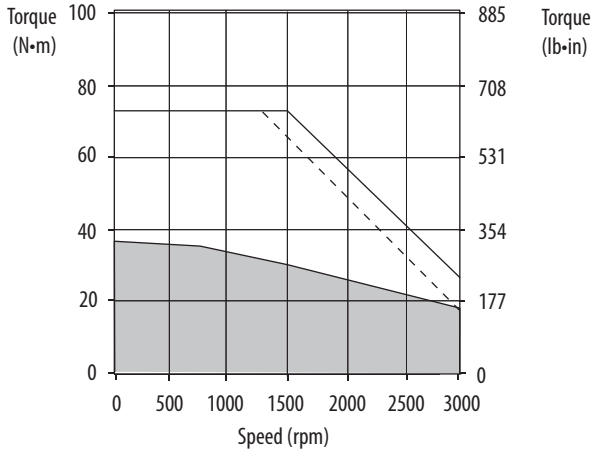
2198-H070-ERS*x* and MPL-B580F



2198-H070-ERS*x* and MPL-B580J



2198-H070-ERS*x* and MPL-B640F



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

Kinetix 5500 (200V-class operation) Drives with Kinetix MPM Medium-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 240V, nominal input) when matched with Kinetix MPM (200V-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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* 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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPM-A1302F	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPM-A1304F	2090-CP*x*M7DF-12AA*xx* (standard, non-flex)	
MPM-A1651F	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

(2) Applies to Kinetix 5500 drives and MPM-A1*xxxx*-M/S motors with absolute high-resolution feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

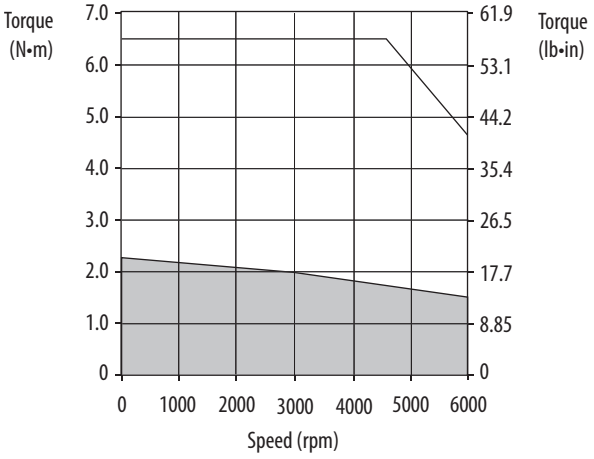
Kinetix MPM Motor Performance Specifications with Kinetix 5500 (200V-class) Drives

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 5500 Drives (240V AC input)
MPM-A1151M	4500	5000	6000	7.65	2.3 (20.3)	28.3	6.2 (54.9)	0.90	2198-H025-ERS*x*
						30.5	6.6 (58.4)		2198-H040-ERS*x*
MPM-A1152F	3000	4000	5000	11.30	4.4 (38.9)	28.3	9.4 (83.2)	1.40	2198-H025-ERS*x*
				11.93	4.7 (41.6)	44.8	13.5 (119)		2198-H040-ERS*x*
MPM-A1153F	3000	4000	5000	16.18	6.5 (57.5)	45.9	15.3 (135)	1.45	2198-H040-ERS*x*
						64.5	19.8 (175)		2198-H070-ERS*x*
MPM-A1302F	3000	4000	4500	17.28	6.6 (58.4)	45.9	12.7 (112)	1.65	2198-H040-ERS*x*
						50.2	13.5 (119)		2198-H070-ERS*x*
MPM-A1304F	3000	3500	4000	19.65	9.3 (82.0)	45.9	18.6 (165)	2.20	2198-H040-ERS*x*
						48.3	19.3 (171)		2198-H070-ERS*x*
MPM-A1651F	3000	3000	5000	30.96	10.7 (94.7)	73.8	20.5 (181)	2.50	2198-H070-ERS*x*

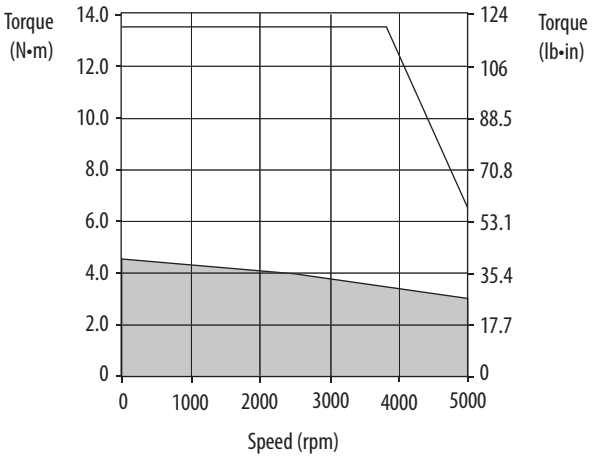
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix MPM Servo Motor Curves

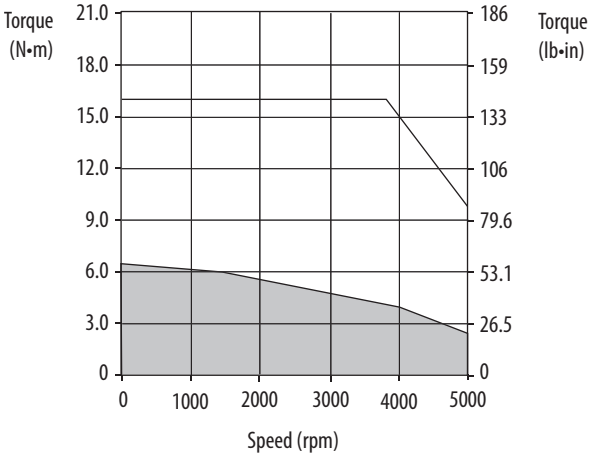
2198-H040-ERS*x* and MPM-A1151M



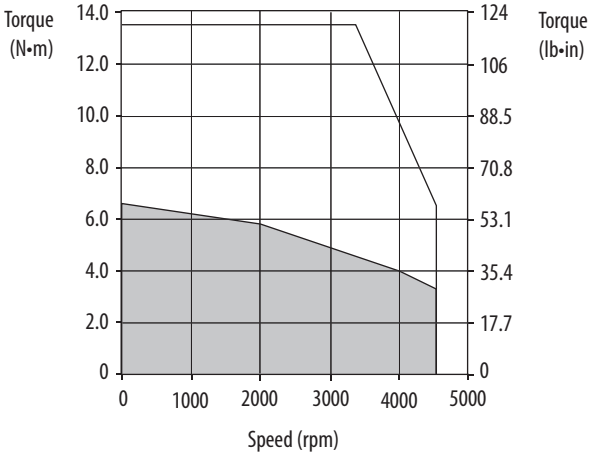
2198-H040-ERS*x* and MPM-A1152F



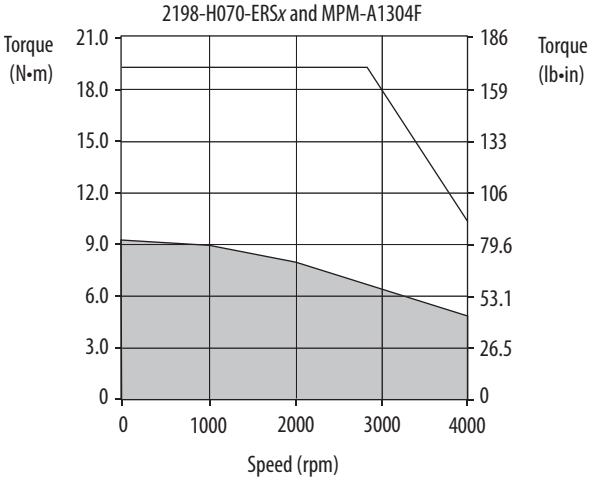
2198-H070-ERS*x* and MPM-A1153F



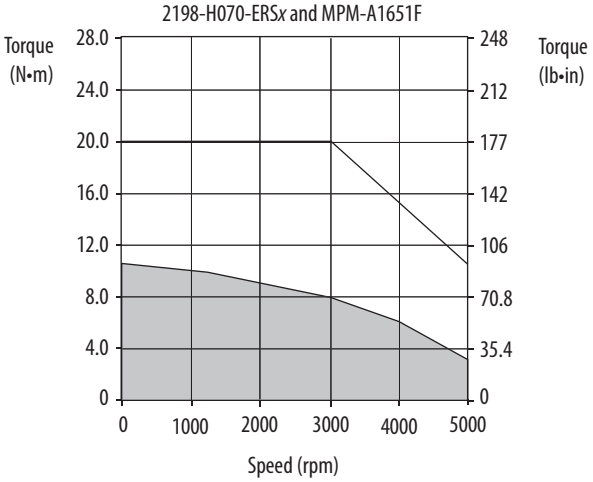
2198-H070-ERS*x* and MPM-A1302F



2198-H070-ERS*x* and MPM-A1304F



2198-H070-ERS*x* and MPM-A1651F



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives with Kinetix MPM Medium-inertia Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix MPM (400V-class) 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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPM-B1302F, MPM-B1302M, MPM-B1304C, MPM-B1304E		
MPM-B1651C, MPM-B1652C		
MPM-B1153T	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPM-B1302T, MPM-B1304M		
MPM-B1651F, MPM-B1653C		
MPM-B1651M, MPM-B1652E, MPM-B1652F, MPM-B1653E	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPM-B2152C, MPM-B2153B		

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

(2) Applies to Kinetix 5500 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 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.

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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

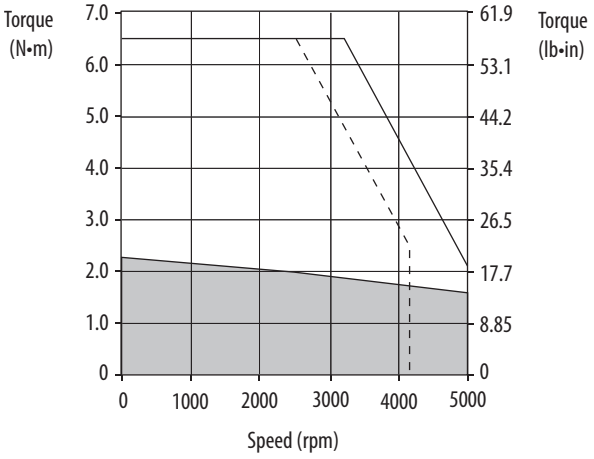
Kinetix MPM Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 5500 Drives (480V AC input)
MPM-B1151F	3000	4000	5000	2.71	2.3 (20.3)	8.8	6.0 (53.1)	0.75	2198-H008-ERS*x*
						9.9	6.6 (58.0)		2198-H015-ERS*x*
MPM-B1151T	6000	5000	7000	5.62	2.3 (20.3)	17.7	5.3 (46.9)	0.90	2198-H015-ERS*x*
						20.5	5.9 (52.2)		2198-H025-ERS*x*
MPM-B1152C	1500	2500	3000	3.61	5.0 (44.2)	12.4	13.5 (119)	1.20	2198-H015-ERS*x*
MPM-B1152F	3000	4000	5200	6.17	5.0 (44.2)	17.7	11.7 (103)	1.40	2198-H015-ERS*x*
						21.1	13.5 (119)		2198-H025-ERS*x*
MPM-B1152T	6000	4000	7000	11.02	5.0 (44.2)	28.3	10.7 (94.7)	1.40	2198-H025-ERS*x*
						37.9	13.5 (119)		2198-H040-ERS*x*
MPM-B1153E	2250	3000	3500	6.21	6.5 (57.5)	17.7	16.9 (149)	1.40	2198-H015-ERS*x*
						21.6	19.8 (175)		2198-H025-ERS*x*
MPM-B1153F	3000	4000	5500	9.20	6.5 (57.5)	28.3	17.9 (158)	1.40	2198-H025-ERS*x*
						32.0	19.8 (175)		2198-H040-ERS*x*
MPM-B1153T	6000	4000	7000	15.95	6.5 (57.5)	45.9	14.8 (131)	1.45	2198-H040-ERS*x*
						55.5	16.5(146)		2198-H070-ERS*x*
MPM-B1302F	3000	4000	4500	8.57	6.6 (58.4)	22.1	13.5 (119)	1.65	2198-H025-ERS*x*
MPM-B1302M	4500	4000	6000	12.57	6.6 (58.4)	32.4	13.5 (119)	1.65	2198-H040-ERS*x*
MPM-B1302T	6000	4000	7000	16.83	6.7 (59.3)	43.4	13.5 (119)	1.65	2198-H040-ERS*x*
MPM-B1304C	1500	1870	2750	7.00	10.3 (91.1)	17.7	22.8 (202)	2.00	2198-H015-ERS*x*
						21.5	27.1 (240)		2198-H025-ERS*x*
MPM-B1304E	2250	3500	4000	10.75	10.2 (90.3)	28.3	23.4 (207)	2.20	2198-H025-ERS*x*
						34.2	27.1 (240)		2198-H040-ERS*x*
MPM-B1304M	4500	3500	6000	19.02	10.4 (92.0)	60.6	27.1 (240)	2.20	2198-H070-ERS*x*
MPM-B1651C	1500	3000	3500	10.21	11.4 (101)	28.3	22.7 (201)	2.50	2198-H025-ERS*x*
						29.2	23.2 (205)		2198-H040-ERS*x*
MPM-B1651F	3000	3000	5000	17.75	11.4 (101)	45.9	21.9 (194)	2.50	2198-H040-ERS*x*
						50.9	23.2 (205)		2198-H070-ERS*x*
MPM-B1651M	4500	3000	5000	22.46	11.4 (101)	56.8	23.2 (205)	2.50	2198-H070-ERS*x*
MPM-B1652C	1500	2500	2500	11.51	16.0 (142)	33.6	40.0 (354)	3.80	2198-H040-ERS*x*
MPM-B1652E	2250	3500	3500	20.94	21.1 (187)	60.5	48.0 (425)	4.30	2198-H070-ERS*x*
MPM-B1652F	3000	3500	4500	28.74	21.1 (187)	84.1	48.0 (425)	4.30	2198-H070-ERS*x*
MPM-B1653C	1500	2000	2500	20.05	26.7 (236)	59.2	67.8 (600)	4.60	2198-H070-ERS*x*
MPM-B1653E	2250	3000	3500	27.00	26.8 (237)	72.9	62.0 (549)	5.10	2198-H070-ERS*x*
MPM-B2152C	1500	2000	2500	27.40	36.7 (325)	55.4	72.3 (640)	5.60	2198-H070-ERS*x*
MPM-B2153B	1250	1750	2000	24.06	48.0 (425)	60.0	101.1 (895)	6.80	2198-H070-ERS*x*

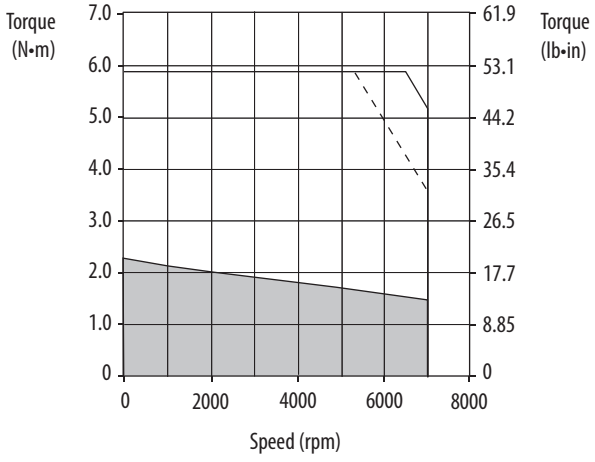
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix MPM Servo Motor Curves

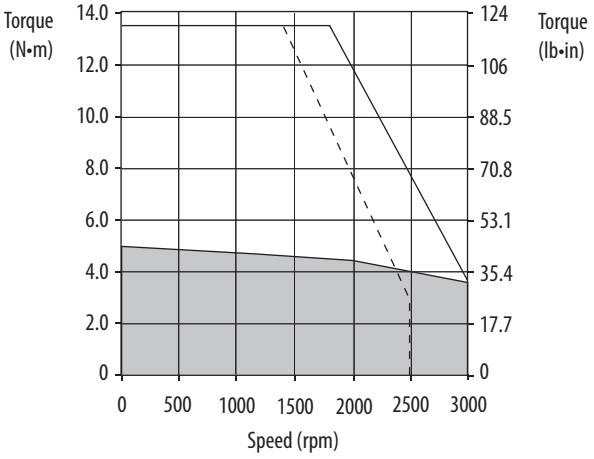
2198-H015-ERS*x* and MPM-B1151F



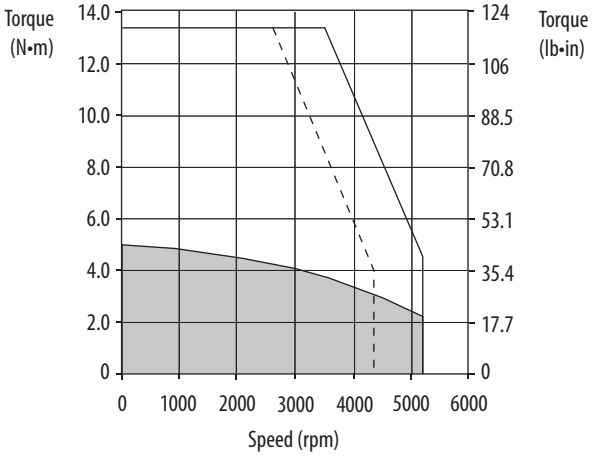
2198-H025-ERS*x* and MPM-B1151T



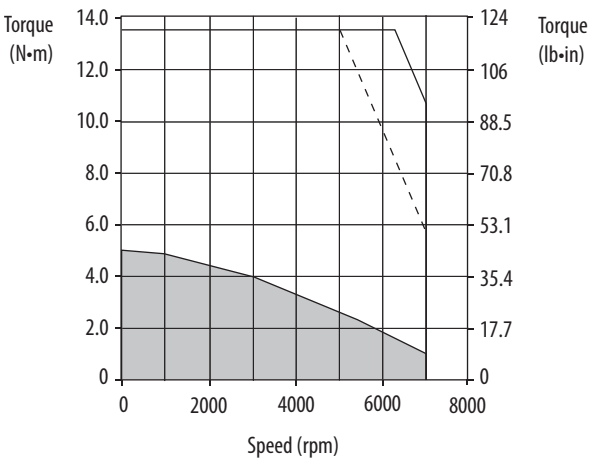
2198-H015-ERS*x* and MPM-B1152C



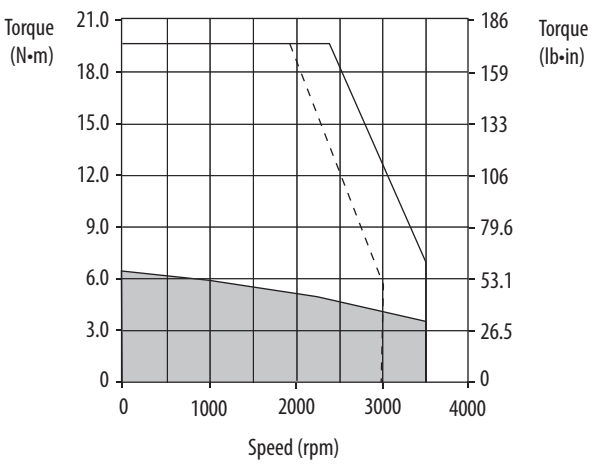
2198-H025-ERS*x* and MPM-B1152F



2198-H040-ERS*x* and MPM-B1152T



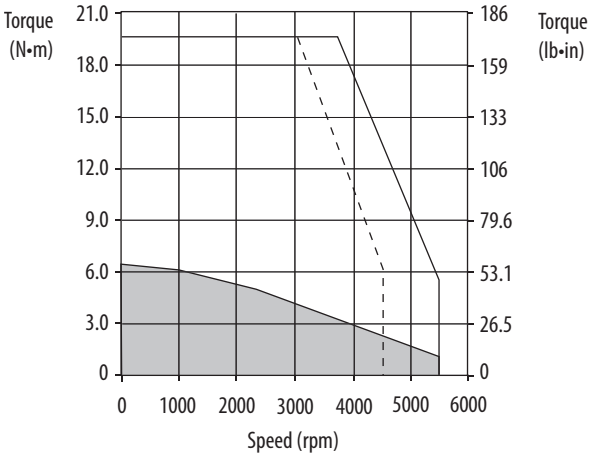
2198-H025-ERS*x* and MPM-B1153E



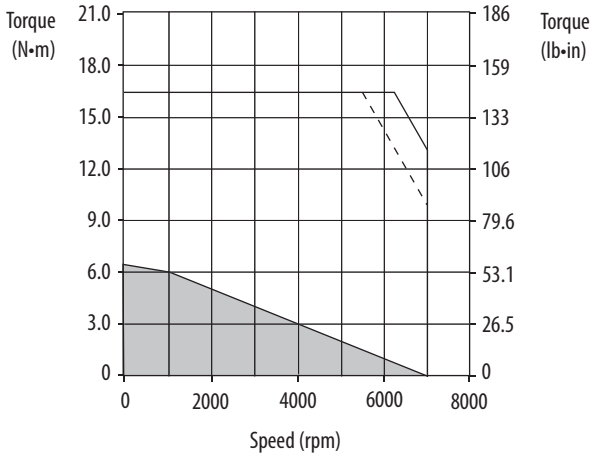
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPM Servo Motor Curves (continued)

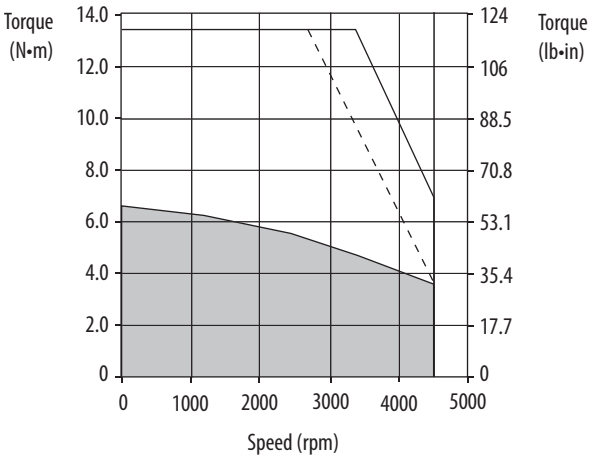
2198-H040-ERS*x* and MPM-B1153F



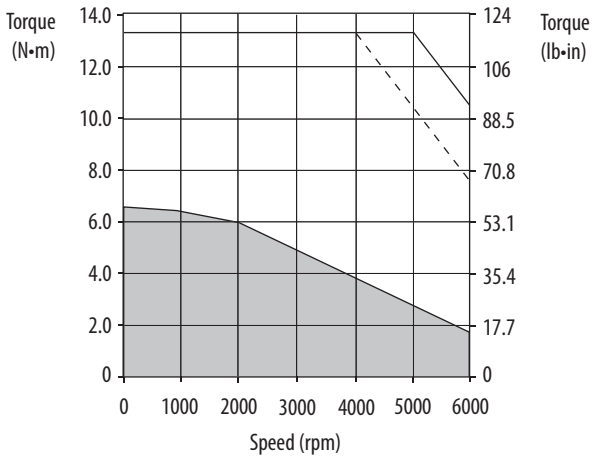
2198-H070-ERS*x* and MPM-B1153T



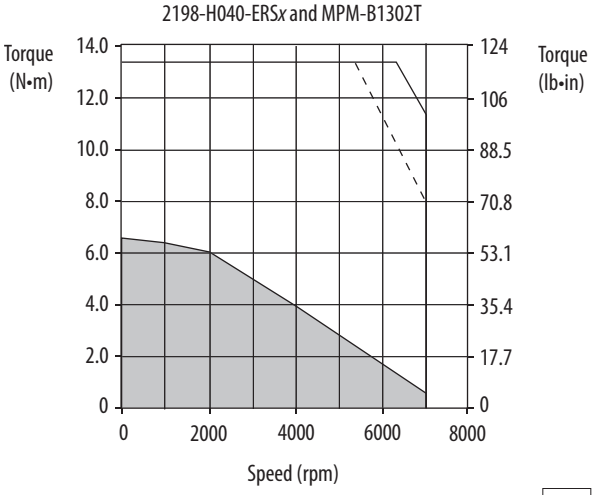
2198-H025-ERS*x* and MPM-B1302F



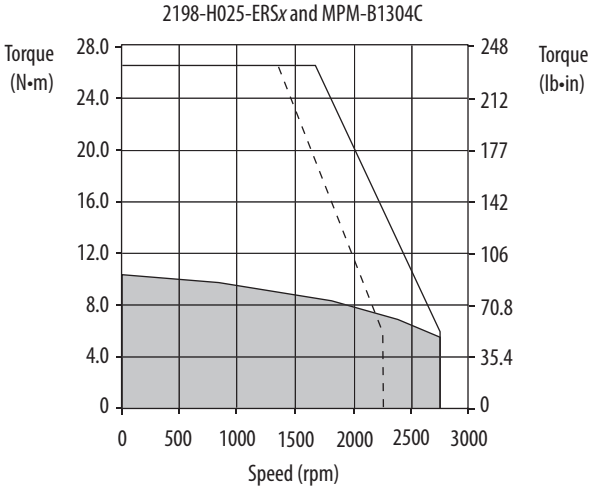
2198-H040-ERS*x* and MPM-B1302M



2198-H040-ERS*x* and MPM-B1302T



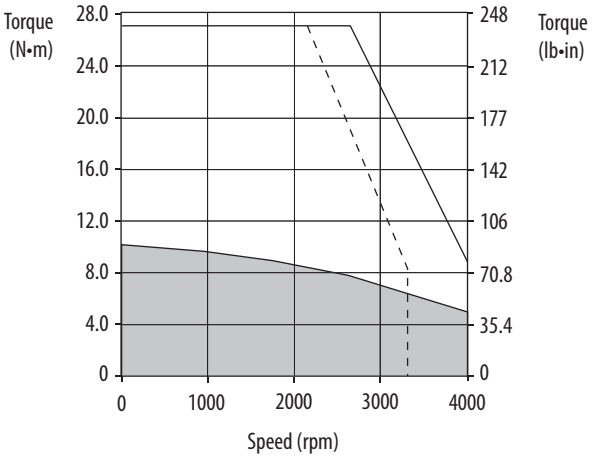
2198-H025-ERS*x* and MPM-B1304C



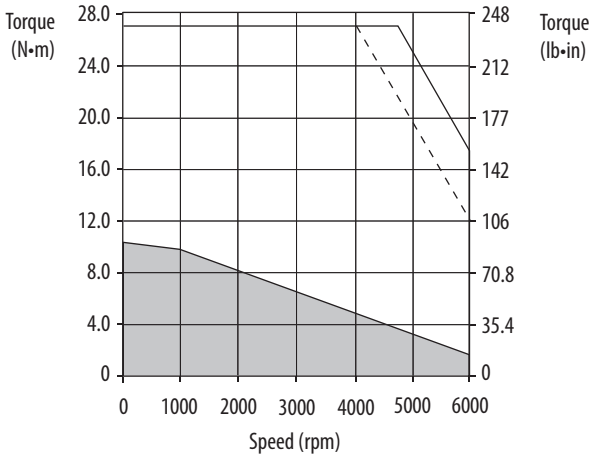
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPM Servo Motor Curves (continued)

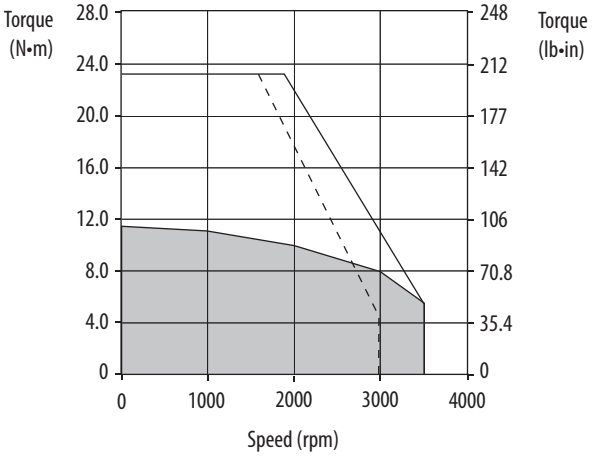
2198-H040-ERS*x* and MPM-B1304E



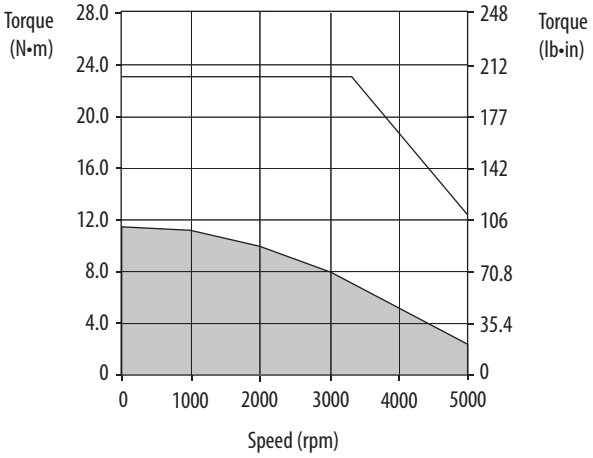
2198-H070-ERS*x* and MPM-B1304M



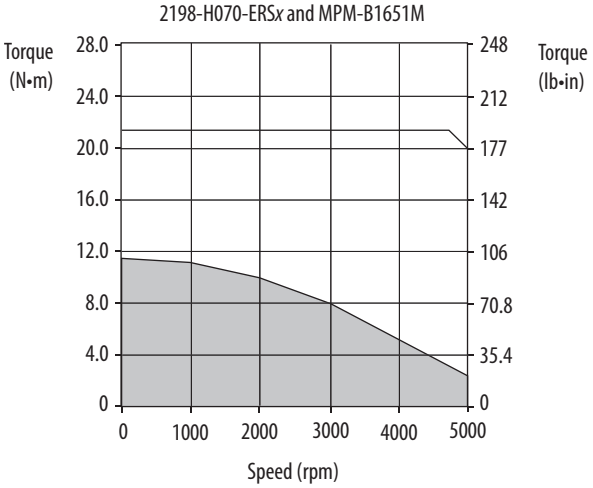
2198-H040-ERS*x* and MPM-B1651C



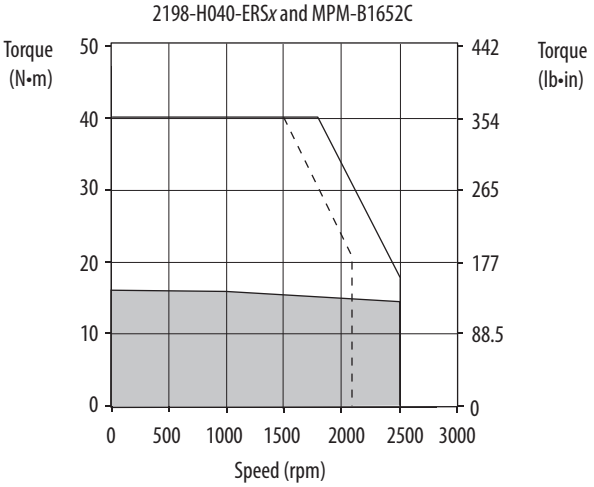
2198-H070-ERS*x* and MPM-B1651F



2198-H070-ERS*x* and MPM-B1651M



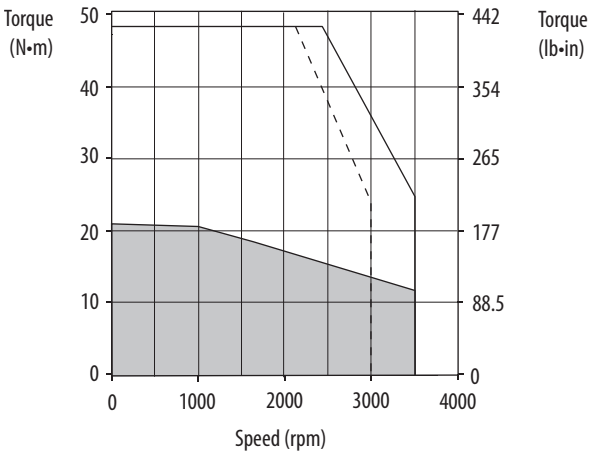
2198-H040-ERS*x* and MPM-B1652C



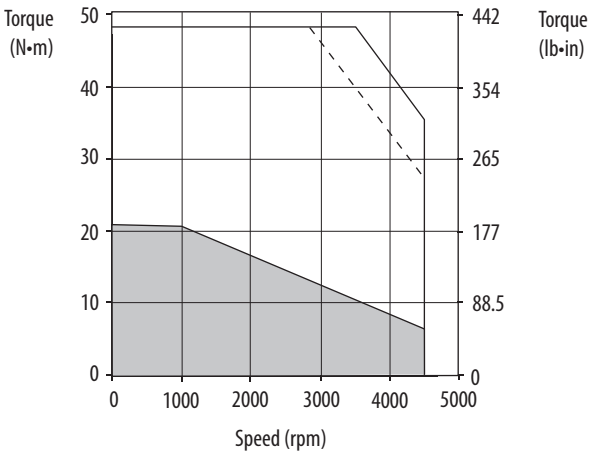
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5500 (400V-class operation) Drives/Kinetix MPM Servo Motor Curves (continued)

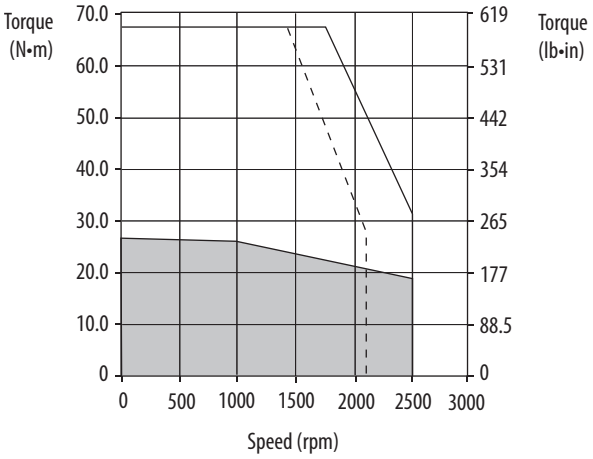
2198-H070-ERS*x* and MPM-B1652E



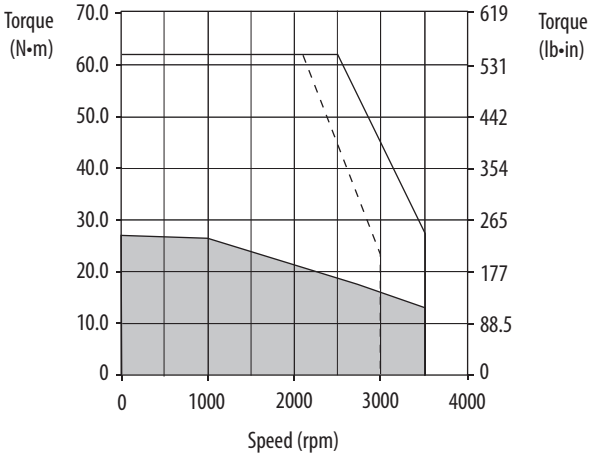
2198-H070-ERS*x* and MPM-B1652F



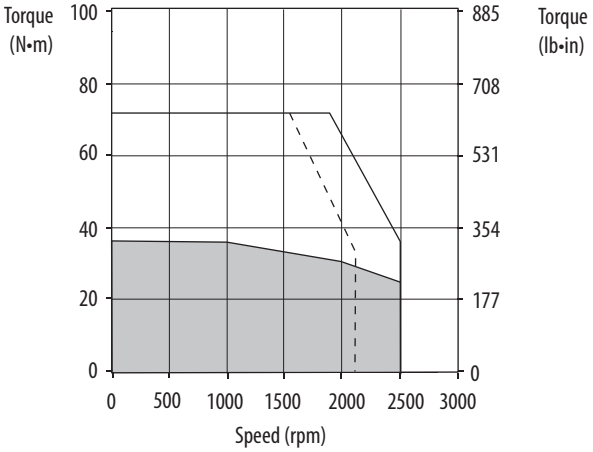
2198-H070-ERS*x* and MPM-B1653C



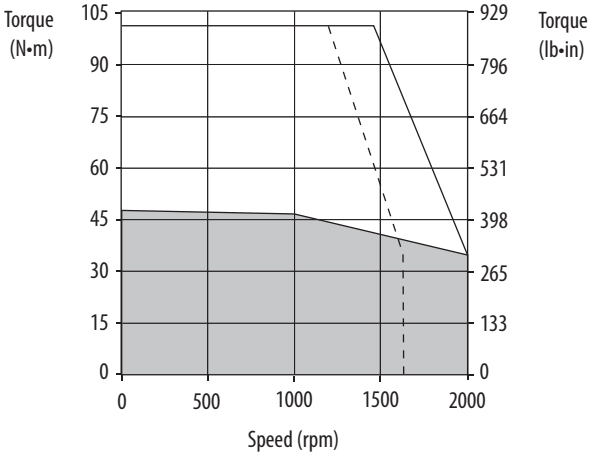
2198-H070-ERS*x* and MPM-B1653E



2198-H070-ERS*x* and MPM-B2152C



2198-H070-ERS*x* and MPM-B2153B



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

Kinetix 5500 (200V-class operation) Drives with Kinetix MPF Food-grade Motors

This section provides system combination information for the Kinetix 5500 drives (with 240V, 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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

Kinetix MPF Motor 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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPF-A430H		
MPF-A430P MPF-A4540F, MPF-A4530K	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

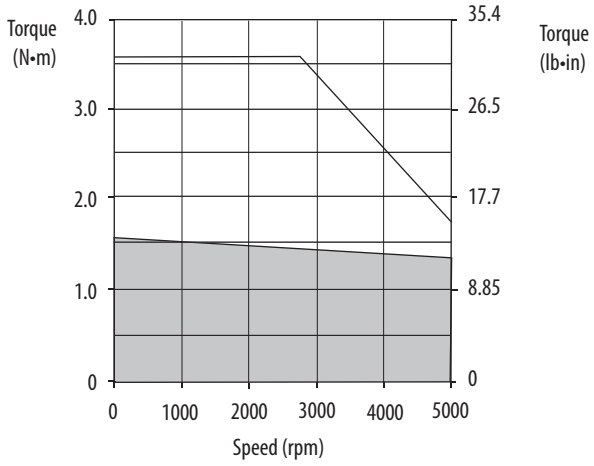
Kinetix MPF Motor Performance Specifications with Kinetix 5500 (200V-class) Drives

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 5500 Drives (240V AC input)
MPF-A310P	4750	5000	4.50	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-H015-ERS*x*
MPF-A320H	3350	3500	6.10	3.05 (27.0)	17.7	7.33 (64.9)	1.0	2198-H015-ERS*x*
					19.3	7.91 (70.0)		2198-H025-ERS*x*
MPF-A320P	4750	5000	9.00	3.05 (27.0)	28.3	7.59 (67.2)	1.3	2198-H025-ERS*x*
					29.5	7.91 (70.0)		2198-H040-ERS*x*
MPF-A330P	5000	5000	12.0	3.85 (34.0)	38.0	10.32 (91.2)	1.6	2198-H040-ERS*x*
MPF-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.82 (175)	1.8	2198-H040-ERS*x*
MPF-A430P	5000	5000	16.80	5.94 (52.5)	45.9	14.4 (127)	1.9	2198-H040-ERS*x*
					67.0	19.80 (175)		2198-H070-ERS*x*
MPF-A4530K	4000	4000	19.50	8.08 (71.4)	62.0	20.30 (179)	2.3	2198-H070-ERS*x*
MPF-A4540F	3000	3000	18.40	10.15 (89.7)	45.9	22.09 (195)	2.5	2198-H040-ERS*x*
					58.0	27.10 (239)		2198-H070-ERS*x*

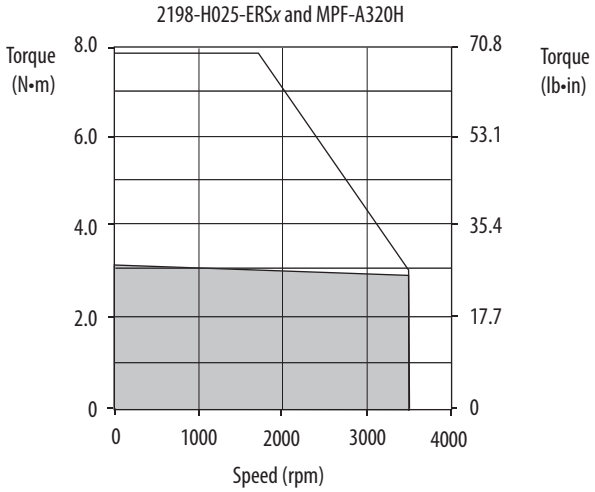
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix MPF Servo Motor Curves

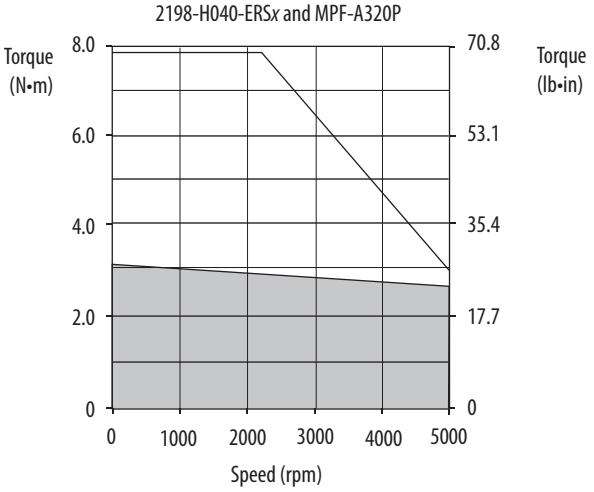
2198-H015-ERS*x* and MPF-A310P



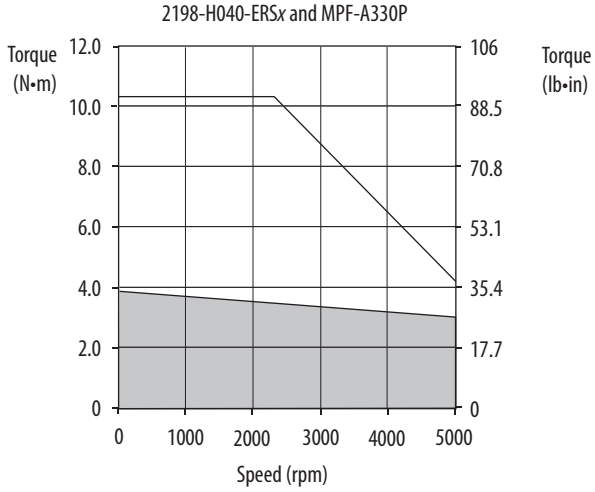
2198-H025-ERS*x* and MPF-A320H



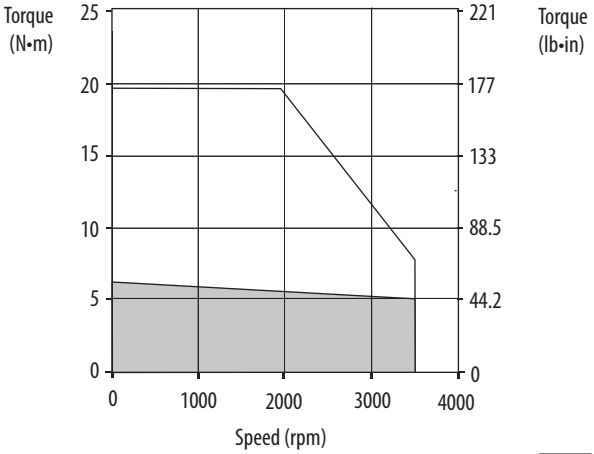
2198-H040-ERS*x* and MPF-A320P



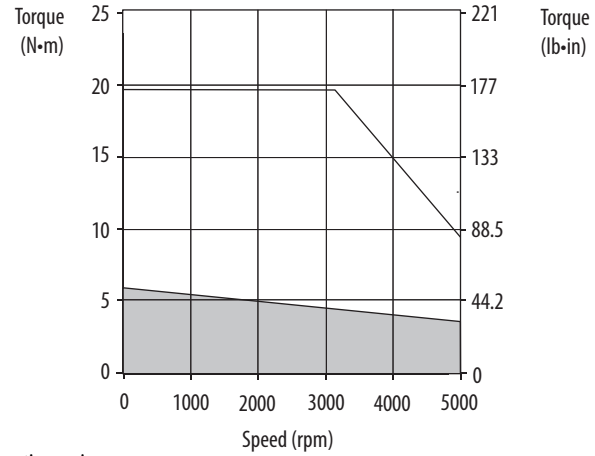
2198-H040-ERS*x* and MPF-A330P



2198-H040-ERS*x* and MPF-A430H



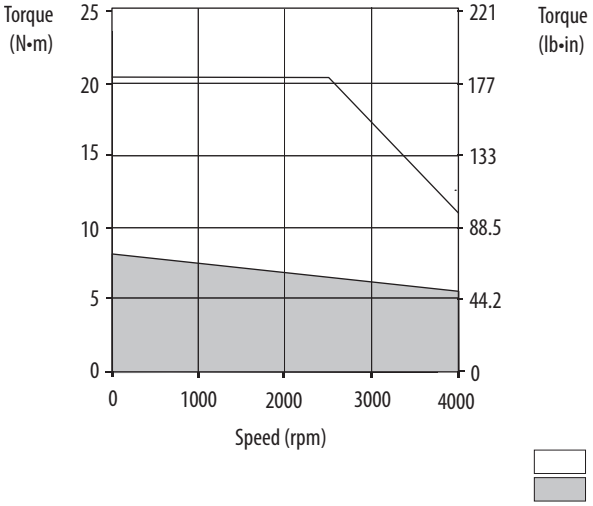
2198-H070-ERS*x* and MPF-A430P



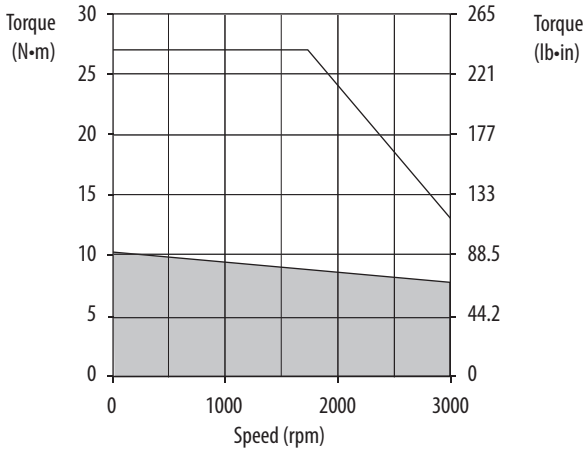
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/Kinetix MPF Servo Motor Curves (continued)

2198-H070-ERS*x* and MPF-A4530K



2198-H070-ERS*x* and MPF-A4540F



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives with Kinetix MPF Food-grade Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix MPF (400V-class) servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPF-B430P		
MPF-B4530K, MPF-B4540F		
MPF-B540K	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

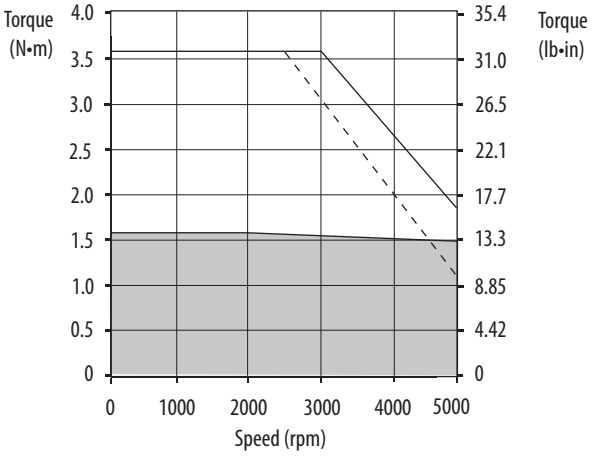
Kinetix MPF Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 5500 Drives (480V AC operation)
MPF-B310P	5000	5000	2.30	1.60 (14)	7.10	3.6 (32)	0.77	2198-H008-ERS*x*
MPF-B320P	5000	5000	4.24	3.10 (27)	14.0	7.8 (69)	1.5	2198-H015-ERS*x*
MPF-B330P	5000	5000	5.70	4.18 (37)	17.7	10.4 (92.0)	1.6	2198-H015-ERS*x*
					19.0	11.1 (98)		2198-H025-ERS*x*
MPF-B430P	5000	5000	9.20	6.55 (58)	28.3	17.6 (156)	2.0	2198-H025-ERS*x*
					32.0	19.8 (175)		2198-H040-ERS*x*
MPF-B4530K	4000	4000	9.90	8.25 (73)	28.3	18.7 (165)	2.4	2198-H025-ERS*x*
					31.0	20.3 (179)		2198-H040-ERS*x*
MPF-B4540F	3000	3000	9.10	10.20 (90)	28.3	26.2 (232)	2.5	2198-H025-ERS*x*
					29.0	27.1 (240)		2198-H040-ERS*x*
MPF-B540K	4000	4000	20.5	19.4 (171)	60.0	48.6 (430)	4.1	2198-H070-ERS*x*

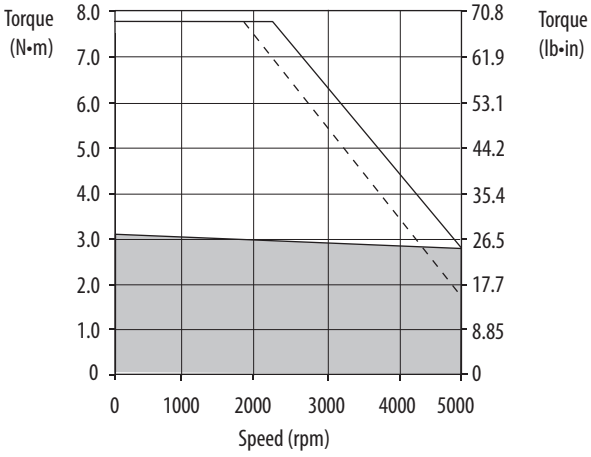
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix MPF Servo Motor Curves

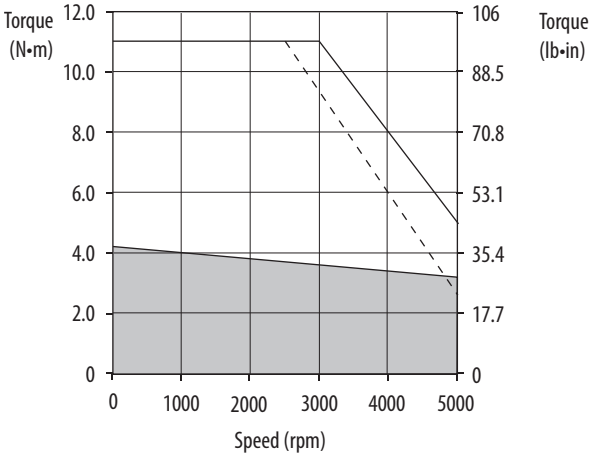
2198-H008-ERS*x* and MPF-B310P



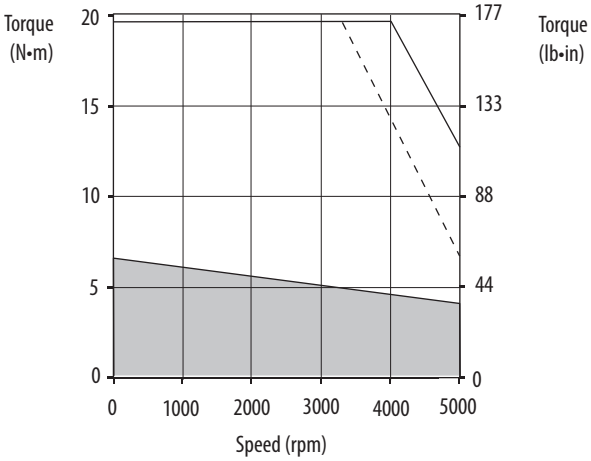
2198-H015-ERS*x* and MPF-B320P



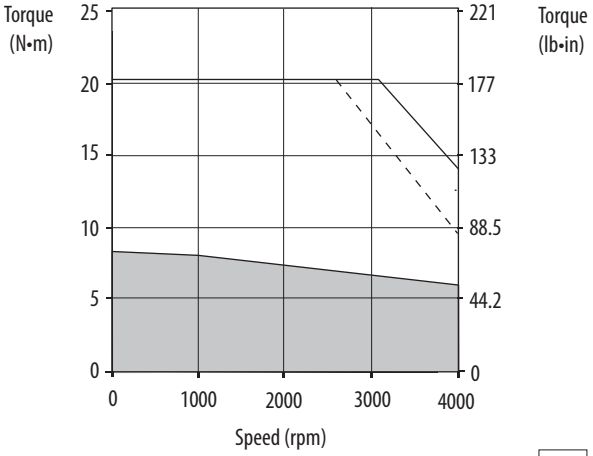
2198-H025-ERS*x* and MPF-B330P



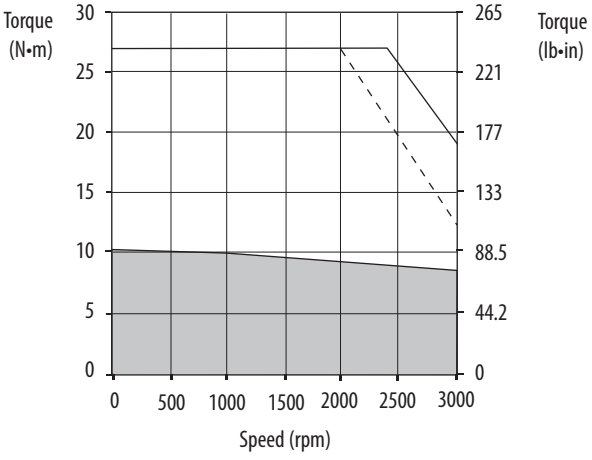
2198-H040-ERS*x* and MPF-B430P



2198-H040-ERS*x* and MPF-B4530K

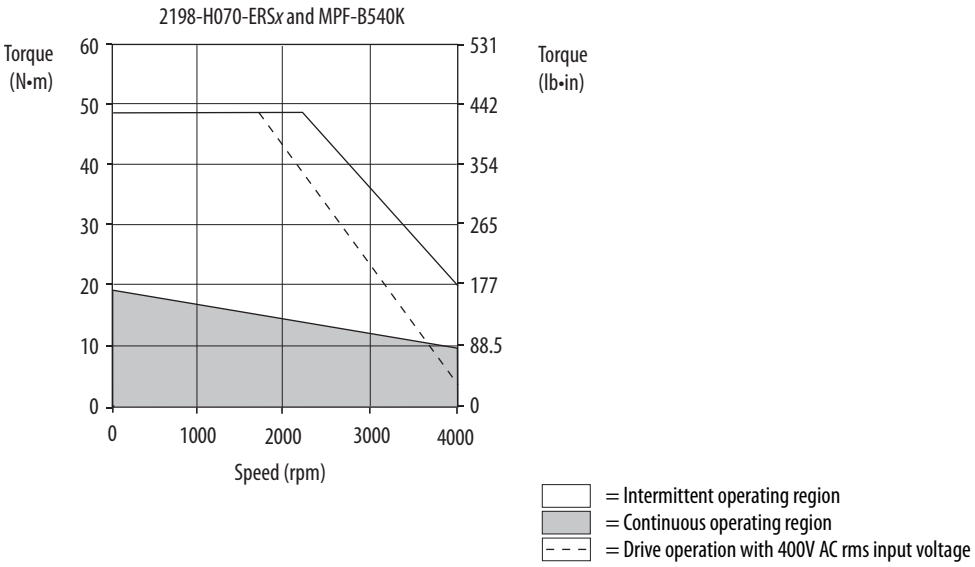


2198-H040-ERS*x* and MPF-B4540F



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

Kinetix 5500 (400V-class operation) Drives/Kinetix MPF Servo Motor Curves (continued)



Kinetix 5500 (200V-class operation) Drives with Kinetix MPS Stainless-steel Motors

This section provides system combination information for the Kinetix 5500 drives (with 240V, 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.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. These system performance tables and torque/speed curves reflect single-phase and three-phase drive operation with 200V-class motors; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* 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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPS-A4540F		

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

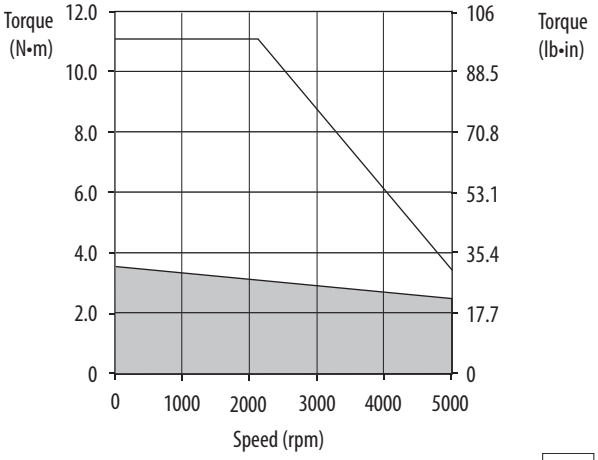
Kinetix MPS Motor Performance Specifications with Kinetix 5500 (200V-class operation) Drives

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 5500 Drives (240V AC operation)
MPS-A330P	5000	5000	9.80	3.60 (32.0)	28.3	8.79 (77.8)	1.3	2198-H025-ERS*x*
					38.0	11.10 (98.2)		2198-H040-ERS*x*
MPS-A4540F	3000	3000	14.4	8.1 (72)	45.9	22.84 (202)	1.4	2198-H040-ERS*x*
					56.0	27.1 (240)		2198-H070-ERS*x*

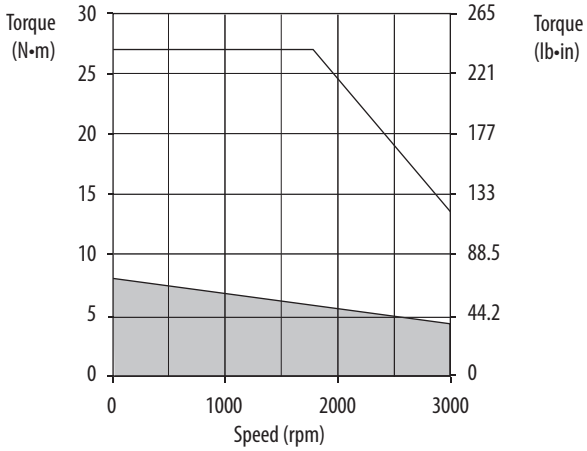
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix MPS Servo Motor Curves

2198-H040-ERS*x* and MPS-A330P



2198-H025-ERS*x* and MPS-A4540F



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (400V-class operation) Drives with Kinetix MPS Stainless-steel Motors

This section provides system combination information for the Kinetix 5500 drives (with 400 and 480V, nominal input) when matched with Kinetix MPS (400V-class) servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

IMPORTANT These motors require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix MPS Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
MPS-B330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPS-B4540F		
MPS-B560F	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

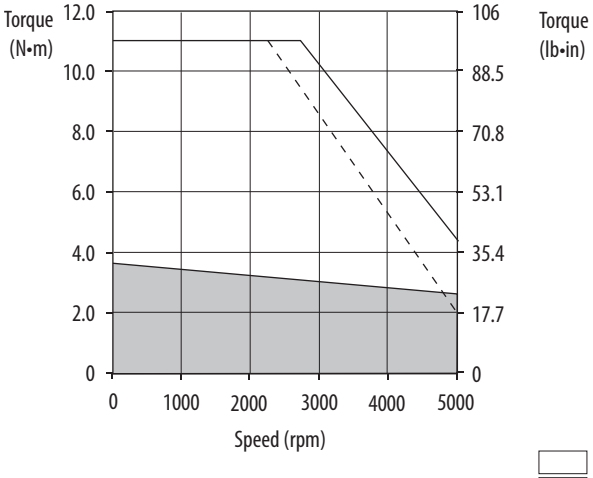
Kinetix MPS Motor Performance Specifications with Kinetix 5500 (400V-class operation) Drives

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 5500 Drives (480V AC input)
MPS-B330P	5000	5000	4.9	3.60 (32)	17.7	10.5 (92.9)	1.3	2198-H015-ERS*x*
					19.0	11.0 (97.2)		2198-H025-ERS*x*
MPS-B4540F	3000	3000	7.1	8.1 (72)	17.7	19.2 (170)	1.4	2198-H015-ERS*x*
					26.0	27.1 (240)		2198-H025-ERS*x*
MPS-B560F	3000	3000	17.0	21.5 (190)	45.9	49.7 (440)	3.5	2198-H040-ERS*x*
					68.0	67.8 (600)		2198-H070-ERS*x*

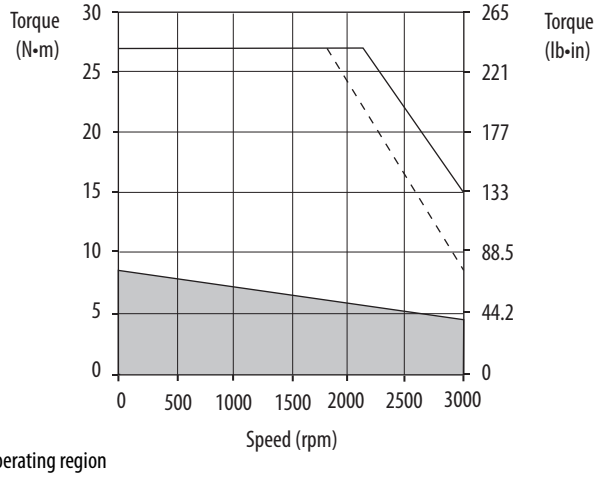
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix MPS Servo Motor Curves

2198-H025-ERS*x* and MPS-B330P

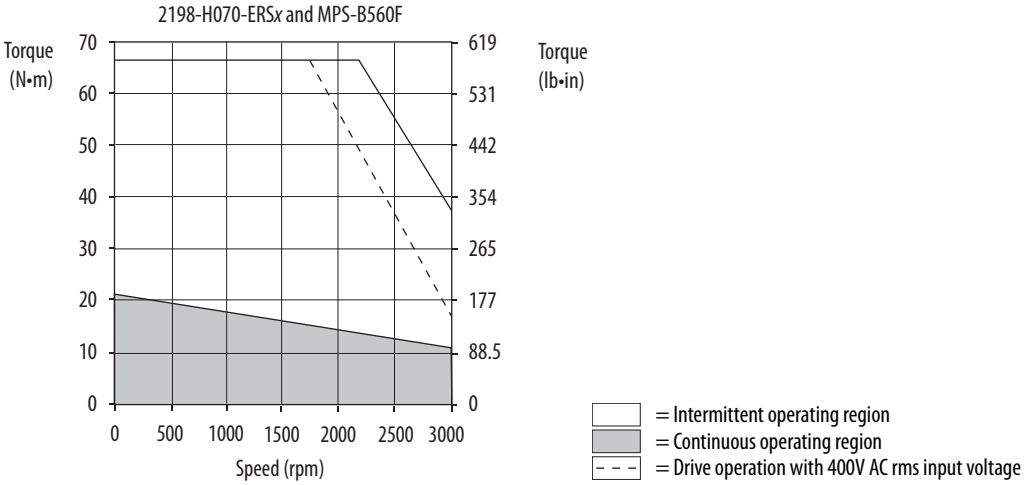


2198-H025-ERS*x* and MPS-B4540F



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

Kinetix 5500 (400V-class operation) Drives/Kinetix MPS Servo Motor Curves (continued)



Kinetix 5500 Servo Drives with LDAT-Series Integrated Linear Thrusters

This section provides system combination information for the Kinetix 5500 drives (with 240V and 480V, nominal input) when matched with LDAT-Series integrated linear thrusters. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

IMPORTANT The LDAT-Series linear thrusters require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. The 200V-class system performance tables and force/velocity curves reflect single-phase and three-phase drive operation with 240V AC input; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* drives are capable of single-phase operation.

LDAT-Series Cable Combinations

Linear Thruster Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDAT-S031*xxx*-x**D**x, LDAT-S032*xxx*-x**D**x, LDAT-S033*xxx*-x**D**x	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
LDAT-S051*xxx*-x**D**x, LDAT-S052*xxx*-x**D**x, LDAT-S053*xxx*-x**D**x, LDAT-S054*xxx*-x**D**x		
LDAT-S072*xxx*-x**D**x, LDAT-S073*xxx*-x**D**x, LDAT-S074*xxx*-x**D**x, LDAT-S076*xxx*-E**D**x		
LDAT-S102*xxx*-x**D**x, LDAT-S103*xxx*-x**D**x, LDAT-S104*xxx*-x**D**x, LDAT-S106*xxx*-E**D**x		
LDAT-S152*xxx*-x**D**x, LDAT-S153*xxx*-x**D**x, LDAT-S154*xxx*-x**D**x, LDAT-S156*xxx*-E**D**x		
LDAT-S076*xxx*-**DD**x	2090-CPWM7DF-14AA*xx* (standard, non-flex) 2090-CPWM7DF-14AF*xx* (continuous-flex)	
LDAT-S106*xxx*-**DD**x		
LDAT-S156*xxx*-**DD**x		

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

(2) Applies to Kinetix 5500 drives and LDAT-S*xxxxxx*-x**D**x linear thrusters with absolute high-resolution feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

LDAT-Series Performance Specifications with Kinetix 5500 (200V-class operation) Drives

Performance Specifications with Frame 30 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 230V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 230V AC kW	Kinetix 5500 Drives (240V AC input)
LDAT-S031010-DD*x*	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2198-H015-ERS*x*
LDAT-S031020-DD*x*	3.1					0.25	
LDAT-S031030-DD*x*	3.5					0.29	
LDAT-S031040-DD*x*	3.8					0.31	
LDAT-S032010-DD*x*	3.1	7.4	126 (28)	24.3	336 (76)	0.44	2198-H025-ERS*x*
LDAT-S032020-DD*x*	4.1					0.52	
LDAT-S032030-DD*x*	4.7					0.59	
LDAT-S032040-DD*x*	5.0					0.63	
LDAT-S032010-ED*x*	3.1	3.7		12.2		0.40	2198-H015-ERS*x*
LDAT-S032020-ED*x*	4.1					0.47	
LDAT-S032030-ED*x*	4.7					0.52	
LDAT-S032040-ED*x*	5.0					0.55	
LDAT-S033010-DD*x*	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2198-H040-ERS*x*
LDAT-S033020-DD*x*	4.7					0.88	
LDAT-S033030-DD*x*	5.0					0.95	
LDAT-S033040-DD*x*							
LDAT-S033010-ED*x*	3.5	3.7		12.2		0.55	2198-H015-ERS*x*
LDAT-S033020-ED*x*	4.4					0.65	
LDAT-S033030-ED*x*							
LDAT-S033040-ED*x*							

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

Performance Specifications with Frame 50 Linear Thruster

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 5500 Drives (240V AC input)
LDAT-S051010-DD*x*	2.8	3.1	119 (27)	11.4	363 (82)	0.31	2198-H015-ERS*x*
LDAT-S051020-DD*x*	3.7					0.38	
LDAT-S051030-DD*x*	4.1					0.42	
LDAT-S051040-DD*x*	4.4					0.44	
LDAT-S051050-DD*x*	4.7					0.46	
LDAT-S052010-DD*x*	3.7	6.2	251 (56)	22.7	727 (163)	0.79	2198-H025-ERS*x*
LDAT-S052020-DD*x*	4.8					0.97	
LDAT-S052030-DD*x*	5.00					1.01	
LDAT-S052040-DD*x*							
LDAT-S052050-DD*x*							
LDAT-S052010-ED*x* … LDAT-S052050-ED*x*	2.6	3.1		11.4		0.50	2198-H015-ERS*x*

Performance Specifications with Frame 50 Linear Thruster (cont.)

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 5500 Drives (240V AC input)
LDAT-S053010-DD*x*	4.1	9.4	378 (85)	34.2	1093 (246)	1.31	2198-H040-ERS*x*
LDAT-S053020-DD*x*	5.0					1.53	
LDAT-S053030-DD*x* … LDAT-S053050-DD*x*	5.0					1.53	
LDAT-S053010-ED*x* … LDAT-S053050-ED*x*	1.7	3.1		11.4		0.47	2198-H015-ERS*x*
LDAT-S054010-DD*x*	4.4	12.4	509 (114)	45.5	1453 (327)	1.87	2198-H040-ERS*x*
LDAT-S054020-DD*x* … LDAT-S054050-DD*x*	5.0					2.05	
LDAT-S054010-ED*x* … LDAT-S054050-ED*x*	2.6	6.2		22.7		1.02	2198-H025-ERS*x*

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °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 5500 Drives (240V AC input)
LDAT-S072010-DD*x* … LDAT-S072070-DD*x*	3.5	6.0	364 (82)	22.0	1055 (237)	1.03	2198-H025-ERS*x*
LDAT-S072010-ED*x* … LDAT-S072070-ED*x*	1.7	3.0		11.0		0.47	2198-H015-ERS*x*
LDAT-S073010-DD*x* … LDAT-S073070-DD*x*	3.5	9.0	554 (125)	32.8	1576 (354)	1.57	2198-H040-ERS*x*
LDAT-S073010-ED*x* … LDAT-S073070-ED*x*	1.2	3.0		10.9		0.41	2198-H015-ERS*x*
LDAT-S074010-DD*x* … LDAT-S074070-DD*x*	3.5	11.9	730 (164)	43.5	2088 (469)	2.08	2198-H040-ERS*x*
LDAT-S074010-ED*x* … LDAT-S074070-ED*x*	1.8	6.0		21.7		0.95	2198-H025-ERS*x*
LDAT-S076010-DD*x* … LDAT-S076070-DD*x*	3.5	18.2	1122 (252)	66.4	3189 (717)	3.17	2198-H070-ERS*x*
LDAT-S076010-ED*x* … LDAT-S076070-ED*x*	1.8	9.1		33.2		1.45	2198-H040-ERS*x*

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °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 5500 Drives (240V AC input)
LDAT-S102010-DD*x* … LDAT-S102090-DD*x*	2.6	5.7	456 (103)	21.0	1289 (290)	0.96	2198-H025-ERS*x*
LDAT-S102010-ED*x* … LDAT-S102090-ED*x*	1.3	2.9		10.5		0.42	2198-H015-ERS*x*
LDAT-S103010-DD*x* … LDAT-S103090-DD*x*	2.7	8.6	702 (158)	31.5	1935 (435)	1.47	2198-H040-ERS*x*
LDAT-S103010-ED*x* … LDAT-S103090-ED*x*	0.9	2.9		10.5	1388 (312)	0.30	2198-H015-ERS*x*
LDAT-S104010-DD*x* … LDAT-S104090-DD*x*	2.7	11.5	929 (209)	42.0	2578 (580)	2.07	2198-H040-ERS*x*
LDAT-S104010-ED*x* … LDAT-S104090-ED*x*	1.3	5.7		21.0		0.86	2198-H025-ERS*x*
LDAT-S106010-DD*x* … LDAT-S106090-DD*x*	2.7	17.3	1403 (315)	63.0	3871 (870)	2.94	2198-H070-ERS*x*
LDAT-S106010-ED*x* … LDAT-S106090-ED*x*	1.3	8.6		31.5		1.28	2198-H040-ERS*x*

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

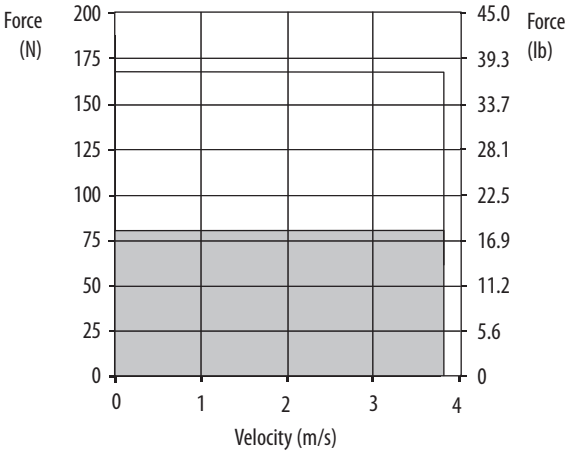
Performance Specifications with Frame 150 Linear Thrusters

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 5500 Drives (240V AC input)
LDAT-S152010-DD*x* … LDAT-S152090-DD*x*	1.8	5.3	643 (145)	19.5	1799 (404)	0.87	2198-H025-ERS*x*
LDAT-S152010-ED*x* … LDAT-S152090-ED*x*	0.9	2.7		9.8	1679 (377)	0.34	2198-H015-ERS*x*
LDAT-S153010-DD*x* … LDAT-S153090-DD*x*	1.8	8.0	978 (220)	29.1	2680 (602)	1.33	2198-H040-ERS*x*
LDAT-S154010-DD*x* … LDAT-S154090-DD*x*	1.8	10.7	1306 (294)	39.1	3597 (809)	1.78	2198-H040-ERS*x*
LDAT-S154010-ED*x* … LDAT-S154090-ED*x*	0.9	5.3		19.5	3383 (761)	0.70	2198-H025-ERS*x*
LDAT-S156010-DD*x* … LDAT-S156090-DD*x*	1.8	16.3	1997 (449)	59.4	5469 (1229)	2.71	2198-H070-ERS*x*
LDAT-S156010-ED*x* … LDAT-S156090-ED*x*	0.9	8.1		19.8	5110 (1149)	1.05	2198-H025-ERS*x*

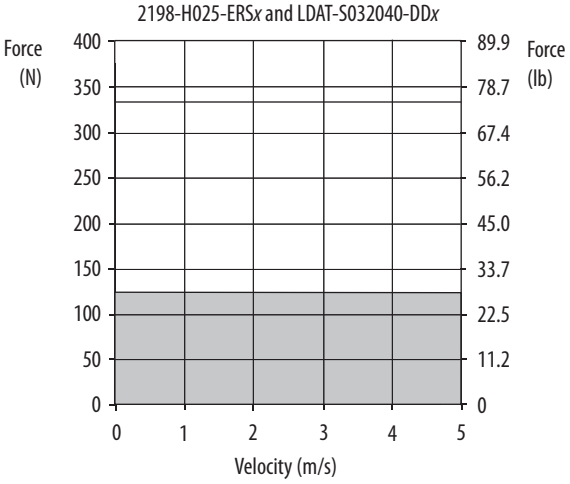
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves

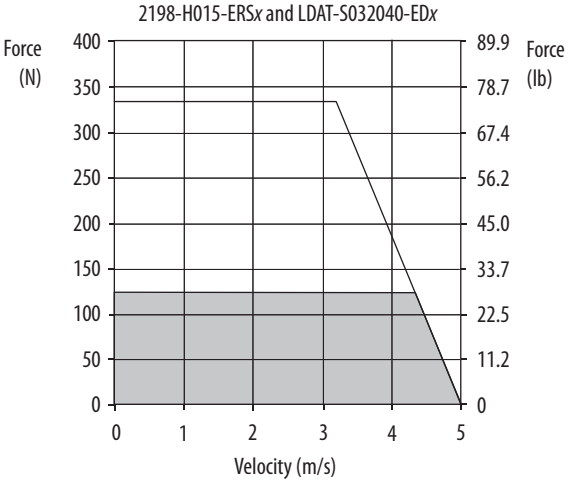
2198-H015-ERS*x* and LDAT-S031040-DD*x*



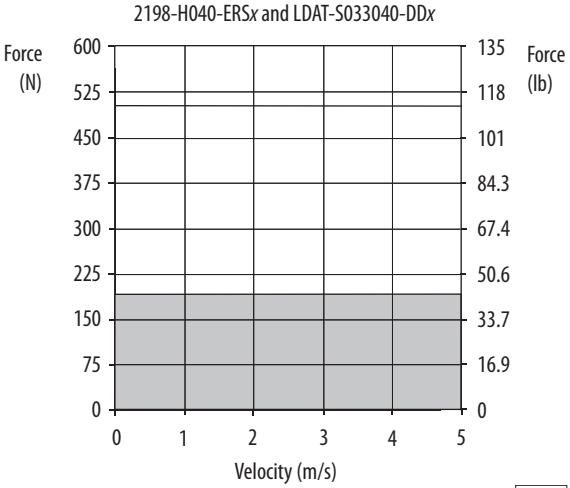
2198-H025-ERS*x* and LDAT-S032040-DD*x*



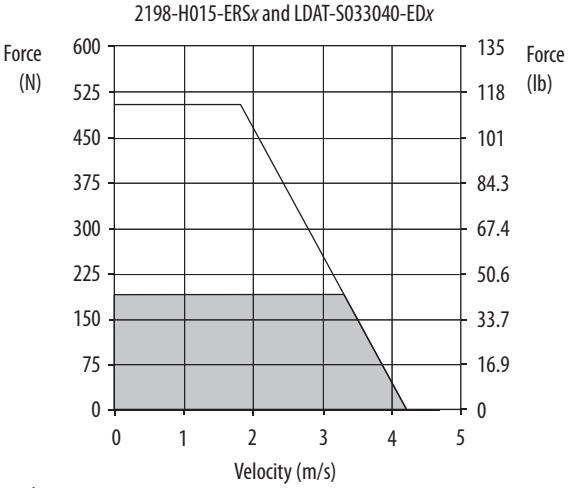
2198-H015-ERS*x* and LDAT-S032040-ED*x*



2198-H040-ERS*x* and LDAT-S033040-DD*x*



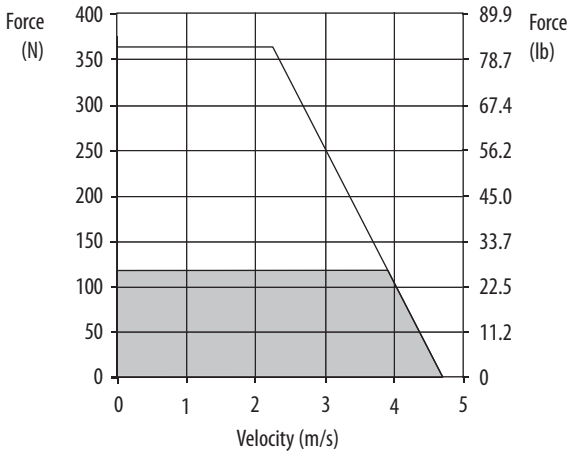
2198-H015-ERS*x* and LDAT-S033040-ED*x*



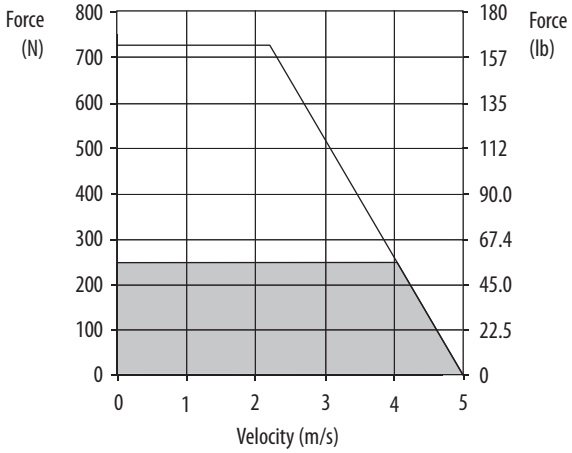
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

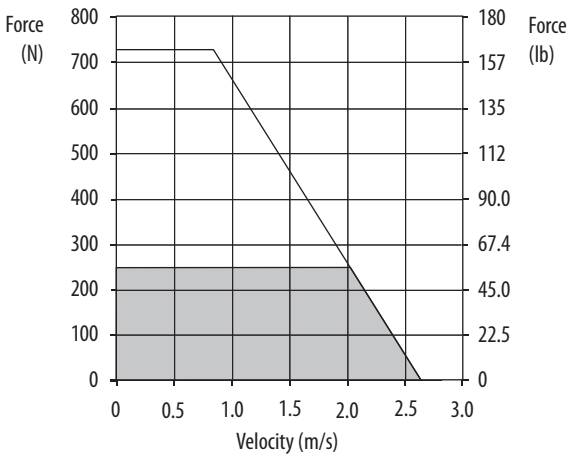
2198-H015-ERS*x* and LDAT-S051050-DD*x*



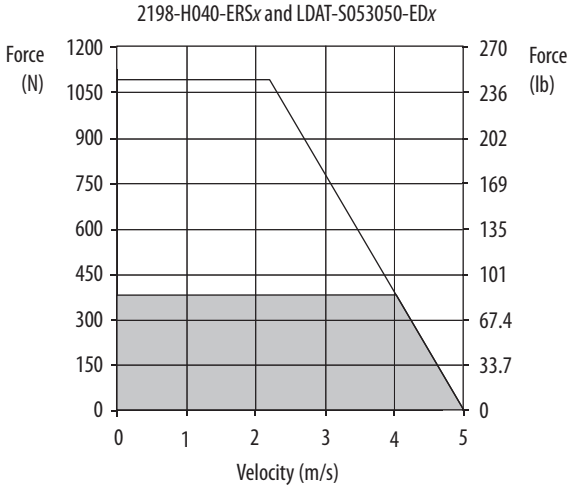
2198-H025-ERS*x* and LDAT-S052050-DD*x*



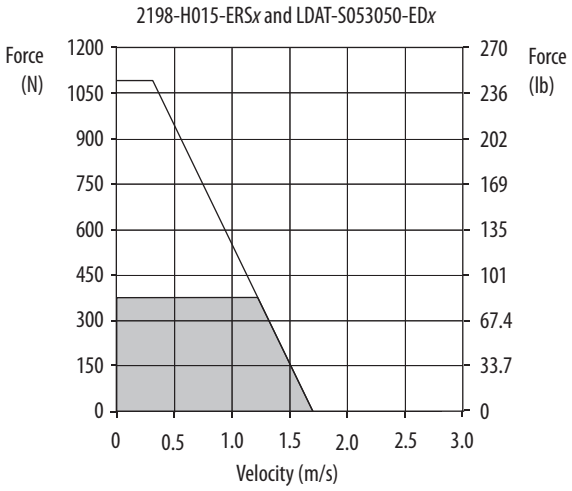
2198-H015-ERS*x* and LDAT-S052050-ED*x*



2198-H040-ERS*x* and LDAT-S053050-ED*x*



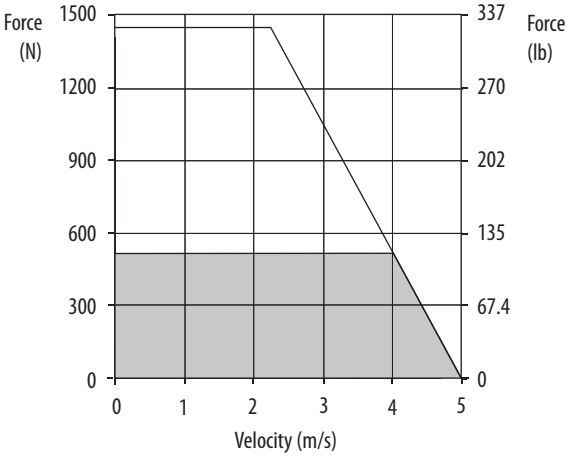
2198-H015-ERS*x* and LDAT-S053050-ED*x*



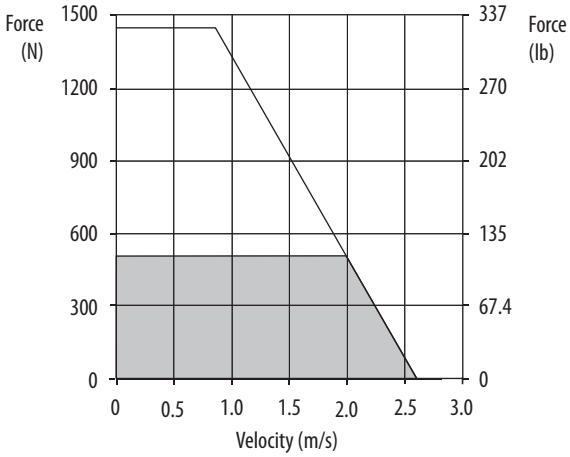
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

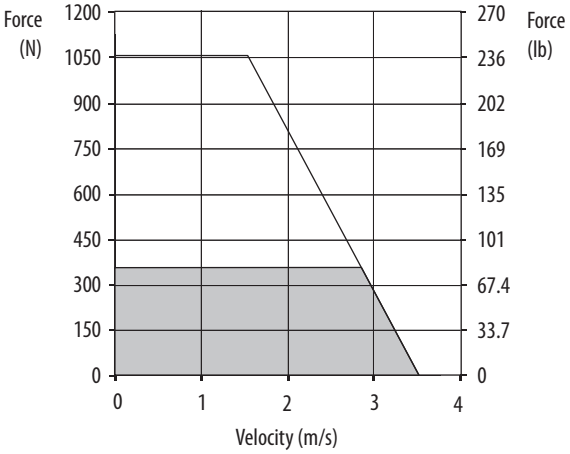
2198-H040-ERS*x* and LDAT-S054050-DD*x*



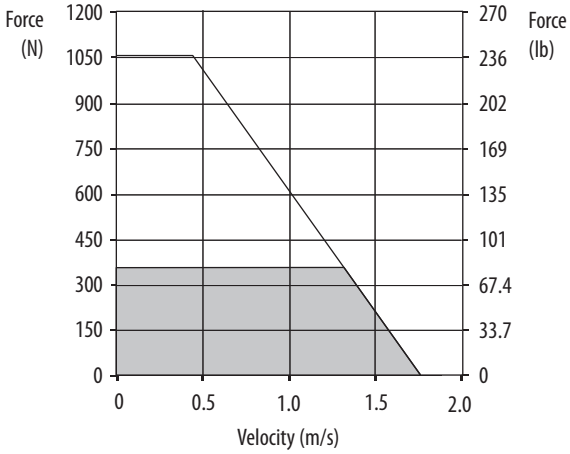
2198-H025-ERS*x* and LDAT-S054050-ED*x*



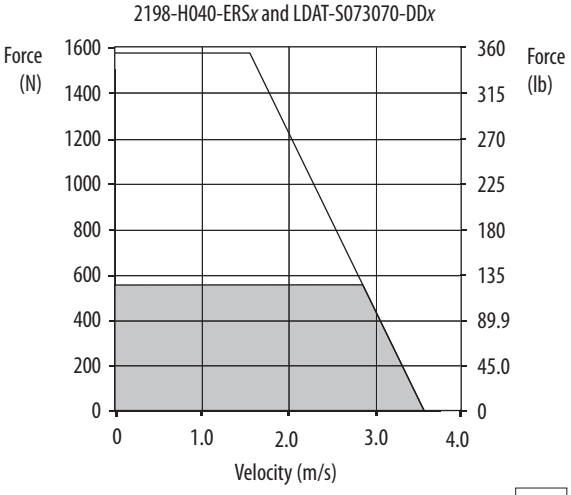
2198-H025-ERS*x* and LDAT-S072070-DD*x*



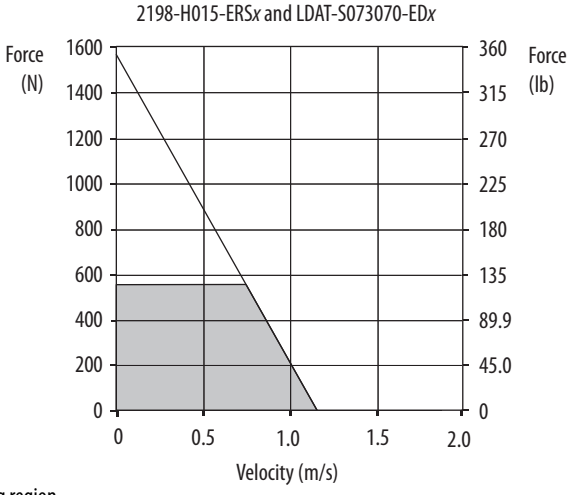
2198-H015-ERS*x* and LDAT-S072070-ED*x*



2198-H040-ERS*x* and LDAT-S073070-DD*x*



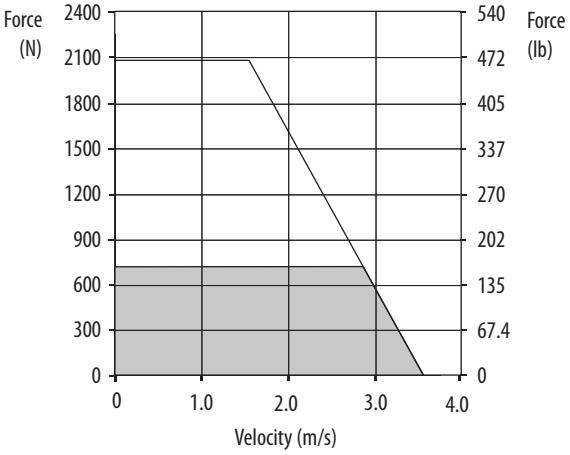
2198-H015-ERS*x* and LDAT-S073070-ED*x*



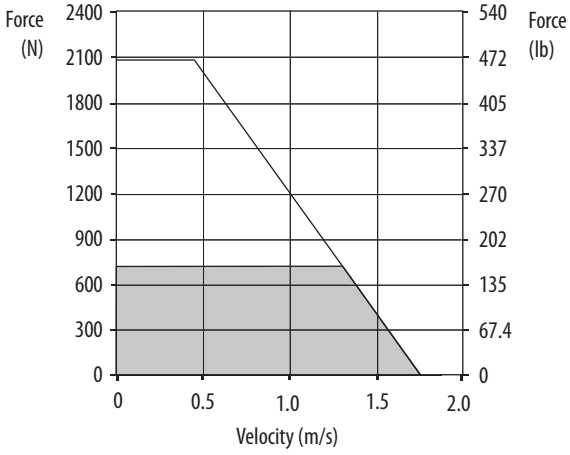
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

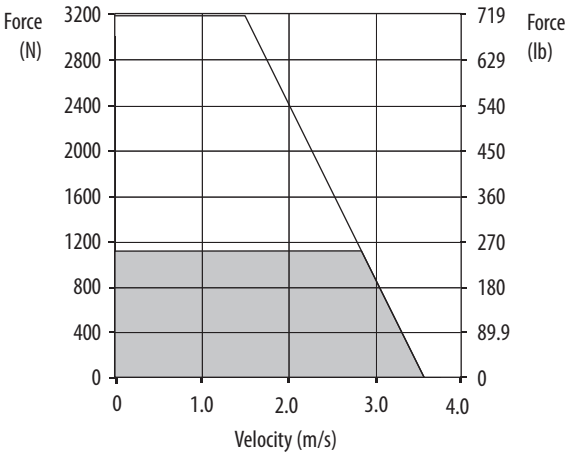
2198-H040-ERS*x* and LDAT-S074070-DD*x*



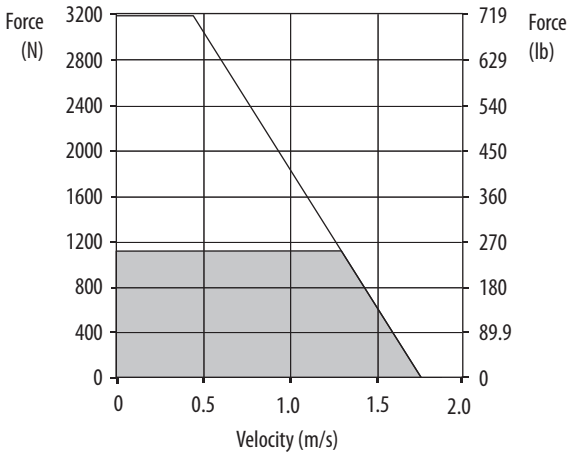
2198-H025-ERS*x* and LDAT-S074070-ED*x*



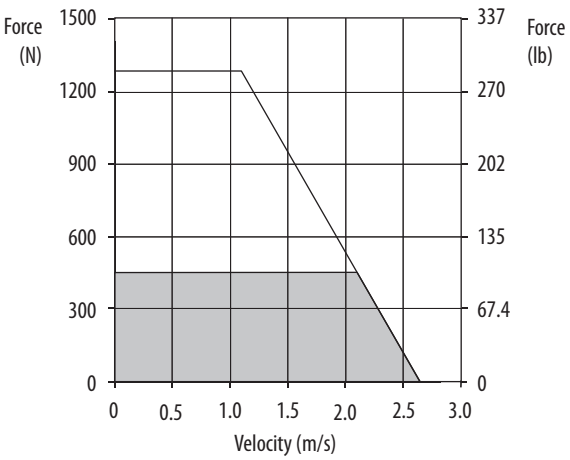
2198-H070-ERS*x* and LDAT-S076070-DD*x*



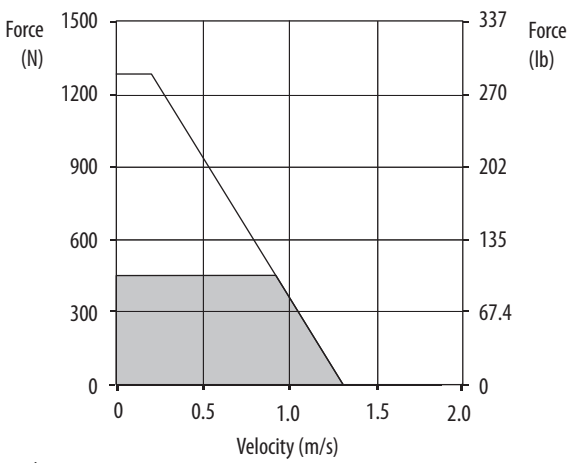
2198-H040-ERS*x* and LDAT-S076070-ED*x*



2198-H025-ERS*x* and LDAT-S102090-DD*x*



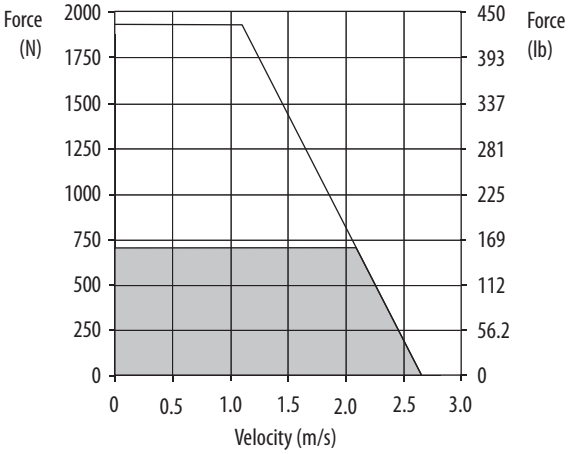
2198-H015-ERS*x* and LDAT-S102090-ED*x*



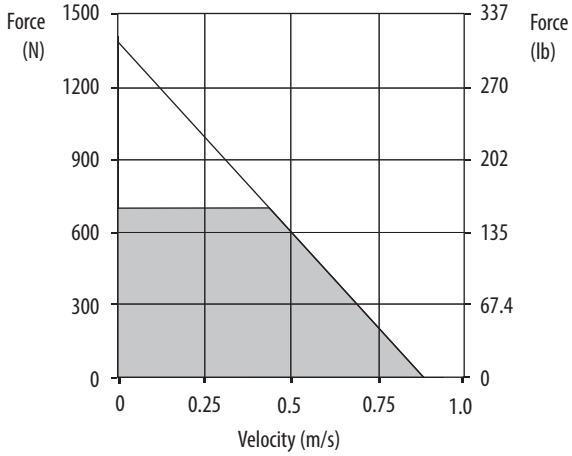
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

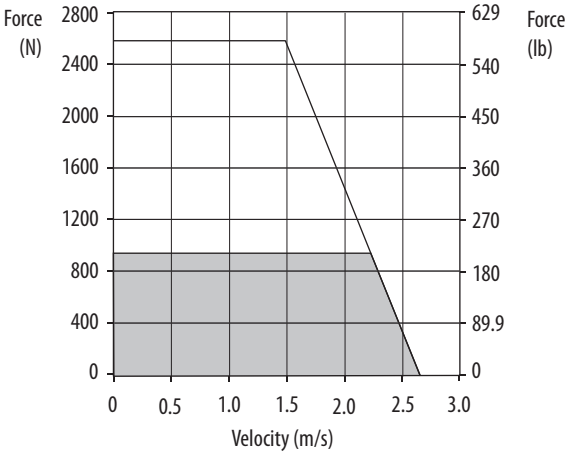
2198-H040-ERS*x* and LDAT-S103090-DD*x*



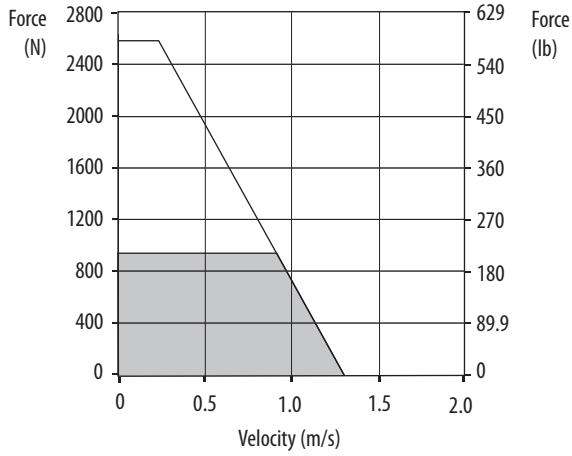
2198-H015-ERS*x* and LDAT-S103090-ED*x*



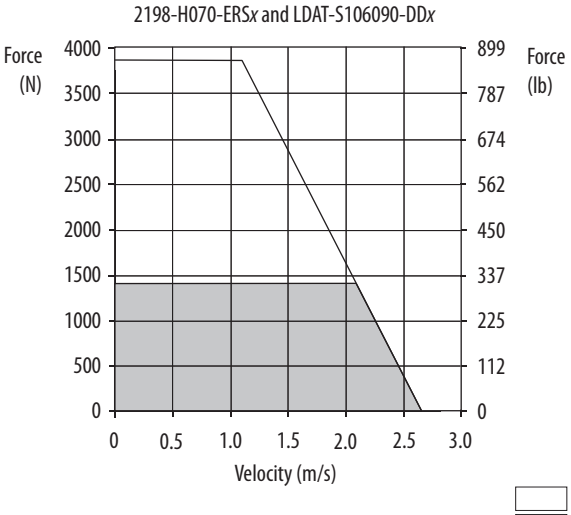
2198-H040-ERS*x* and LDAT-S104090-DD*x*



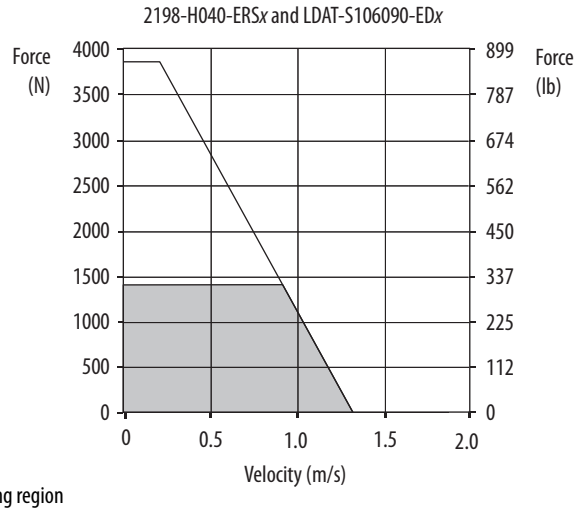
2198-H025-ERS*x* and LDAT-S104090-ED*x*



2198-H070-ERS*x* and LDAT-S106090-DD*x*



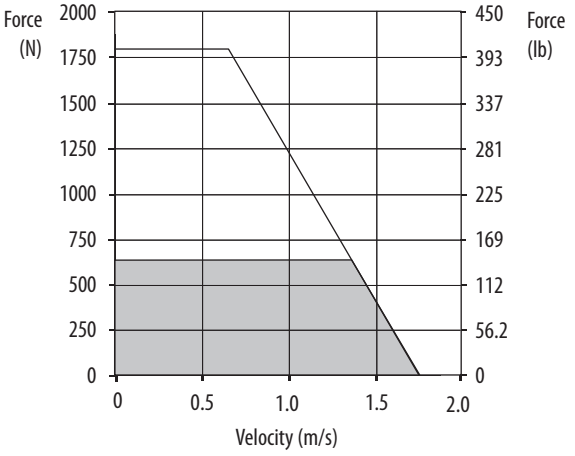
2198-H040-ERS*x* and LDAT-S106090-ED*x*



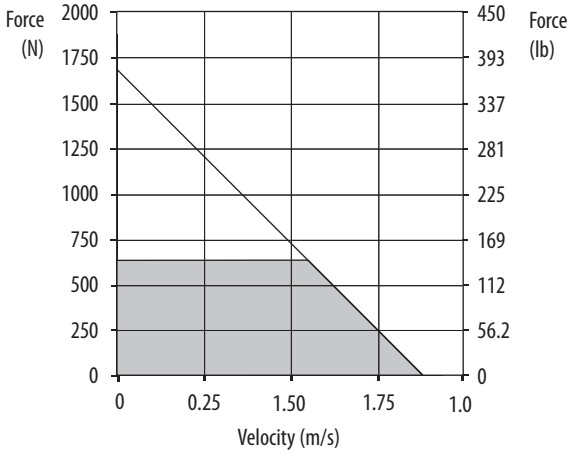
= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)

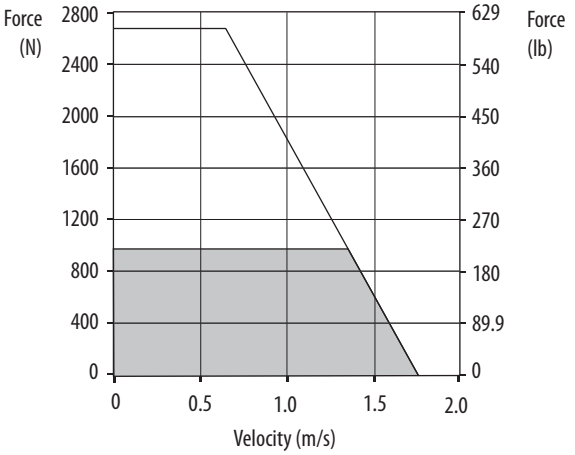
2198-H025-ERS*x* and LDAT-S152090-DD*x*



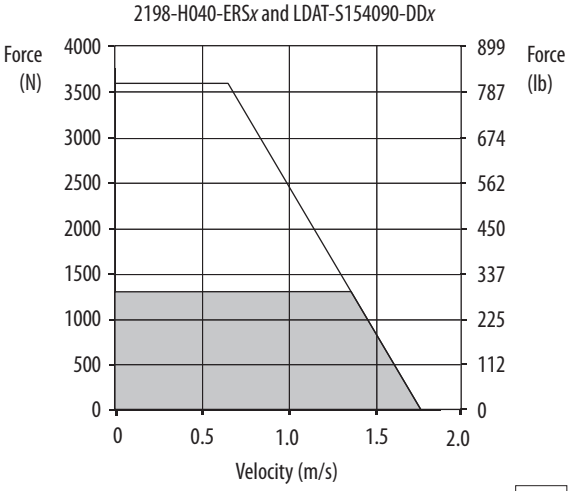
2198-H015-ERS*x* and LDAT-S152090-ED*x*



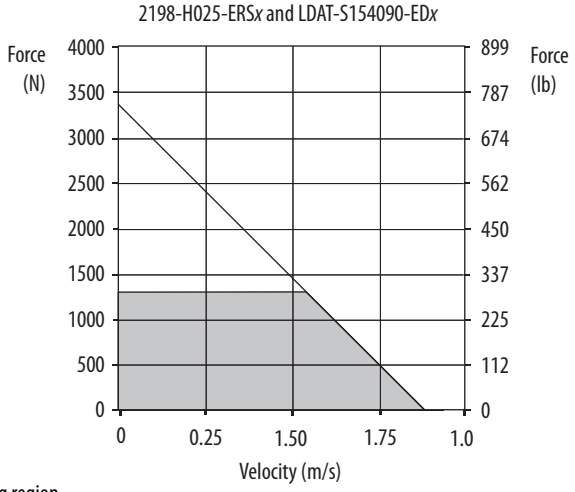
2198-H040-ERS*x* and LDAT-S153090-DD*x*



2198-H040-ERS*x* and LDAT-S154090-DD*x*

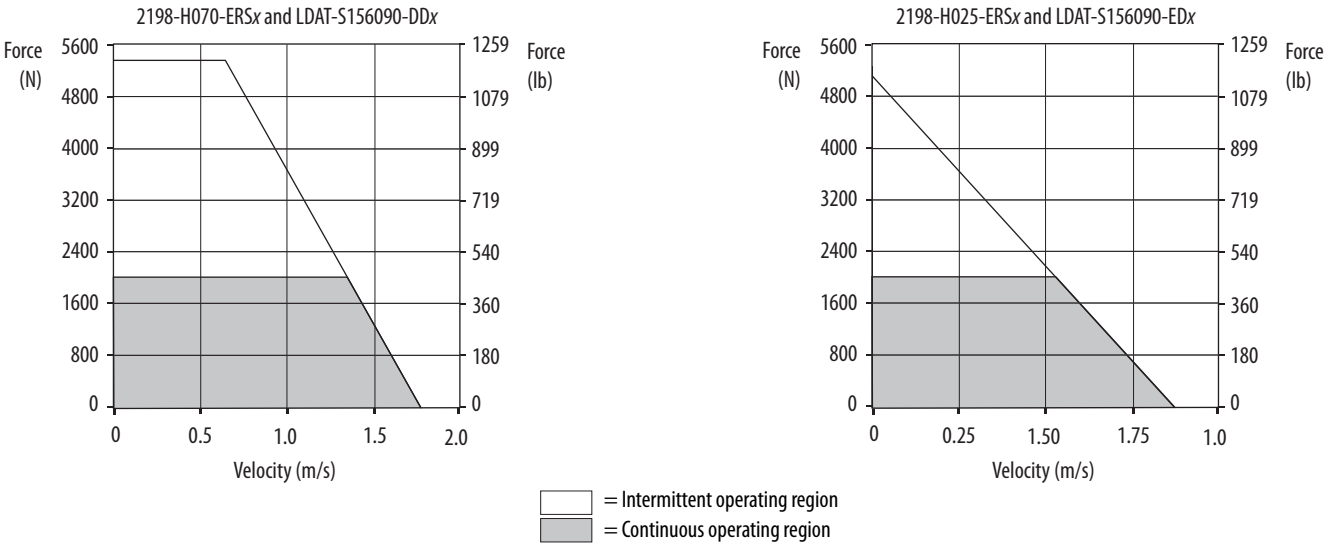


2198-H025-ERS*x* and LDAT-S154090-ED*x*



= Intermittent operating region
= Continuous operating region

Kinetix 5500 (200V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves (continued)



LDAT-Series Performance Specifications with Kinetix 5500 (400V-class operation) 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 5500 Drives (480V AC input)
LDAT-S031010-DDx	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2198-H015-ERSx
LDAT-S031020-DDx	3.1					0.25	
LDAT-S031030-DDx	3.5					0.29	
LDAT-S031040-DDx	3.8					0.31	
LDAT-S032010-DDx	3.1	7.4	126 (28)	24.3	336 (76)	0.40	2198-H025-ERSx
LDAT-S032020-DDx	4.1					0.52	
LDAT-S032030-DDx	4.7					0.59	
LDAT-S032040-DDx	5.0					0.63	
LDAT-S032010-EDx	3.1	3.7		12.2		0.40	2198-H015-ERSx
LDAT-S032020-EDx	4.1					0.52	
LDAT-S032030-EDx	4.7					0.59	
LDAT-S032040-EDx	5.0					0.63	
LDAT-S033010-DDx	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2198-H040-ERSx
LDAT-S033020-DDx	4.7					0.88	
LDAT-S033030-DDx	5.0					0.95	
LDAT-S033040-DDx							
LDAT-S033010-EDx	3.5	3.7		12.2		0.67	2198-H015-ERSx
LDAT-S033020-EDx	4.7					0.87	
LDAT-S033030-EDx	5.0					0.91	
LDAT-S033040-EDx							

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °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 5500 Drives (480V AC input)
LDAT-S051010-DD*x*	2.8	3.1	119 (27)	11.4	363 (82)	0.34	2198-H015-ERS*x*
LDAT-S051020-DD*x*	3.7					0.43	
LDAT-S051030-DD*x*	4.1					0.49	
LDAT-S051040-DD*x*	4.4					0.53	
LDAT-S051050-DD*x*	4.7					0.55	
LDAT-S052010-DD*x*	3.7	6.2	251 (56)	22.7	727 (163)	0.92	2198-H025-ERS*x*
LDAT-S052020-DD*x*	4.8					1.20	
LDAT-S052030-DD*x*	5.0					1.24	
LDAT-S052040-DD*x*							
LDAT-S052050-DD*x*							
LDAT-S052010-ED*x*	3.7	3.1		11.4		0.80	2198-H015-ERS*x*
LDAT-S052020-ED*x*	4.6					0.98	
LDAT-S052030-ED*x*	4.6					1.02	
LDAT-S052040-ED*x*							
LDAT-S052050-ED*x*							
LDAT-S053010-DD*x*	4.1	9.4	378 (85)	34.2	1093 (246)	1.56	2198-H040-ERS*x*
LDAT-S053020-DD*x*	5.0					1.87	
LDAT-S053030-DD*x* … LDAT-S053050-DD*x*							
LDAT-S053010-ED*x* … LDAT-S053050-ED*x*	3.5	3.1		11.4		1.04	2198-H015-ERS*x*
LDAT-S054010-DD*x*	4.4	12.4	509 (114)	45.5	1453 (327)	2.26	2198-H040-ERS*x*
LDAT-S054020-DD*x* … LDAT-S054050-DD*x*	5.00					2.53	
LDAT-S054010-ED*x*	4.4	6.2		22.7		1.87	2198-H025-ERS*x*
LDAT-S054020-ED*x* … LDAT-S054050-ED*x*	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 40 °C (104 °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 5500 Drives (480V AC input)
LDAT-S072010-DD*x*	3.9	6.0	364 (82)	22.0	1055 (237)	1.37	2198-H025-ERS*x*
LDAT-S072020-DD*x*	5.0					1.64	
LDAT-S072030-DD*x* … LDAT-S072070-DD*x*							
LDAT-S072010-ED*x*	3.5	3.0		11.0		1.03	2198-H015-ERS*x*
LDAT-S072020-ED*x* … LDAT-S072070-ED*x*							
LDAT-S073010-DD*x*	4.4	9.0	554 (125)	32.8	1576 (354)	2.27	2198-H040-ERS*x*
LDAT-S073020-DD*x* … LDAT-S073070-DD*x*	5.0					2.50	
LDAT-S073010-ED*x* … LDAT-S073070-ED*x*	2.4	3.0		10.9		1.01	2198-H015-ERS*x*
LDAT-S074010-DD*x*	4.7	11.9	730 (164)	43.5	2088 (469)	3.15	2198-H040-ERS*x*
LDAT-S074020-DD*x* … LDAT-S074070-DD*x*	5.0					3.30	
LDAT-S074010-ED*x* … LDAT-S074070-ED*x*	3.5	6.0		21.7		2.08	2198-H025-ERS*x*
LDAT-S076010-DD*x*	5.0	18.2	1122 (252)	66.4	3189 (717)	5.02	2198-H070-ERS*x*
LDAT-S076020-DD*x* … LDAT-S076070-DD*x*							
LDAT-S076010-ED*x* … LDAT-S076070-ED*x*	3.5	9.1		33.2		3.18	2198-H040-ERS*x*

Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °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 5500 Drives (480V AC input)
LDAT-S102010-DD*x*	3.4	5.7	456 (103)	21.0	1289 (290)	1.44	2198-H025-ERS*x*
LDAT-S102020-DD*x*	4.4					1.74	
LDAT-S102030-DD*x*	5.0					1.91	
LDAT-S102040-DD*x*							
LDAT-S102050-DD*x* … LDAT-S102090-DD*x*							
LDAT-S102010-ED*x* … LDAT-S102090-ED*x*	2.6	2.9		10.5		0.96	2198-H015-ERS*x*
LDAT-S103010-DD*x*	3.8	8.6	702 (158)	31.5	1935 (435)	2.41	2198-H040-ERS*x*
LDAT-S103020-DD*x*	5.0					2.93	
LDAT-S103030-DD*x* … LDAT-S103090-DD*x*							
LDAT-S103010-ED*x* … LDAT-S103090-ED*x*	1.8	2.9		10.5		0.92	2198-H015-ERS*x*
LDAT-S104010-DD*x*	4.1	11.5	929 (209)	42.0	2578 (580)	3.76	2198-H040-ERS*x*
LDAT-S104020-DD*x*	5.0					4.29	
LDAT-S104030-DD*x* … LDAT-S104090-DD*x*							
LDAT-S104010-ED*x* … LDAT-S104090-ED*x*	2.7	5.7		21.0		2.07	2198-H025-ERS*x*
LDAT-S106010-DD*x*	4.5	17.3	1403 (315)	63.0	3871 (870)	5.41	2198-H070-ERS*x*
LDAT-S106020-DD*x* … LDAT-S106090-DD*x*	5.0					5.87	
LDAT-S106010-ED*x* … LDAT-S106090-ED*x*	2.7	8.6		31.5		2.94	2198-H040-ERS*x*

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

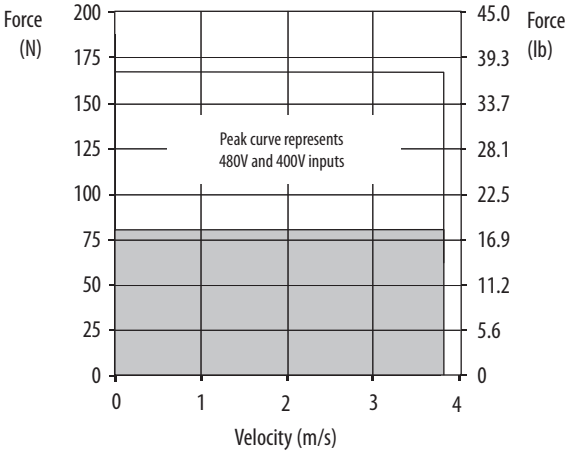
Performance Specifications with Frame 150 Linear Thrusters

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 5500 Drives (480V AC input)
LDAT-S152010-DD*x*	3.2	5.3	643 (145)	19.5	1799 (404)	1.76	2198-H025-ERS*x*
LDAT-S152020-DD*x* … LDAT-S152090-DD*x*	3.5					1.89	
LDAT-S152010-ED*x* … LDAT-S152090-ED*x*	1.8	2.7		9.8		0.87	2198-H015-ERS*x*
LDAT-S153010-DD*x* … LDAT-S153090-DD*x*	3.6	8.0	978 (220)	29.1	2680 (602)	2.87	2198-H040-ERS*x*
LDAT-S153010-ED*x* … LDAT-S153090-ED*x*	1.2	2.7		9.1		0.80	2198-H015-ERS*x*
LDAT-S154010-DD*x* … LDAT-S154090-DD*x*	3.5	10.7	1306 (294)	39.1	3597 (809)	3.83	2198-H040-ERS*x*
LDAT-S154010-ED*x* … LDAT-S154090-ED*x*	1.8	5.3		19.5		1.78	2198-H025-ERS*x*
LDAT-S156010-DD*x* … LDAT-S156090-DD*x*	3.6	16.3	1997 (449)	59.4	5469 (1229)	5.85	2198-H070-ERS*x*
LDAT-S156010-ED*x* … LDAT-S156090-ED*x*	1.8	8.1		19.8		2.71	2198-H025-ERS*x*

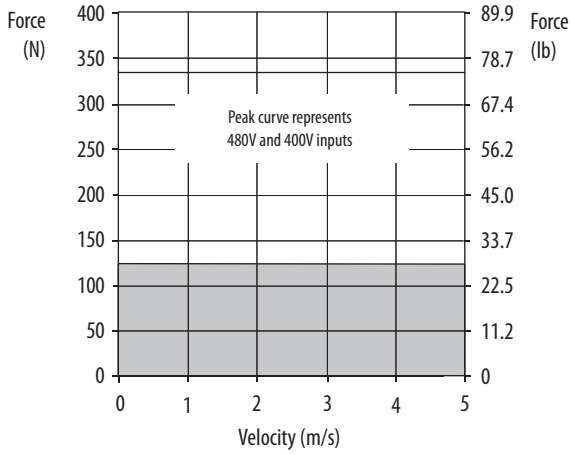
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Integrated Linear Thruster Curves

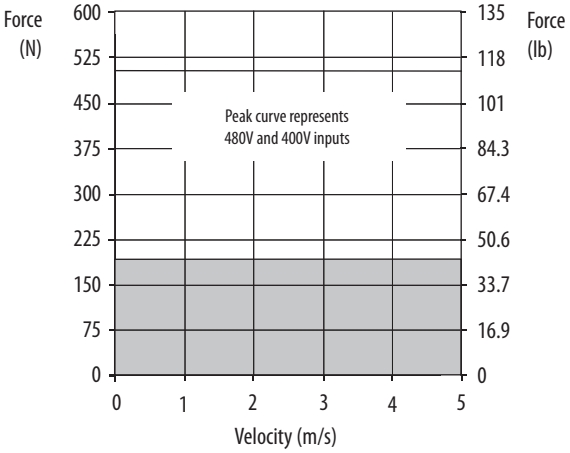
2198-H015-ERS*x* and LDAT-S031040-DD*x*



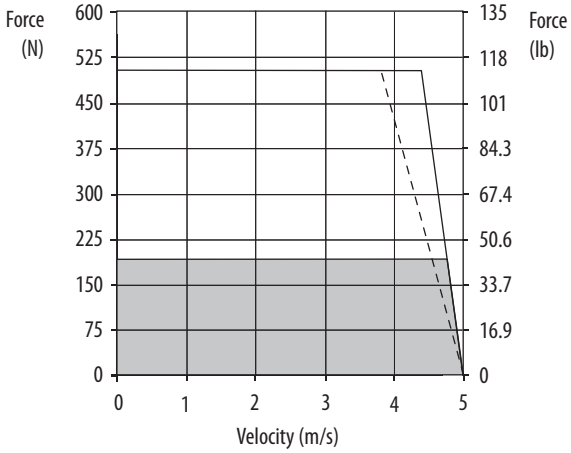
2198-H025-ERS*x* and LDAT-S032040-DD*x*
2198-H015-ERS*x* and LDAT-S032040-ED*x*



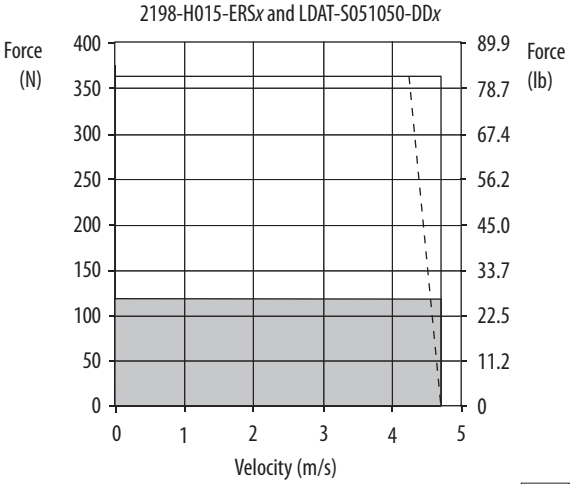
2198-H040-ERS*x* and LDAT-S033040-DD*x*



2198-H015-ERS*x* and LDAT-S033040-ED*x*



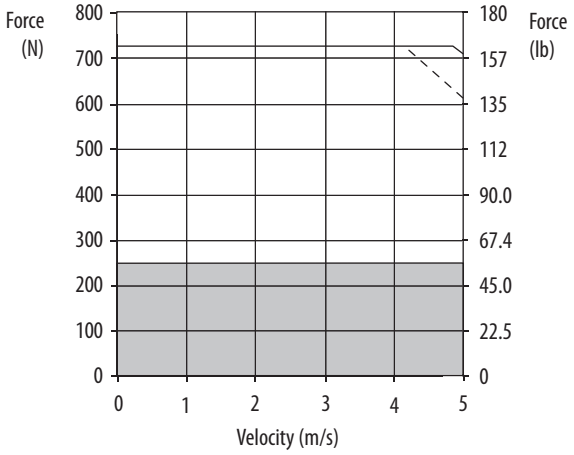
2198-H015-ERS*x* and LDAT-S051050-DD*x*



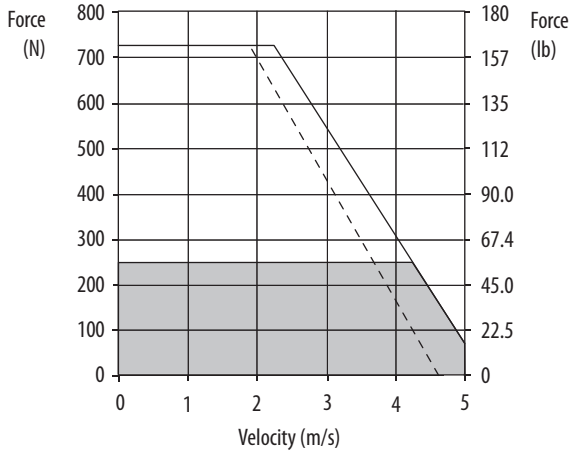
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Linear Thruster Curves (continued)

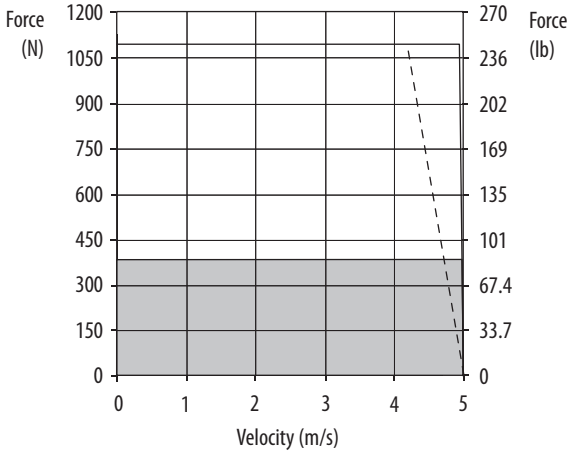
2198-H025-ERS*x* and LDAT-S052050-DD*x*



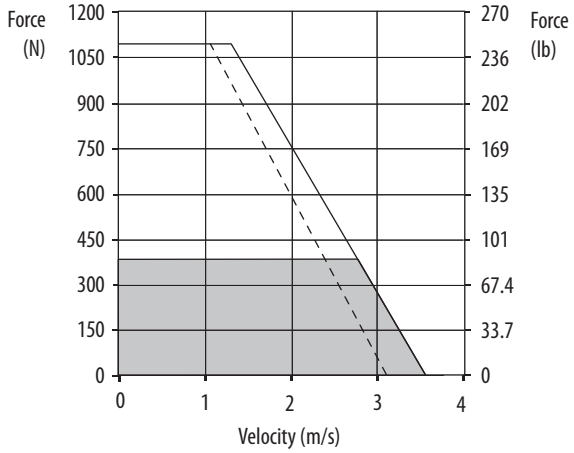
2198-H015-ERS*x* and LDAT-S052050-ED*x*



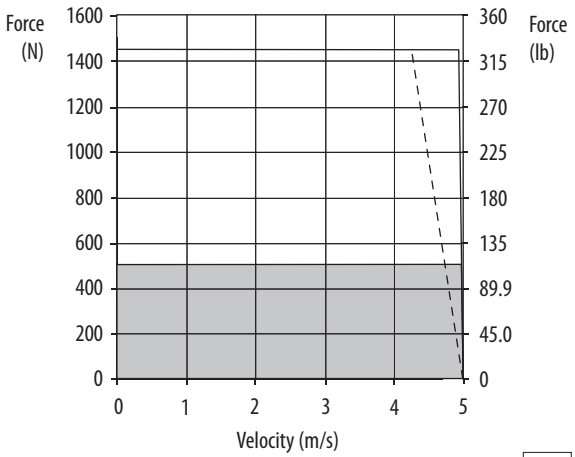
2198-H040-ERS*x* and LDAT-S053050-DD*x*



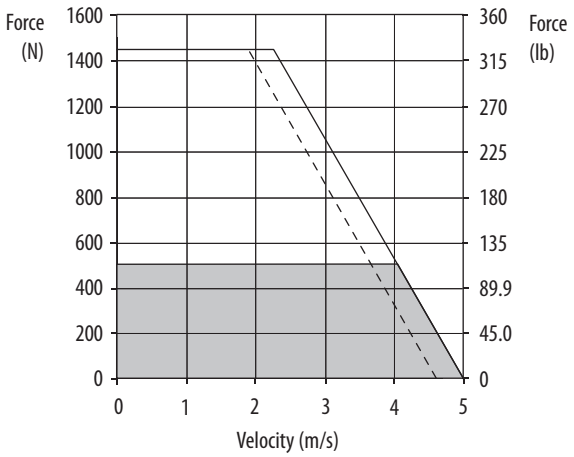
2198-H015-ERS*x* and LDAT-S053050-ED*x*



2198-H040-ERS*x* and LDAT-S054050-DD*x*



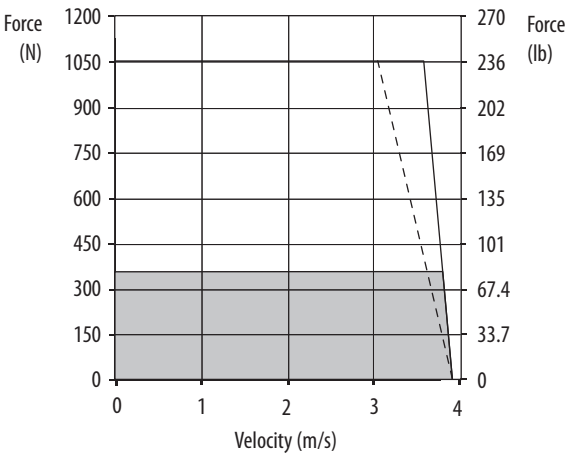
2198-H025-ERS*x* and LDAT-S054050-ED*x*



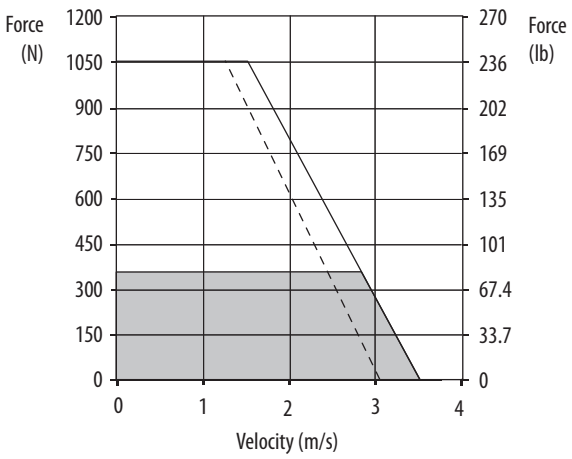
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Linear Thruster Curves (continued)

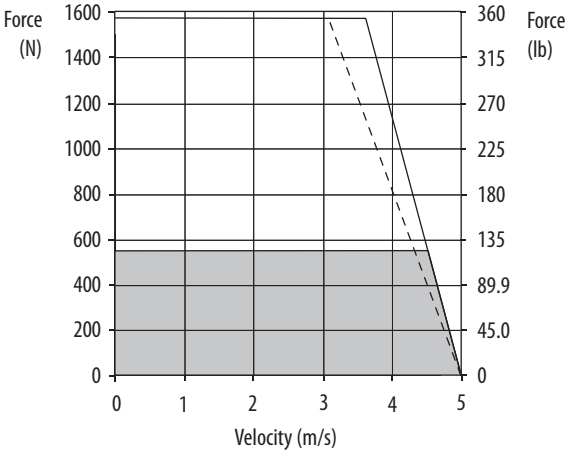
2198-H025-ERS*x* and LDAT-S072070-DD*x*



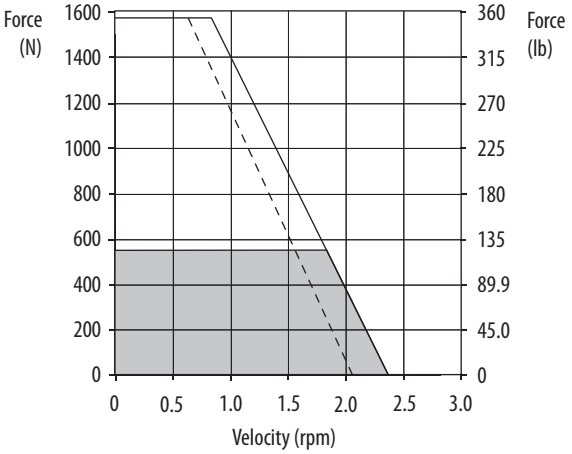
2198-H015-ERS*x* and LDAT-S072070-ED*x*



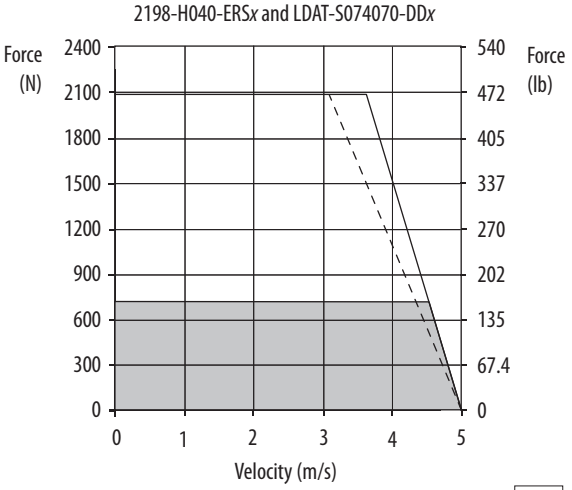
2198-H040-ERS*x* and LDAT-S073070-DD*x*



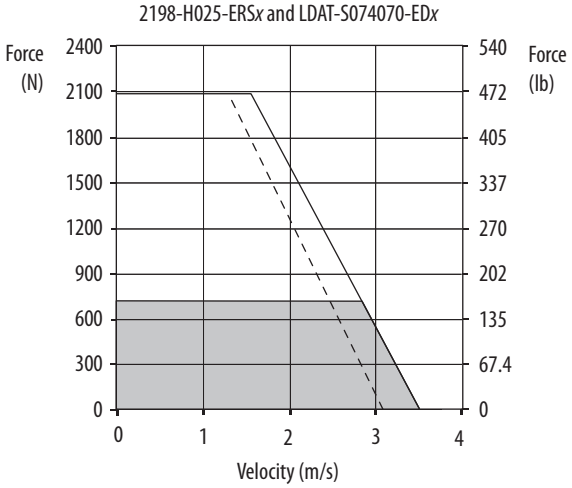
2198-H015-ERS*x* and LDAT-S073070-ED*x*



2198-H040-ERS*x* and LDAT-S074070-DD*x*



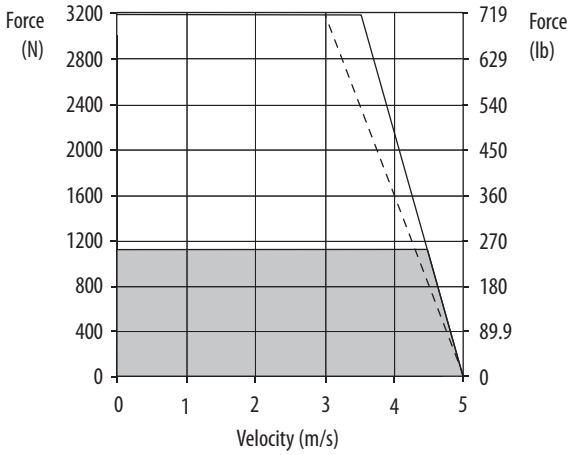
2198-H025-ERS*x* and LDAT-S074070-ED*x*



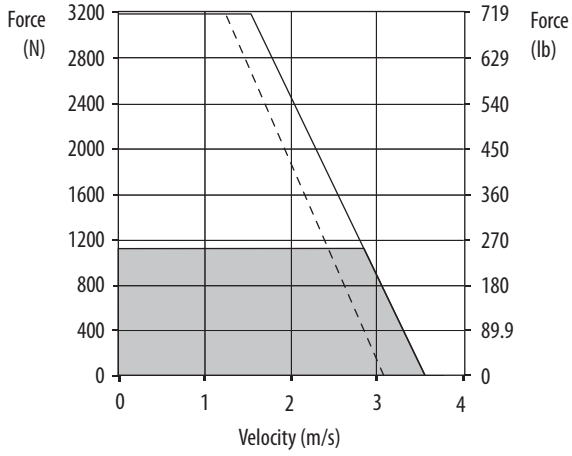
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Linear Thruster Curves (continued)

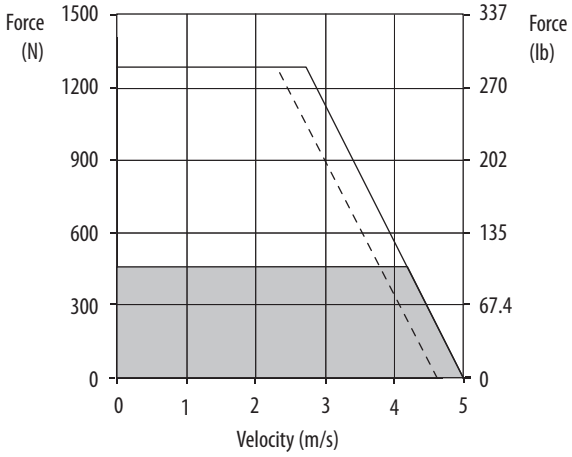
2198-H070-ERS*x* and LDAT-S076070-DD*x*



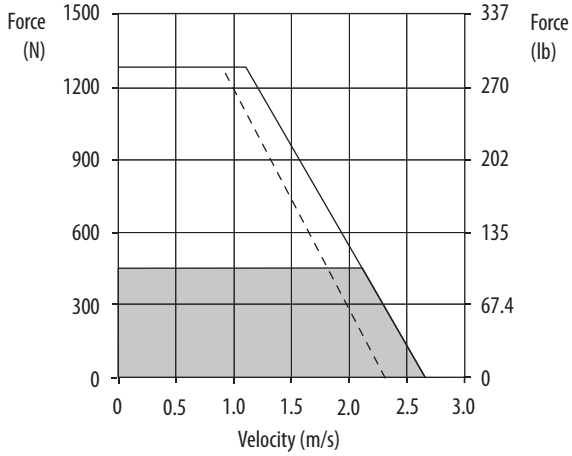
2198-H040-ERS*x* and LDAT-S076070-ED*x*



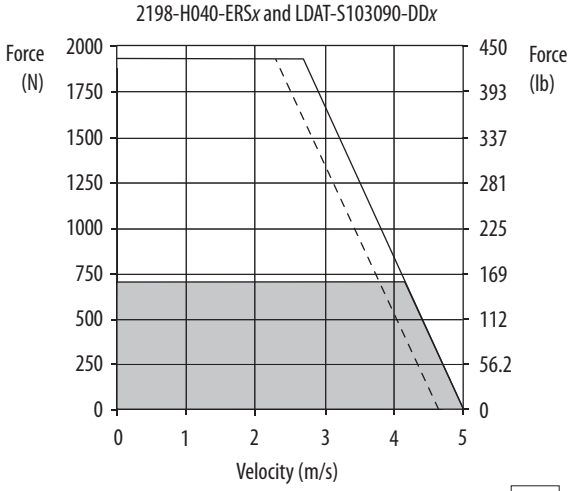
2198-H025-ERS*x* and LDAT-S102090-DD*x*



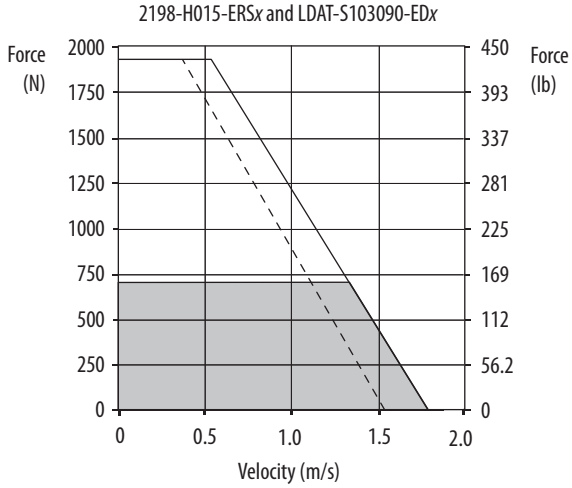
2198-H015-ERS*x* and LDAT-S102090-ED*x*



2198-H040-ERS*x* and LDAT-S103090-DD*x*



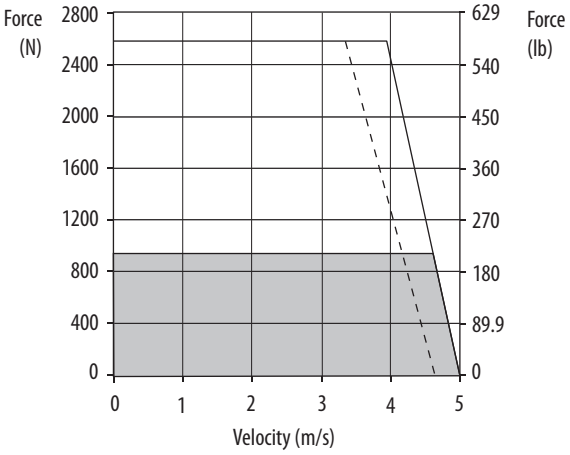
2198-H015-ERS*x* and LDAT-S103090-ED*x*



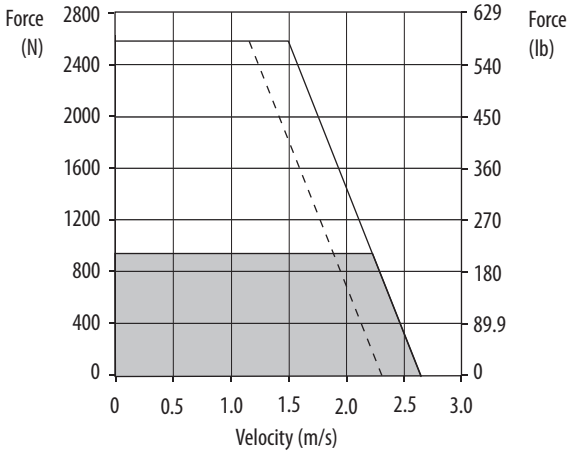
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Linear Thruster Curves (continued)

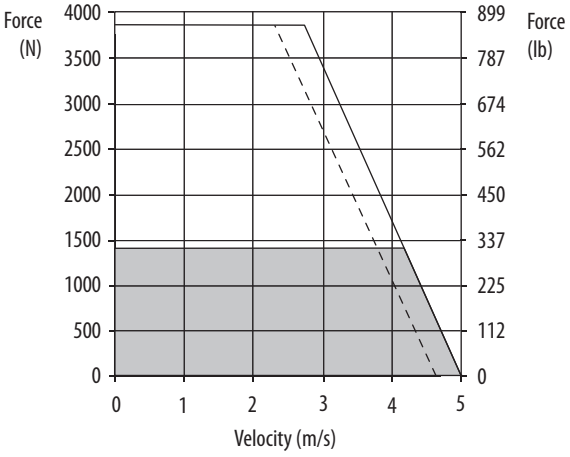
2198-H040-ERS*x* and LDAT-S104090-DD*x*



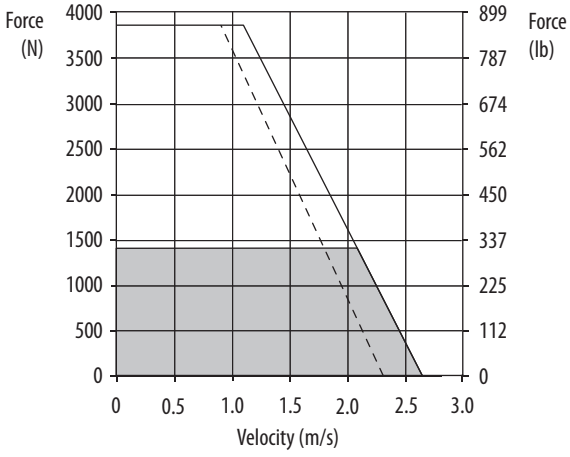
2198-H025-ERS*x* and LDAT-S104090-ED*x*



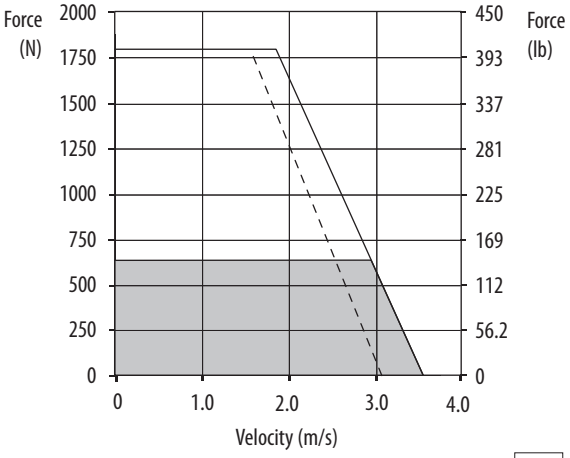
2198-H070-ERS*x* and LDAT-S106090-DD*x*



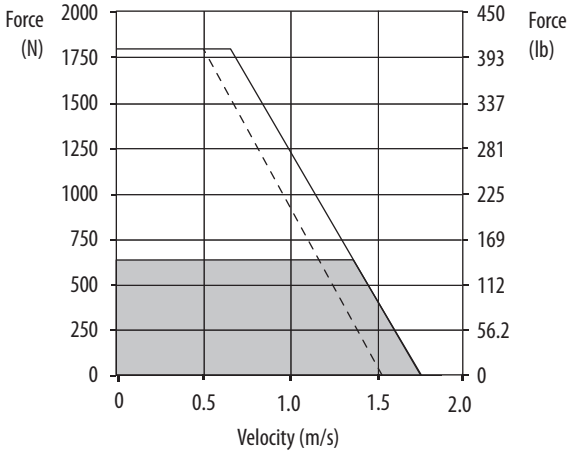
2198-H040-ERS*x* and LDAT-S106090-ED*x*



2198-H025-ERS*x* and LDAT-S152090-DD*x*



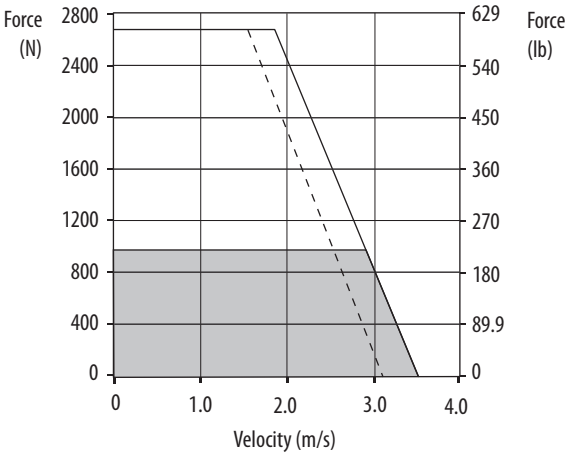
2198-H015-ERS*x* and LDAT-S152090-ED*x*



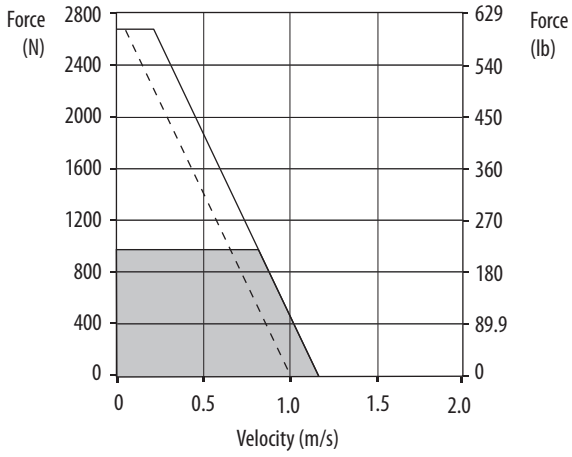
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5500 (400V-class operation) Drives/LDAT-Series Linear Thruster Curves (continued)

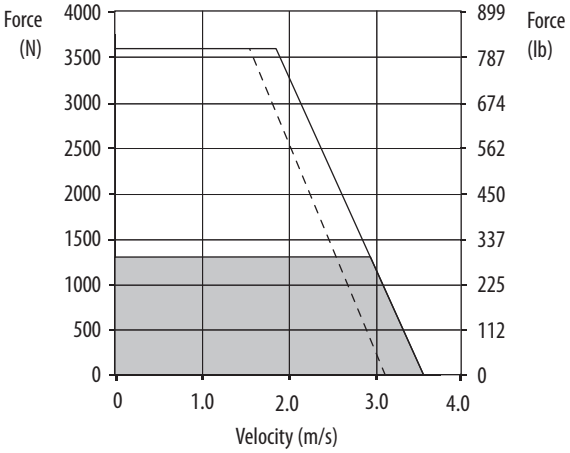
2198-H040-ERS*x* and LDAT-S153090-DD*x*



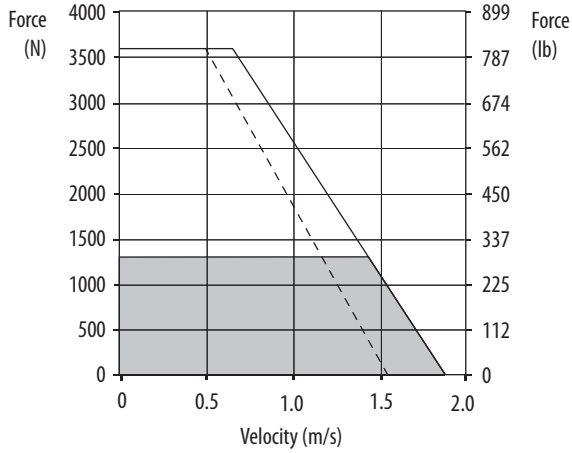
2198-H015-ERS*x* and LDAT-S153090-ED*x*



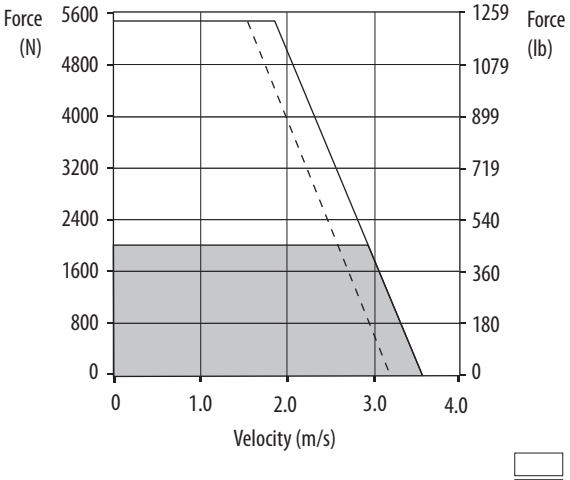
2198-H040-ERS*x* and LDAT-S154090-DD*x*



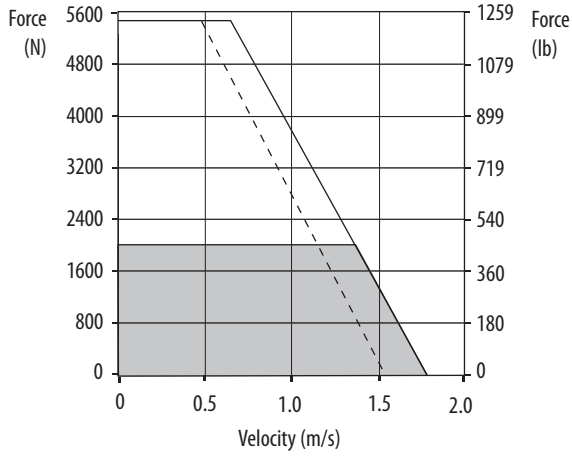
2198-H025-ERS*x* and LDAT-S154090-ED*x*



2198-H070-ERS*x* and LDAT-S156090-DD*x*



2198-H025-ERS*x* and LDAT-S156090-ED*x*



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

Kinetix 5500 (200V-class operation) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5500 drives (with 240V, nominal input) when matched with Kinetix MPAS (200V-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.

IMPORTANT The Kinetix MPAS (200V-class) linear stages require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. The 200V-class system performance tables and force/velocity curves reflect single-phase and three-phase drive operation with 240V AC input; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* 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* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

Kinetix MPAS Performance Specifications with Kinetix 5500 (200V-class operation) Drives

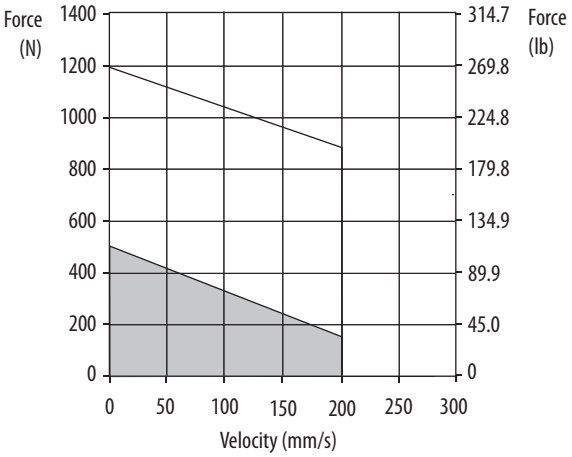
Linear Stage Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (240V AC operation)
MPAS-A*xxxx*1-V05S*x*A	200 (7.9) (1)	3.09	521 (117)	6.10	1212 (272)	0.37	2198-H008-ERS*x*
MPAS-A*xxxx*2-V20S*x*A	1124 (44.3) (2)	4.54	462 (104)	9.10	968 (218)	0.62	2198-H015-ERS*x*

(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).

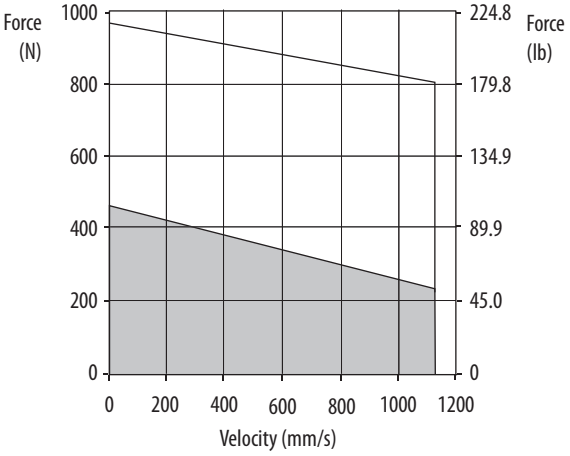
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (200V-class operation) Drives/Kinetix MPAS Linear Stage Curves

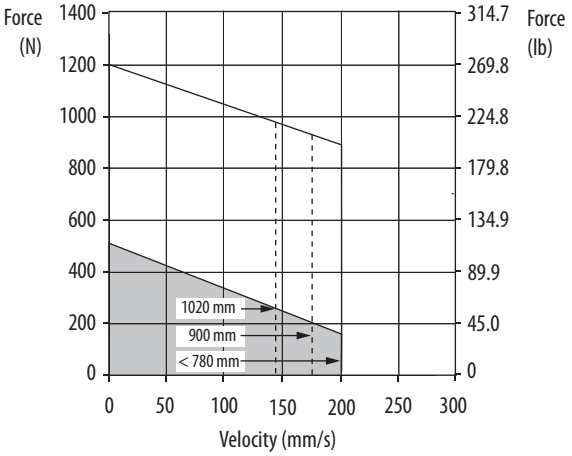
2198-H008-ERS*x* and MPAS-A6*xxx*1-V05S*x*A



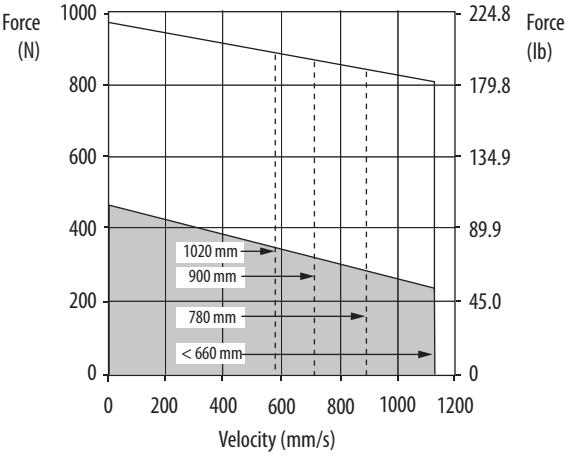
2198-H015-ERS*x* and MPAS-A6*xxx*2-V20S*x*A



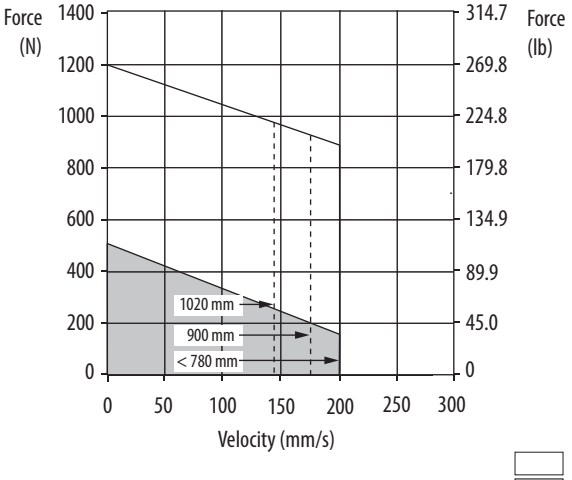
2198-H008-ERS*x* and MPAS-A8*xxx*1-V05S*x*A



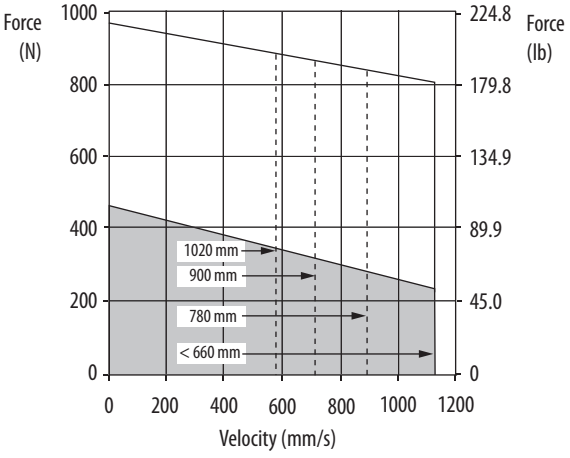
2198-H015-ERS*x* and MPAS-A8*xxx*2-V20S*x*A



2198-H008-ERS*x* and MPAS-A9*xxx*1-V05S*x*A



2198-H015-ERS*x* and MPAS-A9*xxx*2-V20S*x*A



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

Kinetix 5500 (400V-class operation) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5500 drives (with 480V, 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.

IMPORTANT The Kinetix MPAS (400V-class) linear stages require the 2198-H2DCK (series B or later) feedback converter kit.

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* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

Kinetix MPAS Performance Specifications with Kinetix 5500 (400V-class operation) Drives

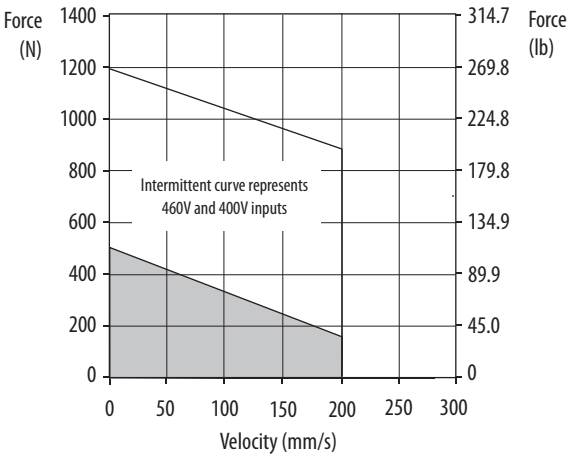
Linear Stage Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (480V AC operation)
MPAS-B*xxxx*1-V05S*x*A	200 (7.9) (1)	1.75	521 (117)	3.50	1212 (272)	0.37	2198-H008-ERS*x*
MPAS-B*xxxx*2-V20S*x*A	1124 (44.3) (2)	3.30	462 (104)	6.60	968 (218)	0.62	2198-H008-ERS*x*

(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).

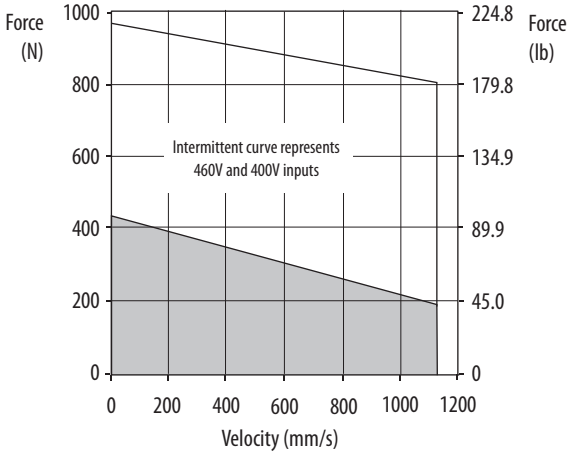
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 (400V-class operation) Drives/Kinetix MPAS Linear Stage Curves

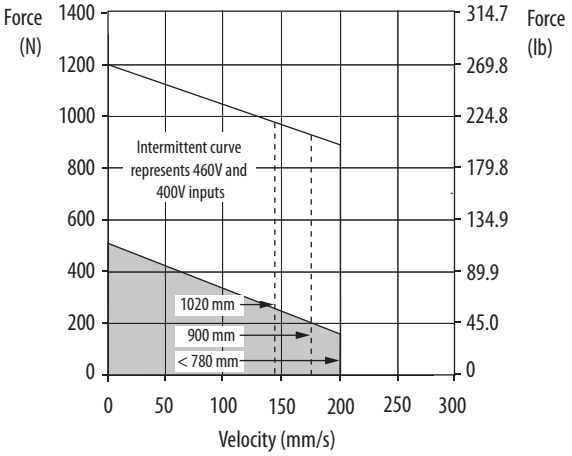
2198-H008-ERS*x* and MPAS-B6*xxx*1-V05S*x*A



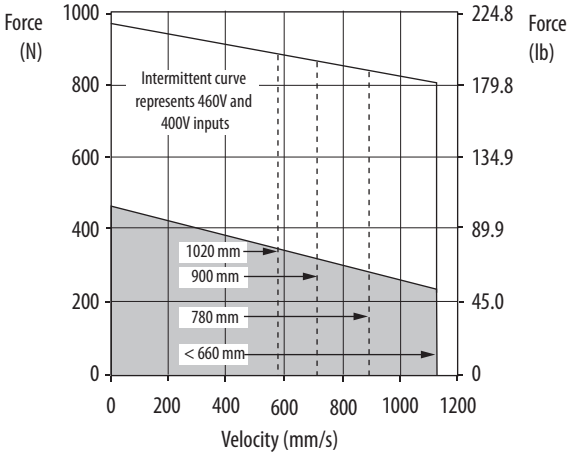
2198-H008-ERS*x* and MPAS-B6*xxx*2-V20S*x*A



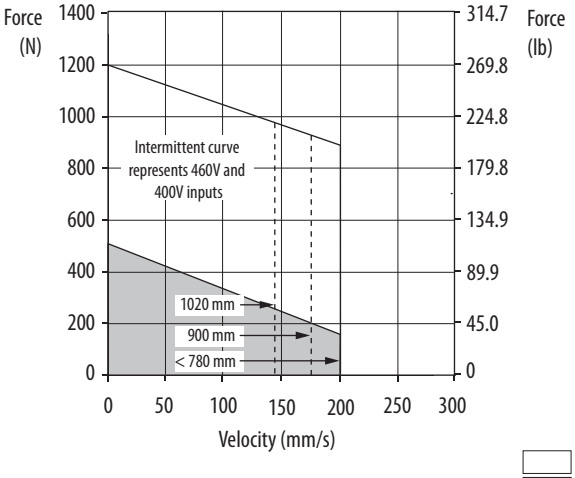
2198-H008-ERS*x* and MPAS-B8*xxx*1-V05S*x*A



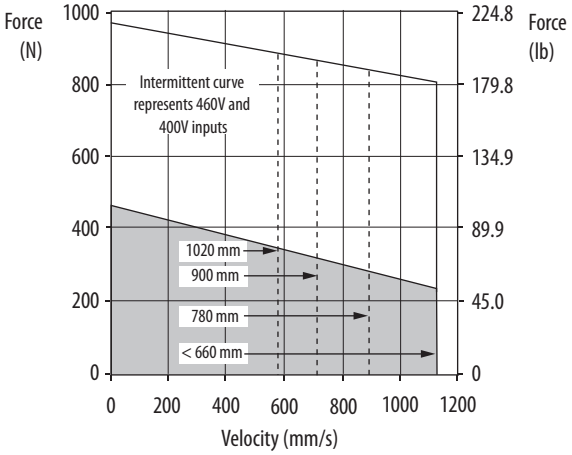
2198-H008-ERS*x* and MPAS-B8*xxx*2-V20S*x*A



2198-H008-ERS*x* and MPAS-B9*xxx*1-V05S*x*A



2198-H008-ERS*x* and MPAS-B9*xxx*2-V20S*x*A



= Intermittent operating region
= Continuous operating region
= System operation with 400V AC rms input voltage
= System operation for specified stroke length

Kinetix 5500 Drives with Kinetix VPAR Electric Cylinders

This section provides system combination information for the Kinetix 5500 drives (with 240V and 480V, nominal input) when matched with Kinetix VPAR electric cylinders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix VPAR Cable Combinations

Kinetix VPAR Electric Cylinders (200V-class)

Electric Cylinder Cat. No. (1)	Single Motor Cable (2)	Feedback Type
VPAR-A1*xxx*B-P VPAR-A1*xxx*E-P VPAR-A2*xxx*C-P	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Absolute, Multi-turn Digital Encoder with Hiperface DSL Protocol
VPAR-A2*xxx*F-P VPAR-A3*xxx*E-P VPAR-A3*xxx*H-P	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	

(1) Encoder option for VPAR-A*xxxxx* electric cylinders is -P (absolute multi-turn digital encoder, Hiperface DSL protocol) only.

(2) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPAR Electric Cylinders (400V-class)

Electric Cylinder Cat. No. (1)	Single Motor Cable (2)	Feedback Type
VPAR-B1*xxx*B-*x* VPAR-B1*xxx*E-*x* VPAR-B2*xxx*C-*x* VPAR-B2*xxx*F-*x*	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex)	Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPAR-B3*xxx*E-*x* VPAR-B3*xxx*H-*x*	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex)	

(1) Encoder options for VPAR-B*xxxxx* electric cylinders are -Q and -W (absolute multi-turn digital encoder, Hiperface DSL protocol) SIL 2 (PLd) rated, and -P (absolute multi-turn digital encoder, Hiperface DSL protocol).

(2) Use 2090-CS*x*M1DF or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)…50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Single Motor Cable Overview beginning on page 13.

Kinetix VPAR Performance Specifications with Kinetix 5500 Drives

Performance Specifications with Kinetix 5500 (200V-class operation) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (240V AC input)
VPAR-A1*xxx*B	150	0.88	240 (53.9)	2.90	300 (67.4)	0.11	2198-H008-ERS*x*
VPAR-A1*xxx*E	500	1.66	280 (62.9)	2.90	350 (78.7)	0.23	2198-H008-ERS*x*
VPAR-A2*xxx*C	250	1.74	420 (94.4)	3.72	525 (118)	0.25	2198-H008-ERS*x*
VPAR-A2*xxx*F	640	4.45	640 (144)	8.40	800 (180)	0.56	2198-H015-ERS*x*
VPAR-A3*xxx*E	500	12.30	2000 (450)	31.70	2500 (562)	1.30	2198-H040-ERS*x*
VPAR-A3*xxx*H	1000	13.50	1284 (289)	27.00	1625 (365)	1.56	2198-H040-ERS*x*

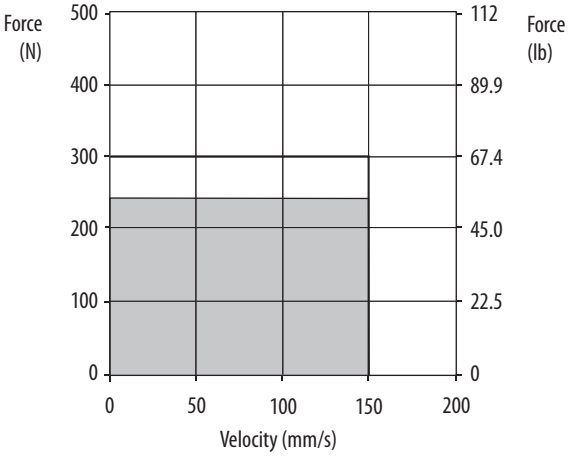
Performance Specifications with Kinetix 5500 (400V-class operation) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (480V AC input)
VPAR-B1*xxx*B	150	0.41	240 (53.9)	1.34	300 (67.4)	0.11	2198-H003-ERS*x*
VPAR-B1*xxx*E	500	1.20	280 (62.9)	2.10	350 (78.7)	0.24	2198-H003-ERS*x*
VPAR-B2*xxx*C	250	1.25	420 (94.4)	2.67	525 (118)	0.25	2198-H003-ERS*x*
VPAR-B2*xxx*F	640	3.10	640 (144)	5.80	800 (180)	0.56	2198-H008-ERS*x*
VPAR-B3*xxx*E	500	5.10	2000 (450)	13.0	2500 (562)	1.30	2198-H015-ERS*x*
VPAR-B3*xxx*H	1000	8.60	1284 (289)	17.0	1625 (365)	1.68	2198-H015-ERS*x*

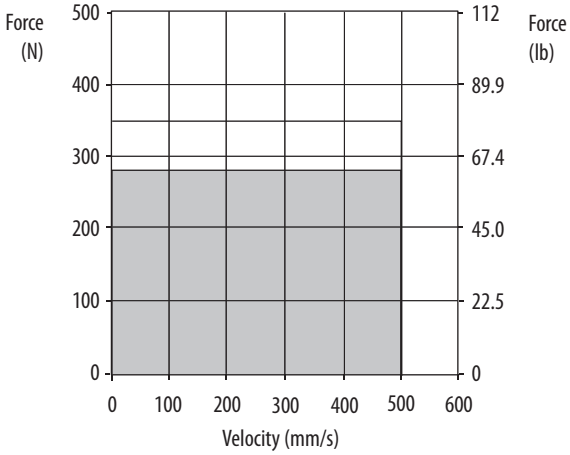
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 Drives/Kinetix VPAR Electric Cylinder Curves

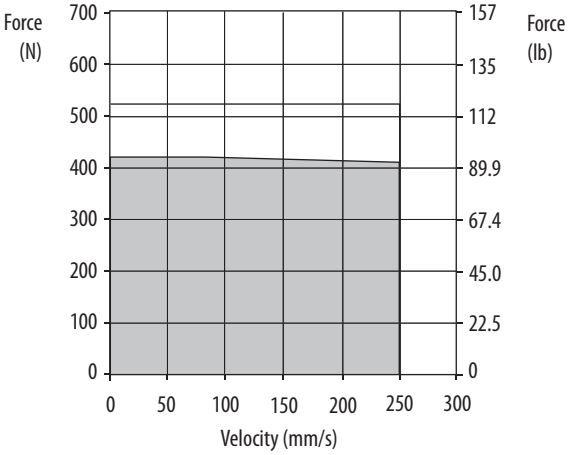
2198-H008-ERS*x* and VPAR-A1*xxx*B
2198-H003-ERS*x* and VPAR-B1*xxx*B



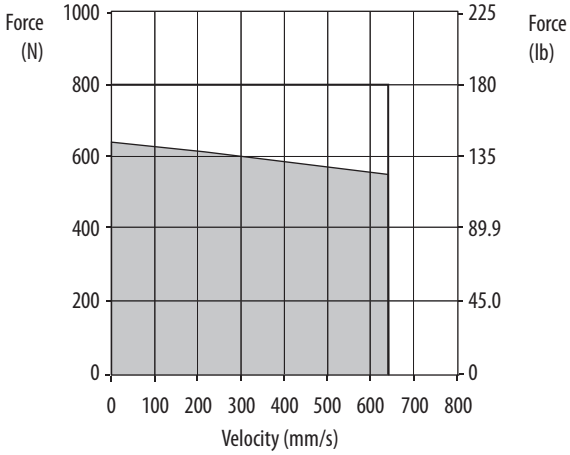
2198-H008-ERS*x* and VPAR-A1*xxx*E
2198-H003-ERS*x* and VPAR-B1*xxx*E



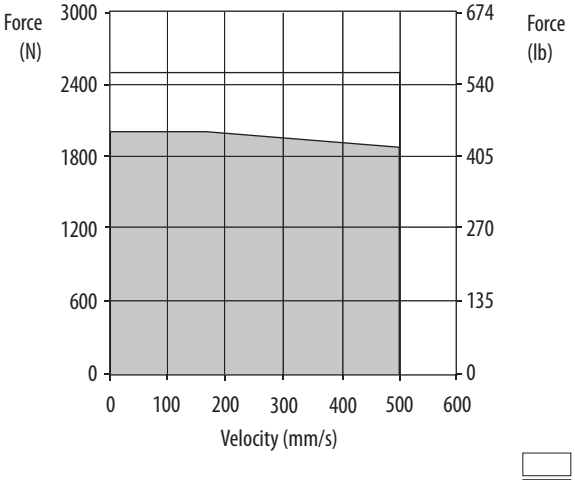
2198-H008-ERS*x* and VPAR-A2*xxx*C
2198-H003-ERS*x* and VPAR-B2*xxx*C



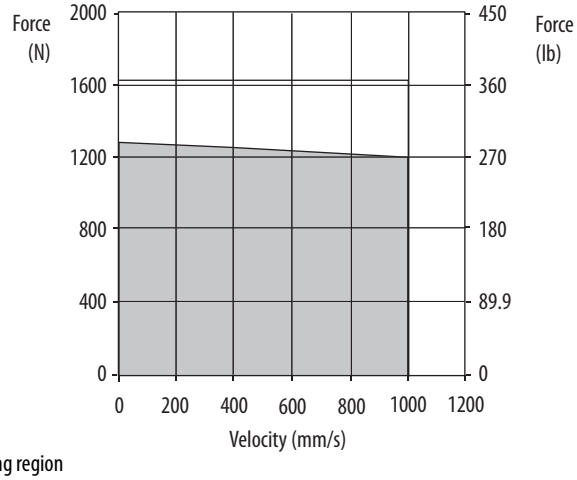
2198-H015-ERS*x* and VPAR-A2*xxx*F
2198-H008-ERS*x* and VPAR-B2*xxx*F



2198-H040-ERS*x* and VPAR-A3*xxx*E
2198-H015-ERS*x* and VPAR-B3*xxx*E



2198-H040-ERS*x* and VPAR-A3*xxx*H
2198-H015-ERS*x* and VPAR-B3*xxx*H



= Intermittent operating region
= Continuous operating region

Kinetix 5500 Drives with Kinetix MPAR Electric Cylinders

This section provides system combination information for the Kinetix 5500 drives (with 240V 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.

IMPORTANT The Kinetix MPAR electric cylinders require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. The 200V-class system performance tables and force/velocity curves reflect single-phase and three-phase drive operation with 240V AC input; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* 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* (standard, non-flex) 2090-CFBM7DF-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-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

Kinetix MPAR Performance Specifications with Kinetix 5500 Drives

Performance Specifications with Kinetix 5500 (200V-class operation) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (240V AC input)
MPAR-A1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2198-H003-ERS*x*
MPAR-A1*xxx*E	500	2.16	280 (62.9)	2.48	350 (78.7)	0.140	2198-H008-ERS*x*
MPAR-A2*xxx*C	250	2.42	420 (94.4)	2.72	525 (118)	0.105	2198-H008-ERS*x*
MPAR-A2*xxx*F	640	4.54	640 (144)	5.41	800 (180)	0.410	2198-H015-ERS*x*
MPAR-A3*xxx*E	500	10.33	2000 (450)	12.34	2500 (562)	1.00	2198-H025-ERS*x*
MPAR-A3*xxx*H	1000	12.20	1300 (292)	16.40	1625 (365)	1.30	2198-H040-ERS*x*

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

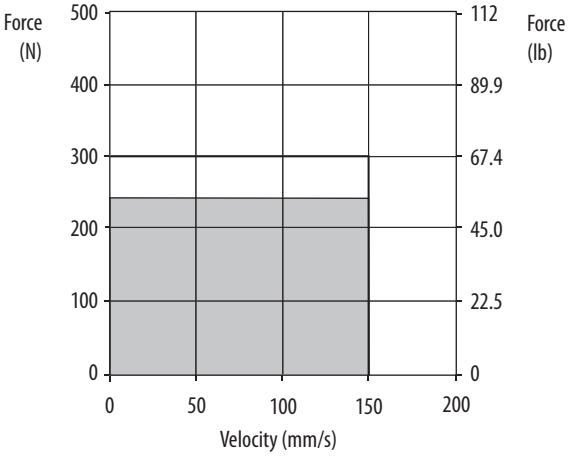
Performance Specifications with Kinetix 5500 (400V-class operation) Drives

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (480V AC input)
MPAR-B1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2198-H003-ERS*x*
MPAR-B1*xxx*E	500	1.49	280 (62.9)	1.71	350 (78.7)	0.140	2198-H003-ERS*x*
MPAR-B2*xxx*C	250	1.67	420 (94.4)	1.90	525 (118)	0.105	2198-H003-ERS*x*
MPAR-B2*xxx*F	640	3.29	640 (144)	3.93	800 (180)	0.410	2198-H008-ERS*x*
MPAR-B3*xxx*E	500	5.16	2000 (450)	6.17	2500 (562)	1.00	2198-H015-ERS*x*
MPAR-B3*xxx*H	1000	6.13	1300 (292)	6.79	1625 (365)	1.30	2198-H015-ERS*x*

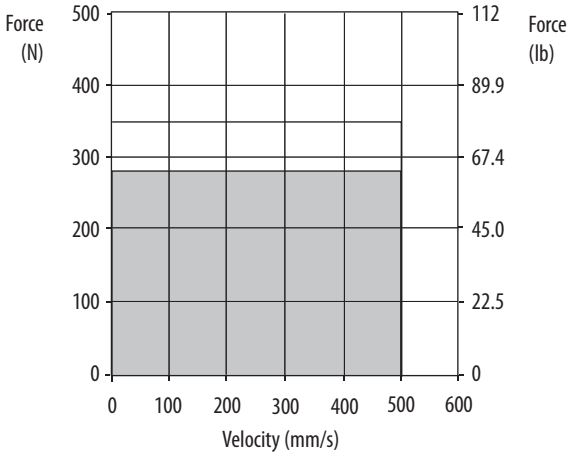
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 Drives/Kinetix MPAR Electric Cylinder Curves

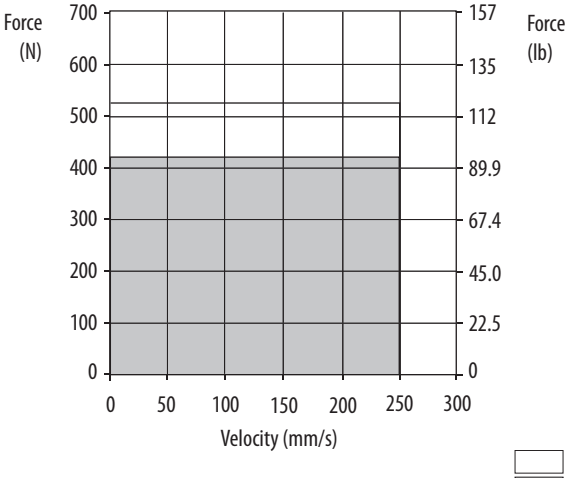
2198-H003-ERS*x* and MPAR-A1*xxx*B-V*x*A
2198-H003-ERS*x* and MPAR-B1*xxx*B-V*x*A



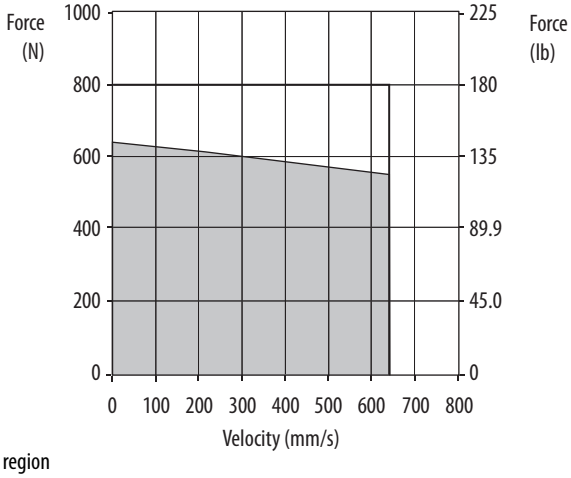
2198-H008-ERS*x* and MPAR-A1*xxx*E-V*x*A
2198-H003-ERS*x* and MPAR-B1*xxx*E-V*x*A



2198-H008-ERS*x* and MPAR-A2*xxx*C-V*x*A
2198-H003-ERS*x* and MPAR-B2*xxx*C-V*x*A

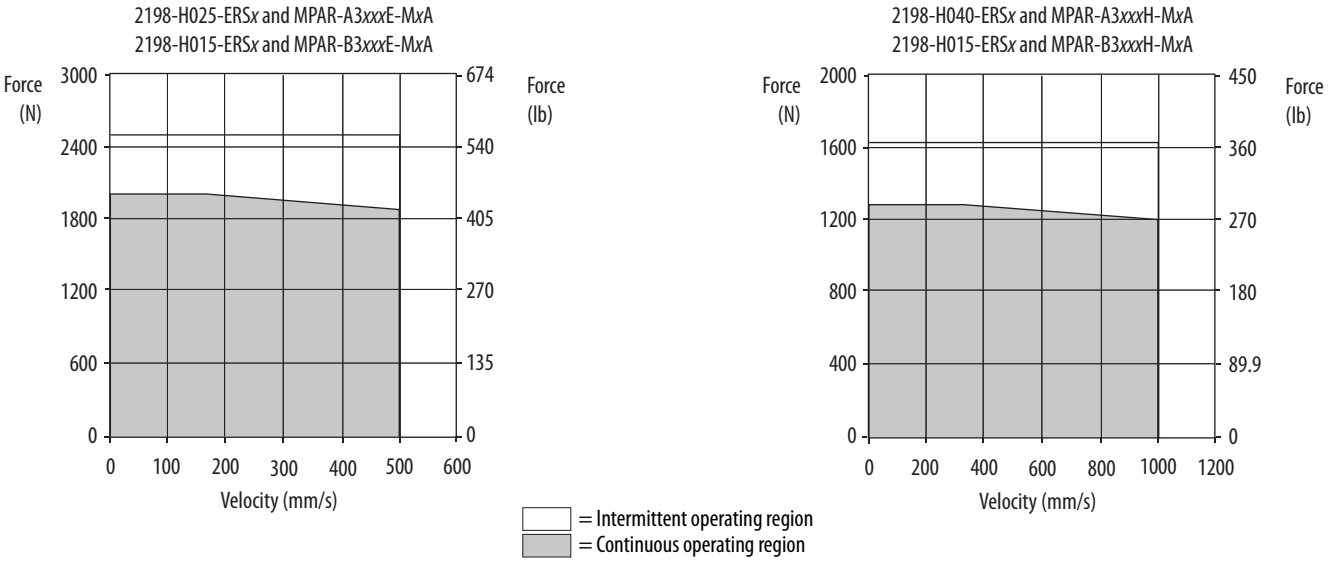


2198-H015-ERS*x* and MPAR-A2*xxx*F-V*x*A
2198-H008-ERS*x* and MPAR-B2*xxx*F-V*x*A



= Intermittent operating region
= Continuous operating region

Kinetix 5500 Drives/Kinetix MPAR Electric Cylinder Curves (continued)



Kinetix 5500 Drives with Kinetix MPAI Heavy-duty Electric Cylinders

This section provides system combination information for the Kinetix 5500 drives (with 240V 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.

IMPORTANT The Kinetix MPAI heavy-duty electric cylinders require the 2198-H2DCK (series B or later) feedback converter kit.

Kinetix 5500 servo drives are capable of 200V or 400V-class operation. The 200V-class system performance tables and force/velocity curves reflect single-phase and three-phase drive operation with 240V AC input; however, only 2198-H003-ERS*x*, 2198-H008-ERS*x*, and 2198-H015-ERS*x* 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-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPAI-A/B3*xxx*C, MPAI-A/B3*xxx*E MPAI-A/B3*xxx*R, MPAI-A/B3*xxx*S		
MPAI-A/B4*xxx*C, MPAI-A/B4*xxx*E MPAI-A/B4*xxx*R, MPAI-A/B4*xxx*S		
MPAI-B5*xxx*C, MPAI-B5*xxx*E		
MPAI-A5*xxx*C, MPAI-A5*xxx*E	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 8.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 14.
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 connector kit catalog numbers and cable specifications. Cable length *xx* is in meters. For information on maximum cable lengths see Kinetix 5500 Servo Drives User Manual, publication 2198-UM001.

Kinetix MPAI Performance Specifications with Kinetix 5500 (200V-class operation) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (240V AC input)
			25 °C (77 °F)	40 °C (104 °F)				
MPAI-A2076CV1	305 (12)	1.80	890 (200)	706 (159)	4.50	1446 (325)	0.22	2198-H008-ERS*x*
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	2198-H008-ERS*x*
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-H015-ERS*x*
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-H025-ERS*x*
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-H040-ERS*x*
MPAI-A5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	33.40	13,122 (2950)		

Performance Specifications with Roller Screw Electric Cylinders

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 Drives (240V 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-H008-ERS*x*
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-H015-ERS*x*
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-H025-ERS*x*
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 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix MPAI Performance Specifications with Kinetix 5500 (400V-class operation) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 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-H003-ERS*x*
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	2198-H008-ERS*x*
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-H008-ERS*x*
MPAI-B3300CM3								
MPAI-B3450CM3	188 (7.3)							
MPAI-B3150EM3	559 (22)		2002 (450)	1588 (357)	7.07	4003 (900)		2198-H008-ERS*x*
MPAI-B3300EM3								
MPAI-B3450EM3	376 (15)							
MPAI-B4150CM3	279 (11)	5.61	7784 (1750)	6179 (1389)	8.68	8896 (2000)	0.43	2198-H015-ERS*x*
MPAI-B4300CM3								
MPAI-B4450CM3	245 (9.5)							
MPAI-B4150EM3	559 (22)		3892 (875)	3092 (695)	14.14	7784 (1750)		2198-H015-ERS*x*
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-H015-ERS*x*
MPAI-B5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	16.70	13,122 (2950)		

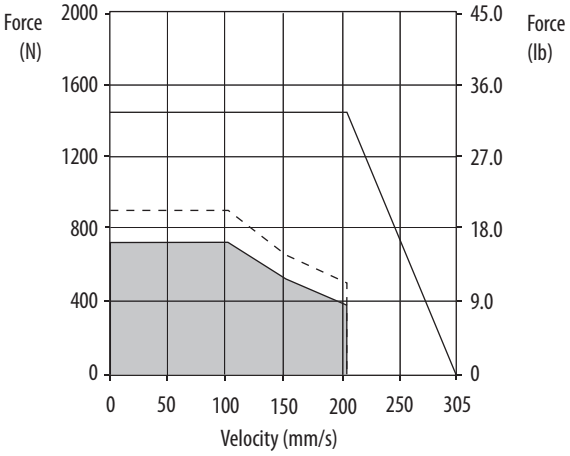
Performance Specifications with Roller Screw Electric Cylinders

Electric Cylinder Cat. No.	Speed, max mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5500 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-H008-ERS*x*
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-H008-ERS*x*
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-H015-ERS*x*
MPAI-B4300RM3								
MPAI-B4450RM3	196 (7.6)							
MPAI-B4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-B4300SM3								
MPAI-B4450SM3	393 (15)							

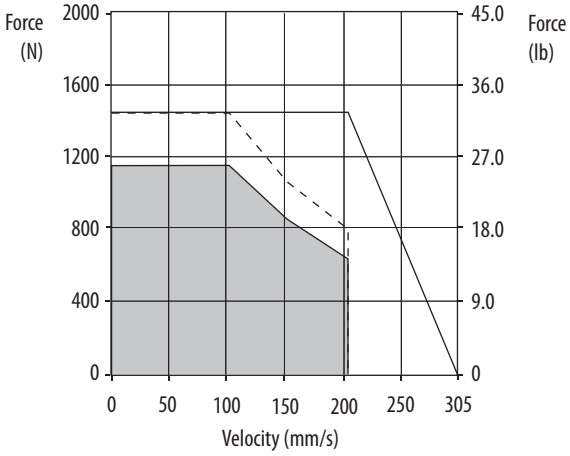
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 40 °C (104 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5500 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves

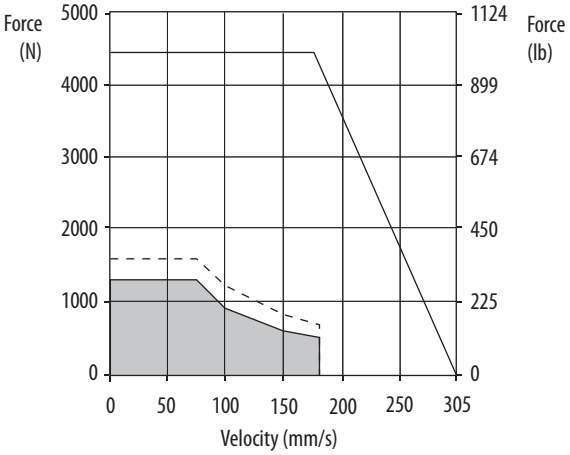
2198-H008-ERS*x* and MPAI-A2076CV1
2198-H003-ERS*x* and MPAI-B2076CV1



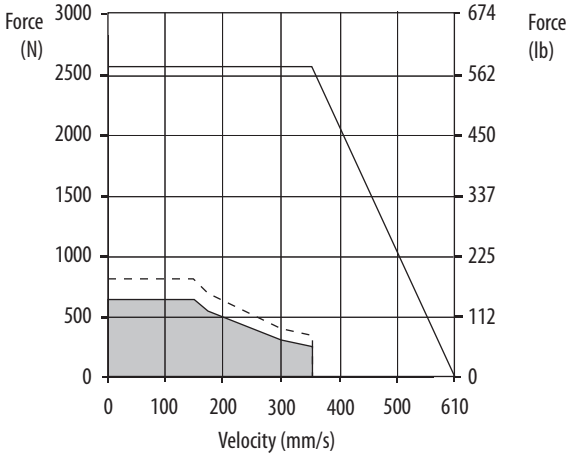
2198-H008-ERS*x* and MPAI-A2*xxx*CV3
2198-H003-ERS*x* and MPAI-B2*xxx*CV3



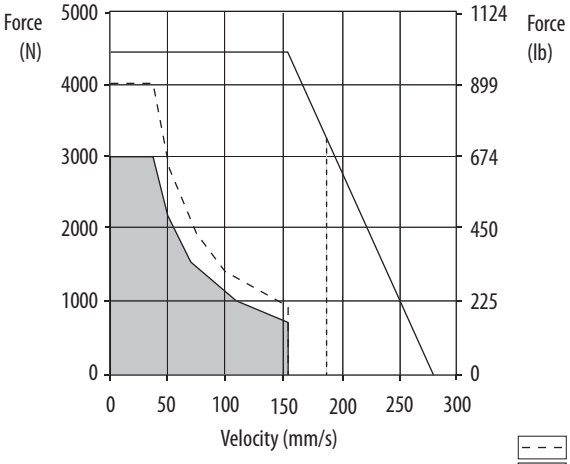
2198-H008-ERS*x* and MPAI-A3076CM1
2198-H008-ERS*x* and MPAI-B3076CM1



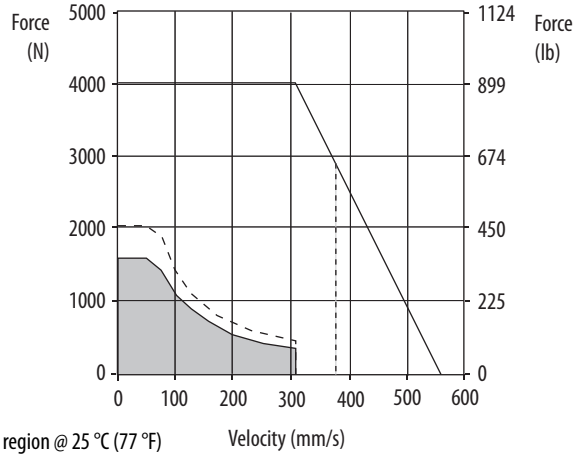
2198-H008-ERS*x* and MPAI-A3076EM1
2198-H008-ERS*x* and MPAI-B3076EM1



2198-H015-ERS*x* and MPAI-A3*xxx*CM3
2198-H008-ERS*x* and MPAI-B3*xxx*CM3



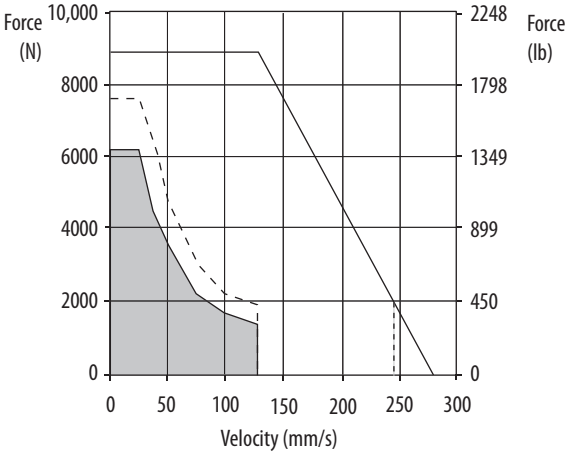
2198-H015-ERS*x* and MPAI-A3*xxx*EM3
2198-H008-ERS*x* and MPAI-B3*xxx*EM3



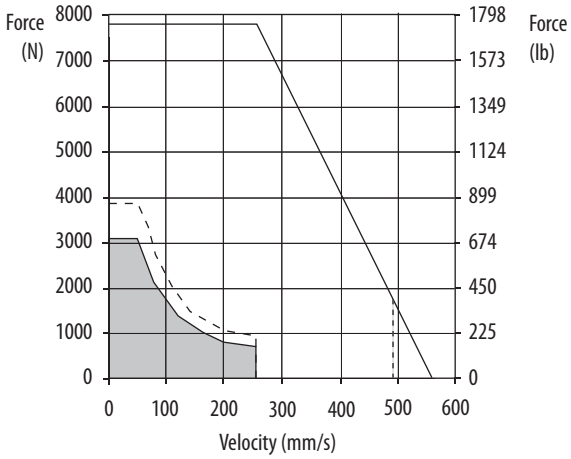
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 5500 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves (continued)

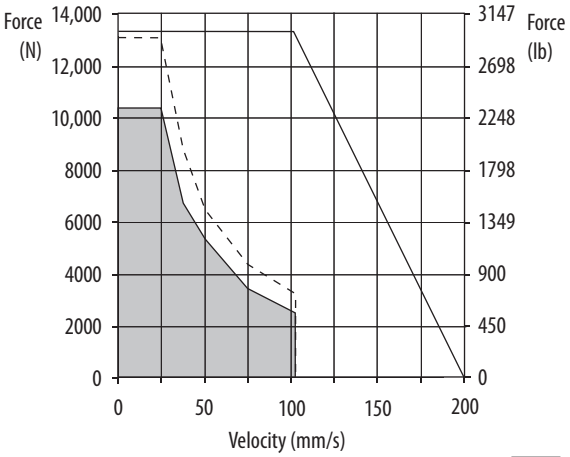
2198-H025-ERS*x* and MPAI-A4*xxx*CM3
2198-H015-ERS*x* and MPAI-B4*xxx*CM3



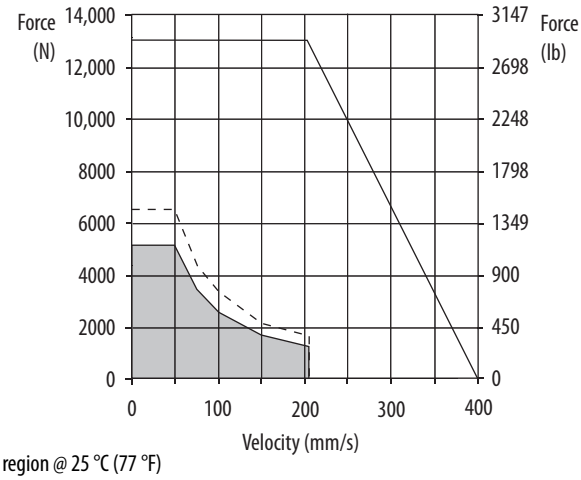
2198-H025-ERS*x* and MPAI-A4*xxx*EM3
2198-H008-ERS*x* and MPAI-B4*xxx*EM3



2198-H040-ERS*x* and MPAI-A5*xxx*CM3
2198-H015-ERS*x* and MPAI-B5*xxx*CM3



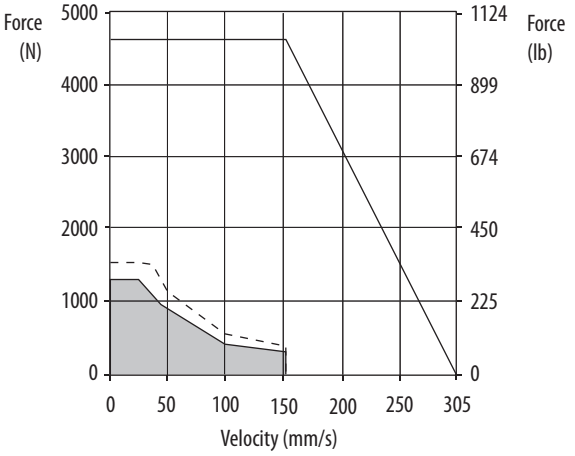
2198-H040-ERS*x* and MPAI-A5*xxx*EM3
2198-H015-ERS*x* and MPAI-B5*xxx*EM3



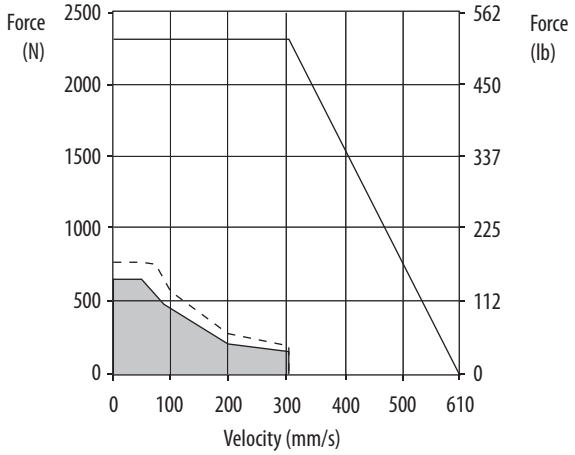
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076…300 mm (3…12 in.) stroke lengths

Kinetix 5500 Drives/Kinetix MPAI (roller screw) Electric Cylinder Curves

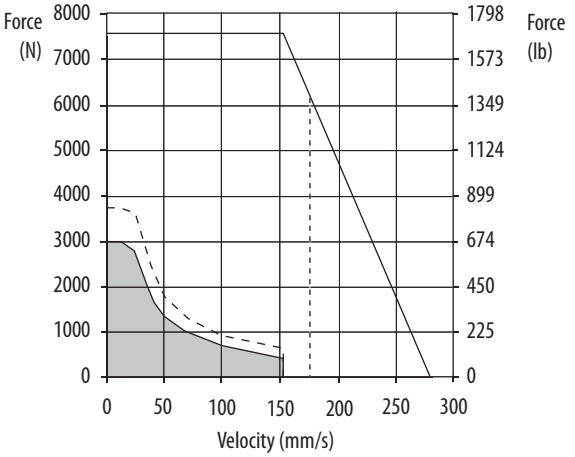
2198-H008-ERS*x* and MPAI-A3076RM1
2198-H008-ERS*x* and MPAI-B3076RM1



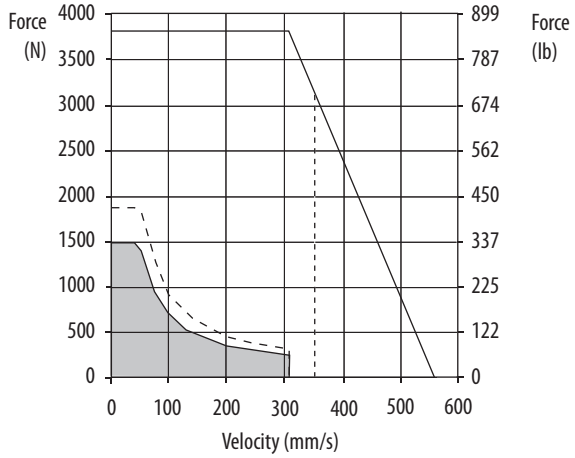
2198-H008-ERS*x* and MPAI-A3076SM1
2198-H008-ERS*x* and MPAI-B3076SM1



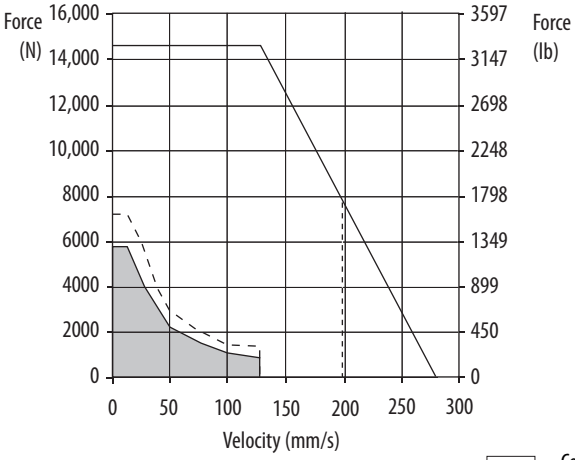
2198-H015-ERS*x* and MPAI-A3*xxx*RM3
2198-H008-ERS*x* and MPAI-B3*xxx*RM3



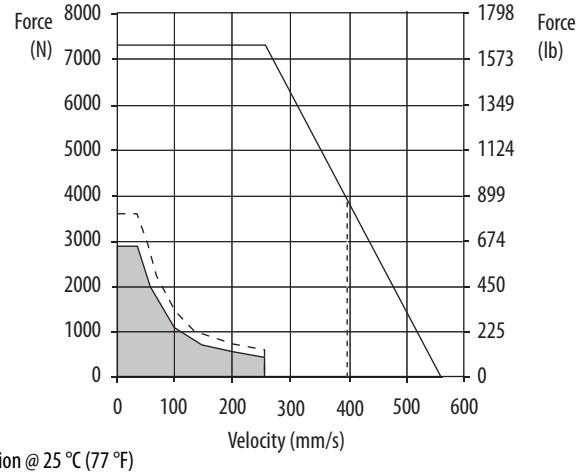
2198-H015-ERS*x* and MPAI-A3*xxx*SM3
2198-H008-ERS*x* and MPAI-B3*xxx*SM3



2198-H025-ERS*x* and MPAI-A4*xxx*RM3
2198-H015-ERS*x* and MPAI-B4*xxx*RM3



2198-H025-ERS*x* and MPAI-A4*xxx*SM3
2198-H015-ERS*x* 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

Additional Resources

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

Resource	Description
Kinetix Rotary Motion Specifications, publication KNX-TD001	Product specifications for Kinetix VP, Kinetix MP, Kinetix TL and TLY, Kinetix RDB, and Kinetix HPK rotary motors.
Kinetix Linear Motion Specifications, publication KNX-TD002	Provides product specifications for Kinetix MPAS and MPMA linear stages, Kinetix VPAR, MPAR, and MPAI electric cylinders, and LDC-Series and LDL-Series linear motors.
Kinetix Servo Drives Specifications, publication KNX-TD003	Product specifications for Kinetix Integrated Motion over the EtherNet/IP network, Integrated Motion over Sercos interface, EtherNet/IP networking, and component servo drive families.
Kinetix Motion Accessories Specifications, publication KNX-TD004	Product specifications for 2090-Series motor and interface cables, low-profile connector kits, drive power components, and other servo drive accessory items.
Kinetix Halogen-free PUR and PVC Single Motor Cables Quick Reference, publication 2090-QR002	Provides product specifications comparing 2090-CSBM1D*x-xx*LF*xx* (Halogen-free PUR) and 2090-CS*x*M1D*x-xx*VA*xx* (PVC) single motor cables.
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.
Kinetix 5700 Drive Systems Design Guide, 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 5100 Drive Systems Design Guide, publication KNX-RM011	
Kinetix 6000 and Kinetix 6200/6500 Drive Systems Design Guide, publication KNX-RM003	
Kinetix 300/350 Drive Systems Design Guide, publication KNX-RM004	
Kinetix 3 Drive Systems Design Guide, publication KNX-RM005	
Kinetix 2000 Drive Systems Design Guide, publication KNX-RM006	
Kinetix 7000 Drive Systems Design Guide, publication GMC-RM007	
Kinetix 5500 Servo Drives User Manual, publication 2198-UM001	Information on installing, configuring, startup, troubleshooting, and applications for your Kinetix servo drive system.
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.
ControlLogix Selection Guide, publication 1756-SG001	Information to determine which ControlLogix controller fits your application and the product specifications to help design a ControlLogix system and select the appropriate components.
CompactLogix Selection Guide, publication 1769-SG001	Information to determine which CompactLogix controller fits your application and the product specifications to help design a CompactLogix system and select the appropriate components.
Industrial Ethernet Media Brochure, publication 1585-BR001	Information to determine which Bulletin 1585 Ethernet cable fits your application and the product specifications to help select the appropriate components.
Motion Analyzer System Sizing and Selection Tool website https://motionanalyzer.rockwellautomation.com/	Comprehensive motion application sizing tool used for analysis, optimization, selection, and validation of your Kinetix Motion Control system.
Rockwell Automation Configuration and Selection Tools, website http://ab.rockwellautomation.com	Online product selection and system configuration tools, including AutoCad (DXF) drawings.
Rockwell Automation Industrial Automation Glossary, publication AG-7.1	A glossary of industrial automation terms and abbreviations.

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

Notes:

Rockwell Automation Support

Use the following resources to access support information.

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

Documentation Feedback

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

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

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

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

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

Publication KNX-RM009E-EN-P - December 2019

Supersedes Publication KNX-RM009D-EN-P - November 2019