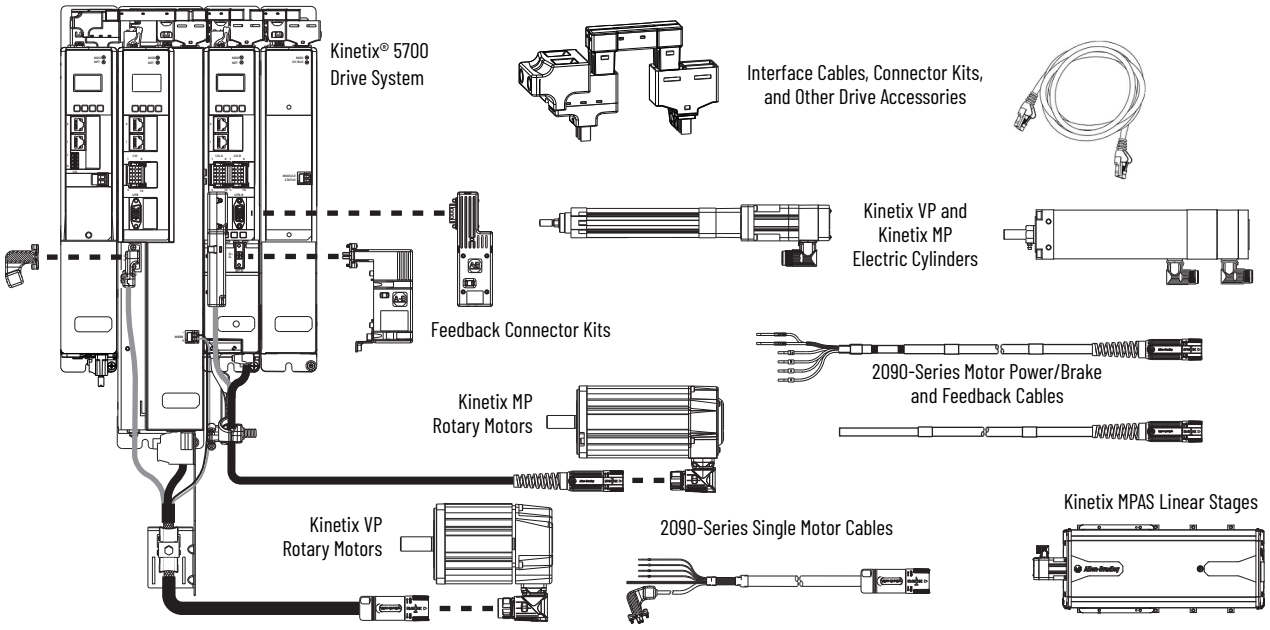
Design Guide

Original Instructions

Kinetix 5700 Drive Systems

Catalog Numbers 2198-P031, 2198-P070, 2198-P141, 2198-P208, 2198-RP088, 2198-RP200, 2198-RP263, 2198-RP312, 2198-S086-ERS3, 2198-S130-ERS3, 2198-S160-ERS3, 2198-S263-ERS3, 2198-S312-ERS3, 2198-S086-ERS4, 2198-S130-ERS4, 2198-S160-ERS4, 2198-S263-ERS4, 2198-S312-ERS4, 2198-D006-ERS3, 2198-D012-ERS3, 2198-D020-ERS3, 2198-D032-ERS3, 2198-D057-ERS3, 2198-D006-ERS4, 2198-D012-ERS4, 2198-D020-ERS4, 2198-D032-ERS4, 2198-D057-ERS4, 2198-CAPMOD-2240, 2198-DCBUSCOND-RP312, 2198-CAPMOD-DCBUS-IO



Summary of Changes

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

Topic	Page
Updated the DC-bus power supply input-power range and shared DC power range to include 240V AC (nom) operation (firmware revision 13 or later).	2, 3, 10
Added Bulletin 842E-CM and 843ES EtherNet/IP absolute encoders as Optional Drive Accessories.	11
Added drive/motor cable combinations, performance specifications, and torque/speed curves for Kinetix VPL, VPF, and VPH 200V-class servo motors and Kinetix 5700 drives with 240V AC (nom) input power.	20, 56, 66
Added drive/motor cable combinations, performance specifications, and torque/speed curves for Kinetix MPL, MPM, MPF, and MPS 200V-class servo motors and Kinetix 5700 drives with 240V AC (nom) input power.	76, 90, 100, 105
Added drive/motor cable combinations, performance specifications, and torque/speed curves for Kinetix HPK asynchronous servo motors paired with Kinetix 5700 regenerative bus supplies.	108

Introduction

Use this publication when your application includes the Kinetix 5700 drive family and Kinetix VP motors and actuators or any of the other compatible Allen-Bradley® motors and actuators. Other Allen-Bradley motors and actuators require the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK feedback converter kit. For more Kinetix drive and motor information, see Motion Analyzer or the Kinetix Motion Control Selection Guide, publication KNX-SG001.

The purpose of this publication is to assist you in identifying the drive system components and accessory items that are needed for your Kinetix 5700 drive system. Diagrams in this publication illustrate how many of the common drive accessories are used in a typical system. See the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed accessory descriptions and specifications.

The drive and motor/actuator system combinations 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 Motion Analyzer for system sizing, selection, and to verify compatibility. Access Motion Analyzer at https://motionanalyzer.rockwellautomation.com.

CIP Security

CIP Security™ is a standard, open-source communication method that helps to provide a secure data transport across an EtherNet/IP network. It lets CIP-connected devices authenticate each other before transmitting and receiving data.

CIP Security uses the following security properties to help devices protect themselves from malicious communication:

- Device Identity and Authentication
- Data Integrity and Authentication
- Data Confidentiality

Rockwell Automation uses the following products to implement CIP Security:

- FactoryTalk® Services Platform, version 6.11 or later, with the following components enabled:
  - FactoryTalk Policy Manager
  - FactoryTalk System Services
- FactoryTalk Linx, version 6.11 or later
- Studio 5000® Design Environment, version 32.00.00 or later
- CIP Security-enabled Rockwell Automation® products, for example, the product described in this publication

For more information on CIP Security, including which products support CIP Security, see the CIP Security with Rockwell Automation Products Application Technique, publication SECURE-AT001.

Kinetix 5700 System Power Supply Options

Kinetix 5700 drives systems (firmware revision 13 or later) that include DC-bus power supplies (catalog numbers 2198-P*xxx*) are capable of accepting 195…528V AC rms (three-phase) input power. This feature expands the inverter output range to include Kinetix VPL, VPF, VPH and Kinetix MPL, MPM, MPF, MPS (200V-class) rotary motors with 2198-*xxxx*-ERS3 (series B) inverters and 2198-*xxxx*-ERS4 inverters.

IMPORTANT 2198-*xxxx*-ERS3 (series A) inverters do not support firmware revision 13.

A single 2198-P*xxx* DC-bus (converter) power supply can supply the Kinetix 5700 drive system with 276…747V shared DC-bus power (7…46 kW). For additional output power (kW) you can install two or three 2198-P208 DC-bus power supplies. You can also extend the DC-bus to additional inverter clusters via accessory modules.

The 2198-RP*xxx* regenerative bus supply (24…140 kW) provides full-line motoring and regenerative power to and from the Kinetix 5700 common DC-bus system. You can configure the regenerative bus supply to provide active DC-bus voltage regulation or passive AC rectification like the DC-bus power supply. In addition, you can extend the DC-bus voltage to additional inverter clusters via accessory modules. The regenerative bus supply is also compatible with Kinetix 7000, Kinetix 6000, Kinetix 6200, Kinetix 6500, PowerFlex® 755 drives, and other select PowerFlex drives.

DC-bus Power Supply Input Power Configurations

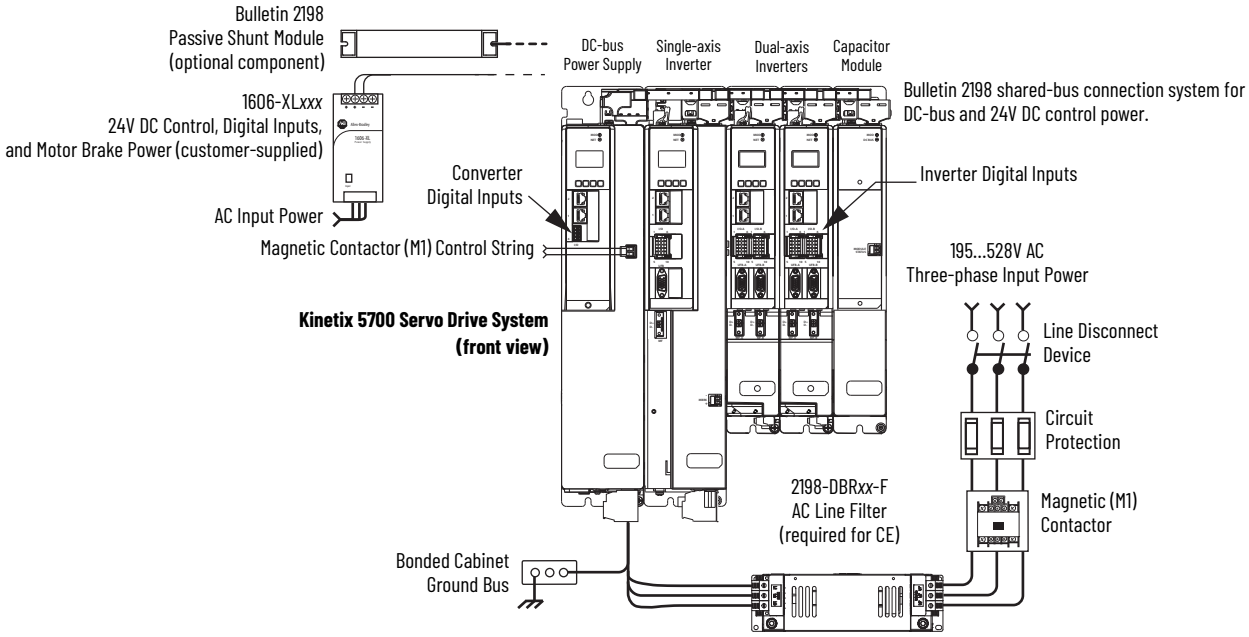
In this example, AC input power is fed to the DC-bus (converter) power supply. One single-axis (inverter) module and two dual-axis (inverter) modules support five axes of motion. This example includes the following features:

- The DC-bus power supply is mounted on the far left with the inverters and capacitor module positioned on the right, but the reverse mounting order (right to left) is also possible.
- Digital inputs are wired to sensors and the control circuitry at the IOD connectors. The contactor-enable relay helps protect the DC-bus power supply in the event of shutdown fault conditions.
- The capacitor module adds to the total system capacitance.

Other features and configurations include the following:

- Configure two or three 2198-P208 DC-bus (converter) power supplies that all receive AC input power and feed the inverter modules (including 2198-S263-ERS*x* and 2198-S312-ERS*x* single-axis inverters) for increased output power.
- Extend the same 276...747V DC-bus voltage to two or more drive clusters in the same cabinet.
  - Kinetix 5700 accessory modules provide connection points for the extended DC-bus.
  - Two adjacent accessory modules are required for each cluster when the extended DC-bus system current exceeds 104 A.
- The DC-bus power supply supports iTRAK power supplies and up to 40 iTRAK motor modules, depending on cable lengths and iTRAK motor-module power consumption.

DC-bus Power Supply Installation Example



Regenerative Bus Supply Input Power Configurations

In this example, AC input power is fed to the regenerative bus supply. One single-axis (inverter) module and two dual-axis (inverter) modules support five axes of motion.

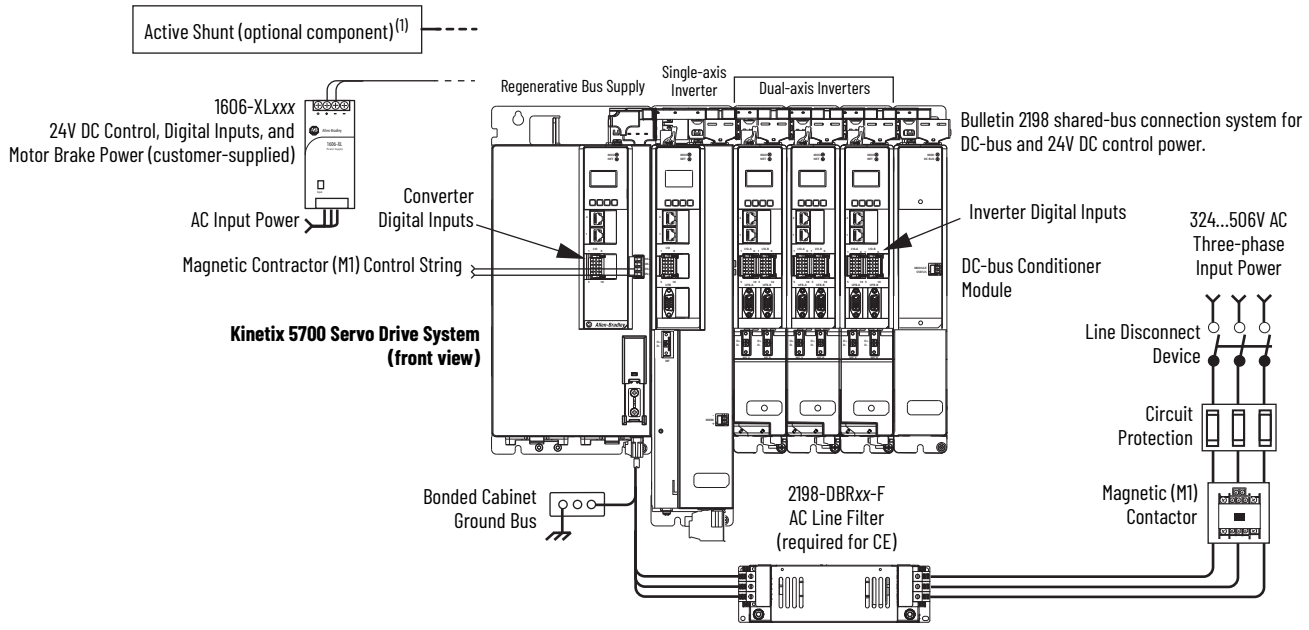
This example includes the following features:

- The regenerative bus supply is mounted on the far left with the inverters and DC-bus conditioner module positioned on the right, but the reverse mounting order (right to left) is also possible.
- Integrated LC filter minimizes AC line harmonics from the AC power source and saves significant panel-space and installation costs.
- Digital inputs are wired to sensors and the control circuitry at the IOD connectors. The contactor-enable relay helps protect the DC-bus power supply in the event of shutdown fault conditions.
- The DC-bus conditioner module is required when the combined motor cable length exceeds 400 m (1312 ft) and/or when the AC input-power source type is impedance-grounded.

Other features and configurations include the following:

- Provides full-line motoring and regenerative power to and from a Kinetix 5700 common DC-bus system.
- Configure the regenerative bus supply to provide active DC-bus voltage regulation or passive AC rectification like the DC-bus power supply.
- Extend the same 458...747V DC-bus voltage to two or more extended clusters in the same cabinet.
  - Kinetix 5700 accessory modules provide connection points for the extended DC-bus.
  - The Kinetix 5700 servo drive system is capable of up to 208 A DC-bus current. Two adjacent accessory modules are required when the DC-bus system current exceeds 104 A.
- The regenerative bus supply supports iTRAK power supplies and up to 40 iTRAK motor modules, depending on cable lengths and iTRAK motor-module power consumption.

Regenerative Bus Supply Installation Example



(1) See the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for or more information on selection and wiring Encompass™ partner Powerohm active shunts.

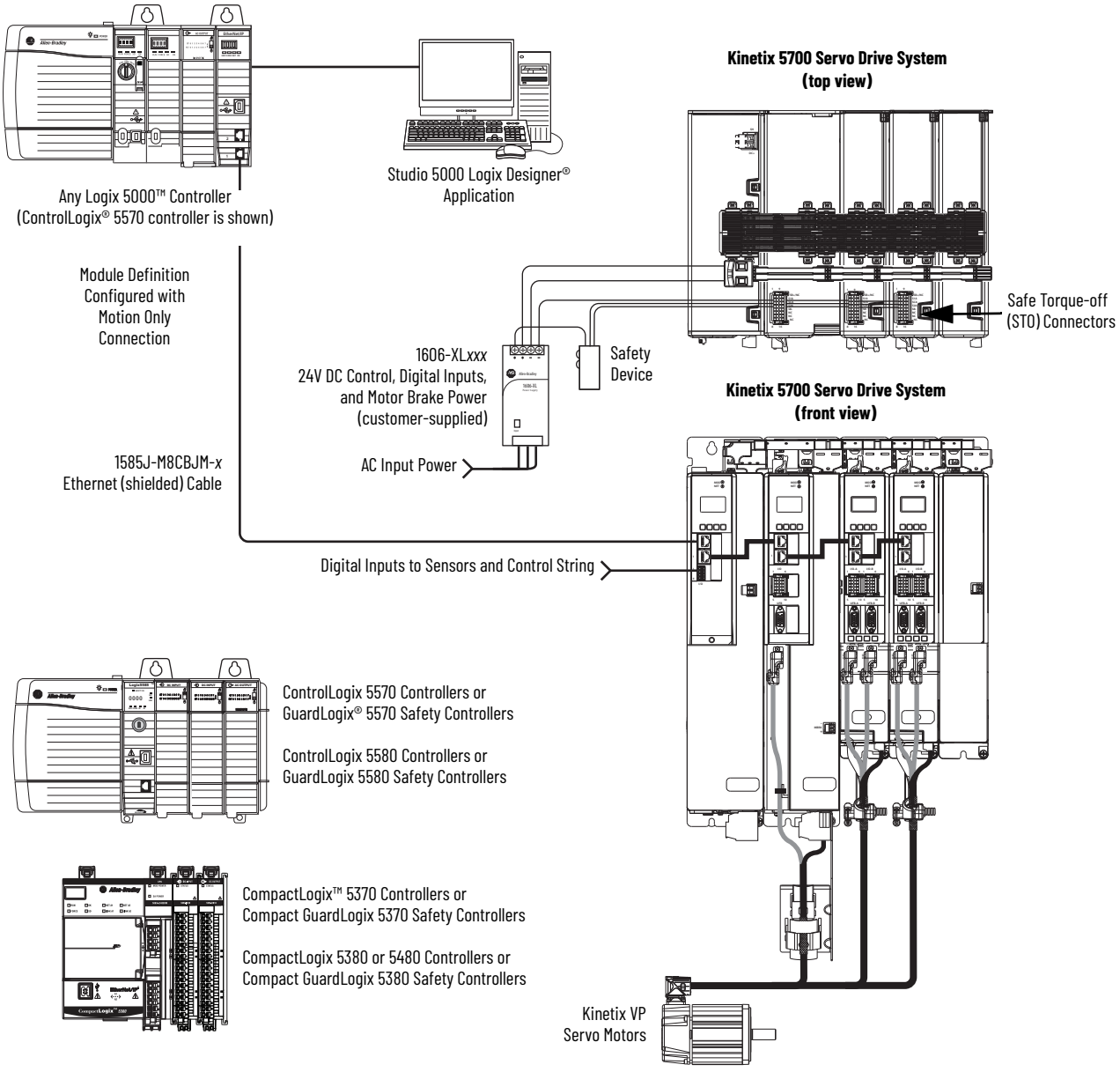
Functional Safety Configuration Options

Kinetix 5700 servo drives are capable of safe torque-off (STO) and safe stop 1 (SS1) drive-based safety functions via hardwired connections or integrated over the EtherNet/IP network. In addition, safely limited speed (SLS) and other controller-based safety instructions are also possible. These examples illustrate the functional safety configuration options.

Hardwired Safety Configuration

Kinetix 5700 servo 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



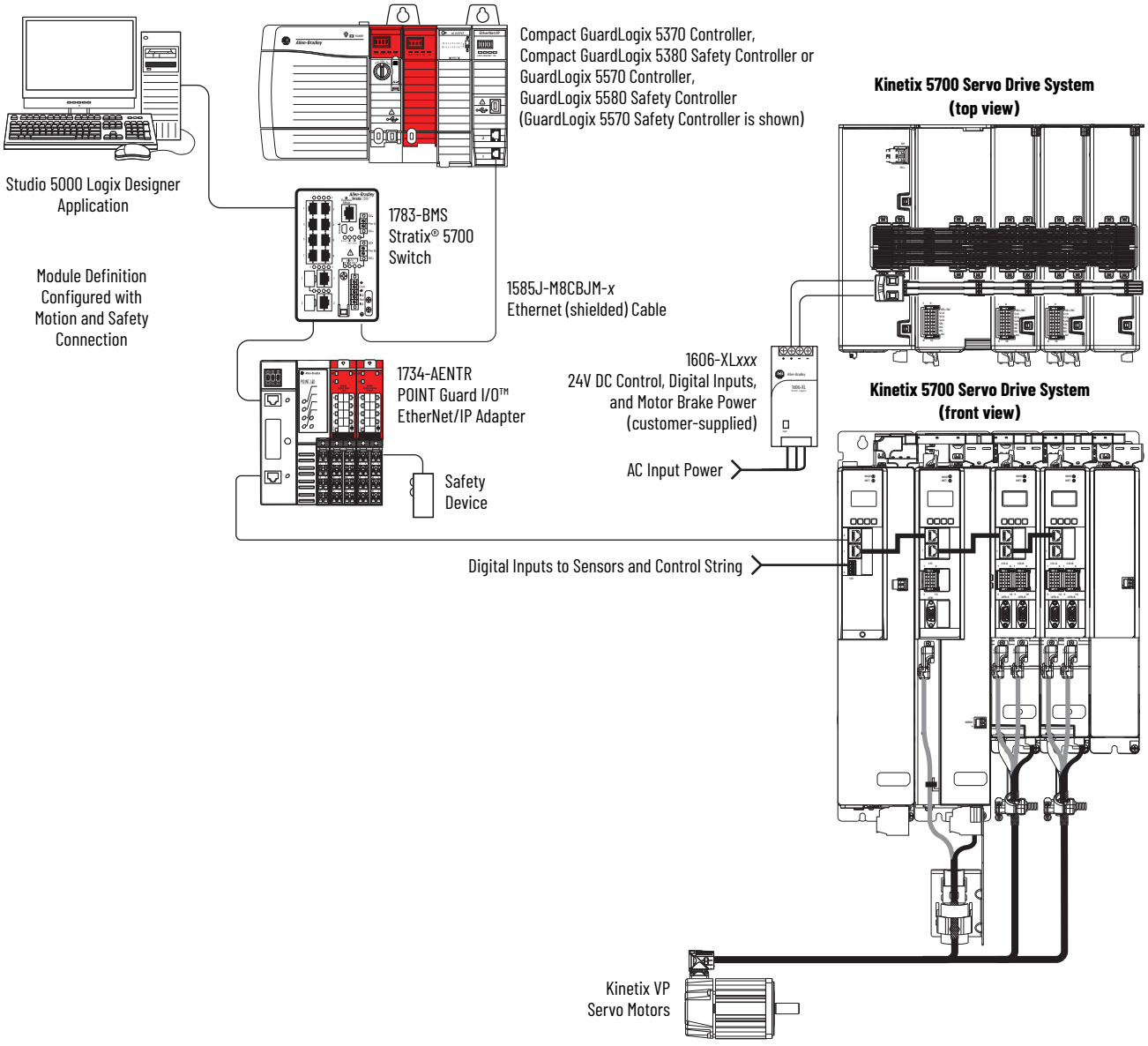
Integrated Safety Configurations

The GuardLogix or Compact GuardLogix safety controller issues the safe torque-off (STO) or safe stop (SS1) command over the EtherNet/IP network and the Kinetix 5700 servo drive executes the command.

In this example, a single GuardLogix safety controller makes the Motion and Safety connections.

IMPORTANT If only one controller is used in an application with Motion and Safety connections, it must be a GuardLogix or Compact GuardLogix safety controller. For more information, see the Functional Safety and GuardLogix Controller Compatibility table on page 11.

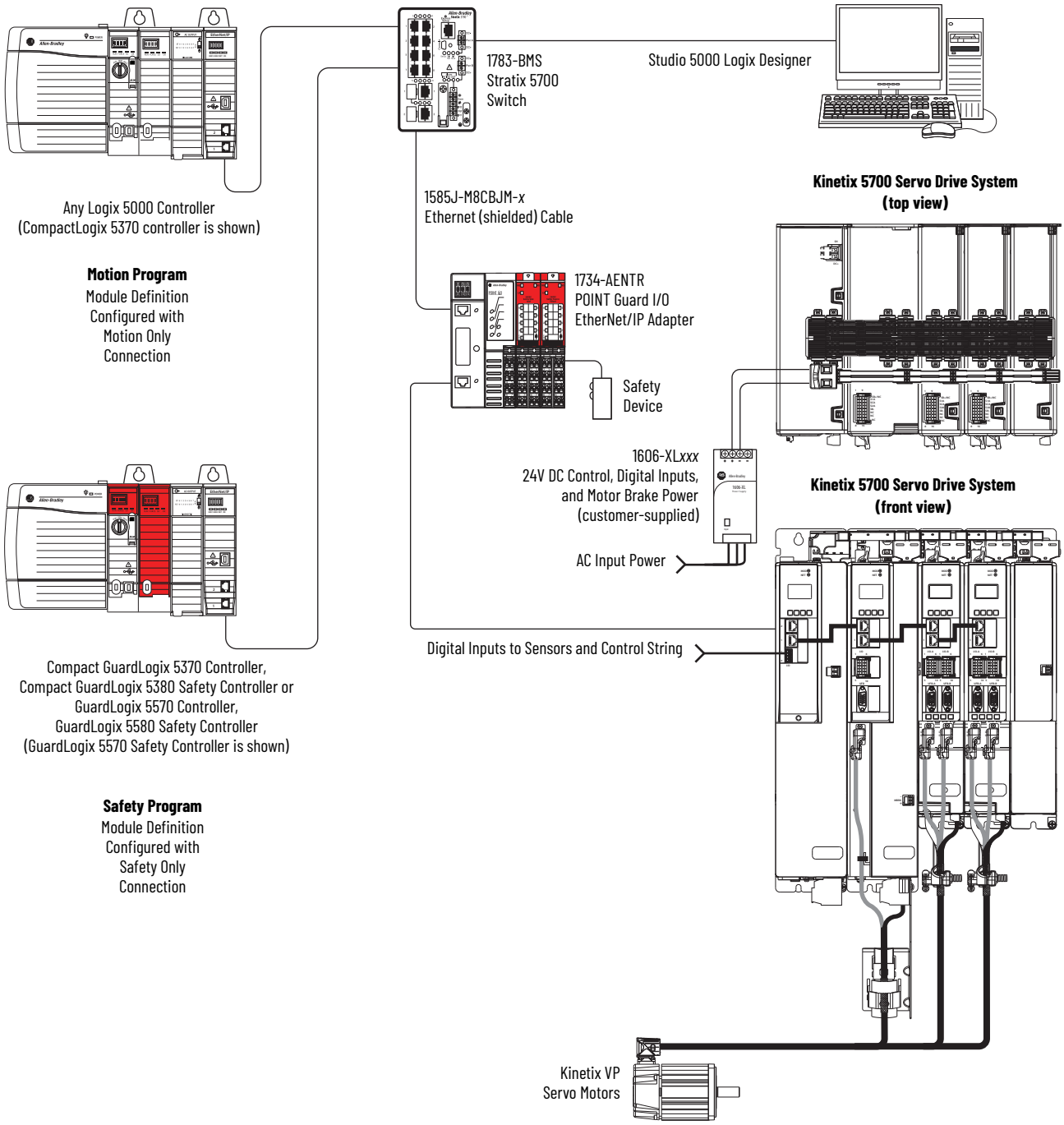
Motion and Safety Configuration (single controller)



In this example, a non-safety controller makes the Motion Only connection and a separate GuardLogix safety controller makes the Safety Only connection.

IMPORTANT If two controllers are used in an application with Motion Only and Safety Only connections, the Safety Only connection must be a GuardLogix or Compact GuardLogix safety controller and the Motion Only connection must be any Logix 5000 controller. For more information, see the Functional Safety and GuardLogix Controller Compatibility table on page 11.

Motion and Safety Configuration (multi-controller)



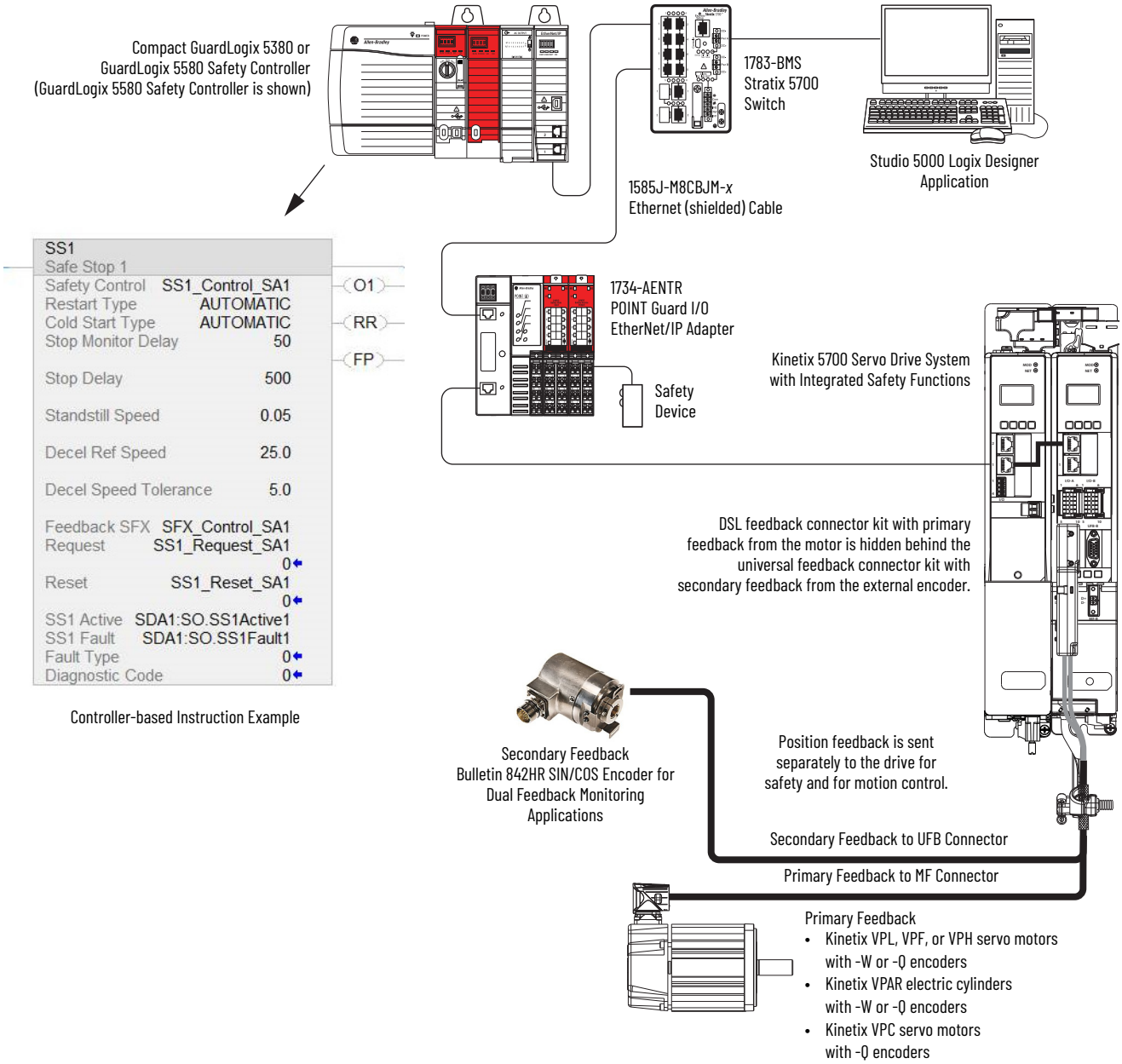
Safe Stop and Safe Monitor Configuration

Kinetix 5700 servo drives are capable of safe stop and safe monitor functions via drive-based and controller-based integrated safety over the EtherNet/IP network.

IMPORTANT For applications with safe stop and safe monitor safety functions, the GuardLogix 5580 or Compact GuardLogix 5380 controllers must be used. For more information, see the Functional Safety and GuardLogix Controller Compatibility table on page 11.

In this example, the SS1 stopping function is used in a motion and safety controller-based configuration with dual-feedback monitoring.

Safe Motion-monitoring Configuration



Controller-based Instruction Example

Determine What You Need

For each Kinetix 5700 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 and actuators (high-resolution absolute feedback). Kits are pre-assembled with the feedback wires on 2090-CSxM1DE single motor cables. Kits can also be purchased separately and used with 2090-CSxM1DG cables.
- 2198-K57CK-D15M (15-pin) connector kits are used for new or existing motor feedback connections to any other compatible Allen-Bradley motor or actuator with non-DSL encoder feedback.
- 2198-H2DCK feedback converter kits (series B or later) are for feedback-only (master) or dual-loop (load) feedback when the 15-pin universal feedback (UFB) connector is used for Hiperface motor feedback.

Optional equipment includes:

- Kinetix 5700 capacitor module, DC-bus conditioner module, and extension module (accessory modules)
- Bulletin 2198 AC line filters
- Bulletin 2198 external passive shunt resistors (when the DC-bus power supply is the converter)
- External (Powerohm) active shunt (when DC-bus power supply or regenerative bus supply is the converter)
- 2198-ABQE encoder output module
- 24V input wiring connectors, T-connectors, and bus-bars for the 24V shared-bus connection system
- Bulletin 1321 line reactors
- Kinetix 5700 system mounting toolkit

Kinetix 5700 Drive Modules

Kinetix 5700 Drive Modules	Module Cat. No.		Continuous Output Current to Bus A_{DC} rms	Module Width mm	Continuous Output Power		Output Current		Features
					240V Input kW	480V input kW	Continuous A 0-pk	Peak A 0-pk	
DC-bus Power Supply (195…528V AC rms, three-phase input power)	2198-P031 2198-P070		10.5 25.5	55	3.5 8.5	7 17	–	–	• Multi-axis, three-phase DC-bus sharing converter • Two or three power supplies in parallel (2198-P208 units only) increase power output to Bulletin 2198 single-axis and dual-axis inverters • Extended DC-bus voltage to another Kinetix 5700 inverter cluster
	2198-P141 2198-P208		46.9 69.2	85	15.5 23.0	31 46			
Regenerative Bus [1] Supply (324…506V AC rms, three-phase input power)	2198-RP088 2198-RP200 2198-RP263 2198-RP312		35.3 100.0 176.4 207.0	165 275 440 440	12.0 33.5 59.5 70.0	24 67 119 140	–	–	• Provides full-line motoring and regenerative power to and from a Kinetix 5700 common DC-bus system • Integrated LC filter minimizes AC line harmonics from the AC power source and saves significant panel-space and installation costs • Can be configured to provide active DC-bus voltage regulation or passive AC rectification like the DC-bus supply • Extended DC-bus voltage to another Kinetix 5700 inverter cluster
Single-axis Inverters	2198-S086-ERS3 2198-S130-ERS3	2198-S086-ERS4 2198-S130-ERS4		85	14.9 22.5	29.7 44.9	60.8 91.9	121.6 183.8	**2198-*xxxx*-ERS3 and 2198-*xxxx*-ERS4 drives:** • Kinetix VP and Kinetix MP servo motor compatibility – 240V input support for Kinetix VPL, VPF, VPH, MPL, MPM, MPF, MPS (200V-class) servo motors with drive firmware revision 13 or later • Kinetix HPK asynchronous servo motor compatibility • Kinetix RDB direct-drive motor compatibility • Kinetix VP and Kinetix MP linear actuator compatibility • LDAT-Series linear thruster compatibility • LDC-Series™ linear motor compatibility • Hardwired and Integrated STO **2198-*xxxx*-ERS3 (series B) drives add:** • Integrated (drive-based) Timed SS1 **2198-*xxxx*-ERS4 drives add:** • Integrated (drive-based) Timed SS1, Monitored SS1 • Integrated (controller-based) SS1, SS2, SOS, SLS, [2] SLP, SDI, SFX, SBC
	2198-S160-ERS3	2198-S160-ERS4		100	30.1	60.1	120.2	226.2	
	2198-S263-ERS3 2198-S312-ERS3	2198-S263-ERS4 2198-S312-ERS4		220	45.0 56.0	90 112	212.1 271.5	371.9 441.2	
Dual-axis Inverters	2198-D006-ERS3 2198-D012-ERS3 2198-D020-ERS3 2198-D032-ERS3	2198-D006-ERS4 2198-D012-ERS4 2198-D020-ERS4 2198-D032-ERS4		55	0.9 1.7 2.8 4.5	1.7 3.4 5.5 8.9	3.5 7.0 11.3 18.3	8.8 17.6 28.2 45.9	
	2198-D057-ERS3	2198-D057-ERS4		85	8.0	15.9	32.5	81.3	

(1) Applies when DC-bus voltage regulation is enabled. If DC-bus voltage regulation is not enabled, the input voltage range is 324….528V AC. For more information on these two modes of operation, see the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002.

(2) See the Kinetix 5700 Safe Monitor Functions Safety Reference Manual, publication 2198-RM001, for more information on these Drive Safety instructions.

IMPORTANT Throughout this publication, when the Kinetix 5700 inverter catalog number ends in -ERS*x*, for example 2198-D057-ERS*x*, the variable (x) indicates that the inverter catalog number (using this example) can be 2198-D057-ERS3 or 2198-D057-ERS4.

Functional Safety and GuardLogix Controller Compatibility

Safety Application Mode (1)	Safety Functions	Minimum Drive Module (2) Required	Minimum Controller (3) Required	Studio 5000 Logix Designer
Hardwired	Safe Torque-off (STO)	2198-*xxxx*-ERS3 (series A)	• ControlLogix 5570 • CompactLogix 5370	Version 26 or later
Networked (integrated)	Safe Torque-off (STO)	2198-*xxxx*-ERS3 (series A)		
	Timed SS1	2198-*xxxx*-ERS3 (series B)	• GuardLogix 5580 • CompactLogix 5380	Version 31 or later
	• Timed SS1 (4) • Monitored SS1 (4) • Controller-based safety functions (4)	2198-*xxxx*-ERS4		

(1) For 2198-D*xxx*-ERS4 (dual-axis) inverters, you must configure axis 1 and 3 as either Networked or Hardwired, they cannot be mixed.
(2) Where a 2198-*xxxx*-ERS3 drive is specified, a 2198-*xxxx*-ERS4 drive is backwards compatible.
Where a 2198-*xxxx*-ERS3 (series A) drive is specified, a 2198-*xxxx*-ERS3 (series B) drive is backwards compatible.
(3) Where a ControlLogix or CompactLogix (non-safety) controller is specified, a GuardLogix or Compact GuardLogix controller is backwards compatible. Also, GuardLogix 5580 and Compact GuardLogix 5380 controllers are backwards compatible with GuardLogix 5570 and Compact GuardLogix 5370 controllers.
(4) See the Kinetix 5700 Safe Monitor Functions Safety Reference Manual, publication 2198-RM001, for more information on these Drive Safety instructions.

Required Drive Accessories

Drive Accessory	Description	Cat. No.
24V power supply (1)	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, VPC, VPF, VPH, and VPS rotary motors. • Kinetix MPL, MPM, MPF, and MPS, HPK, and RDB rotary motors. • Kinetix MPAS, MPAR, and MPAI linear actuators. • Kinetix VPAR linear actuators • LDAT-Series linear thrusters and LDC-Series linear motors.	Refer to the specific drive/ motor combination for the motor cables required for your system.
Feedback connector kits	When using flying-lead cables, connector kits are required for wiring motor feedback and auxiliary feedback to the MF and/or UFB feedback connectors.	• 2198-KITCON-DSL • 2198-K57CK-D15M • 2198-H2DCK
DC-bus connector kits	DC-bus links and end-caps are required to make DC-bus connections across the Kinetix 5700 drive system. These kits are included with each drive module and replacement kits are also available.	• 2198-BARCON-*xxx*DC200 • 2198-KITCON-ENDCAP200

(1) The 24V DC control power supply and 24V power distribution maintains the Kinetix 5700 drive system control circuitry and requires a thorough evaluation. See the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for points to consider when sizing such a system.

Optional Drive Accessories

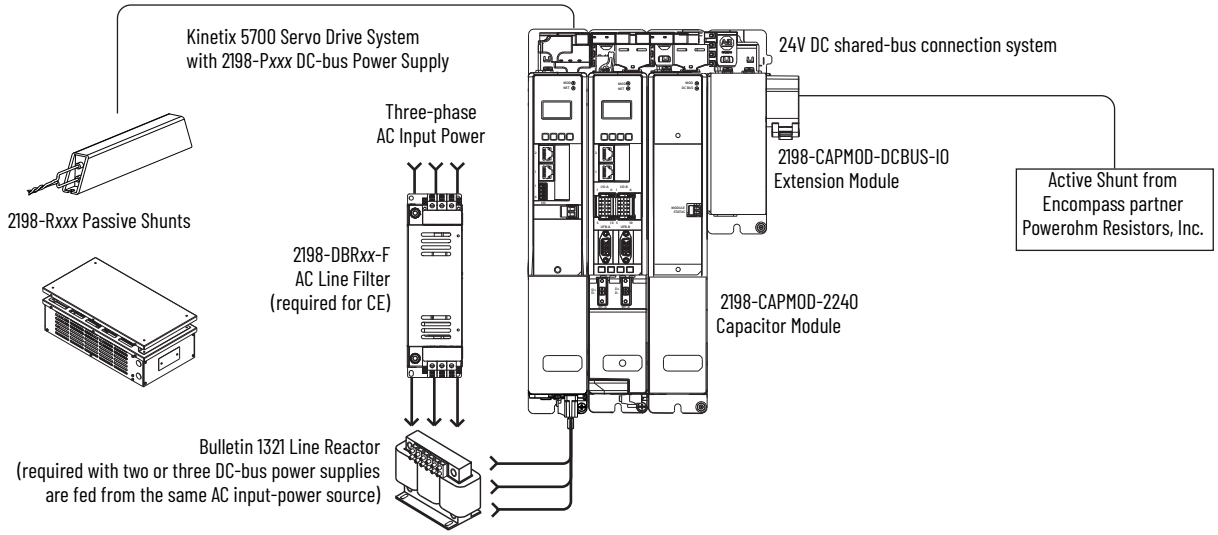
Drive Accessory	Description	Cat. No.
Shared-bus connector kits	24V input wiring connectors, T-connectors, and bus bars for the 24V shared-bus connection system	• 2198-TCON-24VDCIN36 • 2198-*xxxx*-P-T • 2198-BARCON-*xx*DCAC100
Capacitor module	Use for energy storage and to extend the DC-bus voltage to another inverter cluster. Modules are zero-stacked with servo drives and use the shared-bus connection system to extend the external DC-bus voltage in applications up to 104 A. Can parallel with itself or with another accessory module for up to 208 A.	2198-CAPMOD-2240
Extension module	The extension module, paired with a capacitor module or DC-bus conditioner module, is used to extend the DC-bus voltage to another inverter cluster in systems with ≥104 A current and up to 208 A.	2198-CAPMOD-DCBUS-IO
DC-bus conditioner module	Decreases the voltage stress on insulation components in an inverter system with long cable lengths. Modules are used in systems with an impedance-grounded AC power source and to extend the DC-bus voltage to another inverter cluster.	2198-DCBUSCOND-RP312
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 (required to meet CE).	2198-DBR*xx*-F (1)
Bulletin 2198 passive shunts	Panel-mount or cabinet-mount external passive shunt resistor.	2198-R*xxx*
Active shunts (2)	Powerohm active shunt module with built-in internal brake resistor.	• PKB*xxx* • PKB*xxx*-800
	Powerohm active shunt module without internal brake resistor. Bulletin PWB active shunts require an appropriately sized external brake resistor (purchased separately).	• PWB*xxx* • PWB*xxx*-800
Line reactors	Bulletin 1321 line reactors help keep equipment running longer by absorbing many of the power line disturbances that can shut down your power supply. Optional for use with 2198-RP*xxx* regenerative power supplies and with only one 2198-P*xxx* DC-bus power supply, but recommended for all power supplies.	• 1321-3R*xx*-A • 1321-3R*xx*-B
System mounting toolkit	The system mounting toolkit is used to locate the drill-holes for your Kinetix 5700 drive system.	2198-K5700-MOUNTKIT

Optional Drive Accessories (continued)

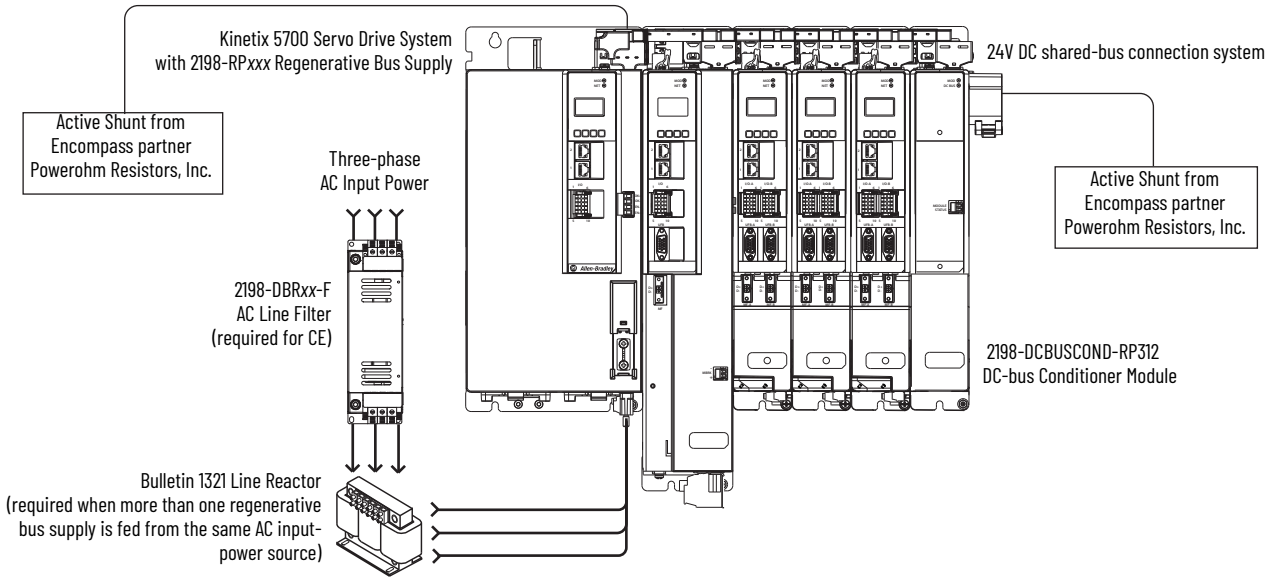
Drive Accessory	Description	Cat. No.
External encoders	Allen-Bradley auxiliary feedback encoders.	Bulletin 842HR, 844D, 847H, and 847T
	Allen-Bradley Integrated Motion on EtherNet/IP absolute encoder.	Bulletin 842E-CM
	Allen-Bradley CIP Safety™ on EtherNet/IP absolute encoder.	Bulletin 843ES

(1) Bulletin 2198 three-phase AC line filters are available for use with DC-bus power supplies and regenerative bus supplies. Use 2198-DB*xx*-F filters as field replacements in existing installations that use DC-bus power supplies with inverter ground jumpers installed. Select 2198-DBR*xx*-F filters for all new systems and remove all inverter ground jumpers.
(2) Supplied by Encompass partner Powerohm Resistors, Inc. For product specifications, see http://www.powerohm.com.

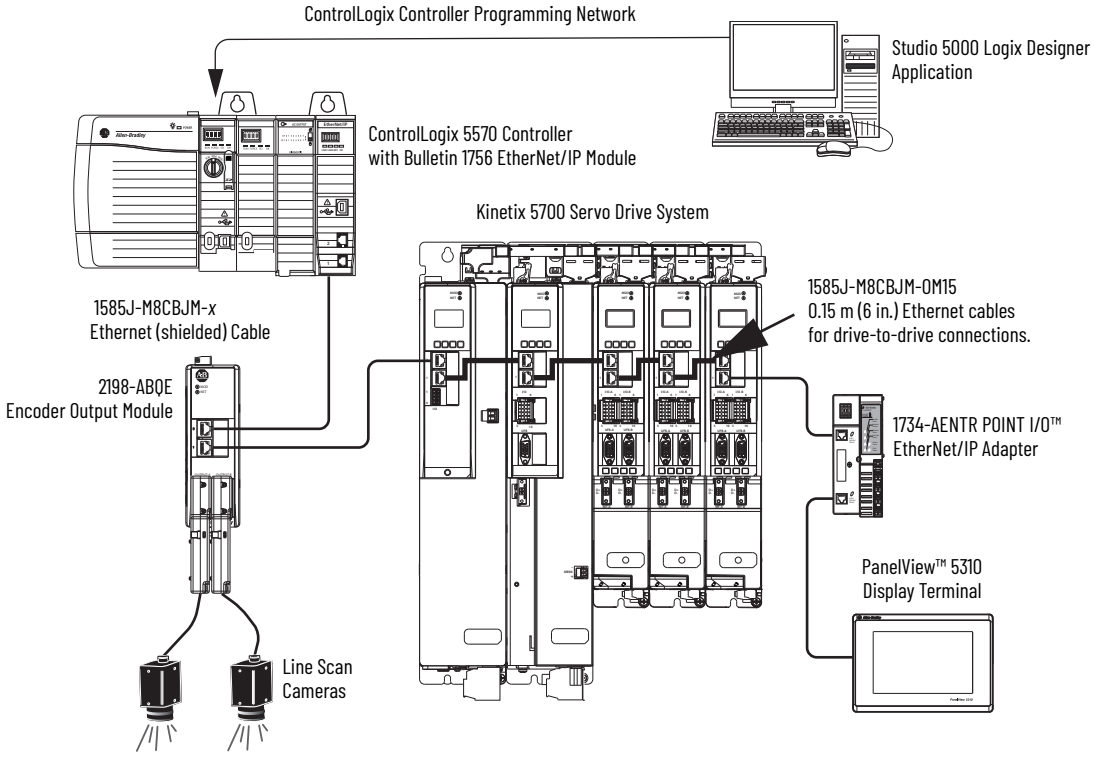
Kinetix 5700 Optional Accessories Example 1



Kinetix 5700 Optional Accessories Example 2



Encoder Output Module Example

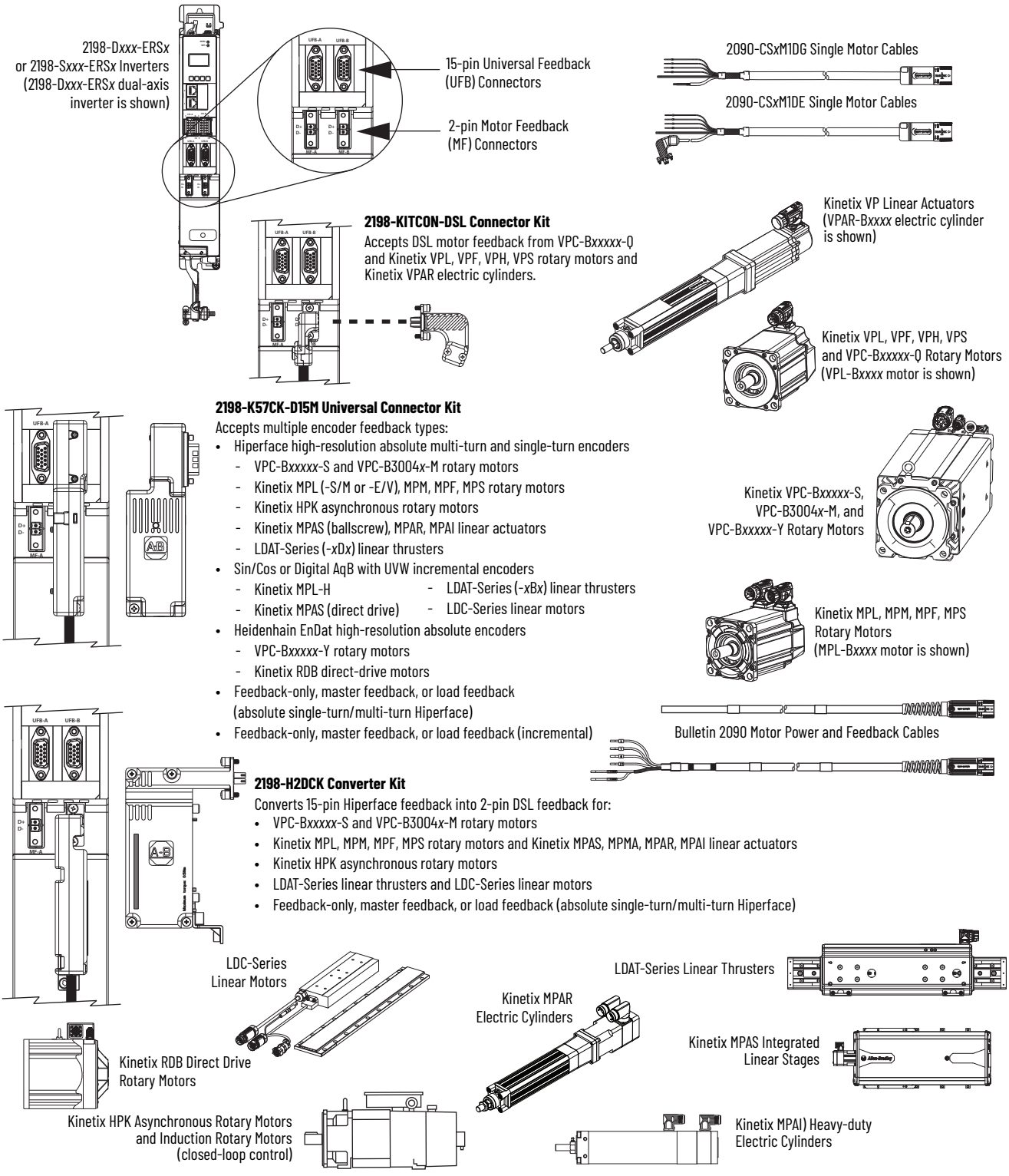


In this example, the encoder output module outputs encoder pulses to cameras used in line-scan vision systems. The module supports real and virtual axes for systems using integrated motion on the EtherNet/IP network.

Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5700 drive accessories.

Feedback connections are made at the 2-pin motor feedback (MF) connector and the 15-pin universal feedback (UFB) connector. These examples illustrate how you can use the Bulletin 2198 connector kits for making these connections.

Feedback Configuration Example

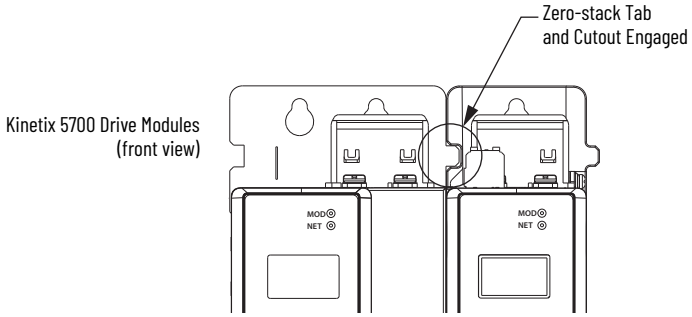


Refer to the Kinetix Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5700 drive family.

Kinetix 5700 Shared-bus System Examples

These system examples illustrate how Kinetix 5700 servo drives and shared-bus accessories are used in typical shared-bus configurations. Engaging the zero-stack tab and cutout from one drive to another is required and makes efficient use of panel space. This is done to make sure that the drive connectors are spaced properly to accept the shared-bus connection system.

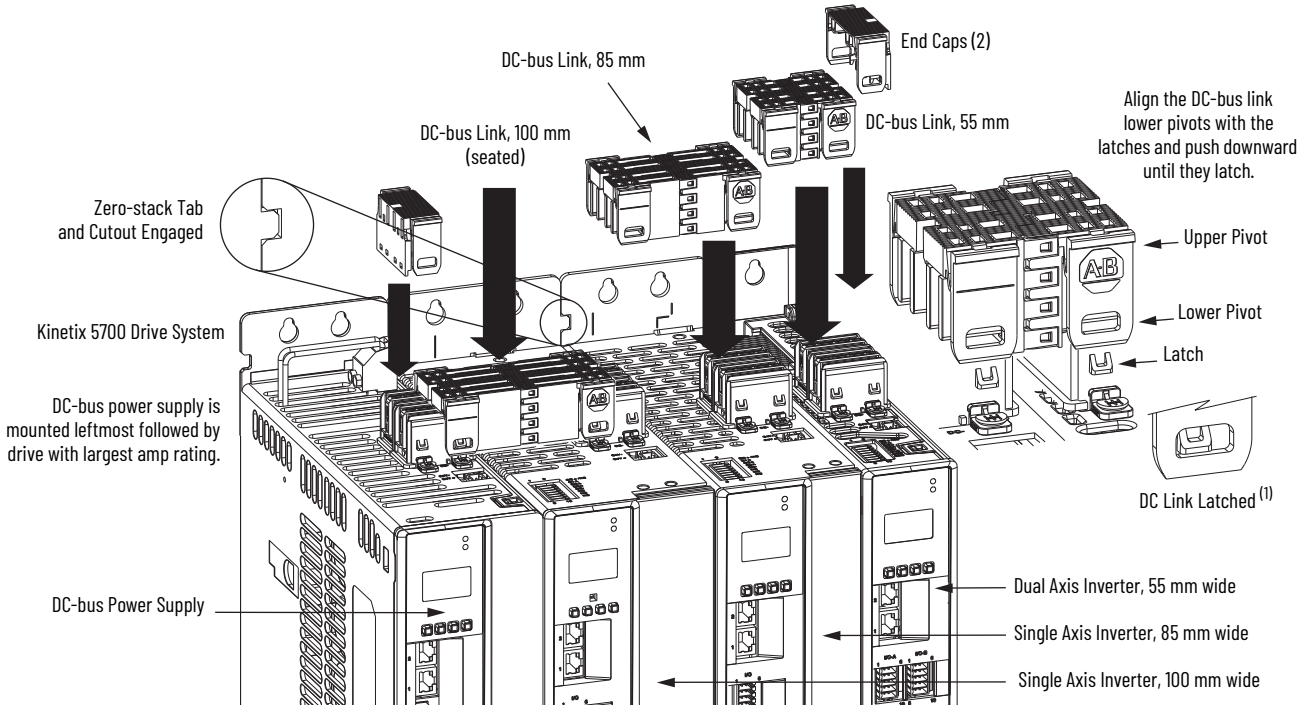
Zero-stack Tab and Cutout Example



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

DC-bus Link Connector Kits

In this example, three-phase DC-bus power is shared in a four-axis drive system. The DC-bus links and end caps are included with the drive modules. Replacement DC-bus links and end-caps are also available.

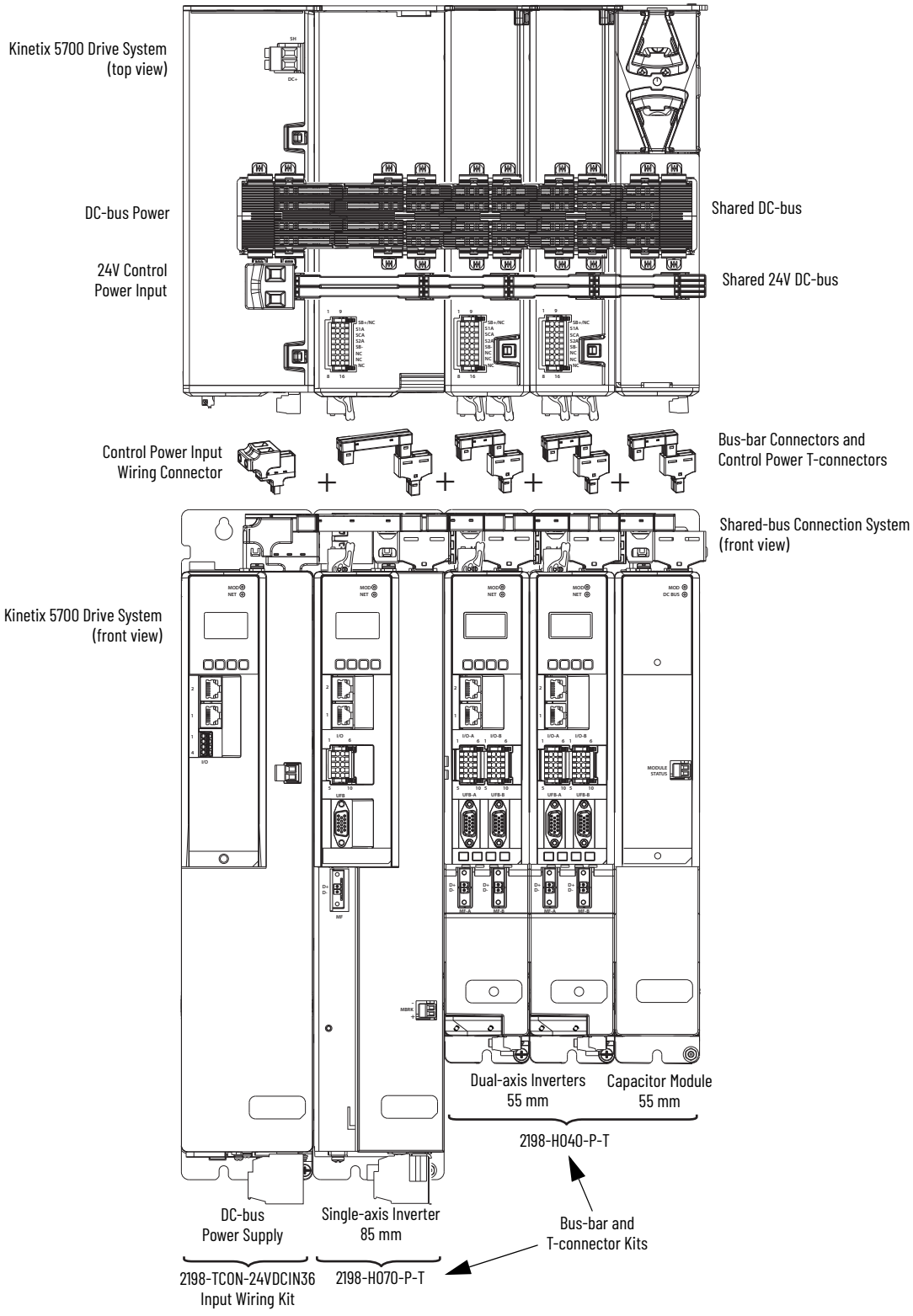


(1) DC-bus links latch on both sides when inserted into the DC-bus connectors. To remove the DC-bus link, depress both sets of upper pivots to unlatch the lower pivots and hold the DC-bus link firmly while pulling upward.

24V DC Shared-bus Connector Kits

In this DC-bus power supply example, 24V control power is shared from a single input. In high-axis-count systems, if the 40 A shared-bus current rating is exceeded, you can add another 2198-TCON-24VDCIN36 input connector. Refer to the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for system sizing information.

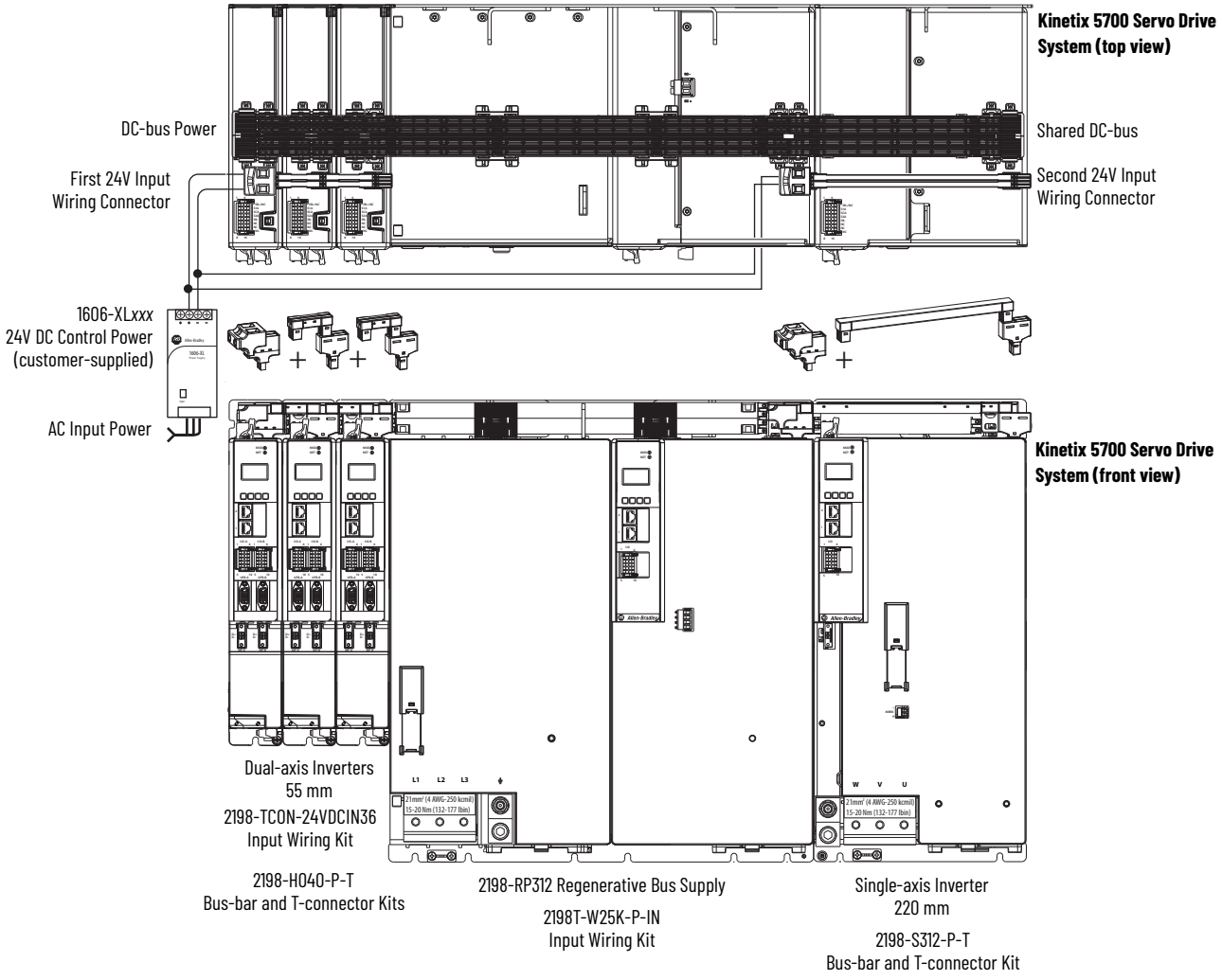
Shared 24V DC Installation Example



Multiple 24V shared-bus input wiring connectors can be used in a high axis-count system. If the 40 A shared-bus current rating is exceeded, you can add another connector at any point in the cluster. 2198-S263-ERS*x* and 2198-S312-ERS*x* drives and 2198-RP263 and 2198-RP312 bus supplies use the 2198T-W25K-P-IN input wiring connector. All other modules use the 2198-TCON-24VDCIN36 input wiring connector. Both wiring connectors accept up to 10 mm^2 (6 AWG) wire. The CP connectors that are included with each module accept up to 10 mm^2 (12 AWG) or 6 mm^2 (10 AWG), so the shared-bus input wiring connectors can provide the means to use larger gauge conductors for reduced voltage drop on long wire runs. Refer to the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for system sizing information.

In this regenerative bus supply example, 24V control power is applied to two input connectors. The first 24V input connector (catalog number 2198-TCON-24VDCIN36) plugs into the module that is positioned on the far left. The second input connector (catalog number 2198T-W25K-P-IN) was added because bus-bars to span across the regenerative bus supply are not available.

Shared 24V DC Installation Example 2

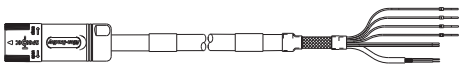
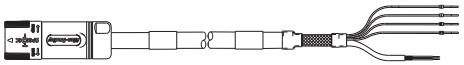


2090-Series Single Motor Cable Overview

These cables apply to Kinetix VP rotary motors and linear actuators. When using single cables, system performance of a typical system applies with motor ambient at 40 °C (104 °F) and drive ambient at 50 °C (122 °F). For maximum motor-cable lengths with Kinetix 5700 drives, see the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002.

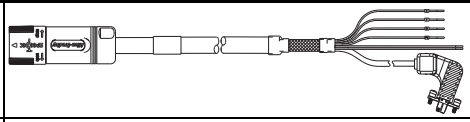
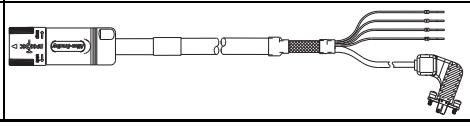
IMPORTANT Because of the unique characteristics of single cable technology, building your own cables, using field modified Rockwell Automation® factory-delivered cable, or using third-party cables with Kinetix VPL, VPF, VPH, VPS, and VPC-B*xxxxx*-Q servo motors and Kinetix VPAR electric cylinders is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

Single Motor Cable Descriptions (flying leads)

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

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 long enough to accommodate either drive family. 2090-CS*x*M1DE cables include the 2198-KITCON-DSL connector kit.

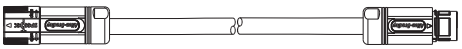
Single Motor Cable Descriptions (feedback connector kit)

Cable Cat. No.	Description	Cable Configuration Motor End Drive End	Motor Connector
2090-CSBM1DE-*xxx*A*xx* 2090-CSBM1DE-*xxx*F*xx*	• Drive-end connector kit (DE) • Power/feedback/brake wires (SB) • Standard, non-flex (AA, VA) • Continuous-flex (AF, LF)		SpeedTec DIN
2090-CSWM1DE-*xxx*A*xx*	• Drive-end connector kit (DE) • 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 Descriptions

Cable Cat. No.	Description	Cable Configuration Motor End Drive End	Motor Connector
2090-CSBM1E1-*xx*VA*xx* 2090-CSBM1E1-*xxx*F*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

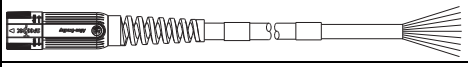
(1) SpeedTec DIN connector (motor end) and male connector for extending SpeedTec DIN cable.

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

2090-Series Motor Power/Brake and Feedback Cables Overview

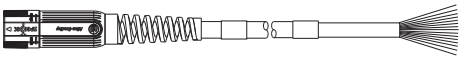
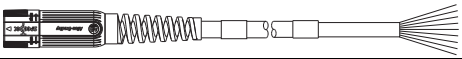
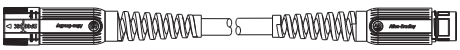
These cables apply to all other Allen-Bradley compatible rotary motors including Kinetix MP, HPK, RDB, and VPC-B*xxxxx*-S, VPC-B3004*x*-M, and VPC-B*xxxxx*-Y rotary motors. They also apply to compatible LDAT-Series and Kinetix MPAR linear actuators. For maximum motor-cable lengths with Kinetix 5700 drives, see the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002.

Feedback Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration Motor/Actuator End Drive End	Motor/Actuator Connector
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.

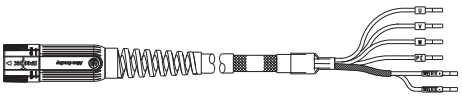
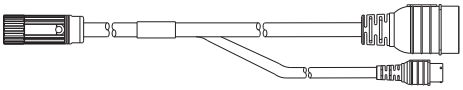
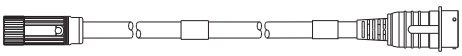
Feedback Cable Descriptions (continuous-flex)

Continuous-flex Cable Cat. No.	Description	Cable Configuration Motor/Actuator End Drive End	Motor/Actuator Connector
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* 2090-CFBM7E7-CEAF*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.

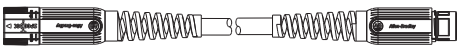
Motor-end cable connector kits, for use when building your own cables are also available. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.

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

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

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

Power/Brake Cable Descriptions (continuous-flex)

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

(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 5700 (200V operation) Drives with Kinetix VPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) when matched with Kinetix VPL (200V-class) low-inertia servo motors. Single cable catalog numbers, system performance specifications, and the optimum torque/speed curves are included.

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*-18x*Axx* or 2090-CSWM1D*x*-18x*Axx* (standard, non-flex) 2090-CSBM1D*x*-18x*Fxx* (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*-14x*Axx* or 2090-CSWM1D*x*-14x*Axx* (standard, non-flex) 2090-CSBM1D*x*-14x*Fxx* (continuous-flex)	
VPL-A1152*x*, VPL-A1153*x*		
VPL-A1303*x*, VPL-A1304*x*, VPL-A1306*x*		

(1) Use 2090-CS*x*M1DE 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

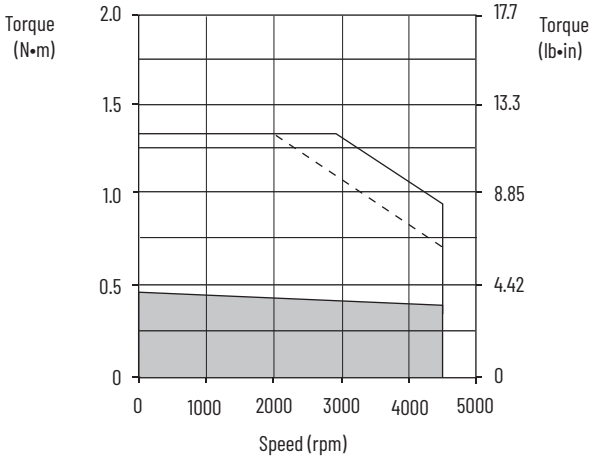
Kinetix VPL Motor Performance Specifications with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 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-D006-ERS*x*
					4.20	1.33 (12.0)		2198-D006-ERS*x*
VPL-A0631M	7200	7200	1.92	0.46 (4.0)	6.48	1.33 (12.0)	0.28 (0.38)	2198-D006-ERS*x*
VPL-A0632F	4800	4800	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.39 (0.52)	2198-D006-ERS*x*
VPL-A0633C	3000	3000	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.37 (0.50)	2198-D006-ERS*x*
VPL-A0633F	4500	4500	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.44 (0.59)	2198-D006-ERS*x*
					12.60	4.09 (36.0)		2198-D012-ERS*x*
VPL-A0751E	4800	4800	2.90	1.01 (9.0)	8.80	2.20 (19.0)	0.50 (0.67)	2198-D006-ERS*x*
					9.12	2.27 (20.0)		2198-D012-ERS*x*
VPL-A0752C	3300	3300	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.49 (0.66)	2198-D012-ERS*x*
VPL-A0752E	4800	4800	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.66 (0.88)	2198-D012-ERS*x*
					18.90	4.39 (39.0)		2198-D020-ERS*x*
VPL-A0753C	3300	3300	4.90	2.16 (19.0)	17.70	6.55 (58.0)	0.59 (0.79)	2198-D012-ERS*x*
					18.90	7.02 (62.0)		2198-D020-ERS*x*
VPL-A0753E	4600	4600	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.80 (1.07)	2198-D012-ERS*x*
					25.34	7.35 (65.0)		2198-D020-ERS*x*
VPL-A1001C	2800	2800	3.61	1.93 (17.0)	8.80	3.22 (28.0)	0.56 (0.75)	2198-D006-ERS*x*
					10.38	3.78 (33.0)		2198-D012-ERS*x*
VPL-A1001M	6500	6500	7.15	1.95 (17.0)	17.70	3.31 (29.0)	1.29 (1.73)	2198-D012-ERS*x*
					20.20	3.78 (33.0)		2198-D020-ERS*x*
VPL-A1002C	3000	3000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.03 (1.38)	2198-D012-ERS*x*
					20.33	7.82 (69.0)		2198-D020-ERS*x*
VPL-A1002F	5000	5000	10.04	3.26 (29.0)	28.30	6.77 (60.0)	1.60 (2.14)	2198-D020-ERS*x*
					34.30	7.82 (69.0)		2198-D032-ERS*x*
VPL-A1003C	2250	2250	6.14	4.18 (37.0)	17.70	9.76 (86.0)	0.87 (1.17)	2198-D012-ERS*x*
					20.20	11.15 (99.0)		2198-D020-ERS*x*
VPL-A1003E	3750	3750	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.31 (1.76)	2198-D020-ERS*x*
					28.80	11.15 (99.0)		2198-D032-ERS*x*
VPL-A1003F	5500	5500	15.62	4.18 (37.0)	45.90	10.25 (90.0)	1.90 (2.55)	2198-D032-ERS*x*
					50.0	11.15 (99.0)		2198-D057-ERS*x*
VPL-A1152B	2150	2150	6.17	5.10 (45.0)	17.70	10.95 (96.0)	1.02 (1.37)	2198-D012-ERS*x*
					21.19	13.12 (116)		2198-D020-ERS*x*
VPL-A1152E	3300	3300	10.60	5.08 (45.0)	28.30	12.14 (107)	1.47 (1.97)	2198-D020-ERS*x*
					32.10	13.12 (116)		2198-D032-ERS*x*
VPL-A1152F	5000	5000	13.56	4.70 (42.0)	45.80	13.12 (116)	2.16 (2.90)	2198-D032-ERS*x*
VPL-A1153C	2300	2300	8.88	6.55 (58.0)	28.30	18.30 (162)	1.35 (1.81)	2198-D020-ERS*x*
					33.0	20.33 (180)		2198-D032-ERS*x*
VPL-A1303B	1950	1950	10.34	8.80 (78.0)	28.30	19.85 (175)	1.61 (2.16)	2198-D020-ERS*x*
					31.0	20.72 (183)		2198-D032-ERS*x*
VPL-A1303F	4000	4000	18.60	7.75 (69.0)	45.90	15.36 (136)	2.50 (3.35)	2198-D032-ERS*x*
					62.0	20.72 (183)		2198-D057-ERS*x*
VPL-A1304A	1600	1600	9.43	10.29 (91.0)	28.30	25.03 (221)	1.55 (2.08)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPL-A1304D	3000	3000	18.40	10.20 (90.0)	45.90	21.48 (190)	2.60 (3.50)	2198-D032-ERS*x*
					58.0	27.10 (240)		2198-D057-ERS*x*
VPL-A1306C	2000	2000	14.78	13.38 (118)	45.90	28.50 (252)	2.13 (2.86)	2198-D032-ERS*x*
					55.83	34.62 (306)		2198-D057-ERS*x*

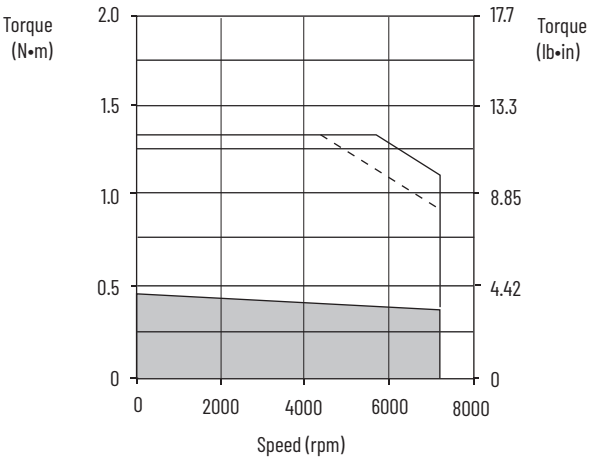
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix VPL Servo Motor Curves

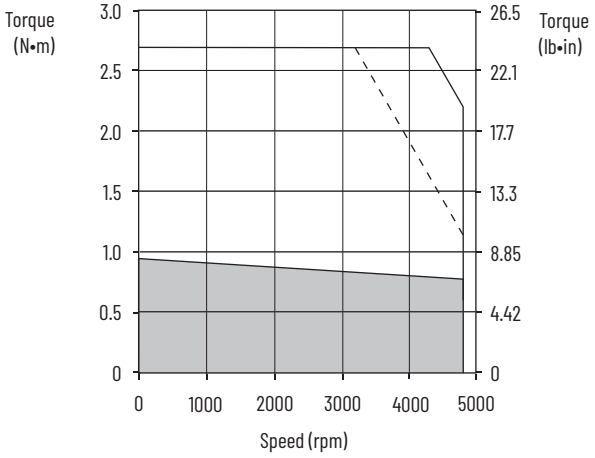
2198-D006-ERSx and VPL-A0631E



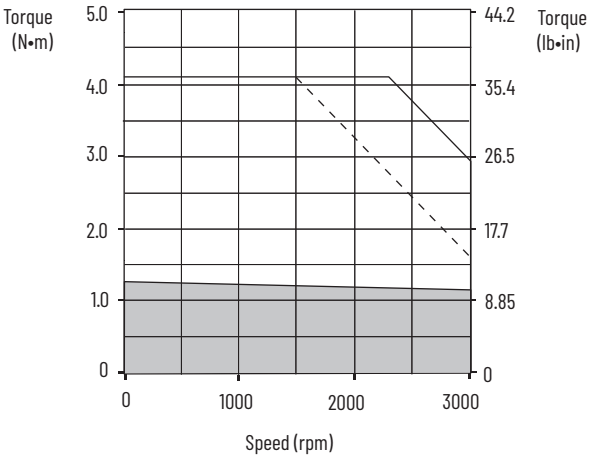
2198-D006-ERSx and VPL-A0631M



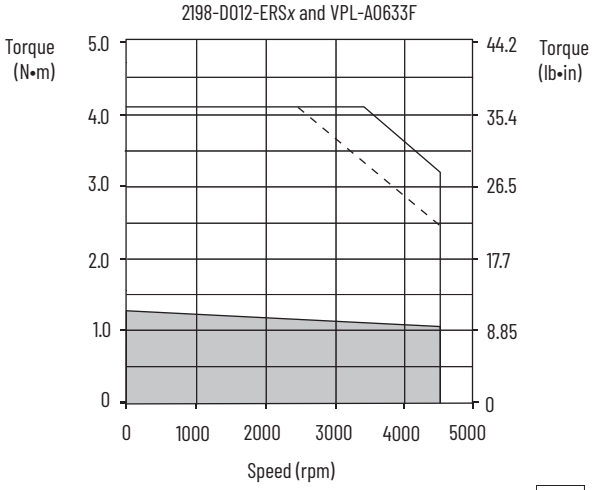
2198-D006-ERSx and VPL-A0632F



2198-D006-ERSx and VPL-A0633C



2198-D012-ERSx and VPL-A0633F



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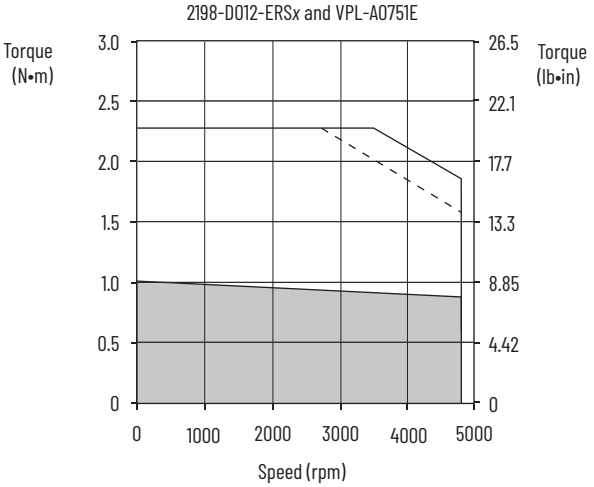
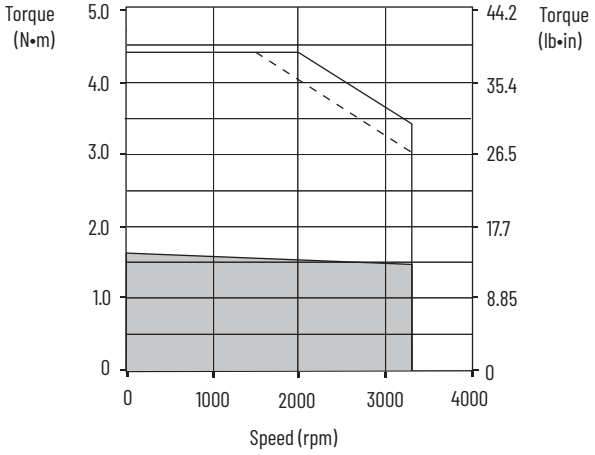


= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5700 (200V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

2198-D012-ERSx and VPL-A0752C



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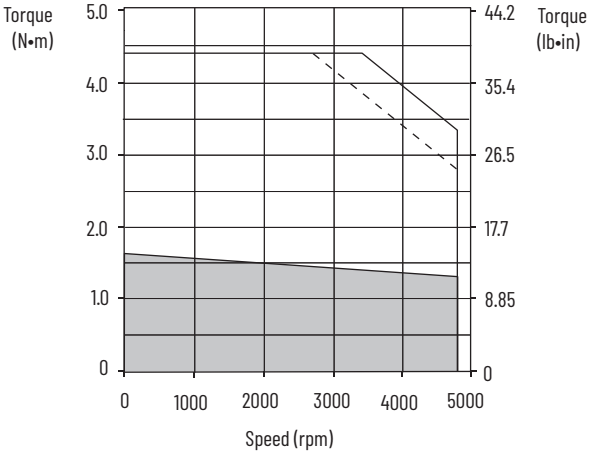
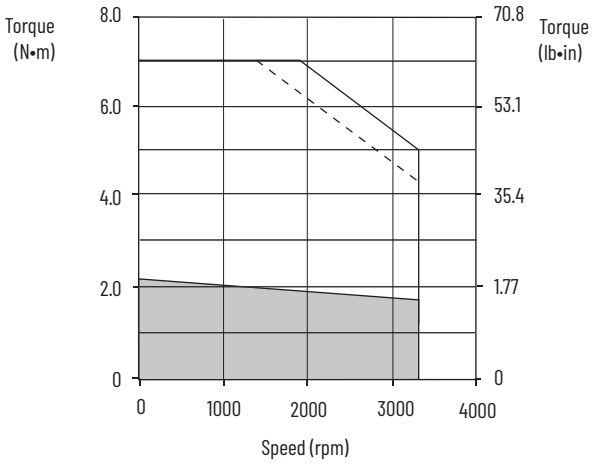
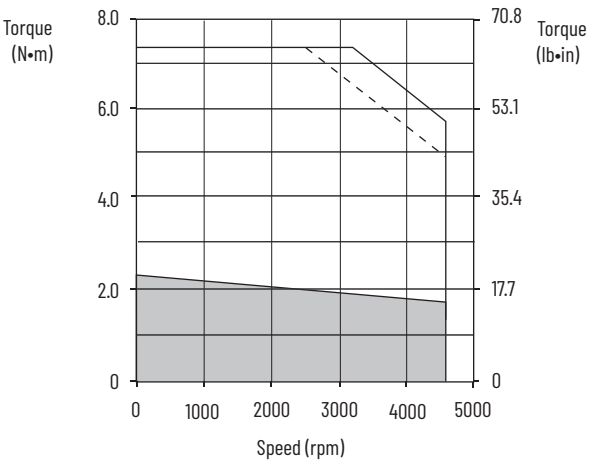


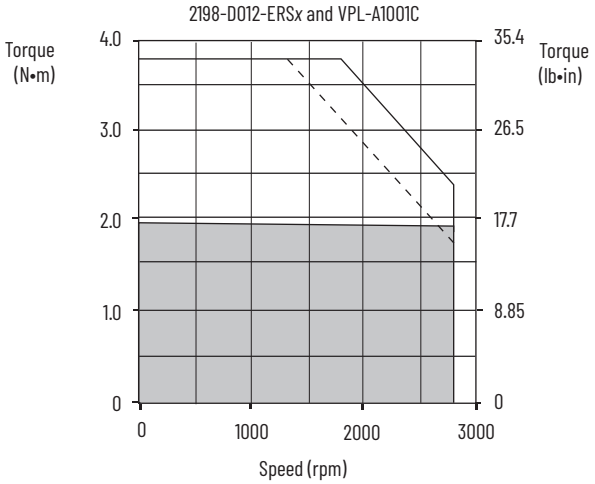
2198-D020-ERSx and VPL-A0753C



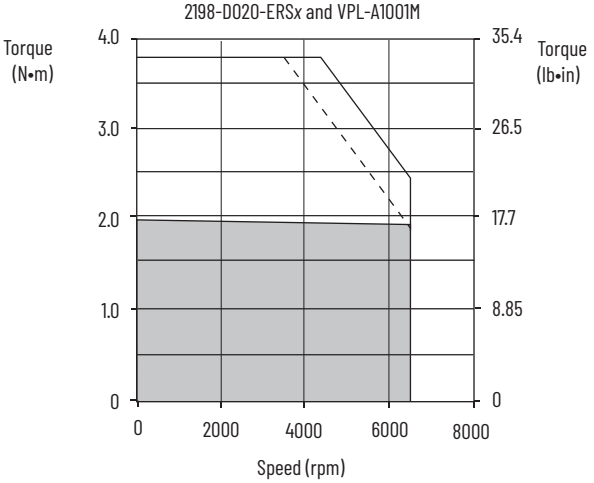
2198-D020-ERSx and VPL-A0753E



2198-D012-ERSx and VPL-A1001C



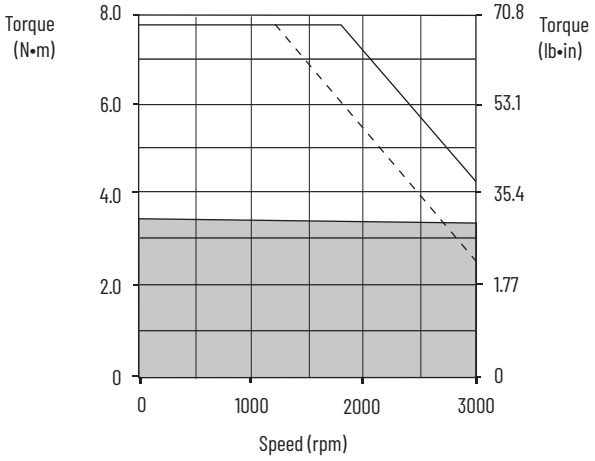
2198-D020-ERSx and VPL-A1001M



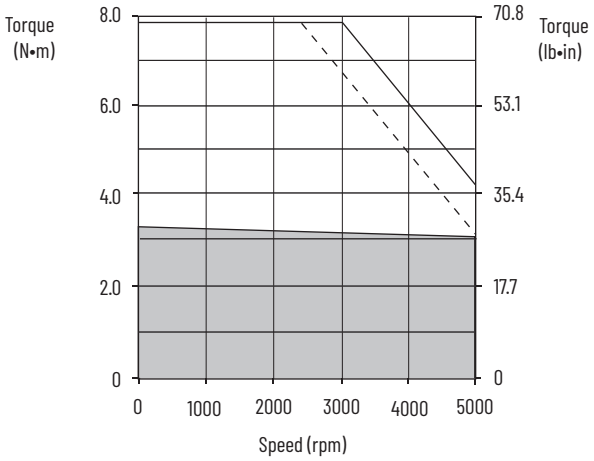
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5700 (200V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

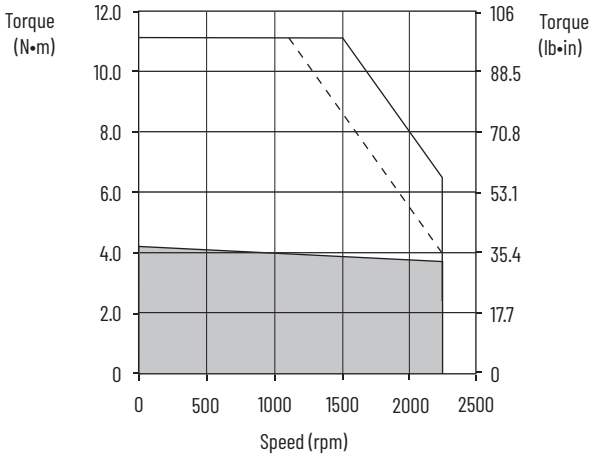
2198-D020-ERSx and VPL-A1002C



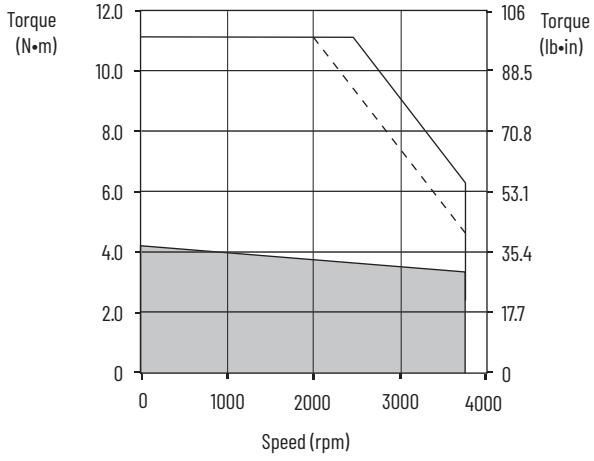
2198-D032-ERSx and VPL-A1002F



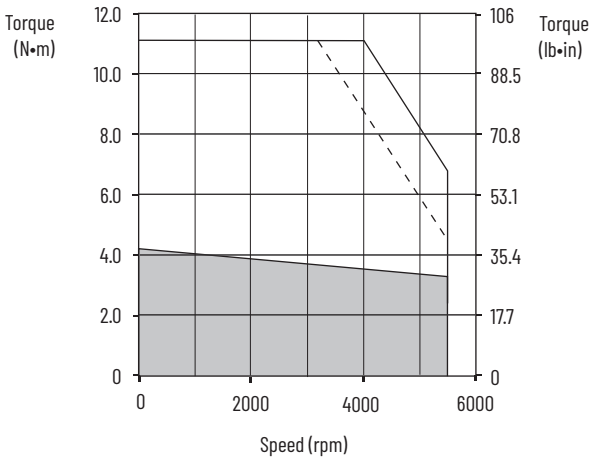
2198-D020-ERSx and VPL-A1003C



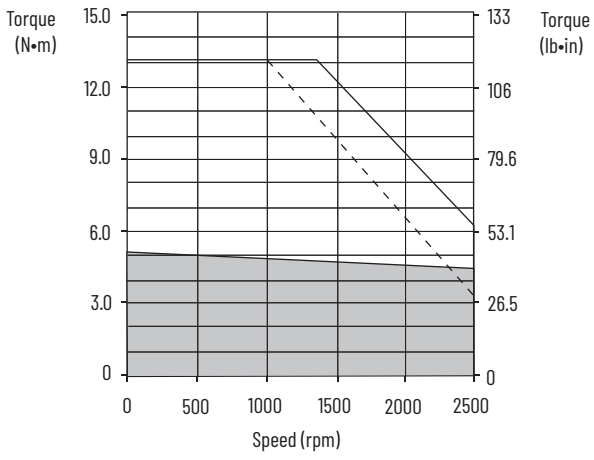
2198-D032-ERSx and VPL-A1003E



2198-D057-ERSx and VPL-A1003F



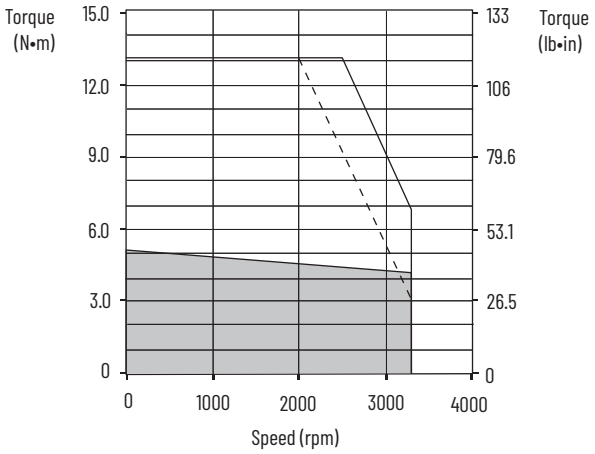
2198-D020-ERSx and VPL-A1152B



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

Kinetix 5700 (200V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

2198-D032-ERSx and VPL-A1152E



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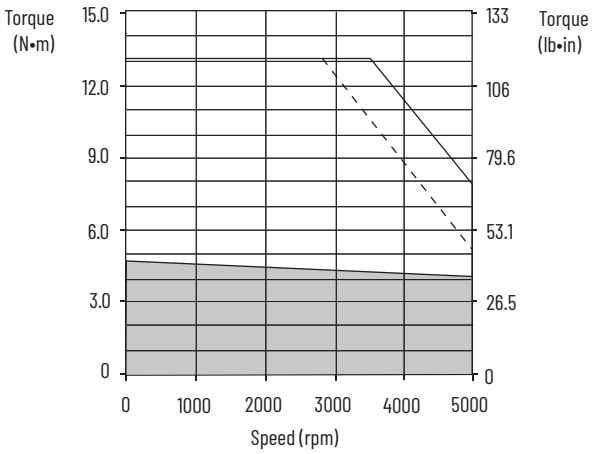

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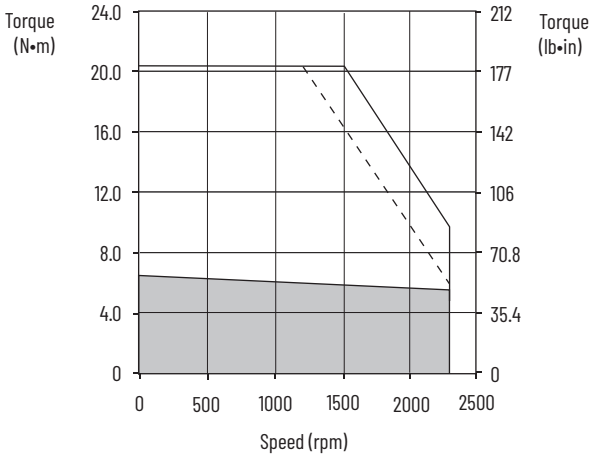
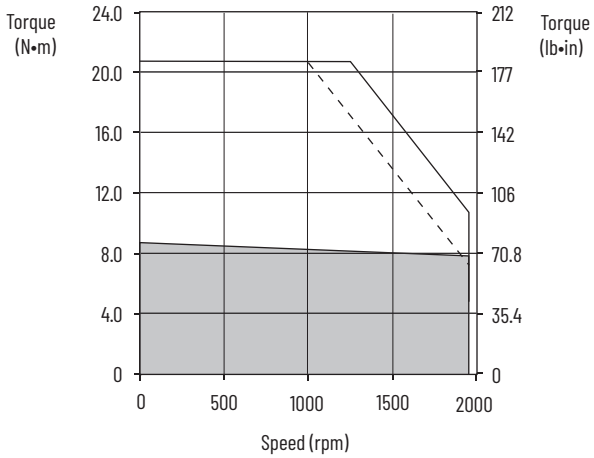
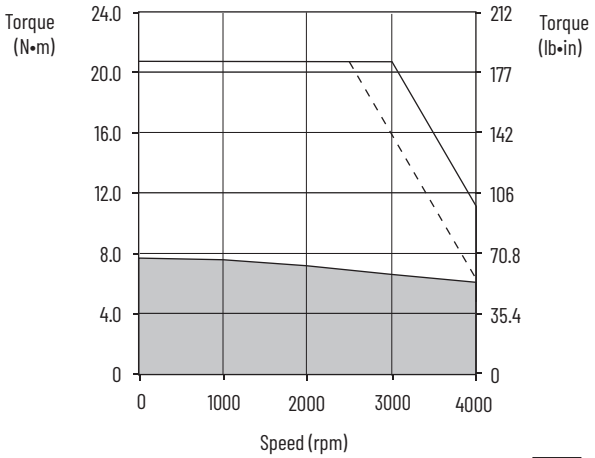


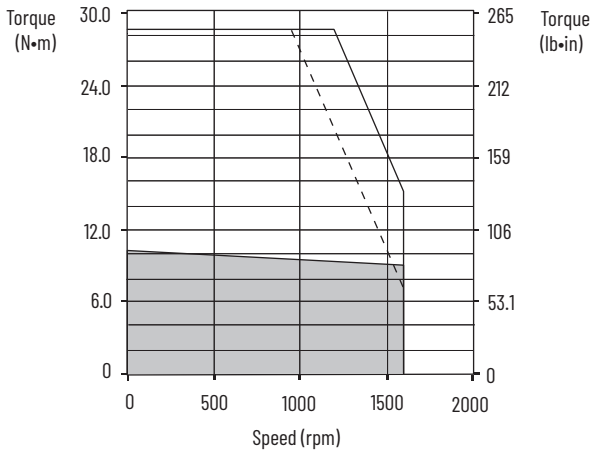
2198-D032-ERSx and VPL-A1303B



2198-D057-ERSx and VPL-A1303F

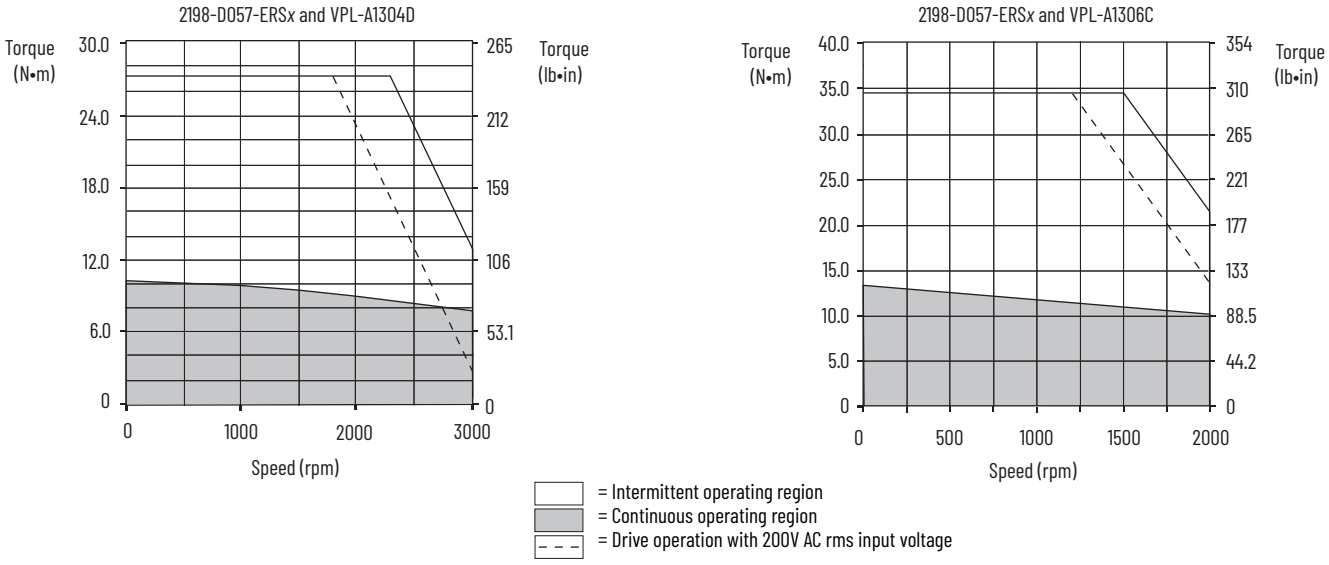


2198-D032-ERSx and VPL-A1304A



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

Kinetix 5700 (200V operation) Drives/Kinetix VPL Servo Motor Curves (continued)



Kinetix 5700 (400V operation) Drives with Kinetix VPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix VPL (400V-class) low-inertia 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 Motor Cable [1]	Feedback Type
VPL-B0631*x*, VPL-B0632*x*, VPL-B0633*x*	2090-CSBM1D*x*-18x*Axx* or 2090-CSWM1D*x*-18x*Axx* (standard, non-flex) 2090-CSBM1D*x*-18x*Fxx* (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*-14x*Axx* or 2090-CSWM1D*x*-14x*Axx* (standard, non-flex) 2090-CSBM1D*x*-14x*Fxx* (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*-10VA*xx* (standard, non-flex) 2090-CSBM1D*x*-10x*Fxx* (continuous-flex)	

(1) Use 2090-CS*x*M1DE 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPL Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPL-B0631T	8000	8000	1.20	0.46 (4.0)	4.20	1.33 (12.0)	0.31 (0.42)	2198-D006-ERS*x*
VPL-B0631U	8000	8000	1.92	0.46 (4.0)	6.48	1.33 (12.0)	0.31 (0.42)	2198-D006-ERS*x*
VPL-B0632F	4600	4600	1.20	0.93 (8.0)	4.20	2.69 (24.0)	0.37 (0.50)	2198-D006-ERS*x*
VPL-B0632T	8000	8000	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.54 (0.72)	2198-D006-ERS*x*
VPL-B0633M	6500	6700	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.57 (0.76)	2198-D006-ERS*x*
VPL-B0633T	6500	8000	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.57 (0.76)	2198-D006-ERS*x*
					12.60	4.09 (36.0)		2198-D012-ERS*x*
VPL-B0751M	8000	8000	2.90	1.01 (9.0)	8.80	2.20 (19.0)	0.54 (0.72)	2198-D006-ERS*x*
					9.12	2.27 (20.0)		2198-D012-ERS*x*
VPL-B0752E	4900	4900	2.70	1.61 (14.0)	8.80	4.10 (36.0)	0.67 (0.90)	2198-D006-ERS*x*
					9.45	4.39 (39.0)		2198-D012-ERS*x*
VPL-B0752F	7000	7000	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.80 (1.07)	2198-D012-ERS*x*
VPL-B0752M	8000	8000	4.90	1.61 (14.0)	17.60	4.10 (36.0)	0.81 (1.09)	2198-D012-ERS*x*
					18.90	4.39 (39.0)		2198-D020-ERS*x*
VPL-B0753E	4500	4500	3.80	2.28 (20.0)	13.30	7.35 (65.0)	0.81 (1.09)	2198-D012-ERS*x*
VPL-B0753F	4500	6600	4.09	2.16 (19.0)	17.60	6.55 (58.0)	0.65 (0.87)	2198-D012-ERS*x*
					18.90	7.02 (62.0)		2198-D020-ERS*x*
VPL-B0753M	6000	8000	6.12	2.28 (20.0)	17.60	5.13 (45.0)	0.82 (1.10)	2198-D012-ERS*x*
					25.34	7.35 (65.0)		2198-D020-ERS*x*
VPL-B1001M	6000	6000	3.61	1.93 (17.0)	8.80	3.22 (28.0)	1.14 (1.53)	2198-D006-ERS*x*
					10.38	3.78 (33.0)		2198-D012-ERS*x*
VPL-B1002E	3300	3300	3.44	3.39 (30.0)	8.80	6.47 (57.0)	1.12 (1.50)	2198-D006-ERS*x*
					10.69	7.82 (69.0)		2198-D012-ERS*x*
VPL-B1002M	6000	6000	6.24	3.39 (30.0)	17.60	6.80 (60.0)	1.86 (2.49)	2198-D012-ERS*x*
					20.33	7.82 (69.0)		2198-D020-ERS*x*
VPL-B1003C	2500	2500	3.41	4.18 (37.0)	8.80	9.29 (82.0)	0.96 (1.29)	2198-D006-ERS*x*
					10.61	11.15 (99.0)		2198-D012-ERS*x*
VPL-B1003F	4750	4750	6.14	4.18 (37.0)	17.60	9.76 (86.0)	1.65 (2.21)	2198-D012-ERS*x*
					20.20	11.15 (99.0)		2198-D020-ERS*x*
VPL-B1003T	7000	7000	9.58	4.18 (37.0)	28.20	11.0 (97.4)	1.77 (2.37)	2198-D020-ERS*x*
					28.80	11.15 (99.0)		2198-D032-ERS*x*
VPL-B1152C	2250	2250	3.13	5.10 (45.0)	8.80	10.80 (95.0)	1.06 (1.42)	2198-D006-ERS*x*
					10.74	13.12 (116)		2198-D012-ERS*x*
VPL-B1152F	4000	4500	6.17	5.10 (45.0)	17.60	10.95 (97.0)	1.40 (1.88)	2198-D012-ERS*x*
					21.19	13.12 (116)		2198-D020-ERS*x*
VPL-B1152T	6500	6500	10.81	5.08 (45.0)	28.20	12.14 (107)	2.29 (3.07)	2198-D020-ERS*x*
					32.10	13.12 (116)		2198-D032-ERS*x*
VPL-B1153E	3200	3200	6.13	6.55 (58.0)	17.60	16.85 (149)	1.75 (2.35)	2198-D012-ERS*x*
					21.33	20.33 (180)		2198-D020-ERS*x*
VPL-B1153F	5000	5000	8.88	6.55 (58.0)	28.20	18.30 (162)	2.30 (3.08)	2198-D020-ERS*x*
					33.0	20.33 (180)		2198-D032-ERS*x*
VPL-B1303C	2250	2250	6.30	8.80 (78.0)	17.60	19.83 (175)	1.83 (2.45)	2198-D012-ERS*x*
					18.47	20.72 (183)		2198-D020-ERS*x*
VPL-B1303F	4000	4000	10.10	8.80 (78.0)	28.20	19.85 (175)	2.82 (3.78)	2198-D020-ERS*x*
					31.0	20.72 (183)		2198-D032-ERS*x*
VPL-B1304C	2150	2150	7.0	10.29 (91.0)	17.60	22.55 (199)	1.75 (2.35)	2198-D012-ERS*x*
					22.3	28.45 (252)		2198-D020-ERS*x*
VPL-B1304E	3500	3500	9.44	10.29 (91.0)	28.20	25.03 (221)	2.82 (3.78)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPL-B1306C	2500	2500	10.80	13.38 (118)	28.20	31.21 (276)	2.46 (3.30)	2198-D020-ERS*x*
					32.94	34.62 (306)		2198-D032-ERS*x*
VPL-B1306F	4250	4250	14.78	13.38 (118)	45.90	28.50 (252)	2.95 (3.95)	2198-D032-ERS*x*
					55.83	34.62 (306)		2198-D057-ERS*x*

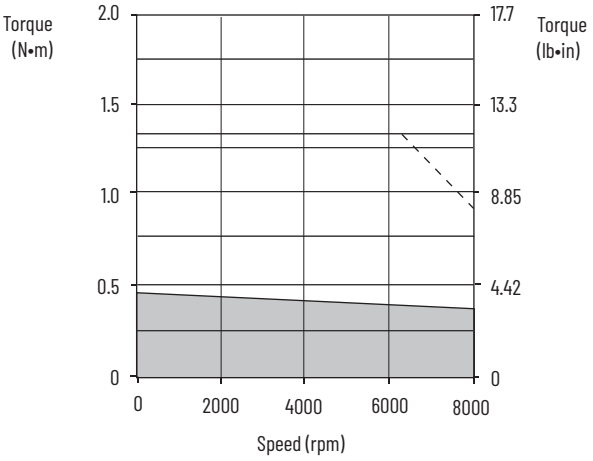
Kinetix VPL Motor Performance with Kinetix 5700 (400V operation) Drives (continued)

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPL-B1651C	2750	2750	10.21	11.50 (102)	28.20	21.68 (192)	2.32 (3.11)	2198-D020-ERSx
					29.29	22.45 (199)		2198-D032-ERSx
VPL-B1651F	4750	4750	17.60	11.43 (101)	45.90	18.02 (159)	4.38 (5.87)	2198-D032-ERSx
					57.27	22.45 (199)		2198-D057-ERSx
VPL-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.60)	2198-D032-ERSx
					49.88	48.60 (430)		2198-D057-ERSx
VPL-B1652F	4000	4000	18.60	17.60 (156)	60.00	48.60 (430)	4.77 (6.40)	2198-D057-ERSx
VPL-B1653C	2300	2300	17.75	25.76 (228)	45.90	55.14 (488)	4.38 (5.87)	2198-D032-ERSx
					55.60	66.70 (590)		2198-D057-ERSx
VPL-B1653D	3000	3000	18.60	24.20 (214)	68.00	67.80 (600)	5.50 (7.30)	2198-D057-ERSx
VPL-B1654B	1850	1850	15.54	32.97 (292)	45.90	65.38 (578)	5.55 (7.44)	2198-D032-ERSx
					55.75	79.30 (702)		2198-D057-ERSx
VPL-B1654D	3000	3000	24.47	32.0 (283)	81.30	75.30 (666)	7.16 (9.60)	2198-D057-ERSx

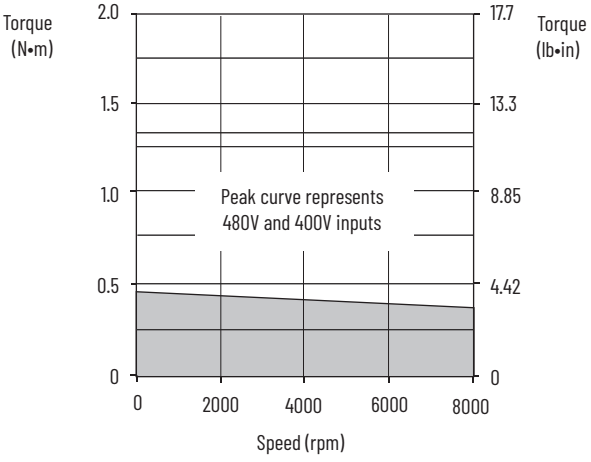
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves

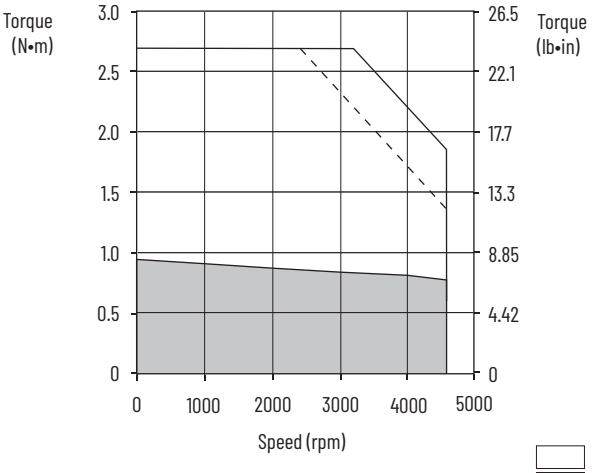
2198-D006-ERSx and VPL-B0631T



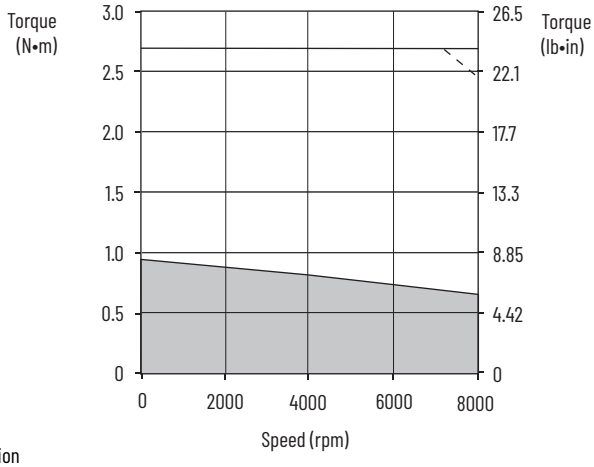
2198-D006-ERSx and VPL-B0631U



2198-D006-ERSx and VPL-B0632F



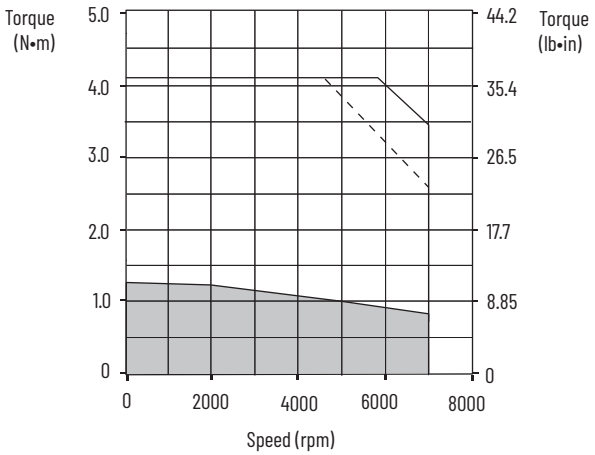
2198-D006-ERSx and VPL-B0632T



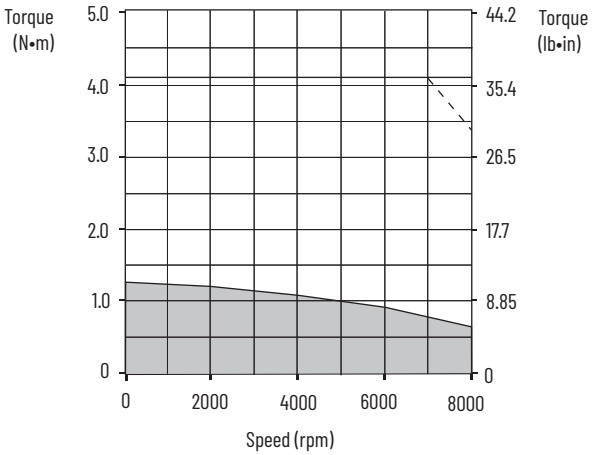
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

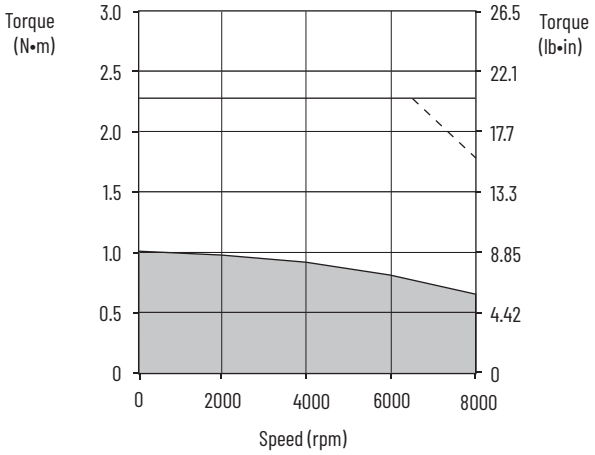
2198-D006-ERSx and VPL-B0633M



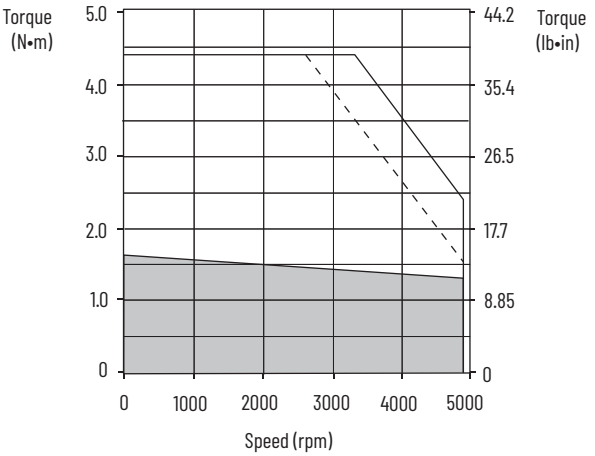
2198-D012-ERSx and VPL-B0633T



2198-D012-ERSx and VPL-B0751M



2198-D012-ERSx and VPL-B0752E



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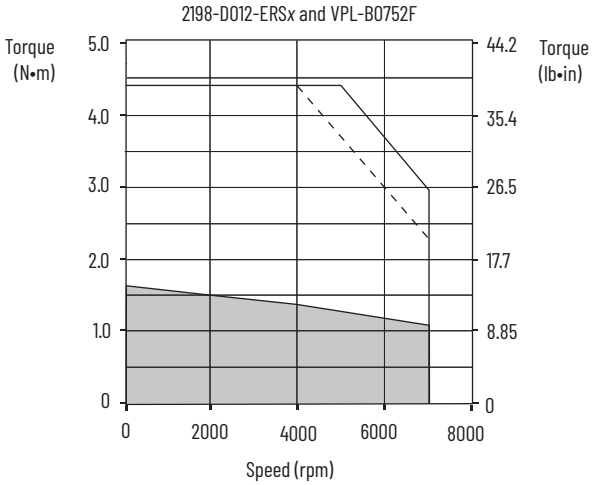
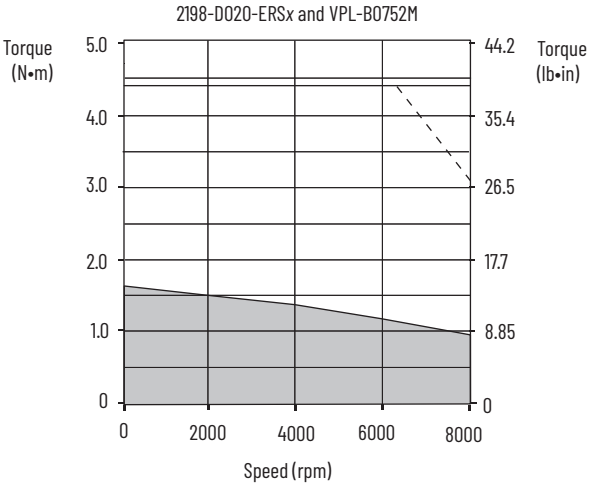


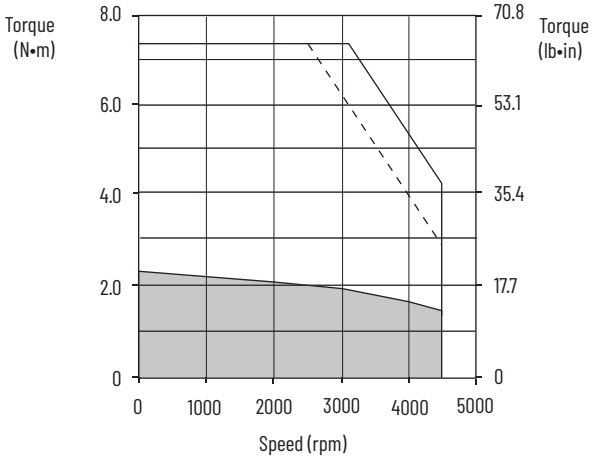
2198-D020-ERSx and VPL-B0752M



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

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

2198-D012-ERSx and VPL-B0753E



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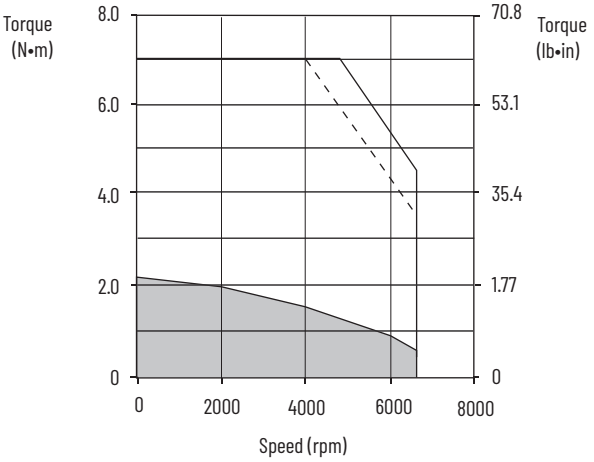
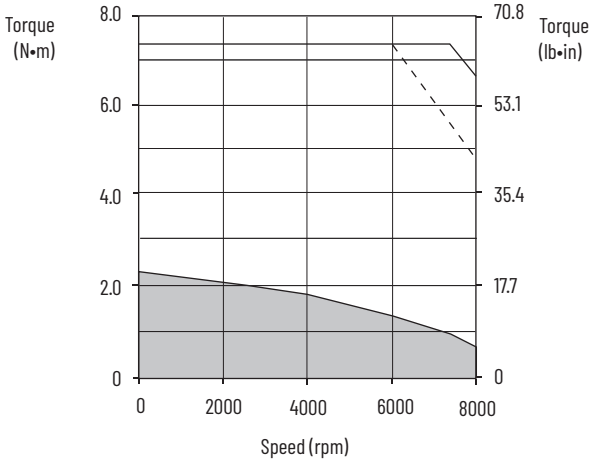
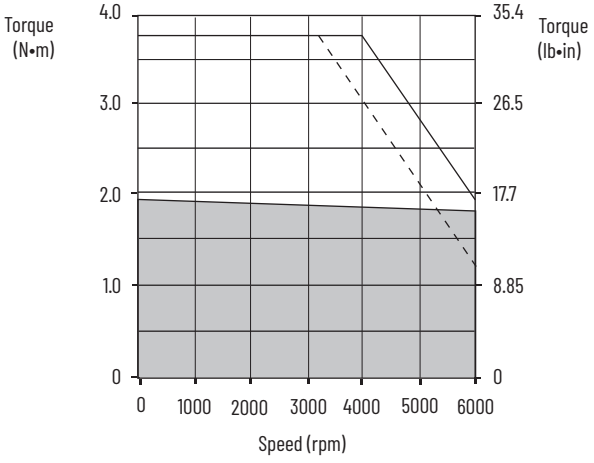


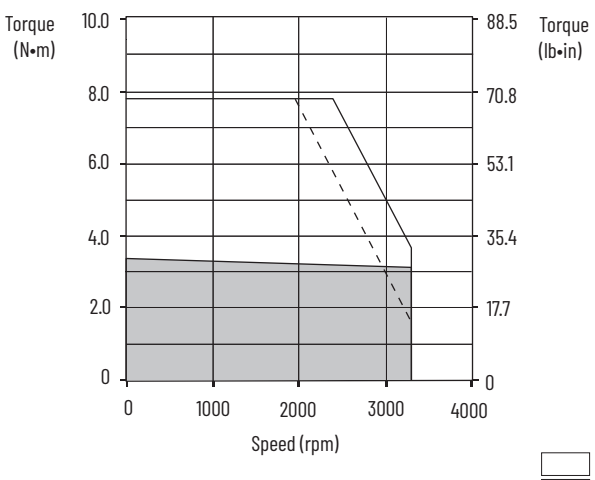
2198-D020-ERSx and VPL-B0753M



2198-D012-ERSx and VPL-B1001M



2198-D012-ERSx and VPL-B1002E



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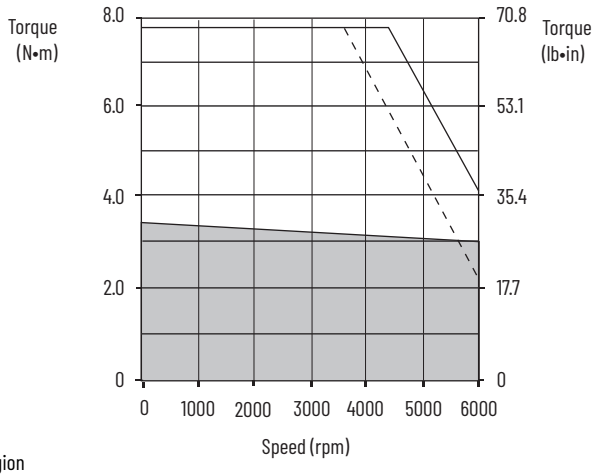
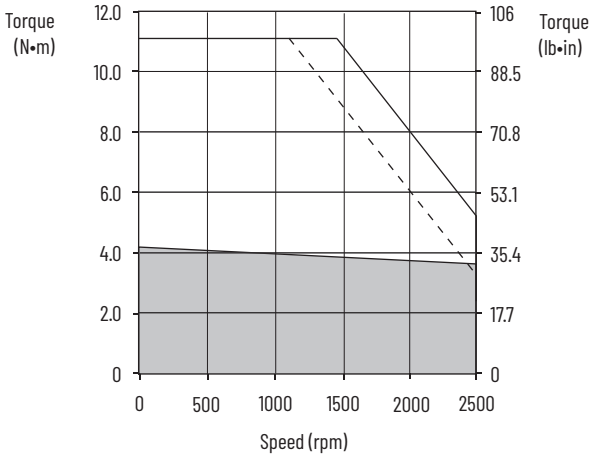


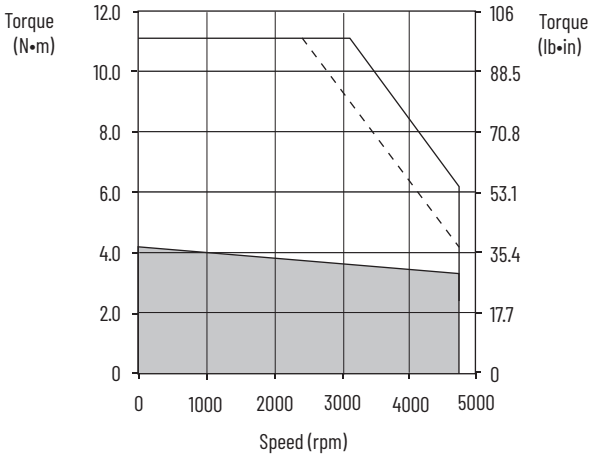
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

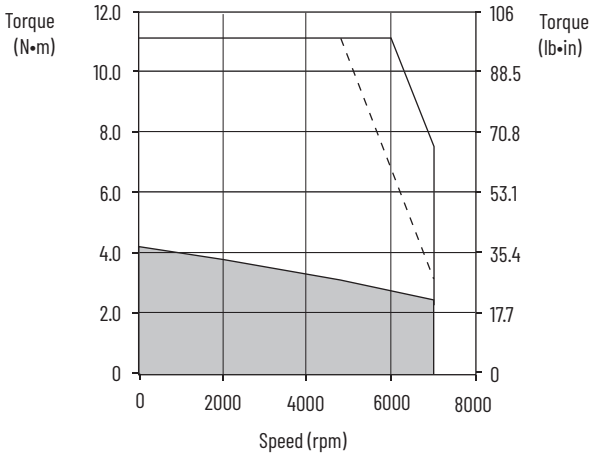
2198-D012-ERS*x* and VPL-B1003C



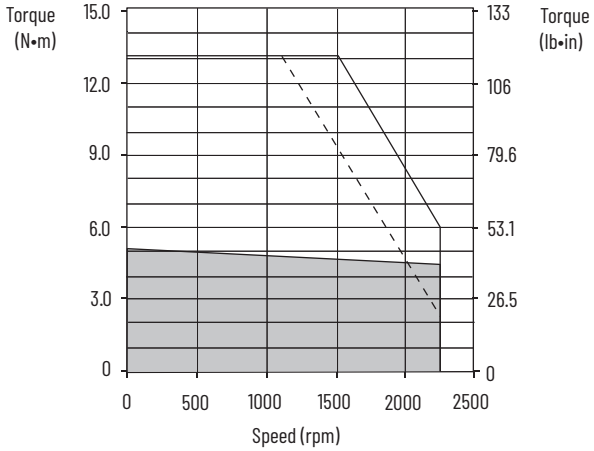
2198-D020-ERS*x* and VPL-B1003F



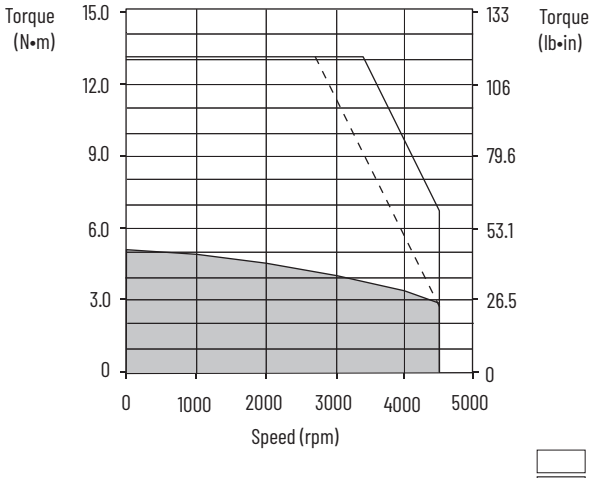
2198-D032-ERS*x* and VPL-B1003T



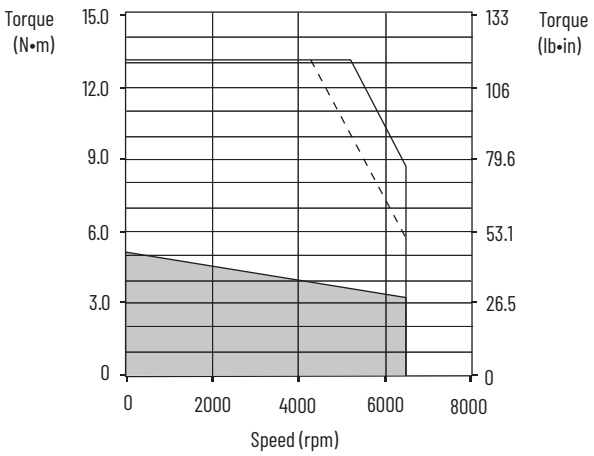
2198-D012-ERS*x* and VPL-B1152C



2198-D020-ERS*x* and VPL-B1152F



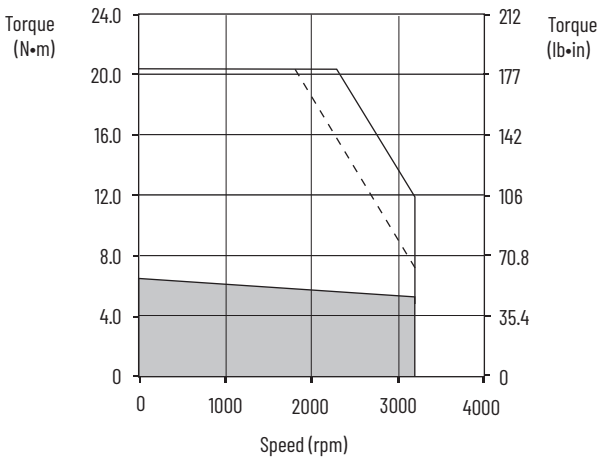
2198-D032-ERS*x* and VPL-B1152T



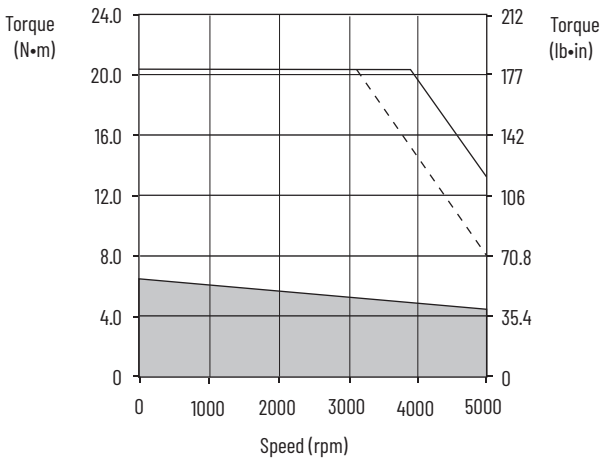
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

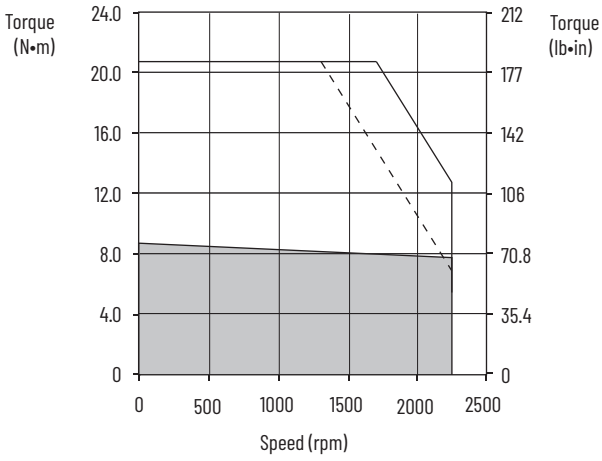
2198-D020-ERSx and VPL-B1153E



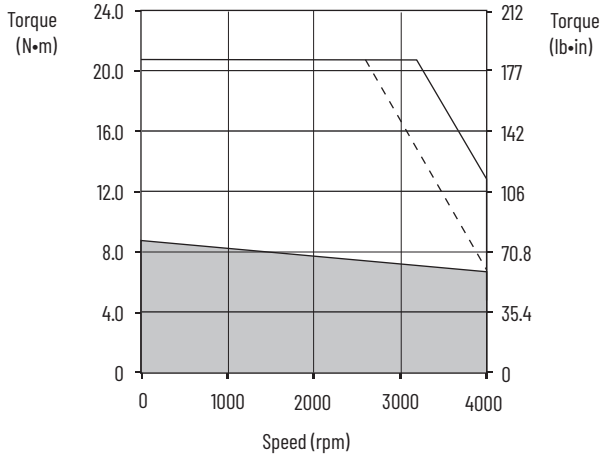
2198-D032-ERSx and VPL-B1153F



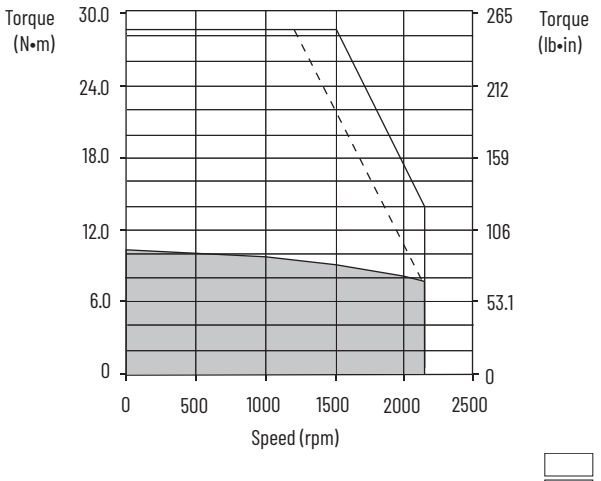
2198-D020-ERSx and VPL-B1303C



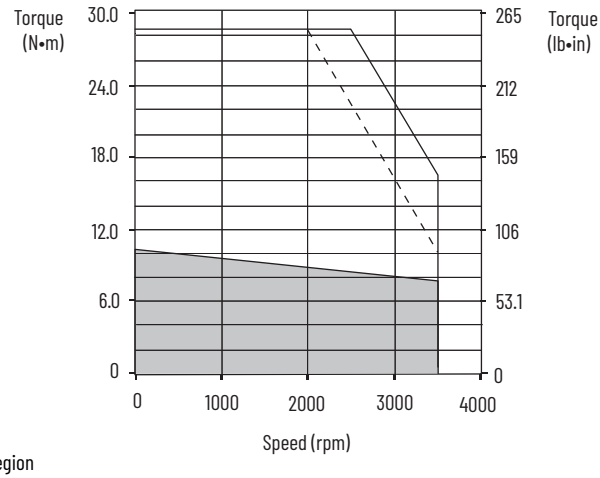
2198-D032-ERSx and VPL-B1303F



2198-D020-ERSx and VPL-B1304C



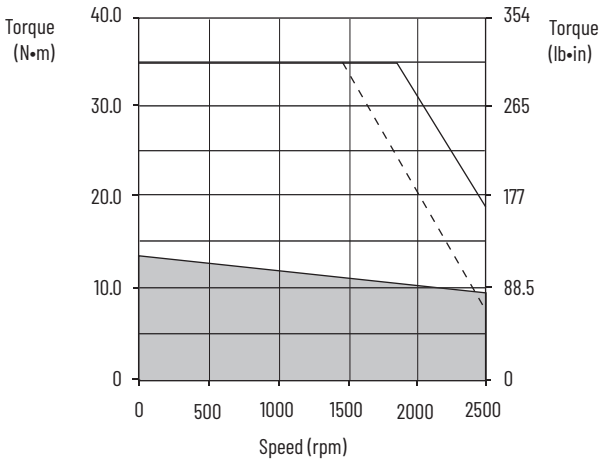
2198-D032-ERSx and VPL-B1304E



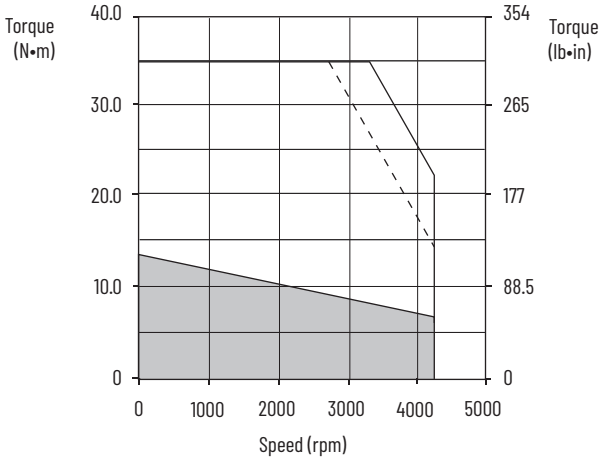
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

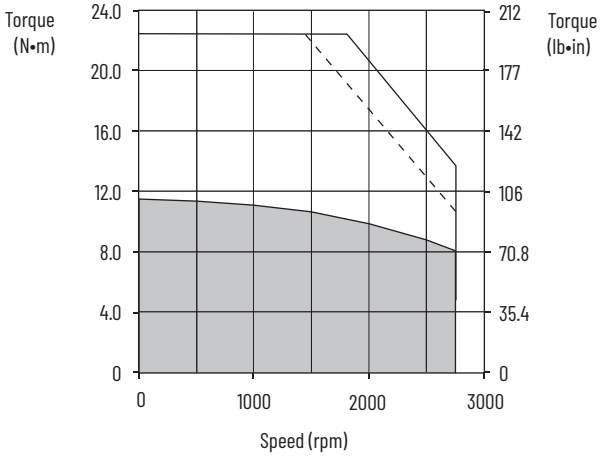
2198-D032-ERSx and VPL-B1306C



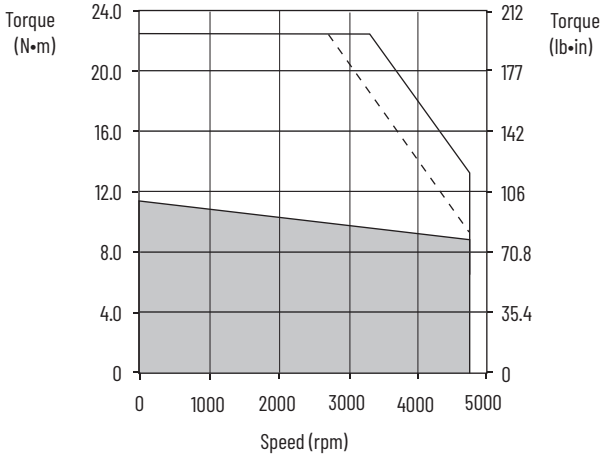
2198-D057-ERSx and VPL-B1306F



2198-D032-ERSx and VPL-B1651C



2198-D057-ERSx and VPL-B1651F



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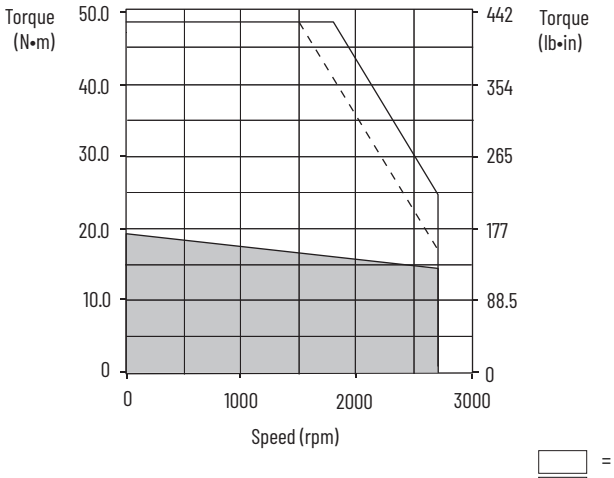

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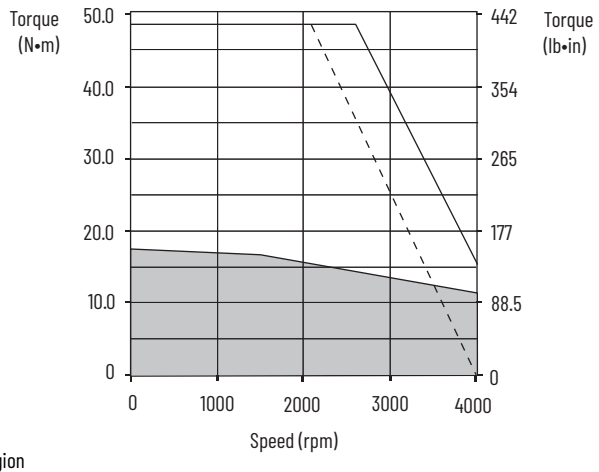
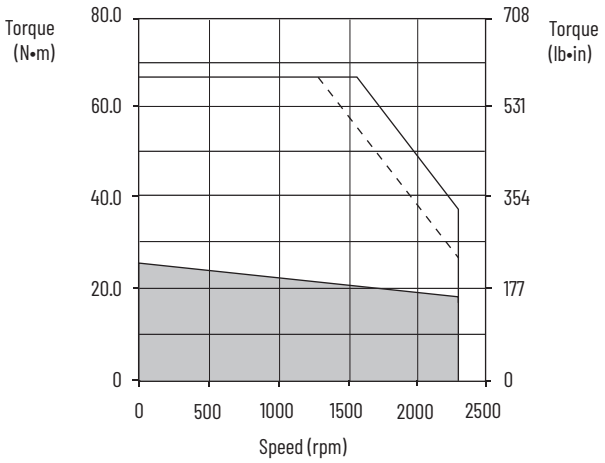


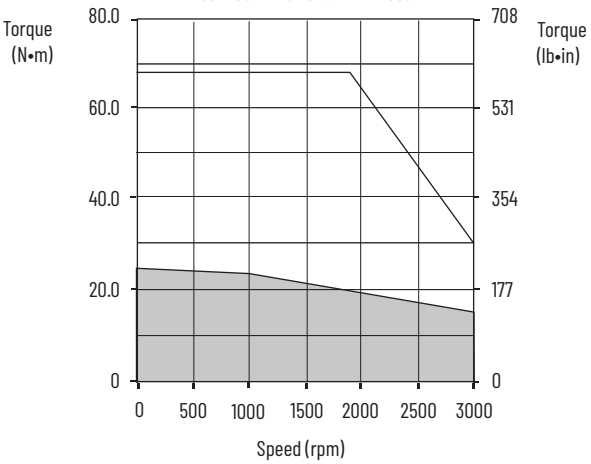
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPL Servo Motor Curves (continued)

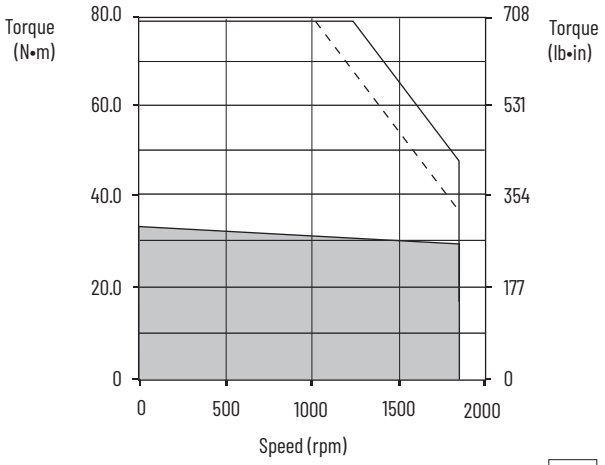
2198-D057-ERSx and VPL-B1653C



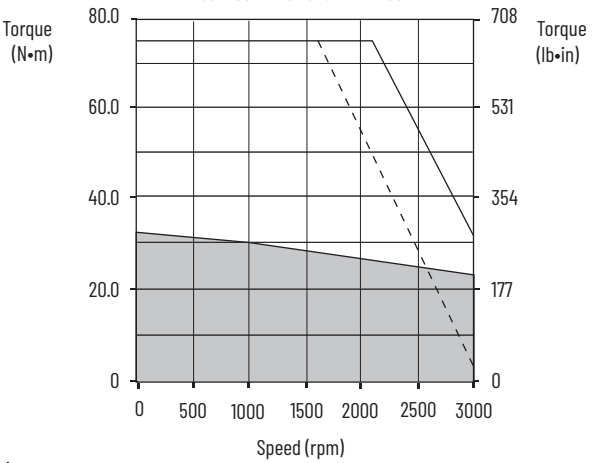
2198-D057-ERSx and VPL-B1653D



2198-D057-ERSx and VPL-B1654B



2198-D057-ERSx and VPL-B1654D



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

Kinetix 5700 (400V operation) Drives with Kinetix VPC Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix VPC (400V-class) continuous-duty servo motors. Motor cable catalog numbers, system performance specifications, and the optimum torque/speed curves, and power/speed curves are included. The torque/speed and power/speed curves that are provided reflect system performance with and without a cooling fan.

Single Motor-cable Combinations

Rotary Motor (400V-class) Cat. No.	Single Motor Cable [1]	Feedback Type
VPC-B1652*x*-Q, VPC-B1653*x*-Q	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)	Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPC-B2153*x*-Q, VPC-B21549-Q		
VPC-B1654D-Q	2090-CSBM1D*x*-10VA*xx* (standard, non-flex) 2090-CSBM1D*x*-10*x*F*xx* (continuous-flex)	
VPC-B2154A-Q		
VPC-B30029-Q		
VPC-B2154B-Q, VPC-B2154D-Q, VPC-B2155B-Q, VPC-B2155D-Q	2090-CSBM1DE-08VA*xx* (standard, non-flex) 2090-CSBM1DE-08*x*F*xx* (continuous-flex)	
VPC-B3002A-Q, VPC-B30039-Q, VPC-B30049-Q		
VPC-B2156A-Q, VPC-B2156D-Q	2090-CSBM1DE-06VA*xx* (standard, non-flex) 2090-CSBM1DE-06*x*F*xx* (continuous-flex)	
VPC-B3003A-Q		

(1) Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Motor Power/Brake and Feedback Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable [1]
VPC-B1652*x*-S/Y, VPC-B1653*x*-S/Y	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* [2] [3] (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
VPC-B2153*x*-S/Y, VPC-B21549-S/Y		
VPC-B1654D-S/Y	2090-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-10AF*xx* (continuous-flex)	
VPC-B2154A-S/Y		
VPC-B30029-S/Y		
VPC-B2154B-S/Y, VPC-B2154D-S/Y, VPC-B2155B-S/Y, VPC-B2155D-S/Y	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	
VPC-B3002A-S/Y, VPC-B30039-S/Y, VPC-B30049-S/M/Y		
VPC-B2156A-S/Y, VPC-B2156D-S/Y	2090-CPBM7DF-06AA*xx* (standard, non-flex)	
VPC-B3003A-S/Y		
VPC-B3004A-S/M/Y, VPC-B3004B-S/M/Y, VPC-B3004D-S/M/Y	2090-CPBM7DF-04AA*xx* (standard, non-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit on the drive end. Refer to Determine What You Need on page 10.
(2) Applies to Kinetix 5700 drives and VPC-B*xxxxx*-S motors (absolute, single-turn encoder) or VPC-B3004*x*-M motors (absolute, multi-turn encoder) with Hiperface protocol.
(3) Applies to Kinetix 5700 drives and VPC-B*xxxxx*-Y motors with absolute, multi-turn encoder (EnDat digital protocol).

Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPC Motor Performance with Kinetix 5700 (400V operation) Drives

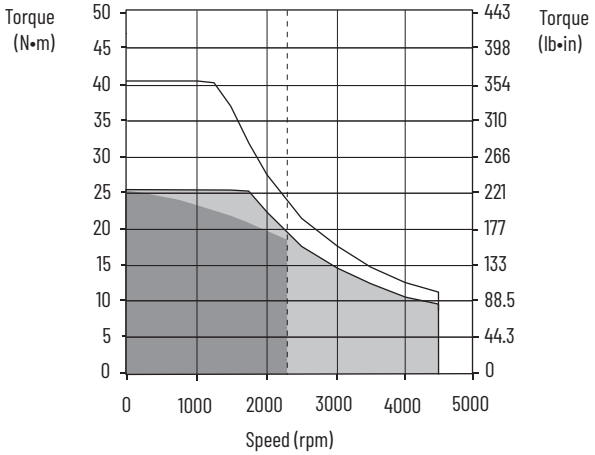
Motor Cat. No. (1)	Rated Speed rpm	Maximum (2) Speed rpm	System Cont. Stall Current A (0-pk)	System Cont. Stall Torque N•m (lb•in)	System Cont. Rated Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPC-B1652A-*xxxx*AS	1500	2300	11.2	25.2 (223)	21.9 (194)	19.3	40.3 (357)	3.4 (4.6)	2198-D020-ERS*x*
VPC-B1652A-*xxxx*FS		4500 (2347)		25.5 (226)	25.5 (226)			4.0 (5.4)	
VPC-B1653A-*xxxx*AS	1500	2300	15.7	31.8 (281)	28.1 (249)	28.5	60.6 (536)	4.4 (5.9)	2198-D032-ERS*x*
VPC-B1653A-*xxxx*FS		4500 (2310)		35.1 (311)	35.1 (311)			5.5 (7.4)	
VPC-B1652D-*xxxx*AS	3000	4400	15.6	17.6 (156)	15.3 (135)	38.0	40.7 (360)	4.8 (6.4)	2198-D032-ERS*x*
VPC-B1652D-*xxxx*FS		5000 (4452)			17.6 (156)			5.5 (7.4)	
VPC-B1653D-*xxxx*AS	3000	4200	21.4	24.0 (212)	18.5 (164)	56.3	61.4 (543)	5.8 (7.8)	2198-D057-ERS*x*
VPC-B1653D-*xxxx*FS		5000 (4294)			24.0 (212)			7.5 (10.1)	
VPC-B1654D-*xxxx*AS	3000	4200	30.2	35.1 (311)	22.3 (197)	75.1	76.6 (678)	7.0 (9.4)	2198-D057-ERS*x*
VPC-B1654D-*xxxx*FS		5000 (4494)			35.1 (311)			11.0 (14.7)	
VPC-B21539-*xxxx*AS	1000	1500	15.6	52.5 (465)	51.1 (452)	41.6	118.8 (1051)	5.3 (7.2)	2198-D032-ERS*x*
VPC-B21539-*xxxx*FS		3000 (1573)			52.5 (465)			5.5 (7.4)	
VPC-B21549-*xxxx*AS	1000	1500	21.7	72.0 (637)	64.4 (570)	54.3	158.4 (1402)	6.7 (9.0)	2198-D057-ERS*x*
VPC-B21549-*xxxx*FS		3000 (1573)			72.0 (637)			7.5 (10.1)	
VPC-B2153A-*xxxx*AS	1500	2300	21.2	48.0 (425)	46.2 (409)	57.2	111.8 (990)	7.3 (9.7)	2198-D057-ERS*x*
VPC-B2153A-*xxxx*FS		4500 (2325)			48.0 (425)			7.5 (10.1)	
VPC-B2154A-*xxxx*AS	1500	2300	30.8	70.1 (620)	58.7 (520)	72.1	140.1 (1240)	9.2 (12.3)	2198-D057-ERS*x*
VPC-B2154A-*xxxx*FS		4500 (2333)			70.1 (620)			11.0 (14.7)	
VPC-B2154B-*xxxx*AS	2000	3200	41.0	48.0 (425)	45.1 (399)	120.1	131.4 (1163)	9.4 (12.6)	2198-S086-ERS*x*
VPC-B2154D-*xxxx*FS	3000	5000 (4294)			48.0 (425)			15.0 (20.1)	
VPC-B2155B-*xxxx*AS	2000	3200	48.8	59.0 (522)	51.7 (458)	121.6	138.6 (1227)	10.8 (14.5)	2198-S086-ERS*x*
						139.5	156.7 (1387)		2198-S130-ERS*x*
VPC-B2155D-*xxxx*FS	3000	5000 (4172)	48.8	59.0 (522)	59.0 (522)	121.6	138.6 (1227)	18.5 (24.8)	2198-S086-ERS*x*
						139.5	156.7 (1387)		2198-S130-ERS*x*
VPC-B2156A-*xxxx*AS	1500	2800	57.6	70.1 (620)	56.1 (497)	121.6	139.3 (1233)	8.8 (11.8)	2198-S086-ERS*x*
						171.6	185.5 (1642)		2198-S130-ERS*x*
VPC-B2156D-*xxxx*FS	3000	5000 (4101)	57.6	70.1 (620)	70.1 (620)	121.6	139.3 (1233)	22.0 (29.5)	2198-S086-ERS*x*
						171.6	185.5 (1642)		2198-S130-ERS*x*
VPC-B30029-*xxxx*AS	1000	1400	29.2	103.4 (915)	100.2 (887)	56.9	183.7 (1626)	10.5 (14.1)	2198-S086-ERS*x*
VPC-B30029-*xxxx*FS		3000 (1493)		105.1 (930)	105.1 (930)			11.0 (14.7)	
VPC-B30039-*xxxx*AS	1000	1400	38.0	142.4 (1260)	135.7 (1201)	72.2	237.9 (2106)	14.2 (19.1)	2198-S086-ERS*x*
VPC-B30039-*xxxx*FS		3000 (1472)		143.3 (1268)	143.3 (1268)			15.0 (20.1)	
VPC-B30049-*xxxx*AS	1000	1400	46.6	176.1 (1558)	167.7 (1484)	96.6	327.8 (2901)	17.6 (23.6)	2198-S086-ERS*x*
VPC-B30049-*xxxx*FS		3000 (1429)		176.7 (1564)	176.7 (1564)			18.5 (24.8)	
VPC-B3002A-*xxxx*AS	1500	2200	39.6	95.5 (845)	90.6 (802)	82.9	170.4 (1508)	14.2 (19.1)	2198-S086-ERS*x*
VPC-B3002A-*xxxx*FS		4000 (2212)			95.5 (845)			15.0 (20.1)	
VPC-B3003A-*xxxx*AS	1500	2100	56.3	140.3 (1242)	111.3 (985)	108.0	244.8 (2167)	17.5 (23.4)	2198-S086-ERS*x*
VPC-B3003A-*xxxx*FS		3500 (2166)			140.3 (1242)			22.0 (29.5)	
VPC-B3004A-*xxxx*AS	1500	2100	77.6	191.1 (1691)	155.1 (1373)	145.2	319.0 (2823)	24.4 (34.1)	2198-S130-ERS*x*
VPC-B3004A-*xxxx*FS		3500 (2128)			191.1 (1691)			30.0 (40.2)	
VPC-B3004B-*xxxx*AS	2000	2800	76.6	95.5 (845)	78.1 (691)	183.8	225.8 (1998)	16.4 (22.0)	2198-S130-ERS*x*
						211.1	257.7 (2281)		2198-S160-ERS*x*
VPC-B3004D-*xxxx*FS	3000	4000 (4054)	76.6	95.5 (845)	95.5 (845)	183.8	225.8 (1998)	30.0 (40.2)	2198-S130-ERS*x*
						211.1	257.7 (2281)		2198-S160-ERS*x*

(1) Motors with catalog numbers ending in -*xxxx*FS (forced ventilation) include a cooling fan. Catalog numbers ending in -*xxxx*AS (natural convection) do not include a cooling fan.
(2) Operation beyond maximum speed requires DC-bus protection. Bus overvoltage speed is shown in parentheses. See the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for more information on bus overvoltage speed, field-weakening mode, and the extended speed feature.

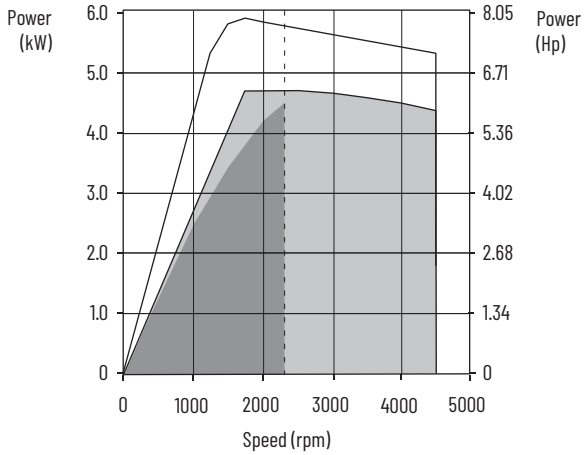
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves

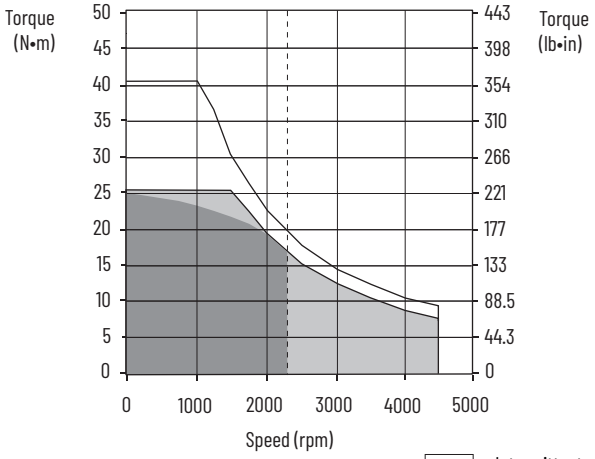
2198-D020-ERSx and VPC-B1652A (480V input)



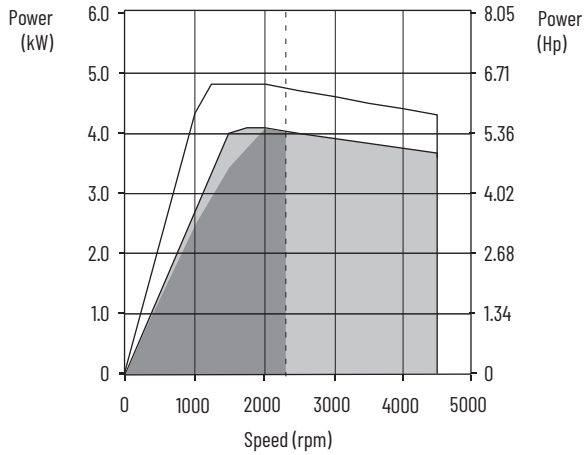
2198-D020-ERSx and VPC-B1652A (480V input)



2198-D020-ERSx and VPC-B1652A (400V input)



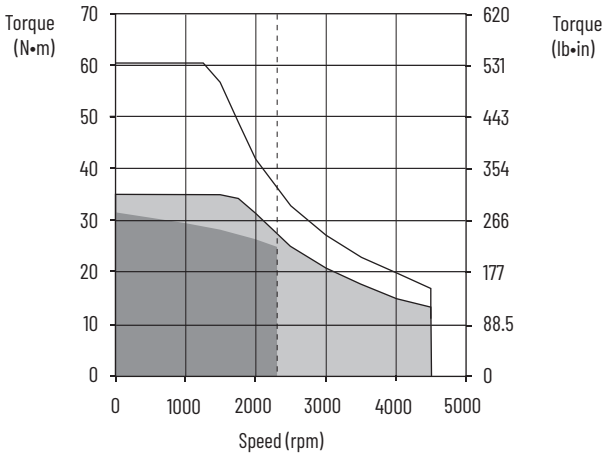
2198-D020-ERSx and VPC-B1652A (400V input)



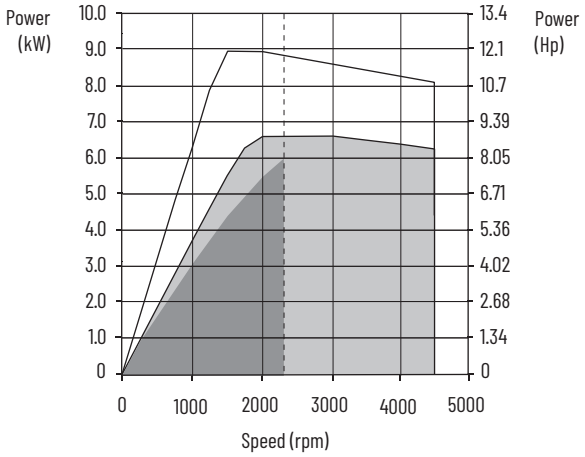
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

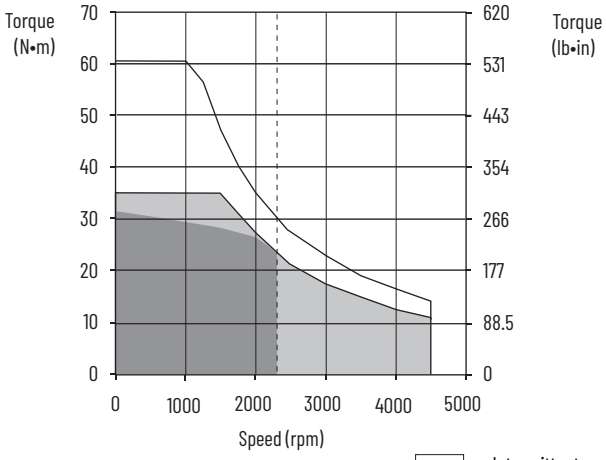
2198-D032-ERSx and VPC-B1653A (480V input)



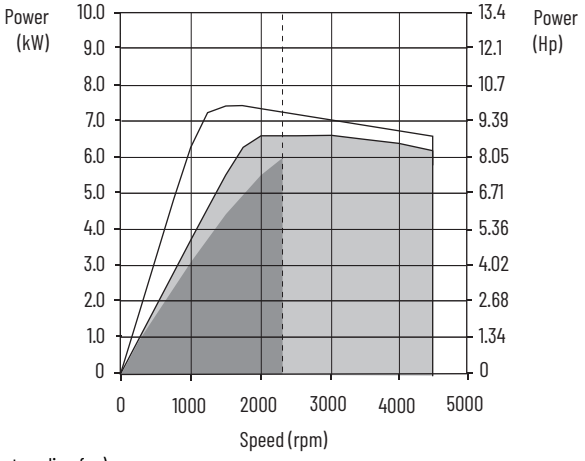
2198-D032-ERSx and VPC-B1653A (480V input)



2198-D032-ERSx and VPC-B1653A (400V input)



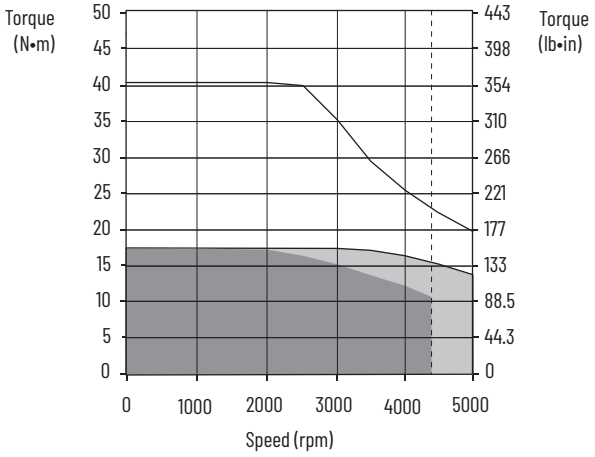
2198-D032-ERSx and VPC-B1653A (400V input)



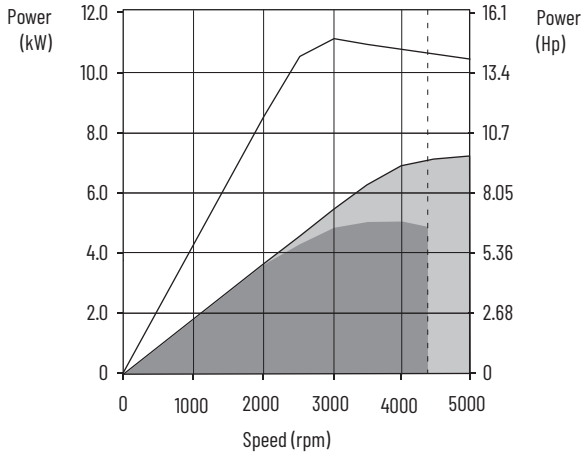
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motors (continued)

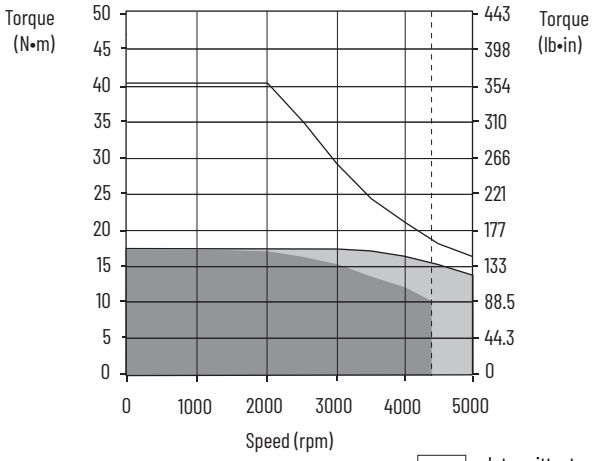
2198-D032-ERSx and VPC-B1652D (480V input)



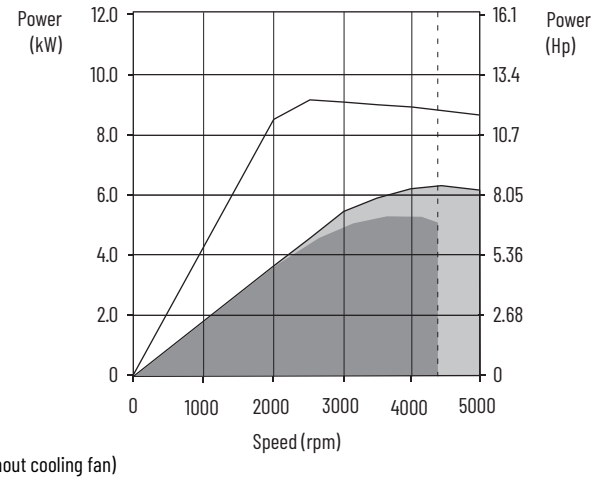
2198-D032-ERSx and VPC-B1652D (480V input)



2198-D032-ERSx and VPC-B1652D (400V input)



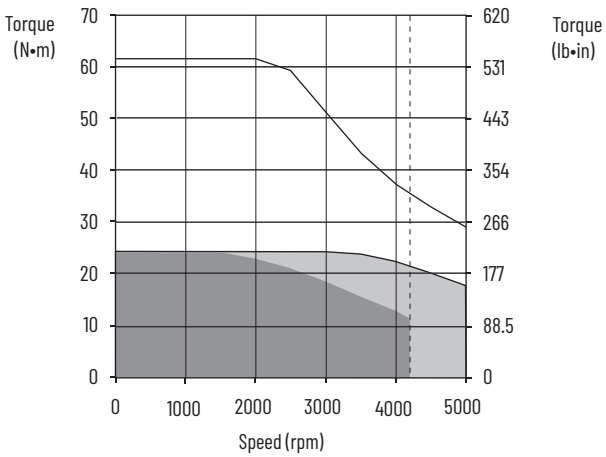
2198-D032-ERSx and VPC-B1652D (400V input)



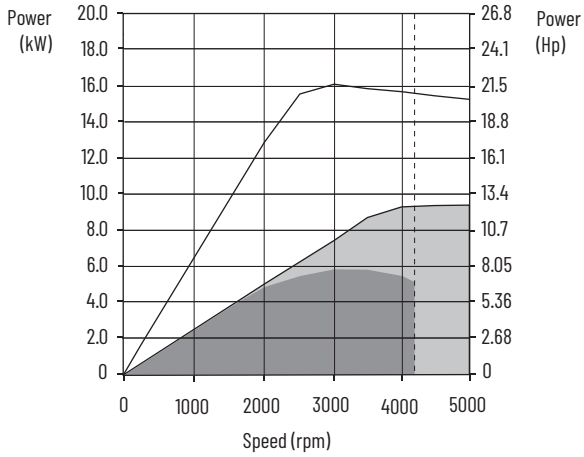
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

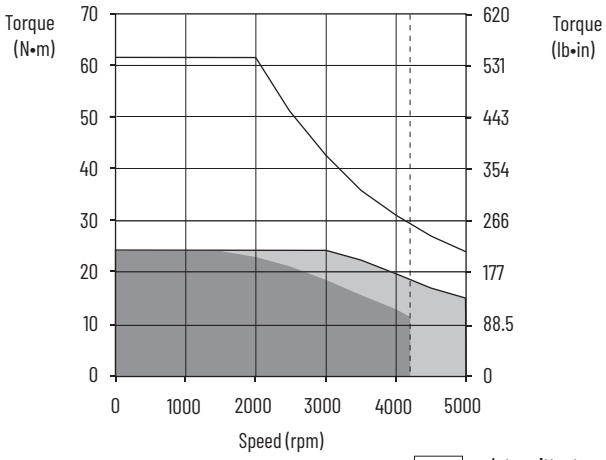
2198-D057-ERSx and VPC-B1653D (480V input)



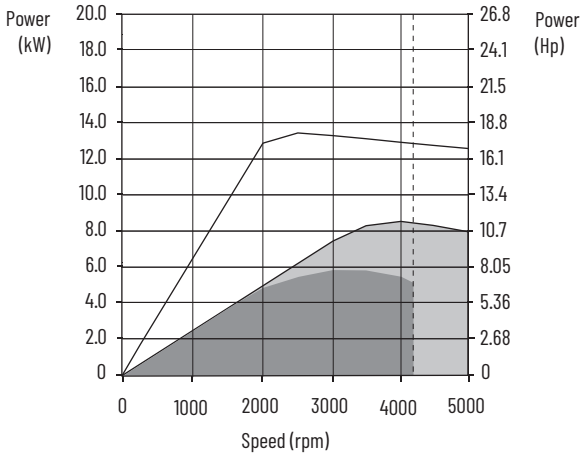
2198-D057-ERSx and VPC-B1653D (480V input)



2198-D057-ERSx and VPC-B1653D (400V input)



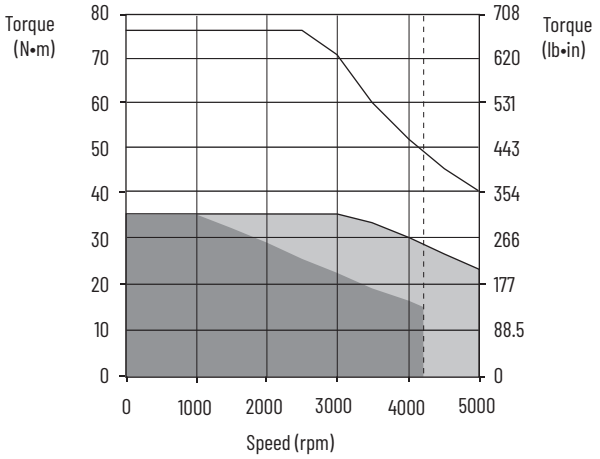
2198-D057-ERSx and VPC-B1653D (400V input)



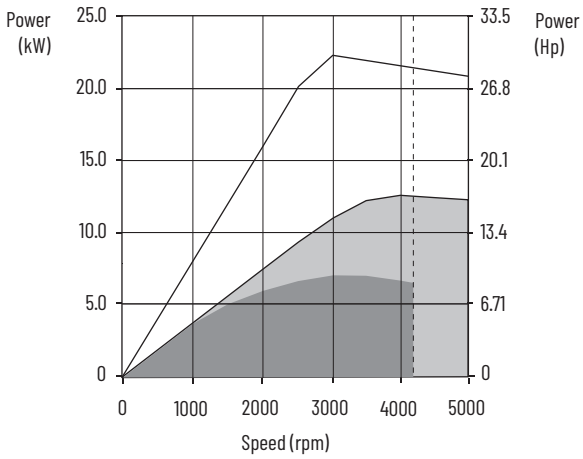
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

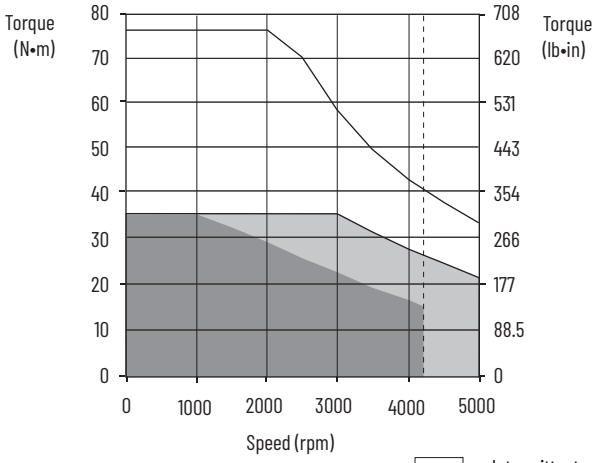
2198-D057-ERSx and VPC-B1654D (480V input)



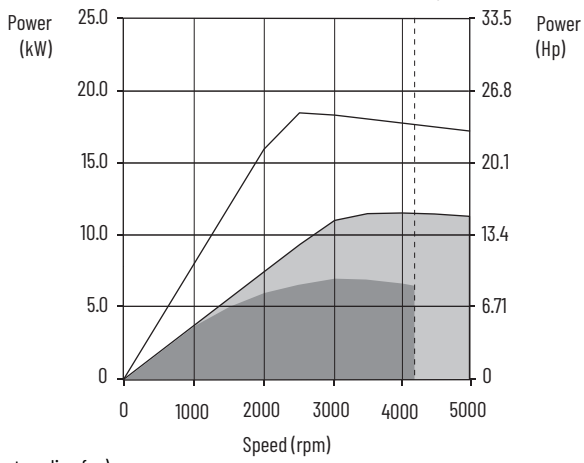
2198-D057-ERSx and VPC-B1654D (480V input)



2198-D057-ERSx and VPC-B1654D (400V input)



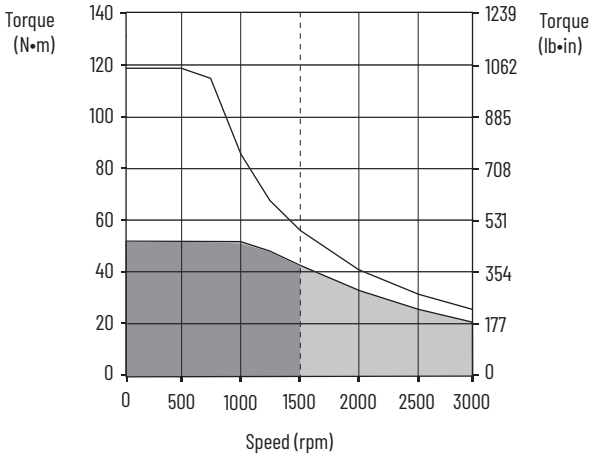
2198-D057-ERSx and VPC-B1654D (400V input)



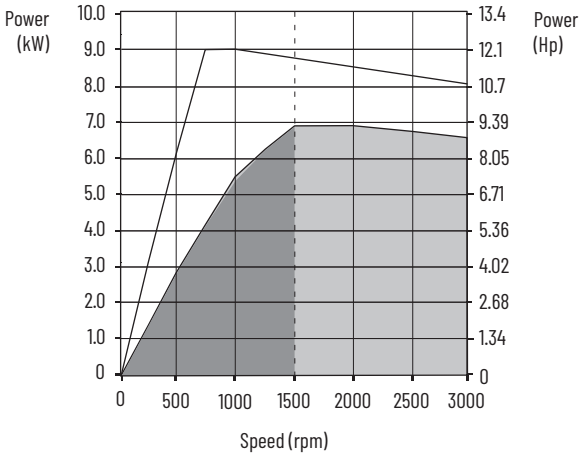
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

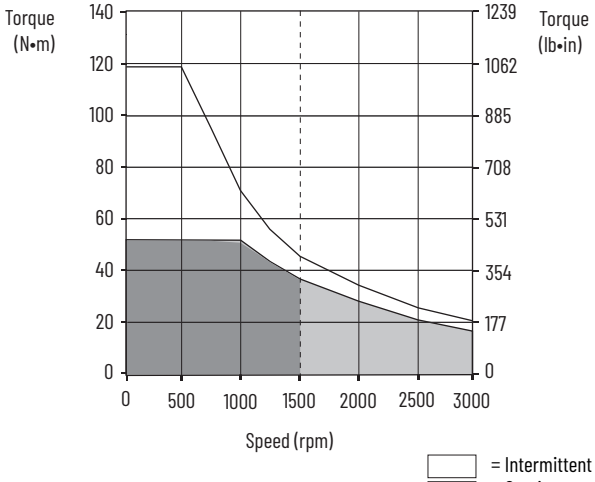
2198-D032-ERSx and VPC-B21539 (480V input)



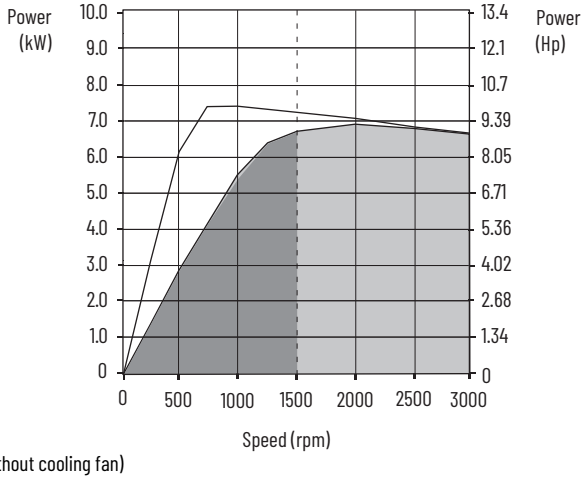
2198-D032-ERSx and VPC-B21539 (480V input)



2198-D032-ERSx and VPC-B21539 (400V input)



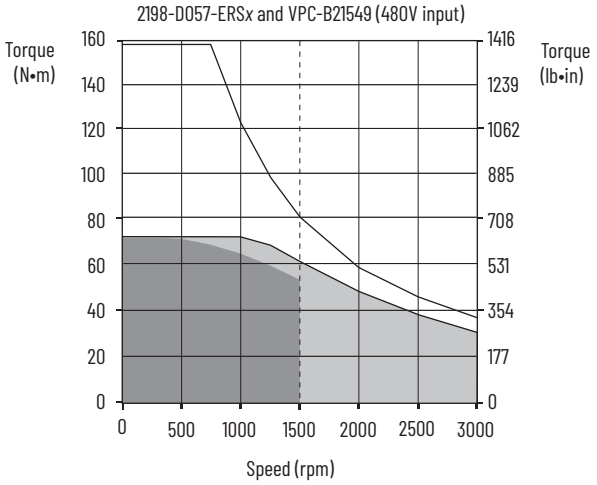
2198-D032-ERSx and VPC-B21539 (400V input)



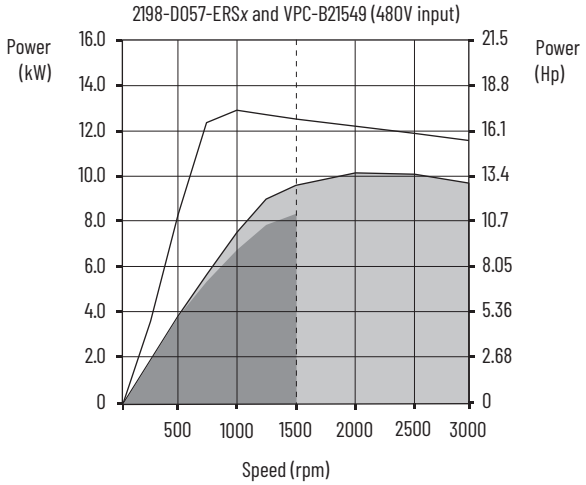
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

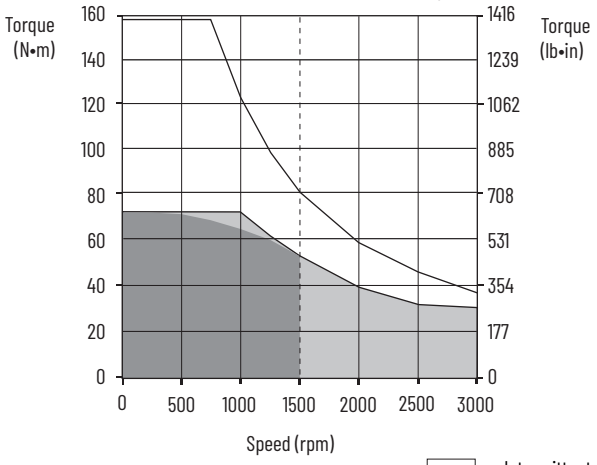
2198-D057-ERSx and VPC-B21549 (480V input)



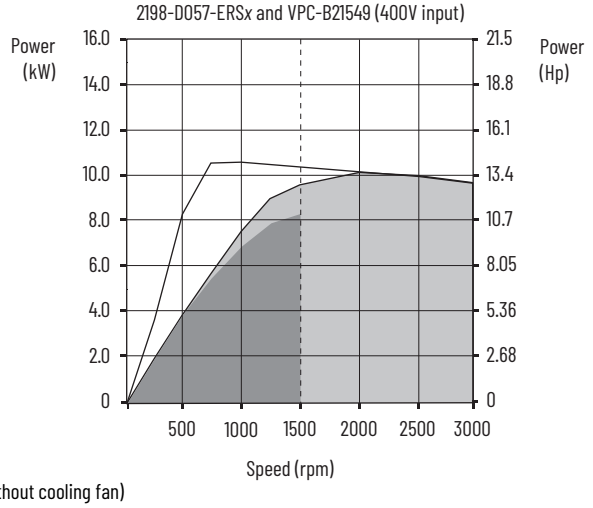
2198-D057-ERSx and VPC-B21549 (480V input)



2198-D057-ERSx and VPC-B21549 (400V input)



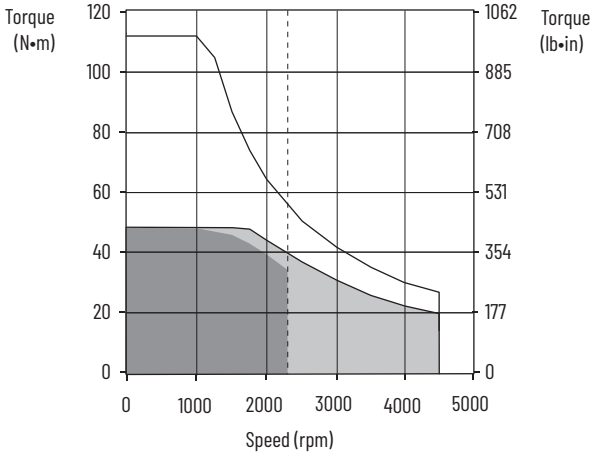
2198-D057-ERSx and VPC-B21549 (400V input)



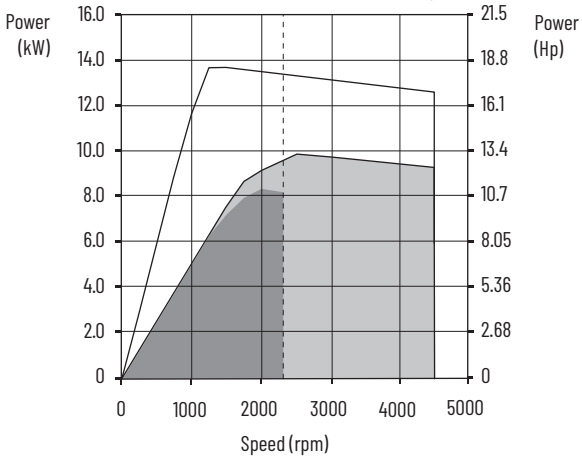
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

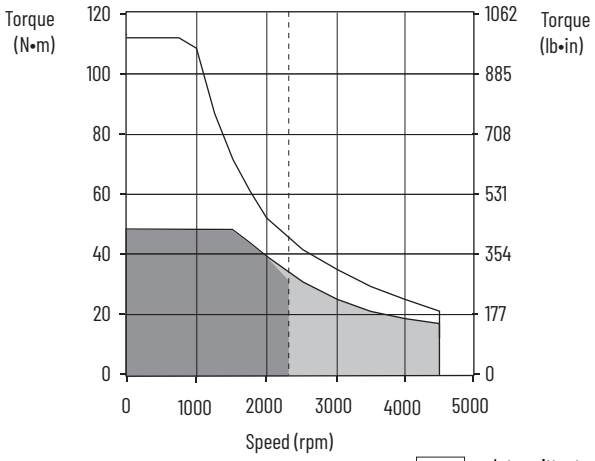
2198-D057-ERSx and VPC-B2153A (480V input)



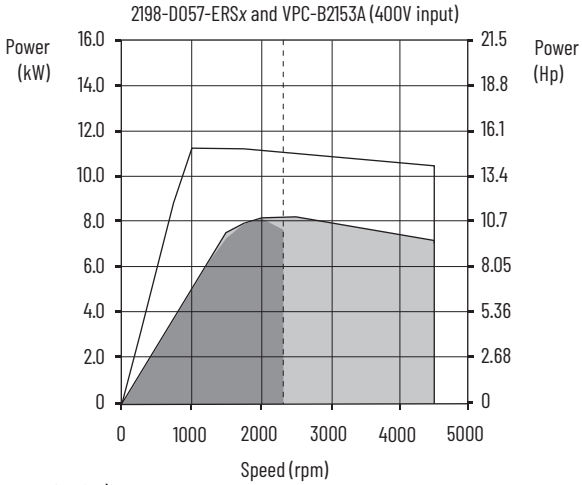
2198-D057-ERSx and VPC-B2153A (480V input)



2198-D057-ERSx and VPC-B2153A (400V input)



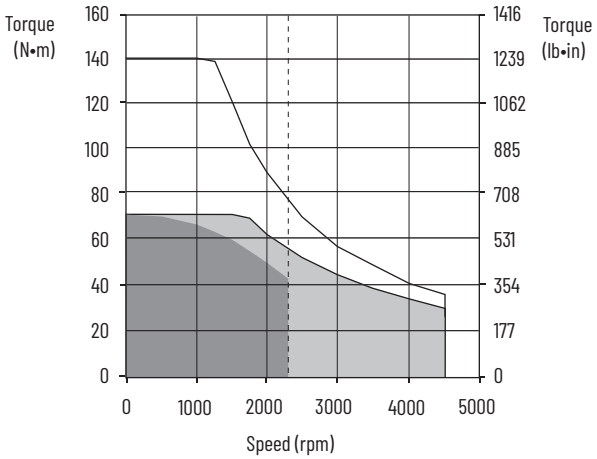
2198-D057-ERSx and VPC-B2153A (400V input)



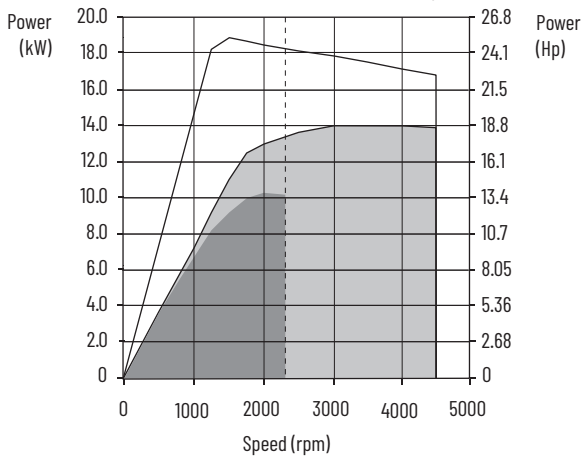
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

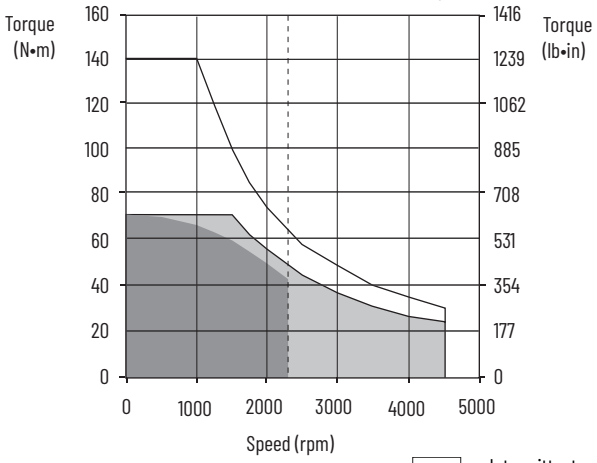
2198-D057-ERSx and VPC-B2154A (480V input)



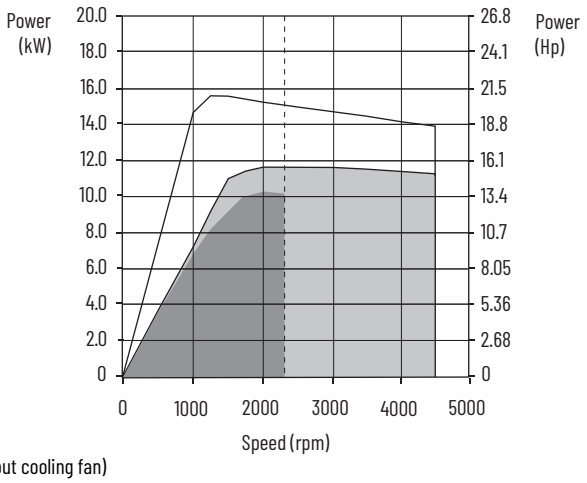
2198-D057-ERSx and VPC-B2154A (480V input)



2198-D057-ERSx and VPC-B2154A (400V input)



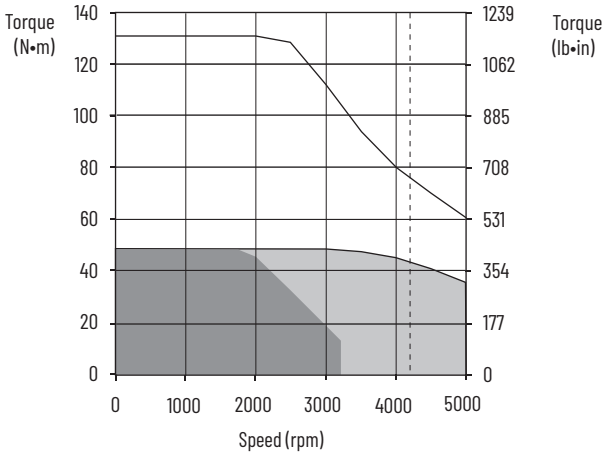
2198-D057-ERSx and VPC-B2154A (400V input)



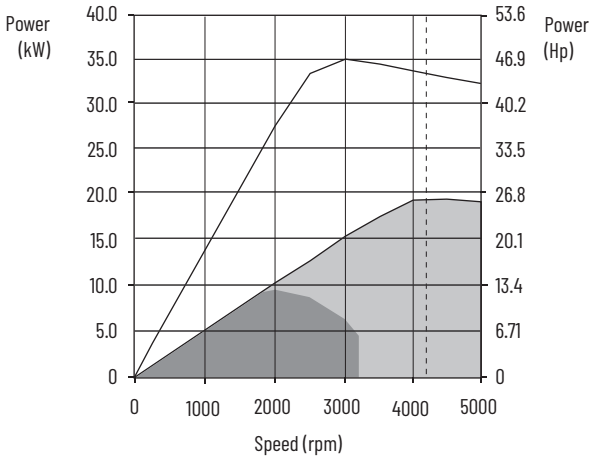
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

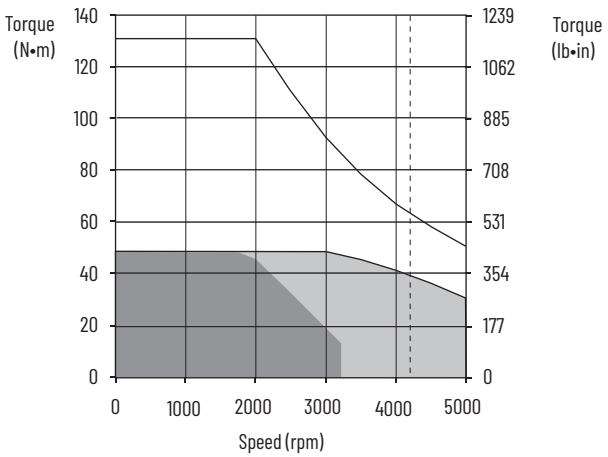
2198-S086-ERSx (480V input) and VPC-B2154D or VPC-B2154B



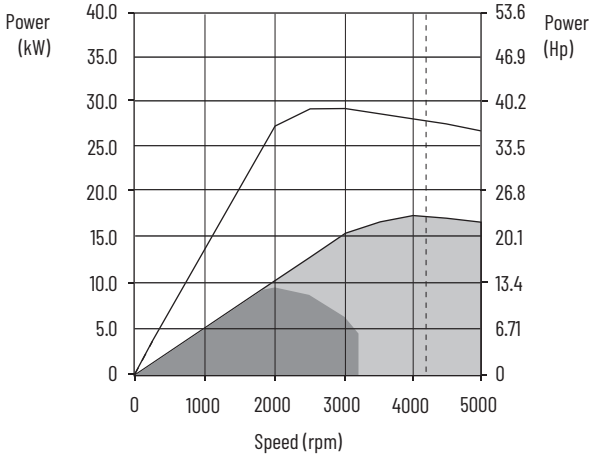
2198-S086-ERSx (480V input) and VPC-B2154D or VPC-B2154B



2198-S086-ERSx (400V input) and VPC-B2154D or VPC-B2154B



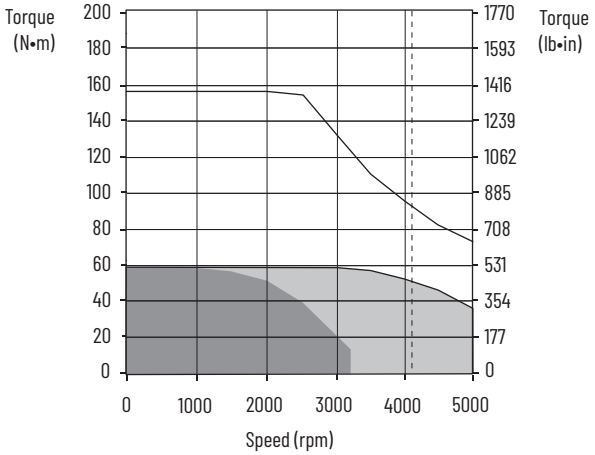
2198-S086-ERSx (400V input) and VPC-B2154D or VPC-B2154B



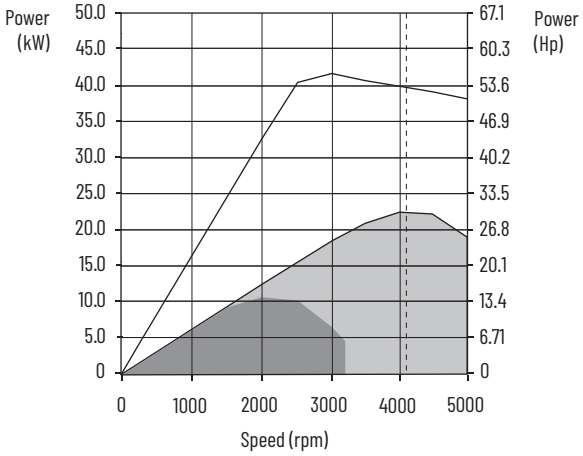
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

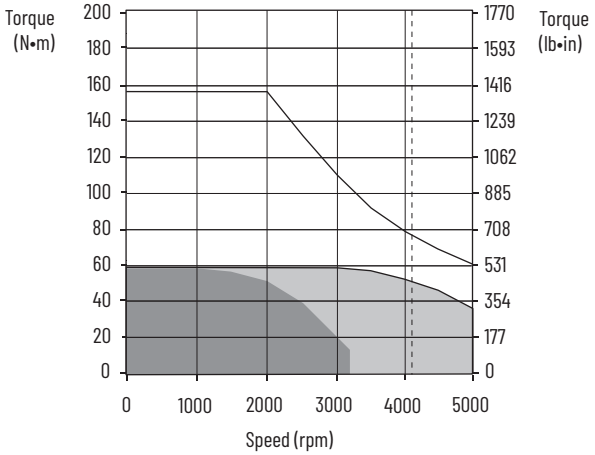
2198-S130-ERSx (480V input) and VPC-B2155D or VPC-B2155B



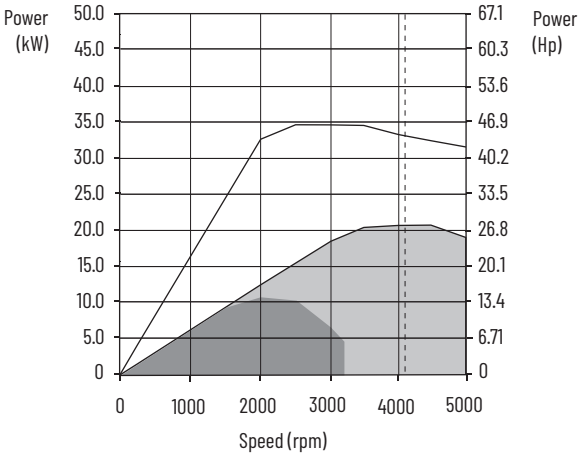
2198-S130-ERSx (480V input) and VPC-B2155D or VPC-B2155B



2198-S130-ERSx (400V input) and VPC-B2155D or VPC-B2155B



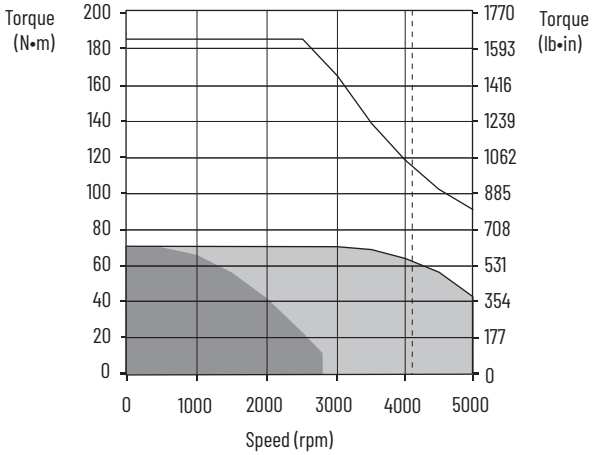
2198-S130-ERSx (400V input) and VPC-B2155D or VPC-B2155B



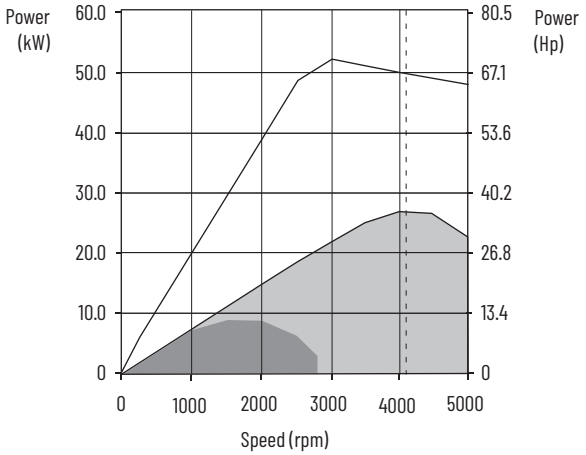
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

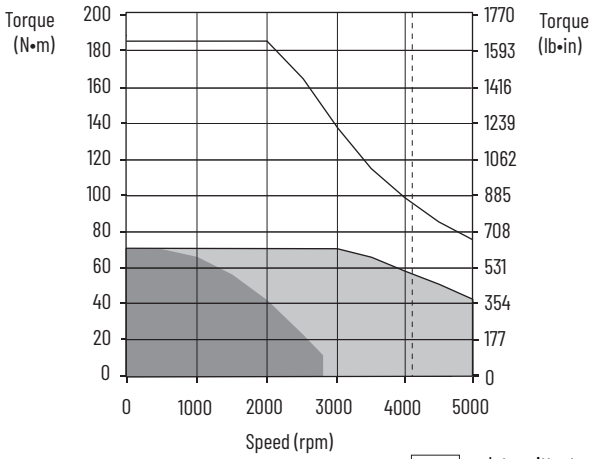
2198-S130-ERSx (480V input) and VPC-B2156D or VPC-B2156A



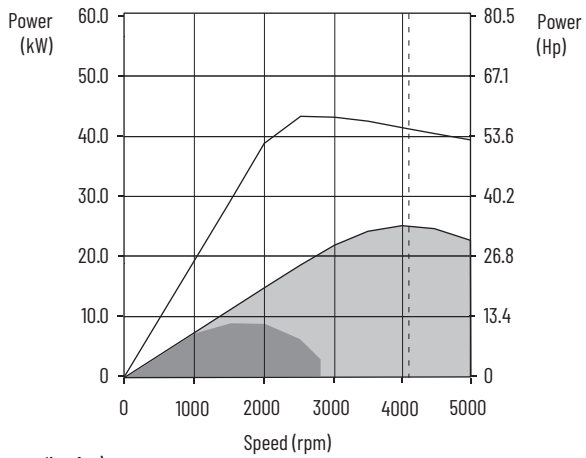
2198-S130-ERSx (480V input) and VPC-B2156D or VPC-B2156A



2198-S130-ERSx (400V input) and VPC-B2156D or VPC-B2156A



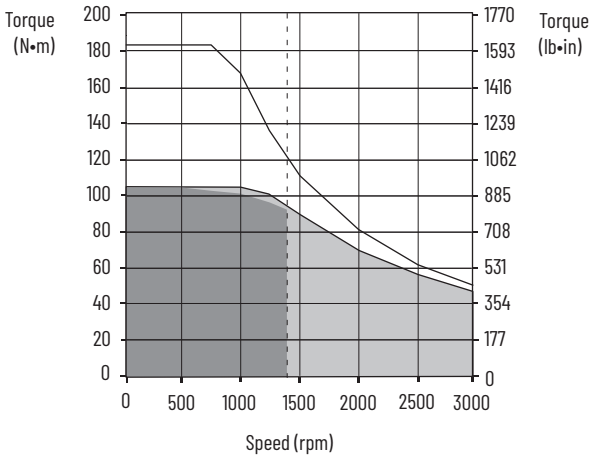
2198-S130-ERSx (400V input) and VPC-B2156D or VPC-B2156A



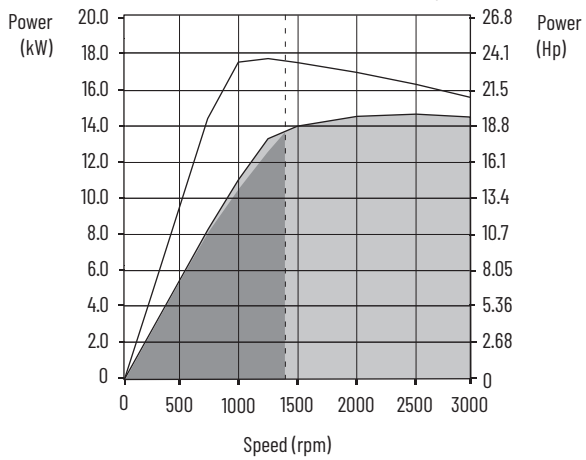
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

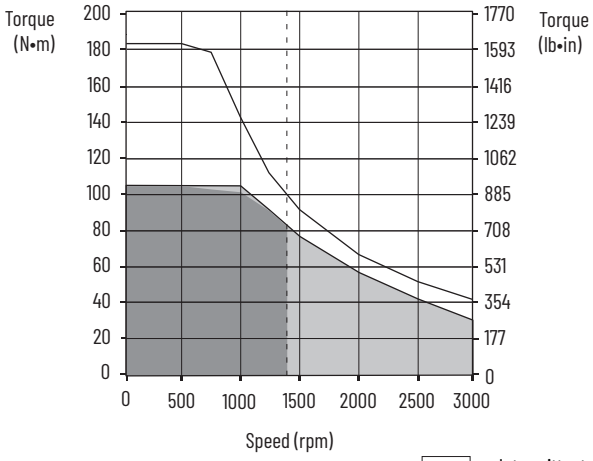
2198-S086-ERSx and VPC-B30029 (480V input)



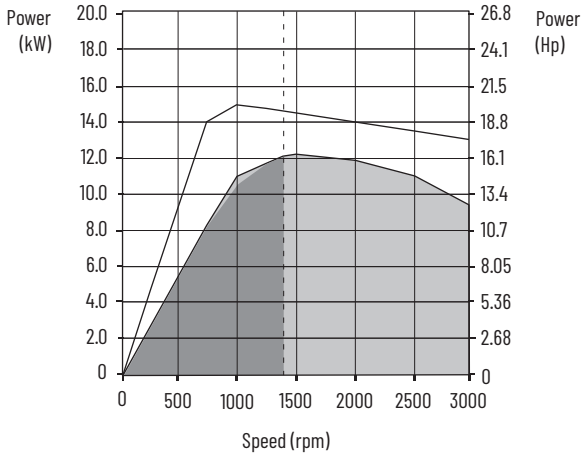
2198-S086-ERSx and VPC-B30029 (480V input)



2198-S086-ERSx and VPC-B30029 (400V input)



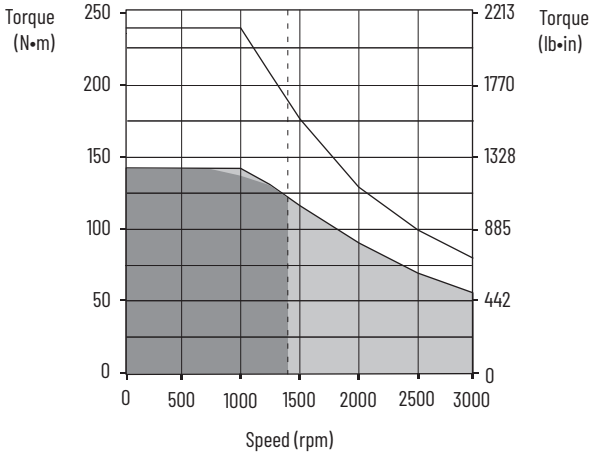
2198-S086-ERSx and VPC-B30029 (400V input)



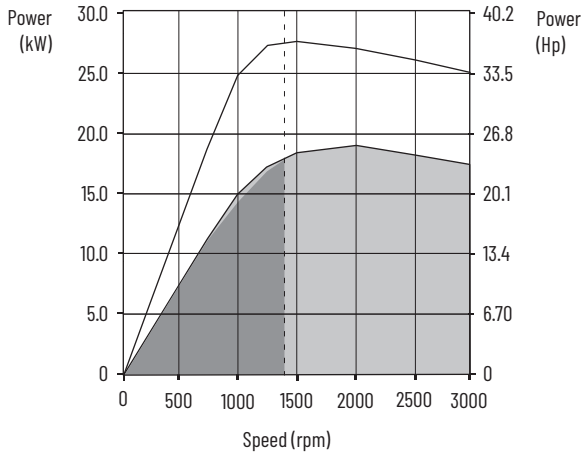
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

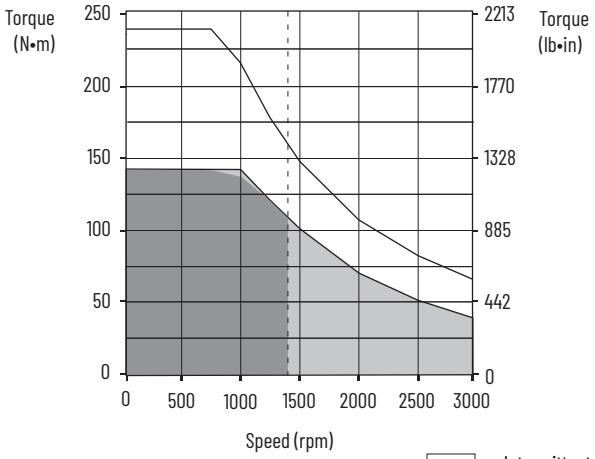
2198-S086-ERSx and VPC-B30039 (480V input)



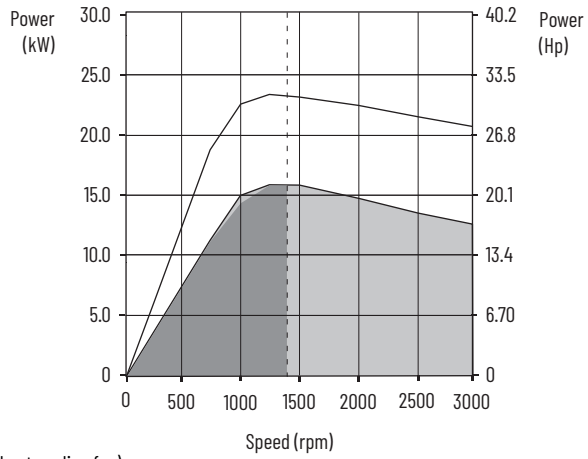
2198-S086-ERSx and VPC-B30039 (480V input)



2198-S086-ERSx and VPC-B30039 (400V input)



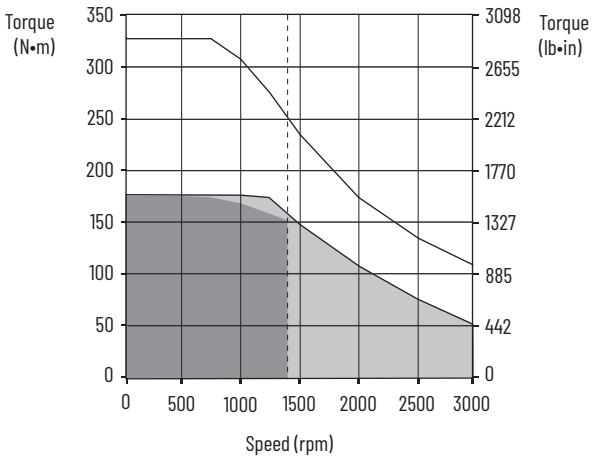
2198-S086-ERSx and VPC-B30039 (400V input)



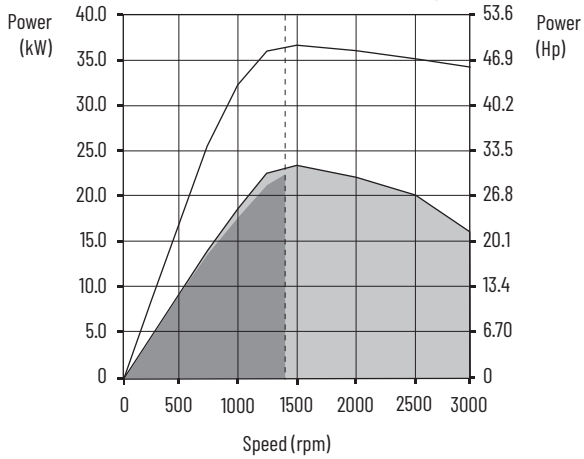
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

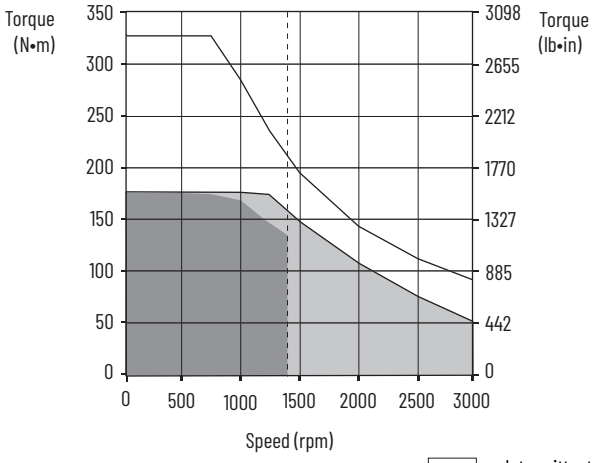
2198-S086-ERSx and VPC-B30049 (480V input)



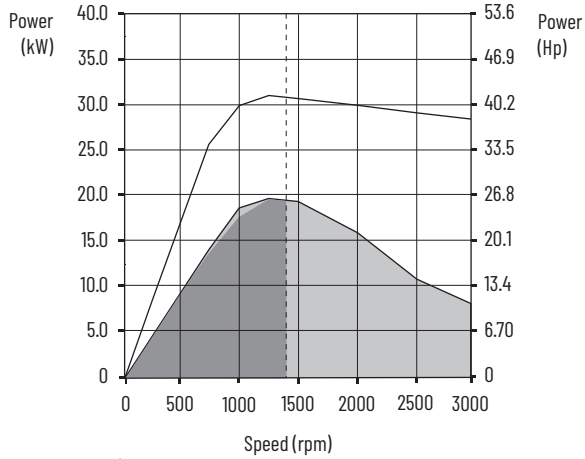
2198-S086-ERSx and VPC-B30049 (480V input)



2198-S086-ERSx and VPC-B30049 (400V input)



2198-S086-ERSx and VPC-B30049 (400V input)



= Intermittent operating region (with and without cooling fan)
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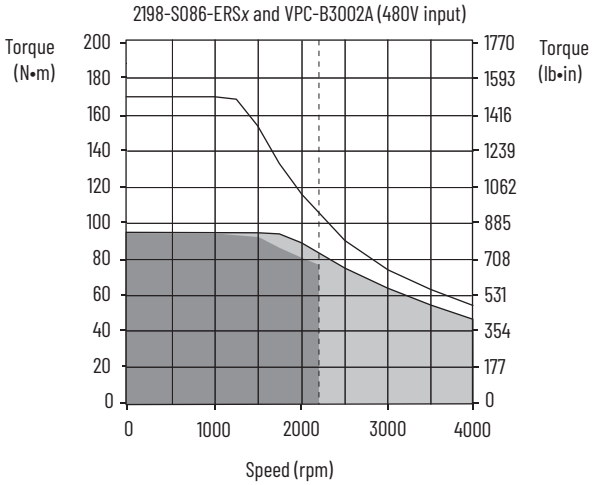
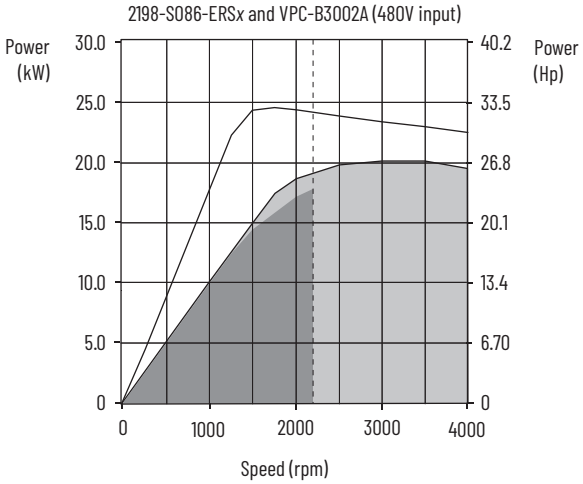
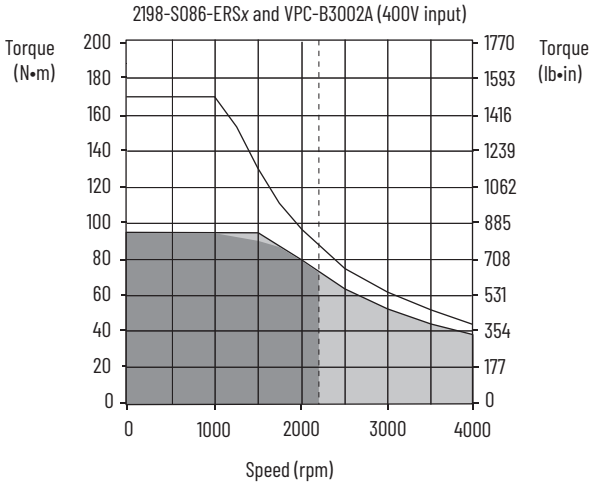
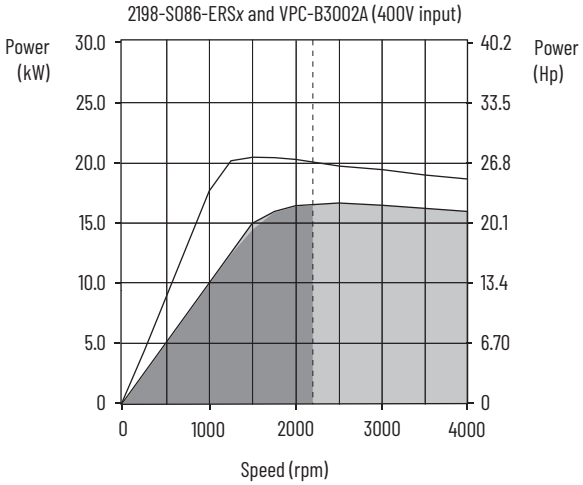
Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)









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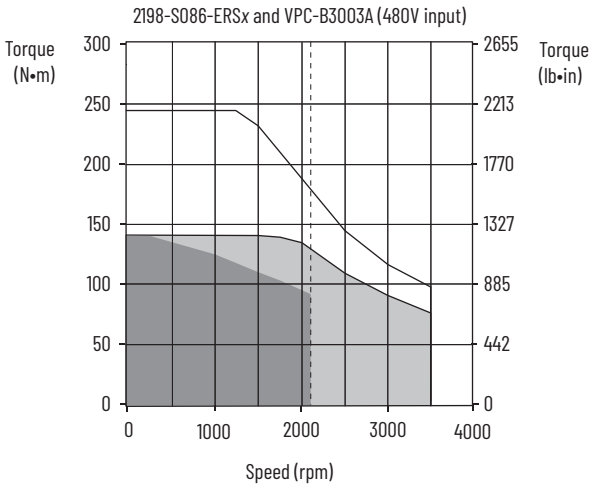
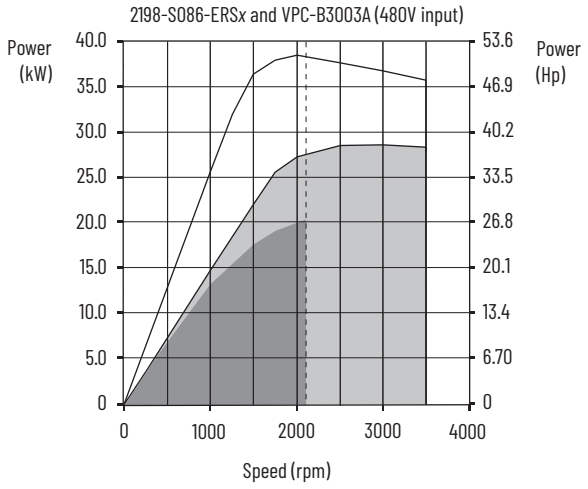
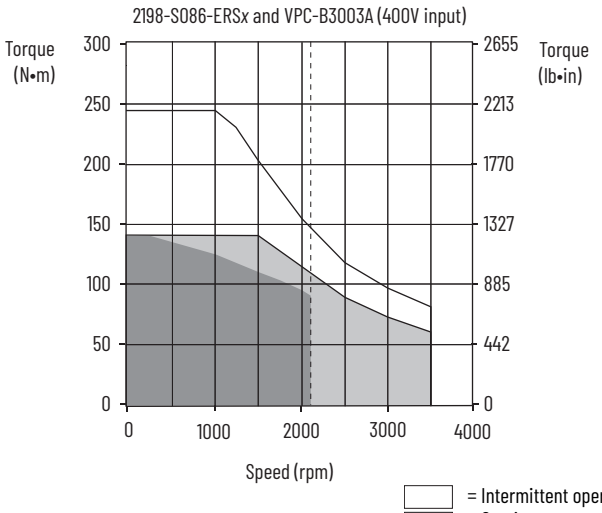
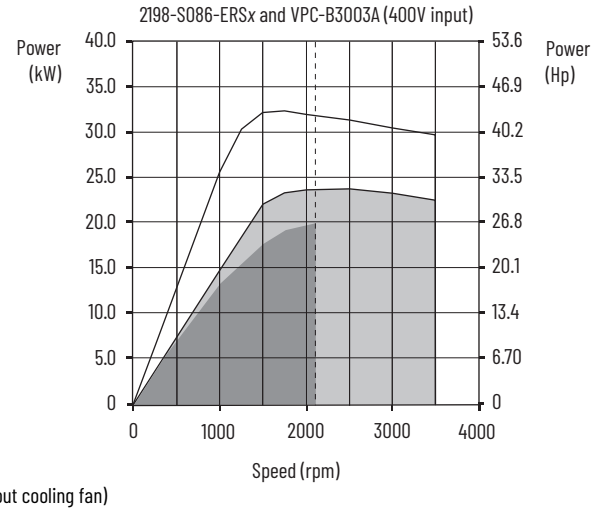
Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)









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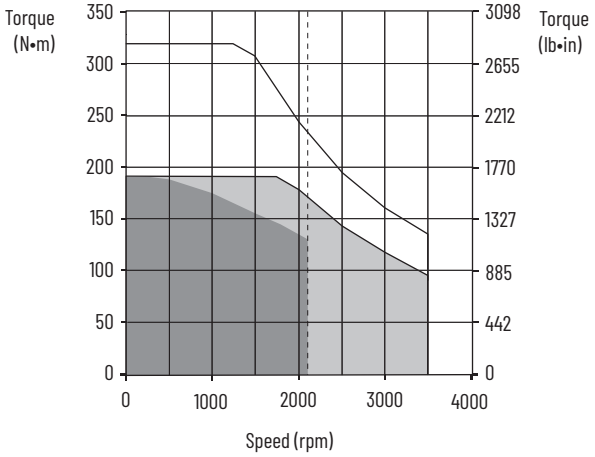
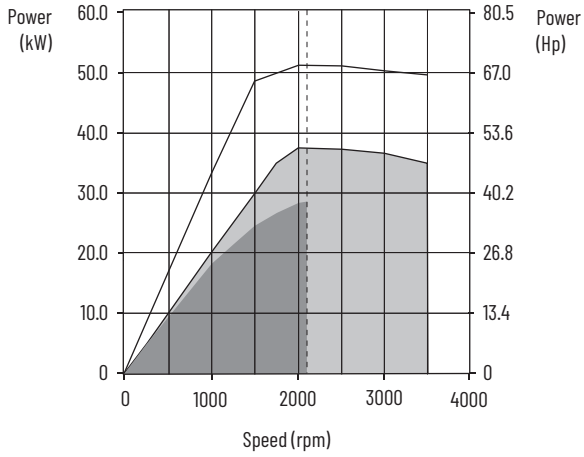
Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

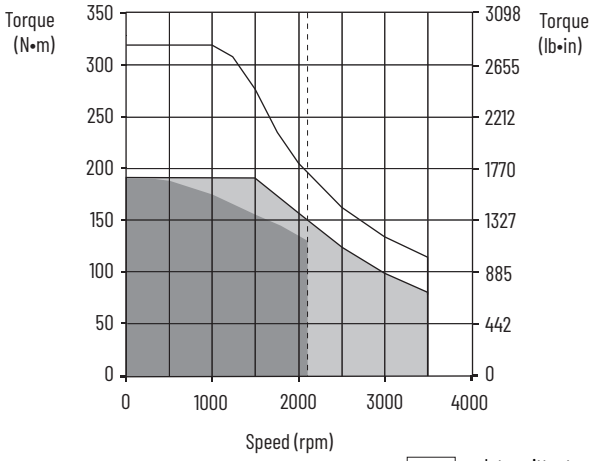
2198-S130-ERSx and VPC-B3004A (480V input)



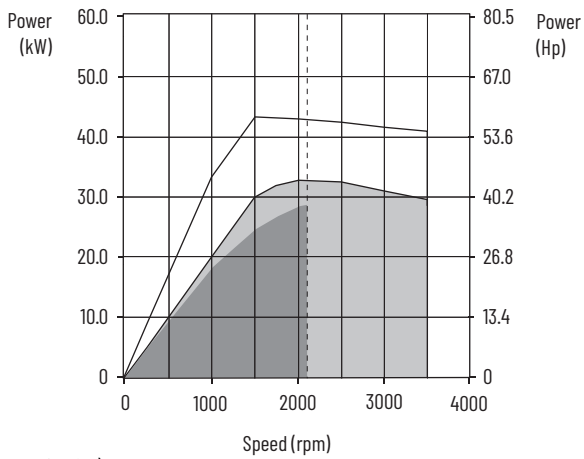
2198-S130-ERSx and VPC-B3004A (480V input)



2198-S130-ERSx and VPC-B3004A (400V input)



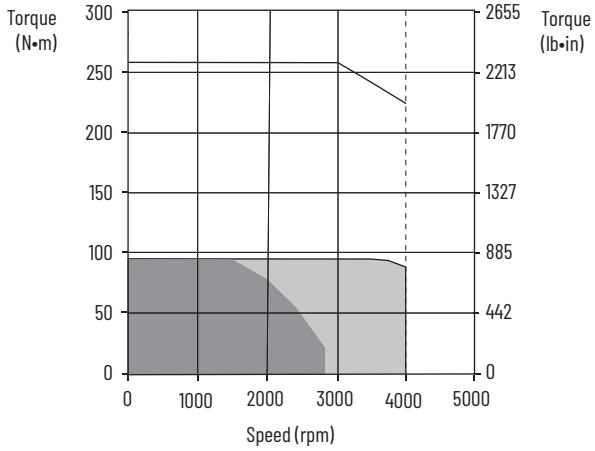
2198-S130-ERSx and VPC-B3004A (400V input)



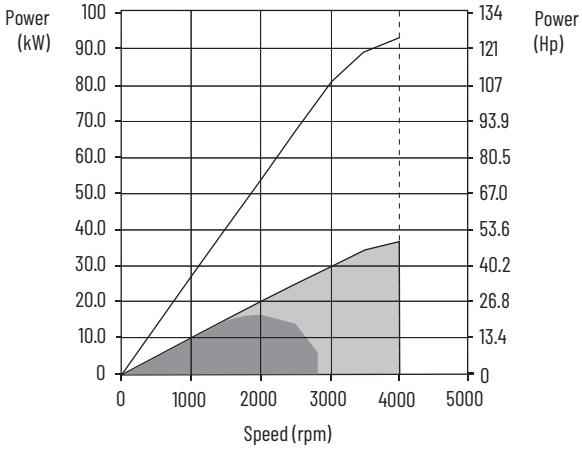
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (400V operation) Drives/Kinetix VPC Servo Motor Curves (continued)

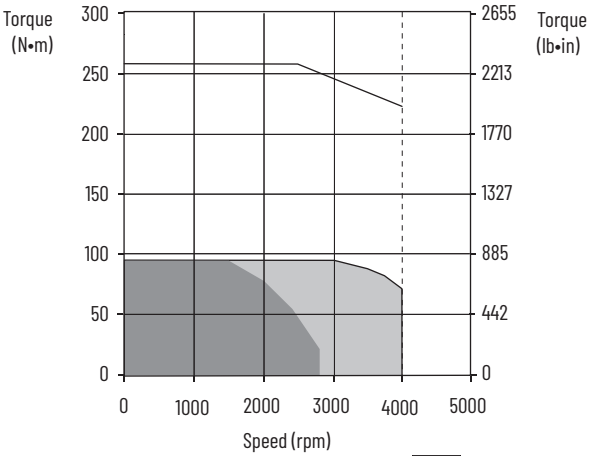
2198-S160-ERSx (480V input) and VPC-B3004D or VPC-B3004B)



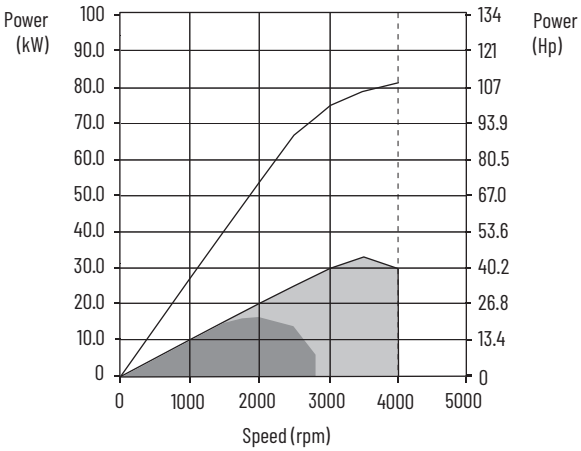
2198-S160-ERSx (480V input) and VPC-B3004D or VPC-B3004B



2198-S160-ERSx (400V input) and VPC-B3004D or VPC-B3004B



2198-S160-ERSx (400V input) and VPC-B3004D or VPC-B3004B



= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

Kinetix 5700 (200V operation) Drives with Kinetix VPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 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 VPF Motor Cable Combinations

Rotary Motor (200V operation) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPF-A0632F, VPF-A0633C, VPF-A0633F	2090-CSBM1D*x*-18x*Axx* or 2090-CSWM1D*x*-18x*Axx* (standard, non-flex) 2090-CSBM1D*x*-18x*Fxx* (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*-14x*Axx* or 2090-CSWM1D*x*-14x*Axx* (standard, non-flex) 2090-CSBM1D*x*-14x*Fxx* (continuous-flex)	
VPF-A1153C		
VPF-A1303B, VPF-A1303F, VPF-A1304A, VPF-A1304D		

(1) Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPF Motor Performance with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 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-D006-ERS*x*
VPF-A0633C	3000	3000	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.37 (0.50)	2198-D006-ERS*x*
VPF-A0633F	4500	4500	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.47 (0.63)	2198-D006-ERS*x*
					12.60	4.09 (36.0)		2198-D012-ERS*x*
VPF-A0752C	3300	3300	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.49 (0.66)	2198-D012-ERS*x*
VPF-A0752E	4800	4800	4.90	1.61 (14.0)	17.70	4.10 (36.0)	0.63 (0.84)	2198-D012-ERS*x*
					18.90	4.39 (39.0)		2198-D020-ERS*x*
VPF-A0753C	3300	3300	4.09	2.16 (19.0)	17.70	6.55 (58.0)	0.59 (0.79)	2198-D012-ERS*x*
					18.90	7.02 (62.0)		2198-D020-ERS*x*
VPF-A0753E	4600	4600	6.12	2.28 (20.0)	17.70	5.13 (45.0)	0.76 (1.02)	2198-D012-ERS*x*
					25.34	7.35 (65.0)		2198-D020-ERS*x*
VPF-A1001C	2800	2800	3.61	1.93 (17.0)	8.80	3.22 (28.0)	0.56 (0.75)	2198-D006-ERS*x*
					10.38	3.78 (33.0)		2198-D012-ERS*x*
VPF-A1001M	6500	6500	7.15	1.95 (17.0)	17.70	3.31 (29.0)	1.29 (1.73)	2198-D012-ERS*x*
					20.20	3.78 (33.0)		2198-D020-ERS*x*
VPF-A1002C	3000	3000	6.24	3.39 (30.0)	17.70	6.80 (60.0)	1.03 (1.38)	2198-D012-ERS*x*
					20.33	7.82 (69.0)		2198-D020-ERS*x*
VPF-A1002F	5000	5000	10.04	3.26 (29.0)	28.30	6.77 (60.0)	1.60 (2.14)	2198-D020-ERS*x*
					34.30	7.82 (69.0)		2198-D032-ERS*x*
VPF-A1003C	2250	2250	6.14	4.18 (37.0)	17.70	9.76 (86.0)	0.83 (1.11)	2198-D012-ERS*x*
					20.20	11.15 (99.0)		2198-D020-ERS*x*
VPF-A1003E	3750	3750	9.58	4.18 (37.0)	28.30	9.76 (86.0)	1.25 (1.67)	2198-D020-ERS*x*
					28.80	11.15 (99.0)		2198-D032-ERS*x*
VPF-A1003F	5500	5500	15.62	4.18 (37.0)	45.90	10.25 (90.0)	1.81 (2.42)	2198-D032-ERS*x*
					50.0	11.15 (99.0)		2198-D057-ERS*x*
VPF-A1153C	2300	2300	8.88	6.50 (58.0)	28.30	18.30 (162)	1.16 (1.56)	2198-D020-ERS*x*
					33.0	20.33 (180)		2198-D032-ERS*x*
VPF-A1303B	1950	1950	10.34	8.80 (78.0)	28.30	19.85 (175)	1.53 (2.05)	2198-D020-ERS*x*
					31.0	20.72 (183)		2198-D032-ERS*x*
VPF-A1303F	4000	4000	18.60	7.75 (69.0)	45.90	15.36 (136)	2.25 (3.02)	2198-D032-ERS*x*
					62.0	20.72 (183)		2198-D057-ERS*x*

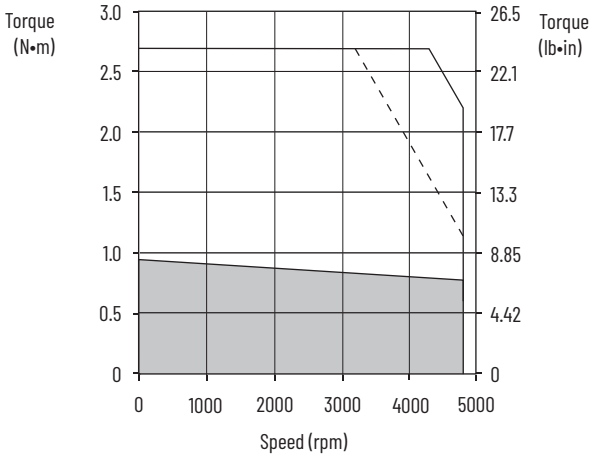
Kinetix VPF Motor Performance with Kinetix 5700 (200V operation) Drives (continued)

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (240V AC Input)
VPF-A1304A	1600	1600	9.43	10.29 (91.0)	28.30	25.03 (221)	1.47 (1.98)	2198-D020-ERSx
					33.76	28.45 (252)		2198-D032-ERSx
VPF-A1304D	3000	3000	18.40	10.20 (90.0)	45.90	21.48 (190)	1.98 (2.65)	2198-D032-ERSx
					58.0	27.10 (240)		2198-D057-ERSx

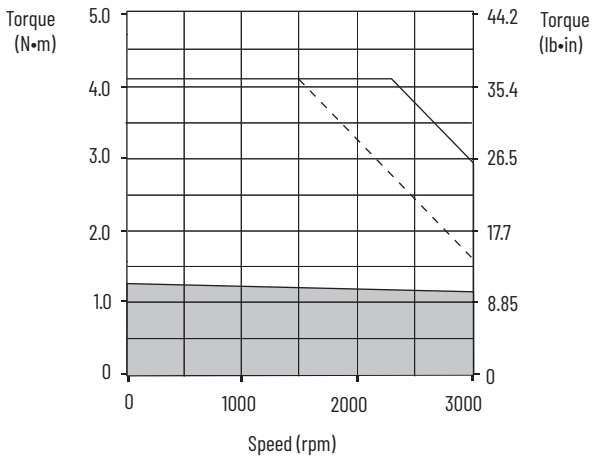
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix VPF Servo Motor Curves

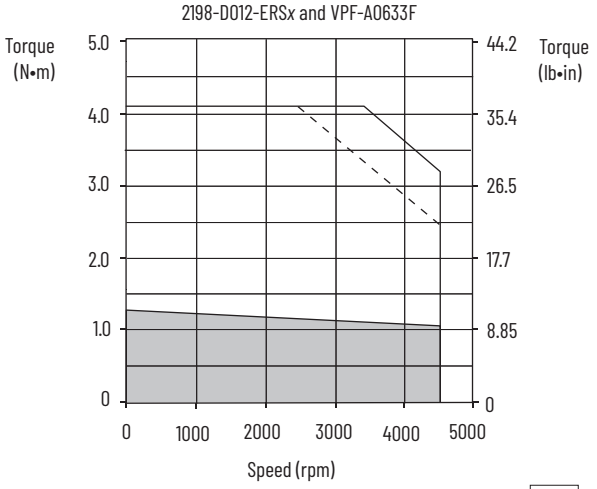
2198-D006-ERSx and VPF-A0632F



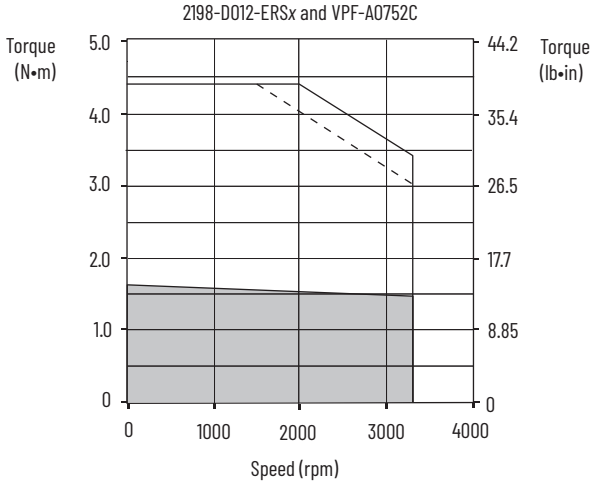
2198-D006-ERSx and VPF-A0633C



2198-D012-ERSx and VPF-A0633F



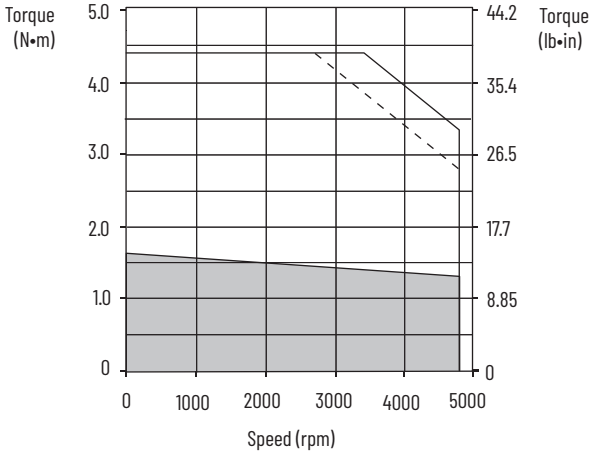
2198-D012-ERSx and VPF-A0752C



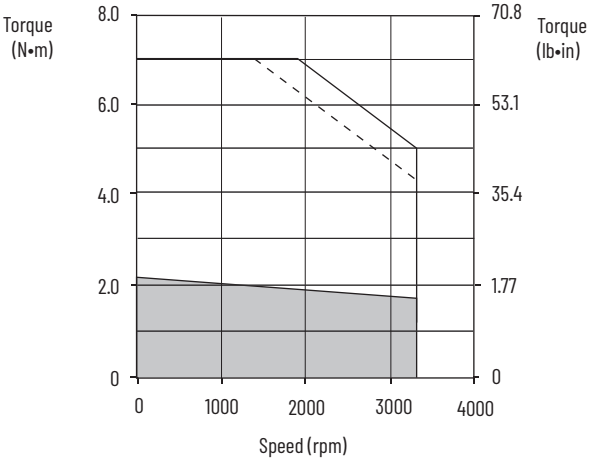
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5700 (200V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

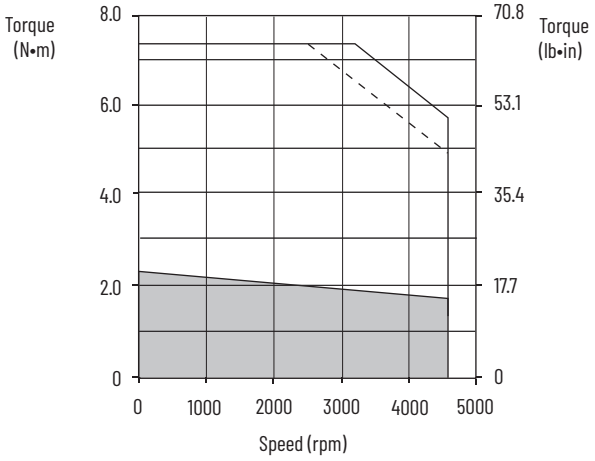
2198-D020-ERSx and VPF-A0752E



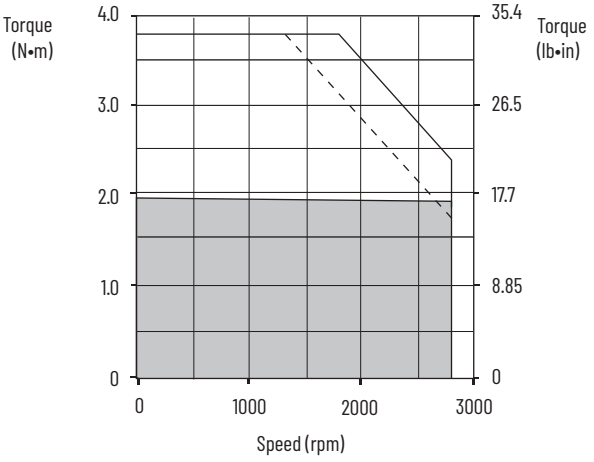
2198-D020-ERSx and VPF-A0753C



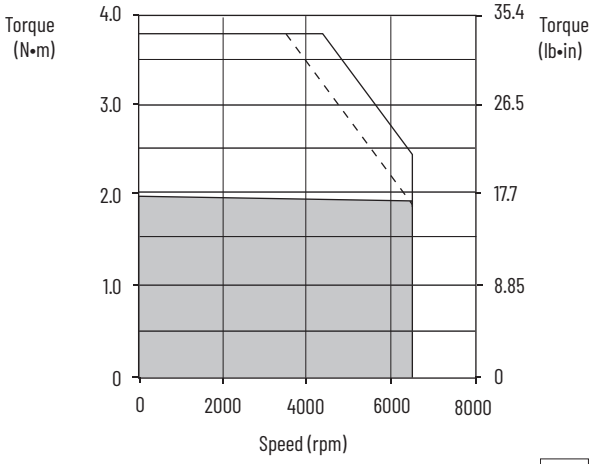
2198-D020-ERSx and VPF-A0753E



2198-D012-ERSx and VPF-A1001C



2198-D020-ERSx and VPF-A1001M



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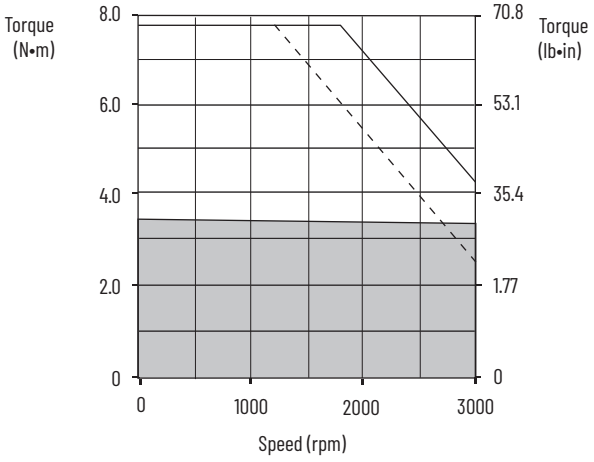
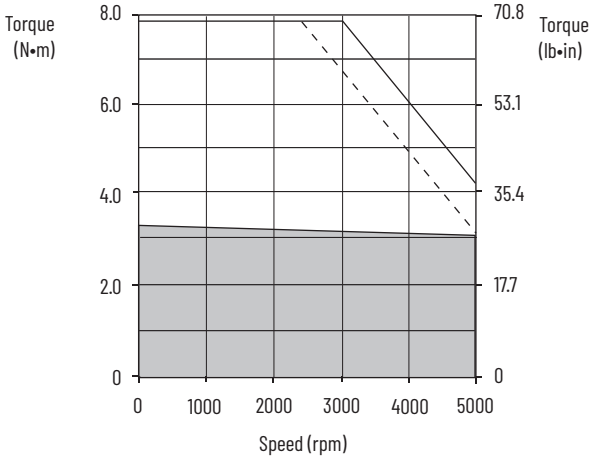


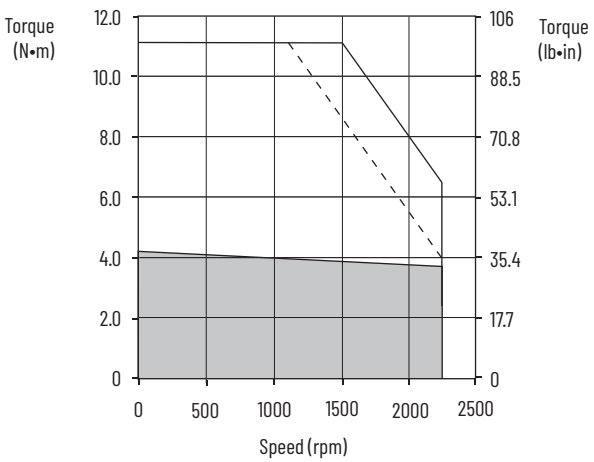
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5700 (200V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

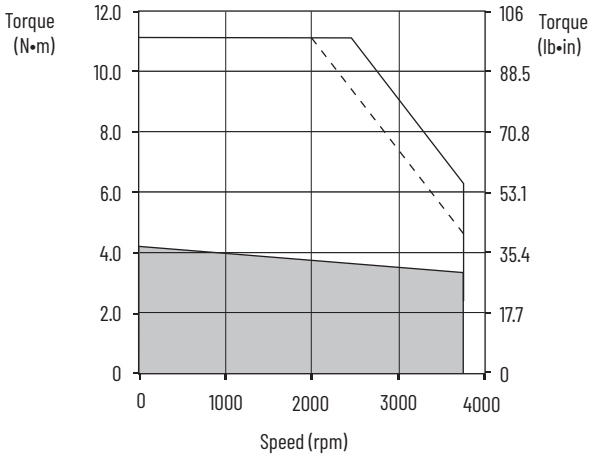
2198-D032-ERSx and VPF-A1002F



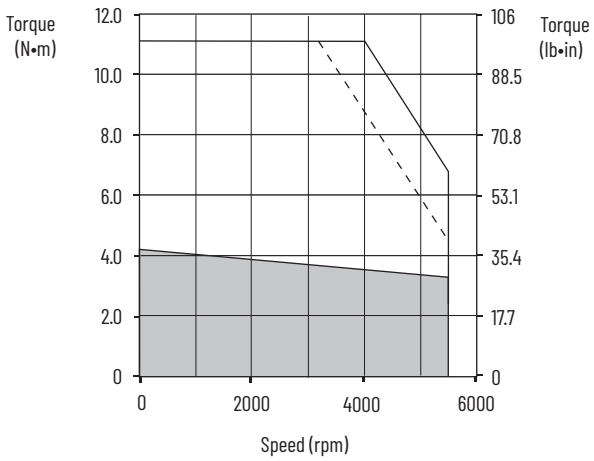
2198-D020-ERSx and VPF-A1003C



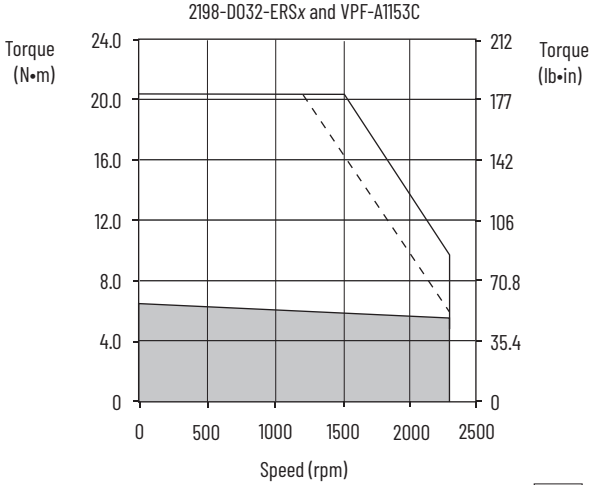
2198-D032-ERSx and VPF-A1003E



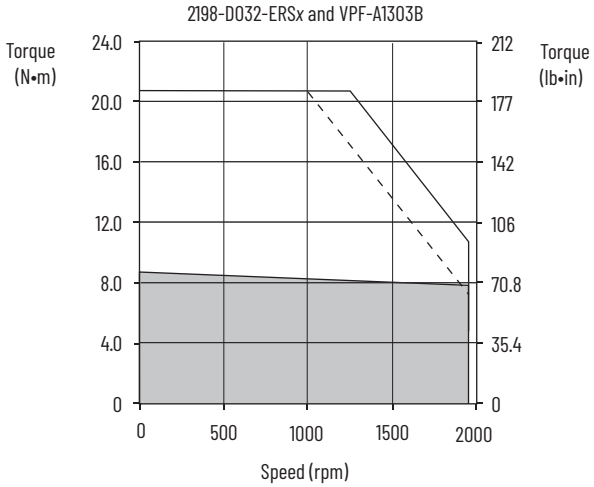
2198-D057-ERSx and VPF-A1003F



2198-D032-ERSx and VPF-A1153C



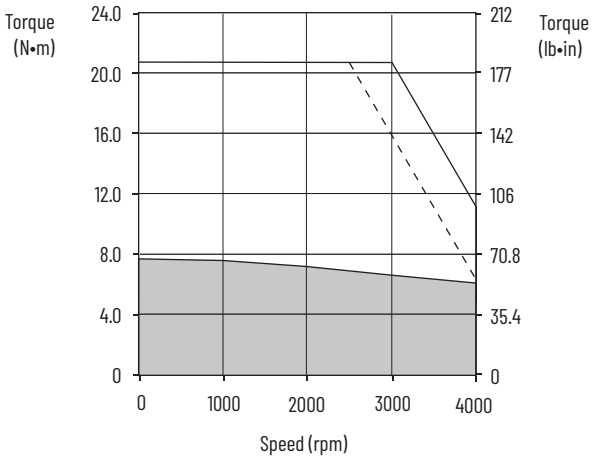
2198-D032-ERSx and VPF-A1303B



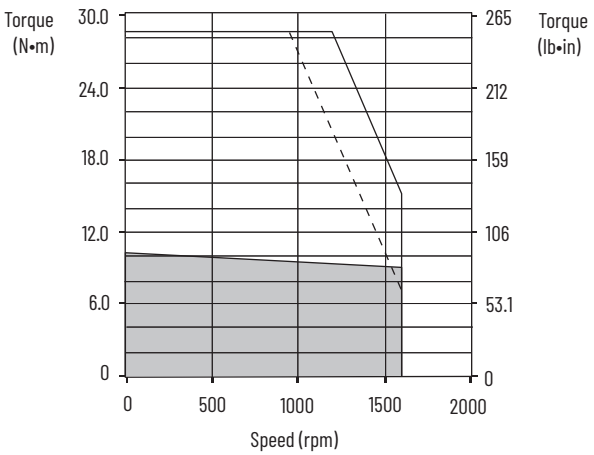
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

Kinetix 5700 (200V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

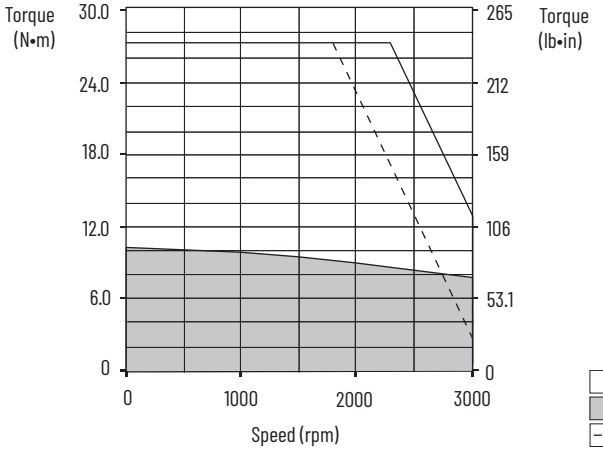
2198-D057-ERSx and VPF-A1303F

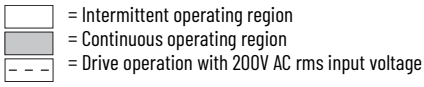


2198-D032-ERSx and VPF-A1304A



2198-D057-ERSx and VPF-A1304D





Kinetix 5700 (400V operation) Drives with Kinetix VPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix VPF (400V-class) food-grade 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 Motor Cable (1)	Feedback Type
VPF-B0632F, VPF-B0632T, VPF-B0633M, VPF-B0633T	2090-CSBM1Dx-18xAxx or 2090-CSWM1Dx-18xAxx (standard, non-flex) 2090-CSBM1Dx-18xFxx (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-CSBM1Dx-14xAxx or 2090-CSWM1Dx-14xAxx (standard, non-flex) 2090-CSBM1Dx-14xFxx (continuous-flex)	
VPF-B1153F		
VPF-B1303C, VPF-B1303F, VPF-B1304C, VPF-B1304E		
VPF-B1652C		

(1) Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPF Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPF-B0632F	4600	4600	1.20	0.93 (8.0)	4.20	2.69 (24.0)	0.34 (0.46)	2198-D006-ERSx
VPF-B0632T	8000	8000	2.55	0.93 (8.0)	8.75	2.69 (24.0)	0.41 (0.55)	2198-D006-ERSx
VPF-B0633M	6700	6700	2.50	1.27 (11.0)	8.75	4.09 (36.0)	0.49 (0.66)	2198-D006-ERSx
VPF-B0633T	8000	8000	3.52	1.27 (11.0)	8.80	2.87 (25.0)	0.48 (0.64)	2198-D006-ERSx
					12.60	4.09 (36.0)		2198-D012-ERSx
VPF-B0752E	4900	4900	2.70	1.61 (14.0)	8.80	4.10 (36.0)	0.64 (0.86)	2198-D006-ERSx
					9.45	4.39 (39.0)		2198-D012-ERSx
VPF-B0752F	7000	7000	3.80	1.61 (14.0)	13.30	4.39 (39.0)	0.76 (1.02)	2198-D012-ERSx
VPF-B0752M	8000	8000	4.90	1.61 (14.0)	17.60	4.10 (36.0)	0.77 (1.04)	2198-D012-ERSx
					18.90	4.39 (39.0)		2198-D020-ERSx
VPF-B0753E	4500	4500	3.80	2.28 (20.0)	13.30	7.35 (65.0)	0.77 (1.04)	2198-D012-ERSx
VPF-B0753F	6600	6600	4.09	2.16 (19.0)	17.60	6.55 (58.0)	0.61 (0.82)	2198-D012-ERSx
					18.90	7.02 (62.0)		2198-D020-ERSx
VPF-B0753M	8000	8000	6.12	2.28 (20.0)	17.60	5.13 (45.0)	0.78 (1.05)	2198-D012-ERSx
					25.34	7.35 (65.0)		2198-D020-ERSx
VPF-B1001M	6000	6000	3.61	1.93 (17.0)	8.80	3.22 (28.0)	1.14 (1.53)	2198-D006-ERSx
					10.38	3.78 (33.0)		2198-D012-ERSx
VPF-B1002E	3300	3300	3.44	3.39 (30.0)	8.80	6.47 (57.0)	1.12 (1.50)	2198-D006-ERSx
					10.69	7.82 (69.0)		2198-D012-ERSx
VPF-B1002M	6000	6000	6.24	3.39 (30.0)	17.60	6.80 (60.0)	1.86 (2.49)	2198-D012-ERSx
					20.33	7.82 (69.0)		2198-D020-ERSx
VPF-B1003C	2500	2500	3.41	4.18 (37.0)	8.80	9.29 (82.0)	0.91 (1.23)	2198-D006-ERSx
					10.61	11.15 (99.0)		2198-D012-ERSx
VPF-B1003F	4750	4750	6.14	4.18 (37.0)	17.60	9.76 (86.0)	1.57 (2.10)	2198-D012-ERSx
					20.20	11.15 (99.0)		2198-D020-ERSx
VPF-B1003T	7000	7000	9.58	4.18 (37.0)	28.20	9.76 (86.0)	1.68 (2.25)	2198-D020-ERSx
					28.80	11.15 (99.0)		2198-D032-ERSx
VPF-B1153E	3200	3200	6.13	6.50 (58.0)	17.60	16.85 (149)	1.40 (1.88)	2198-D012-ERSx
					21.33	20.33 (180)		2198-D020-ERSx

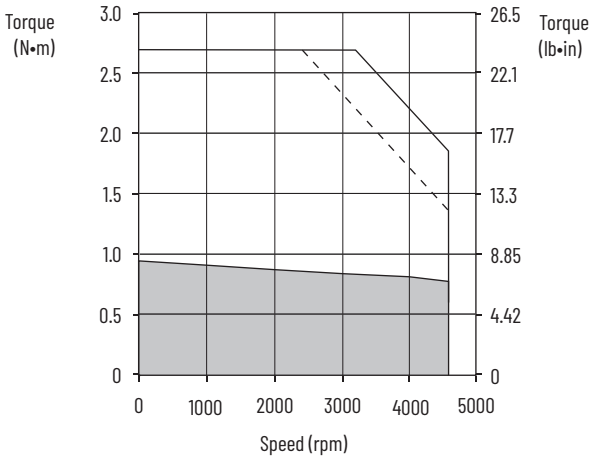
Kinetix VPF Motor Performance with Kinetix 5700 (400V operation) Drives (continued)

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPF-B1153F	5000	5000	8.88	6.50 (58.0)	28.20	18.30 (162)	1.49 (2.00)	2198-D020-ERSx
					33.0	20.33 (180)		2198-D032-ERSx
VPF-B1303C	2250	2250	6.30	8.80 (78.0)	17.60	19.83 (175)	1.74 (2.33)	2198-D012-ERSx
					18.47	20.72 (183)		2198-D020-ERSx
VPF-B1303F	4000	4000	10.10	8.80 (78.0)	28.20	19.85 (175)	2.54 (3.40)	2198-D020-ERSx
					31.0	20.72 (183)		2198-D032-ERSx
VPF-B1304C	2150	2150	7.0	10.29 (91.0)	17.60	22.55 (199)	1.49 (2.00)	2198-D012-ERSx
					22.3	28.45 (252)		2198-D020-ERSx
VPF-B1304E	3500	3500	9.44	10.29 (91.0)	28.20	25.03 (221)	2.40 (3.21)	2198-D020-ERSx
					33.76	28.45 (252)		2198-D032-ERSx
VPF-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.60)	2198-D032-ERSx
					49.88	48.60 (430)		2198-D057-ERSx

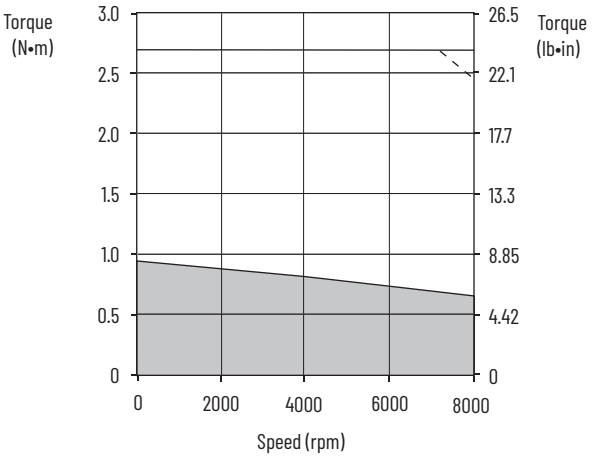
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix VPF Servo Motor Curves

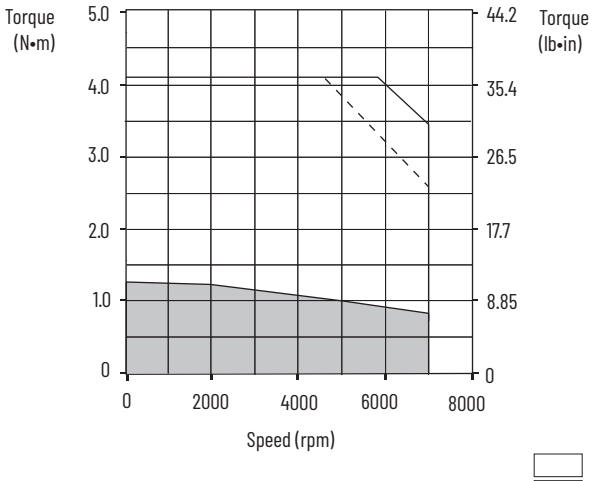
2198-D006-ERSx and VPF-B0632F



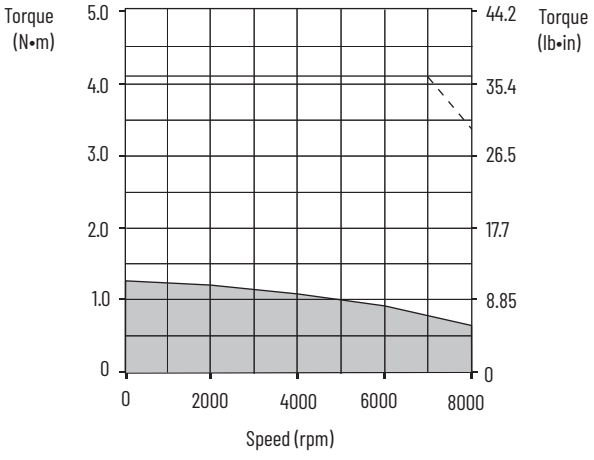
2198-D006-ERSx and VPF-B0632T



2198-D006-ERSx and VPF-B0633M



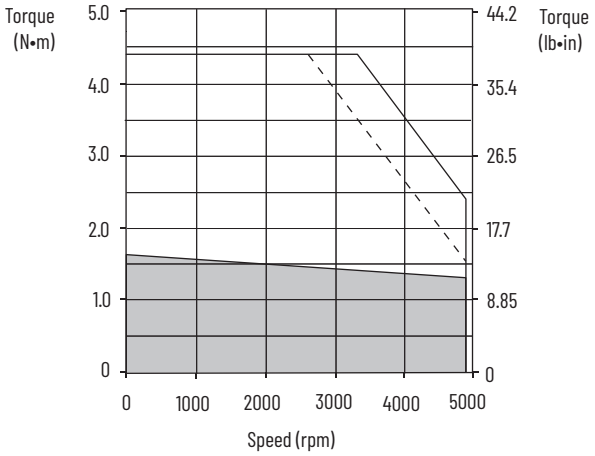
2198-D012-ERSx and VPF-B0633T



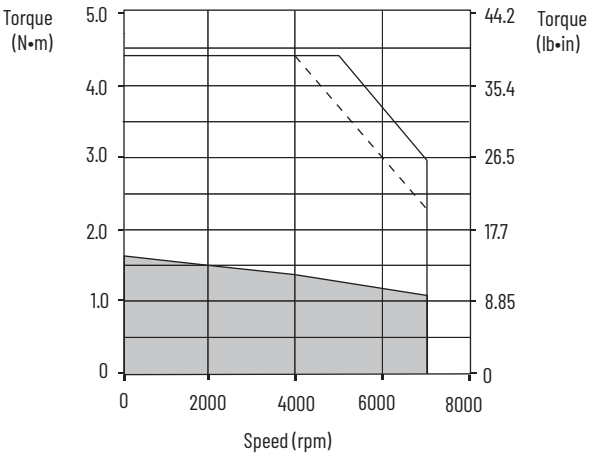
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

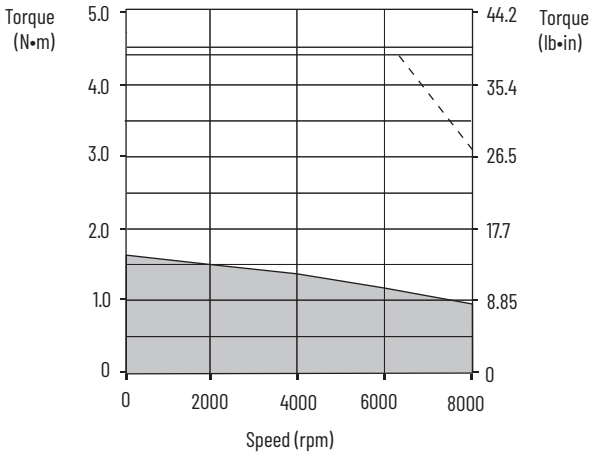
2198-D012-ERSx and VPF-B0752E



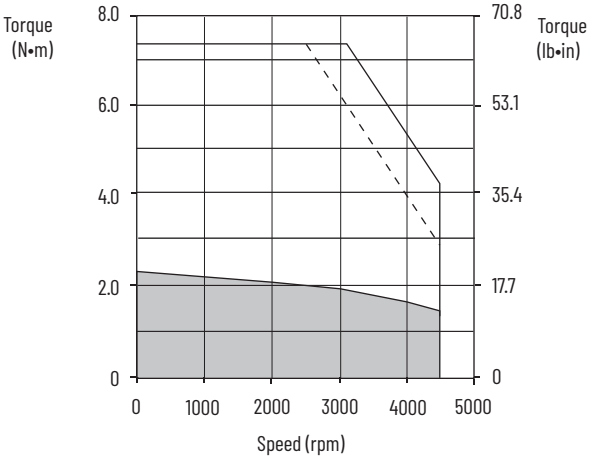
2198-D012-ERSx and VPF-B0752F



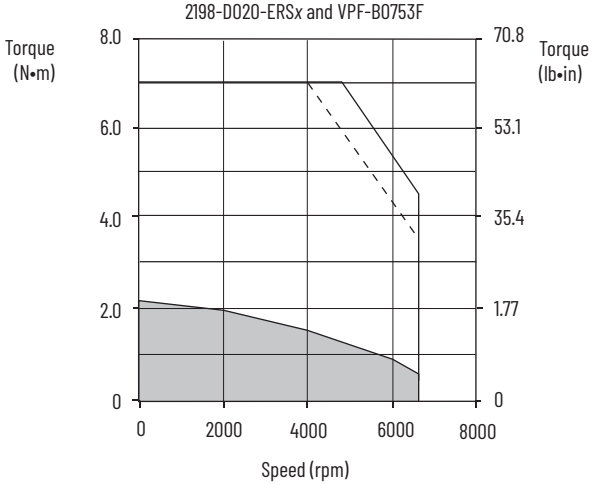
2198-D020-ERSx and VPF-B0752M



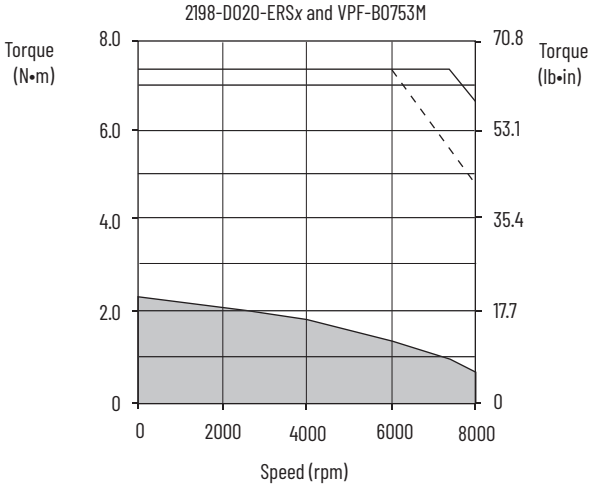
2198-D012-ERSx and VPF-B0753E



2198-D020-ERSx and VPF-B0753F



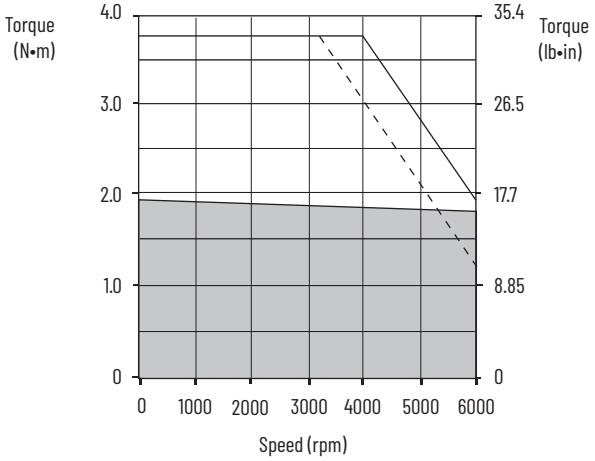
2198-D020-ERSx and VPF-B0753M



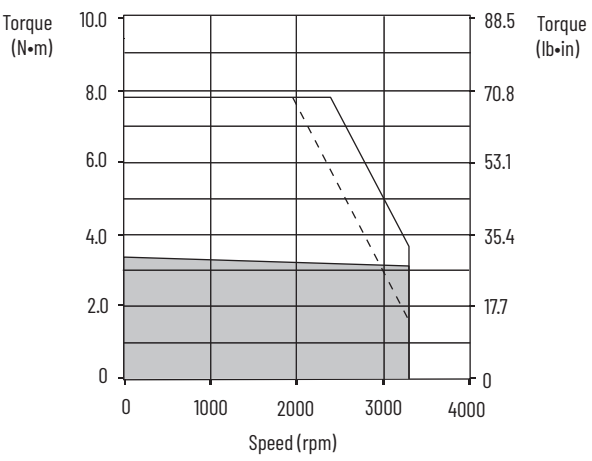
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

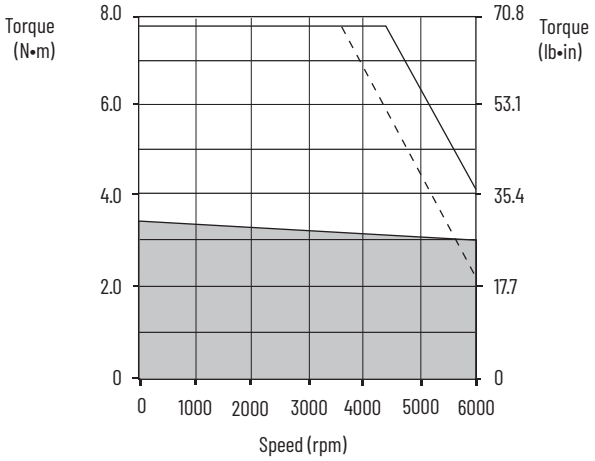
2198-D012-ERS*x* and VPF-B1001M



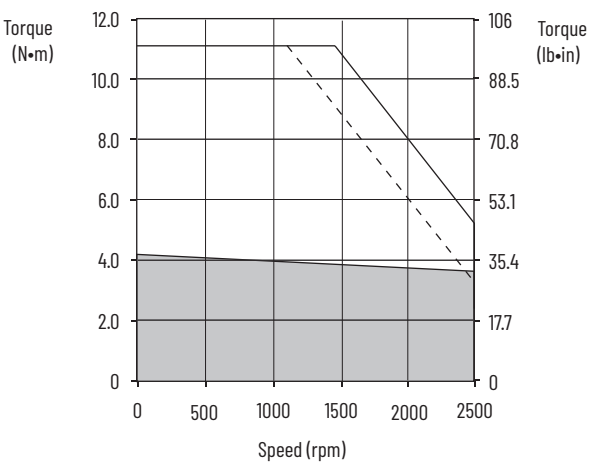
2198-D012-ERS*x* and VPF-B1002E



2198-D020-ERS*x* and VPF-B1002M



2198-D012-ERS*x* and VPF-B1003C



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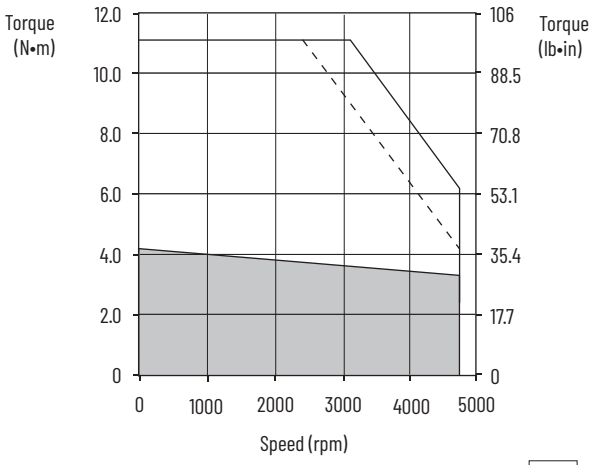
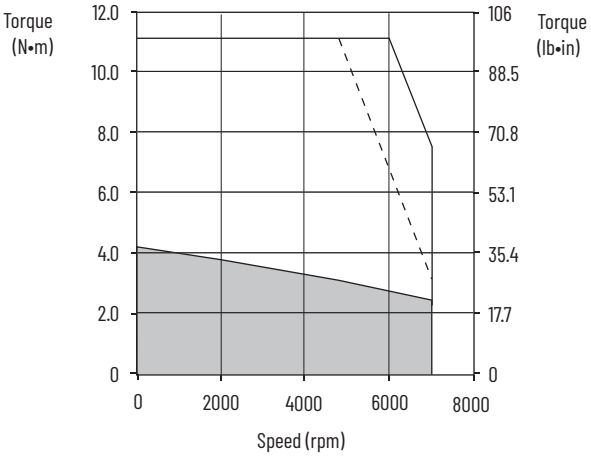


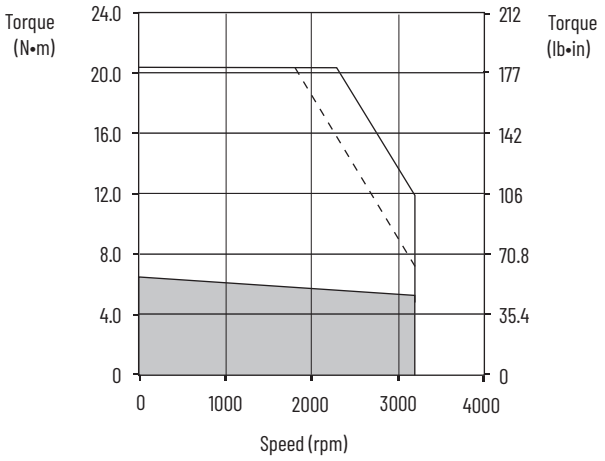
2198-D032-ERS*x* and VPF-B1003T



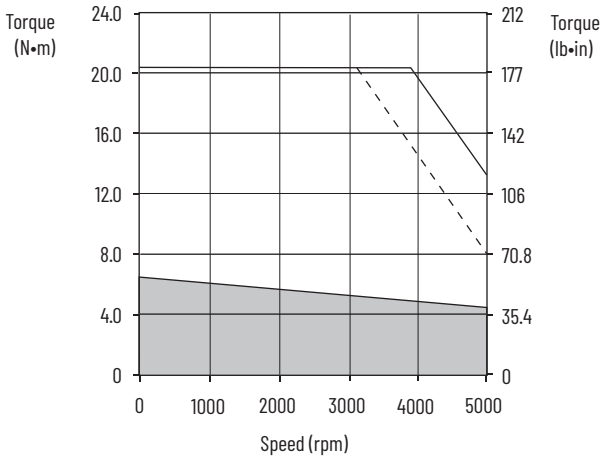
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix VPF Servo Motor Curves (continued)

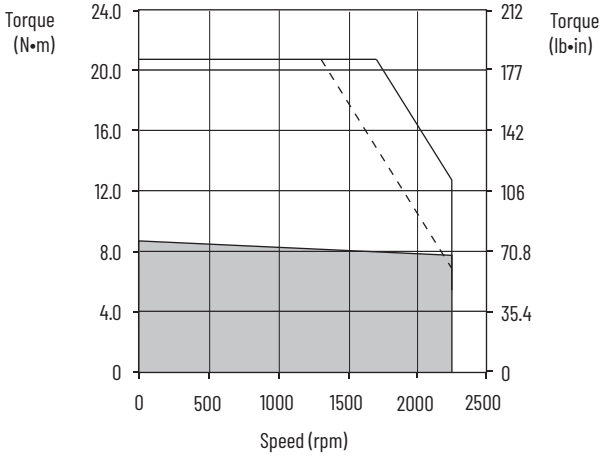
2198-D020-ERSx and VPF-B1153E



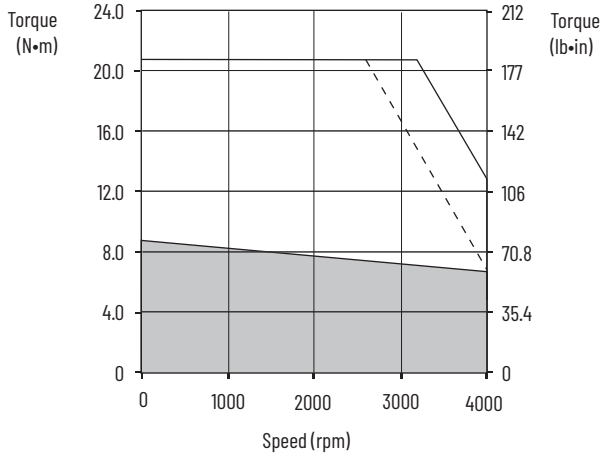
2198-D032-ERSx and VPF-B1153F



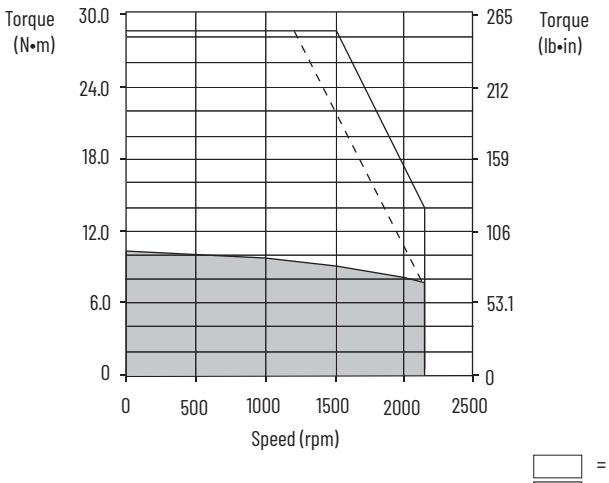
2198-D020-ERSx and VPF-B1303C



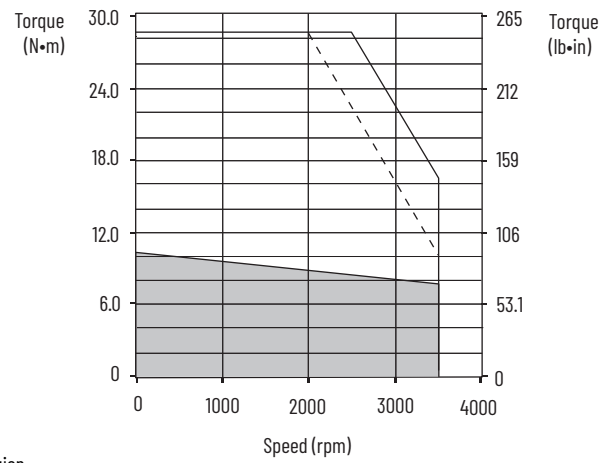
2198-D032-ERSx and VPF-B1303F

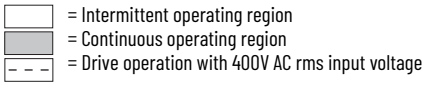


2198-D020-ERSx and VPF-B1304C

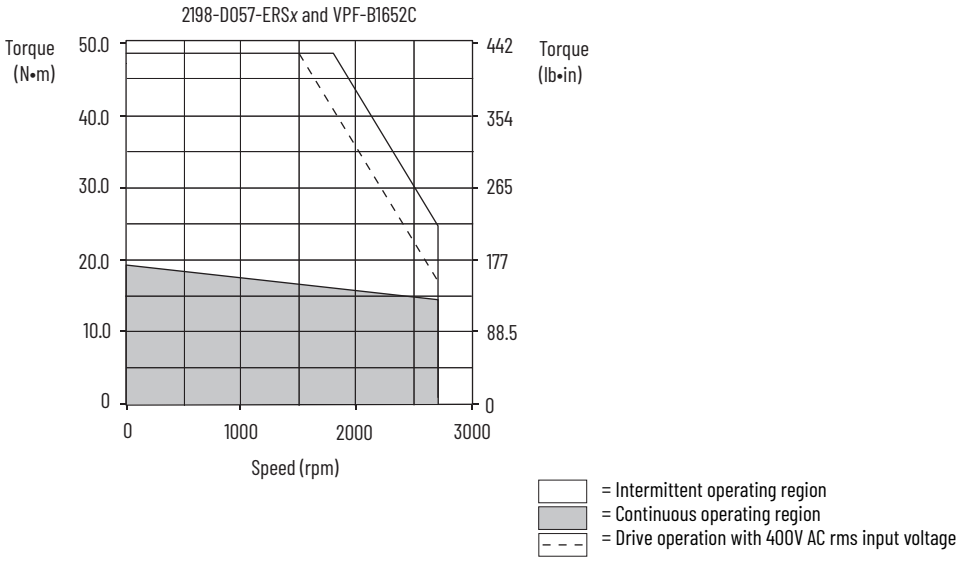


2198-D032-ERSx and VPF-B1304E





Kinetix 5700 (400V operation) Drives/Kinetix VPF Servo Motor Curves (continued)



Kinetix 5700 (200V operation) Drives with Kinetix VPH Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) when matched with Kinetix VPH (200V-class) hygienic stainless-steel servo motors. Single-cable catalog numbers, system performance specifications, and optimum torque/speed curves are included.

Kinetix VPH Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPH-A0633F VPH-A0753F	2090-CSBM1Dx-18xAxx or 2090-CSWM1Dx-18xAxx (standard, non-flex) 2090-CSBM1Dx-18xFxx (continuous-flex)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPH-A1003F VPH-A1152E VPH-A1153C	2090-CSBM1Dx-14xAxx or 2090-CSWM1Dx-14xAxx (standard, non-flex) 2090-CSBM1Dx-14xFxx (continuous-flex)	
VPH-A1304D		

(1) Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPH (non-brake) Motor Performance with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (240V AC input)**
VPH-A0633F-*xxx*2	4500	4500	2.91	1.09 (9.7)	8.80	2.86 (25.3)	0.45 (0.61)	2198-D006-ERS*x*
					12.60	4.09 (36.2)		2198-D012-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-D012-ERS*x*
					25.34	7.00 (62.0)		2198-D020-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-D032-ERS*x*
					50.00	11.15 (98.7)		2198-D057-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-D020-ERS*x*
					32.10	13.12 (116.1)		2198-D032-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-D012-ERS*x*
					33.00	20.33 (179.9)		2198-D032-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-D032-ERS*x*
					58.00	27.10 (239.9)		2198-D057-ERS*x*

Performance specification data and curves reflect nominal system performance of a typical system with the 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.

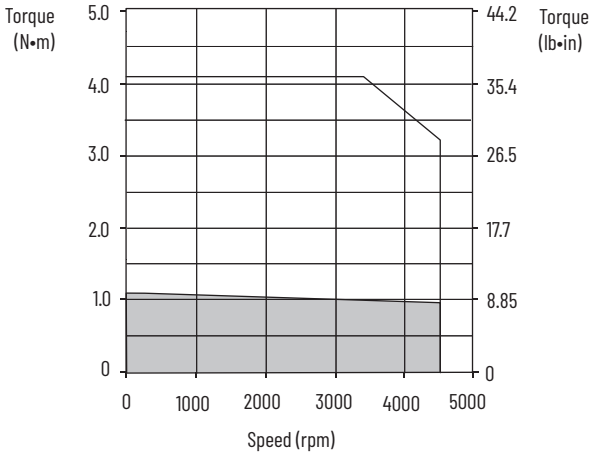
Kinetix VPH (brake) Motor Performance with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (240V AC input)**
VPH-A0633F-*xxx*4	4500	4500	2.91	1.07 (9.5)	8.80	2.86 (25.3)	0.43 (0.57)	2198-D006-ERS*x*
					12.60	4.09 (36.2)		2198-D012-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-D012-ERS*x*
					25.34	7.00 (62.0)		2198-D020-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-D032-ERS*x*
					50.00	11.15 (98.7)		2198-D057-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-D020-ERS*x*
					32.10	13.12 (116.1)		2198-D032-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-D012-ERS*x*
					33.00	20.33 (179.9)		2198-D032-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-D032-ERS*x*
					58.00	27.10 (139.9)		2198-D057-ERS*x*

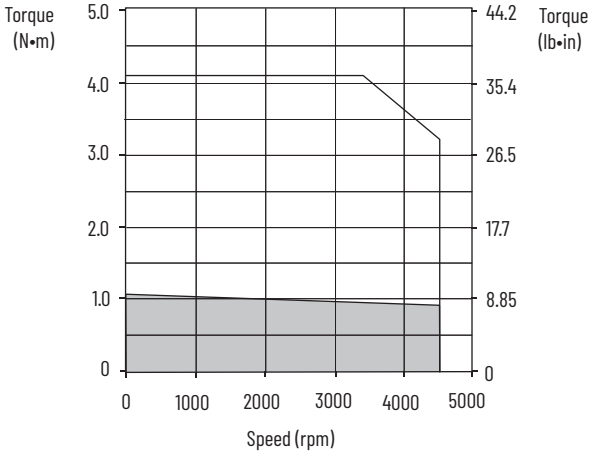
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix VPH Hygienic Servo Motor Curves

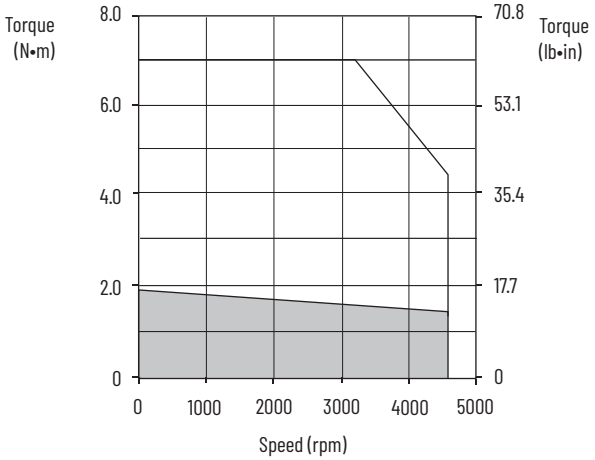
2198-D012-ERSx and VPH-A0633F



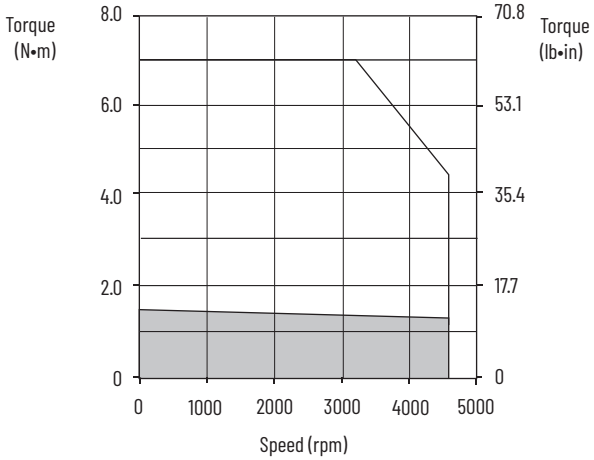
2198-D012-ERSx and VPH-A0633F (brake)



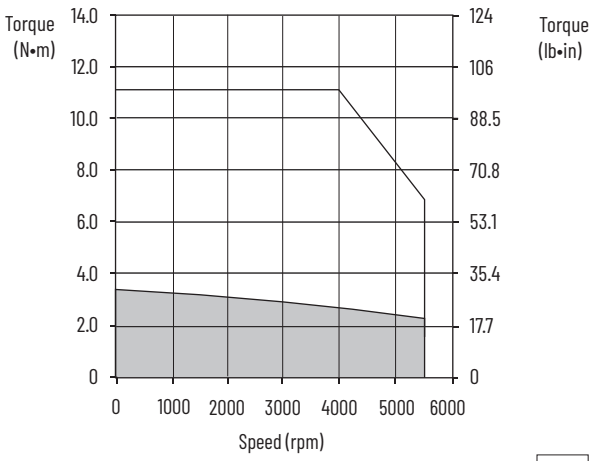
2198-D020-ERSx and VPH-A0753F



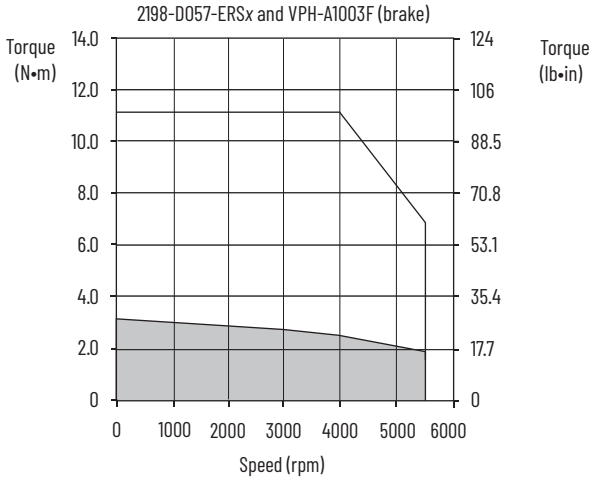
2198-D020-ERSx and VPH-A0753F (brake)



2198-D057-ERSx and VPH-A1003F



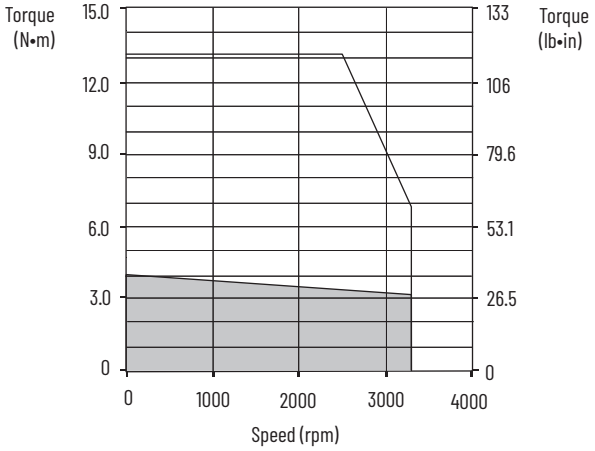
2198-D057-ERSx and VPH-A1003F (brake)



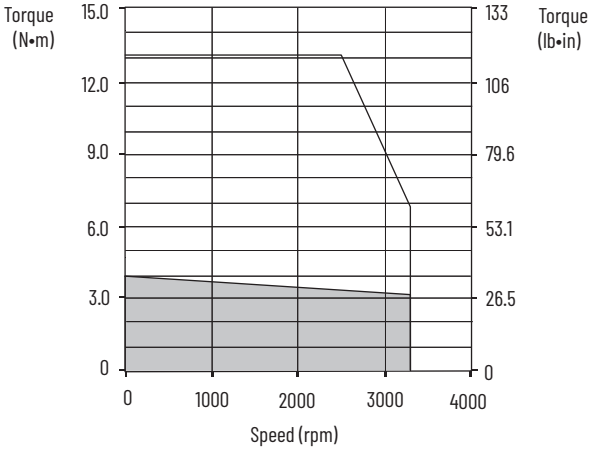
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

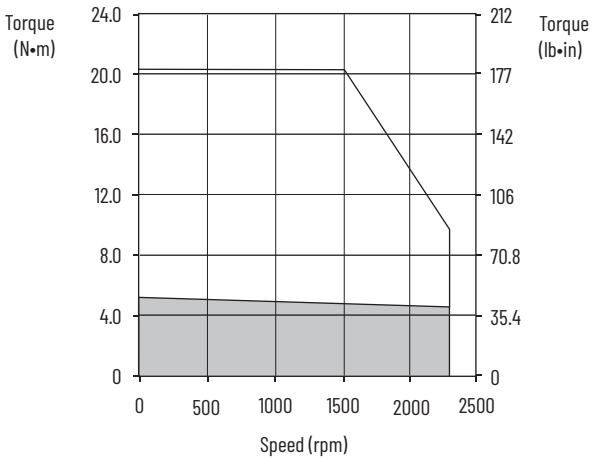
2198-D032-ERSx and VPH-A1152E



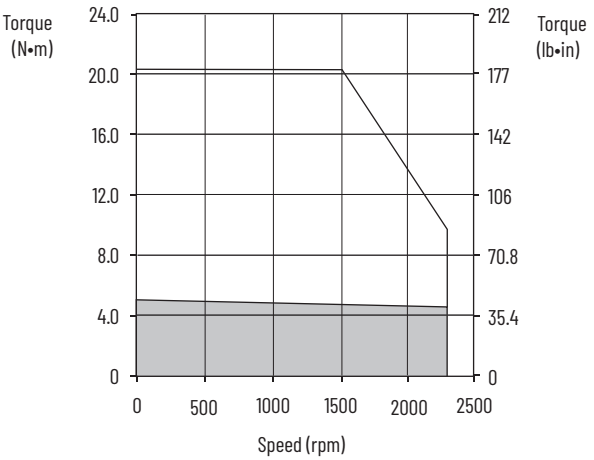
2198-D032-ERSx and VPH-A1152E (brake)



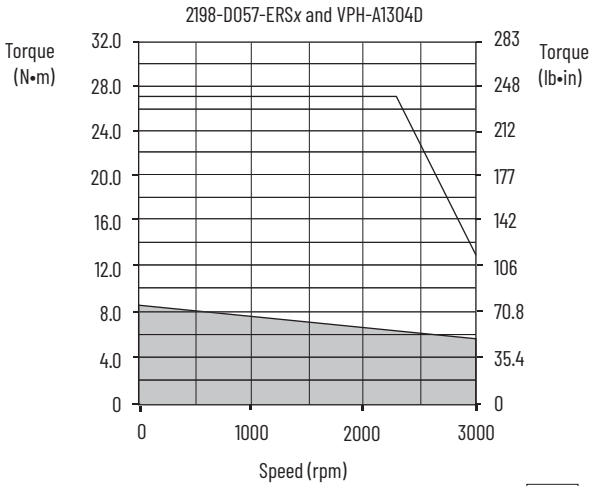
2198-D032-ERSx and VPH-A1153C



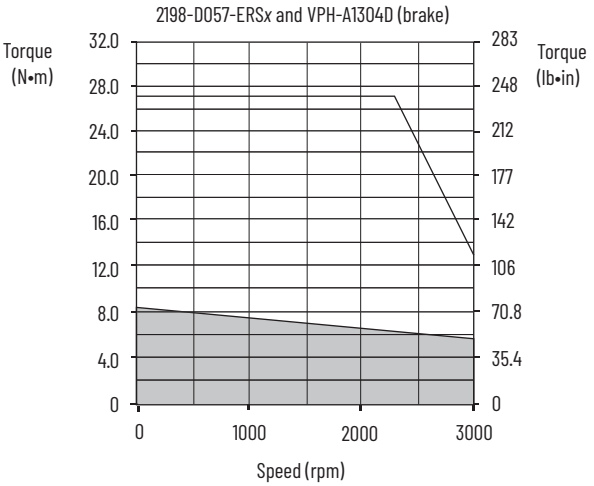
2198-D032-ERSx and VPH-A1153C (brake)



2198-D057-ERSx and VPH-A1304D



2198-D057-ERSx and VPH-A1304D (brake)



= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V operation) Drives with Kinetix VPH Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 480V, nominal input) when matched with Kinetix VPH (400V-class) hygienic stainless-steel servo motors. Single-cable catalog numbers, system performance specifications, and the 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*-18x*Axx* or 2090-CSWM1D*x*-18x*Axx* (standard, non-flex) 2090-CSBM1D*x*-18x*Fxx* (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*-14x*Axx* or 2090-CSWM1D*x*-14x*Axx* (standard, non-flex) 2090-CSBM1D*x*-14x*Fxx* (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*M1DE 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPH (non-brake) Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPH-B0632T-*xxx*2	8000	8000	2.44	0.84 (7.5)	8.75	2.69 (24.0)	0.52 (0.69)	2198-D006-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-D006-ERS*x*
VPH-B0753F-*xxx*2	6600	6600	3.68	1.87 (16.6)	17.60	6.54 (58.0)	0.74 (0.99)	2198-D012-ERS*x*
					18.90	7.02 (62.0)		2198-D020-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-D006-ERS*x*
VPH-B1003F-*xxx*2	4750	4750	4.93	3.43 (30.4)	17.60	9.71 (86.0)	1.36 (1.83)	2198-D012-ERS*x*
					20.20	11.15 (99.0)		2198-D020-ERS*x*
VPH-B1152F-*xxx*2	4500	4500	5.15	4.03 (35.7)	17.60	10.89 (96.4)	1.37 (1.84)	2198-D012-ERS*x*
					21.19	13.12 (116)		2198-D020-ERS*x*
VPH-B1153E-*xxx*2	3900	5000	7.09	5.13 (45.4)	17.60	10.84 (96.0)	1.27 (1.70)	2198-D012-ERS*x*
					33.00	20.33 (180)		2198-D032-ERS*x*
VPH-B1304E-*xxx*2	3500	3500	8.10	8.41 (74.5)	28.20	23.74 (210)	2.15 (2.88)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPH-B1653D-*xxx*2	3000	3000	14.72	18.67 (165)	45.90	45.77 (405)	3.16 (4.23)	2198-D032-ERS*x*
					68.0	67.80 (600)		2198-D057-ERS*x*

Performance specification data and curves reflect nominal system performance of a typical system with the 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.

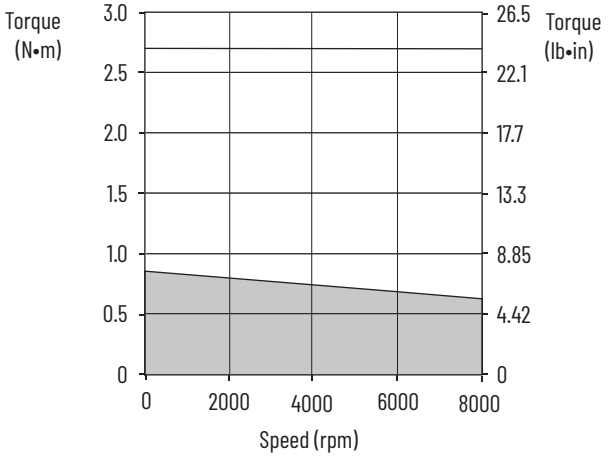
Kinetix VPH (brake) Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (480V AC input)**
VPH-B0632T-*xxx*4	7200	8000	2.43	0.80 (7.1)	8.75	2.69 (24.0)	0.40 (0.54)	2198-D006-ERS*x*
VPH-B0633M-*xxx*4	6700	6700	1.97	1.01 (8.9)	8.75	4.09 (36.0)	0.50 (0.67)	2198-D006-ERS*x*
VPH-B0753F-*xxx*4	6600	6600	3.49	1.81 (16.0)	8.80	3.27 (28.9)	0.68 (0.92)	2198-D006-ERS*x*
					18.90	7.02 (62.0)		2198-D020-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-D006-ERS*x*
VPH-B1003F-*xxx*4	4750	4750	4.89	3.29 (29.1)	17.60	9.71 (86.0)	1.16 (1.56)	2198-D012-ERS*x*
					20.20	11.15 (99.0)		2198-D020-ERS*x*
VPH-B1152F-*xxx*4	4500	4500	5.15	4.03 (35.7)	17.60	10.89 (96.4)	1.37 (1.84)	2198-D012-ERS*x*
					21.19	13.12 (116)		2198-D020-ERS*x*
VPH-B1153E-*xxx*4	3900	5000	7.09	5.13 (45.4)	17.60	10.84 (96.0)	1.08 (1.45)	2198-D012-ERS*x*
					33.00	20.33 (180)		2198-D032-ERS*x*
VPH-B1304E-*xxx*4	3500	3500	8.27	8.24 (73.0)	28.20	23.74 (210)	1.76 (2.36)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPH-B1653D-*xxx*4	3000	3000	14.92	18.67 (165)	45.90	45.77 (405)	2.91 (3.91)	2198-D032-ERS*x*
					68.00	67.80 (600)		2198-D057-ERS*x*

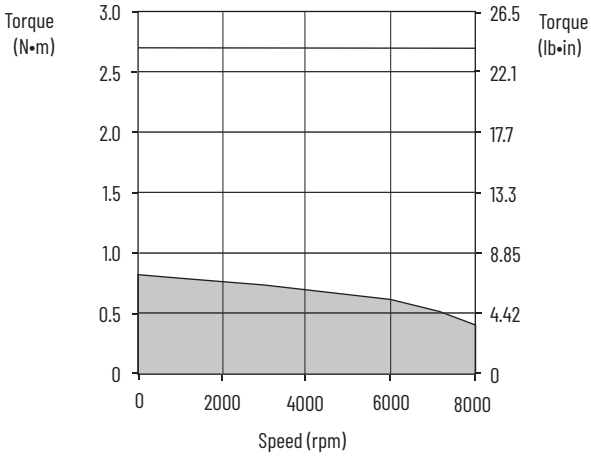
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix VPH Hygienic Servo Motor Curves

2198-D006-ERSx and VPH-B0632T



2198-D006-ERSx and VPH-B0632T (brake)



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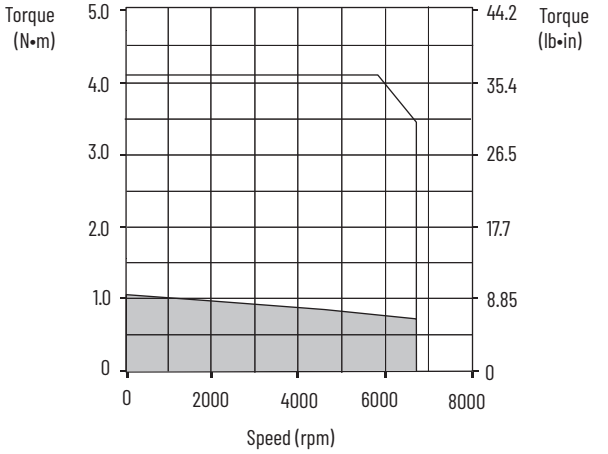
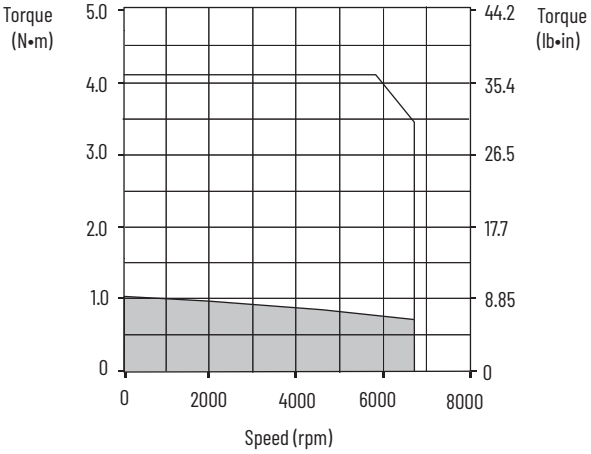
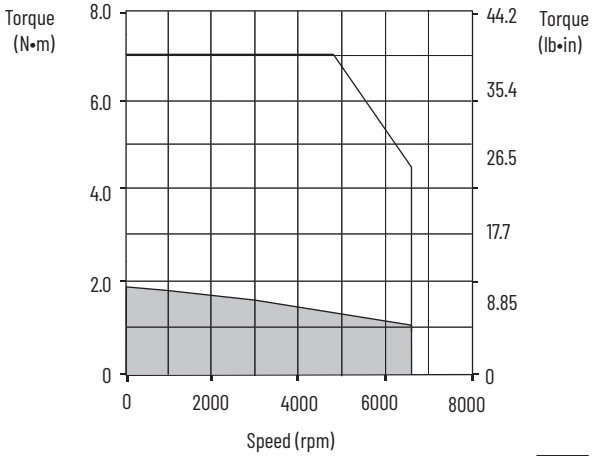


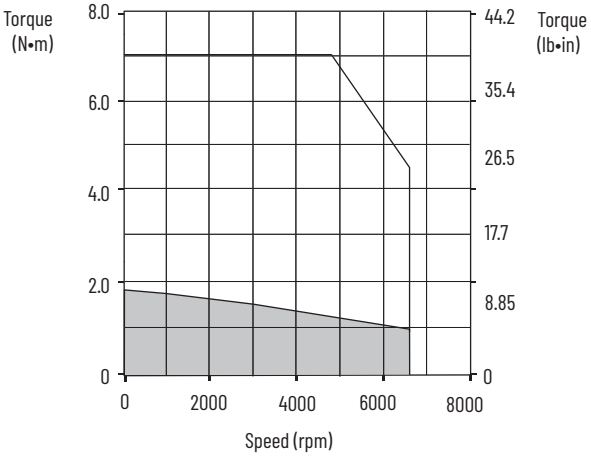
2198-D006-ERSx and VPH-B0633M (brake)

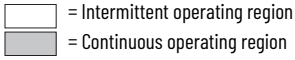


2198-D020-ERSx and VPH-B0753F



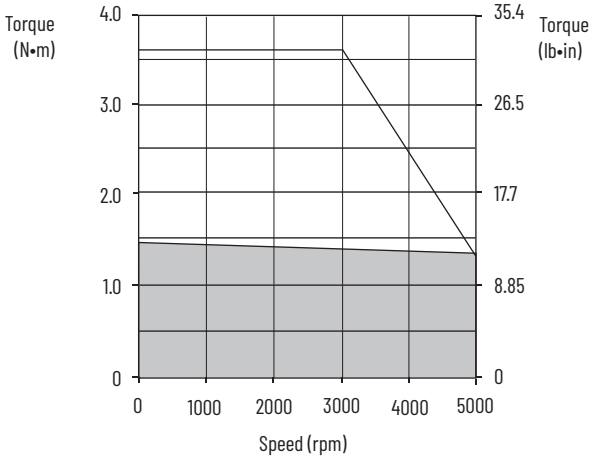
2198-D020-ERSx and VPH-B0753F (brake)





Kinetix 5700 (400V operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

2198-D006-ERSx and VPH-B1001F



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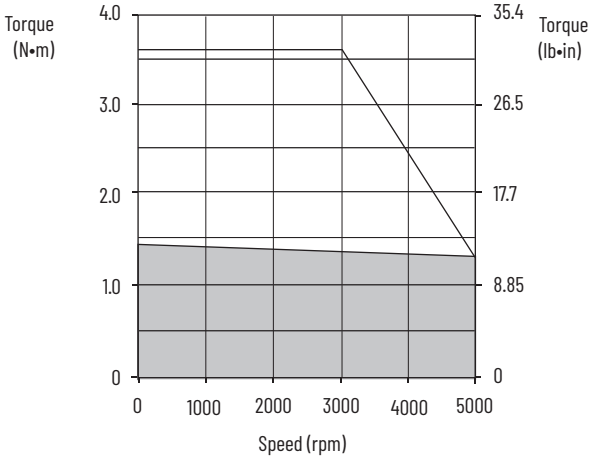
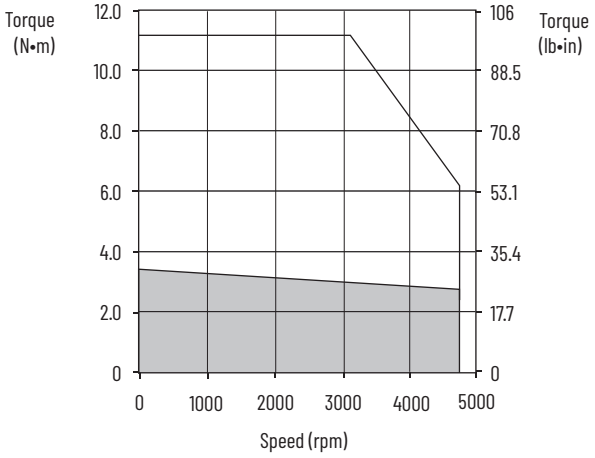


2198-D020-ERSx and VPH-B1003F



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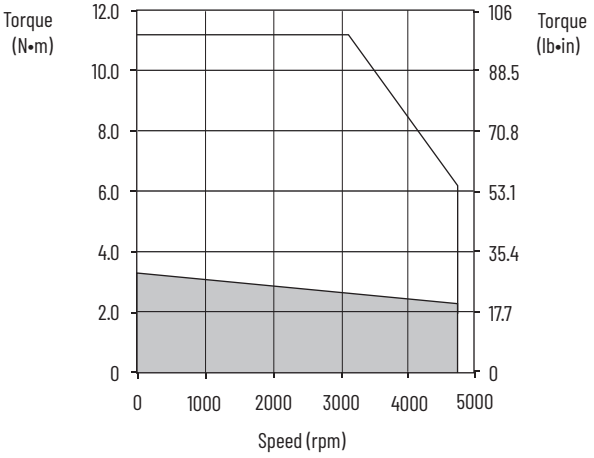
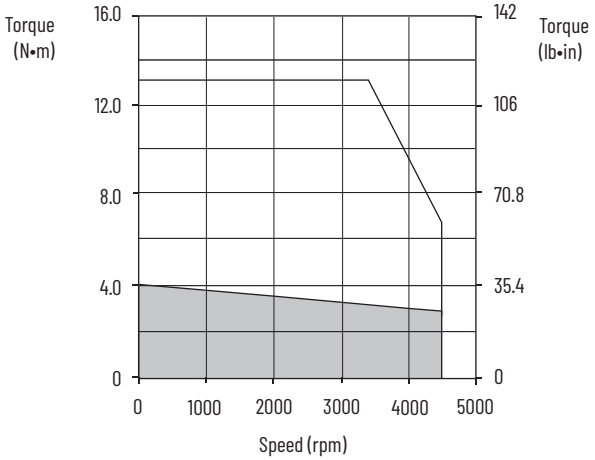
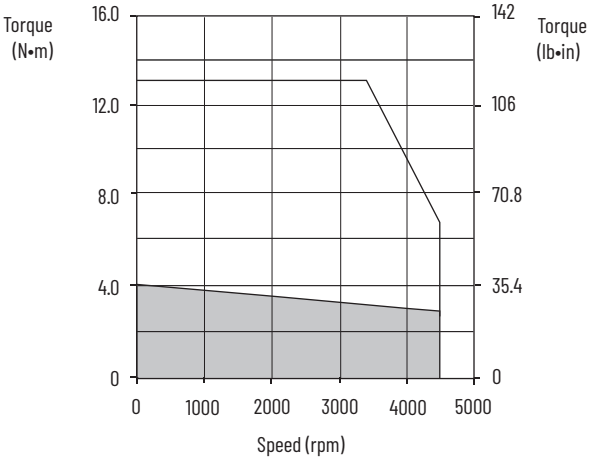


2198-D020-ERSx and VPH-B1152F



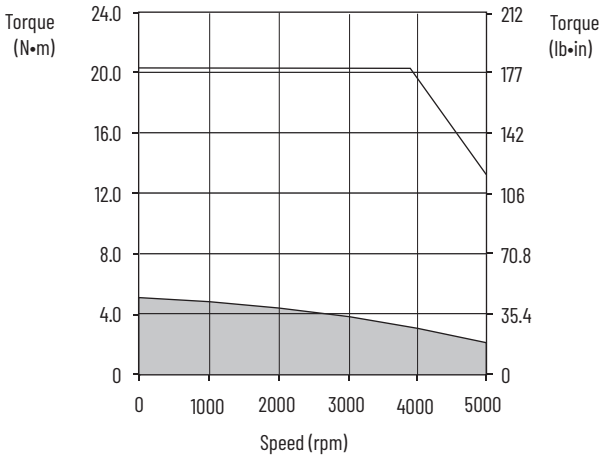
2198-D020-ERSx and VPH-B1152F (brake)



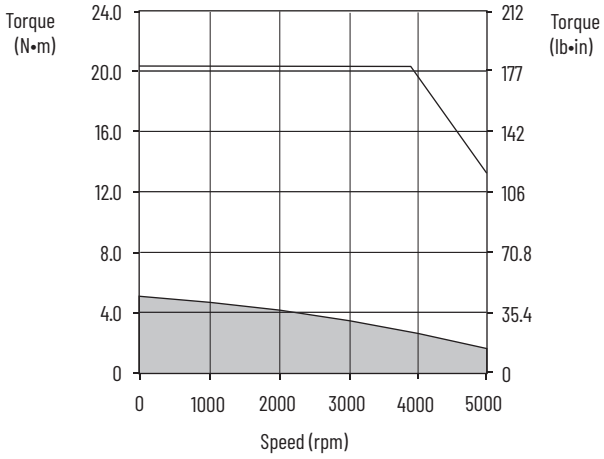
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V operation) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

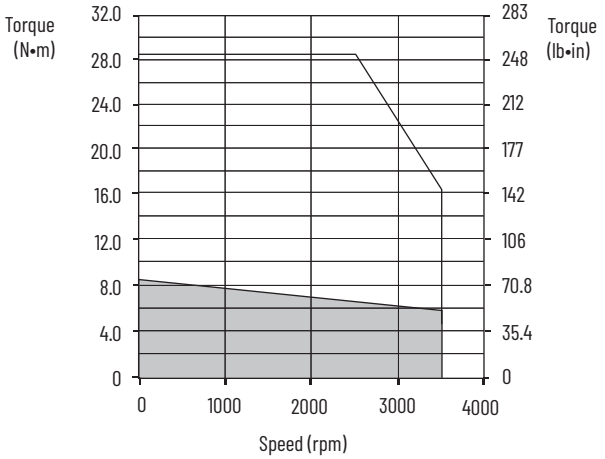
2198-D032-ERSx and VPH-B1153E



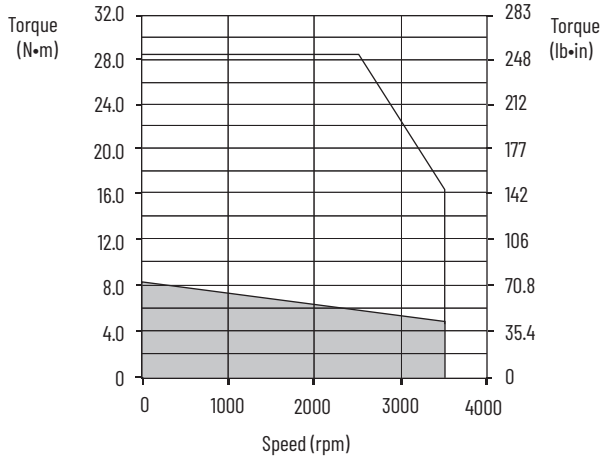
2198-D032-ERSx and VPH-B1153E (brake)



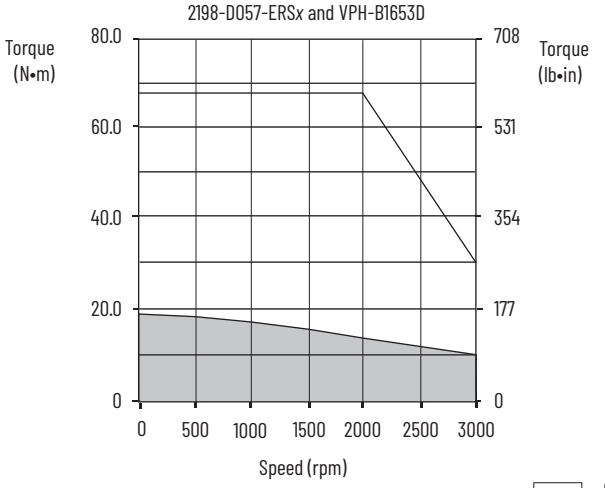
2198-D032-ERSx and VPH-B1304E



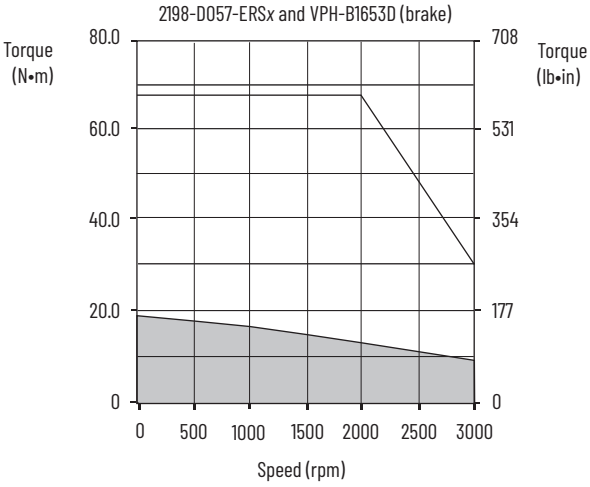
2198-D032-ERSx and VPH-B1304E (brake)



2198-D057-ERSx and VPH-B1653D



2198-D057-ERSx and VPH-B1653D (brake)



= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V operation) Drives with Kinetix VPS Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix VPS (400V-class) stainless-steel 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.	Single Motor Cable (1)	Feedback Type
VPS-B1304D	2090-CSWM1D*x*-14x*Axx* (standard, non-flex) 2090-CSBM1D*x*-14x*Fxx* (continuous-flex)	Absolute, Multi-turn Digital Encoder with Hiperface DSL Protocol
VPS-B1653D		

(1) Use 2090-CSxM1DE or 2090-CSxM1DG 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 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

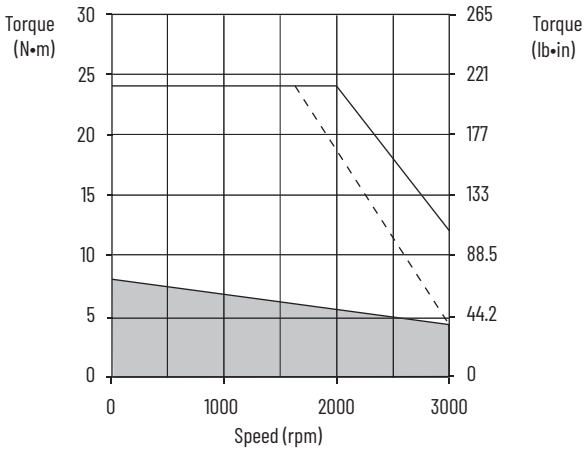
Kinetix VPS Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPS-B1304D	3000	3000	7.1	8.1 (72.0)	17.6	17.9 (158)	1.40 (1.9)	2198-D012-ERS*x*
					26.0	27.1 (240)		2198-D020-ERS*x*
VPS-B1653D	3000	3000	17.0	21.0 (186)	45.9	50.1 (443)	3.29 (4.4)	2198-D032-ERS*x*
					68.0	67.8 (600)		2198-D057-ERS*x*

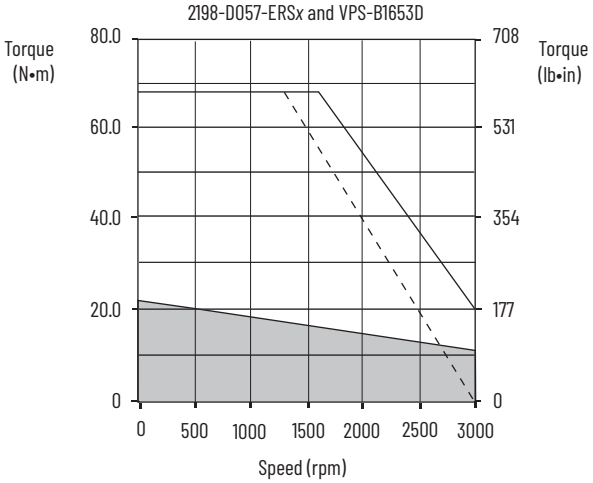
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix VPS Servo Motor Curves

2198-D020-ERS*x* and VPS-B1304D



2198-D057-ERS*x* and VPS-B1653D



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

Kinetix 5700 (200V operation) Drives with Kinetix MPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 230V, 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 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*7xAA, MPL-A1520U-*xx*7xAA, MPL-A1530U-*xx*7xAA	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 2090-XXNFMF-S*xx* (standard, non-flex) (4) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback
MPL-A1520V-*xx*7xAA, MPL-A1520T-*xx*7xAA, MPL-A230P-*xx*7xAA		
MPL-A310F-*xx*7xAA, MPL-A310P-*xx*7xAA, MPL-A320H-*xx*7xAA, MPL-A320P,-*xx*7xAA, MPL-A330P-*xx*7xAA		
MPL-A420P-*xx*7xAA, MPL-A430H-*xx*7xAA		
MPL-A4530F-*xx*7xAA, MPL-A4540C-*xx*7xAA		
MPL-A430P-*xx*7xAA	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPL-A4530K-*xx*7xAA, MPL-A4540F-*xx*7xAA		
MPL-A4560F-*xx*7xAA	2090-CP*x*M7DF-12AA*xx* (standard, non-flex)	
MPL-A520K-*xx*7xAA	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPL-A540K-*xx*7xAA, MPL-A560F-*xx*7xAA	2090-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-08AF*xx* (continuous-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Determine What You Need on page 10.
(2) Applies to Kinetix 5700 drives and MPL-A3*xxx*-M/S through MPL-A5*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 5700 drives and MPL-A15*xxx*-V/E through MPL-A2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 5700 drives and MPL-A15*xxx*-H...MPL-A45*xxx*-H motors with incremental feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

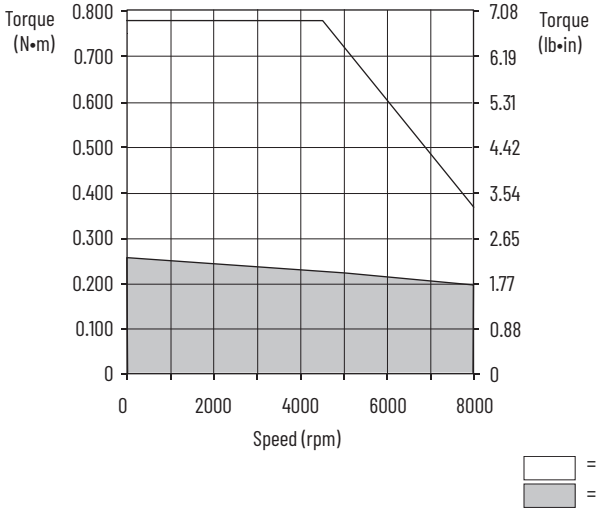
Kinetix MPL Motor Performance Specifications with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 (230V AC input)
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16	2198-D006-ERS*x*
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-D006-ERS*x*
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	10.1	2.82 (24.9)	0.39	2198-D012-ERS*x*
MPL-A210V	8000	8000	3.09	0.55 (4.8)	10.2	1.52 (13.4)	0.37	2198-D012-ERS*x*
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62	2198-D012-ERS*x*
MPL-A230P	5000	5000	5.40	2.10 (18.6)	23.0	8.2 (73.0)	0.86	2198-D020-ERS*x*
MPL-A310F	3000	3000	3.20	1.58 (14.0)	8.80	3.44 (30.4)	0.46	2198-D006-ERS*x*
					9.30	3.61 (31.9)		2198-D012-ERS*x*
MPL-A310P	5000	5000	4.85	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-D012-ERS*x*
MPL-A320H	3500	3500	6.10	3.05 (27.0)	19.3	7.91 (70.0)	1.0	2198-D020-ERS*x*
MPL-A320P	5000	5000	9.00	3.05 (27.0)	28.3	7.60 (44.8)	1.3	2198-D020-ERS*x*
					29.5	7.91 (70.0)		2198-D032-ERS*x*
MPL-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.1 (98.2)	1.8	2198-D032-ERS*x*
MPL-A420P	5000	5000	12.7	4.79 (42.3)	46.0	13.5 (120)	2.0	2198-D032-ERS*x*
MPL-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.8 (175)	1.8	2198-D032-ERS*x*
MPL-A430P	5000	5000	16.80	5.99 (52.9)	67.0	19.8 (175)	2.2	2198-D057-ERS*x*
MPL-A4530F	2800	2800	13.40	8.36 (74.0)	42.0	20.3 (179)	1.9	2198-D032-ERS*x*
MPL-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.3 (179)	2.5	2198-D057-ERS*x*
MPL-A4540C	1500	1500	9.40	10.30 (91.1)	28.3	26.23 (232)	1.5	2198-D020-ERS*x*
					29.0	27.1 (239)		2198-D032-ERS*x*
MPL-A4540F	3000	3000	18.4	10.19 (90.1)	45.9	22.09 (195)	2.6	2198-D032-ERS*x*
					58.0	27.1 (239)		2198-D057-ERS*x*
MPL-A4560F	3000	3000	22.0	14.1 (125)	66.0	34.4 (305)	3.0	2198-D057-ERS*x*
MPL-A520K	4000	4000	23.0	10.77 (95.2)	65.0	24.3 (215)	3.5	2198-D057-ERS*x*
MPL-A540K	4000	4000	41.5	19.42 (171)	73.4	31.3 (277)	5.5	2198-S086-ERS*x*
MPL-A560F	3000	3000	42.0	27.39 (242)	73.4	39.6 (350)	5.3	2198-S086-ERS*x*

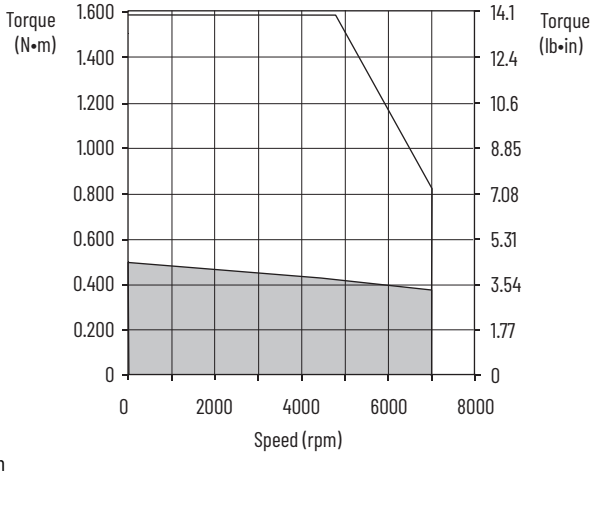
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/ Kinetix MPL Servo Motor Curves

2198-D006-ERS*x* and MPL-A1510V



2198-D006-ERS*x* and MPL-A1520U

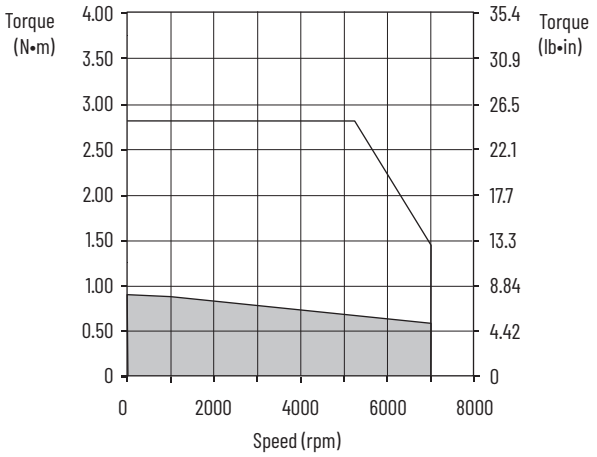


= Intermittent operating region

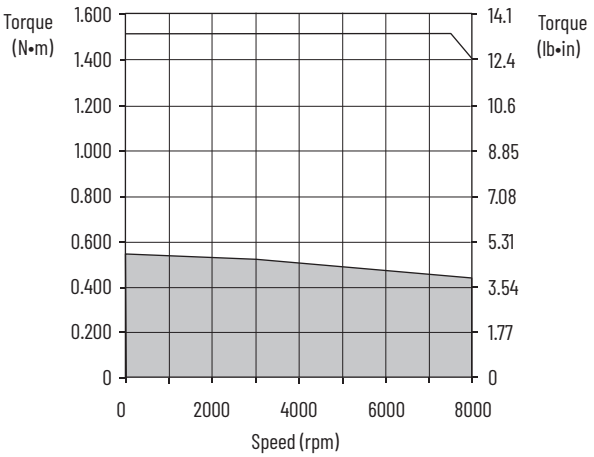
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

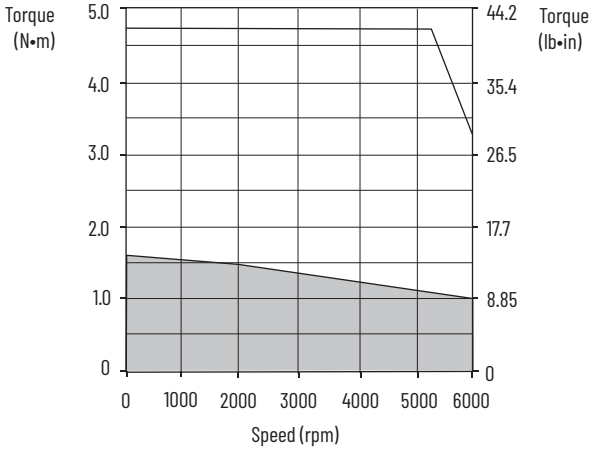
2198-D012-ERSx and MPL-A1530U



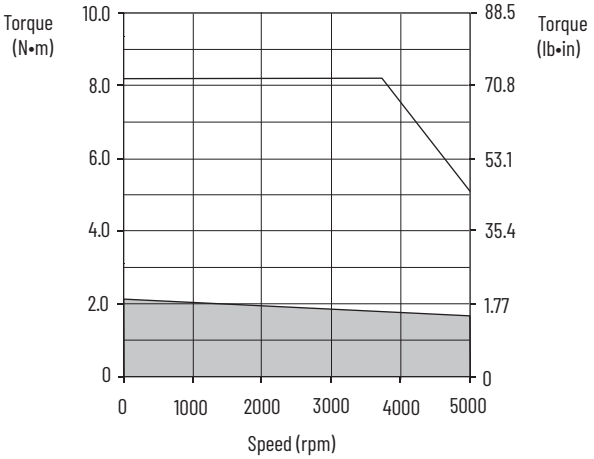
2198-D012-ERSx and MPL-A210V



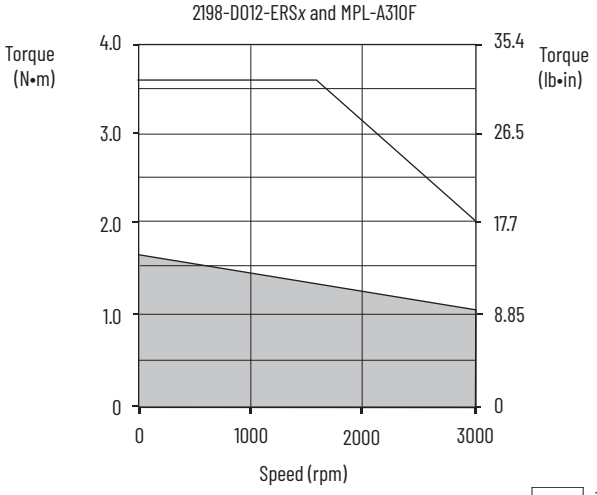
2198-D012-ERSx and MPL-A220T



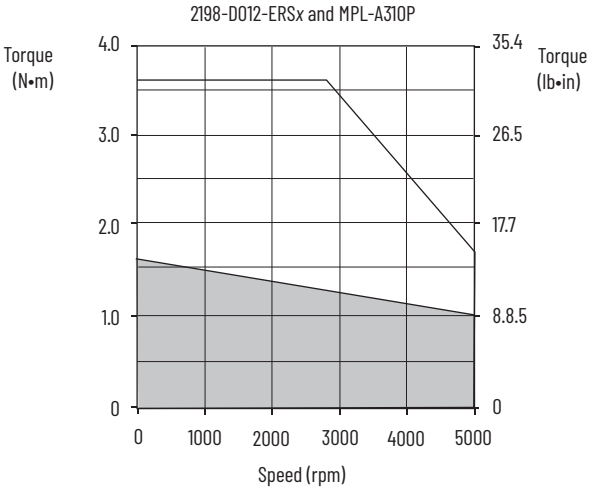
2198-D020-ERSx and MPL-A230P



2198-D012-ERSx and MPL-A310F



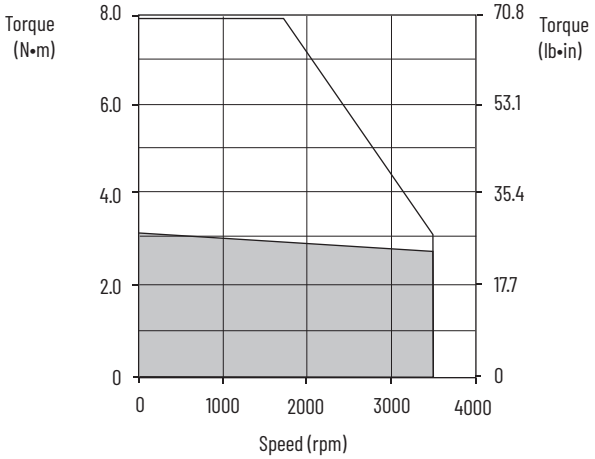
2198-D012-ERSx and MPL-A310P



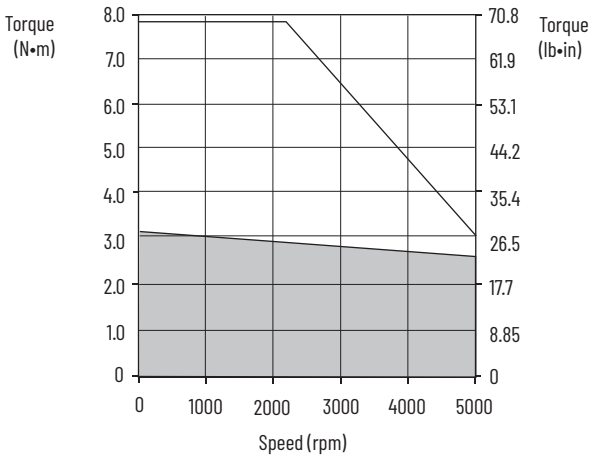
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

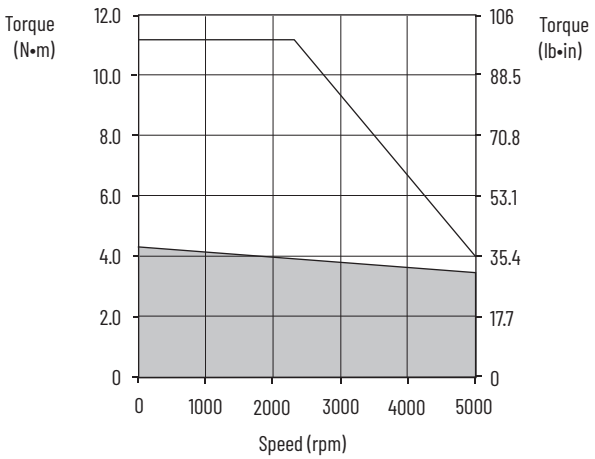
2198-D020-ERSx and MPL-A320H



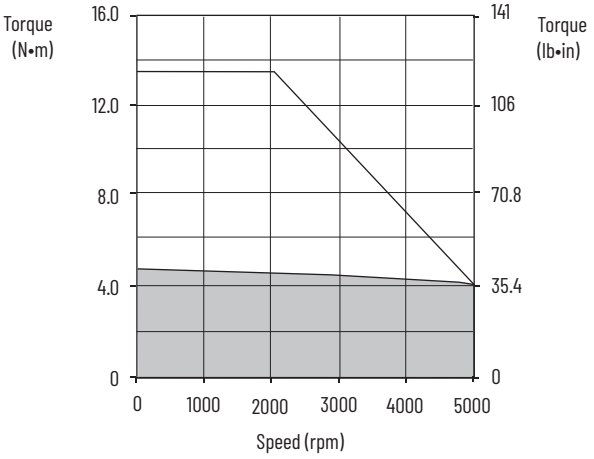
2198-D032-ERSx and MPL-A320P



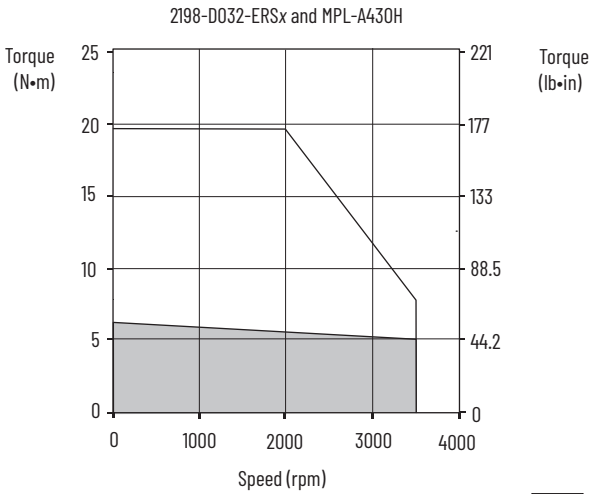
2198-D032-ERSx and MPL-A330P



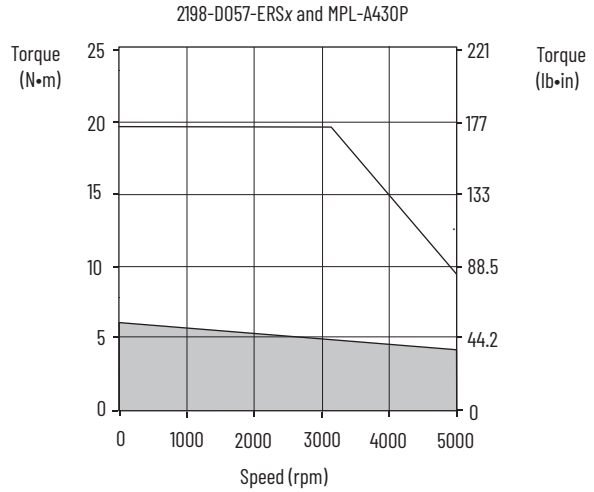
2198-D032-ERSx and MPL-A420P



2198-D032-ERSx and MPL-A430H



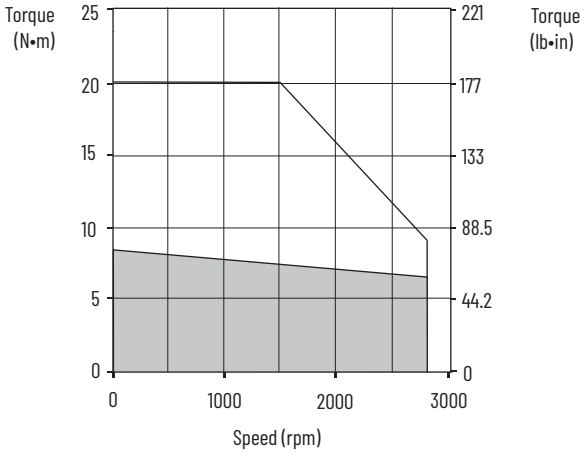
2198-D057-ERSx and MPL-A430P



= Intermittent operating region
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

2198-D032-ERSx and MPL-A4530F



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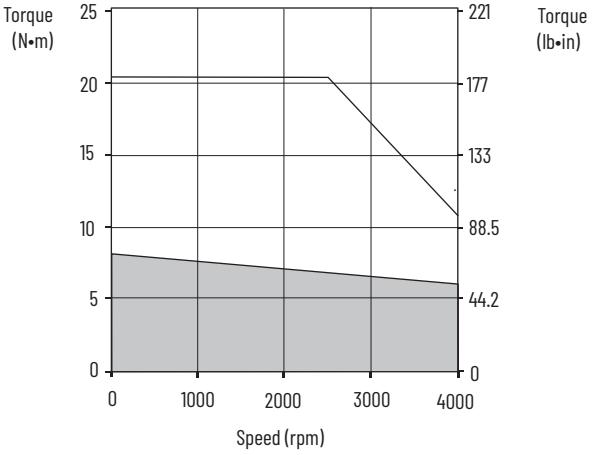

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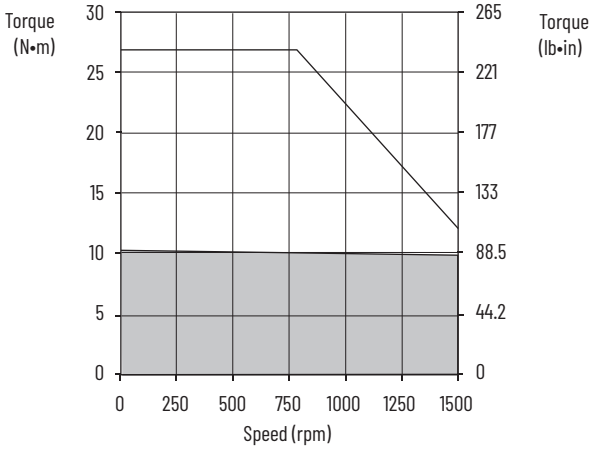
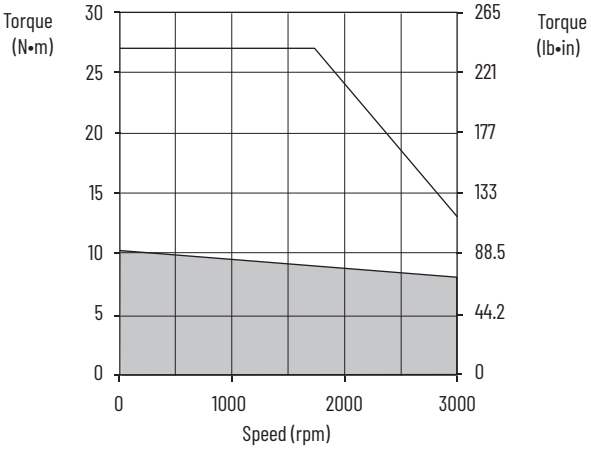
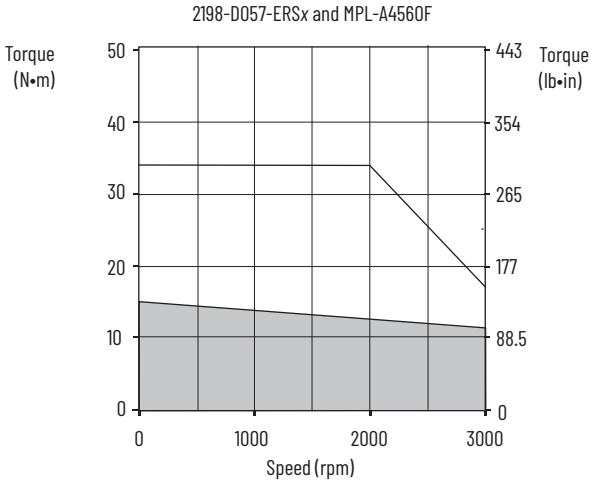


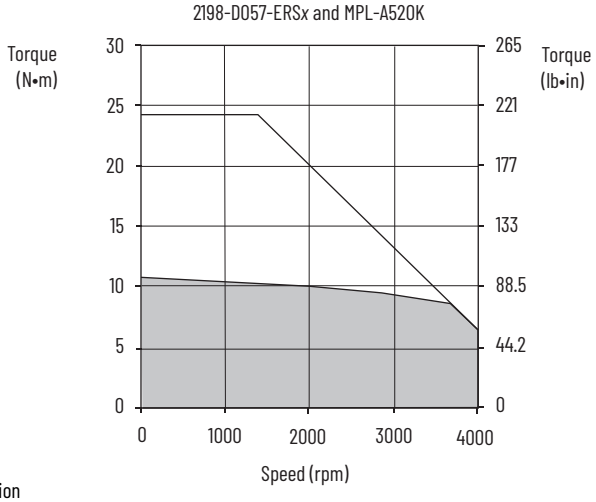
2198-D057-ERSx and MPL-A4540F



2198-D057-ERSx and MPL-A4560F



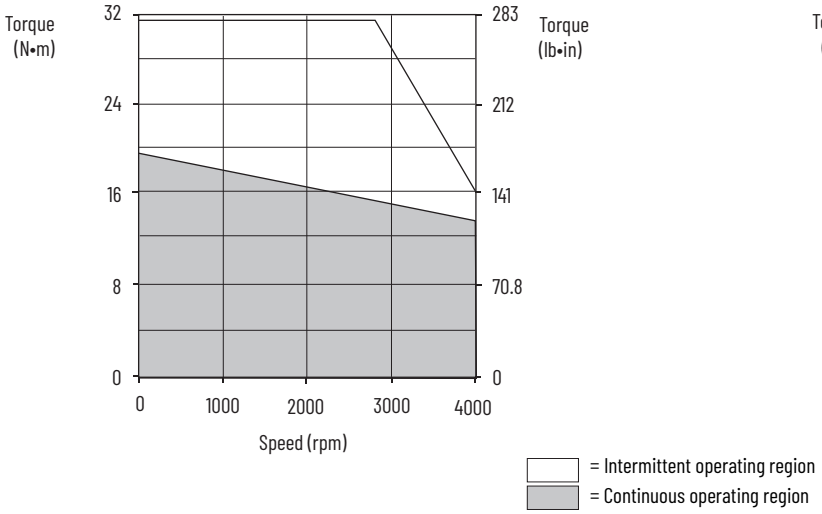
2198-D057-ERSx and MPL-A520K



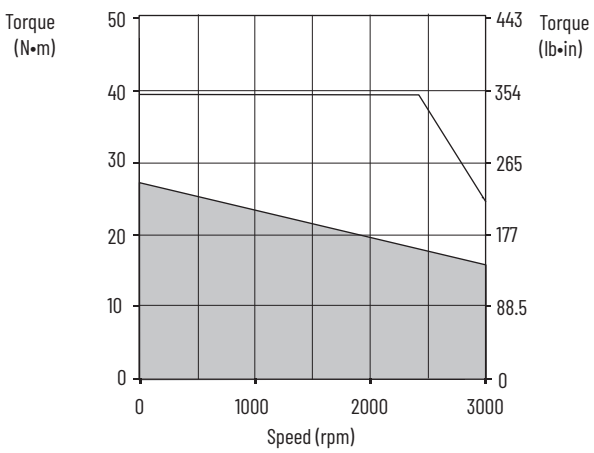
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

2198-S086-ERSx and MPL-A540K



2198-S086-ERSx and MPL-A560F



Kinetix 5700 (400V operation) Drives with Kinetix MPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix MPL (400V-class) low-inertia servo motors with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

IMPORTANT The Kinetix MPL servo motors on this page are equipped with DIN connectors (specified by 7, for example, MPL-B310P-*xx***7**xAA) and are **not** compatible with cables designed for motors equipped with bayonet connectors (specified by 2, for example, MPL-B310P-*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*7xAA, MPL-B1520U-*xx*7xAA, MPL-B1530U-*xx*7xAA	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 2090-XXNFMF-S*xx* (standard) (4) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback
MPL-B210V-*xx*7xAA, MPL-B220T-*xx*7xAA, MPL-B230P-*xx*7xAA		
MPL-B310P-*xx*7xAA, MPL-B320P-*xx*7xAA, MPL-B330P-*xx*7xAA		
MPL-B420P-*xx*7xAA, MPL-B430P-*xx*7xAA		
MPL-B4530F-*xx*7xAA, MPL-B4530K-*xx*7xAA, MPL-B4540F-*xx*7xAA, MPL-B4560F-*xx*7xAA		
MPL-B520K-*xx*7xAA		
MPL-B540D-*xx*7xAA, MPL-B540K-*xx*7xAA, MPL-B560F-*xx*7xAA	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex)	
MPL-B580F-*xx*7xAA, MPL-B580J-*xx*7xAA	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPL-B640F-*xx*7xAA (5)		
MPL-B660F-*xx*7xAA, MPL-B680D-*xx*7xAA, (5) MPL-B960B-*xx*7xAA, MPL-B980B-*xx*7xAA (5)	2090-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-08AF*xx* (continuous-flex)	
MPL-B680F-*xx*7xAA, MPL-B680H-*xx*7xAA, MPL-B860D-*xx*7xAA	2090-CPBM7DF-06AA*xx* (standard, non-flex)	
MPL-B880C-*xx*7xAA		
MPL-B880D-*xx*7xAA	2090-CPBM7DF-04AA*xx* (standard, non-flex)	
MPL-B960C-*xx*7xAA, MPL-B960D-*xx*7xAA, MPL-B980C-*xx*7xAA, MPL-B980D-*xx*7xAA		
MPL-B980E-*xx*7xAA	2090-CPBM7DF-02AA*xx* (standard, non-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Determine What You Need on page 10.
(2) Applies to Kinetix 5700 drives and MPL-B3*xxx*-M/S through MPL-B9*xxx*-M/S motors with absolute high-resolution feedback.
(3) Applies to Kinetix 5700 drives and MPL-B15*xxx*-V/E through MPL-B2*xxx*-V/E motors with absolute high-resolution feedback.
(4) Applies to Kinetix 5700 drives and MPL-B15*xxx*-H through MPL-B45*xxx*-H motors with incremental feedback.
(5) For applications that use these five motors (catalog numbers MPL-B*xxxx-xx***7**4AA with the brake option) where the power cable length exceeds 50 m (164 ft), 2090-CPBM7DF-06AA*xx* (6 AWG) cable is required. Motors without the brake option (catalog numbers MPL-B*xxxx-xx***7**2AA can use the cable size as specified in the table regardless of cable length.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

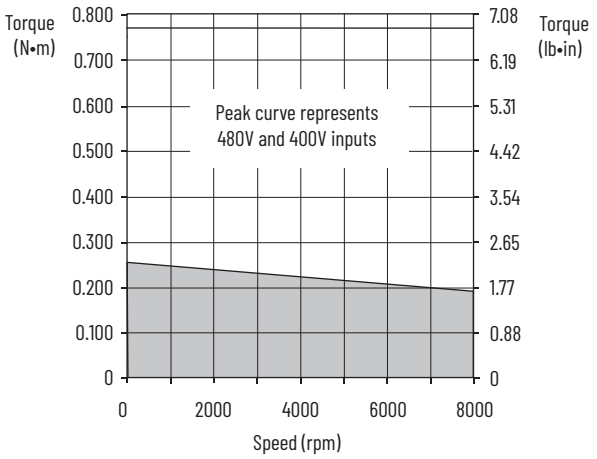
Kinetix MPL Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 (480V AC input)
MPL-B1510V	8000	8000	0.95	0.26 (2.3)	3.10	0.77 (6.8)	0.16	2198-D006-ERSx
MPL-B1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27	2198-D006-ERSx
MPL-B1530U	7000	7000	2.0	0.90 (8.0)	7.20	2.82 (24.9)	0.39	2198-D006-ERSx
MPL-B210V	8000	8000	1.75	0.55 (4.9)	5.80	1.52 (13.4)	0.37	2198-D006-ERSx
MPL-B220T	6000	6000	3.30	1.61 (14.2)	8.80	3.67 (32.5)	0.62	2198-D006-ERSx
					11.3	4.74 (41.9)		2198-D012-ERSx
MPL-B230P	5000	5000	2.60	2.10 (18.6)	8.80	6.39 (56.6)	0.86	2198-D006-ERSx
					11.3	8.20 (73.0)		2198-D012-ERSx
MPL-B310P	5000	5000	2.4	1.6 (14.1)	7.10	3.6 (32)	0.77	2198-D006-ERSx
MPL-B320P	5000	5000	4.5	3.10 (27)	14.0	8.2 (72.5)	1.5	2198-D012-ERSx
MPL-B330P	5000	5000	6.1	4.18 (37)	17.6	10.4 (92.0)	1.8	2198-D012-ERSx
					19.0	11.1 (98)		2198-D020-ERSx
MPL-B420P	5000	5000	6.4	4.74 (42)	17.6	11.3 (100)	1.9	2198-D012-ERSx
					22.0	13.5 (119)		2198-D020-ERSx
MPL-B430P	5000	5000	9.2	6.55 (58)	28.2	17.6 (156)	2.2	2198-D020-ERSx
					32.0	19.8 (175)		2198-D032-ERSx
MPL-B4530F	3000	3000	7.0	8.25 (73)	17.6	17.7 (157)	2.1	2198-D012-ERSx
					21.0	20.3 (180)		2198-D020-ERSx
MPL-B4530K	4000	4000	11.0	8.25 (73)	28.2	18.7 (166)	2.6	2198-D020-ERSx
					31.0	20.3 (179)		2198-D032-ERSx
MPL-B4540F	3000	3000	9.1	10.20 (90)	28.2	26.2 (232)	2.6	2198-D020-ERSx
					29.0	27.1 (240)		2198-D032-ERSx
MPL-B4560F	3000	3000	11.3	13.85 (123)	28.2	28.4 (251)	3.2	2198-D020-ERSx
			11.8	14.0 (124)	36.0	34.4 (304)		2198-D032-ERSx
MPL-B520K	3500	4000	11.3	10.4 (92)	28.2	20.6 (182)	3.5	2198-D020-ERSx
			11.5	10.7 (95)	33.0	23.2 (205)		2198-D032-ERSx
MPL-B540D	2000	2000	10.5	19.4 (172)	23.0	41.0 (362)	3.4	2198-D020-ERSx
MPL-B540K	4000	4000	20.5	19.4 (172)	60.0	48.6 (430)	5.4	2198-D057-ERSx
MPL-B560F	3000	3000	20.6	26.8 (237)	68.0	67.8 (600)	5.5	2198-D057-ERSx
MPL-B580F	3000	3000	26.0	34.0 (301)	81.3	81.0 (717)	7.1	2198-D057-ERSx
					94.0	87.0 (770)		2198-S086-ERSx
MPL-B580J	3800	3800	32.0	34.0 (301)	81.3	73.0 (646)	7.9	2198-D057-ERSx
					94.0	81.0 (717)		2198-S086-ERSx
MPL-B640F	2000	3000	32.1	36.7 (325)	65.0	72.3 (640)	6.1	2198-D057-ERSx
MPL-B660F	2000	3000	38.5	48.0 (425)	96.0	101.1 (895)	6.1	2198-S086-ERSx
MPL-B680D	2000	2000	34.0	62.8 (556)	94.0	154.2 (1365)	9.3	2198-S086-ERSx
MPL-B680F	2000	3000	48.0	60.0 (531)	96.0	108.5 (960)	7.5	2198-S086-ERSx
MPL-B680H	2000	3500	51.0	60.0 (531)	121.6	130 (1150)	7.5	2198-S086-ERSx
					140	146.9 (1300)		2198-S130-ERSx
MPL-B860D	2000	2000	47.5	83.0 (735)	95.5	152.5 (1350)	12.5	2198-S086-ERSx
MPL-B880C	1500	1500	47.5	110 (973)	97.5	203 (1797)	12.6	2198-S086-ERSx
MPL-B880D	2000	2000	67.0	110 (973)	96.0	147 (1301)	12.6	2198-S130-ERSx
MPL-B960B	1200	1200	42.5	130 (1150)	94.0	231 (2044)	12.7	2198-S086-ERSx
MPL-B960C	1500	1500	55.0	124.3 (1100)	121.6	219.8 (1945)	14.8	2198-S086-ERSx
					125	226 (2000)		2198-S130-ERSx
MPL-B960D	2000	2000	70.0	124.3 (1100)	125	226 (2000)	15.0	2198-S130-ERSx
MPL-B980B	1000	1000	40.0	162.7 (1444)	94.0	278 (2460)	15.2	2198-S086-ERSx
MPL-B980C	1500	1500	68.2	158.2 (1400)	140	271.2 (2400)	16.8	2198-S130-ERSx
MPL-B980D	2000	2000	79.0	158.2 (1400)	140	260 (2300)	18.6	2198-S130-ERSx
MPL-B980E	1500	2750	105	141 (1250)	226.2	233 (2062)	13.0	2198-S160-ERSx
					230	237 (2100)		2198-S263-ERSx

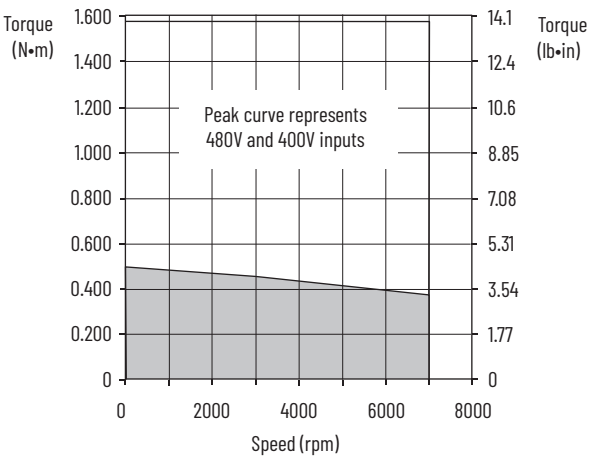
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves

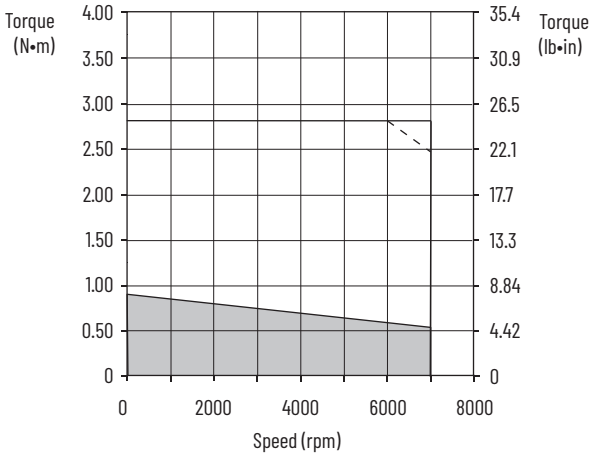
2198-D006-ERSx and MPL-B1510V



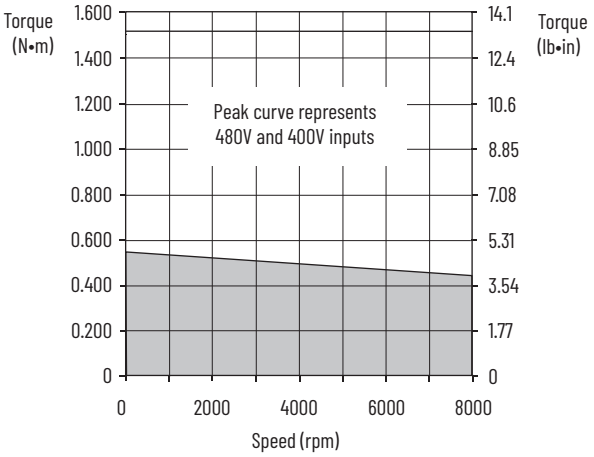
2198-D006-ERSx and MPL-B1520U



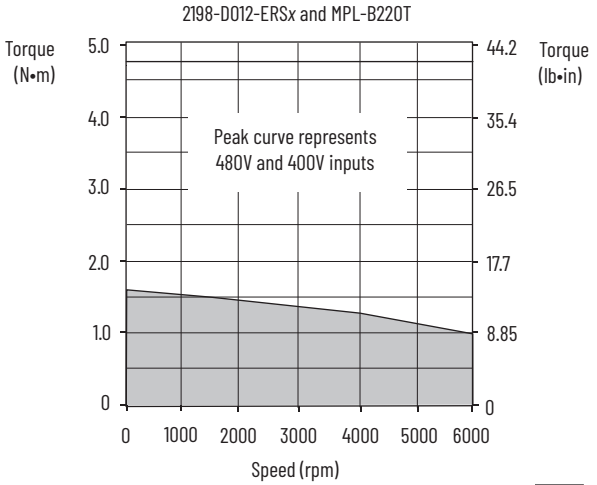
2198-D006-ERSx and MPL-B1530U



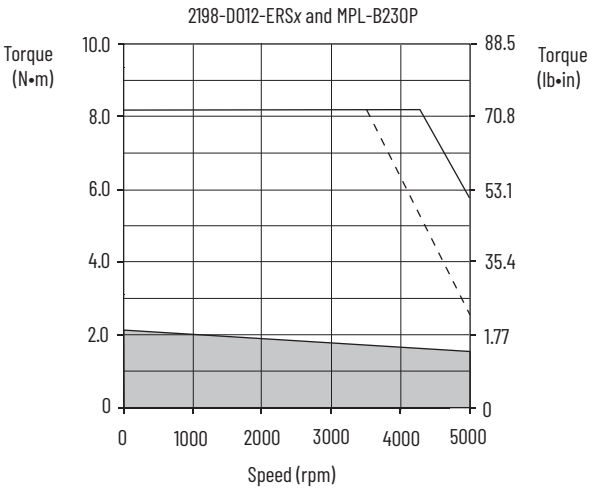
2198-D006-ERSx and MPL-B210V



2198-D012-ERSx and MPL-B220T



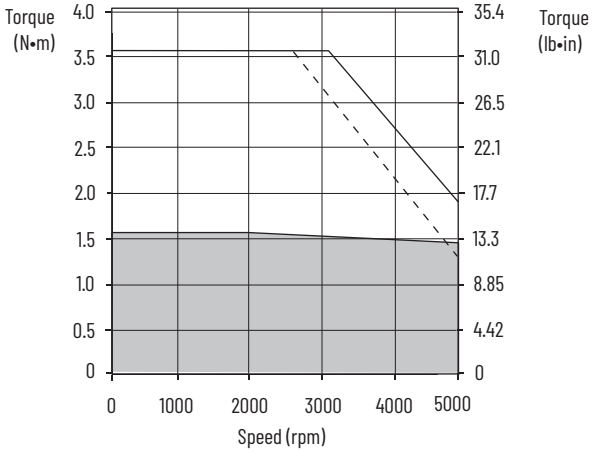
2198-D012-ERSx and MPL-B230P



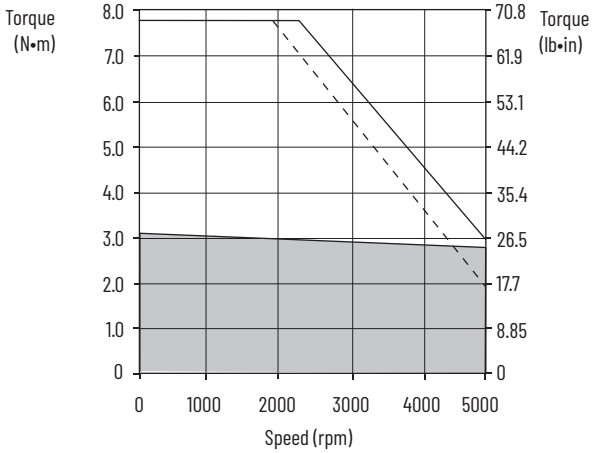
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

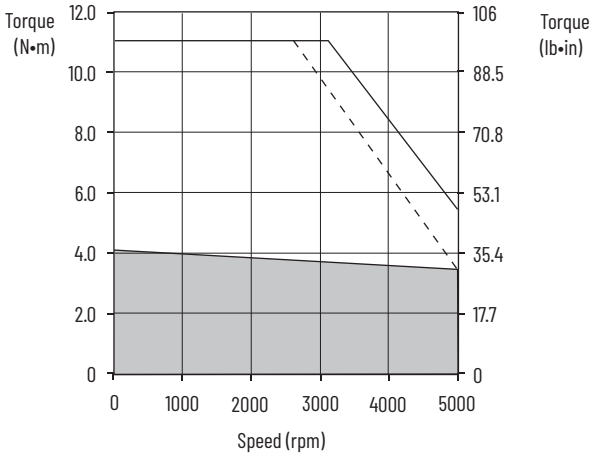
2198-D006-ERSx and MPL-B310P



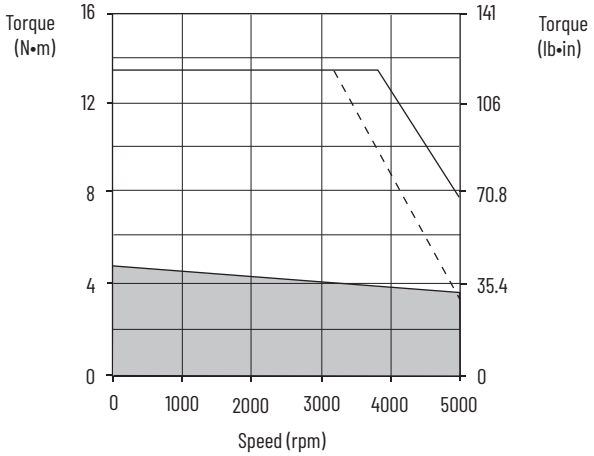
2198-D012-ERSx and MPL-B320P



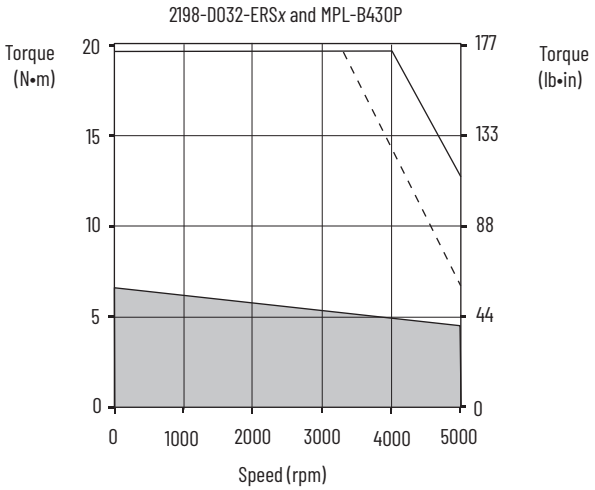
2198-D020-ERSx and MPL-B330P



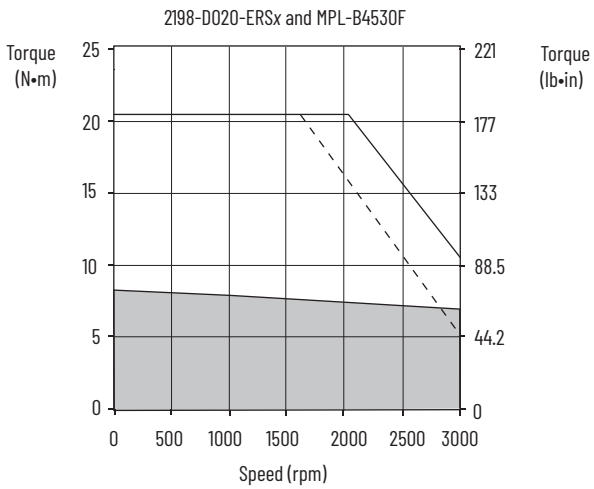
2198-D020-ERSx and MPL-B420P



2198-D032-ERSx and MPL-B430P



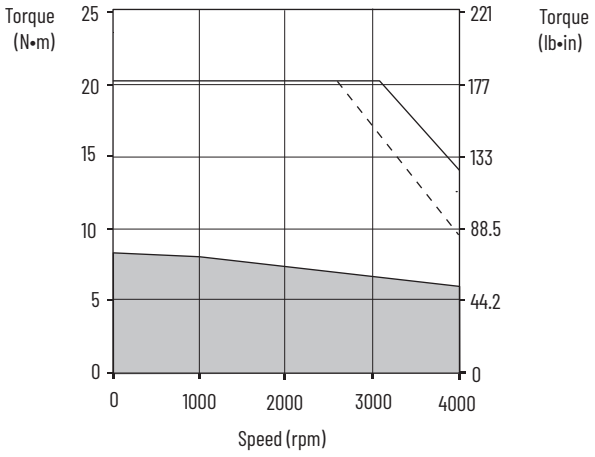
2198-D020-ERSx and MPL-B4530F



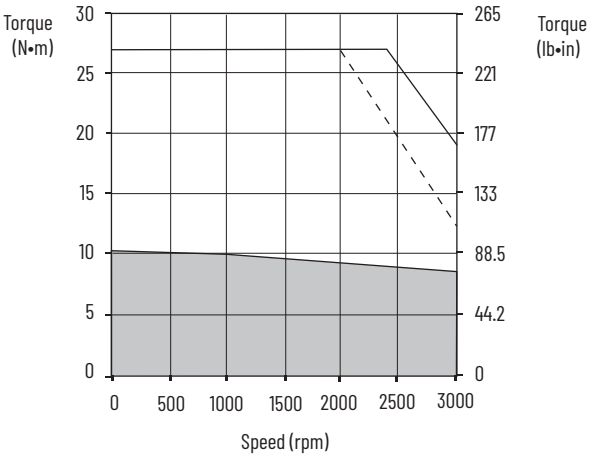
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

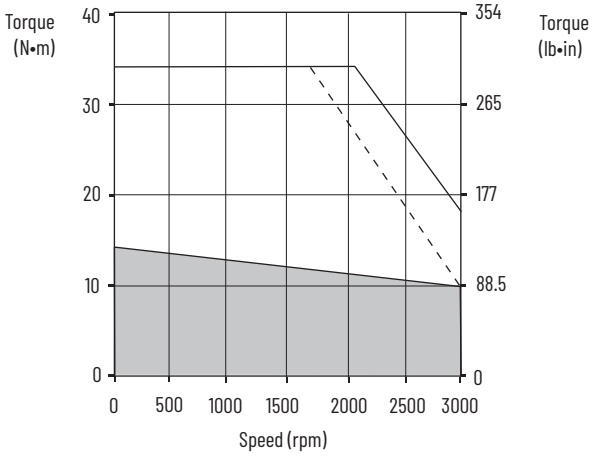
2198-D032-ERSx and MPL-B4530K



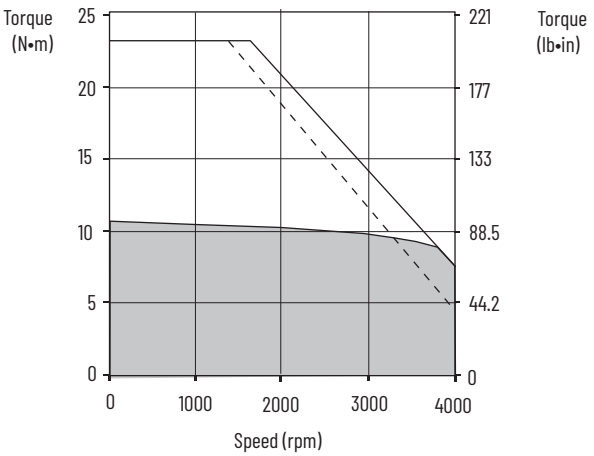
2198-D032-ERSx and MPL-B4540F



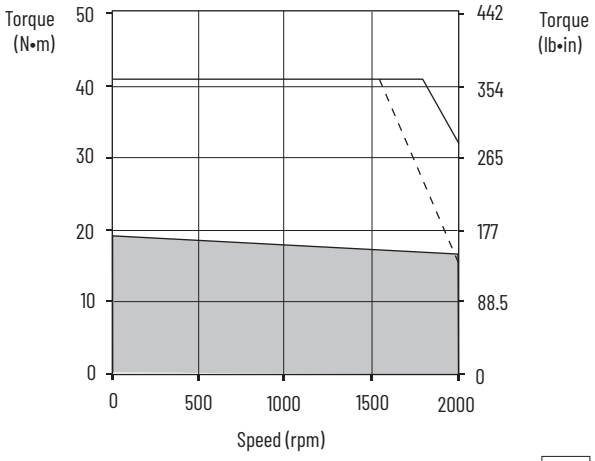
2198-D032-ERSx and MPL-B4560F



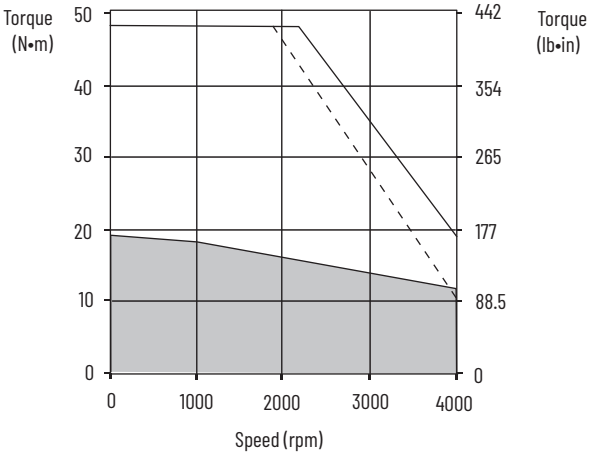
2198-D032-ERSx and MPL-B520K

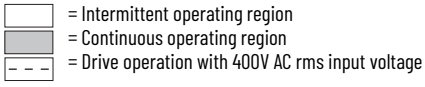


2198-D032-ERSx and MPL-B540D



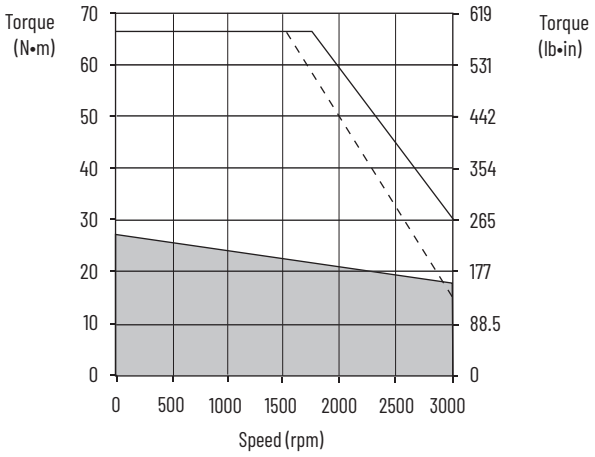
2198-D057-ERSx and MPL-B540K



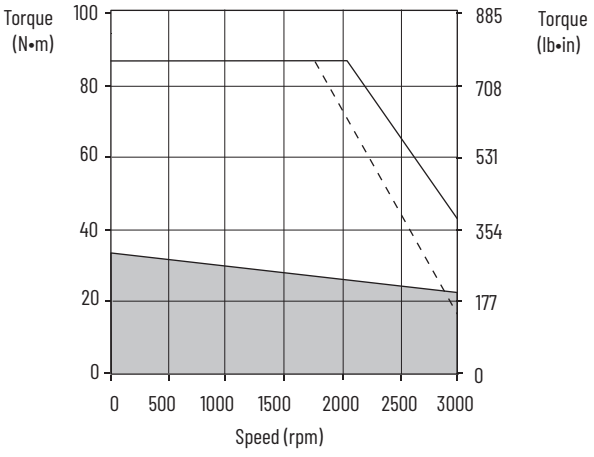


Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

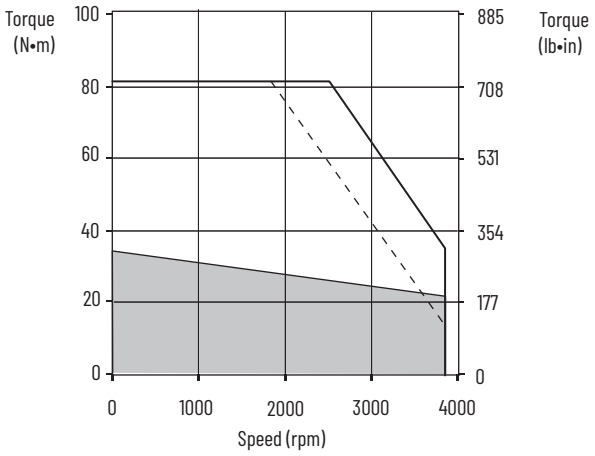
2198-D057-ERSx and MPL-B560F



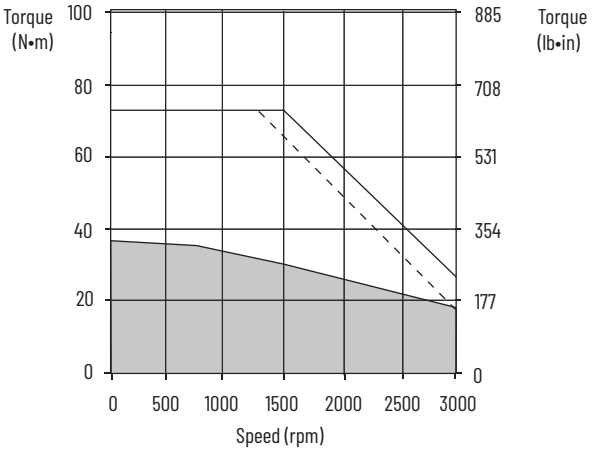
2198-S086-ERSx and MPL-B580F



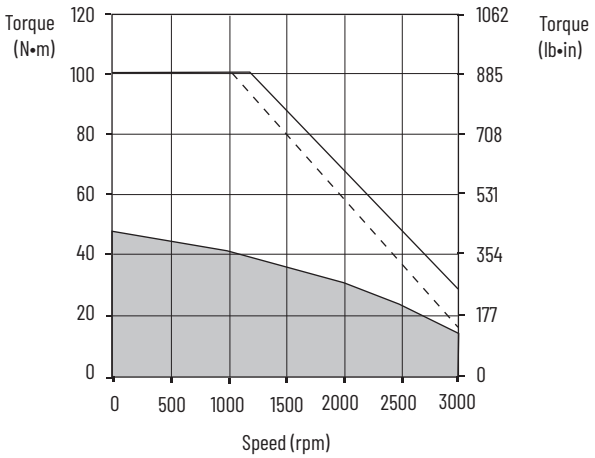
2198-S086-ERSx and MPL-B580J



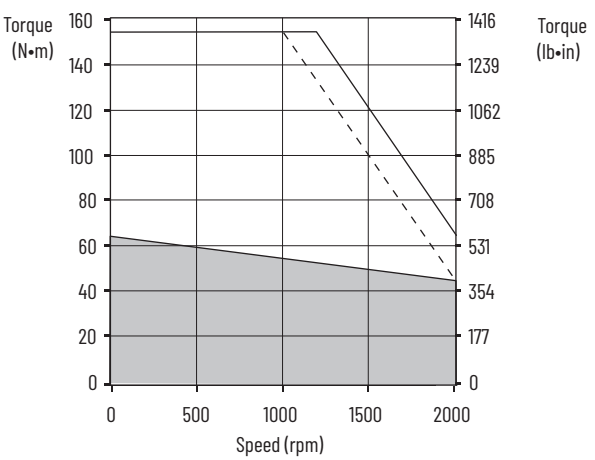
2198-D057-ERSx and MPL-B640F



2198-S086-ERSx and MPL-B660F



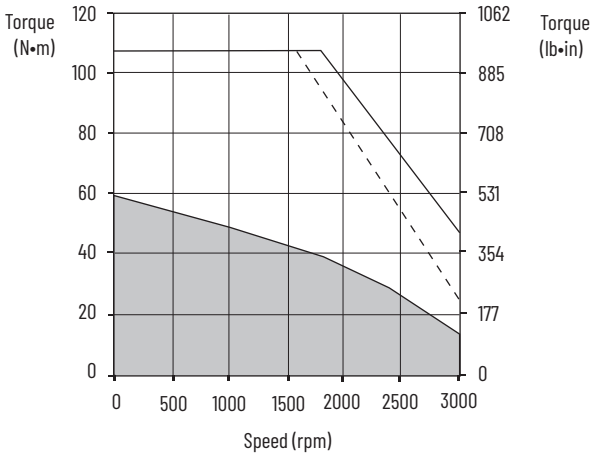
2198-S086-ERSx and MPL-B680D



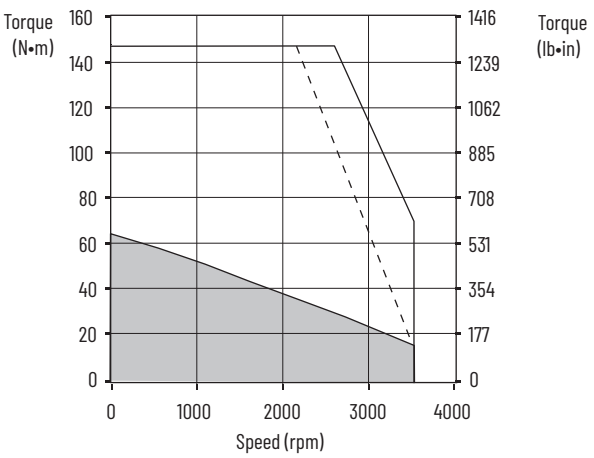
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

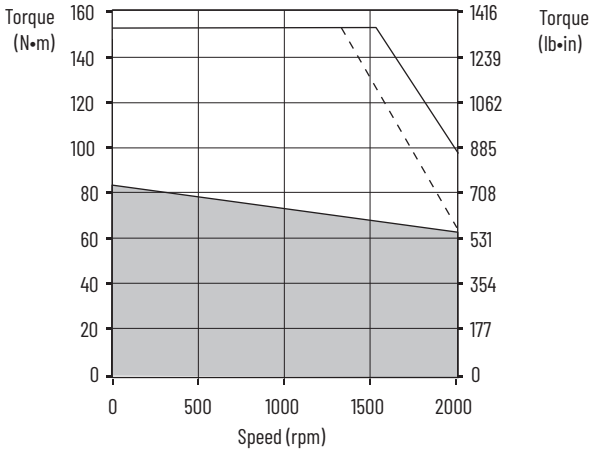
2198-S086-ERS*x* and MPL-B680F



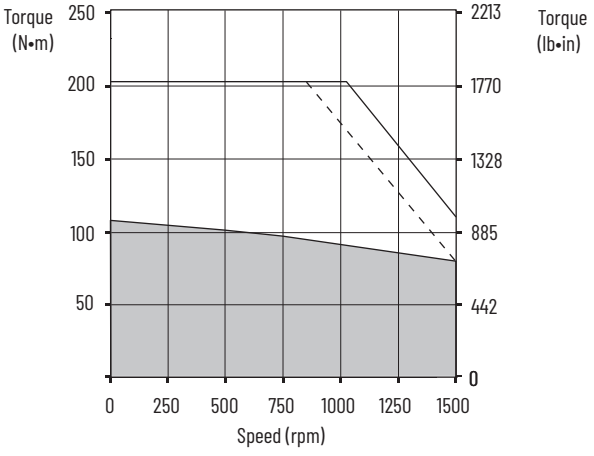
2198-S130-ERS*x* and MPL-B680H



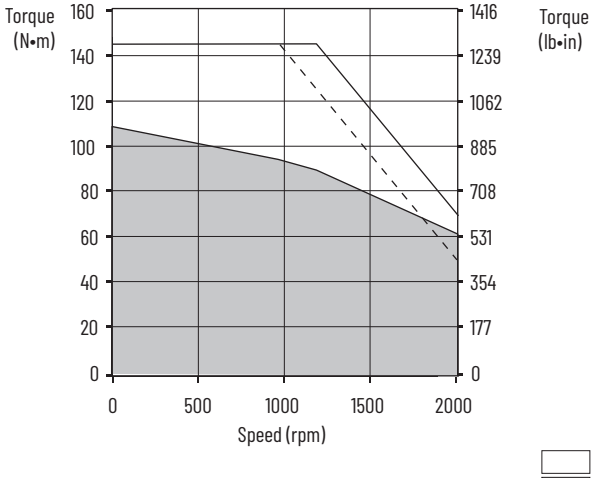
2198-S086-ERS*x* and MPL-B860D



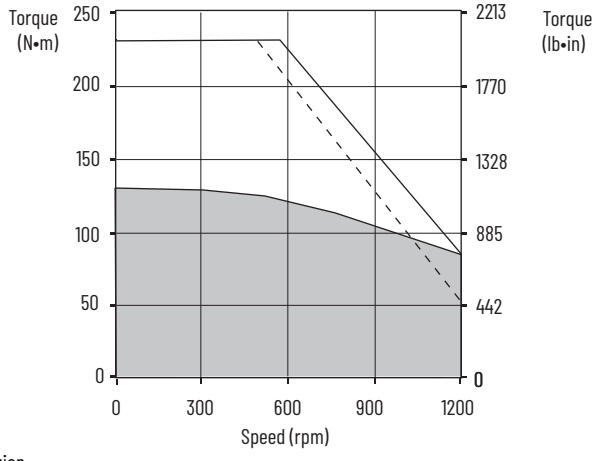
2198-S086-ERS*x* and MPL-B880C



2198-S130-ERS*x* and MPL-B880D



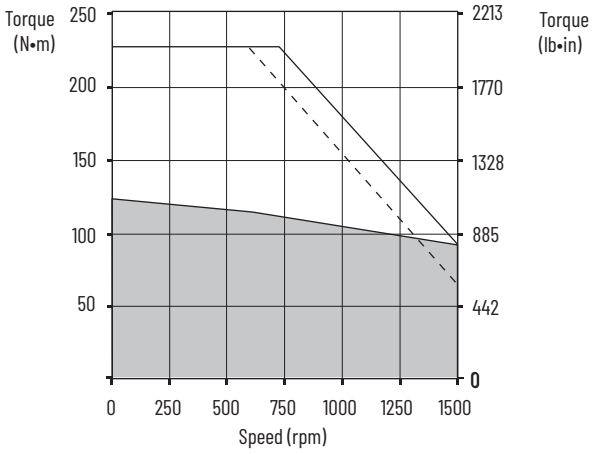
2198-S086-ERS*x* and MPL-B960B



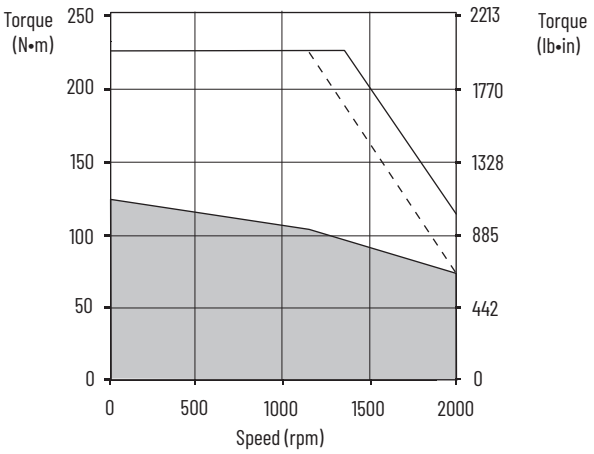
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPL Servo Motor Curves (continued)

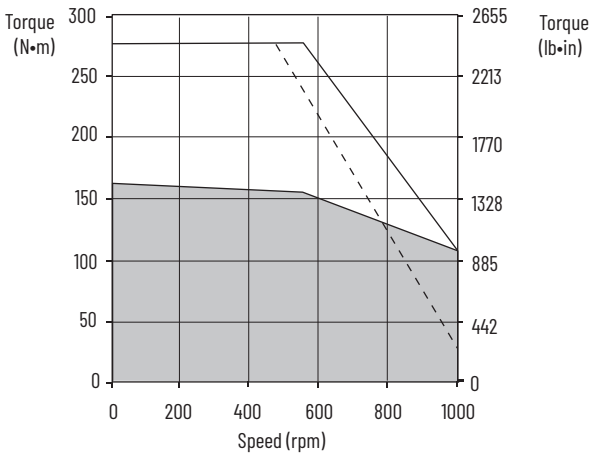
2198-S130-ERSx and MPL-B960C



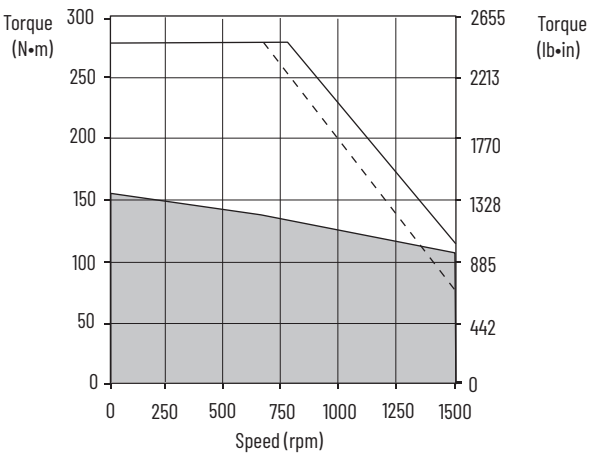
2198-S130-ERSx and MPL-B960D



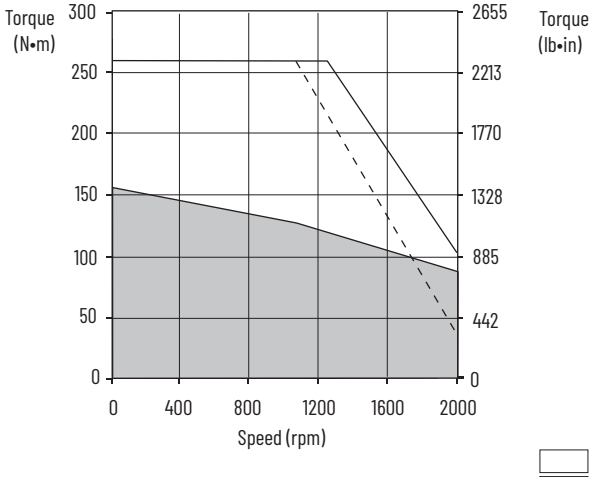
2198-S086-ERSx and MPL-B980B



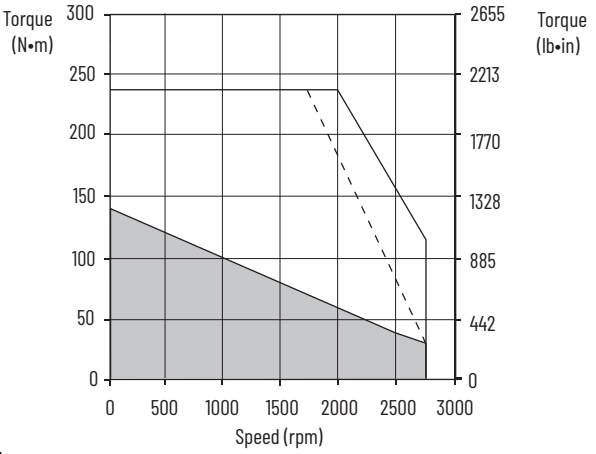
2198-S130-ERSx and MPL-B980C



2198-S130-ERSx and MPL-B980D



2198-S263-ERSx and MPL-B980E



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

Kinetix 5700 (200V operation) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5700 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.

Kinetix MPM Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPM-A1151M, MPM-A1152F, MPM-A1153F	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPM-A1302F	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPM-A1304F	2090-CPxM7DF-12AA*xx* (standard, non-flex)	
MPM-A1651F	2090-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-10AF*xx* (continuous-flex)	
MPM-A1652F, MPM-A1653F	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	
MPM-A2152F, MPM-A2153F, MPM-A2154C, MPM-A2154E	2090-CPBM7DF-06AA*xx* (standard, non-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.
(2) Applies to Kinetix 5700 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 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

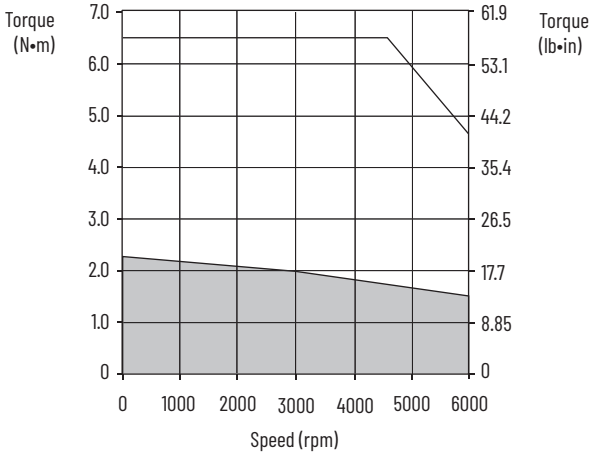
Kinetix MPM Motor Performance Specifications with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Base Speed rpm	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (240V AC input)
MPM-A1151M	4500	5000	6000	7.65	2.3 (20.3)	28.3	6.2 (54.9)	0.90	2198-D020-ERS*x*
						30.5	6.6 (58.4)		2198-D032-ERS*x*
MPM-A1152F	3000	4000	5000	11.30	4.4 (38.9)	28.3	9.4 (83.2)	1.40	2198-D020-ERS*x*
				11.93	4.7 (41.6)	44.8	13.5 (119)		2198-D032-ERS*x*
MPM-A1153F	3000	4000	5000	16.18	6.5 (57.5)	45.9	15.3 (135)	1.45	2198-D032-ERS*x*
						64.5	19.8 (175)		2198-D057-ERS*x*
MPM-A1302F	3000	4000	4500	17.28	6.6 (58.4)	45.9	12.7 (112)	1.65	2198-D032-ERS*x*
						50.2	13.5 (119)		2198-D057-ERS*x*
MPM-A1304F	3000	3500	4000	19.65	9.3 (82.0)	45.9	18.6 (165)	2.20	2198-D032-ERS*x*
						48.3	19.3 (171)		2198-D057-ERS*x*
MPM-A1651F	3000	3000	5000	30.96	10.7 (94.7)	73.8	20.5 (181)	2.50	2198-D057-ERS*x*
MPM-A1652F	3000	3500	4000	33.54	13.5 (119)	103.2	36.0 (319)	4.03	2198-S086-ERS*x*
MPM-A1653F	3000	3000	4000	42.4	18.6 (165)	119.1	42.0 (372)	5.10	2198-S086-ERS*x*
MPM-A2152F	3000	2000	4000	58.4	27.0 (239)	121.6	54.1 (479)	5.20	2198-S086-ERS*x*
						125.8	56.0 (495)		2198-S130-ERS*x*
MPM-A2153F	3000	2000	3600	59.65	34.0 (301)	120.4	58.0 (513)	5.80	2198-S086-ERS*x*
MPM-A2154C	1500	1750	2000	58.68	55.0 (487)	121.6	101 (894)	6.50	2198-S086-ERS*x*
						127.3	106 (938)		2198-S130-ERS*x*
MPM-A2154E	2250	2000	3000	59.67	44.0 (389)	121.6	79.7 (705)	7.00	2198-S086-ERS*x*
						128.2	84.0 (743)		2198-S130-ERS*x*

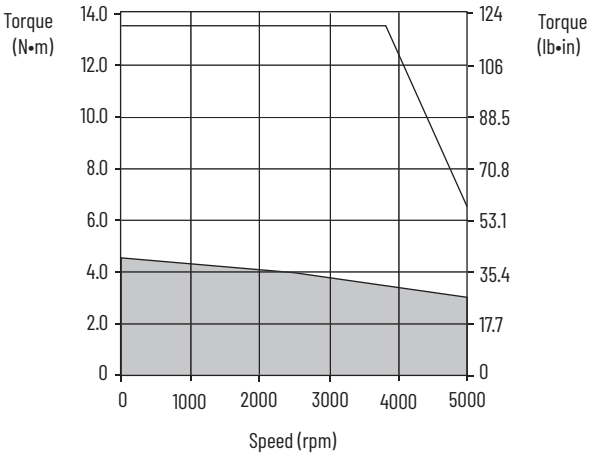
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix MPM Servo Motor Curves

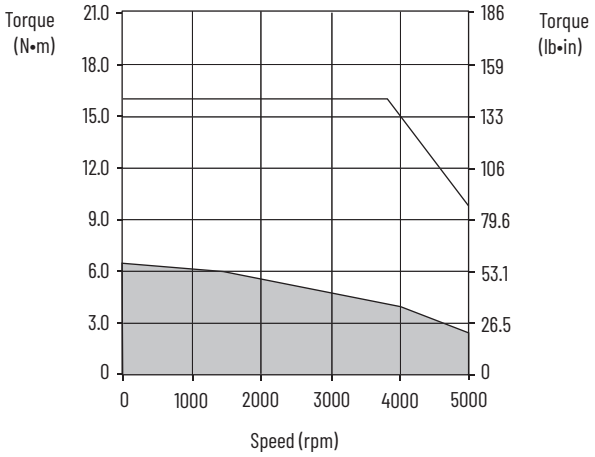
2198-D032-ERSx and MPM-A1151M



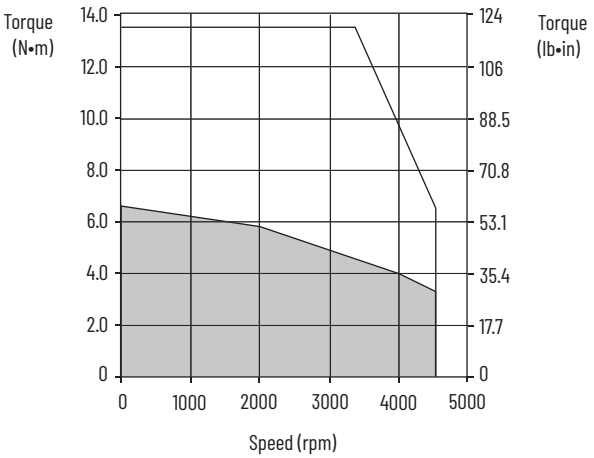
2198-D032-ERSx and MPM-A1152F



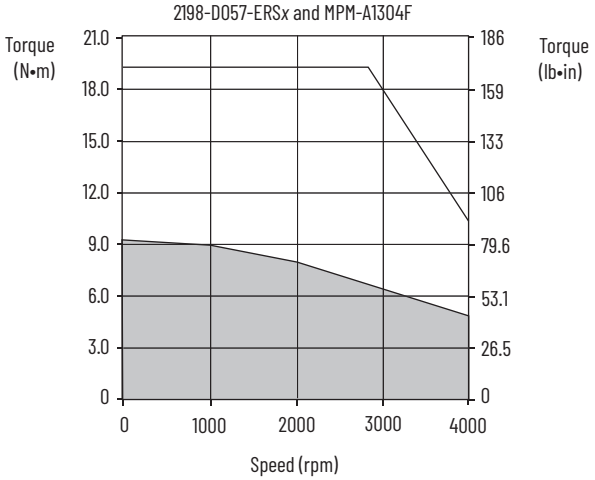
2198-D057-ERSx and MPM-A1153F



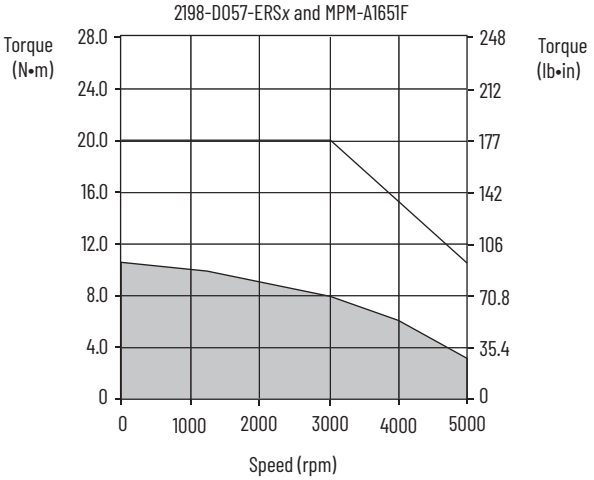
2198-D057-ERSx and MPM-A1302F



2198-D057-ERSx and MPM-A1304F



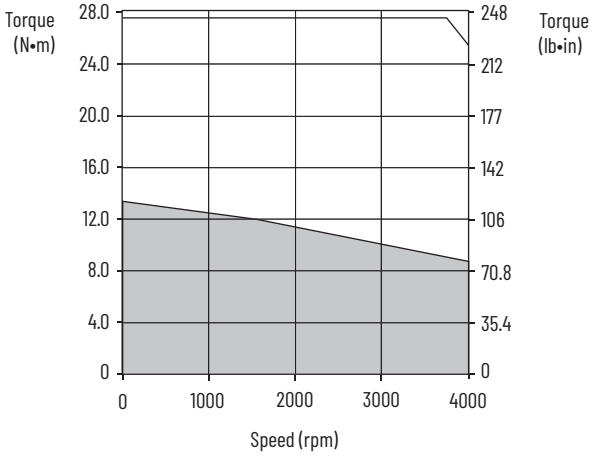
2198-D057-ERSx and MPM-A1651F



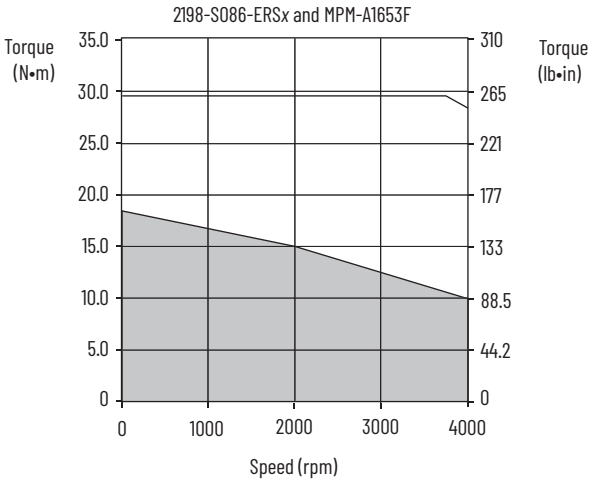
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPM Servo Motor Curves (continued)

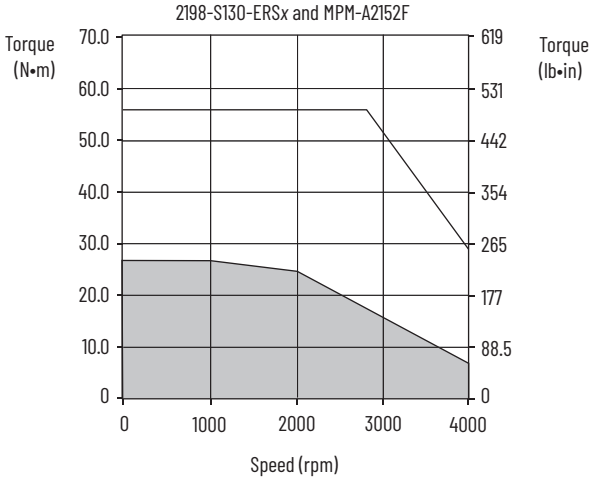
2198-S086-ERSx and MPM-A1652F



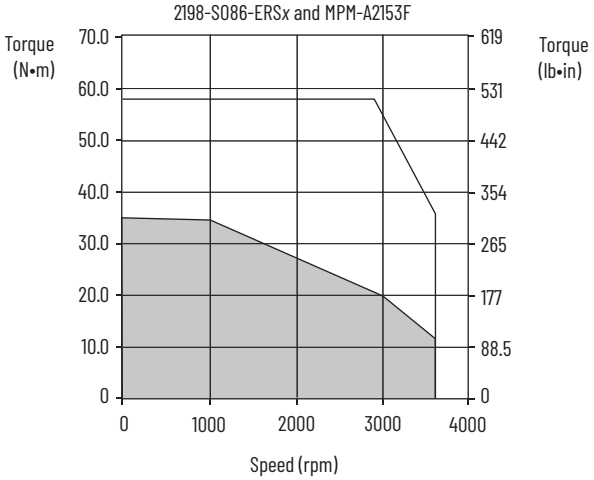
2198-S086-ERSx and MPM-A1653F



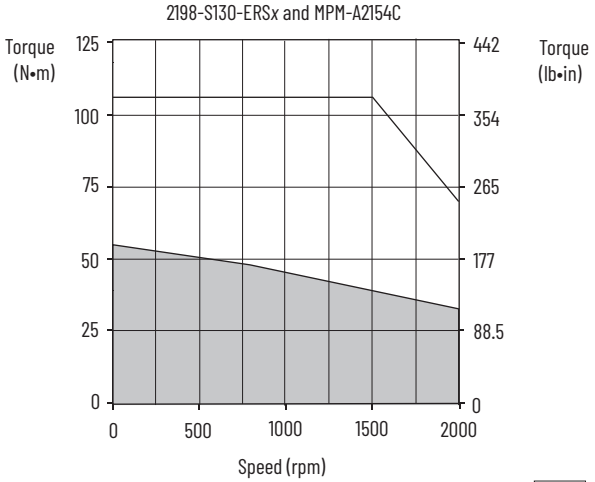
2198-S130-ERSx and MPM-A2152F



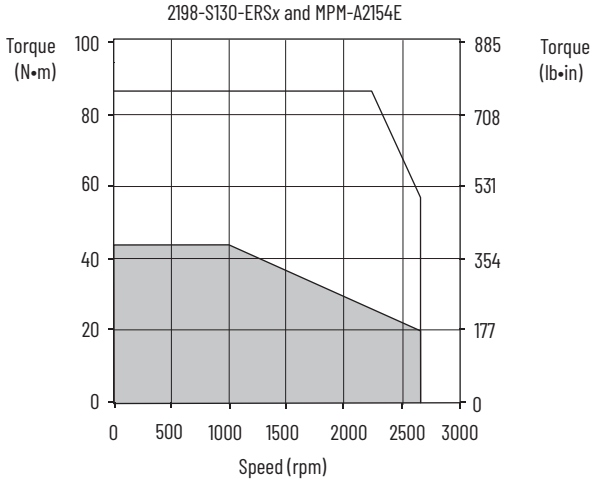
2198-S086-ERSx and MPM-A2153F



2198-S130-ERSx and MPM-A2154C



2198-S130-ERSx and MPM-A2154E



= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V operation) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix MPM (400V-class) medium-inertia servo motors with absolute high-resolution encoders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

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-CPx**M7**DF-16AA*xx* (standard, non-flex) 2090-CPx**M7**DF-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-CPx**M7**DF-14AA*xx* (standard, non-flex) 2090-CPx**M7**DF-14AF*xx* (continuous-flex)	
MPM-B1302T, MPM-B1304M		
MPM-B1651F, MPM-B1653C		
MPM-B1651M, MPM-B1652E, MPM-B1652F, MPM-B1653E	2090-CPx**M7**DF-10AA*xx* (standard, non-flex) 2090-CPx**M7**DF-10AF*xx* (continuous-flex)	
MPM-B2152C, MPM-B2153B (3)		
MPM-B1653F	2090-CPx**M7**DF-08AA*xx* (standard, non-flex) 2090-CPx**M7**DF-08AF*xx* (continuous-flex)	
MPM-B2152F, MPM-B2152M, MPM-B2153E, MPM-B2153F, (3) MPM-B2154B, MPM-B2154E, MPM-B2154F (3)		

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.
(2) Applies to Kinetix 5700 drives and MPM-B1*xxxx*-M/S through MPM-B2*xxxx*-M/S motors with absolute high-resolution feedback.
(3) For applications that use these nine motors (catalog numbers MPM-B215*x*-xJ7**4**AA with the brake option) where the power cable length exceeds 50 m (164 ft), 2090-CPBM7DF-06AA*xx* (6 AWG) cable is required. Motors without the brake option (catalog numbers MPM-B215*x*-xJ7**2**AA can use the cable size as specified in the table regardless of cable length.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

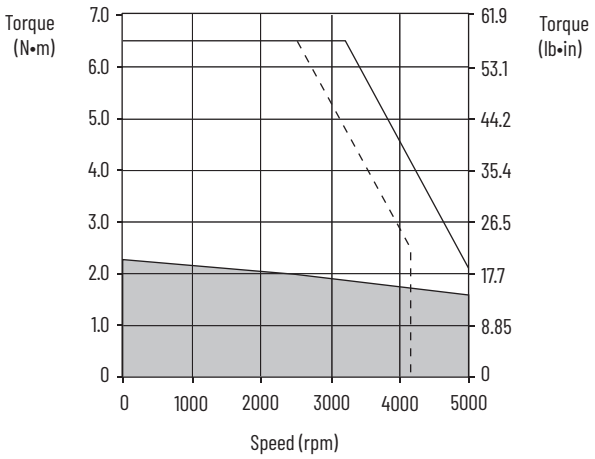
Kinetix MPM Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Base Speed rpm	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
MPM-B1151F	3000	4000	5000	2.71	2.3 (20.3)	8.8	6.0 (53.1)	0.75	2198-D006-ERSx
						9.9	6.6 (58.0)		2198-D012-ERSx
MPM-B1151T	6000	5000	7000	5.62	2.3 (20.3)	17.6	5.3 (46.9)	0.90	2198-D012-ERSx
						20.5	6.6 (58.0)		2198-D020-ERSx
MPM-B1152C	1500	2500	3000	3.61	5.0 (44.2)	12.4	13.5 (119)	1.20	2198-D012-ERSx
MPM-B1152F	3000	4000	5200	6.17	5.0 (44.2)	17.6	11.7 (103)	1.40	2198-D012-ERSx
						21.1	13.5 (119)		2198-D020-ERSx
MPM-B1152T	6000	4000	7000	11.02	5.0 (44.2)	28.2	10.7 (94.7)	1.40	2198-D020-ERSx
						37.9	13.5 (119)		2198-D032-ERSx
MPM-B1153E	2250	3000	3500	6.21	6.5 (57.5)	17.6	16.9 (149)	1.40	2198-D012-ERSx
						21.6	19.8 (175)		2198-D020-ERSx
MPM-B1153F	3000	4000	5500	9.20	6.5 (57.5)	28.2	17.9 (158)	1.40	2198-D020-ERSx
						32.0	19.8 (175)		2198-D032-ERSx
MPM-B1153T	6000	4000	7000	15.95	6.5 (57.5)	45.9	14.8 (131)	1.45	2198-D032-ERSx
						55.5	19.8 (175)		2198-D057-ERSx
MPM-B1302F	3000	4000	4500	8.57	6.6 (58.4)	22.1	13.5 (119)	1.65	2198-D020-ERSx
MPM-B1302M	4500	4000	6000	12.57	6.6 (58.4)	32.4	13.5 (119)	1.65	2198-D032-ERSx
MPM-B1302T	6000	4000	7000	16.83	6.7 (59.3)	43.4	13.5 (119)	1.65	2198-D032-ERSx
MPM-B1304C	1500	1870	2750	7.00	10.3 (91.1)	17.6	22.8 (202)	2.00	2198-D012-ERSx
						22.3	27.1 (240)		2198-D020-ERSx
MPM-B1304E	2250	3500	4000	10.75	10.2 (90.3)	28.2	23.4 (207)	2.20	2198-D020-ERSx
						34.2	27.1 (240)		2198-D032-ERSx
MPM-B1304M	4500	3500	6000	19.02	10.4 (92.0)	60.6	27.1 (240)	2.20	2198-D057-ERSx
MPM-B1651C	1500	3000	3500	10.21	11.4 (101)	28.2	22.7 (201)	2.50	2198-D020-ERSx
						29.2	23.2 (205)		2198-D032-ERSx
MPM-B1651F	3000	3000	5000	17.75	11.4 (101)	45.9	21.9 (194)	2.50	2198-D032-ERSx
						50.9	23.2 (205)		2198-D057-ERSx
MPM-B1651M	4500	3000	5000	22.46	11.4 (101)	56.8	23.2 (205)	2.50	2198-D057-ERSx
MPM-B1652C	1500	2500	2500	11.51	16.0 (142)	33.6	40.0 (354)	3.80	2198-D032-ERSx
MPM-B1652E	2250	3500	3500	20.94	21.1 (187)	60.5	48.0 (425)	4.30	2198-D057-ERSx
MPM-B1652F	3000	3500	4500	28.74	21.1 (187)	84.1	48.0 (425)	4.30	2198-D057-ERSx
MPM-B1653C	1500	2000	2500	20.05	26.7 (236)	59.2	67.8 (600)	4.60	2198-D057-ERSx
MPM-B1653E	2250	3000	3500	27.00	26.8 (237)	72.9	62.0 (549)	5.10	2198-D057-ERSx
MPM-B1653F	3000	3000	4000	34.94	31.0 (274)	94.3	56.1 (496)	5.10	2198-S086-ERSx
MPM-B2152C	1500	2000	2500	27.40	36.7 (325)	55.4	72.3 (640)	5.60	2198-D057-ERSx
MPM-B2152F	3000	2500	4500	43.54	34.1 (302)	98.0	72.2 (639)	5.90	2198-S086-ERSx
MPM-B2152M	4500	2500	5000	44.58	34.1 (302)	76.3	50.0 (442)	5.90	2198-S086-ERSx
MPM-B2153B	1250	1750	2000	24.06	48.0 (425)	60.0	101 (895)	6.80	2198-D057-ERSx
MPM-B2153E	2250	2000	3000	39.63	47.9 (424)	98.6	101 (895)	7.20	2198-S086-ERSx
MPM-B2153F	3000	2000	3800	43.86	45.6 (403)	98.4	98.9 (875)	7.20	2198-S086-ERSx
MPM-B2154B	1250	1750	2000	35.46	62.7 (555)	98.0	154 (1363)	6.90	2198-S086-ERSx
MPM-B2154E	2250	2000	3000	43.68	55.9 (495)	98.3	112 (991)	7.50	2198-S086-ERSx
MPM-B2154F	3000	2000	3300	44.40	56.2 (497)	83.6	87.9 (778)	7.50	2198-S086-ERSx

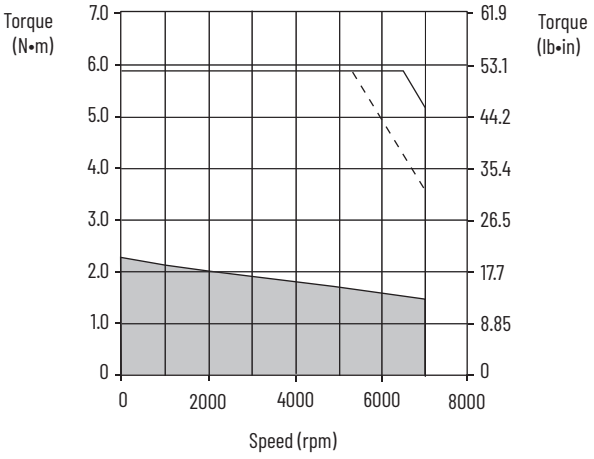
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves

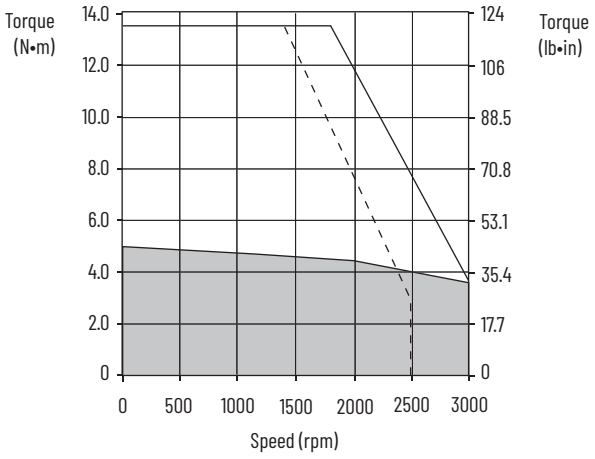
2198-D012-ERSx and MPM-B1151F



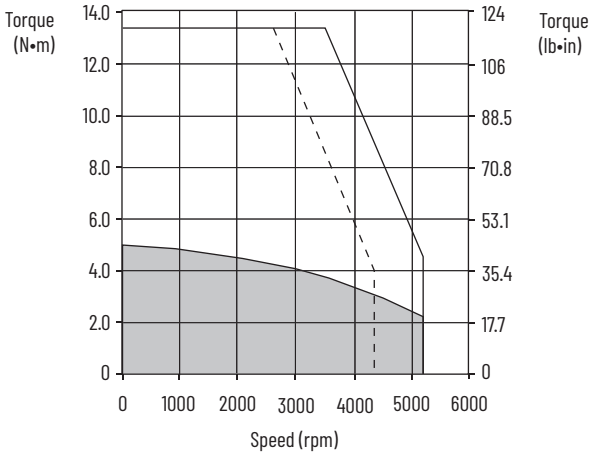
2198-D020-ERSx and MPM-B1151T



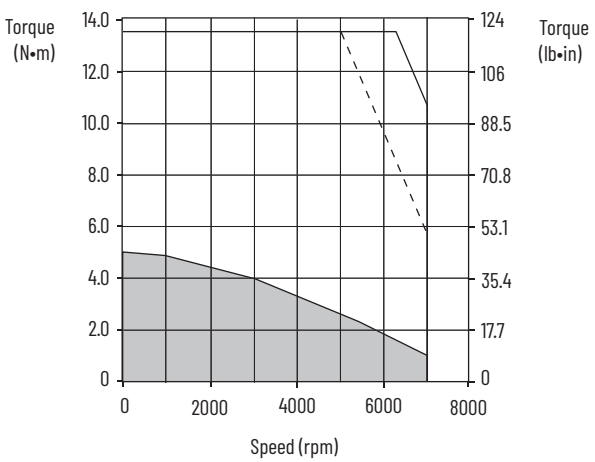
2198-D012-ERSx and MPM-B1152C



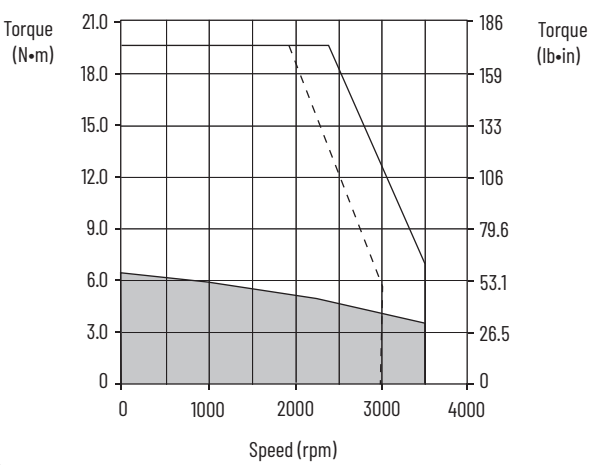
2198-D020-ERSx and MPM-B1152F



2198-D032-ERSx and MPM-B1152T



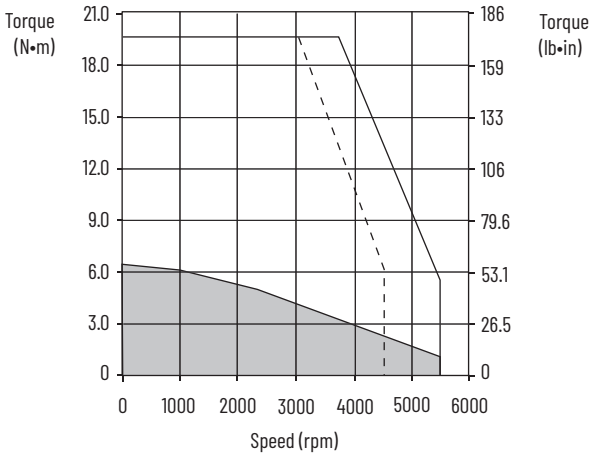
2198-D020-ERSx and MPM-B1153E



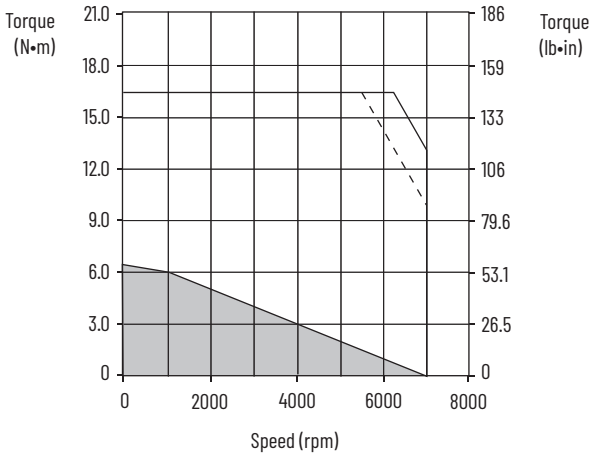
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves (continued)

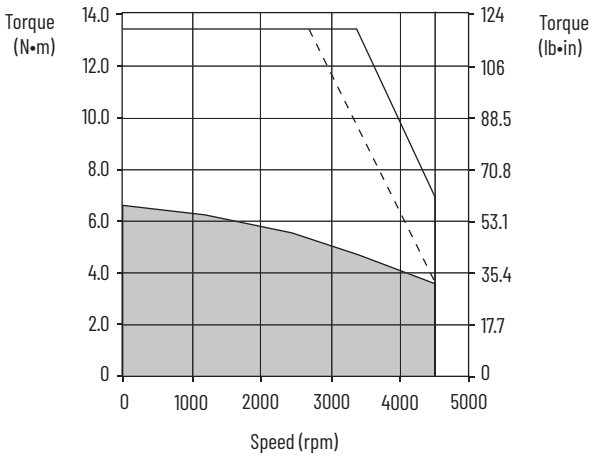
2198-D032-ERSx and MPM-B1153F



2198-D057-ERSx and MPM-B1153T



2198-D020-ERSx and MPM-B1302F



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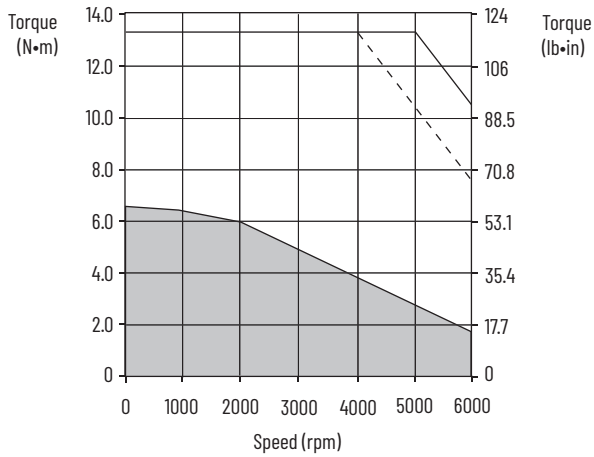

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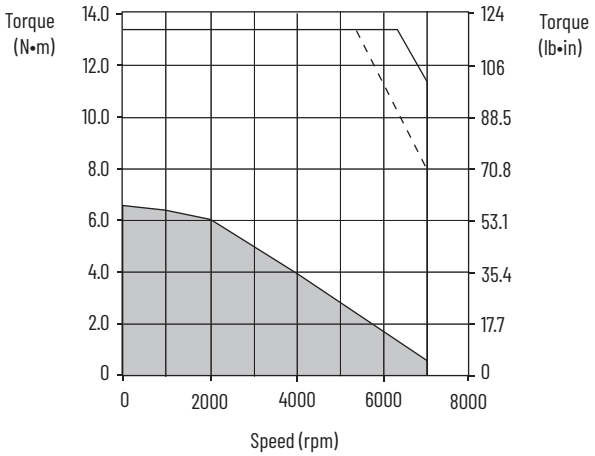
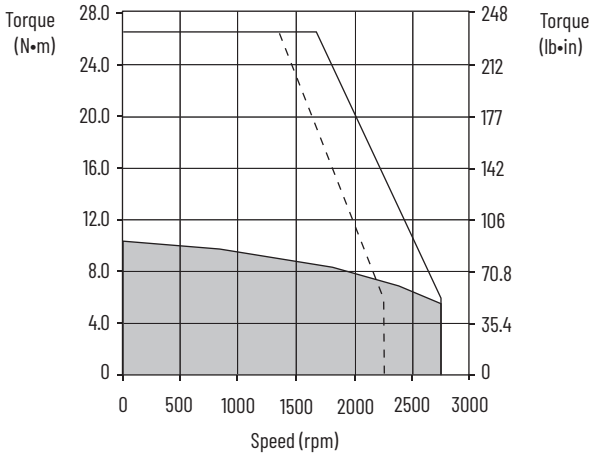


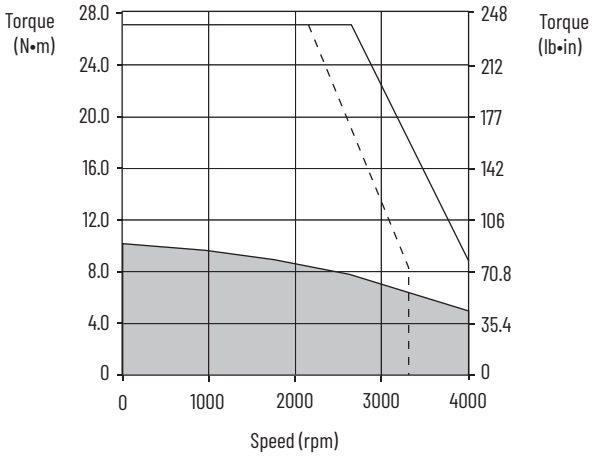
2198-D020-ERSx and MPM-B1304C



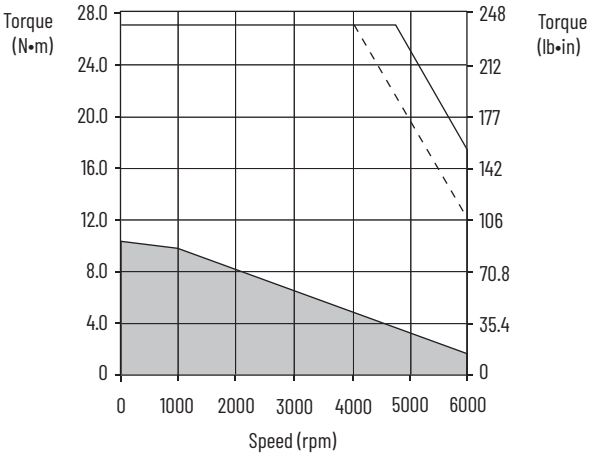
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves (continued)

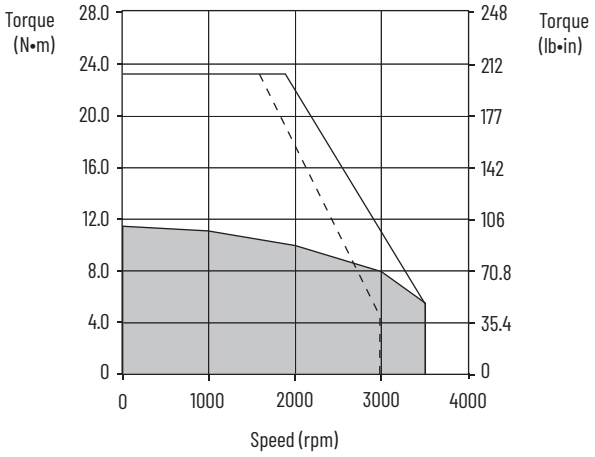
2198-D032-ERSx and MPM-B1304E



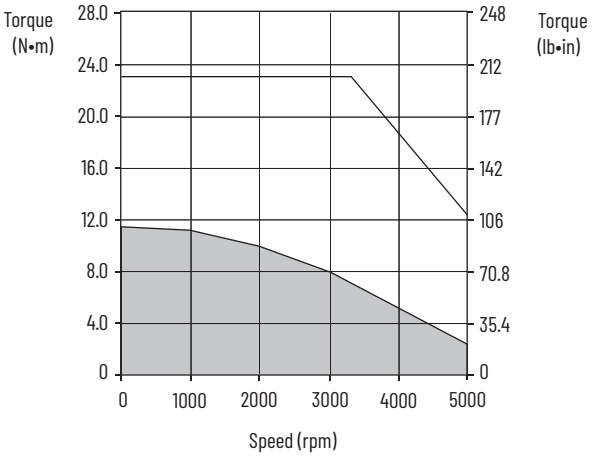
2198-D057-ERSx and MPM-B1304M



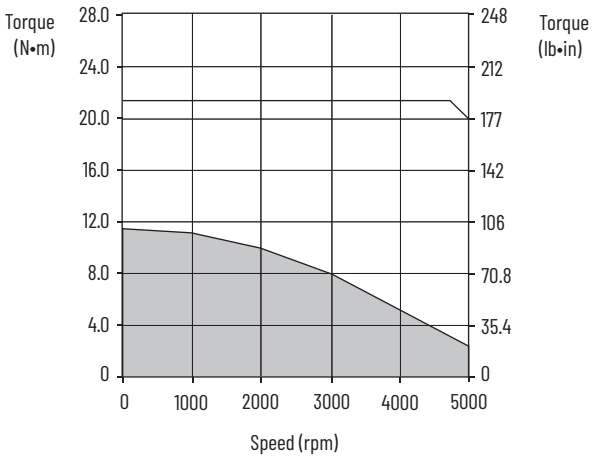
2198-D032-ERSx and MPM-B1651C



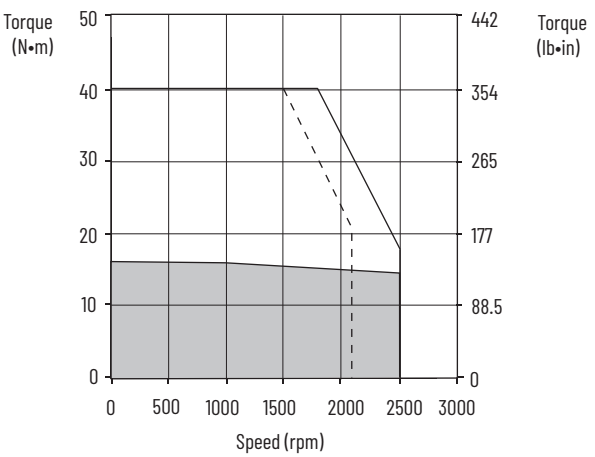
2198-D057-ERSx and MPM-B1651F



2198-D057-ERSx and MPM-B1651M



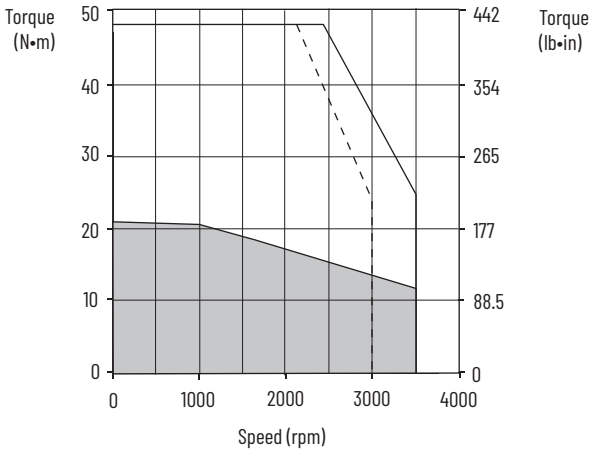
2198-D032-ERSx and MPM-B1652C



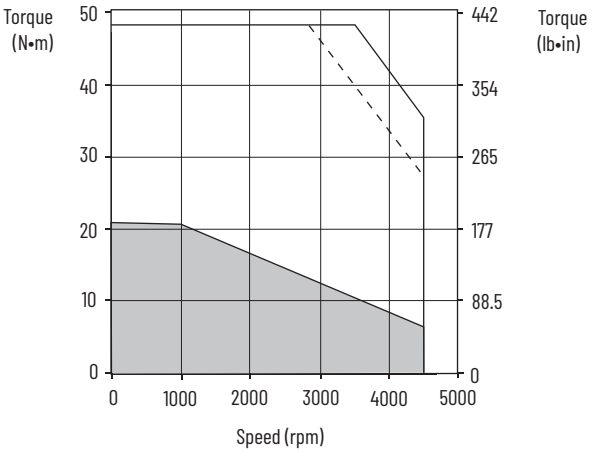
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves (continued)

2198-D057-ERSx and MPM-B1652E



2198-D057-ERSx and MPM-B1652F



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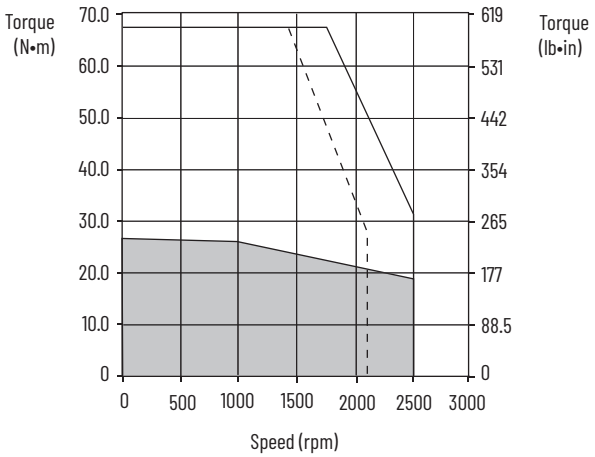
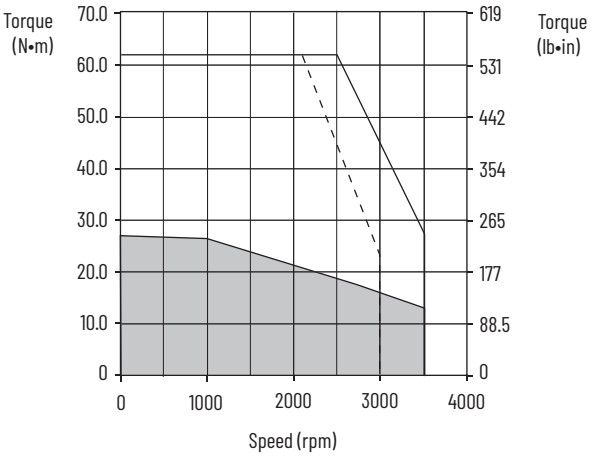
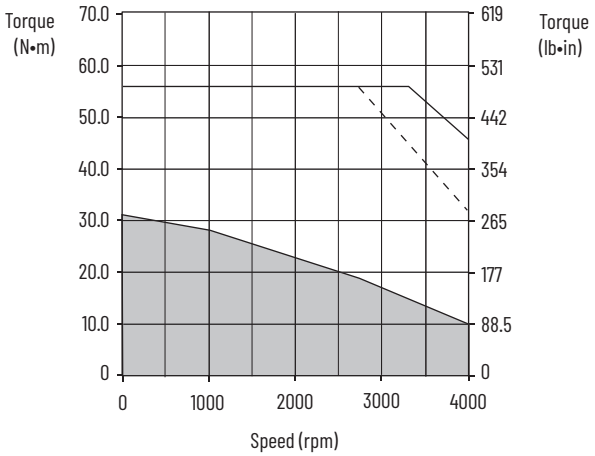


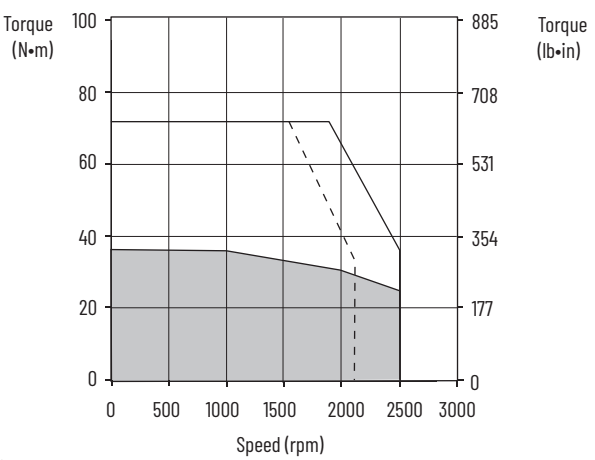
2198-D057-ERSx and MPM-B1653E



2198-S086-ERSx and MPM-B1653F



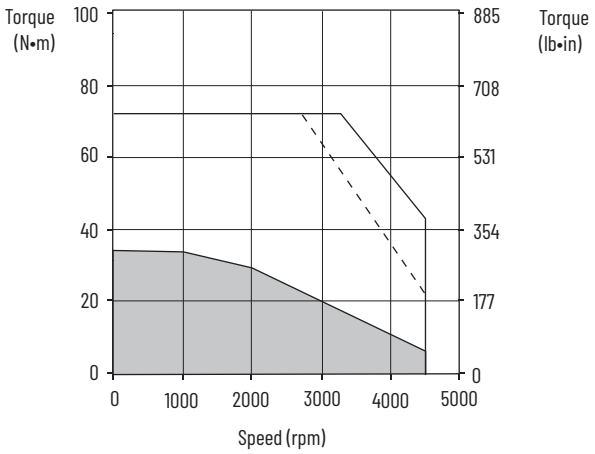
2198-D057-ERSx and MPM-B2152C



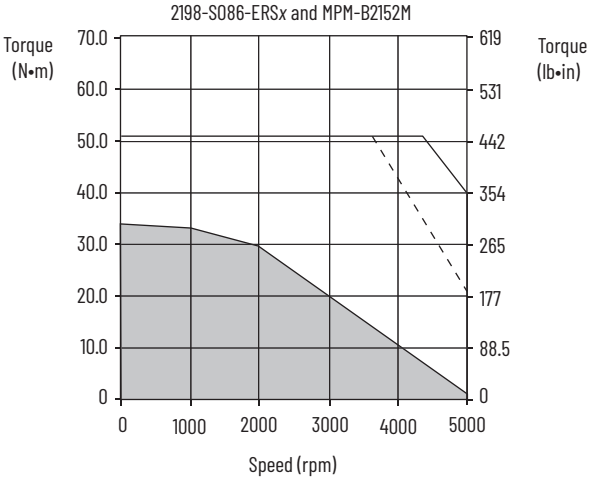
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves (continued)

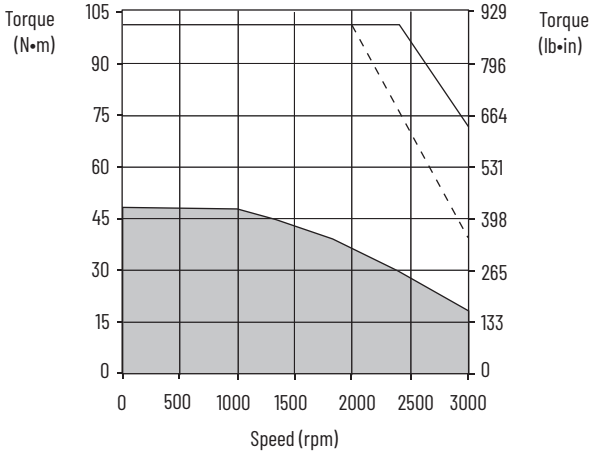
2198-S086-ERSx and MPM-B2152F



2198-S086-ERSx and MPM-B2152M



2198-S086-ERSx and MPM-B2153E



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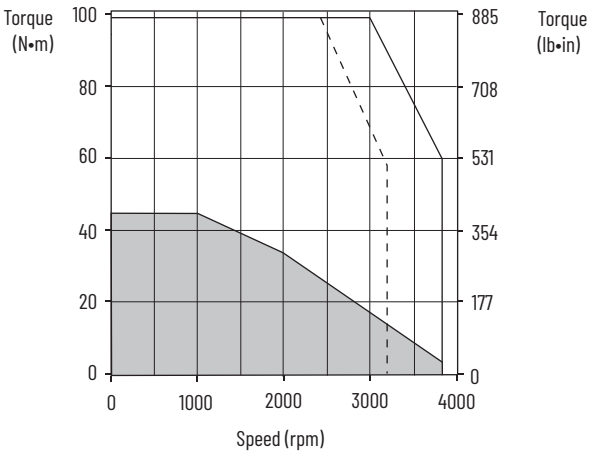

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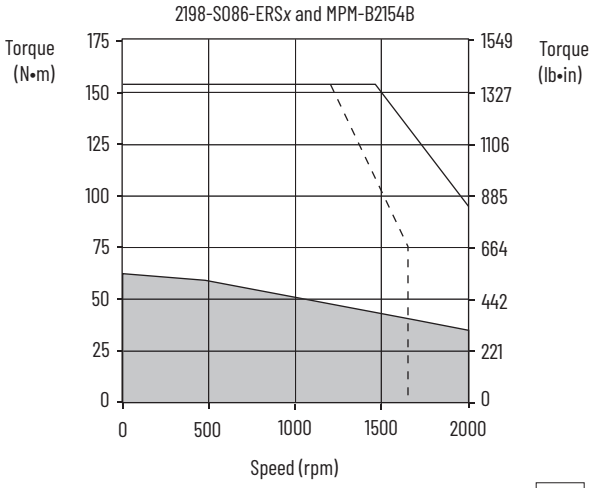
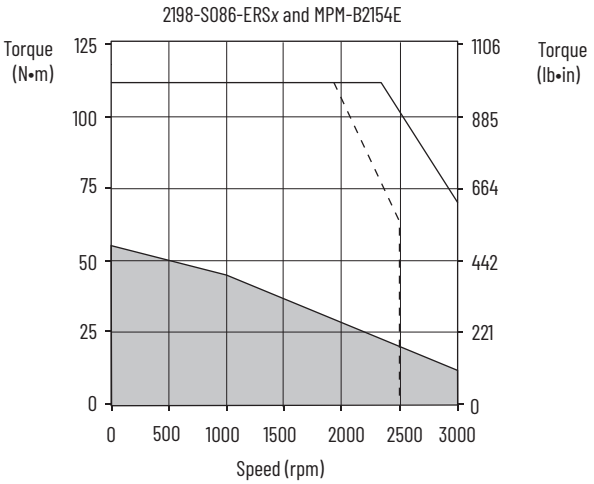
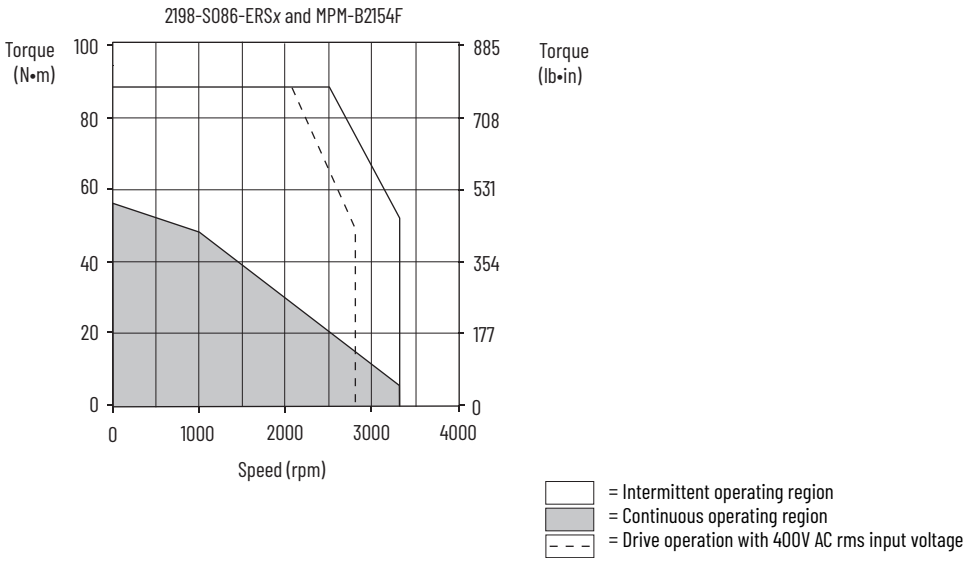


2198-S086-ERSx and MPM-B2154E



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

Kinetix 5700 (400V operation) Drives/Kinetix MPM Servo Motor Curves (continued)



Kinetix 5700 (200V operation) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5700 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.

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-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPF-A540K	2090-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-08AF*xx* (continuous-flex)	

(1) Use the 2198-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 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002

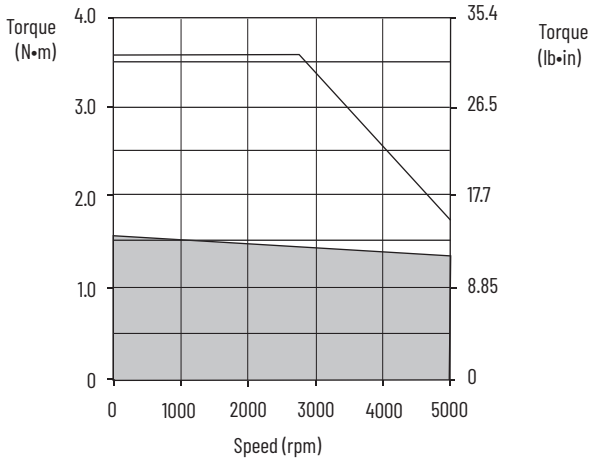
Kinetix MPF Motor Performance Specifications with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (240V AC input)
MPF-A310P	4750	5000	4.85	1.58 (14.0)	14.0	3.61 (31.9)	0.73	2198-D012-ERSx
MPF-A320H	3350	3500	6.10	3.05 (27.0)	17.7	7.33 (64.9)	1.0	2198-D012-ERSx
					19.3	7.91 (70.0)		2198-D020-ERSx
MPF-A320P	4750	5000	9.00	3.05 (27.0)	28.3	7.59 (67.2)	1.3	2198-D020-ERSx
					29.5	7.91 (70.0)		2198-D032-ERSx
MPF-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.10 (98.2)	1.6	2198-D032-ERSx
MPF-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.80 (175)	1.8	2198-D032-ERSx
MPF-A430P	5000	5000	16.80	5.99 (53.0)	45.9	14.4 (127)	1.9	2198-D032-ERSx
					67.0	19.80 (175)		2198-D057-ERSx
MPF-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.30 (179)	2.3	2198-D057-ERSx
MPF-A4540F	3000	3000	18.40	10.20 (90.3)	45.9	22.09 (195)	2.5	2198-D032-ERSx
					57.4	27.10 (239)		2198-D057-ERSx
MPF-A540K	4000	4000	41.50	19.40 (172)	120.0	48.60 (430)	4.1	2198-S086-ERSx

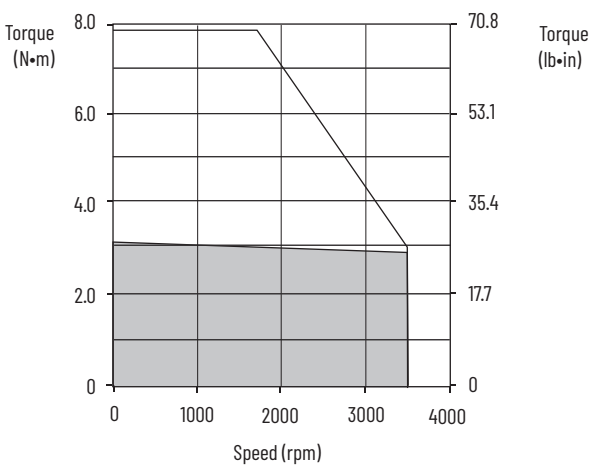
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix MPF Servo Motor Curves

2198-D012-ERSx and MPF-A310P



2198-D020-ERSx and MPF-A320H



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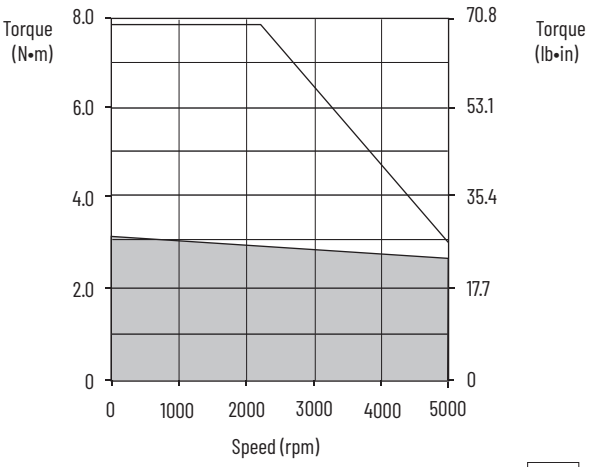

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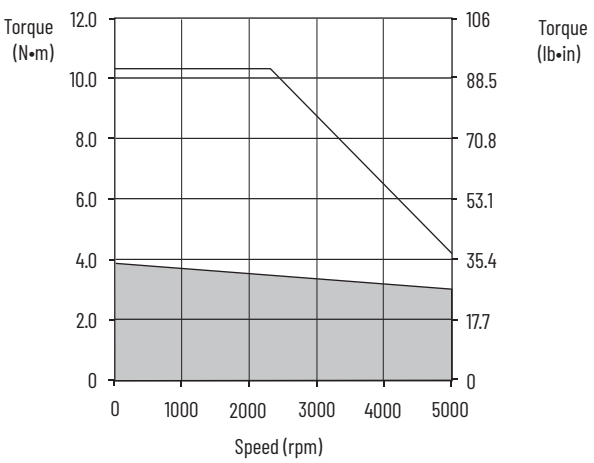
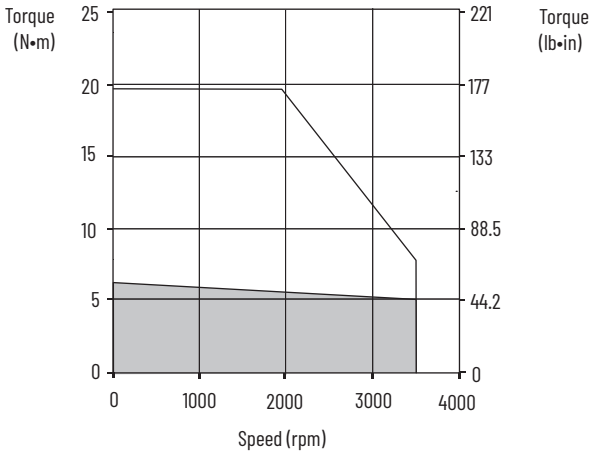


= Intermittent operating region

= Continuous operating region

Kinetix 5700 (200V operation) Drives/Kinetix MPF Servo Motor Curves (continued)

2198-D032-ERSx and MPF-A430H



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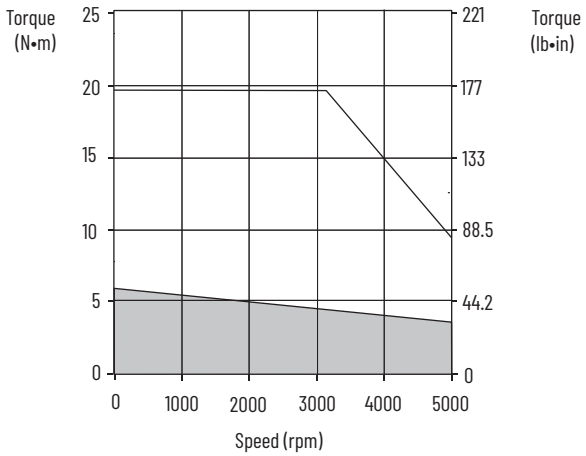
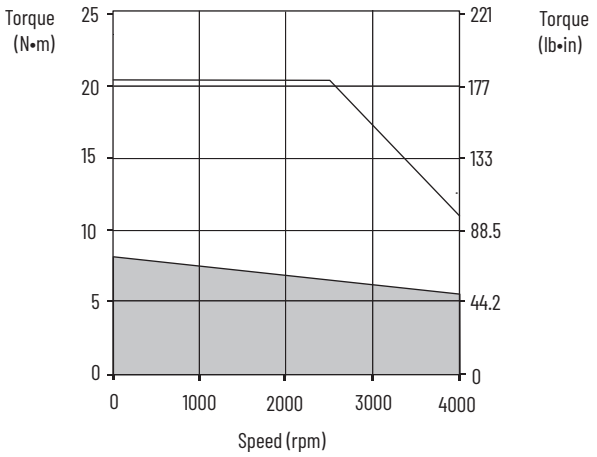
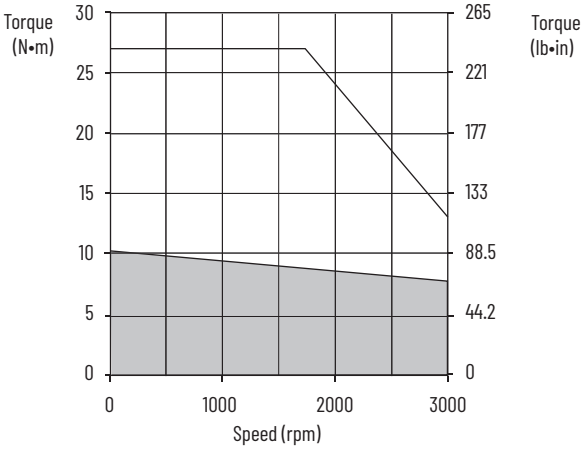


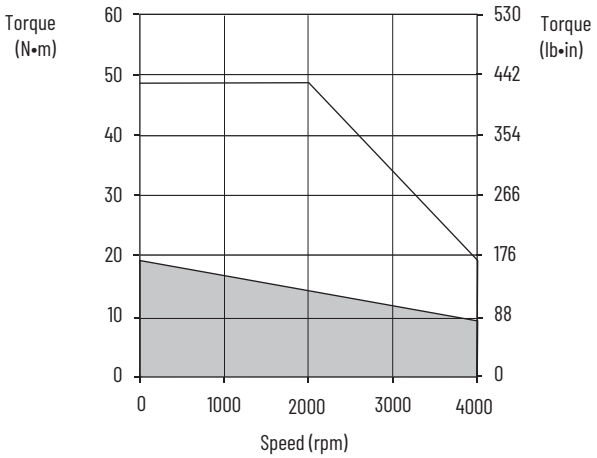
2198-D057-ERSx and MPF-A4530K



2198-D057-ERSx and MPF-A4540F



2198-S086-ERSx and MPF-A540K



= Intermittent operating region

= Continuous operating region

Kinetix 5700 (400V operation) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix MPF (400V-class) food-grade servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix MPF Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPF-B310P, MPF-B320P, MPF-B330P	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-10AF*xx* (continuous-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

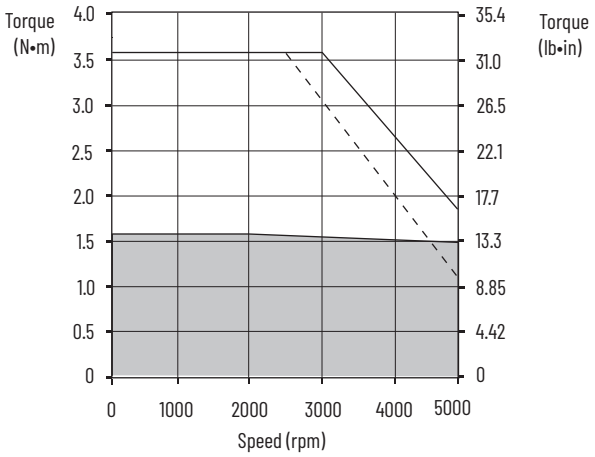
Kinetix MPF Motor Performance Specifications with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
MPF-B310P	5000	5000	2.40	1.60 (14)	7.10	3.6 (32)	0.77	2198-D006-ERS*x*
MPF-B320P	5000	5000	4.50	3.10 (27)	14.0	7.8 (69)	1.5	2198-D012-ERS*x*
MPF-B330P	5000	5000	6.10	4.18 (37)	17.6	10.4 (92)	1.6	2198-D012-ERS*x*
					19.0	11.1 (98)		2198-D020-ERS*x*
MPF-B430P	5000	5000	9.20	6.55 (58)	28.2	17.6 (156)	2.0	2198-D020-ERS*x*
					32.0	19.8 (175)		2198-D032-ERS*x*
MPF-B4530K	4000	4000	11.0	8.25 (73)	28.2	18.7 (165)	2.4	2198-D020-ERS*x*
					31.0	20.3 (179)		2198-D032-ERS*x*
MPF-B4540F	3000	3000	9.10	10.20 (90)	28.2	26.2 (232)	2.5	2198-D020-ERS*x*
					29.0	27.1 (240)		2198-D032-ERS*x*
MPF-B540K	4000	4000	20.5	19.4 (171)	60.0	48.6 (430)	4.1	2198-D057-ERS*x*

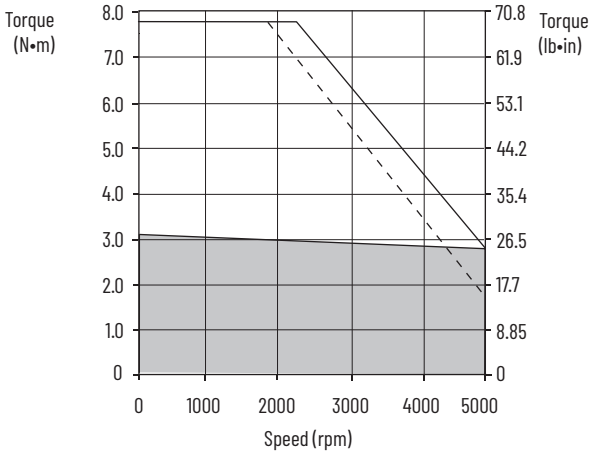
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix MPF Servo Motor Curves

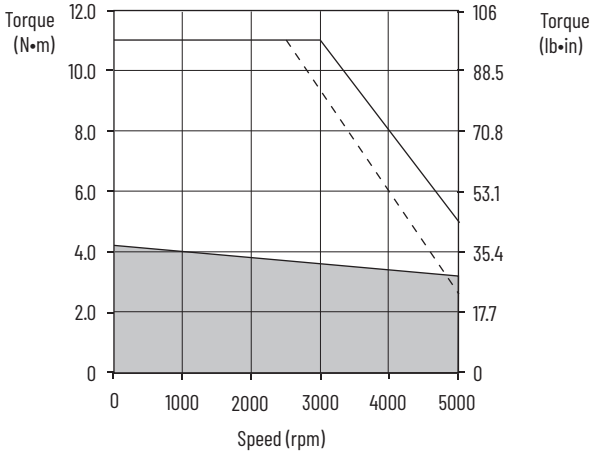
2198-D006-ERS*x* and MPF-B310P



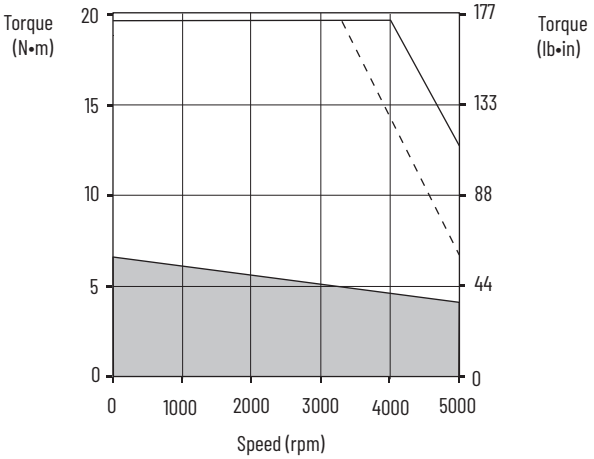
2198-D012-ERS*x* and MPF-B320P



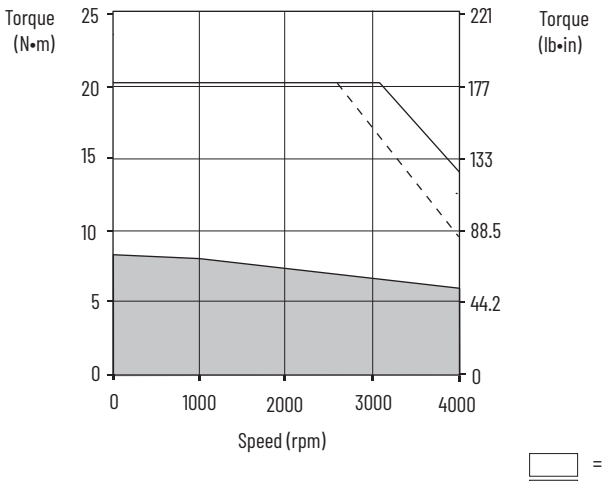
2198-D020-ERS*x* and MPF-B330P



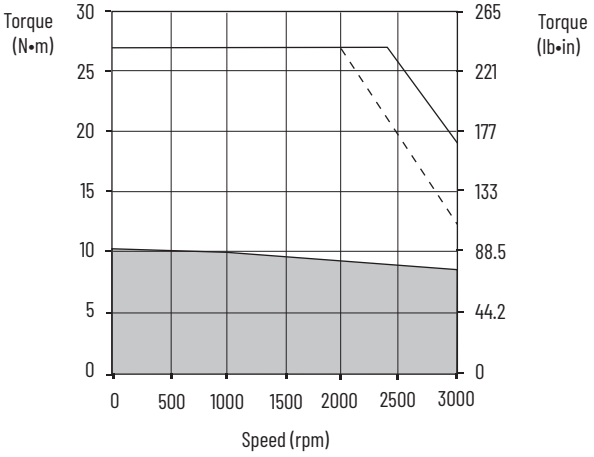
2198-D032-ERS*x* and MPF-B430P



2198-D032-ERS*x* and MPF-B4530K

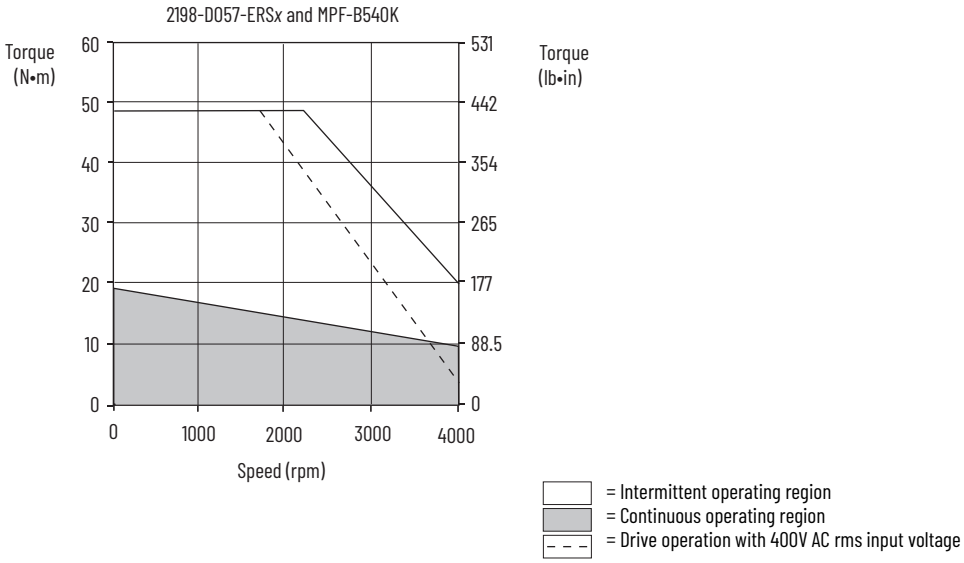


2198-D032-ERS*x* and MPF-B4540F



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

Kinetix 5700 (400V operation) Drives/Kinetix MPF Servo Motor Curves (continued)



Kinetix 5700 (200V operation) Drives with Kinetix MPS Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) when matched with Kinetix MPS (200V-class) stainless-steel servo motors. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix MPS Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPS-A330P	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPS-A454OF		

(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 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

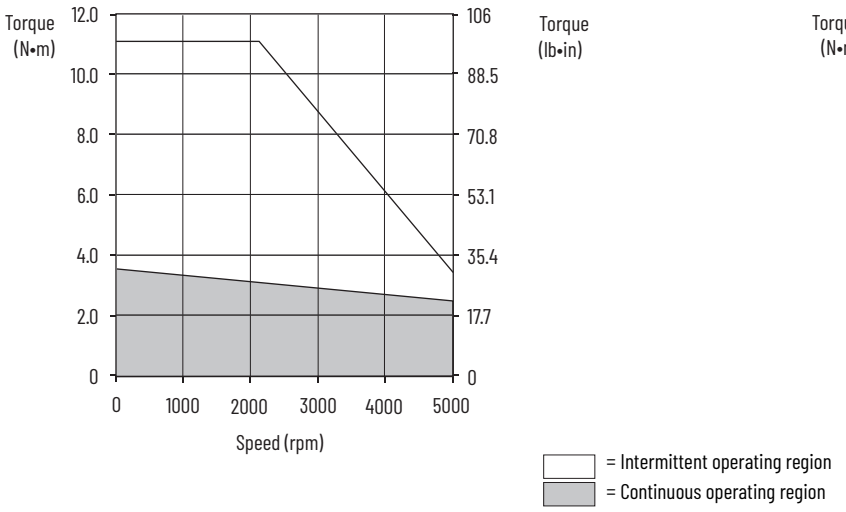
Kinetix MPS Motor Performance Specifications with Kinetix 5700 (200V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (240V AC input)
MPS-A330P	5000	5000	9.80	3.60 (32.0)	28.3	8.79 (77.8)	1.3	2198-D020-ERS*x*
					38.0	11.10 (98.2)		2198-D032-ERS*x*
MPS-A454OF	3000	3000	14.4	8.1 (72)	45.9	22.84 (202)	1.4	2198-D032-ERS*x*
					56.0	27.1 (240)		2198-D057-ERS*x*

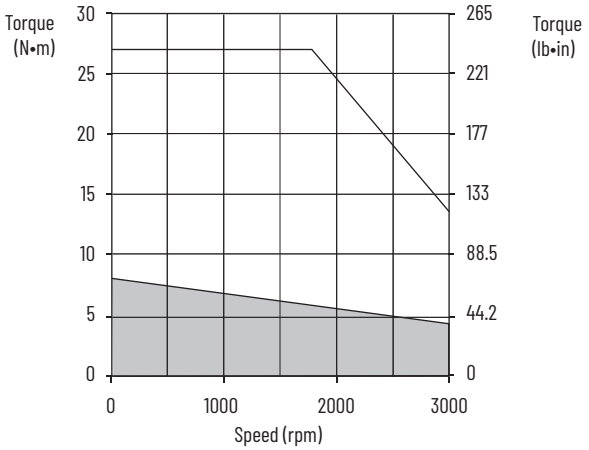
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (200V operation) Drives/Kinetix MPS Servo Motor Curves

2198-D032-ERSx and MPS-A330P



2198-D020-ERSx and MPS-A4540F



Kinetix 5700 (400V operation) Drives with Kinetix MPS Servo Motors

This section provides system combination information for the Kinetix 5700 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.

Kinetix MPS Motor Cable Combinations

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

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

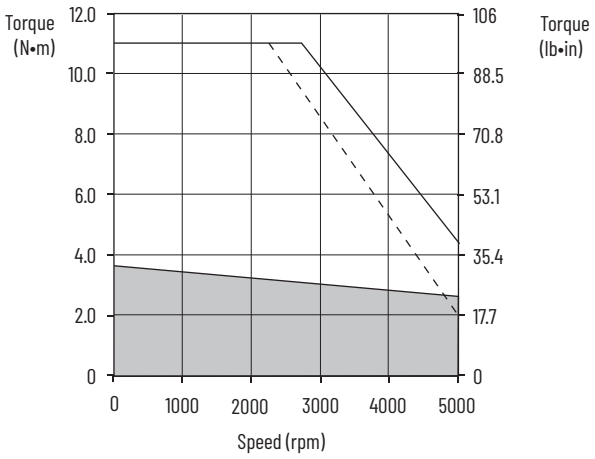
Kinetix MPS Motor Performance Specifications with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
MPS-B330P	5000	5000	4.9	3.60 (32)	17.6	10.5 (92.9)	1.3	2198-D012-ERS*x*
					19.0	11.0 (97.2)		2198-D020-ERS*x*
MPS-B4540F	3000	3000	7.1	8.1 (72)	17.6	19.2 (170)	1.4	2198-D012-ERS*x*
					26.0	27.1 (240)		2198-D020-ERS*x*
MPS-B560F	3000	3000	17.0	21.5 (190)	45.9	49.7 (440)	3.5	2198-D032-ERS*x*
					68.0	67.8 (600)		2198-D057-ERS*x*

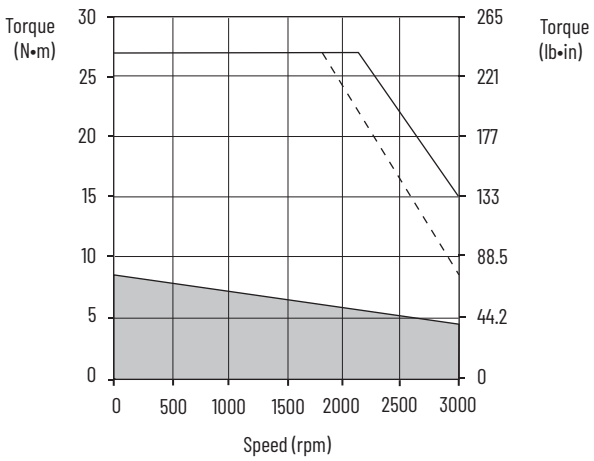
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix MPS Servo Motor Curves

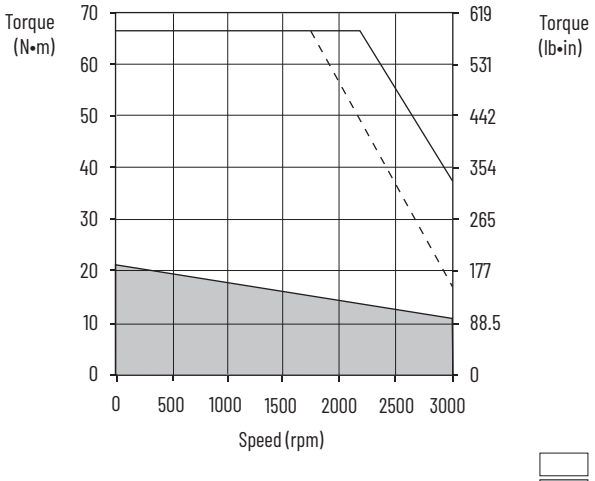
2198-D020-ERSx and MPS-B330P



2198-D020-ERSx and MPS-B4540F



2198-D057-ERSx and MPS-B560F



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

Kinetix 5700 (400V operation) Drives with Kinetix HPK Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 480V, nominal input) when matched with Kinetix HPK asynchronous servo motors. These motors are available with 460V and 400V windings. Included are motor feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix HPK Motor Cable Combinations (460V motors)

Rotary Motor Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
HPK-B1307C, HPK-B1308C, HPK-B1310C, HPK-B1613C	Customer Supplied	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
HPK-B1307E, HPK-B1308E, HPK-B1609E		
HPK-B1611E, HPK-B1815C, HPK-B1613E, HPK-B2010C		
HPK-B2010E, HPK-B2212C		

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

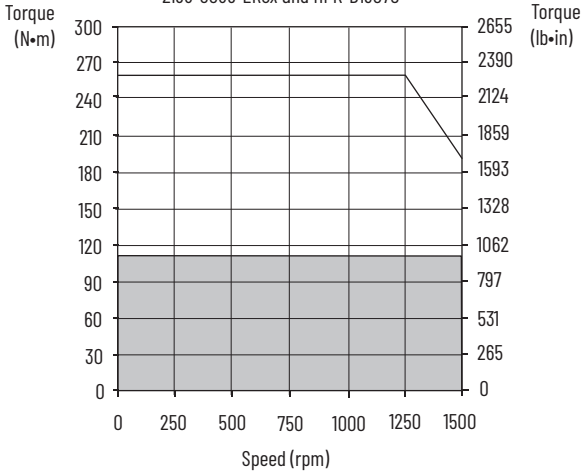
Kinetix HPK (460V) Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Base Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 (480V AC input)
HPK-B1307C	1500	3000	48.2	112 (991)	113.0	260 (2301)	17.1 (22.9)	2198-S086-ERS*x*
HPK-B1308C			59.6	141 (1248)	119.3	262 (2319)	21.6 (28.9)	2198-S086-ERS*x*
HPK-B1310C			64.9	155 (1372)	144.0	325 (2876)	23.8 (31.9)	2198-S130-ERS*x*
HPK-B1613C			109.8	271 (2398)	217.0	542 (4797)	41.7 (55.9)	2198-S160-ERS*x*
HPK-B1307E	3000	5000	81.0	96.0 (849)	146.6	165 (1460)	29.8 (39.9)	2198-S130-ERS*x*
HPK-B1308E			91.4	115 (1018)	190.3	230 (2036)	35.7 (47.8)	2198-S160-ERS*x*
HPK-B1609E			120.2	150 (1327)	217.0	270 (2390)	46.5 (62.3)	2198-S160-ERS*x*
HPK-B1611E	3000	5000	149.0	183 (1619)	338.4	400 (3540)	57.0 (76.4)	2198-S263-ERS*x*
HPK-B1815C	1500	3000	153.7	360 (3186)	402.0	850 (7523)	55.9 (74.9)	2198-S312-ERS*x*
HPK-B1613E	3000	5000	191.0	237 (2097)	440.0	520 (4602)	73.7 (98.8)	2198-S312-ERS*x*
HPK-B2010C	1500	3000	196.4	482 (4266)	440.0	970 (8585)	75.0 (100.5)	2198-S312-ERS*x*
HPK-B2010E	3000	5000	254.0	295 (2611)	440.0	500 (4425)	92.0 (123.4)	2198-S312-ERS*x*
HPK-B2212C	1500	3000	254.0	607 (5372)	440.0	1105 (9780)	94.0 (126.1)	2198-S312-ERS*x*

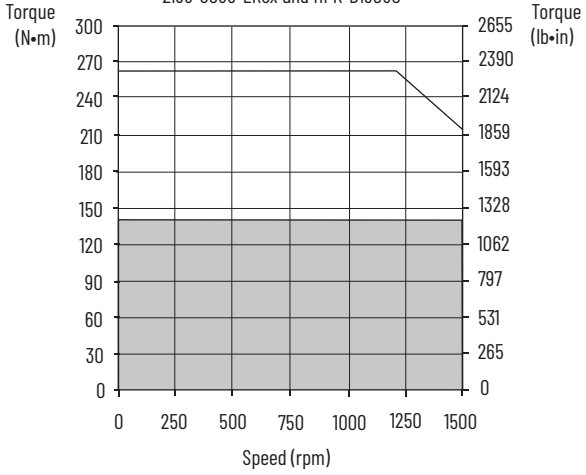
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix HPK (460V) Motor Curves

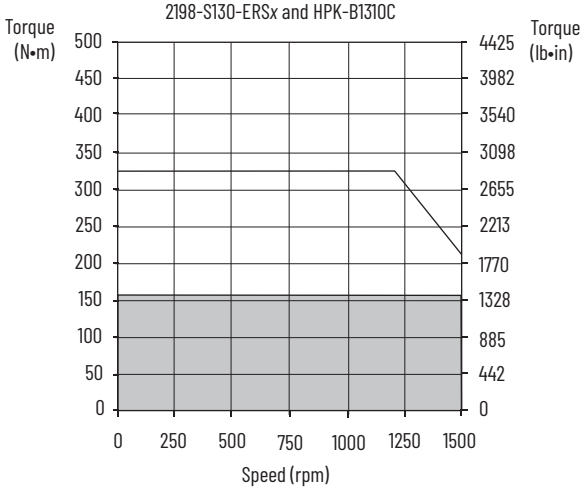
2198-S086-ERSx and HPK-B1307C



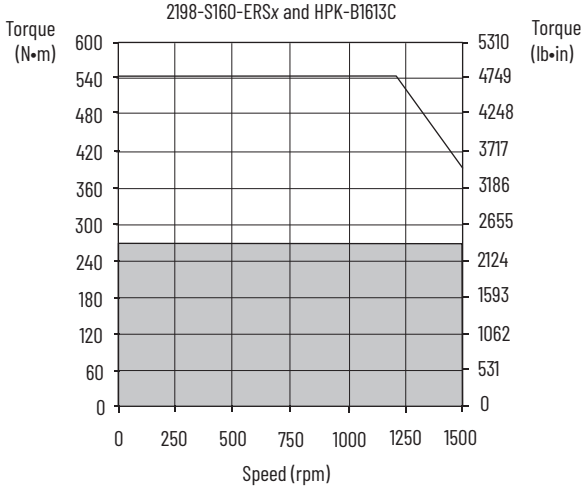
2198-S086-ERSx and HPK-B1308C



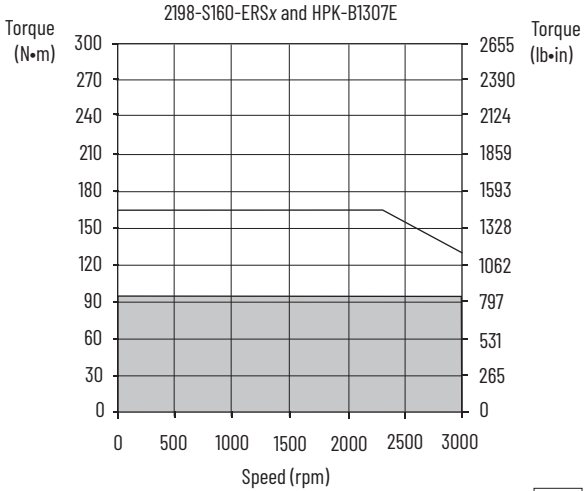
2198-S130-ERSx and HPK-B1310C



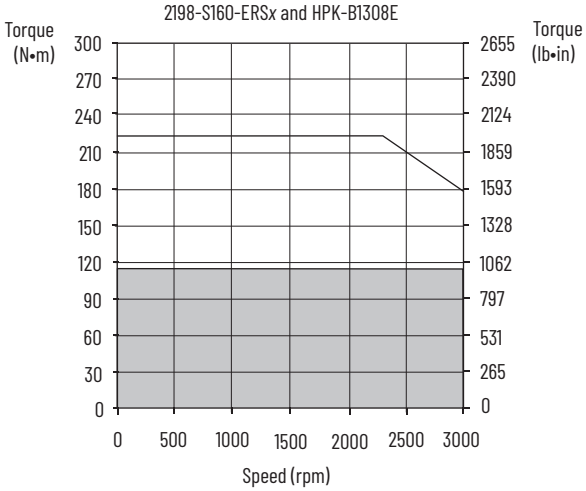
2198-S160-ERSx and HPK-B1613C



2198-S160-ERSx and HPK-B1307E



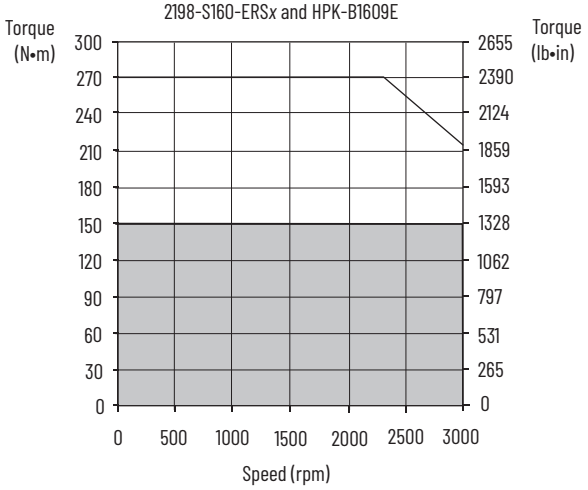
2198-S160-ERSx and HPK-B1308E



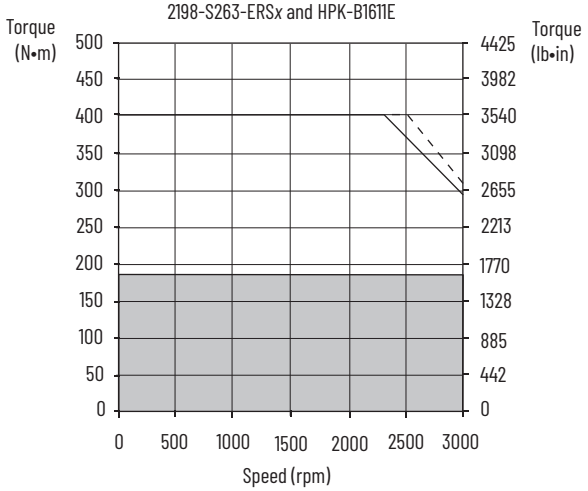
= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V operation) Drives/Kinetix HPK (460V) Motor Curves (continued)

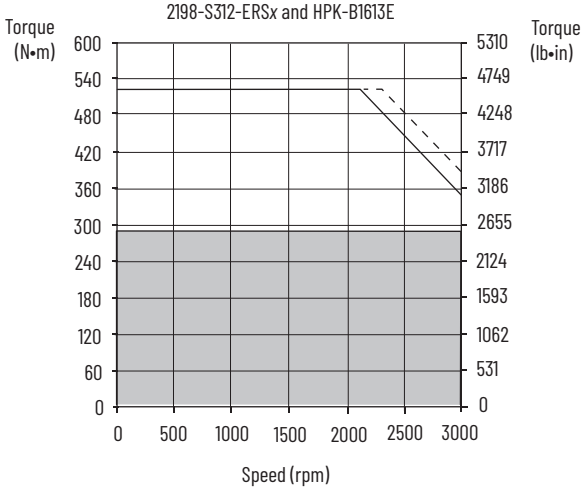
2198-S160-ERSx and HPK-B1609E



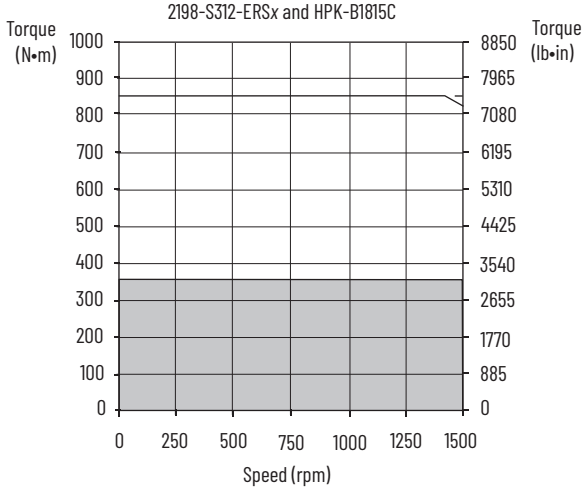
2198-S263-ERSx and HPK-B1611E



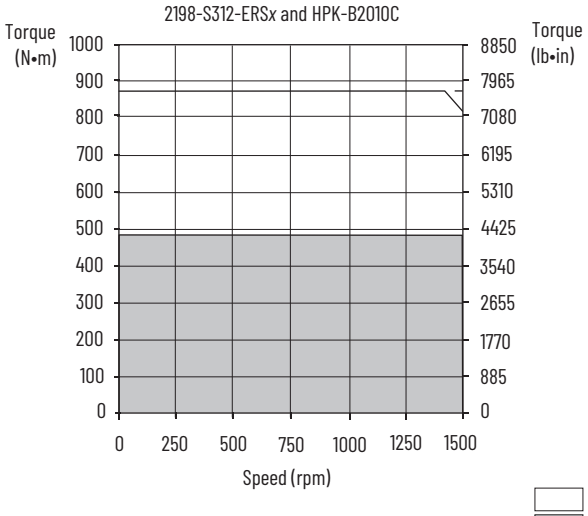
2198-S312-ERSx and HPK-B1613E



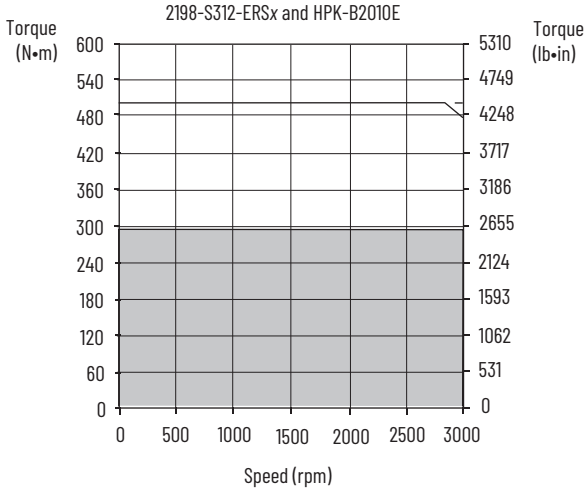
2198-S312-ERSx and HPK-B1815C



2198-S312-ERSx and HPK-B2010C

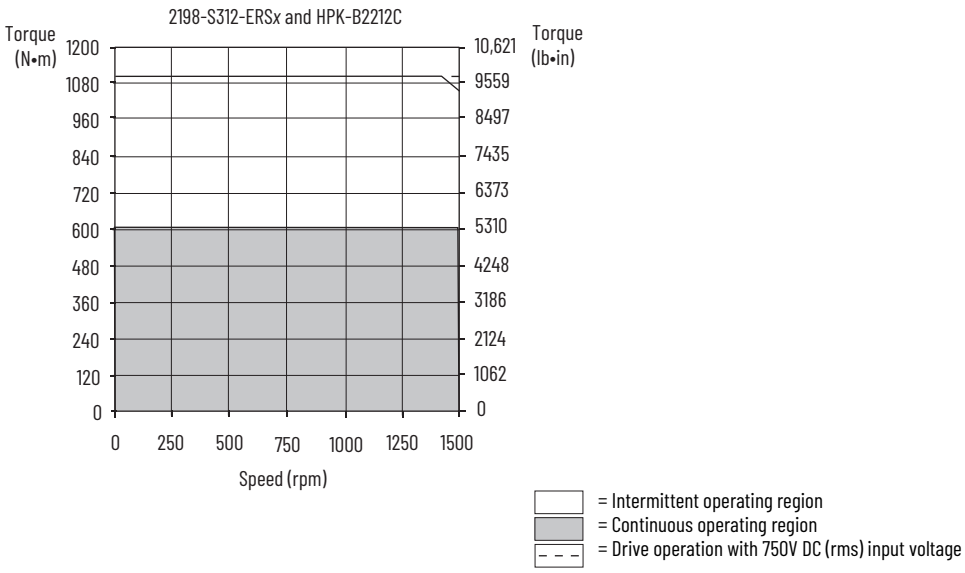


2198-S312-ERSx and HPK-B2010E



= Intermittent operating region
= Continuous operating region
= Drive operation with 750V DC (rms) input voltage

Kinetix 5700 (400V operation) Drives/Kinetix HPK (460V) Motor Curves (continued)



Kinetix HPK Motor Cable Combinations (400V motors)

Rotary Motor Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
HPK-E1307C, HPK-E1310C, HPK-E1307E, HPK-E1308E	Customer Supplied	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
HPK-E1613C, HPK-E1815C, HPK-E2010C		
HPK-E1609E, HPK-E1611E, HPK-E1613E		

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Motion Accessories Technical Data, publication KNX-TD004, for standard cable lengths.

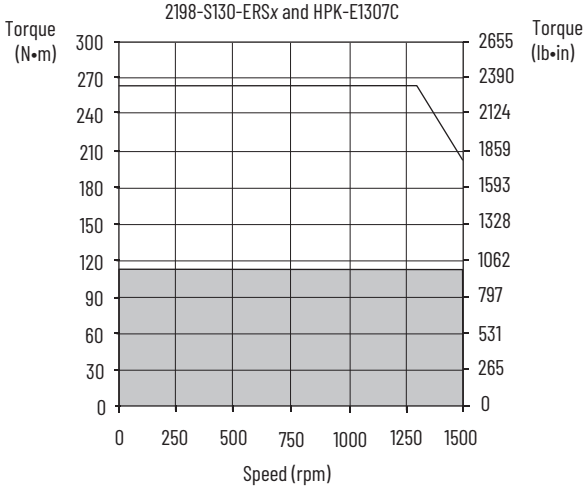
Kinetix HPK (400V) Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Base Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 (480V AC input)
HPK-E1307C	1500	3000	58.5	112 (991)	146.6	263 (2327)	17.1 (22.9)	2198-S130-ERS*x*
HPK-E1310C			80.0	155 (1372)	200.0	380 (3363)	23.8 (32.4)	2198-S160-ERS*x*
HPK-E1307E	3000	5000	102.0	96.0 (849)	217.0	202 (1788)	29.8 (39.9)	2198-S160-ERS*x*
HPK-E1308E			112.8	107 (947)	217.7	200 (1770)	33.2 (45.0)	2198-S160-ERS*x*
HPK-E1613C	1500	3000	133.0	271 (2399)	310.0	625 (5532)	41.7 (55.9)	2198-S263-ERS*x*
HPK-E1815C			187.0	360 (3186)	440.0	840 (7435)	55.9 (75.0)	2198-S312-ERS*x*
HPK-E2010C			243.0	482 (4266)	440.0	870 (7700)	75.0 (100.6)	2198-S312-ERS*x*
HPK-E1609E	3000	5000	153.7	156 (1381)	356.7	359 (3177)	48.4 (64.9)	2198-S263-ERS*x*
HPK-E1611E			185.0	183 (1620)	440.0	430 (3806)	45.0 (60.3)	2198-S312-ERS*x*
HPK-E1613E			242.5	237 (2098)	440.0	430 (3806)	73.7 (98.8)	2198-S312-ERS*x*

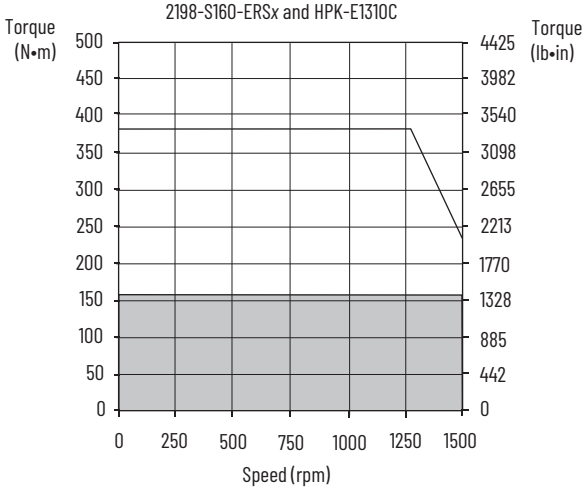
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix HPK (400V) Motor Curves

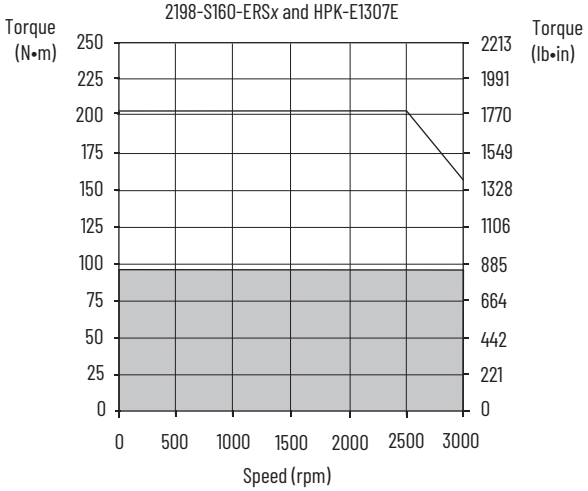
2198-S130-ERSx and HPK-E1307C



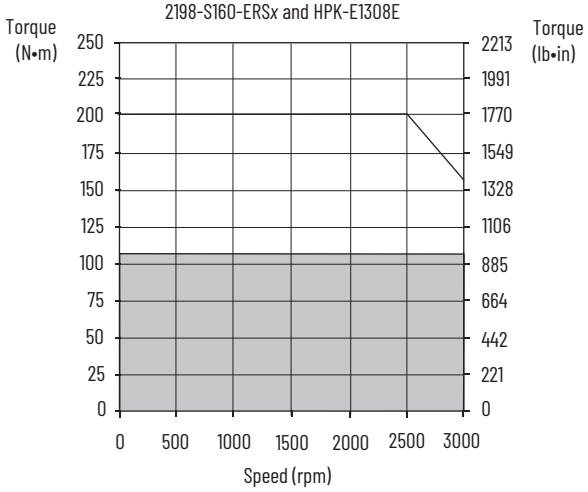
2198-S160-ERSx and HPK-E1310C



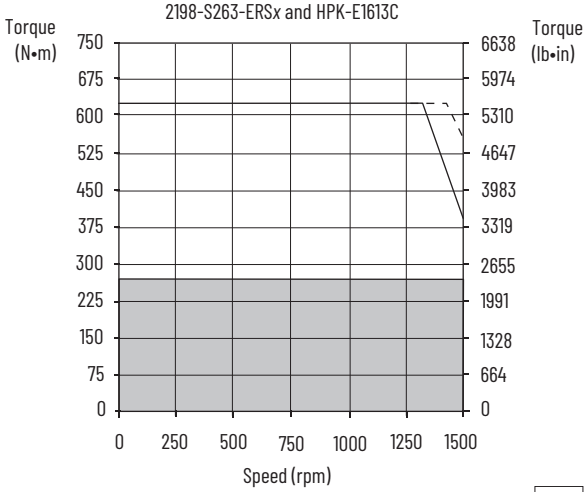
2198-S160-ERSx and HPK-E1307E



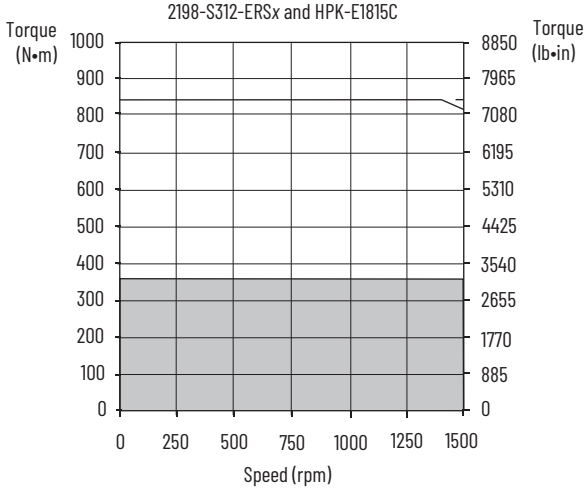
2198-S160-ERSx and HPK-E1308E



2198-S263-ERSx and HPK-E1613C

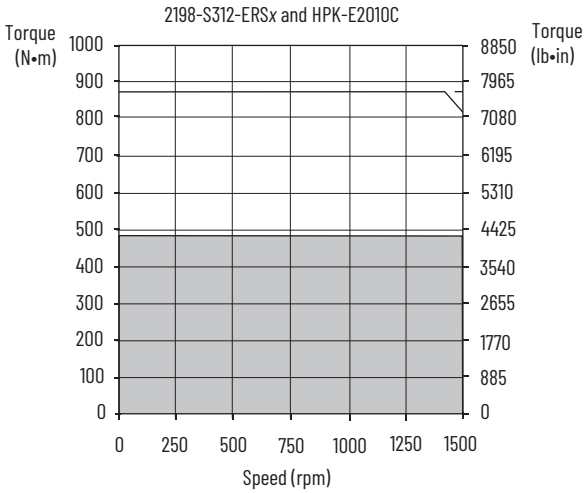


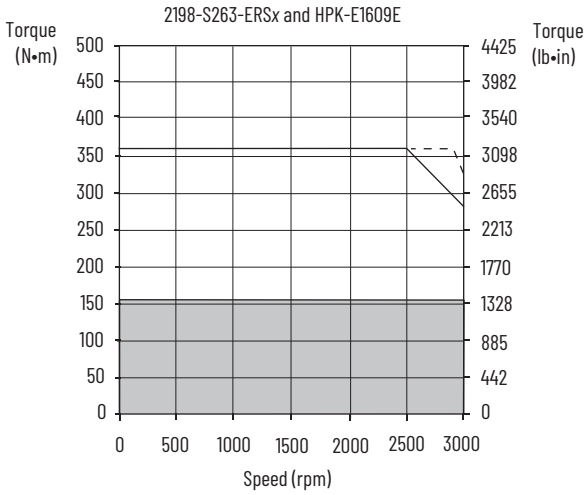
2198-S312-ERSx and HPK-E1815C

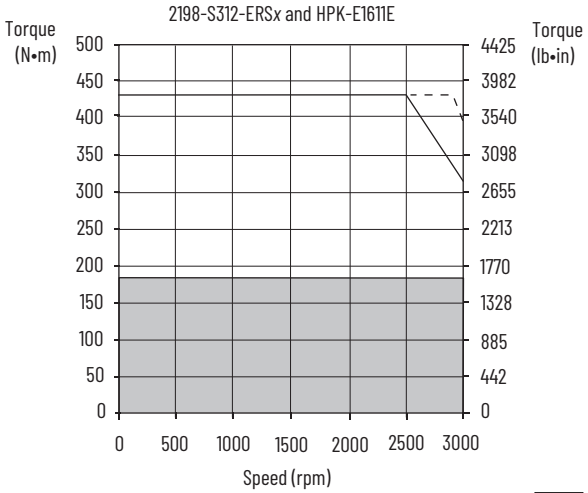


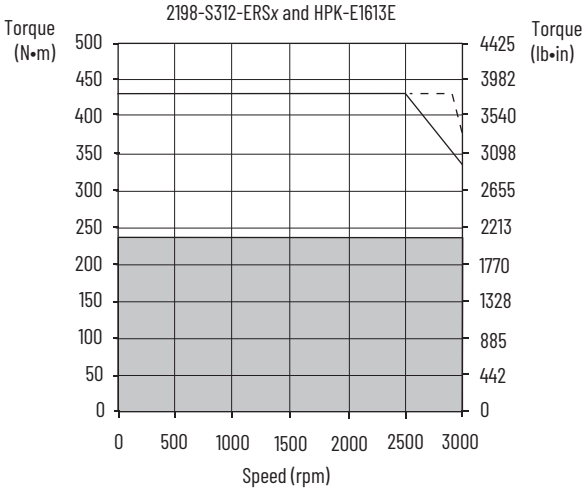
= Intermittent operating region
= Continuous operating region
= Drive operation with 750V DC (rms) input voltage

Kinetix 5700 (400V operation) Drives/Kinetix HPK (400V) Motor Curves (continued)









= Intermittent operating region
= Continuous operating region
= Drive operation with 750V DC (rms) input voltage

Kinetix 5700 (400V operation) Drives with Kinetix RDB Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix RDB direct-drive servo motors. Included are motor power and feedback cable catalog numbers, system performance specifications, and the optimum torque/speed curves.

Kinetix RDB Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
RDB-B21519, RDB-B21529	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Absolute High-resolution Feedback
RDB-B29014, RDB-B29016, RDB-B29024		
RDB-B2151C, RDB-B21539	2090-CPWM7DF-14AA*xx* (standard, non-flex) 2090-CPWM7DF-14AF*xx* (continuous-flex)	
RDB-B29019, RDB-B29034		
RDB-B2152C	2090-CPWM7DF-12AA*xx* (standard, non-flex)	
RDB-B29026		
RDB-B2153C	2090-CPWM7DF-10AA*xx* (standard, non-flex) 2090-CPWM7DF-10AF*xx* (continuous-flex)	
RDB-B29036, RDB-B41014		
RDB-B29029, RDB-B41016, RDB-B41024	2090-CPWM7DF-08AA*xx* (standard, non-flex) 2090-CPWM7DF-08AF*xx* (continuous-flex)	
RDB-B29039, RDB-B41018, RDB-B41026, RDB-B41035	2090-CPBM7DF-06AA*xx* (standard, non-flex)	

(1) Use the 2198-K57CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

Kinetix RDB Motor Performance with Kinetix 5700 (400V operation) Drives

Rotary Motor Cat. No.	Base Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
RDB-B21519	750	1235	9.9	32.7 (289)	27.3	86.5 (766)	3.64	2198-D020-ERS*x*
RDB-B2151C	1500	2125	17.3	32.7 (289)	46.4	86.5 (766)	5.23	2198-D032-ERS*x*
RDB-B21529	750	1035	12.2	45.4 (402)	32.8	116 (1027)	4.33	2198-D032-ERS*x*
RDB-B2152C	1500	2125	23.5	45.4 (402)	63.2	116 (1027)	6.41	2198-D057-ERS*x*
RDB-B21539	750	1250	15.8	53.7 (475)	45.9	137 (1213)	5.34	2198-D032-ERS*x*
					47.9	143(1266)		2198-D057-ERS*x*
RDB-B2153C	1500	2250	29.4	53.7 (475)	82.6	143(1266)	5.87	2198-D057-ERS*x*
RDB-B29014	200	450	5.9	49.2 (435)	17.6	110 (973)	1.97	2198-D012-ERS*x*
RDB-B29016	375	785	10.0	49.2 (435)	28.2	100 (885)	3.18	2198-D020-ERS*x*
					31.0	110 (973)		2198-D032-ERS*x*
RDB-B29019	750	1500	19.1	49.2 (435)	58.7	110 (973)	3.63	2198-D057-ERS*x*
RDB-B29024	200	435	10.7	98.0 (867)	28.2	183 (1620)	3.33	2198-D020-ERS*x*
					33.0	214 (1894)		2198-D032-ERS*x*
RDB-B29026	375	885	21.9	98.0 (867)	67.2	214 (1894)	4.05	2198-D057-ERS*x*
RDB-B29029	750	1200	36.2	98.0 (867)	111	214 (1894)	4.05	2198-S086-ERS*x*
RDB-B29034	200	500	17.4	140 (1239)	56.6	318 (2815)	5.16	2198-D057-ERS*x*
RDB-B29036	375	750	26.0	140 (1239)	32.5	122 (1080)	5.49	2198-D057-ERS*x*
					84.9	318 (2814)		2198-S086-ERS*x*
RDB-B29039	750	1000	50.9	122 (1080)	121.6	204 (1806)	4.41	2198-S086-ERS*x*
					183.8	308 (2726)		2198-S130-ERS*x*
RDB-B41014	200	385	17.8	183 (1619)	45.9	305 (2699)	5.20	2198-D032-ERS*x*
					51.2	340 (3009)		2198-D057-ERS*x*
RDB-B41016	375	700	33.2	183 (1619)	95.5	340 (3009)	4.83	2198-S086-ERS*x*

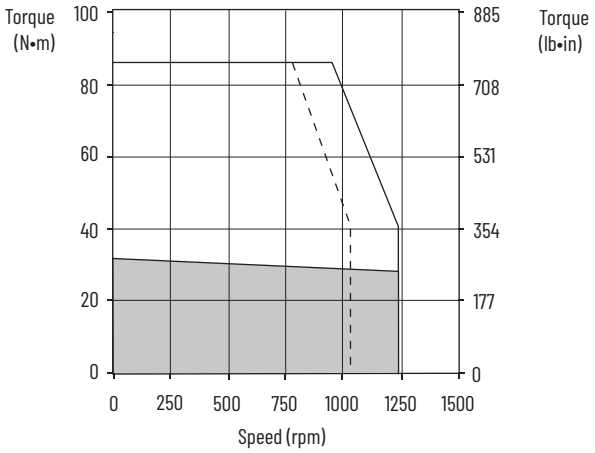
Kinetix RDB Motor Performance with Kinetix 5700 (400V operation) Drives (continued)

Rotary Motor Cat. No.	Base Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
RDB-B41018	625	700	48.8	183 (1619)	121.6	295 (2611)	4.83	2198-S086-ERS*x*
					140	340 (3009)		2198-S130-ERS*x*
RDB-B41024	200	365	31.5	332 (2938)	95.5	690 (6107)	7.29	2198-S086-ERS*x*
RDB-B41026	375	600	50.9	308 (2726)	121.6	478 (4231)	7.29	2198-S086-ERS*x*
					175	690 (6107)		2198-S130-ERS*x*
RDB-B41035	250	490	50.9	426 (3770)	121.6	669 (5921)	8.69	2198-S086-ERS*x*
					183.8	1010 (8939)		2198-S130-ERS*x*

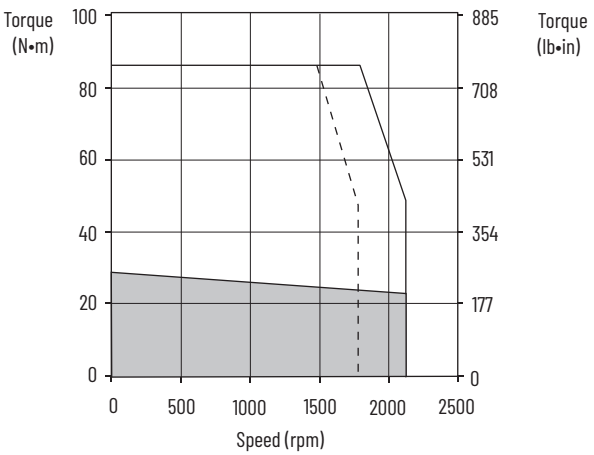
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives with Kinetix RDB Motor Curves

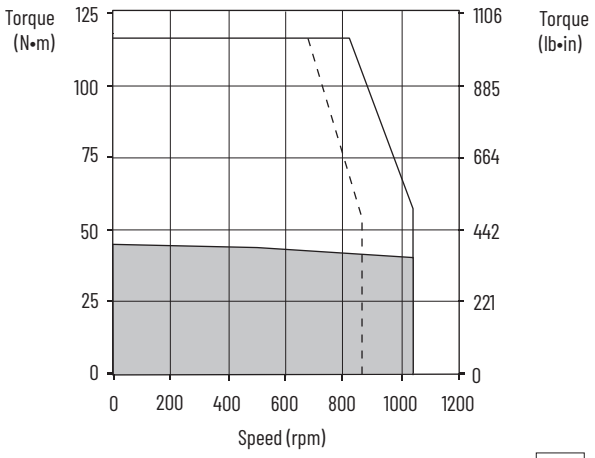
2198-D020-ERS*x* and RDB-B21519



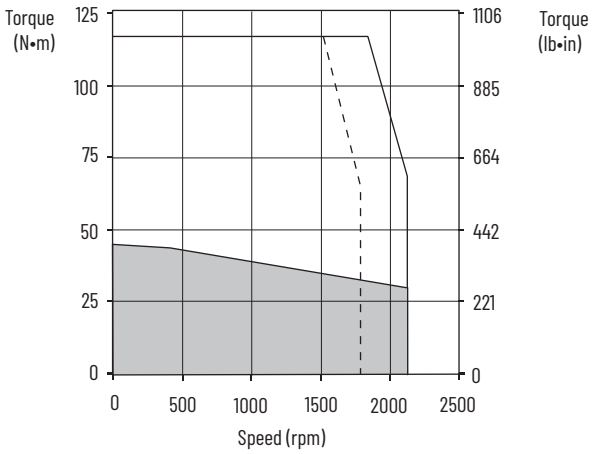
2198-D032-ERS*x* and RDB-B2151C



2198-D032-ERS*x* and RDB-B21529



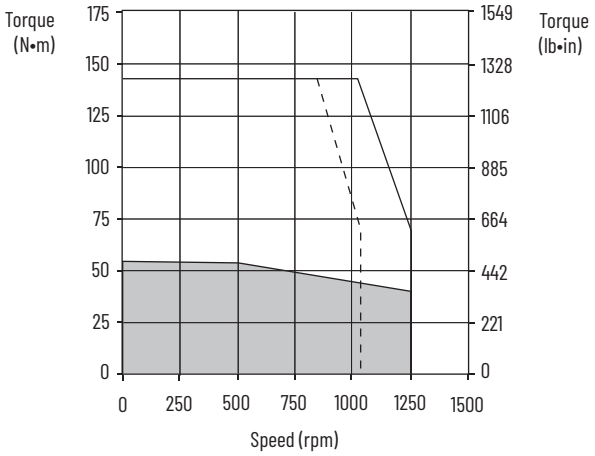
2198-D057-ERS*x* and RDB-B2152C



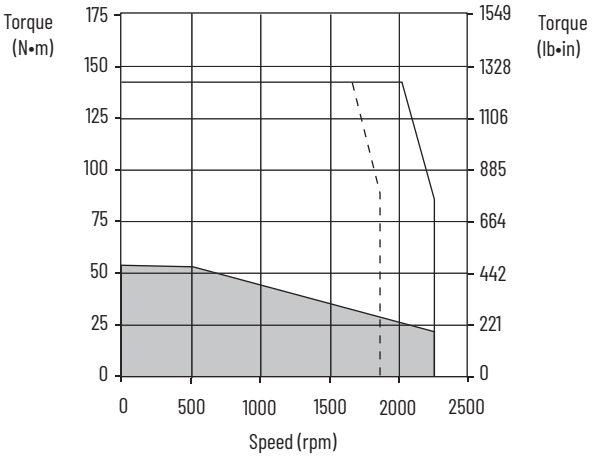
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives with Kinetix RDB Motor Curves (continued)

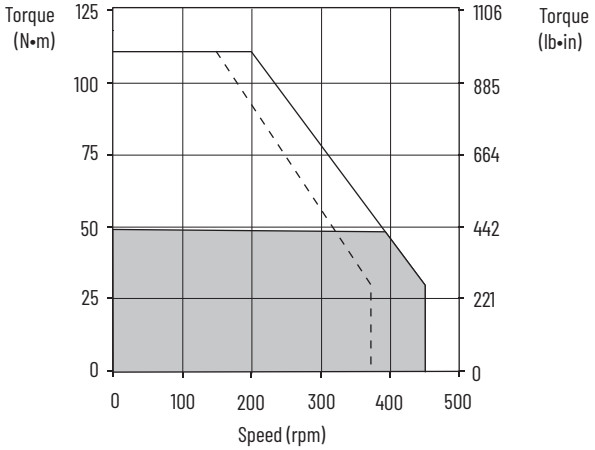
2198-D057-ERSx and RDB-21539



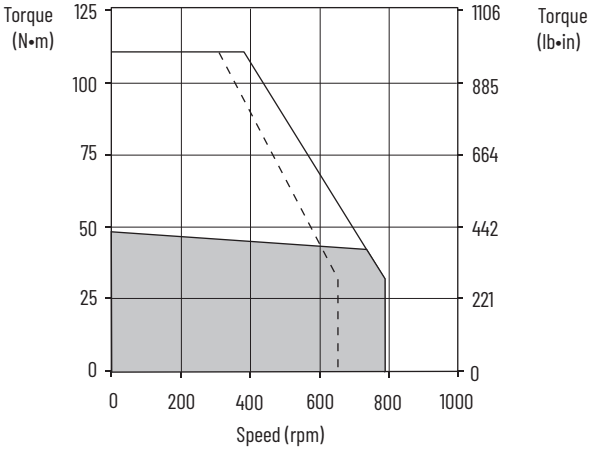
2198-D057-ERSx and RDB-2153C



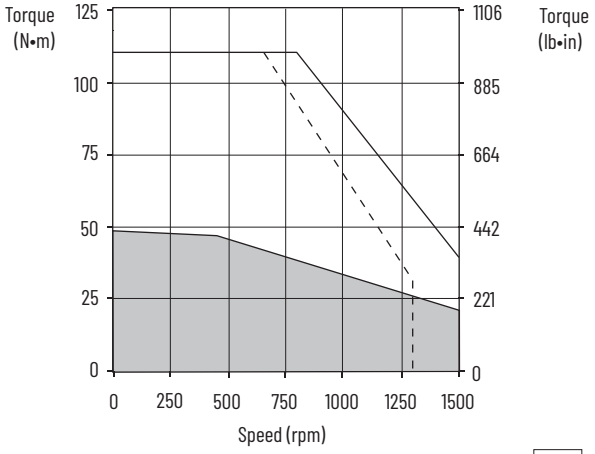
2198-D012-ERSx and RDB-B29014



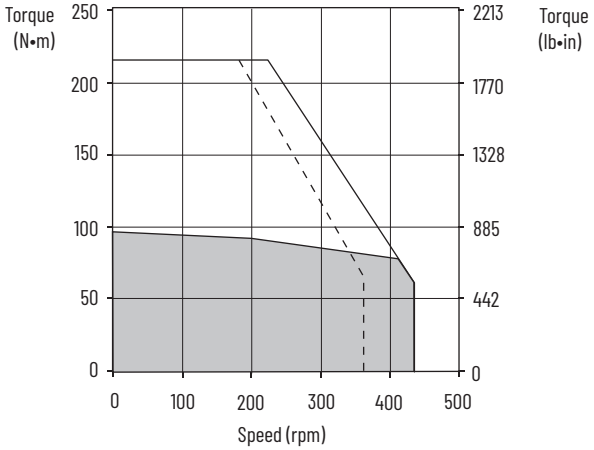
2198-D032-ERSx and RDB-B29016



2198-D057-ERSx and RDB-B29019



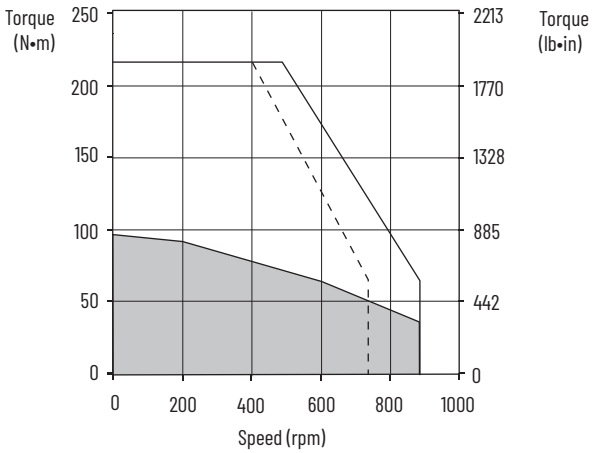
2198-D032-ERSx and RDB-B29024



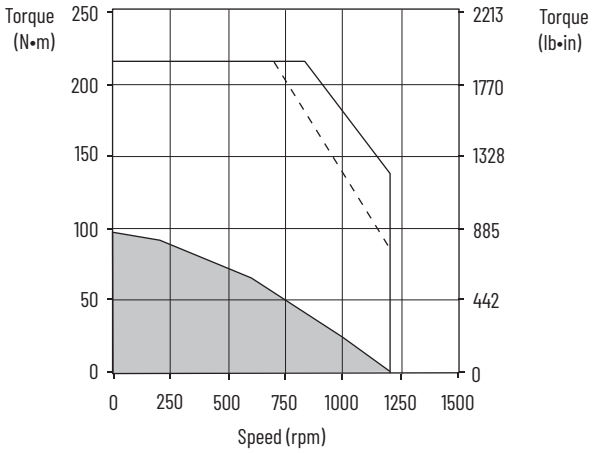
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives with Kinetix RDB Motor Curves (continued)

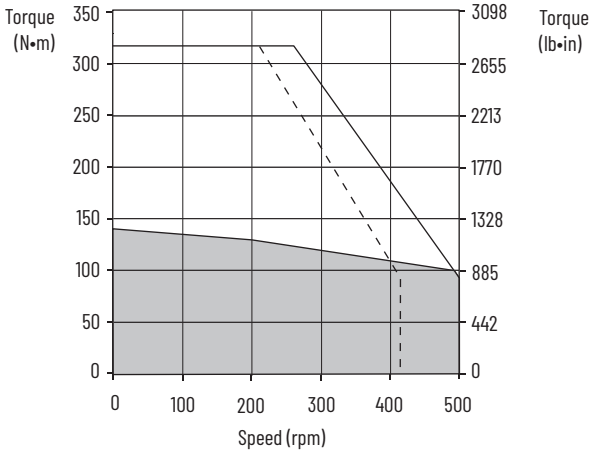
2198-D057-ERSx and RDB-B29026



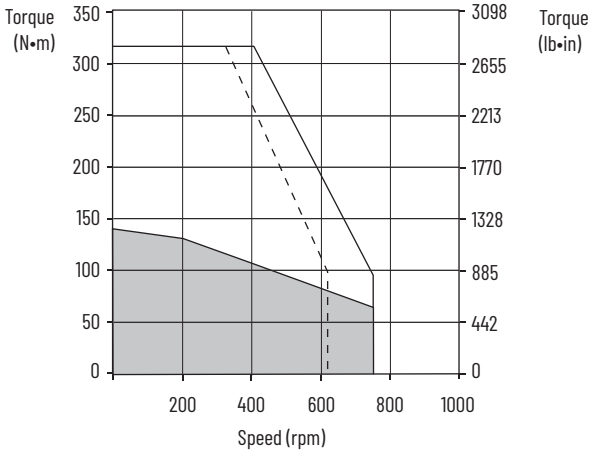
2198-S086-ERSx and RDB-B29029



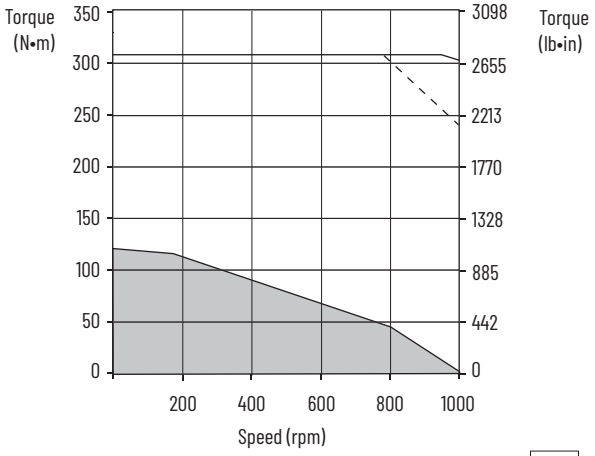
2198-D057-ERSx and RDB-B29034



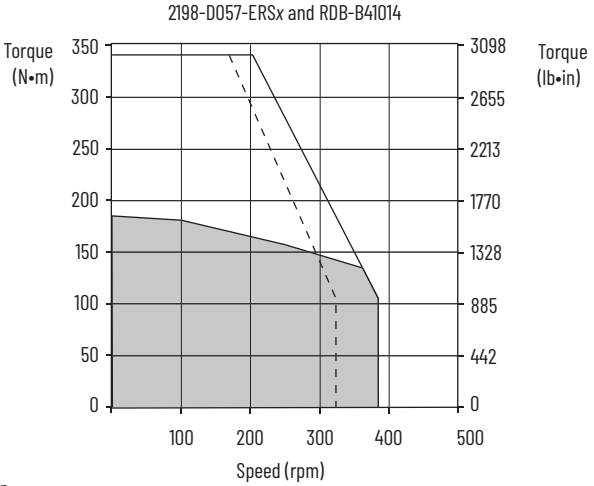
2198-S086-ERSx and RDB-B29036



2198-S130-ERSx and RDB-B29039



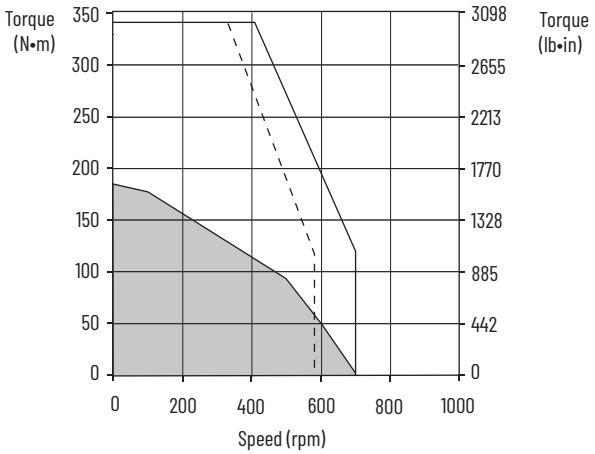
2198-D057-ERSx and RDB-B41014



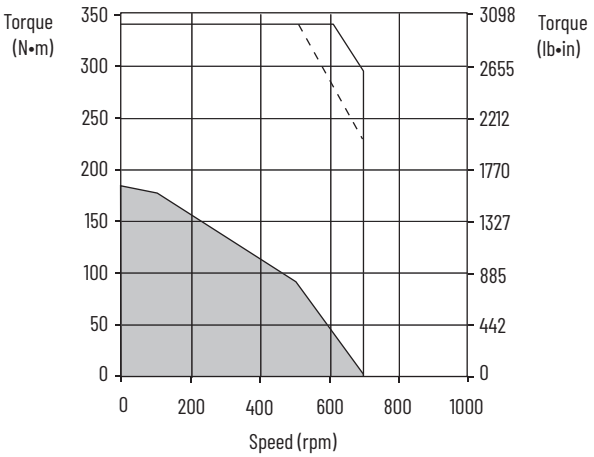
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives with Kinetix RDB Motor Curves (continued)

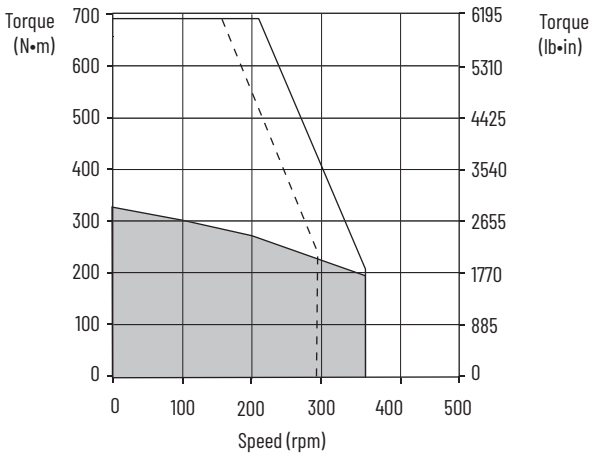
2198-S086-ERS*x* and RDB-B41016



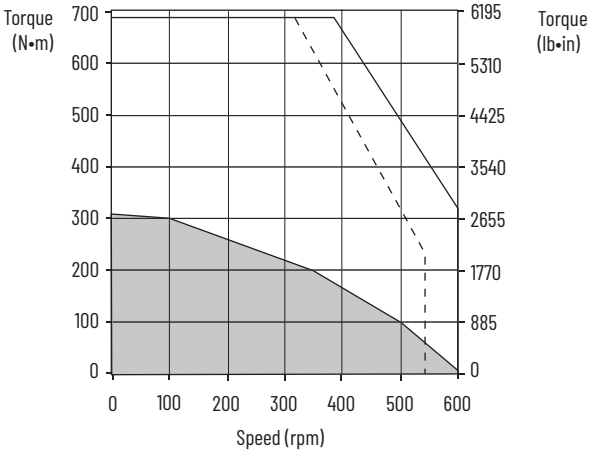
2198-S130-ERS*x* and RDB-B41018



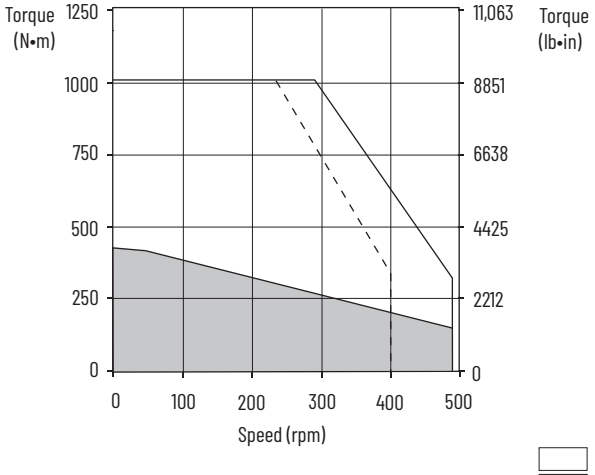
2198-S086-ERS*x* and RDB-B41024



2198-S130-ERS*x* and RDB-B41026



2198-S130-ERS*x* and RDB-B41035



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

Kinetix 5700 Servo Drives with LDAT-Series Linear Thrusters

This section provides system combination information for the Kinetix 5700 drives (with 400 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.

LDAT-Series Cable Combinations

Linear Thruster Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDAT-S031*xxx-xxx*, LDAT-S032*xxx-xxx*, LDAT-S033*xxx-xxx*	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 2090-XXNFMF-S*xx* (standard, non-flex) (3) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback
LDAT-S051*xxx-xxx*, LDAT-S052*xxx-xxx*, LDAT-S053*xxx-xxx*, LDAT-S054*xxx-xxx*		
LDAT-S072*xxx-xxx*, LDAT-S073*xxx-xxx*, LDAT-S074*xxx-xxx*, LDAT-S076*xxx-Exx*		
LDAT-S102*xxx-xxx*, LDAT-S103*xxx-xxx*, LDAT-S104*xxx-xxx*, LDAT-S106*xxx-Exx*		
LDAT-S152*xxx-xxx*, LDAT-S153*xxx-xxx*, LDAT-S154*xxx-xxx*, LDAT-S156*xxx-Exx*		
LDAT-S076*xxx-Dxx*	2090-CPWM7DF-14AA*xx* (standard, non-flex) 2090-CPWM7DF-14AF*xx* (continuous-flex)	
LDAT-S106*xxx-Dxx*		
LDAT-S156*xxx-Dxx*		

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK (series B or later) Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.
(2) Applies to Kinetix 5700 drives and LDAT-S*xxxxxx-xDx* linear thrusters with absolute high-resolution feedback.
(3) Applies to Kinetix 5700 drives and LDAT-S*xxxxxx-xBx* linear thrusters with incremental 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 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

LDAT-Series Performance Specifications with Kinetix 5700 (400V 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 5700 Drives (480V AC input)
LDAT-S031010-D*xx*	2.4	4.8	81 (18)	12.2	168 (38)	0.20	2198-D012-ERS*x*
LDAT-S031020-D*xx*	3.1					0.25	
LDAT-S031030-D*xx*	3.5					0.29	
LDAT-S031040-D*xx*	3.8					0.31	
LDAT-S032010-D*xx*	3.1	7.4	126 (28)	24.3	336 (76)	0.40	2198-D020-ERS*x*
LDAT-S032020-D*xx*	4.1					0.52	
LDAT-S032030-D*xx*	4.7					0.59	
LDAT-S032040-D*xx*	5.0					0.63	
LDAT-S032010-E*xx*	3.1	3.7		12.2		0.40	2198-D012-ERS*x*
LDAT-S032020-E*xx*	4.1					0.52	
LDAT-S032030-E*xx*	4.7					0.59	
LDAT-S032040-E*xx*	5.0					0.63	
LDAT-S033010-D*xx*	3.5	11.1	190 (43)	36.5	504 (113)	0.67	2198-D032-ERS*x*
LDAT-S033020-D*xx*	4.7					0.88	
LDAT-S033030-D*xx*	5.0					0.95	
LDAT-S033040-D*xx*							
LDAT-S033010-E*xx*	3.5	3.7		12.2		0.67	2198-D012-ERS*x*
LDAT-S033020-E*xx*	4.7					0.87	
LDAT-S033030-E*xx*	5.0					0.91	
LDAT-S033040-E*xx*							

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

Performance Specifications with Frame 50 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 5700 Drives (480V AC input)
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.34	2198-D012-ERS*x*
LDAT-S051020-D*xx*	3.7					0.43	
LDAT-S051030-D*xx*	4.1					0.49	
LDAT-S051040-D*xx*	4.4					0.53	
LDAT-S051050-D*xx*	4.7					0.55	
LDAT-S052010-D*xx*	3.7	6.2	251 (56)	22.7	727 (163)	0.92	2198-D020-ERS*x*
LDAT-S052020-D*xx*	4.8					1.20	
LDAT-S052030-D*xx*	5.0					1.24	
LDAT-S052040-D*xx*							
LDAT-S052050-D*xx*							
LDAT-S052010-E*xx*	3.7	3.1		11.4		0.80	2198-D012-ERS*x*
LDAT-S052020-E*xx*	4.6					0.98	
LDAT-S052030-E*xx*	4.6					1.02	
LDAT-S052040-E*xx*							
LDAT-S052050-E*xx*							
LDAT-S053010-D*xx*	4.1	9.4	378 (85)	34.2	1093 (246)	1.56	2198-D032-ERS*x*
LDAT-S053020-D*xx*	5.0					1.87	
LDAT-S053030-D*xx* ... LDAT-S053050-D*xx*							
LDAT-S053010-E*xx* ... LDAT-S053050-E*xx*	3.5	3.1		11.4		1.04	2198-D012-ERS*x*
LDAT-S054010-D*xx*	4.4	12.4	509 (114)	45.5	1453 (327)	2.26	2198-D032-ERS*x*
LDAT-S054020-D*xx* ... LDAT-S054050-D*xx*	5.00					2.53	
LDAT-S054010-E*xx*	4.4	6.2		22.7		1.87	2198-D020-ERS*x*
LDAT-S054020-E*xx* ... LDAT-S054050-E*xx*	5.0					2.05	

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

Performance Specifications with Frame 70 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 5700 Drives (480V AC input)
LDAT-S072010-D*xx*	3.9	6.0	364 (82)	22.0	1055 (237)	1.37	2198-D020-ERS*x*
LDAT-S072020-D*xx*	5.0					1.64	
LDAT-S072030-D*xx* ... LDAT-S072070-D*xx*							
LDAT-S072010-E*xx*	3.5	3.0		11.0		1.03	2198-D012-ERS*x*
LDAT-S072020-E*xx* ... LDAT-S072070-E*xx*							
LDAT-S073010-D*xx*	4.4	9.0	554 (125)	32.8	1576 (354)	2.27	2198-D032-ERS*x*
LDAT-S073020-D*xx* ... LDAT-S073070-D*xx*	5.0					2.50	
LDAT-S073010-E*xx* ... LDAT-S073070-E*xx*	2.4	3.0		10.9		1.01	2198-D012-ERS*x*
LDAT-S074010-D*xx*	4.7	11.9	730 (164)	43.5	2088 (469)	3.15	2198-D032-ERS*x*
LDAT-S074020-D*xx* ... LDAT-S074070-D*xx*	5.0					3.30	
LDAT-S074010-E*xx* ... LDAT-S074070-E*xx*	3.5	6.0		21.7		2.08	2198-D020-ERS*x*
LDAT-S076010-D*xx*	5.0	18.2	1122 (252)	66.4	3189 (717)	5.02	2198-D057-ERS*x*
LDAT-S076020-D*xx* ... LDAT-S076070-D*xx*							
LDAT-S076010-E*xx* ... LDAT-S076070-E*xx*	3.5	9.1		33.2		3.18	2198-D032-ERS*x*

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

Performance Specifications with Frame 100 Linear Thrusters

Linear Thruster Cat. No.	Velocity, max 460V AC m/s	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Rated Output 460V AC kW	Kinetix 5700 Drives (480V AC input)
LDAT-S102010-D*xx*	3.4	5.7	456 (103)	21.0	1289 (290)	1.44	2198-D020-ERS*x*
LDAT-S102020-D*xx*	4.4					1.74	
LDAT-S102030-D*xx*	5.0					1.91	
LDAT-S102040-D*xx*							
LDAT-S102050-D*xx* ... LDAT-S102090-D*xx*							
LDAT-S102010-E*xx* ... LDAT-S102090-E*xx*	2.6	2.9		10.5		0.96	2198-D012-ERS*x*
LDAT-S103010-D*xx*	3.8	8.6	702 (158)	31.5	1935 (435)	2.41	2198-D032-ERS*x*
LDAT-S103020-D*xx*	5.0					2.93	
LDAT-S103030-D*xx* ... LDAT-S103090-D*xx*							
LDAT-S103010-E*xx* ... LDAT-S103090-E*xx*	1.8	2.9		10.5		0.92	2198-D012-ERS*x*
LDAT-S104010-D*xx*	4.1	11.5	929 (209)	42.0	2578 (580)	3.76	2198-D032-ERS*x*
LDAT-S104020-D*xx*	5.0					4.29	
LDAT-S104030-D*xx* ... LDAT-S104090-D*xx*							
LDAT-S104010-E*xx* ... LDAT-S104090-E*xx*	2.7	5.7		21.0		2.07	2198-D020-ERS*x*
LDAT-S106010-D*xx*	4.5	17.3	1403 (315)	63.0	3871 (870)	5.41	2198-D057-ERS*x*
LDAT-S106020-D*xx* ... LDAT-S106090-D*xx*	5.0					5.87	
LDAT-S106010-E*xx* ... LDAT-S106090-E*xx*	2.7	8.6		31.5		2.94	2198-D032-ERS*x*

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

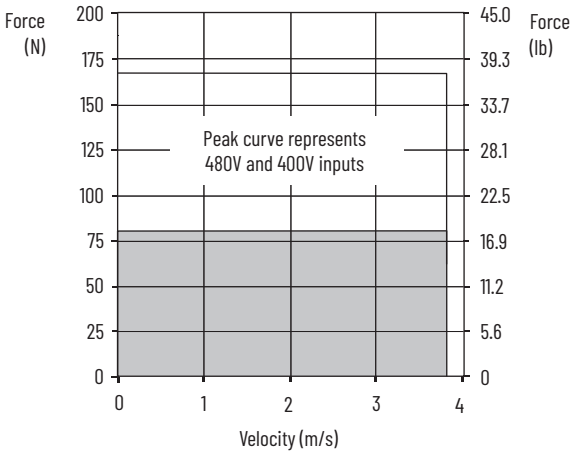
Performance Specifications with Frame 150 Linear Thrusters

Linear Thruster Cat. No.	**Velocity, max 460V AC** m/s	**System Continuous Stall Current** Amps 0-pk	**System Continuous Stall Force** N (lb)	**System Peak Stall Current** Amps 0-pk	**System Peak Stall Force** N (lb)	**Rated Output 460V AC** kW	**Kinetix 5700 Drives (480V AC input)**
LDAT-S152010-D*xx*	3.2	5.3	643 (145)	19.5	1799 (404)	1.76	2198-D020-ERS*x*
LDAT-S152020-D*xx* ... LDAT-S152090-D*xx*	3.5					1.89	
LDAT-S152010-E*xx* ... LDAT-S152090-E*xx*	1.8	2.7		9.8		0.87	2198-D012-ERS*x*
LDAT-S153010-D*xx* ... LDAT-S153090-D*xx*	3.6	8.0	978 (220)	29.1	2680 (602)	2.87	2198-D032-ERS*x*
LDAT-S153010-E*xx* ... LDAT-S153090-E*xx*	1.2	2.7		9.1		0.80	2198-D012-ERS*x*
LDAT-S154010-D*xx* ... LDAT-S154090-D*xx*	3.5	10.7	1306 (294)	39.1	3597 (809)	3.83	2198-D032-ERS*x*
LDAT-S154010-E*xx* ... LDAT-S154090-E*xx*	1.8	5.3		19.5		1.78	2198-D020-ERS*x*
LDAT-S156010-D*xx* ... LDAT-S156090-D*xx*	3.6	16.3	1997 (449)	59.4	5469 (1229)	5.85	2198-D057-ERS*x*
LDAT-S156010-E*xx* ... LDAT-S156090-E*xx*	1.8	8.1		19.8		2.71	2198-D020-ERS*x*

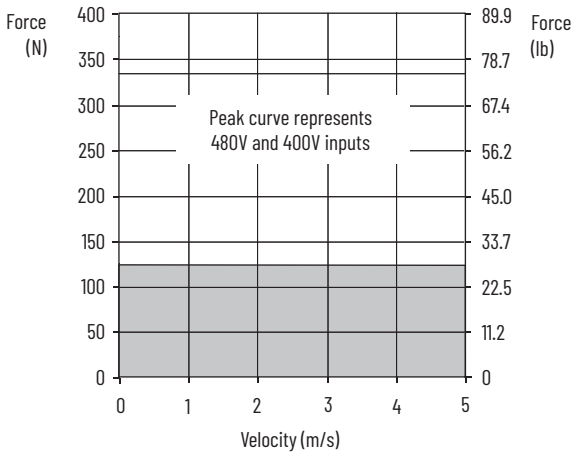
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/LDAT-Series Integrated Linear Thruster Curves

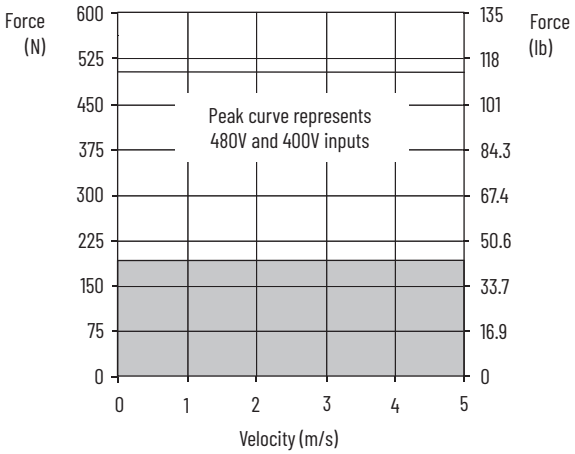
2198-D012-ERS*x* and LDAT-S031040-D*xx*



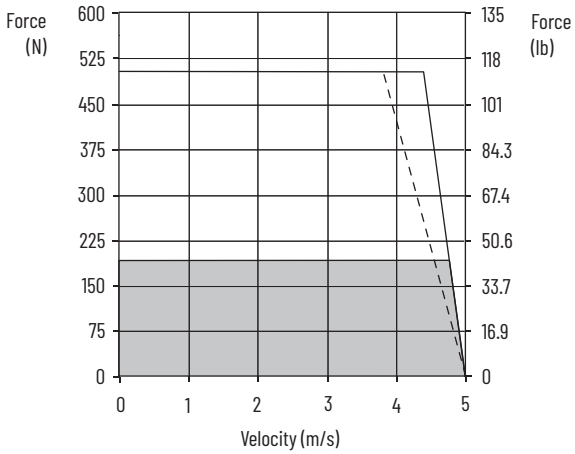
2198-D020-ERS*x* and LDAT-S032040-D*xx*
2198-D012-ERS*x* and LDAT-S032040-E*xx*



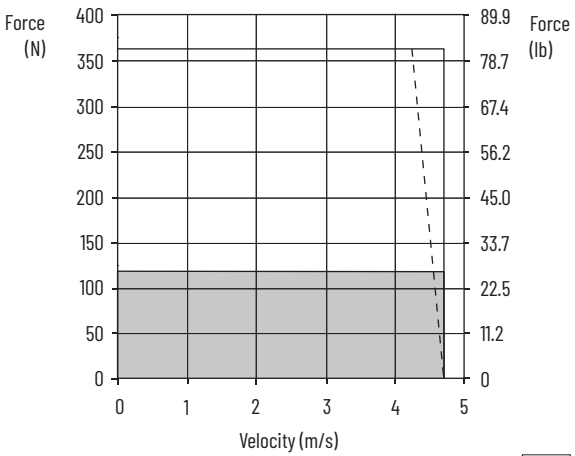
2198-D032-ERS*x* and LDAT-S033040-D*xx*



2198-D012-ERS*x* and LDAT-S033040-E*xx*



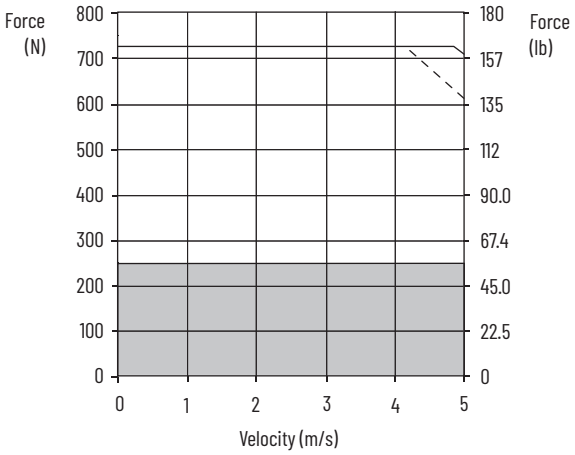
2198-D012-ERS*x* and LDAT-S051050-D*xx*



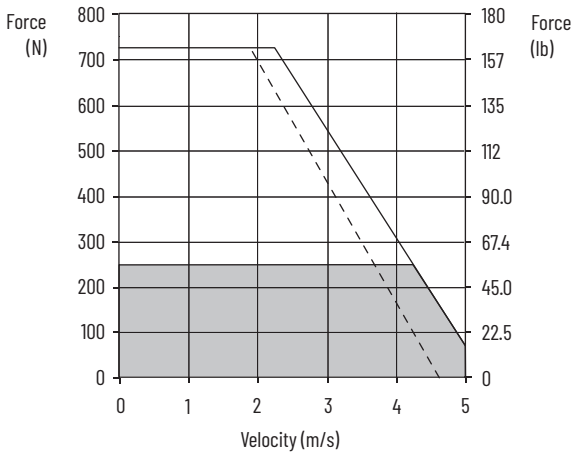
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5700 (400V operation) Drives/LDAT-Series Linear Thruster Curves (continued)

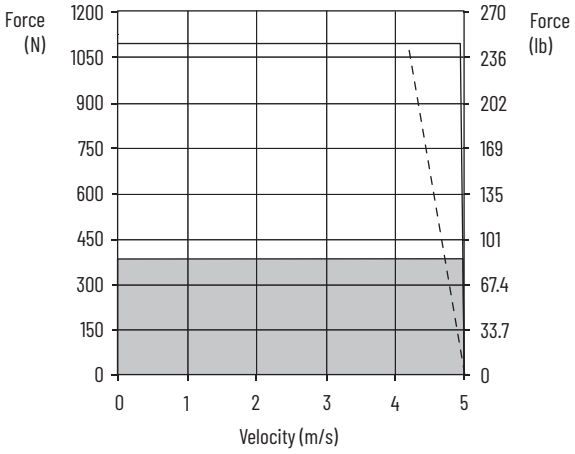
2198-D020-ERSx and LDAT-S052050-Dxx



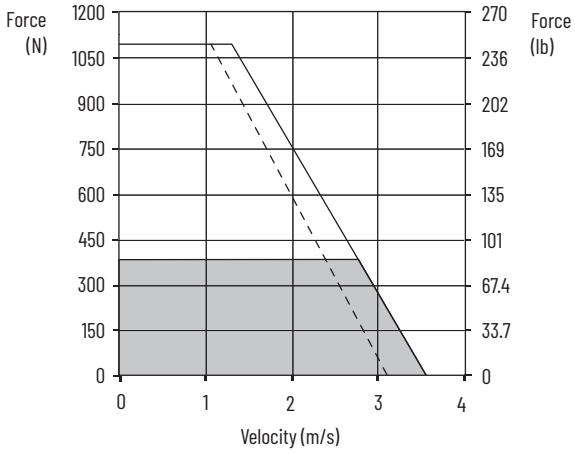
2198-D012-ERSx and LDAT-S052050-Exx



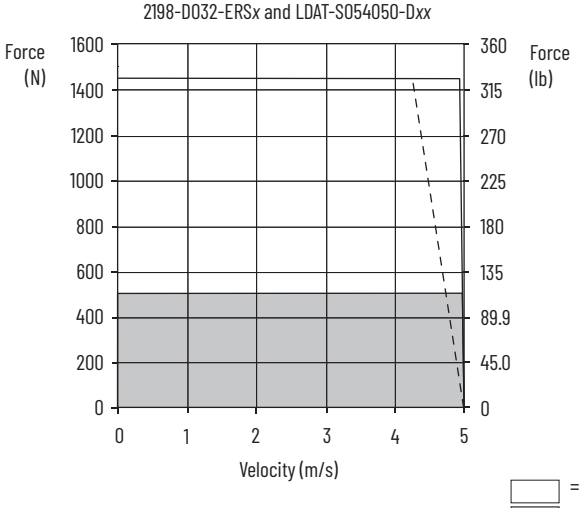
2198-D032-ERSx and LDAT-S053050-Dxx



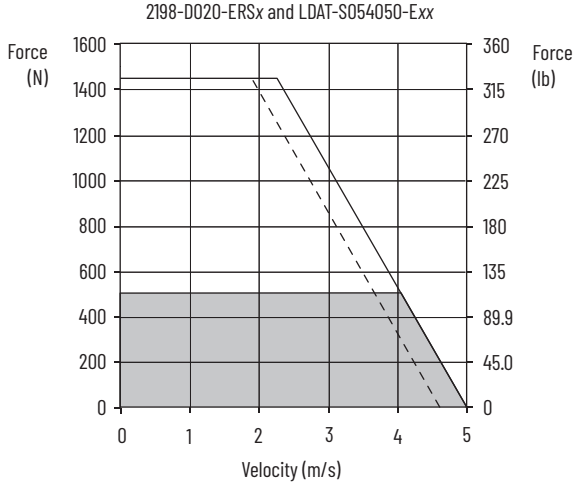
2198-D012-ERSx and LDAT-S053050-Exx



2198-D032-ERSx and LDAT-S054050-Dxx



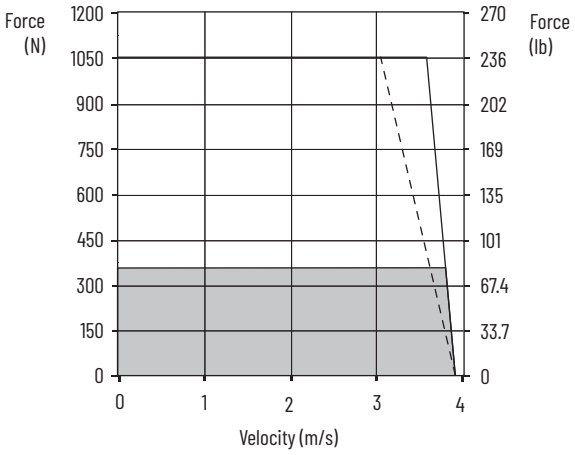
2198-D020-ERSx and LDAT-S054050-Exx



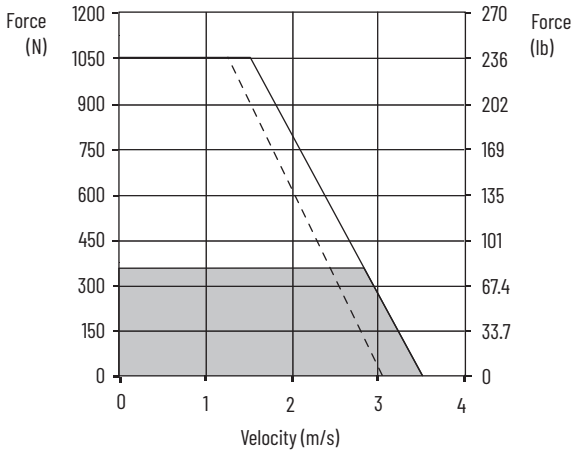
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5700 (400V operation) Drives/LDAT-Series Linear Thruster Curves (continued)

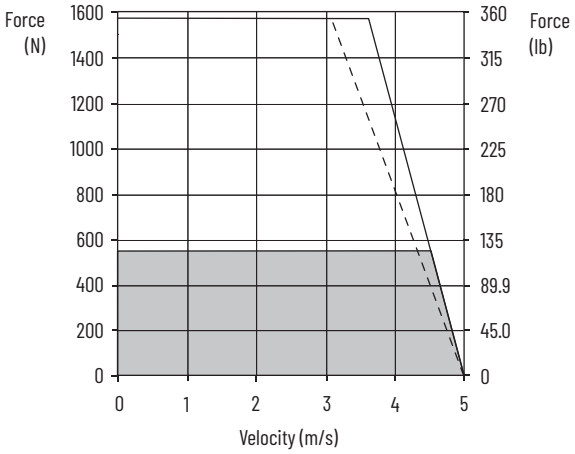
2198-D020-ERS*x* and LDAT-S072070-D*xx*



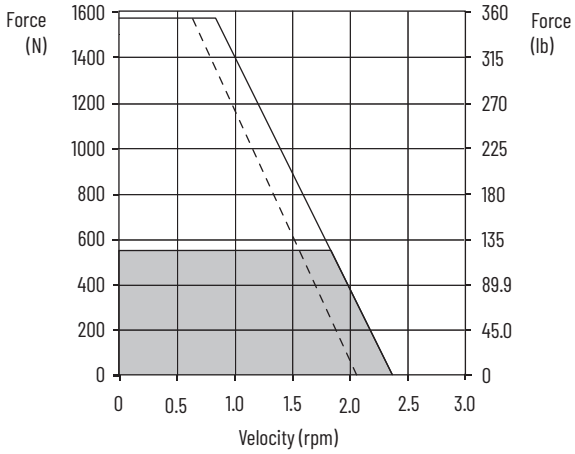
2198-D012-ERS*x* and LDAT-S072070-E*xx*



2198-D032-ERS*x* and LDAT-S073070-D*xx*



2198-D012-ERS*x* and LDAT-S073070-E*xx*



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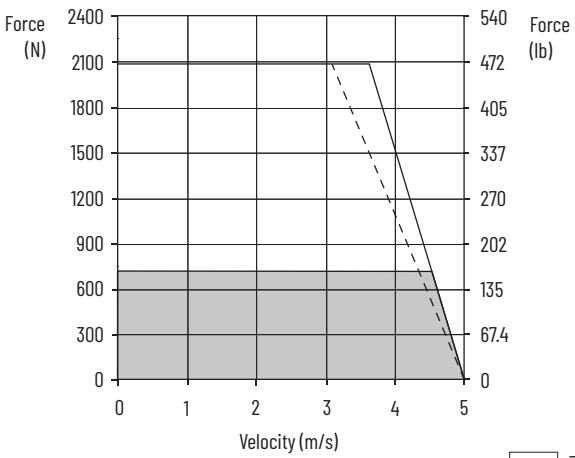
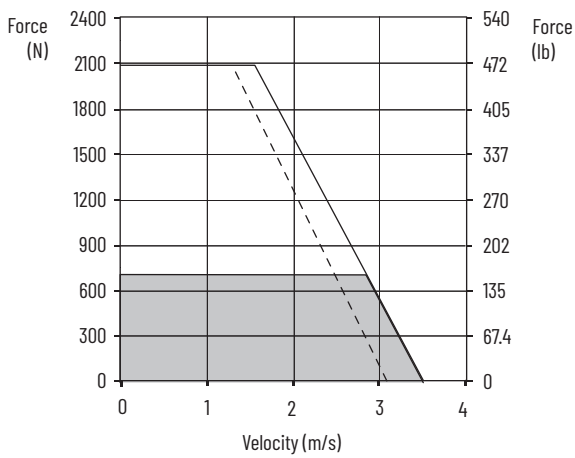


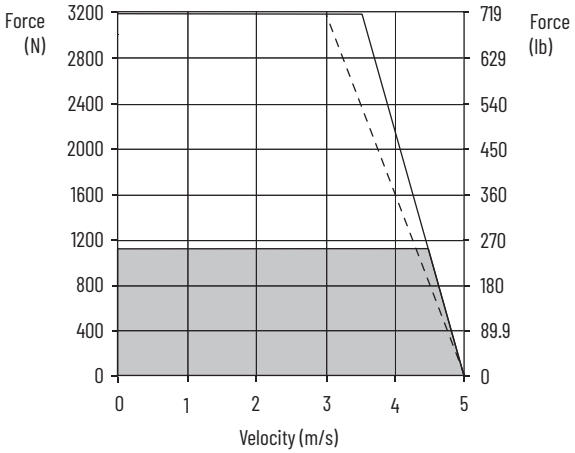
2198-D020-ERS*x* and LDAT-S074070-E*xx*



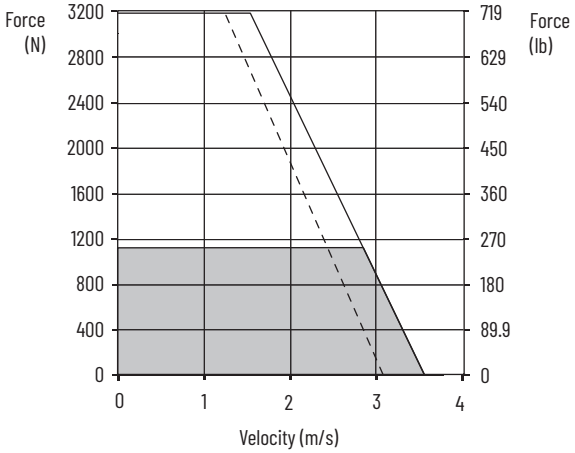
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5700 (400V operation) Drives/LDAT-Series Linear Thruster Curves (continued)

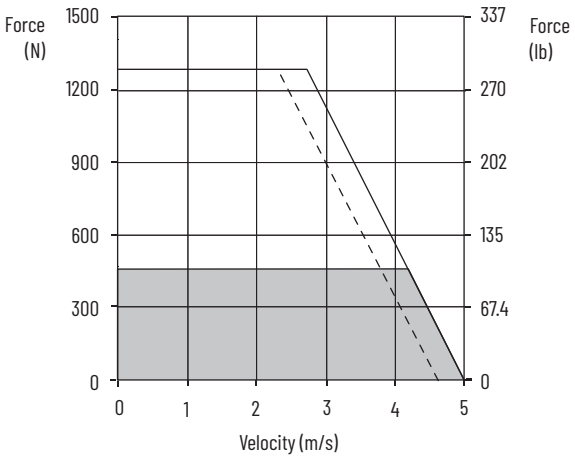
2198-D057-ERS*x* and LDAT-S076070-D*xx*



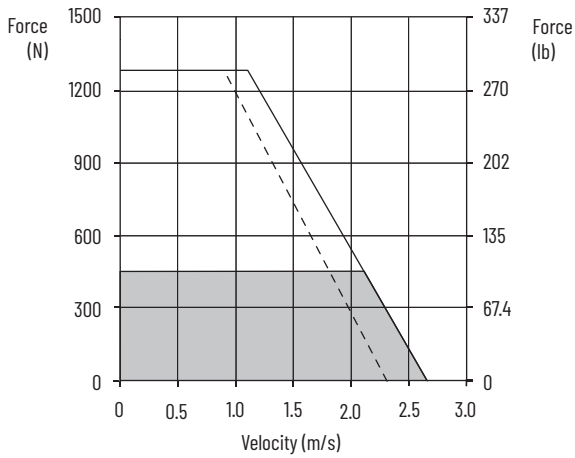
2198-D032-ERS*x* and LDAT-S076070-E*xx*



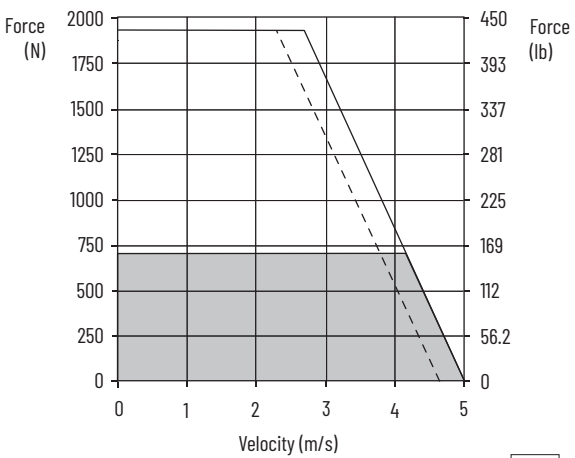
2198-D020-ERS*x* and LDAT-S102090-D*xx*



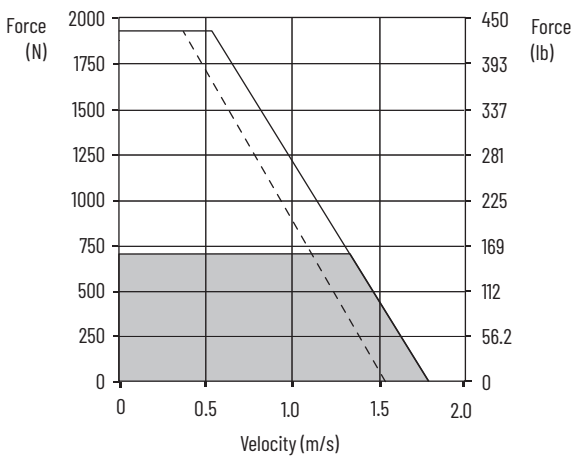
2198-D012-ERS*x* and LDAT-S102090-E*xx*



2198-D032-ERS*x* and LDAT-S103090-D*xx*



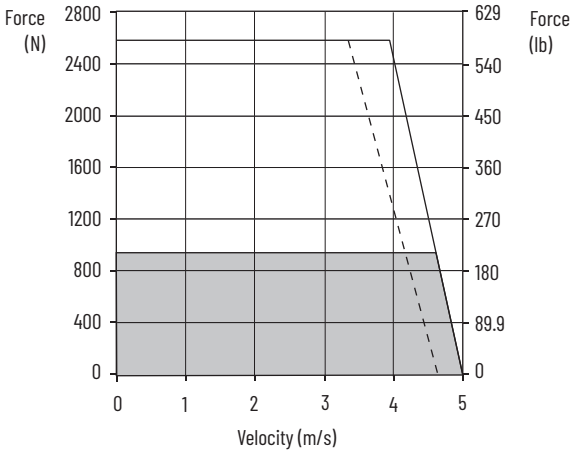
2198-D012-ERS*x* and LDAT-S103090-E*xx*



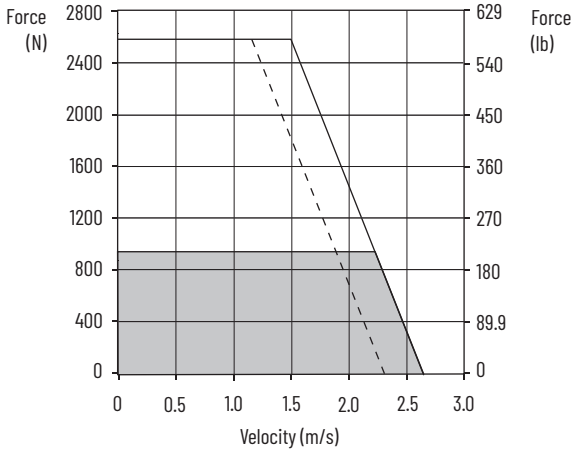
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5700 (400V operation) Drives/LDAT-Series Linear Thruster Curves (continued)

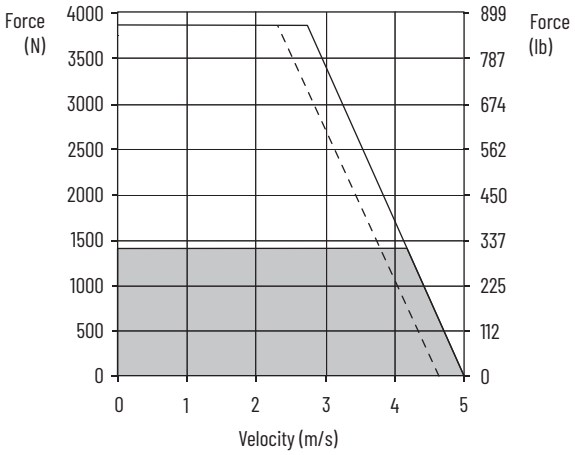
2198-D032-ERS*x* and LDAT-S104090-D*xx*



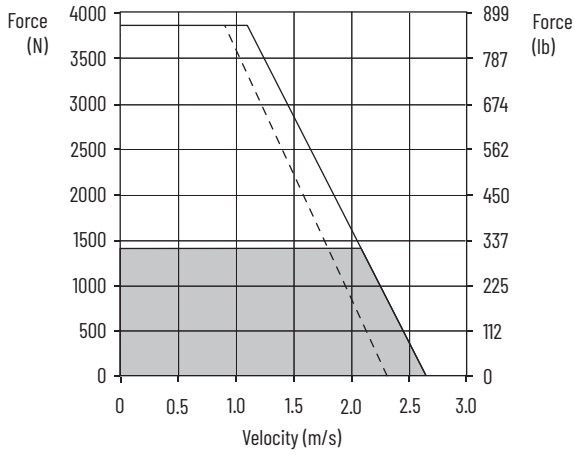
2198-D020-ERS*x* and LDAT-S104090-E*xx*



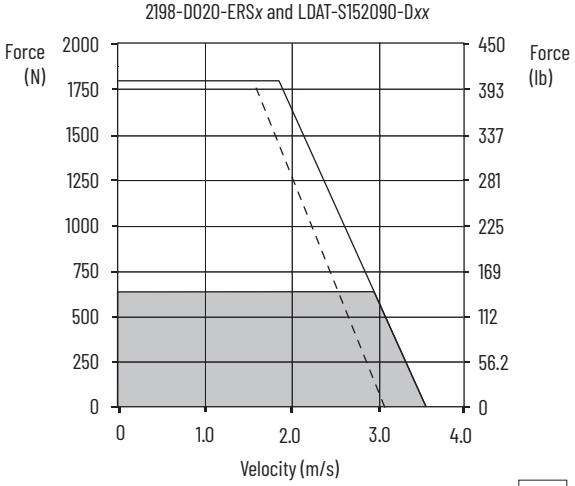
2198-D057-ERS*x* and LDAT-S106090-D*xx*



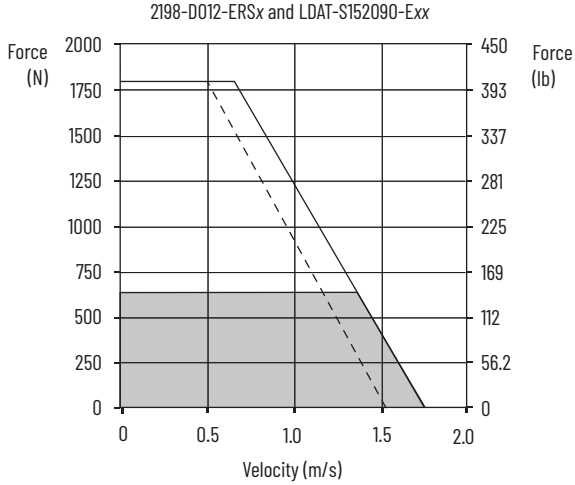
2198-D032-ERS*x* and LDAT-S106090-E*xx*



2198-D020-ERS*x* and LDAT-S152090-D*xx*



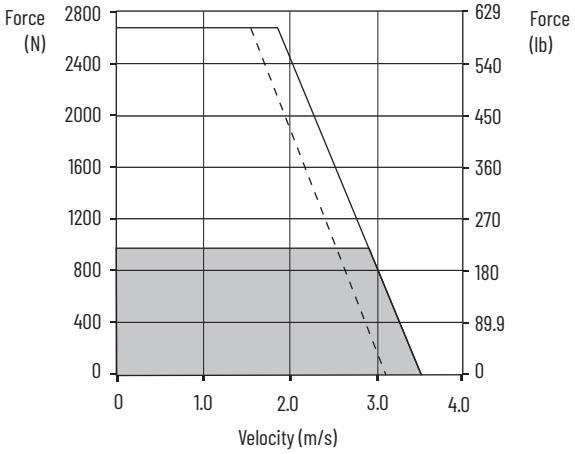
2198-D012-ERS*x* and LDAT-S152090-E*xx*



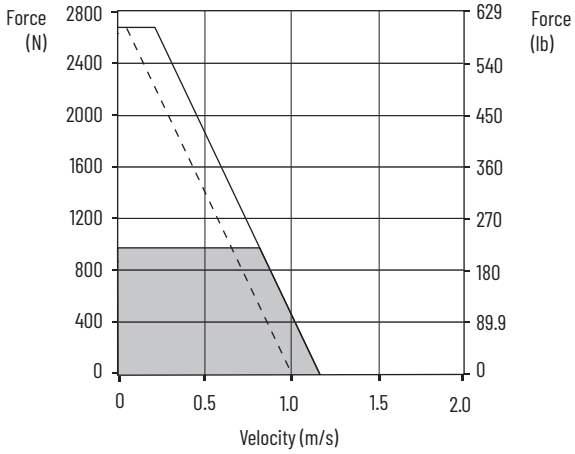
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

Kinetix 5700 (400V operation) Drives/LDAT-Series Linear Thruster Curves (continued)

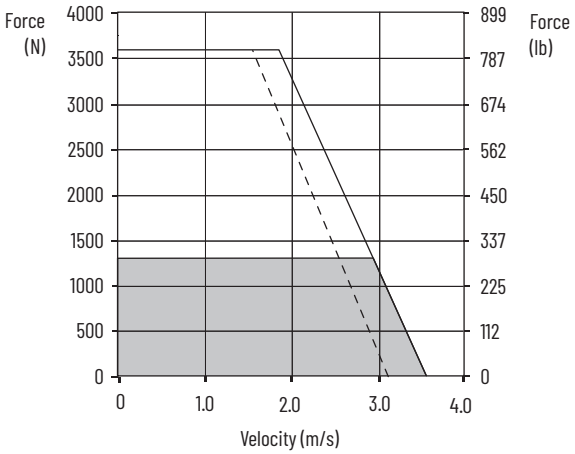
2198-D032-ERSx and LDAT-S153090-D*xx*



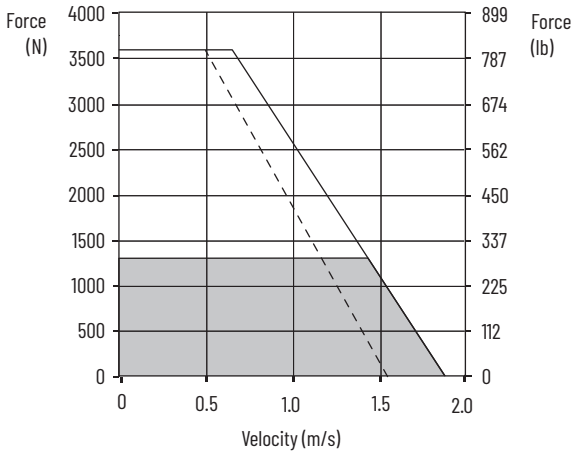
2198-D012-ERSx and LDAT-S153090-E*xx*



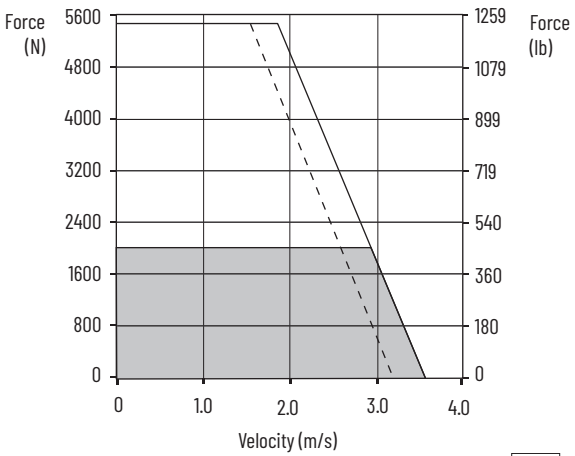
2198-D032-ERSx and LDAT-S154090-D*xx*



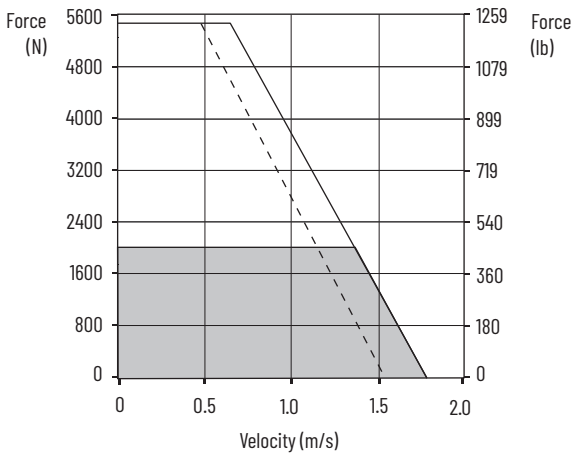
2198-D020-ERSx and LDAT-S154090-E*xx*



2198-D057-ERSx and LDAT-S156090-D*xx*



2198-D020-ERSx and LDAT-S156090-E*xx*



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

Kinetix 5700 (400V operation) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with Kinetix MPAS (400V-class) integrated linear stages. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix MPAS Cable Combinations

Linear Stage Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAS-B*xxx*1-V05S*x*A (2) MPAS-B*xxx*2-V20S*x*A	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPAS-B8*xxxx*-ALM*x*2C (3) MPAS-B9*xxxx*-ALM*x*2C		2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.
(2) Use either (2198-K57CK-D15M or 2198-H2DCK) kit with MPAS-B*xxxx*1-V05S*x*A (ballscrew) linear stages.
(3) Use only the 2198-K57CK-D15M kit with MPAS-B8*xxxx*-ALM*x*2C (direct-drive) linear stages.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

Kinetix MPAS Performance Specifications with Kinetix 5700 (400V operation) Drives

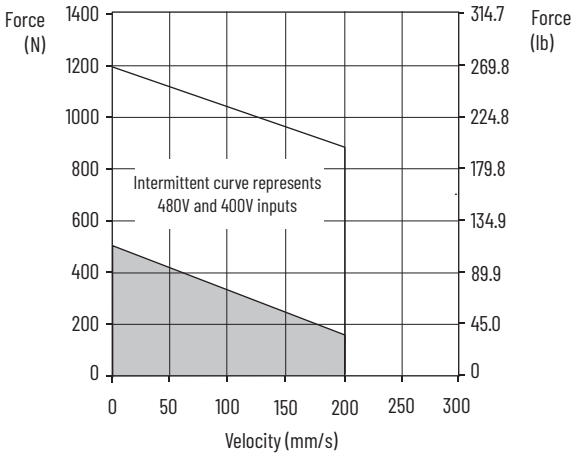
Linear Stage Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5700 Drives (480V AC input)
MPAS-B*xxxx*1-V05S*x*A	200 (7.9) (1)	1.75	521 (117)	3.50	1212 (272)	0.37	2198-D006-ERS*x*
MPAS-B*xxxx*2-V20S*x*A	1124 (44.3) (2)	3.30	462 (104)	6.60	968 (218)	0.62	2198-D006-ERS*x*
MPAS-B8*xxx*F-ALM02C	5000 (200)	3.50	189 (42.5)	9.30	456 (103)	0.527	2198-D012-ERS*x*
MPAS-B8*xxx*F-ALMS2C	5000 (200)	3.15	159 (35.7)	8.37	399 (89.7)	0.475	2198-D006-ERS*x*
MPAS-B9*xxx*L-ALM02C	5000 (200)	3.40	285 (64.1)	9.10	680 (153)	0.768	2198-D012-ERS*x*
MPAS-B9*xxx*L-ALMS2C	5000 (200)	3.03	245 (55.1)	8.19	601 (135)	0.69	2198-D006-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).

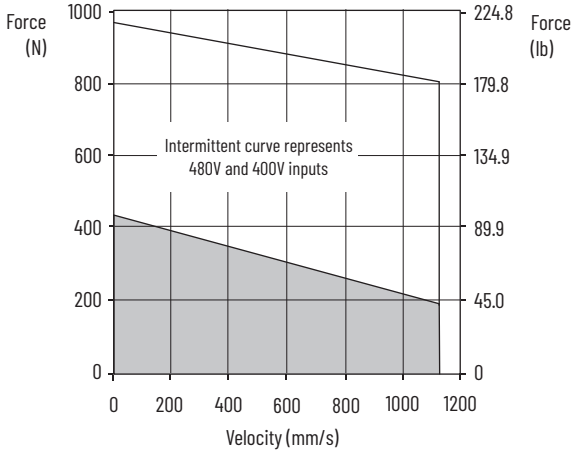
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/Kinetix MPAS Linear Stage Curves

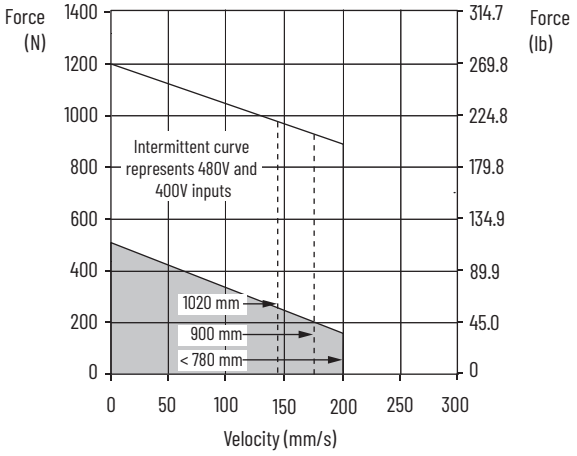
2198-D006-ERSx and MPAS-B6xxx1-V05SxA



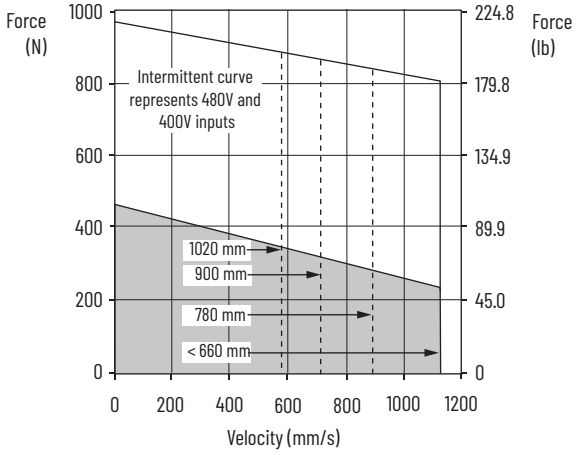
2198-D006-ERSx and MPAS-B6xxx2-V20SxA



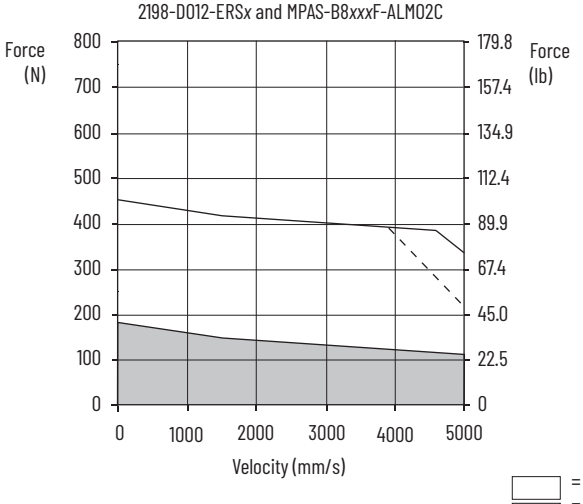
2198-D006-ERSx and MPAS-B8xxx1-V05SxA



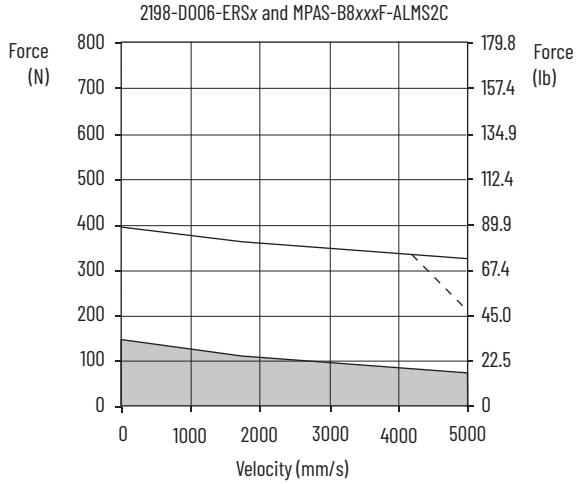
2198-D006-ERSx and MPAS-B8xxx2-V20SxA



2198-D012-ERSx and MPAS-B8xxxF-ALM02C



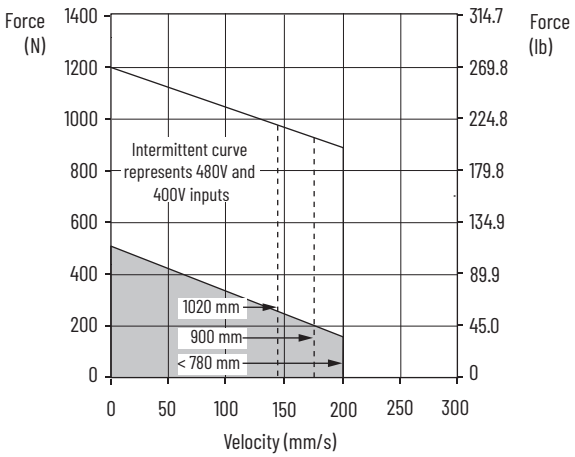
2198-D006-ERSx and MPAS-B8xxxF-ALMS2C



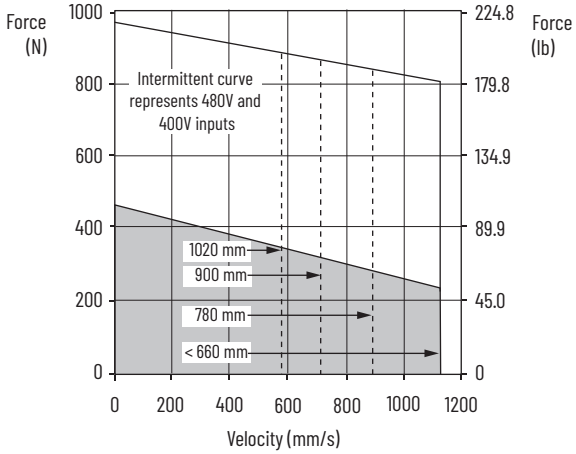
= Intermittent operating region
= Continuous operating region
= System operation with 400V AC rms input voltage
= System operation for specified stroke length

Kinetix 5700 (400V operation) Drives/Kinetix MPAS Linear Stage Curves (continued)

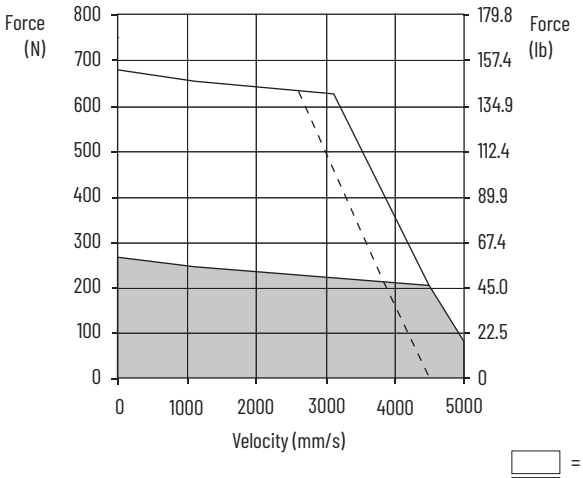
2198-D006-ERSx and MPAS-B9*xxx*1-V05SxA



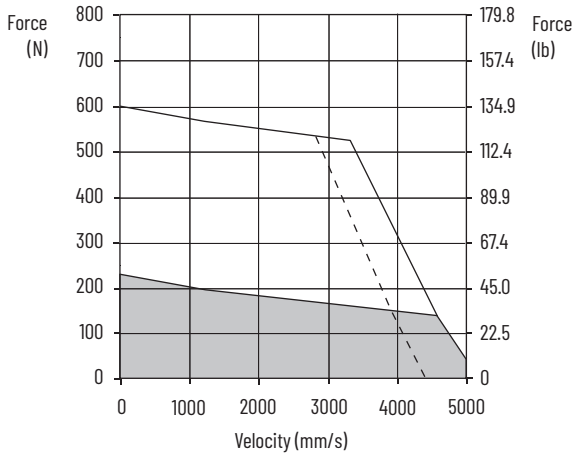
2198-D006-ERSx and MPAS-B9*xxx*2-V20SxA



2198-D012-ERSx and MPAS-B9*xxx*L-ALM02C



2198-D006-ERSx and MPAS-B9*xxx*L-ALMS2C



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

Kinetix 5700 Drives with Kinetix VPAR Electric Cylinders

This section provides system combination information for the Kinetix 5700 drives (with 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

Electric Cylinder Cat. No. (400V-class) (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*M1DE or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)...90 (265) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5700 Servo Drives User Manual, publication 2198-UM002. 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 18.

Kinetix VPAR Performance Specifications with Kinetix 5700 Drives

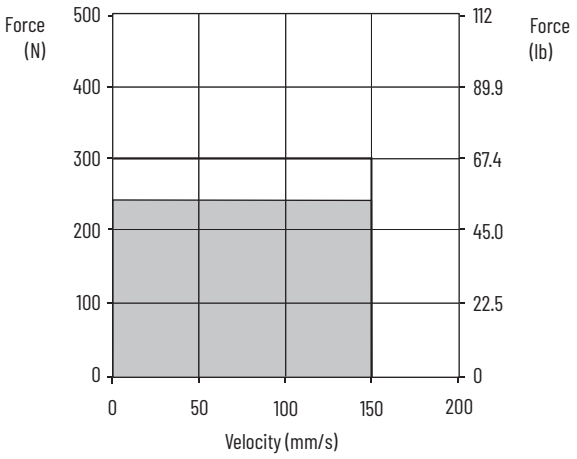
Performance Specifications with Kinetix 5700 (400V operation) Drives

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5700 Drives (480V AC input)
VPAR-B1*xxx*B	150	0.41	240 (53.9)	1.34	300 (67.4)	0.11	2198-D006-ERS*x*
VPAR-B1*xxx*E	500	1.20	280 (62.9)	2.10	350 (78.7)	0.24	2198-D006-ERS*x*
VPAR-B2*xxx*C	250	1.25	420 (94.4)	2.67	525 (118)	0.25	2198-D006-ERS*x*
VPAR-B2*xxx*F	640	3.10	640 (144)	5.80	800 (180)	0.56	2198-D012-ERS*x*
VPAR-B3*xxx*E	500	5.10	2000 (450)	13.0	2500 (562)	1.30	2198-D012-ERS*x*
VPAR-B3*xxx*H	1000	8.60	1284 (289)	17.0	1625 (365)	1.68	2198-D020-ERS*x*

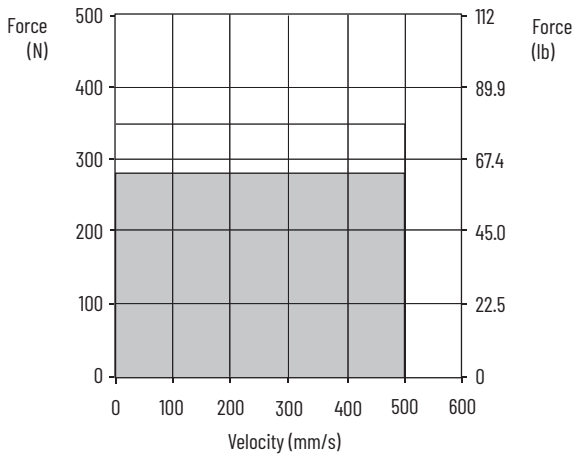
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 Drives/Kinetix VPAR Electric Cylinder Curves

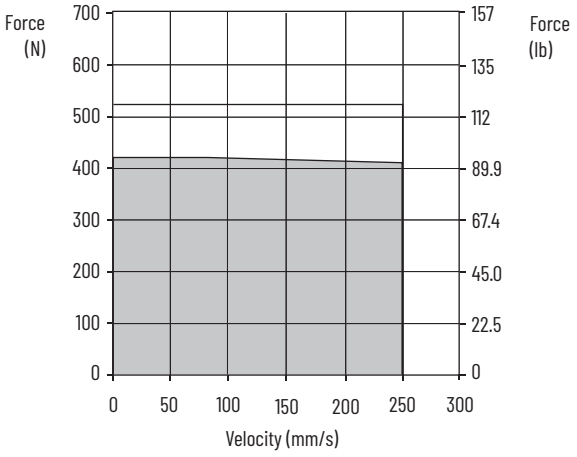
2198-D006-ERS*x* and VPAR-B1*xxx*B



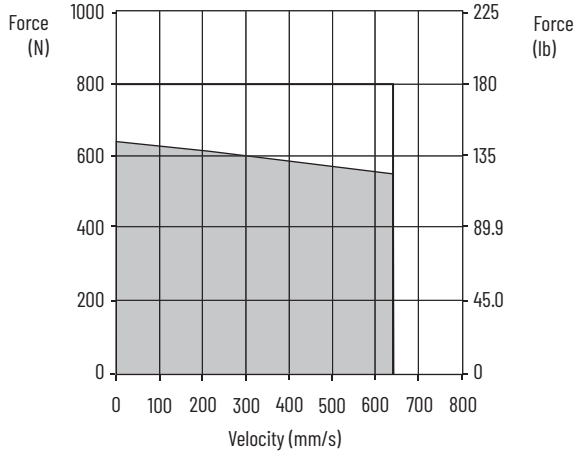
2198-D006-ERS*x* and VPAR-B1*xxx*E



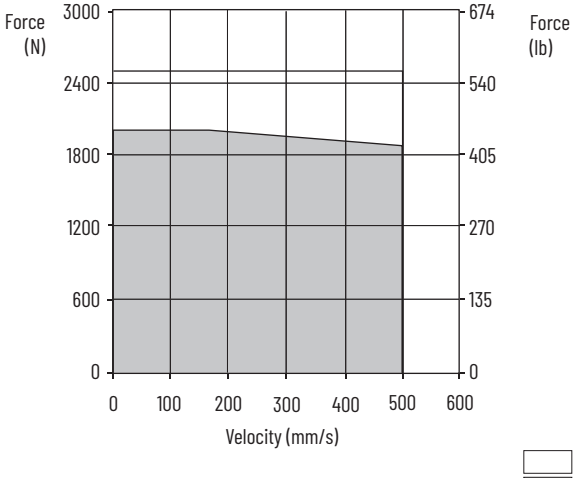
2198-D006-ERS*x* and VPAR-B2*xxx*C



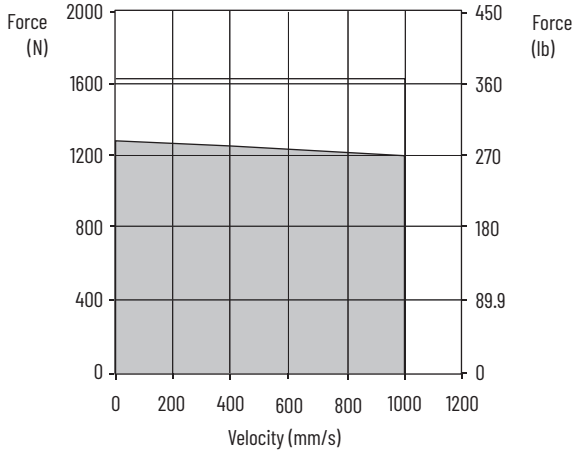
2198-D012-ERS*x* and VPAR-B2*xxx*F



2198-D012-ERS*x* and VPAR-B3*xxx*E



2198-D020-ERS*x* and VPAR-B3*xxx*H



= Intermittent operating region
= Continuous operating region

Kinetix 5700 Drives with Kinetix MPAR Electric Cylinders

This section provides system combination information for the Kinetix 5700 drives (with 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.

Kinetix MPAR Cable Combinations

Electric Cylinder Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAR-B1*xxx*B, MPAR-B1*xxx*E MPAR-B2*xxx*C, MPAR-B2*xxx*F MPAR-B3*xxx*E, MPAR-B3*xxx*H	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

Kinetix MPAR Performance Specifications with Kinetix 5700 Drives

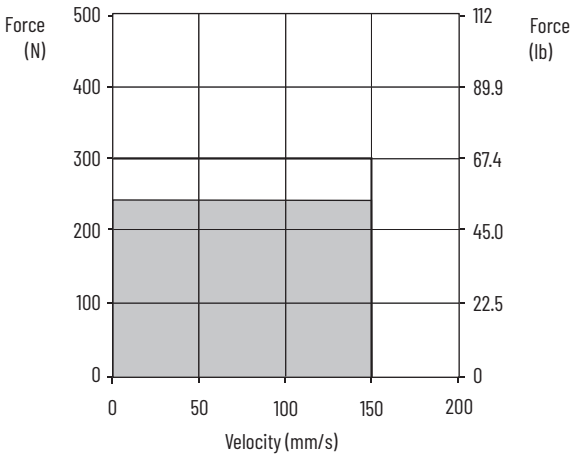
Performance Specifications with Kinetix 5700 (400V operation) Drives

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5700 Drives (480V AC input)
MPAR-B1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.036	2198-D006-ERS*x*
MPAR-B1*xxx*E	500	1.49	280 (62.9)	1.71	350 (78.7)	0.140	2198-D006-ERS*x*
MPAR-B2*xxx*C	250	1.67	420 (94.4)	1.90	525 (118)	0.105	2198-D006-ERS*x*
MPAR-B2*xxx*F	640	3.29	640 (144)	3.93	800 (180)	0.410	2198-D006-ERS*x*
MPAR-B3*xxx*E	500	5.16	2000 (450)	6.17	2500 (562)	1.00	2198-D012-ERS*x*
MPAR-B3*xxx*H	1000	6.13	1300 (292)	6.79	1625 (365)	1.30	2198-D012-ERS*x*

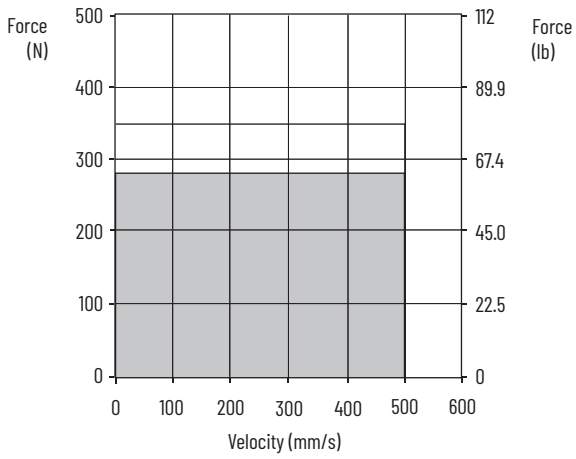
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 Drives/Kinetix MPAR Electric Cylinder Curves

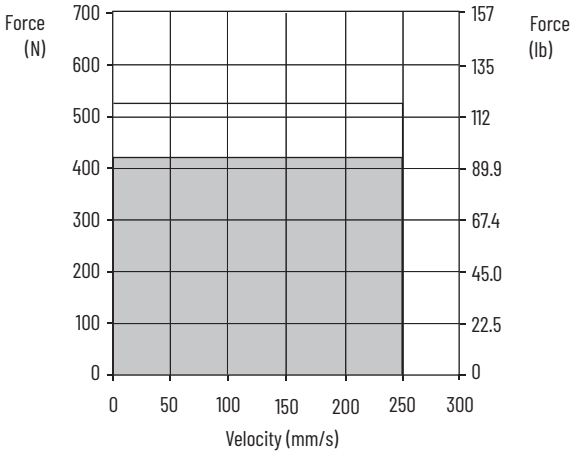
2198-D006-ERSx and MPAR-B1xxxB-VxA



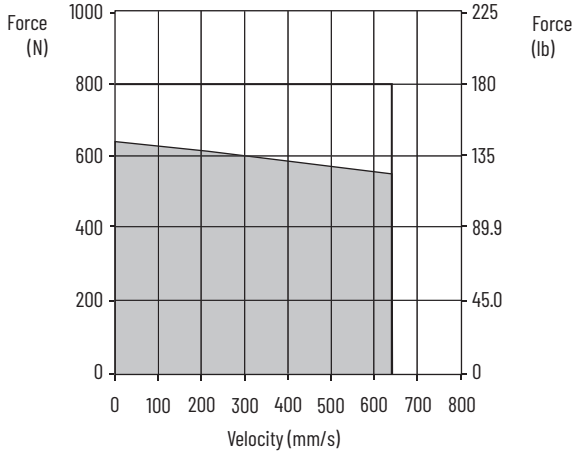
2198-D006-ERSx and MPAR-B1xxxE-VxA



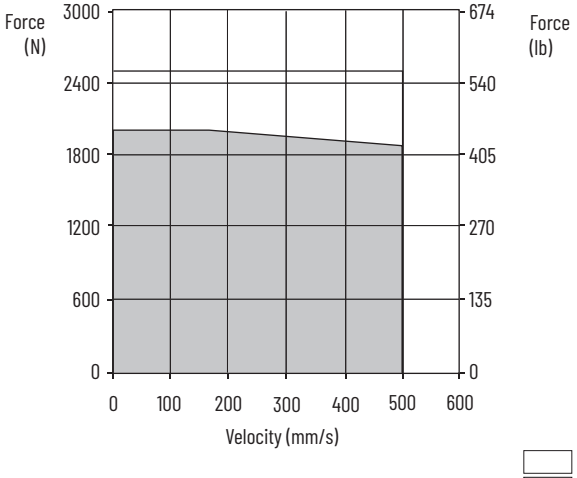
2198-D006-ERSx and MPAR-B2xxxC-VxA



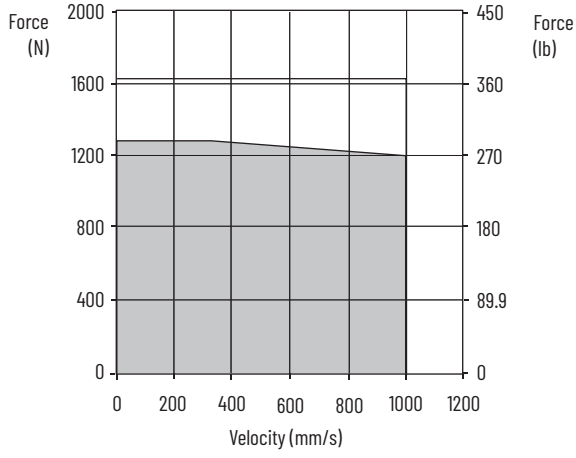
2198-D006-ERSx and MPAR-B2xxxF-VxA



2198-D012-ERSx and MPAR-B3xxxE-MxA



2198-D012-ERSx and MPAR-B3xxxH-MxA



= Intermittent operating region
= Continuous operating region

Kinetix 5700 Drives with Kinetix MPAI Heavy-duty Electric Cylinders

This section provides system combination information for the Kinetix 5700 drives (with 480V, nominal input) when matched with Kinetix MPAI electric cylinders. Included are motor power/brake and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

Kinetix MPAI Cable Combinations

Electric Cylinder Cat. No. (400V-class)	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPAI-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-B3*xxx*C, MPAI-B3*xxx*E MPAI-B3*xxx*R, MPAI-B3*xxx*S		
MPAI-B4*xxx*C, MPAI-B4*xxx*E MPAI-B4*xxx*R, MPAI-B4*xxx*S		
MPAI-B5*xxx*C, MPAI-B5*xxx*E		

(1) Use the 2198-K57CK-D15M feedback connector kit or 2198-H2DCK Hiperface-to-DSL converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19.
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 5700 Servo Drives User Manual, publication 2198-UM002.

Kinetix MPAI Performance Specifications with Kinetix 5700 (400V operation) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5700 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-D006-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-D006-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-D006-ERS*x*
MPAI-B3300CM3								
MPAI-B3450CM3	188 (7.3)							
MPAI-B3150EM3	559 (22)		2002 (450)	1588 (357)	7.07	4003 (900)		2198-D006-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-D012-ERS*x*
MPAI-B4300CM3								
MPAI-B4450CM3	245 (9.5)							
MPAI-B4150EM3	559 (22)		3892 (875)	3092 (695)	14.14	7784 (1750)		2198-D012-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-D012-ERS*x*
MPAI-B5*xxx*EM3	400 (15.6)		6562 (1475)	5208 (1171)	16.70	13,122 (2950)		

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

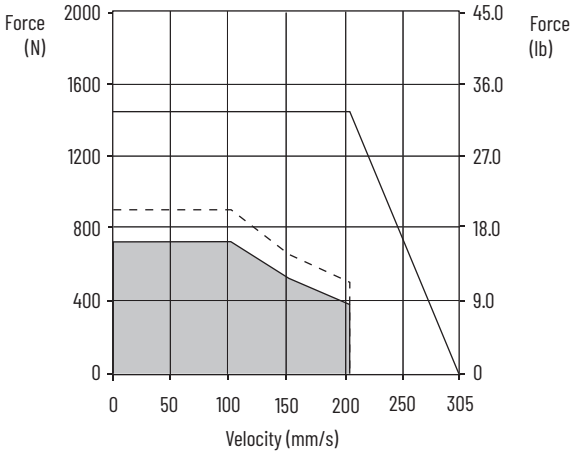
Performance Specifications with Roller Screw Electric Cylinders

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW	Kinetix 5700 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-D006-ERSx
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-D006-ERSx
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-D012-ERSx
MPAI-B4300RM3								
MPAI-B4450RM3	196 (7.6)							
MPAI-B4150SM3	559 (22)		3670 (825)	2914 (655)		7340 (1650)		
MPAI-B4300SM3								
MPAI-B4450SM3	393 (15)							

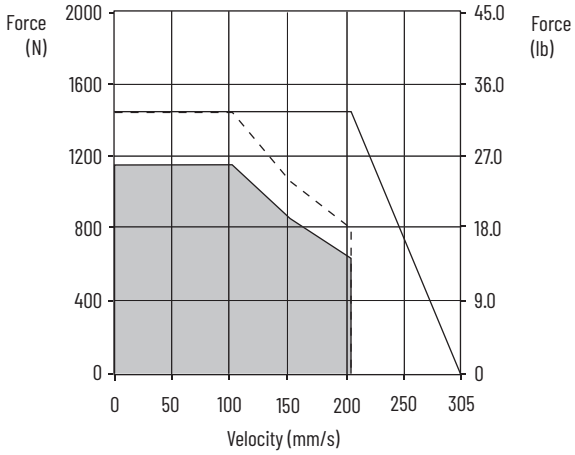
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves

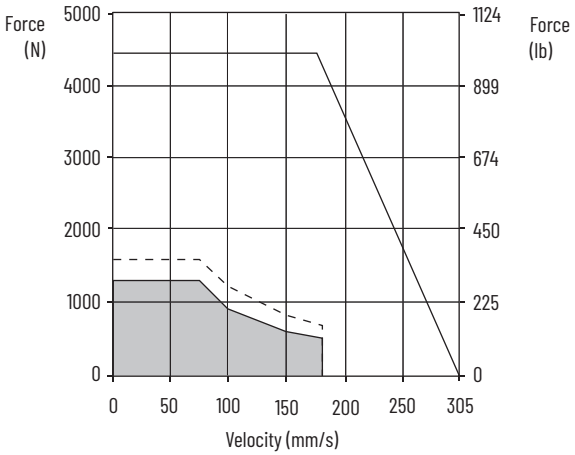
2198-D006-ERS*x* and MPAI-B2076CV1



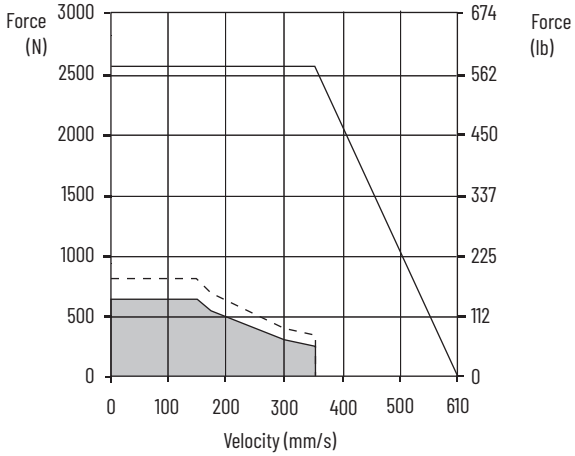
2198-D006-ERS*x* and MPAI-B2*xxx*CV3



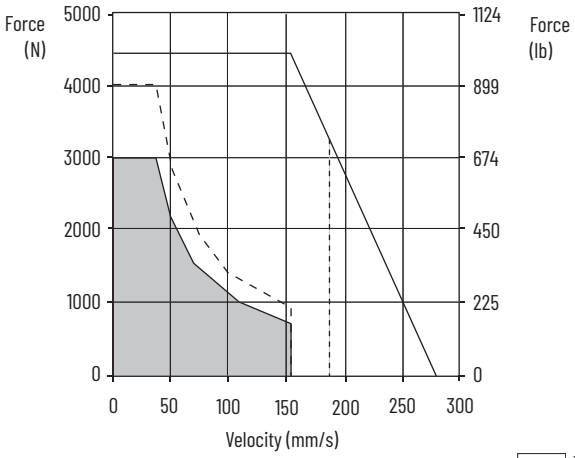
2198-D006-ERS*x* and MPAI-B3076CM1



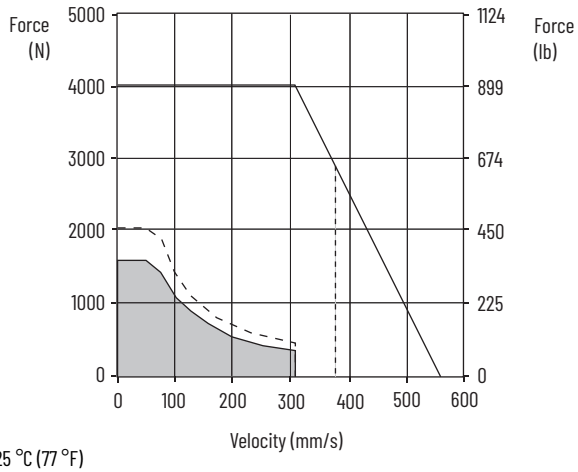
2198-D006-ERS*x* and MPAI-B3076EM1



2198-D006-ERS*x* and MPAI-B3*xxx*CM3



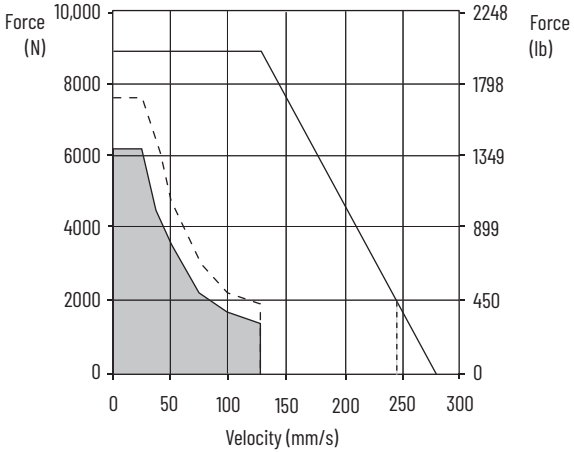
2198-D006-ERS*x* and MPAI-B3*xxx*EM3



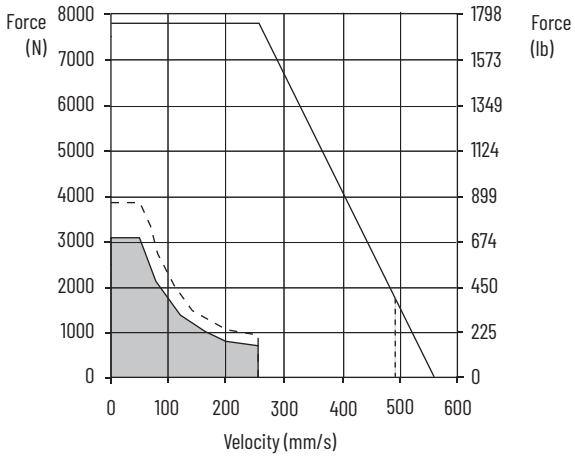
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076...300 mm (3...12 in.) stroke lengths

Kinetix 5700 Drives/Kinetix MPAI (ball screw) Electric Cylinder Curves (continued)

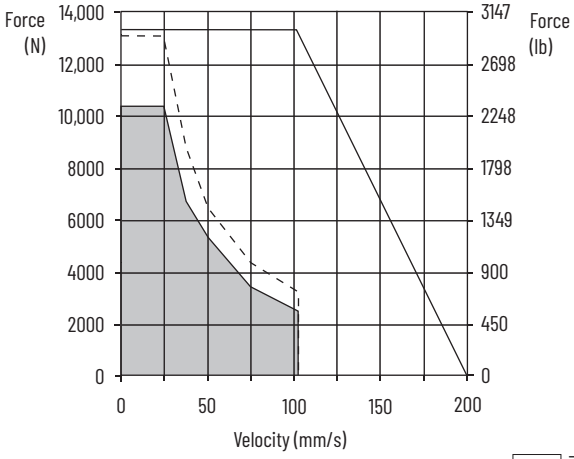
2198-D012-ERS*x* and MPAI-B4*xxx*CM3



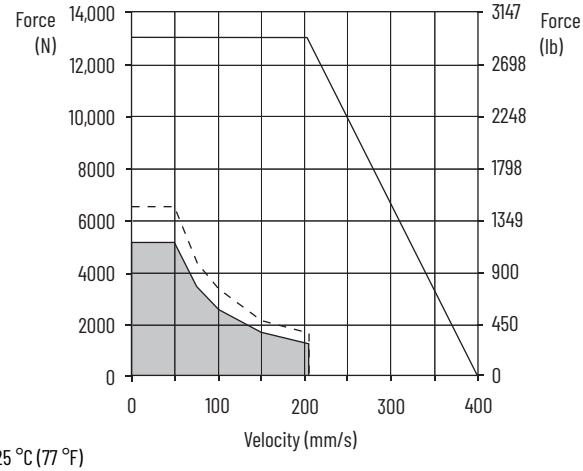
2198-D006-ERS*x* and MPAI-B4*xxx*EM3



2198-D012-ERS*x* and MPAI-B5*xxx*CM3



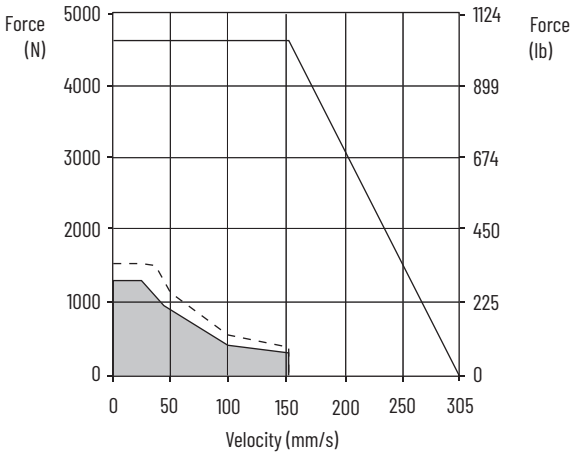
2198-D012-ERS*x* and MPAI-B5*xxx*EM3



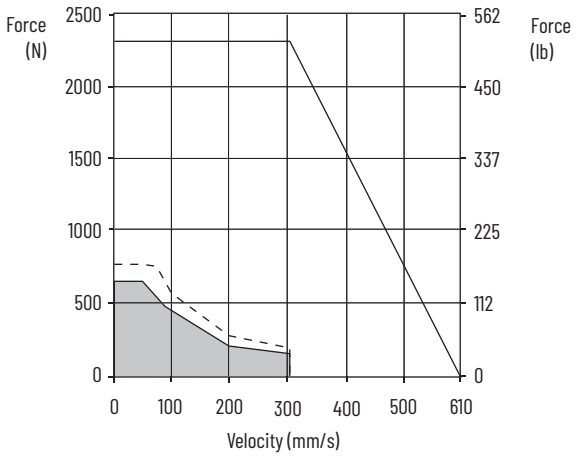
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076...300 mm (3...12 in.) stroke lengths

Kinetix 5700 Drives/Kinetix MPAI (roller screw) Electric Cylinder Curves

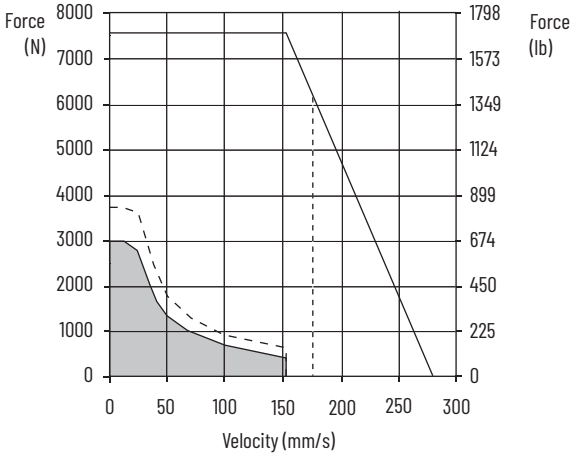
2198-D006-ERS*x* and MPAI-B3076RM1



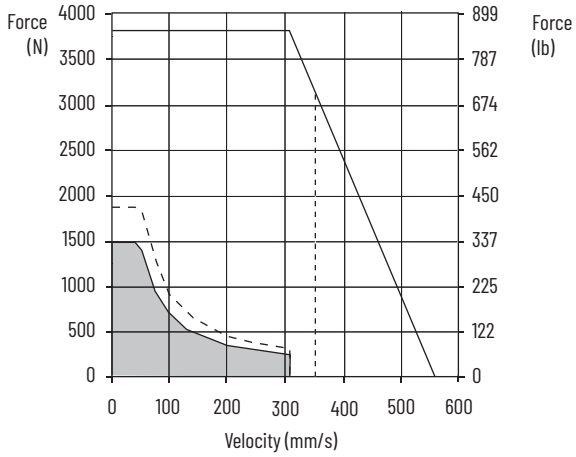
2198-D006-ERS*x* and MPAI-B3076SM1



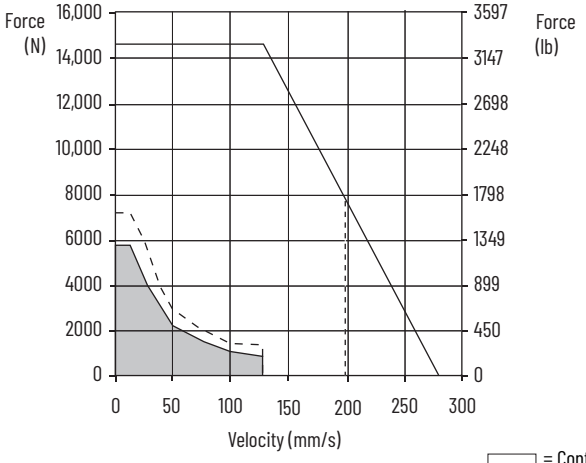
2198-D006-ERS*x* and MPAI-B3*xxx*RM3



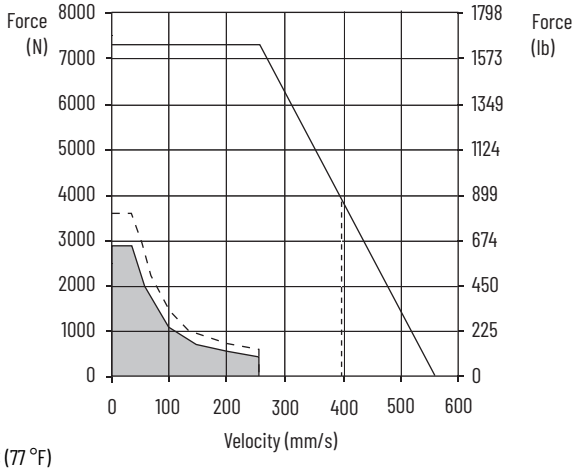
2198-D006-ERS*x* and MPAI-B3*xxx*SM3



2198-D012-ERS*x* and MPAI-B4*xxx*RM3



2198-D012-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

Kinetix 5700 (400V operation) Drives with LDC-Series Linear Motors

This section provides system combination information for the Kinetix 5700 drives (with 400 and 480V, nominal input) when matched with LDC-Series iron-core linear motors. Included are motor power and feedback cable catalog numbers, system performance specifications, and the optimum force/velocity curves.

LDC-Series Cable Combinations

Linear Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDC-C030100-DHT, LDC-C030200-DHT, LDC-C030200-EHT	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Sin/Cos or TTL Encoder Feedback
LDC-C050100-DHT, LDC-C050200-DHT, LDC-C050200-EHT, LDC-C050300-DHT, LDC-C050300-EHT		
LDC-C075200-DHT, LDC-C075200-EHT, LDC-C075300-DHT, LDC-C075300-EHT, LDC-C075400-DHT, LDC-C075400-EHT		
LDC-C100300-DHT, LDC-C100300-EHT, LDC-C100400-DHT, LDC-C100400-EHT, LDC-C100600-DHT		
LDC-C150400-DHT, LDC-C150600-DHT		

(1) Use the 2198-K57CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 11.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor Power/Brake and Feedback Cables Overview beginning on page 19. Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power 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 5700 Servo Drives User Manual, publication 2198-UM002.

LDC-Series Performance Specifications with Kinetix 5700 (400V operation) Drives

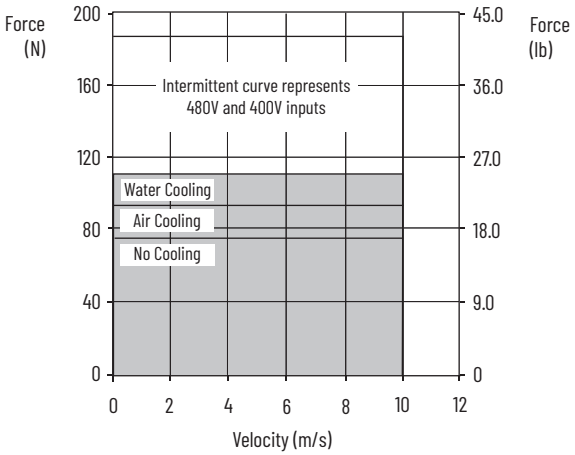
Linear Motor Cat. No.	Maximum Speed m/s (ft/s)	System Continuous (1) Stall Current Amps 0-pk	System Continuous (1) Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW	Kinetix 5700 Drives (480V AC input)
LDC-C030100-DHT	10.0 (32.8)	4.1…6.1	74…111 (17…25)	12.1	188 (42)	0.37…0.55	2198-D012-ERS*x*
LDC-C030200-DHT		8.1…12.2	148…222 (33…50)	24.3	375 (84)	0.74…1.11	2198-D020-ERS*x*
LDC-C030200-EHT		4.1…6.1		12.1			2198-D012-ERS*x*
LDC-C050100-DHT	10.0 (32.8)	3.9…5.9	119…179 (27…40)	11.7	302 (68)	0.59…0.89	2198-D012-ERS*x*
LDC-C050200-DHT		7.9…11.8	240…359 (54…81)	23.3	600 (135)	1.20…1.79	2198-D020-ERS*x*
LDC-C050200-EHT		3.9…5.9		11.6			2198-D012-ERS*x*
LDC-C050300-DHT		11.8…17.7	363…544 (82…122)	35.9	941 (212)	1.81…2.72	2198-D032-ERS*x*
LDC-C050300-EHT		3.9…5.9		12.0			2198-D012-ERS*x*
LDC-C075200-DHT	10.0 (32.8)	7.7…11.5	348…523 (78…117)	22.9	882 (198)	1.74…2.61	2198-D020-ERS*x*
LDC-C075200-EHT		3.8…5.7		11.5			2198-D012-ERS*x*
LDC-C075300-DHT		11.5…17.2	523…784 (117…176)	35.6	1368 (308)	2.61…3.92	2198-D032-ERS*x*
LDC-C075300-EHT		3.8…5.7		11.9			2198-D012-ERS*x*
LDC-C075400-DHT		15.3…23.0	697…1045 (157…235)	47.4	1824 (410)	3.48…5.22	2198-D032-ERS*x*
LDC-C075400-EHT		7.7…11.5		23.7			2198-D020-ERS*x*
LDC-C100300-DHT	10.0 (32.8)	11.1…16.7	674…1012 (152…227)	34.3	1767 (397)	3.37…5.06	2198-D032-ERS*x*
LDC-C100300-EHT		3.7…5.6		11.4			2198-D012-ERS*x*
LDC-C100400-DHT		14.8…22.2	899…1349 (202…303)	45.7	2356 (530)	4.49…6.74	2198-D032-ERS*x*
LDC-C100400-EHT		7.4…11.1		22.8			2198-D020-ERS*x*
LDC-C100600-DHT		22.2…33.3	1349…2023 (303…455)	68.5	3534 (794)	6.74…10.11	2198-D057-ERS*x*
LDC-C100600-EHT		11.1…16.7		34.3			2198-D032-ERS*x*
LDC-C150400-DHT	10.0 (32.8)	14.1…21.1	1281…1922 (288…432)	45.2	3498 (786)	6.40…9.61	2198-D032-ERS*x*
LDC-C150400-EHT		7.0…10.6		22.6			2198-D020-ERS*x*
LDC-C150600-DHT		21.1…31.7	1922…2882 (432…648)	67.8	5246 (1179)	9.61…14.41	2198-D057-ERS*x*
LDC-C150600-EHT		10.6…15.8		33.9			2198-D032-ERS*x*

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

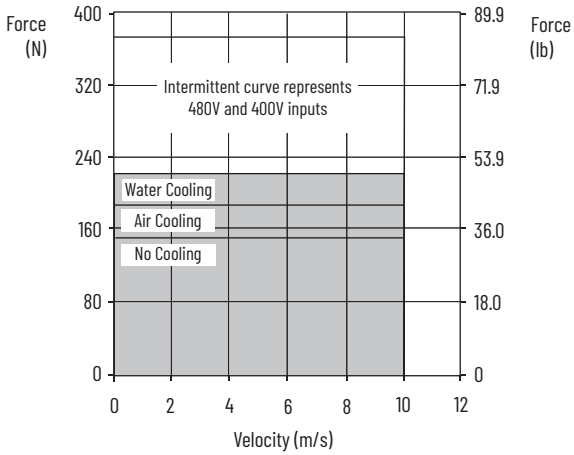
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V operation) Drives/LDC-Series Linear Motor Curves

2198-D012-ERSx and LDC-C030100-DHT



2198-D020-ERSx and LDC-C030200-DHT



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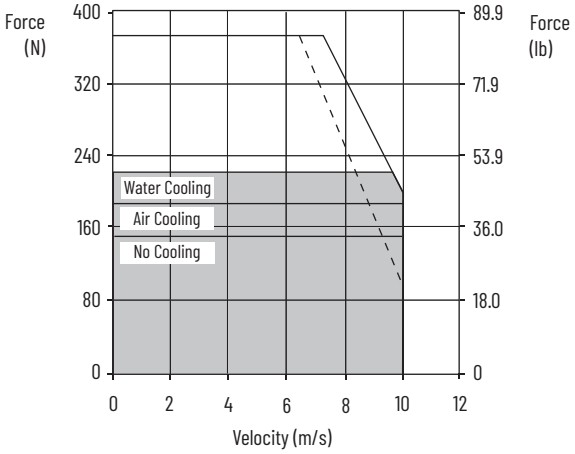

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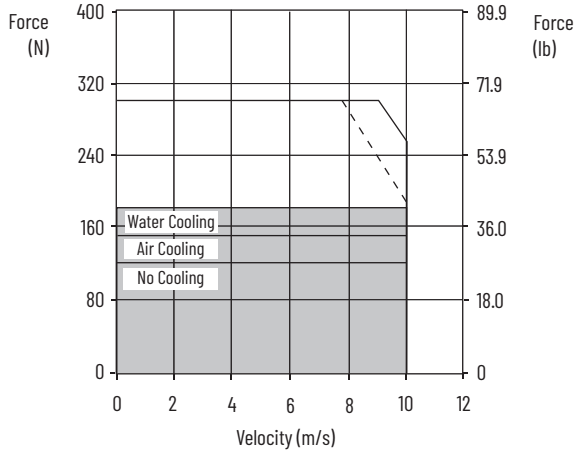

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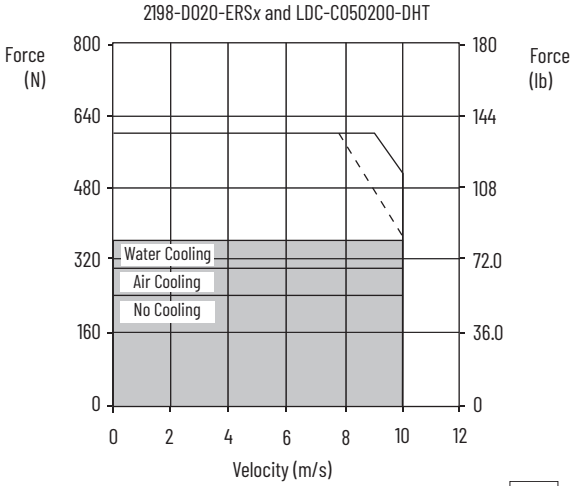
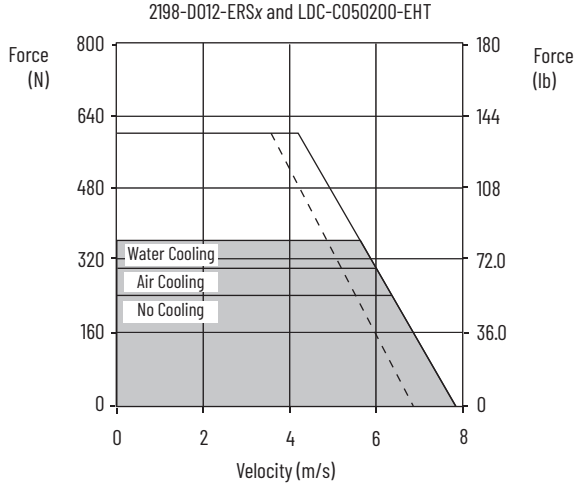


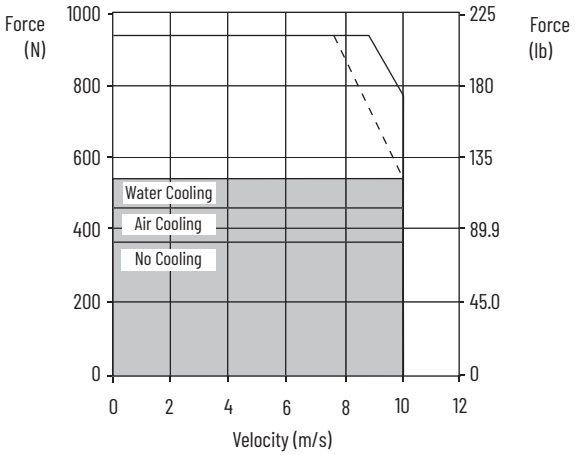
2198-D012-ERSx and LDC-C050200-EHT



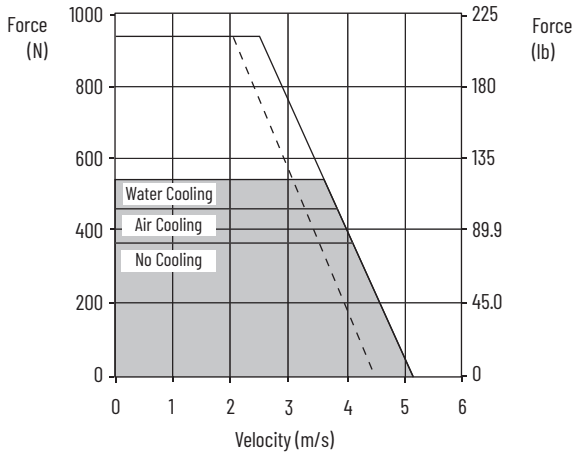
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/LDC-Series Linear Motor Curves (continued)

2198-D032-ERSx and LDC-C050300-DHT



2198-D012-ERSx and LDC-C050300-EHT



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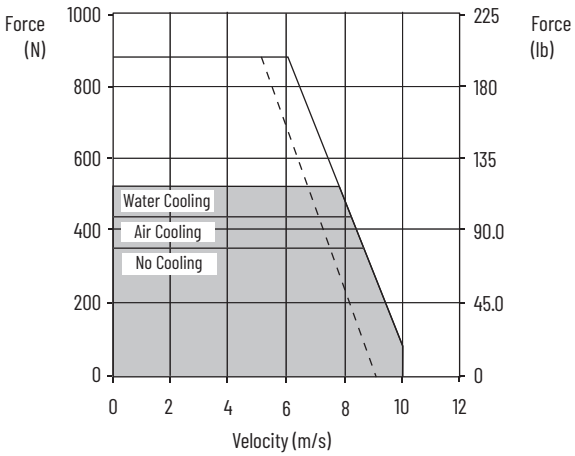

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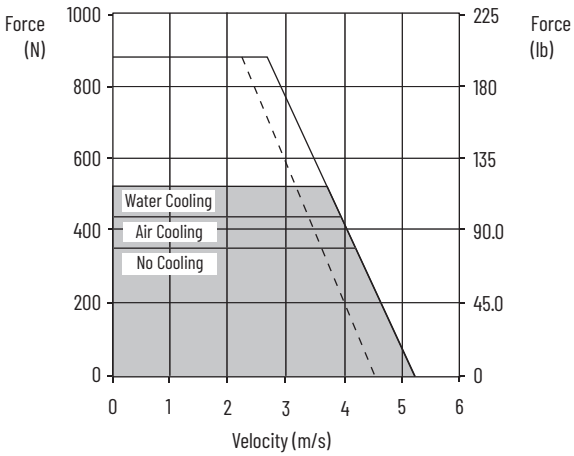
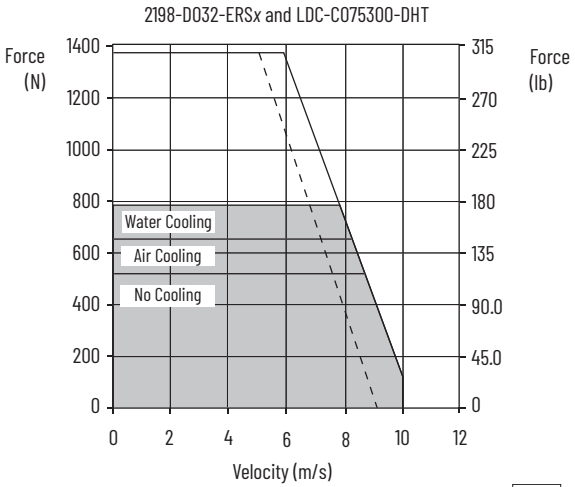
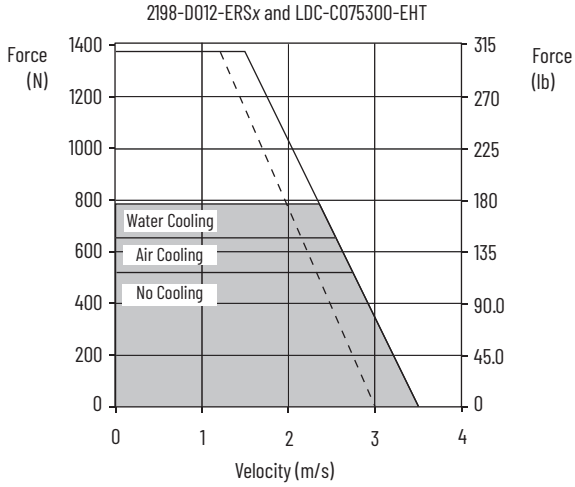


2198-D032-ERSx and LDC-C075300-DHT



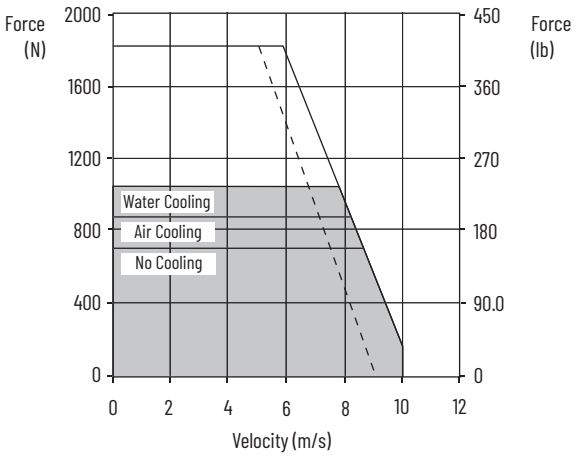
2198-D012-ERSx and LDC-C075300-EHT



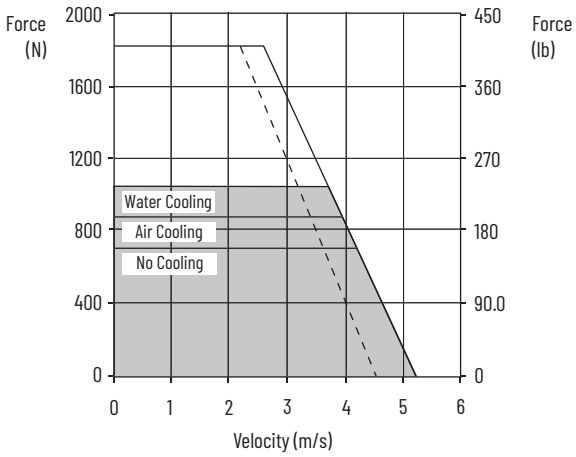
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/LDC-Series Linear Motor Curves (continued)

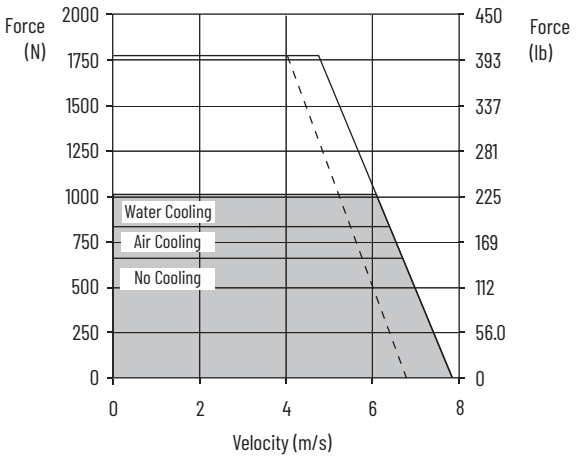
2198-D032-ERSx and LDC-C075400-DHT



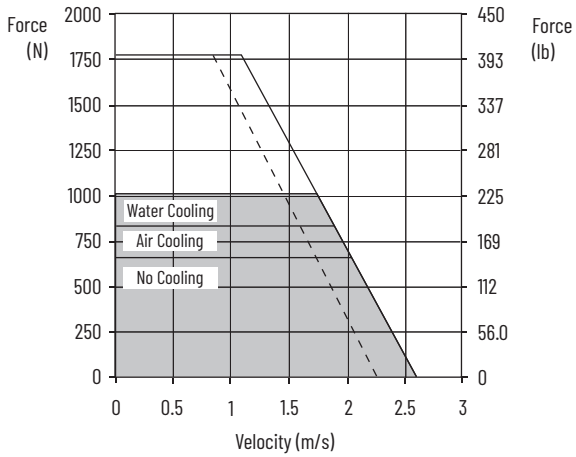
2198-D020-ERSx and LDC-C075400-EHT



2198-D032-ERSx and LDC-C100300-DHT



2198-D012-ERSx and LDC-C100300-EHT



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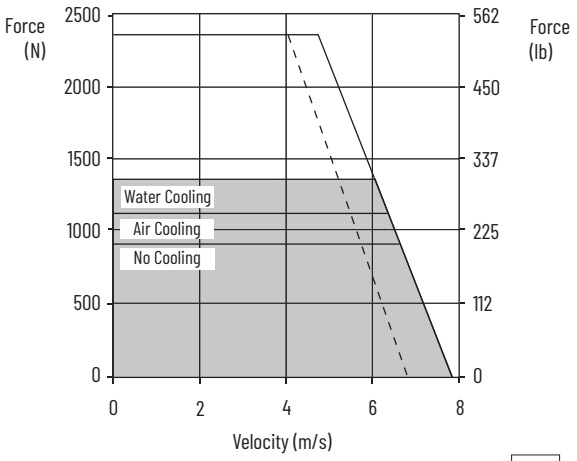

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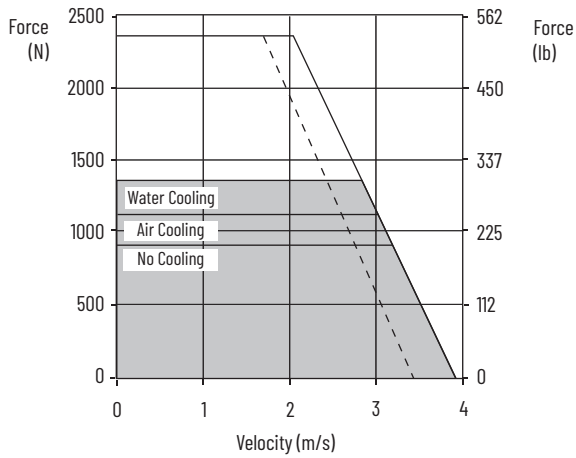
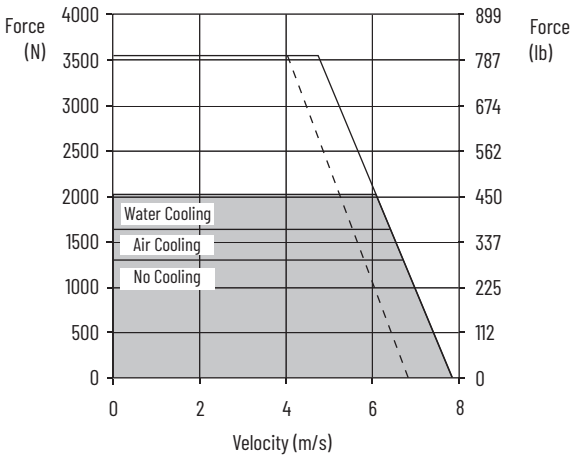


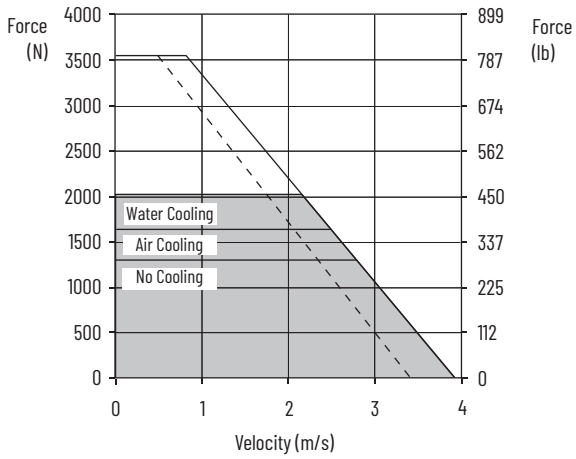
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Kinetix 5700 (400V operation) Drives/LDC-Series Linear Motor Curves (continued)

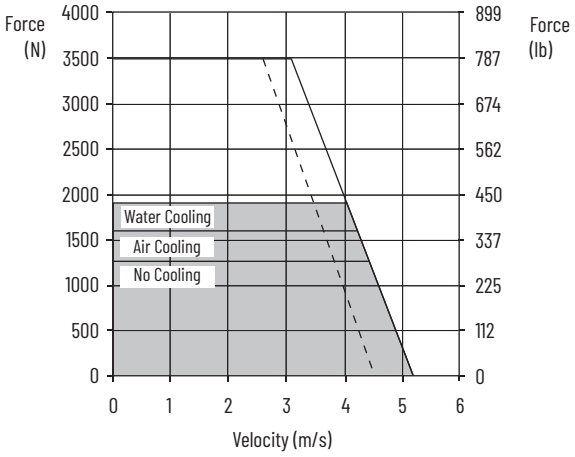
2198-D057-ERSx and LDC-C100600-DHT



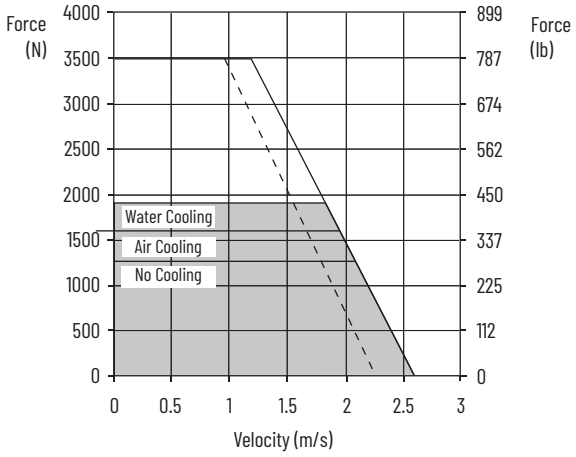
2198-D032-ERSx and LDC-C100600-EHT



2198-D032-ERSx and LDC-C150400-DHT



2198-D020-ERSx and LDC-C150400-EHT



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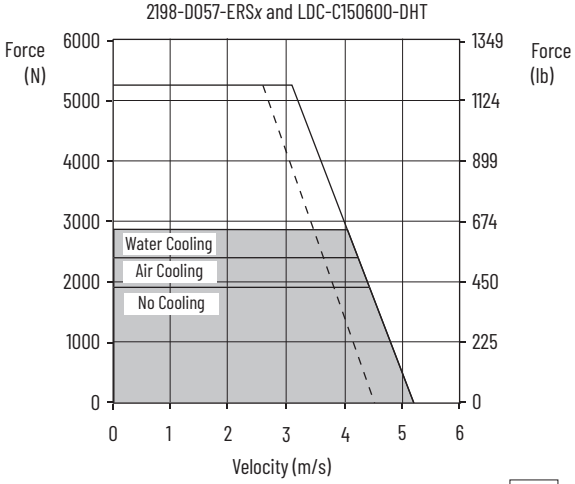

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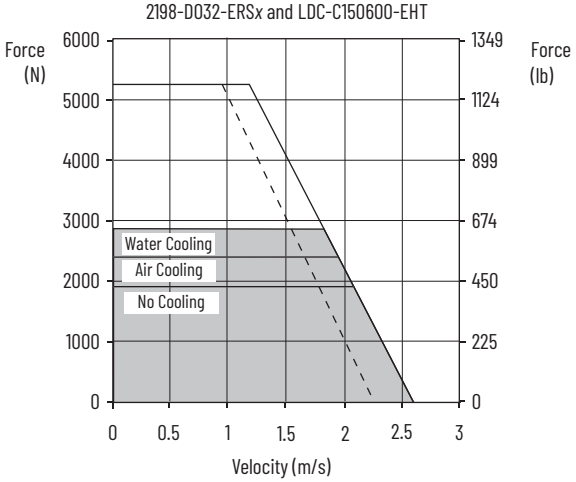

= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

Notes:

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	Provides product specifications for Kinetix Integrated Motion over the EtherNet/IP network, Integrated Motion over sercos interface, EtherNet/IP networking, and component servo drive families.
Kinetix Motion Accessories Specifications, publication KNX-TD004	Provides product specifications for 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 5700 Servo Drives User Manual, publication 2198-UM002	Provides information on how to install, configure, startup, and troubleshoot your Kinetix 5700 servo drive system.
Kinetix 5700 Safe Monitor Functions Safety Reference Manual, publication 2198-RM001	Provides information on safety functions available with 2198-*xxxx*-ERS4 dual-axis and single-axis inverters. Includes Studio 5000 Logix Designer configuration and troubleshooting for your Kinetix 5700 servo drive system.
Kinetix Motion Control Selection Guide, publication KNX-SG001	Provides overview of Kinetix servo drives, motors, actuators, and motion accessories designed to help make initial decisions for the motion control products best suited for your system requirements.
Kinetix 5500 Drive Systems Design Guide, publication KNX-RM009	Provides 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 5300 Drive Systems Design Guide, publication KNX-RM012	
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	
System Design for Control of Electrical Noise Reference Manual, publication GMC-RM001	Provides information, examples, and techniques designed to minimize system failures caused by electrical noise.
Servo Drive Installation Best Practices Application Technique, publication MOTION-AT004	Best practice examples to help reduce the number of potential noise or electromagnetic interference (EMI) sources in your system and to make sure that the noise sensitive components are not affected by the remaining noise.
ControlLogix Selection Guide, publication 1756-SG001	Provides information to determine which ControlLogix controller fits your application and the product specifications to help design a ControlLogix system and select the appropriate components.
CompactLogix Selection Guide, publication 1769-SG001	Provides information to determine which CompactLogix controller fits your application and the product specifications to help design a CompactLogix system and select the appropriate components.
Industrial Ethernet Media Brochure, publication 1585-BR001	Provides information to determine which Bulletin 1585 Ethernet cable fits your application and the product specifications to help select the appropriate components.
Motion Analyzer System Sizing and Selection Tool website https://motionanalyzer.rockwellautomation.com/	Provides 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	Provides online product selection and system configuration tools, including AutoCAD (DXF) drawings.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.
Rockwell Automation Industrial Automation Glossary, publication AG-7.1	A glossary of industrial automation terms and abbreviations.

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Rockwell Automation Support

Use these resources to access support information.

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

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Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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