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, 2198-DSD*xxx*-ERS2, 2198-DSD*xxx*-ERS5, 2198-DSM*xxx*-ERS2, 2198-DSM*xxx*-ERS5

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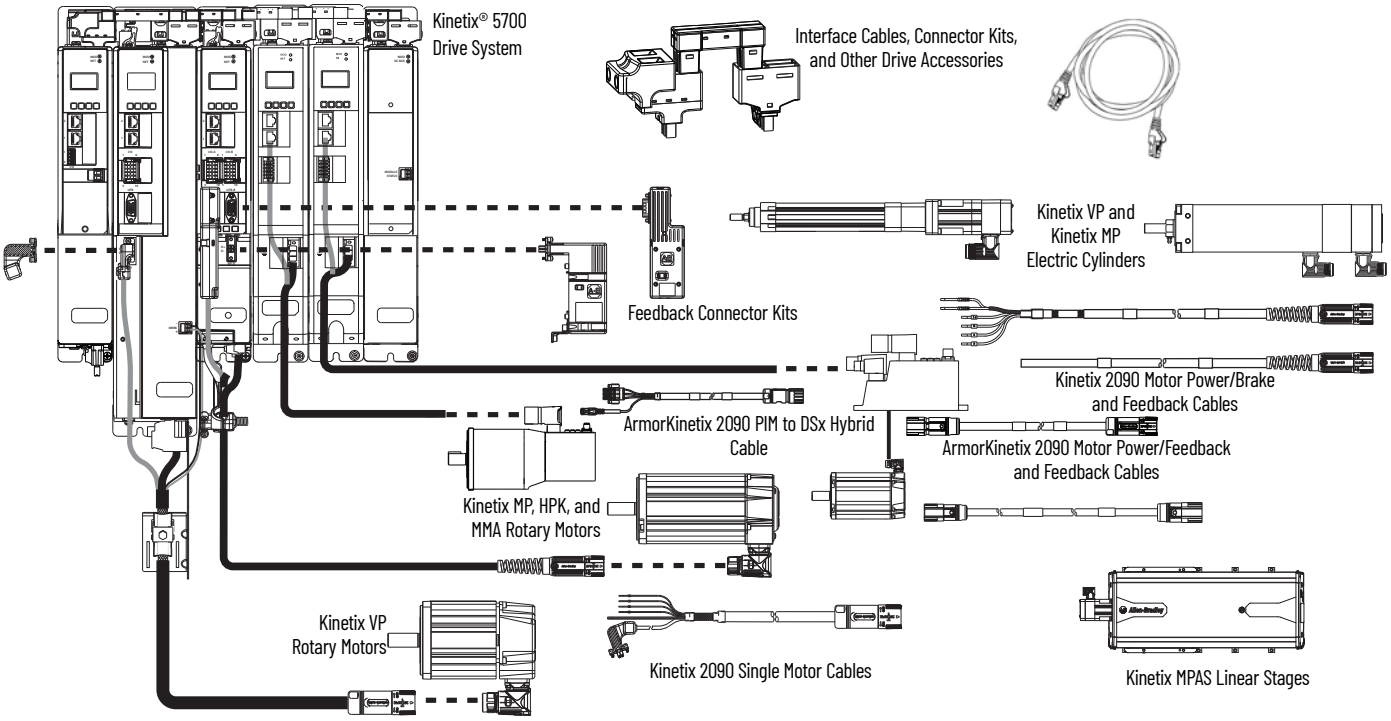
Kinetix® 5700
Drive System
Interface Cables, Connector Kits,
and Other Drive Accessories
Kinetix VP and
Kinetix MP
Electric Cylinders
Feedback Connector Kits
Kinetix 2090 Motor Power/Brake
and Feedback Cables
ArmorKinetix 2090 PIM to DSx Hybrid
Cable
ArmorKinetix 2090 Motor Power/Feedback
and Feedback Cables
Kinetix MP, HPK, and
MMA Rotary Motors
Kinetix VP
Rotary Motors
Kinetix 2090 Single Motor Cables
Kinetix MPAS Linear Stages

Summary of Changes

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

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Added ArmorKinetix modules to the DC-bus power supply installation example.	6
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Introduction

Use this publication when your application includes the Kinetix 5700 drive family, which can include ArmorKinetix modules, and the Kinetix linear and rotary 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, use FactoryTalk® Motion Analyzer™ software (version 2.000 or later) rok.auto/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 5700, 5500, 5300, and 5100 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 rok.auto/motion-analyzer.

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 Logix Designer®, version 32.00 or later (for ArmorKinetix modules, version 35.00 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 or later) 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.

IMPORTANT The regenerative bus supply is not compatible with the ArmorKinetix system.

DC-bus Power Supply Input Power Configurations

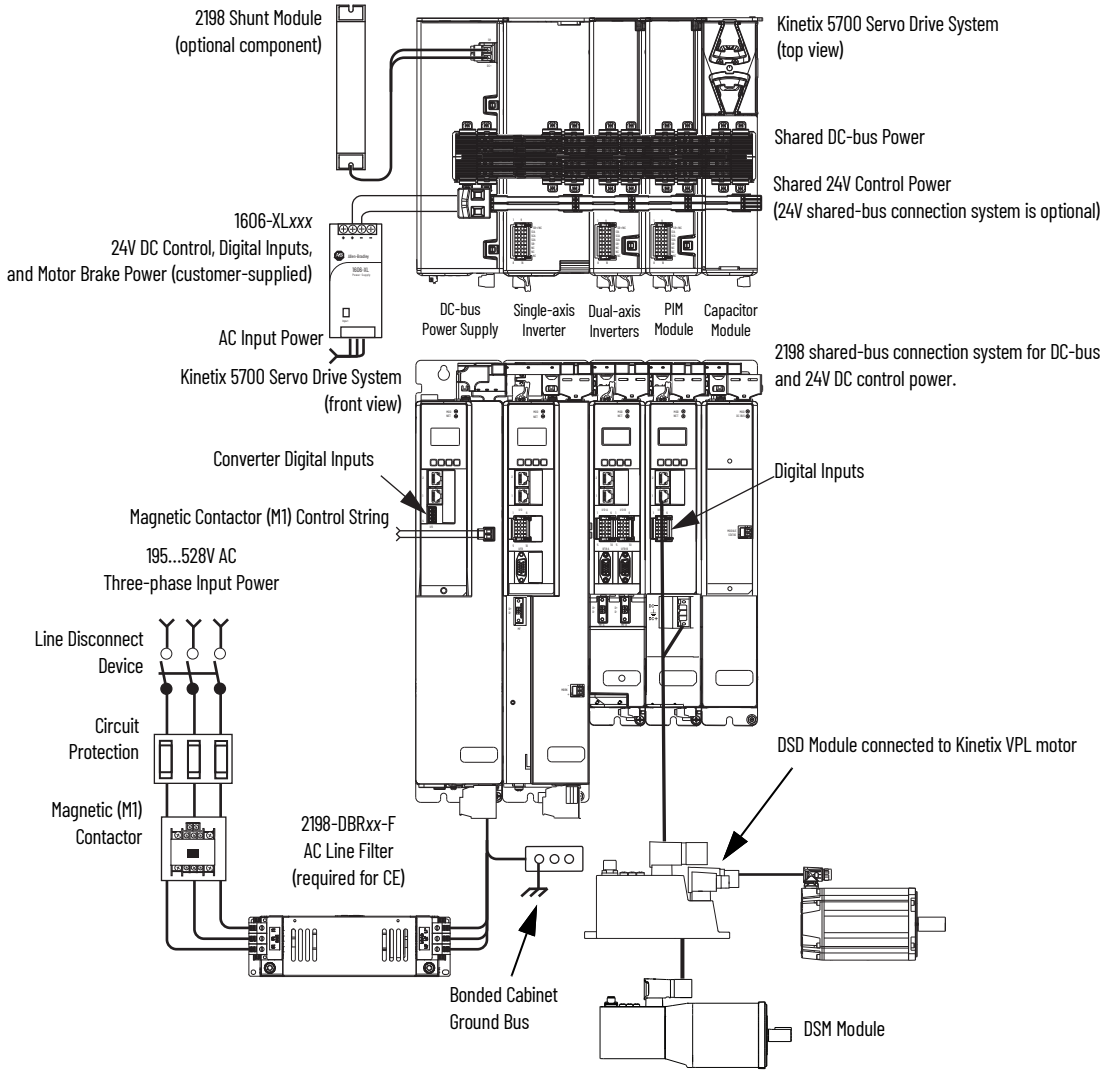
In this example, AC input power is fed to the DC-bus (converter) power supply. One single-axis (inverter) module, one dual-axis (inverter) module, and one ArmorKinetix power interface module (PIM), which is connected to a distributed servo drive (DSD) module and a distributed servo motor (DSM) module, 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 and 2198-PIM070 power interface modules) 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.

IMPORTANT The regenerative bus supply is not compatible with the ArmorKinetix system.

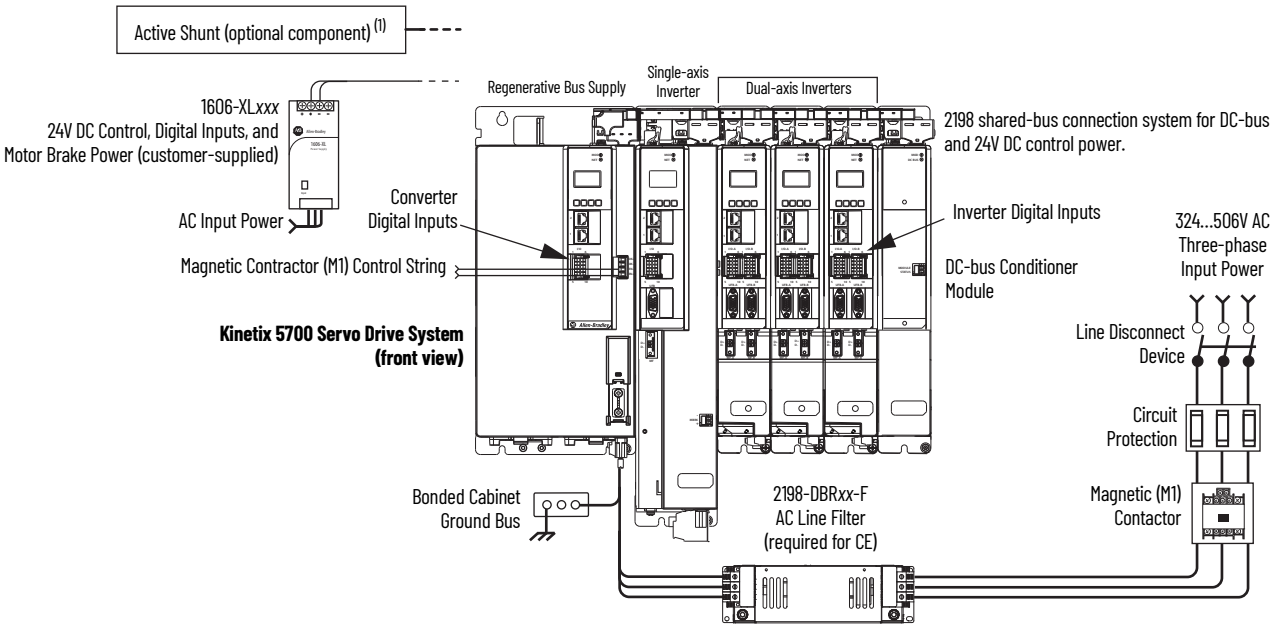
This example includes the following features:

- 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.

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.

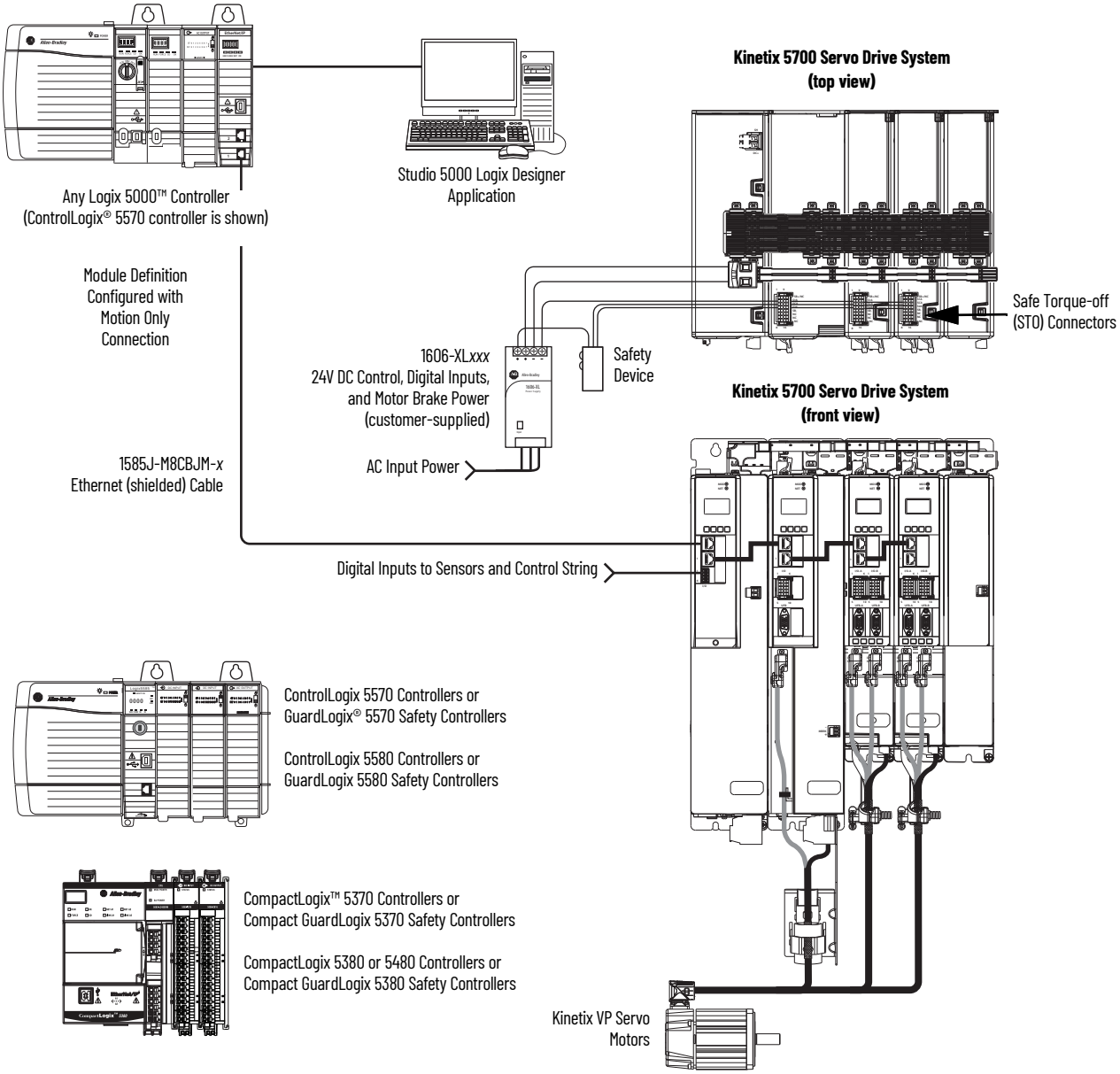
Functional Safety Configuration Options

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



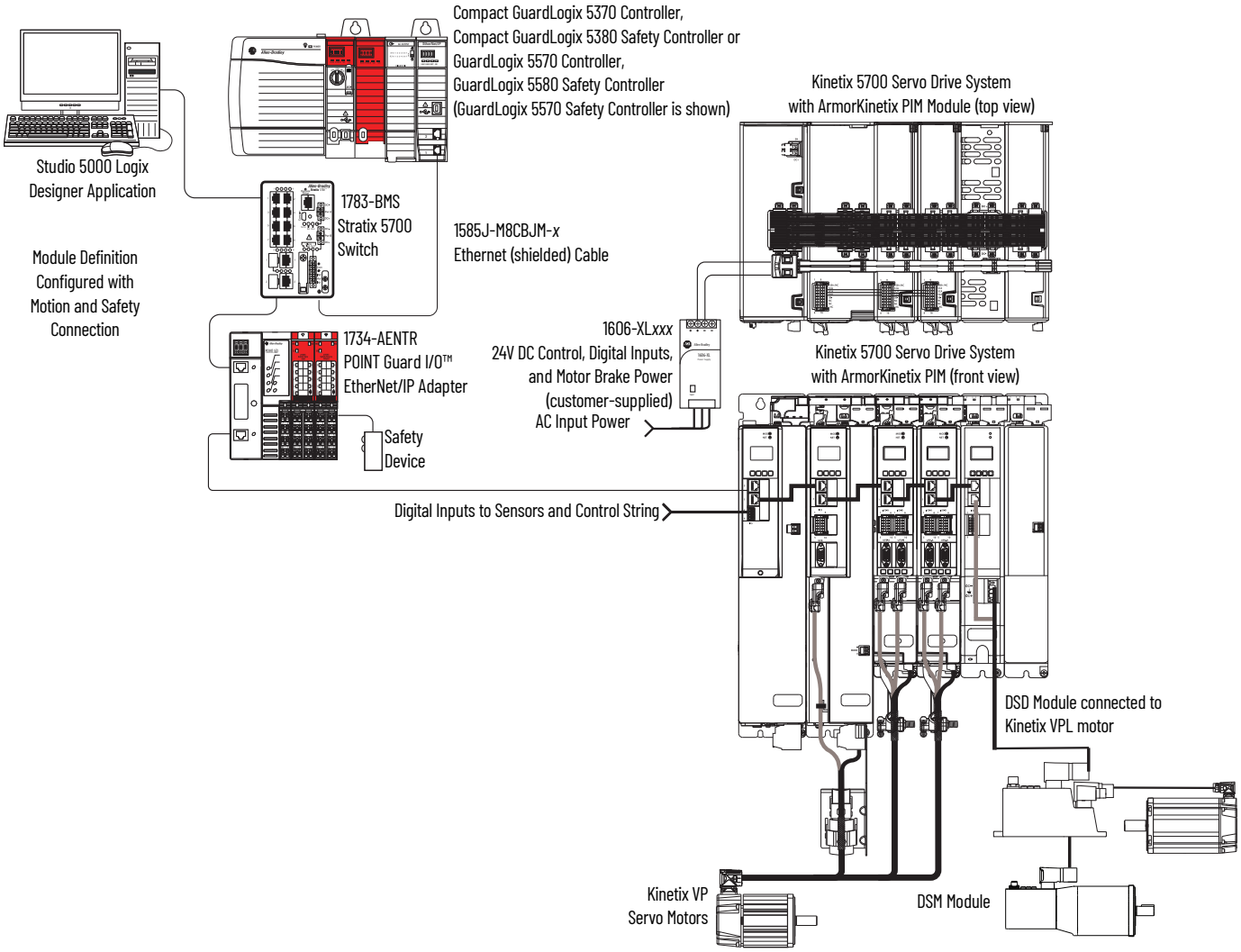
Integrated Safety Configurations

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 - Kinetix 5700 Drives table on page 15.

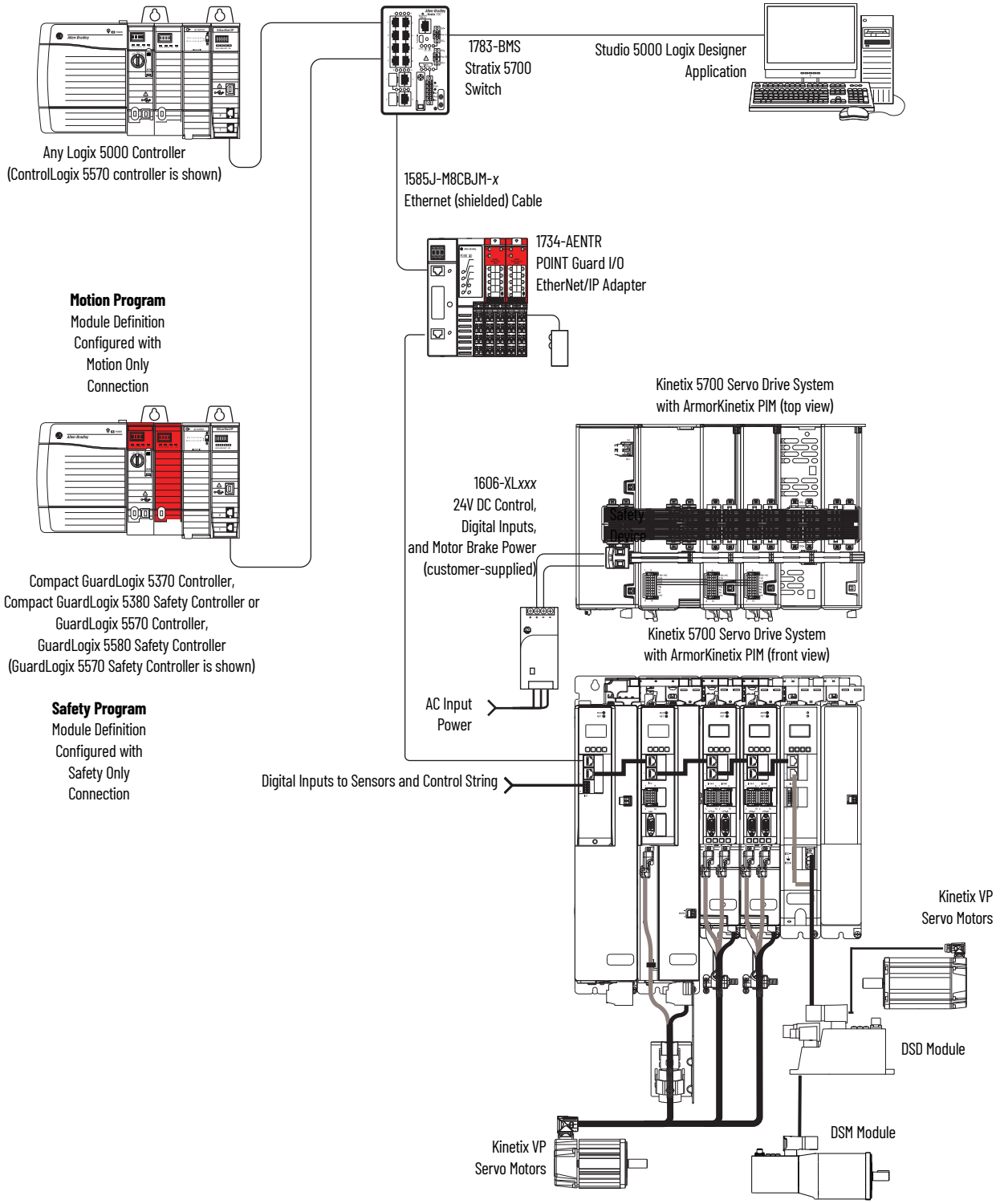
Motion and Safety Configuration (single controller)



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 - Kinetix 5700 Drives table on page 15.

Motion and Safety Configuration (multi-controller)



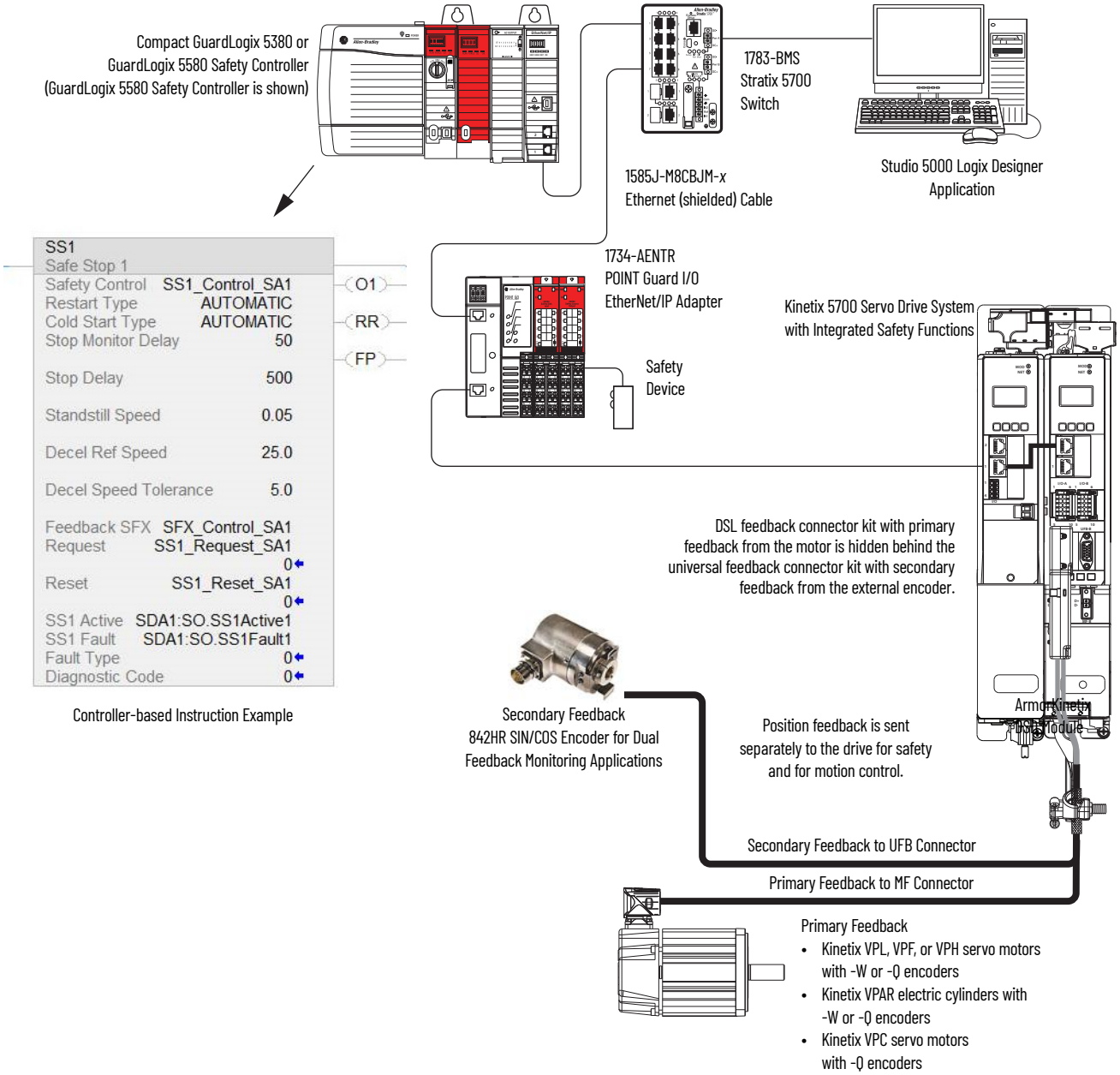
Safe Stop and Safe Monitor Configuration

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.

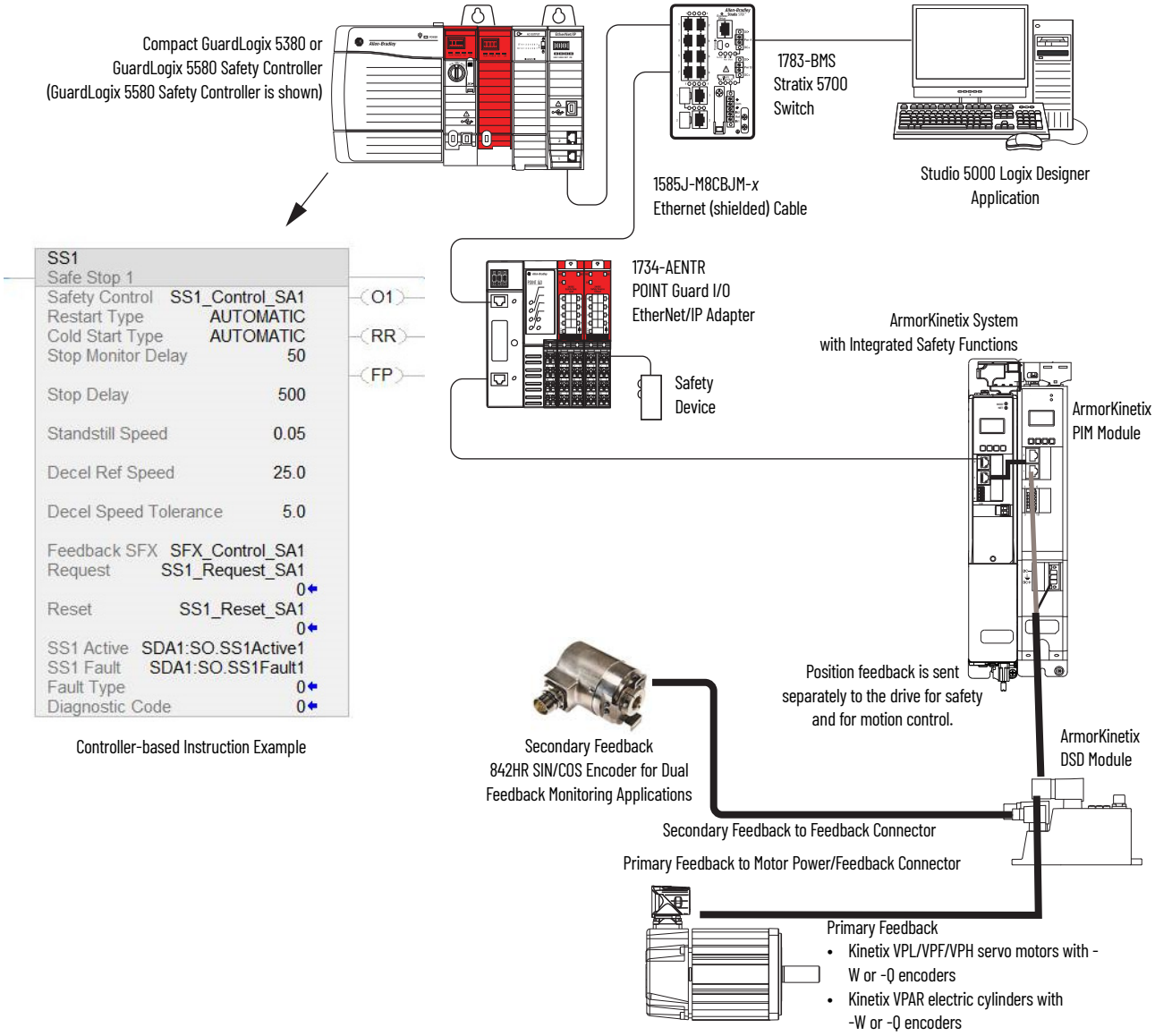
IMPORTANT For applications with safe stop and safe monitor safety functions, the GuardLogix 5580 or Compact GuardLogix 5380 controllers must be used. For more information, see the Functional Safety and GuardLogix Controller Compatibility - Kinetix 5700 Drives table on page 15.

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 - Kinetix 5700 Drive System



Safe Motion-monitoring Configuration - ArmorKinetix System



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)
- 2198 AC line filters
- 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 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 13.00 or later • Kinetix HPK asynchronous servo motor compatibility • Kinetix MMA asynchronous main motor compatibility • Kinetix RDB motor compatibility • Kinetix VP and Kinetix MP linear actuator compatibility • Kinetix LDAT linear thruster compatibility • Kinetix LDC linear motor compatibility • Hardwired and Integrated STO (safe torque-off) **2198-*xxxx*-ERS3 (series B or later) 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.

ArmorKinetix Drive Modules

ArmorKinetix System Modules	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	Rated Continuous A 0...pk	Peak(1) 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 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	–	–	
PIM Module	2198-PIM070	24	55	8	16	–	–	The PIM module provides the connection between the in-cabinet system and the on-machine inverter. This module distributes DC power and communication signals to the DSD and DSM modules by using a single cable (hybrid cable). Each PIM module can support up to 24 axes.
DSM, 200V-class	2198-DSM016-ERSx-A0751E-xx1xAx 2198-DSM016-ERSx-A0752E-xx1xAx 2198-DSM024-ERSx-A0753C-xx1xAx 2198-DSM024-ERSx-A0753E-xx1xAx	–	79.5	0.38 0.63 0.59 0.67	–	2.90 4.80 4.01 5.50	9.12 17.61 18.60 21.50	• Single-axis motor/inverter with maximum continuous torque of 11.9 Nm and peak torque of 31.2 Nm with speeds up to 8000 rpm. • The -ERS2 motor/inverters feature TÜV Rheinland-certified Safe Torque Off function with integrate safety connection, PLe, and SIL 3 for Hiperface DSL feedback only. The modules also support Timed SS1 drive-based stopping functions. • The 2198-DSMxxx-ERS5 modules also support Timed and Monitored SS1 drive-based stopping functions, and support for controller-based Safe Stop 1 and Safely-limited Speed functions.
	2198-DSM016-ERSx-A1001C-xx1xAx 2198-DSM016-ERSx-A1002C-xx1xAx 2198-DSM024-ERSx-A1003C-xx1xAx 2198-DSM024-ERSx-A1003E-xx1xAx		89.4	0.51 1.03 0.87 1.31	–	3.31 6.24 5.95 9.12	10.38 20.33 20.20 27.40	
	2198-DSM016-ERSx-A1152B-xx1xAx 2198-DSM024-ERSx-A1152E-xx1xAx 2198-DSM024-ERSx-A1153A-xx1xAx 2198-DSM024-ERSx-A1153C-xx1xAx		98.3	0.98 1.41 0.93 1.32	–	5.94 10.10 5.83 8.11	21.19 30.80 21.33 29.36	
	2198-DSM016-ERSx-A1303A-xx1xAx 2198-DSM024-ERSx-A1303B-xx1xAx 2198-DSM024-ERSx-A1304A-xx1xAx 2198-DSM024-ERSx-A1306A-xx1xAx		113.7	0.94 1.37 1.55 1.44	–	5.81 8.78 8.72 9.72	31.00 29.50 29.87 29.70	
DSM, 400V-class	2198-DSM016-ERSx-B0751M-xx1xAx 2198-DSM016-ERSx-B0752M-xx1xAx 2198-DSM024-ERSx-B0753F-xx1xAx 2198-DSM024-ERSx-B0753M-xx1xAx		79.5	–	0.54 0.81 0.65 0.78	2.70 4.81 3.75 5.64	9.12 18.90 18.90 21.09	
	2198-DSM016-ERSx-B1001M-xx1xAx 2198-DSM016-ERSx-B1002M-xx1xAx 2198-DSM024-ERSx-B1003F-xx1xAx 2198-DSM024-ERSx-B1003T-xx1xAx		89.4	–	1.02 1.86 1.65 1.77	3.37 6.12 5.79 8.62	10.38 20.33 20.20 23.94	
	2198-DSM016-ERSx-B1152F-xx1xAx 2198-DSM024-ERSx-B1152T-xx1xAx 2198-DSM024-ERSx-B1153E-xx1xAx 2198-DSM024-ERSx-B1153F-xx1xAx		98.3	–	1.40 2.16 1.75 2.20	5.93 10.41 5.83 7.86	21.19 29.70 21.33 30.16	
	2198-DSM016-ERSx-B1303C-xx1xAx 2198-DSM024-ERSx-B1303F-xx1xAx 2198-DSM016-ERSx-B1304C-xx1xAx 2198-DSM024-ERSx-B1304E-xx1xAx 2198-DSM024-ERSx-B1306C-xx1xAx		113.7	–	1.83 2.68 1.75 2.71 2.25	5.89 8.78 6.67 8.26 9.72	18.04 29.50 22.07 28.65 29.70	
DSD	2198-DSD016-ERSx 2198-DSD024-ERSx	–	79.5	1.8 2.75	3.6 5.5	7.5 11.3	22.6 33.8	• Single-axis inverters with current ratings up to 8 A rms. • Drives feature TÜV Rheinland-certified Safe Torque Off function with integrated safety connection options, PLe and SIL 3 safety ratings, and support for Hiperface DSL, and Hiperface encoder feedback. • The DSD modules also support Timed and Monitored SS1 drive-based stopping functions, and support for controller based Safe Stop 1 and safe speed monitoring functions over the Ethernet network.

(1) Peak duration is 100 ms on and 900 ms off.

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 - Kinetix 5700 Drives

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 or later)	• 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 or later) 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.

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 ArmorKinetix DS*x* module executes the command.

Integrated Functional Safety Support - ArmorKinetix Modules

Integrated Safety Over the EtherNet/IP™ Network	Safety Function	ArmorKinetix DSD Cat. No.	ArmorKinetix DSM Cat. No.	Minimum Controller [1] Required
Drive-based stopping functions	Timed Safe Stop 1 (SS1)	2198-DSD*xxx*-ERS2 2198-DSD*xxx*-ERS5	2198-DSM*xxx*-ERS2 2198-DSM*xxx*-ERS5	• GuardLogix 5580 • CompactGuardLogix 5380
	Monitored Safe Stop 1 (SS1)	2198-DSD*xxx*-ERS5	2198-DSM*xxx*-ERS5	
Controller-based stopping functions	• Monitored Safe Stop 1 (SS1) • Safe Stop 2 (SS2)			
Controller-based monitoring functions	• Safe Operational Stop (SOS) • Safely Limited Speed (SLS) • Safety Limited Position (SLP) • Safe Direction (SDI)			
Safety feedback function	Safety Feedback Interface (SFX)			
Integrated STO mode	Safe Torque-off (STO)	2198-DSD*xxx*-ERS5	2198-DSM*xxx*-ERS5	
		2198-DSD*xxx*-ERS2	2198-DSM*xxx*-ERS2	• GuardLogix 5570 • CompactGuardLogix 5370

(1) 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.

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, MMA, HPK, and RDB rotary motors. • Kinetix MPAS, MPAR, and MPAI linear actuators. • Kinetix VPAR linear actuators • Kinetix LDAT linear thrusters and Kinetix LDC 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

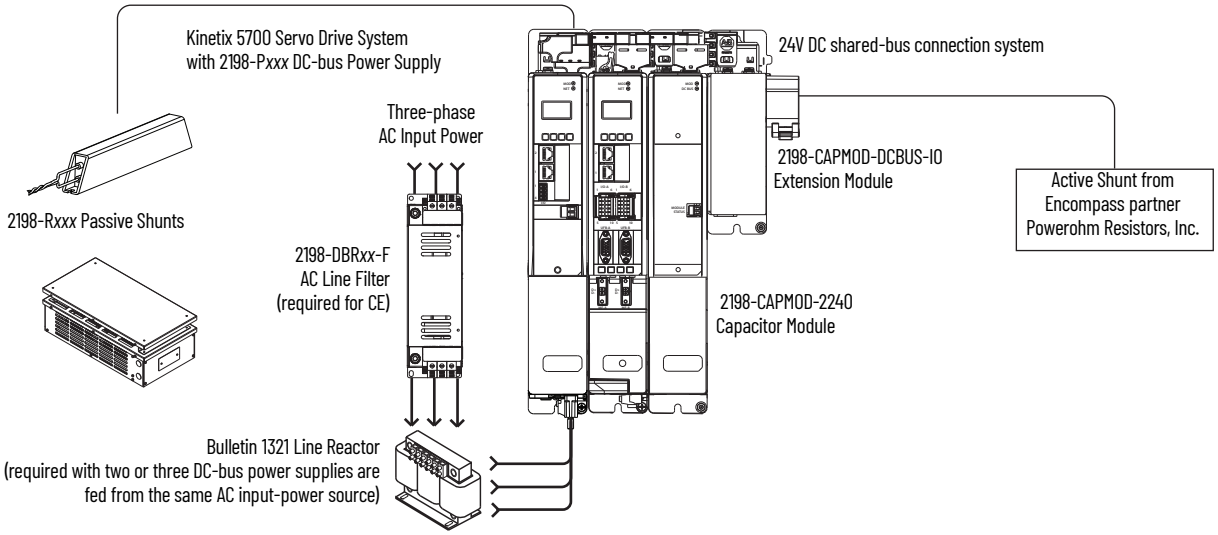
(1) The 24V DC control power supply and 24V power distribution maintains the Kinetix 5700 drive system control circuitry and requires a thorough evaluation. See the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for points to consider when sizing such a system.

Optional Drive Accessories

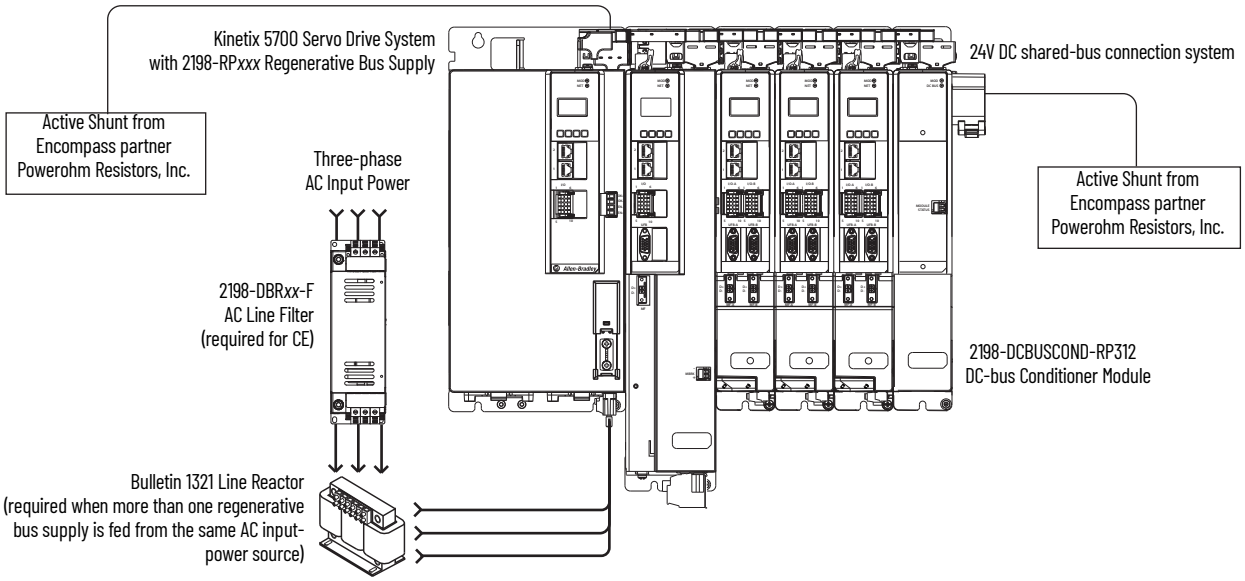
Drive Accessory	Description	Cat. No.
Shared-bus connector kits	24V input wiring connectors, T-connectors, and bus bars for the 24V shared-bus connection system	• 2198-TCON-24VDCIN36 • 2198-*xxxx*-P-T • 2198-BARCON-*xx*DCAC100
Capacitor module	Use for energy storage and to extend the DC-bus voltage to 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-10
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]
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
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) 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.

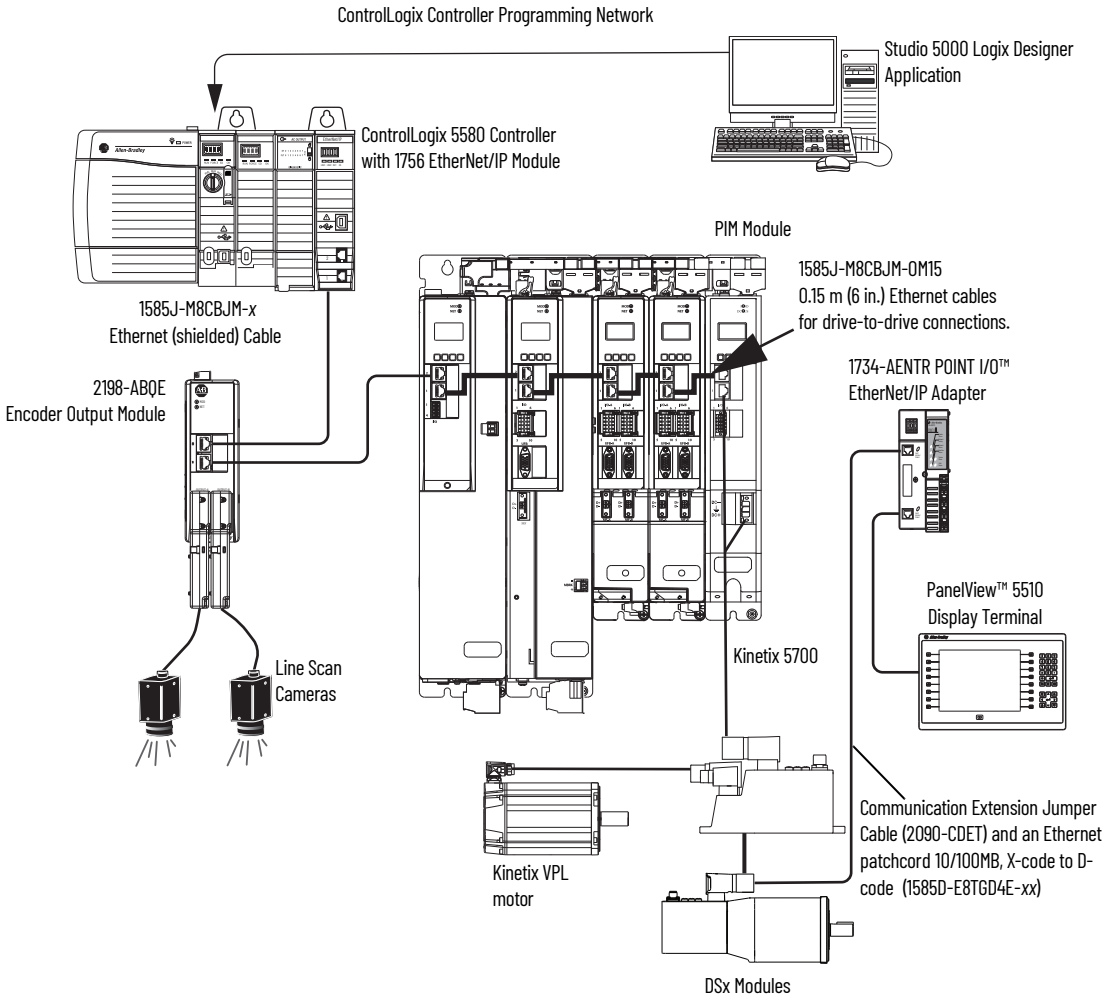
Kinetix 5700 Optional Accessories Example 1



Kinetix 5700 Optional Accessories Example 2



Encoder Output Module Example

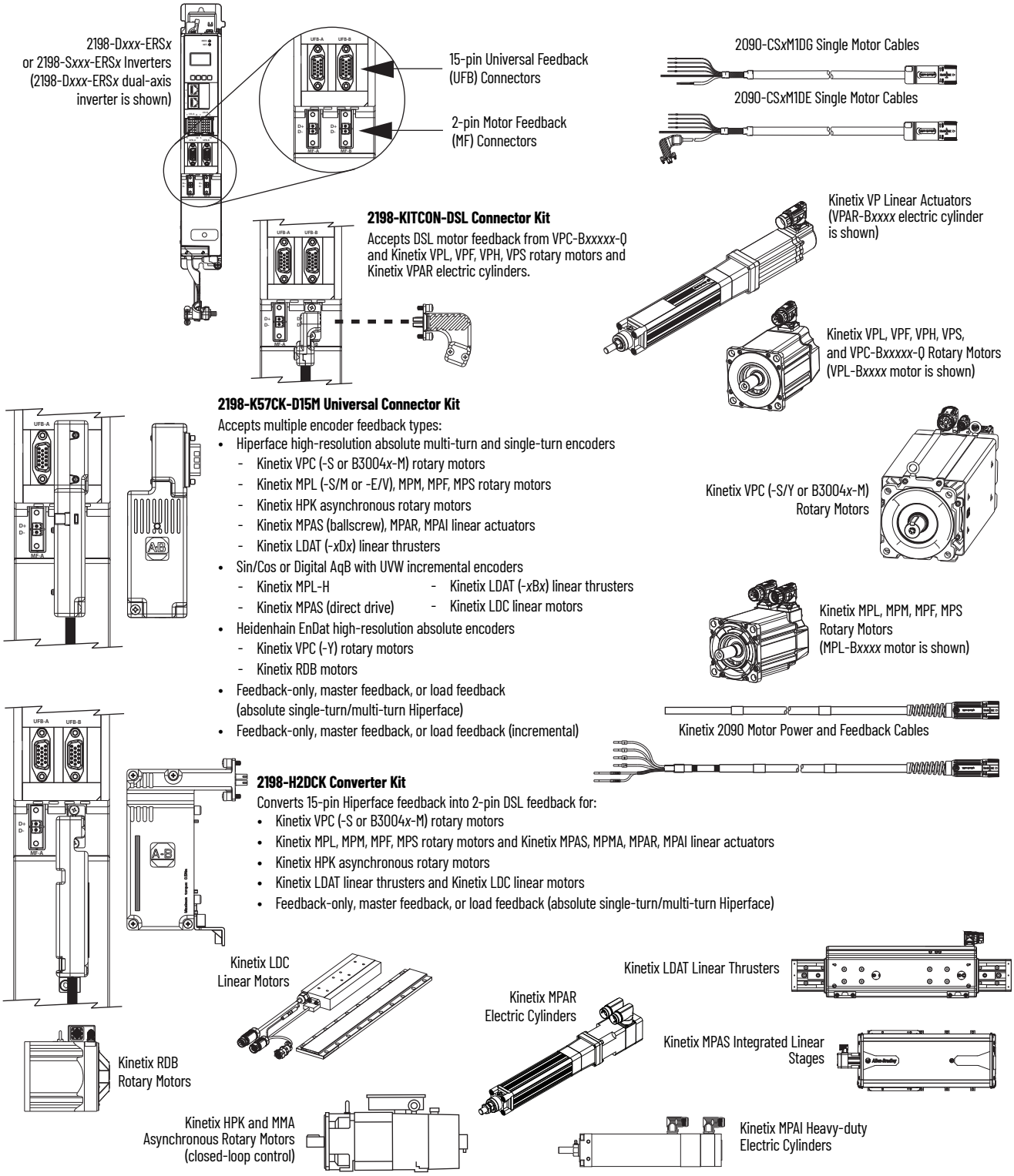


In this example, the encoder output module outputs encoder pulses to cameras used in line-scan vision systems. The module supports real and virtual axes for systems using integrated motion on the EtherNet/IP network.

Refer to the Kinetix 5700, 5500, 5300, and 5100 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 2198 connector kits for making these connections.

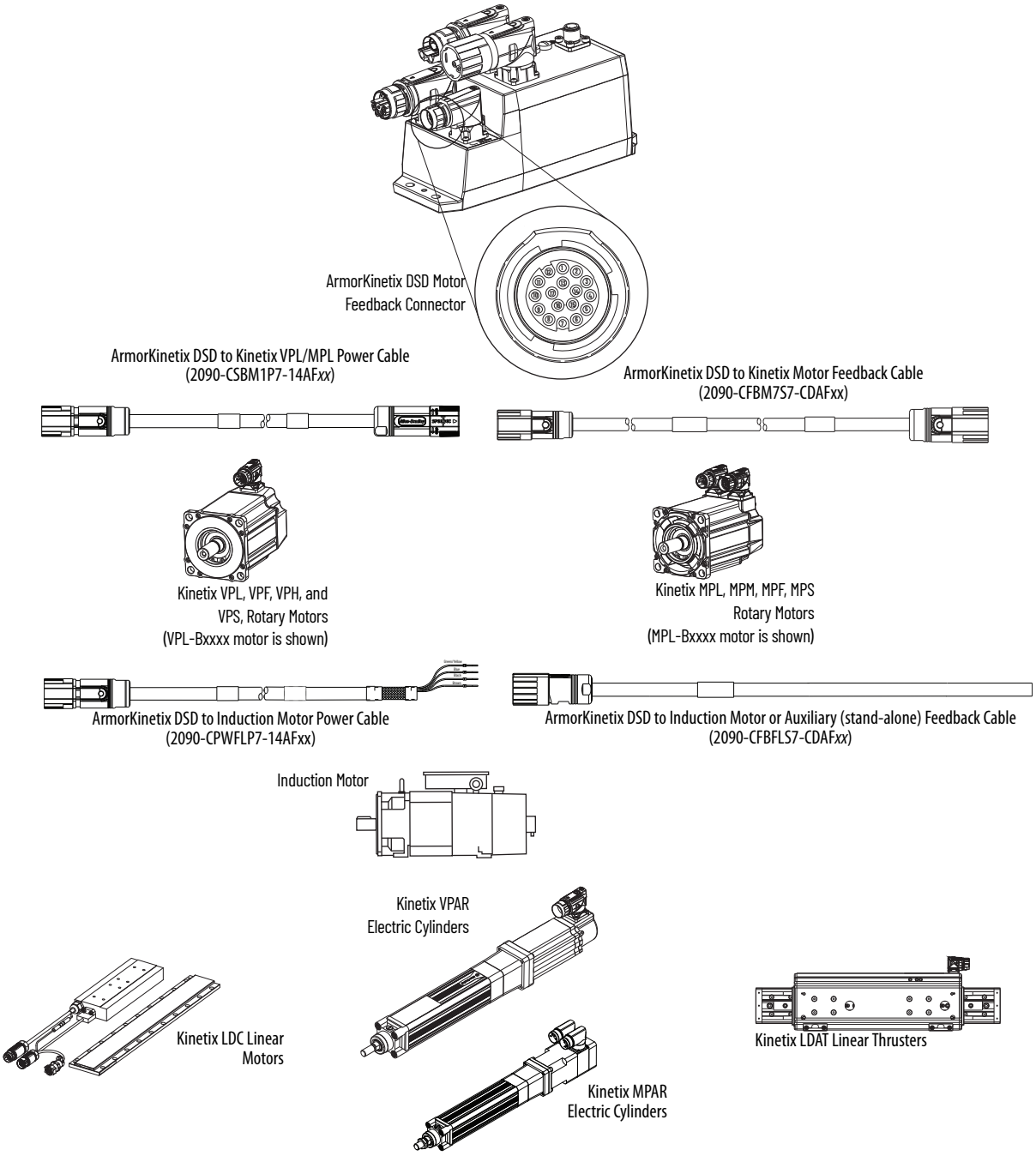
Kinetix 5700 Feedback Configuration Example



Refer to the Kinetix 5700, 5500, 5300, and 5100 Servo Drives Specifications Technical Data, publication KNX-TD003, for detailed descriptions and additional specifications for the Kinetix 5700 drive family.

Feedback connections are made at the motor feedback (MF) connector on the DSD. These examples illustrate how you can make these connections.

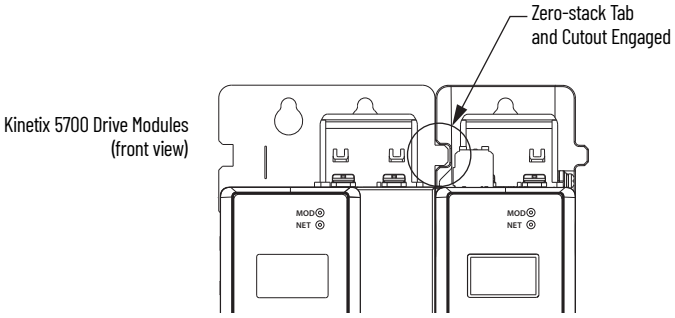
ArmorKinetix DSD Module Feedback Configuration Example



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.

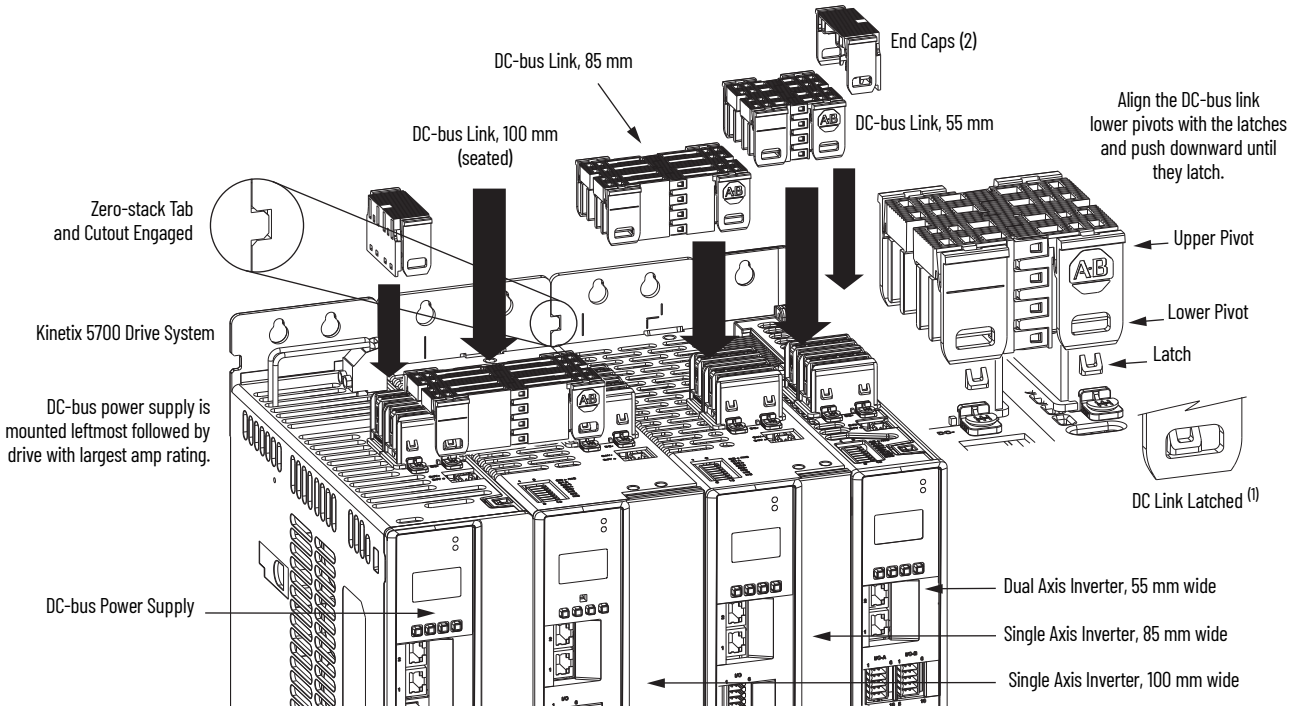
Zero-stack Tab and Cutout Example



Refer to the Kinetix 5700, 5500, 5300, and 5100 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.

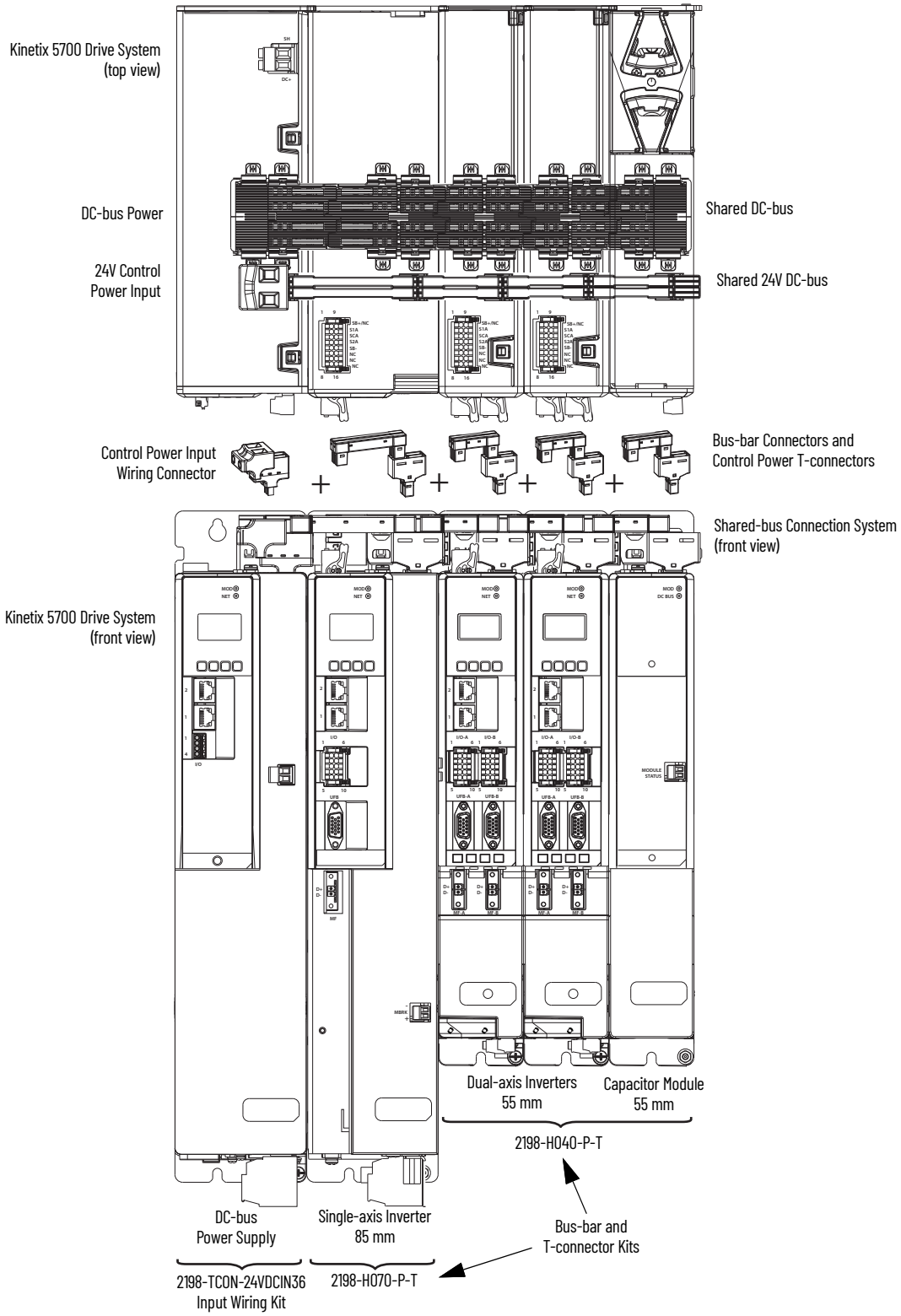


(1) DC-bus links latch on both sides when inserted into the DC-bus connectors. To remove the DC-bus link, depress both sets of upper pivots to unlatch the lower pivots and hold the DC-bus link firmly while pulling upward.

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.

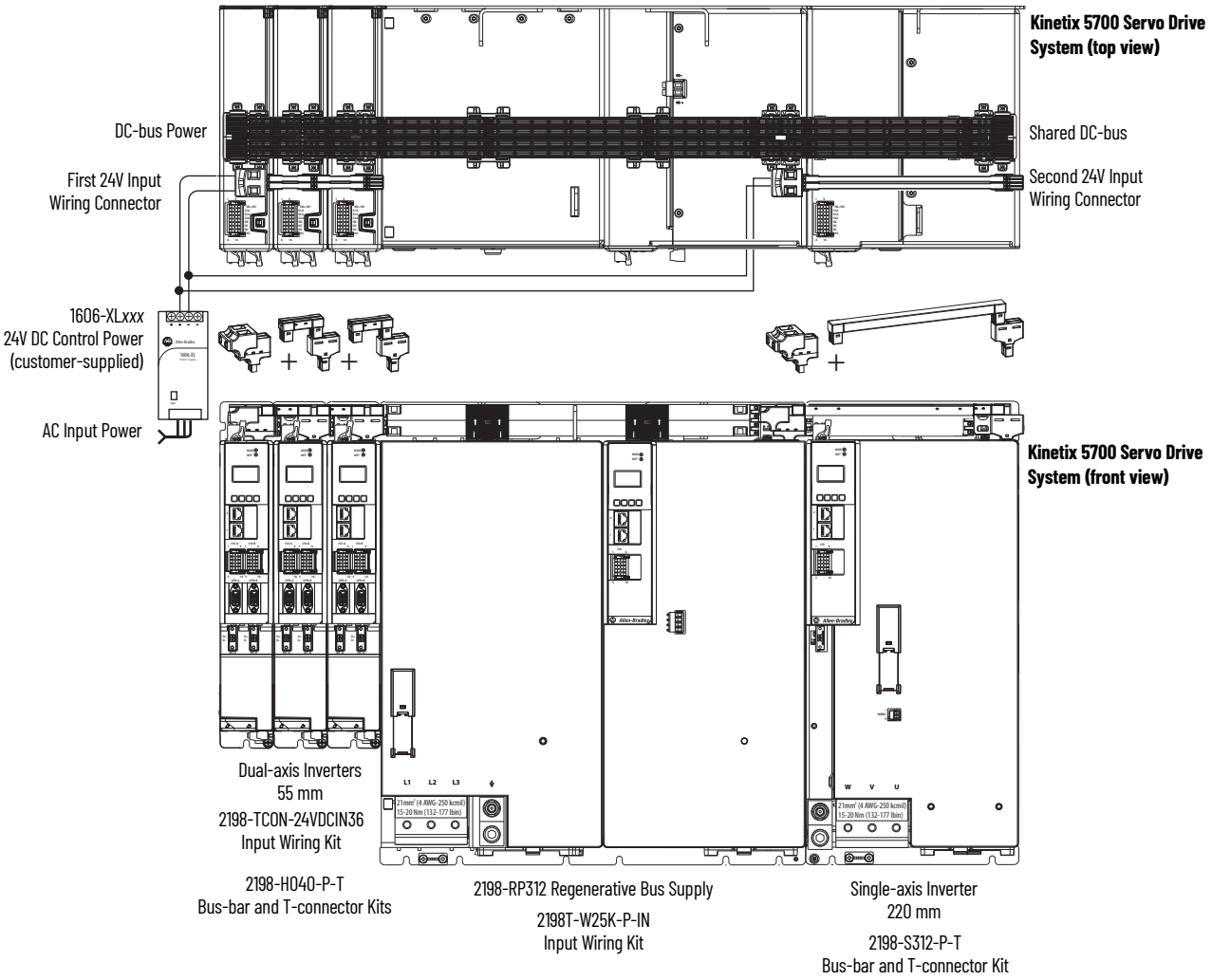
Shared 24V DC Installation Example



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

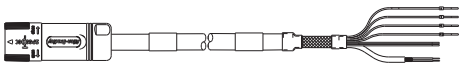
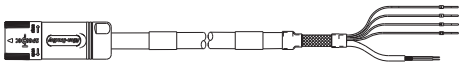


Kinetix 2090 Single Motor Cable Overview

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.

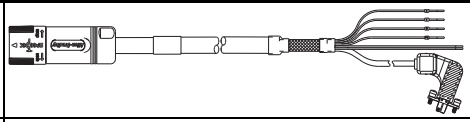
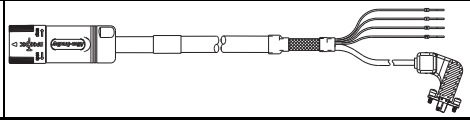
IMPORTANT Because of the unique characteristics of single cable technology, building your own cables, using field modified Rockwell Automation factory-delivered cable, or using third-party cables with Kinetix VPL, VPF, VPH, VPS, and VPC-B*xxxxx*-Q servo motors and Kinetix VPAR electric cylinders is not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

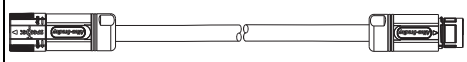
Single Motor Cable Descriptions (feedback connector kit)

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 (plug) connector, extension (E1) (1) • Motor-end SpeedTec DIN cable plug (M1) • Standard, non-flex (VA) • Continuous-flex (AF, LF)		SpeedTec DIN

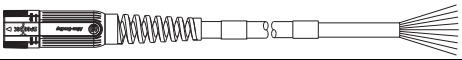
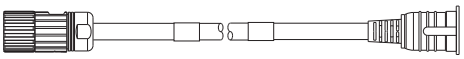
(1) SpeedTec DIN connector (motor end) and plug connector for extending SpeedTec DIN cable.

Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications.

Kinetix 2090 Motor Power/Brake and Feedback Cables Overview

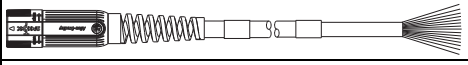
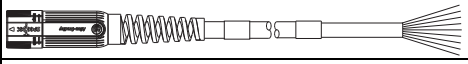
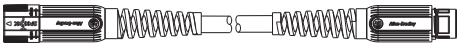
These cables apply to all other Allen-Bradley compatible rotary motors including Kinetix MP, HPK, MMA, RDB, and VPC (-S and -B3004*x*-M), and VPC-B*xxxxx*-Y rotary motors. They also apply to compatible Kinetix LDAT and Kinetix MPAR linear actuators. For maximum motor-cable lengths with Kinetix 5700 drives, 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.

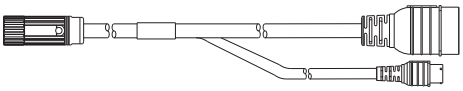
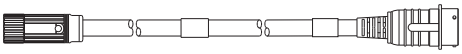
Feedback Cable Descriptions (continuous-flex)

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 (plug) connector, extension (E7) [1] • Motor-end SpeedTec DIN cable plug (M7)		

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

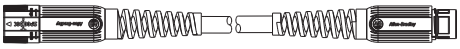
Motor-end cable connector kits, for use when building your own cables are also available. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for more information.

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 (plug) connector, extension (E7) (1) • Motor-end SpeedTec DIN cable plug (M7)		

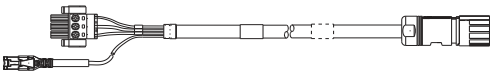
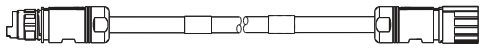
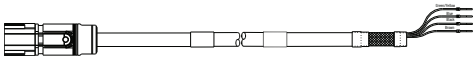
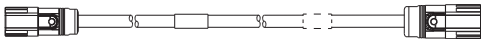
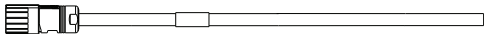
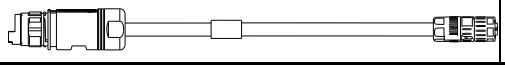
(1) SpeedTec DIN connector (motor end) and plug connector for extending SpeedTec or threaded DIN cable.

Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications.

ArmorKinetix 2090 Cables Overview

These cables apply to Allen-Bradley compatible rotary motors including Kinetix VPL, VPF, VPS, and VPH (63...130 mm frames) rotary motors and Kinetix MPL, MPF, MPS, and MPM (100...130 mm frames) rotary motors. They also apply to compatible Kinetix LDAT linear thrusters, Kinetix VPAR and MPAR electric cylinders, and LDC linear motors. For maximum motor-cable lengths with ArmorKinetix modules, see the ArmorKinetix System User Manual, publication 2198-UM006.

ArmorKinetix Cable Descriptions

Standard Cable Cat. No.	Description	Cable Configuration	Connector
2090-CDHIFS-12AF*xxxx*	• ArmorKinetix PIM to DSx Hybrid Cable		SpeedTec DIN (M23)
• 2090-CDHP1S-12AF*xxxx* • 2090-CDHP1S-12AFJ	• ArmorKinetix DSx to DSx Hybrid Cable • ArmorKinetix DSx to DSx Zero Stack Jumper Cable		SpeedTec DIN (M23)
2090-CSBM1P7-14AF*xx*	• ArmorKinetix DSD to Kinetix VPL/MPL Motor Power/ Feedback Cable		SpeedTec DIN (M23)
2090-CPWFLP7-14AF*xx*	• ArmorKinetix DSD to Induction Motor Power Cable		SpeedTec DIN (M23)
2090-CFBM7S7-CDAF*xx*	• ArmorKinetix DSD to Kinetix Motor Feedback Cable		SpeedTec DIN (M17 and M23)
2090-CFBFLS7-CDAF*xx*	• ArmorKinetix DSD to Induction Motor and Auxiliary Feedback Cable		SpeedTec DIN (M17)
2090-CDET	• ArmorKinetix 2090 Hybrid Connector Communication Extension		SpeedTec DIN (M23 and M12)

Kinetix 5700 (200V-class) Drives with Kinetix VPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPL motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

Kinetix VPL Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPL-A0631*x*, VPL-A0632F, VPL-A0633*x*	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPL-A0751E, VPL-A0752*x*, VPL-A0753*x*		
VPL-A1001C, VPL-A1003*x*		
VPL-A1001M, VPL-A1002*x*	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
VPL-A1152*x*, VPL-A1153*x*		
VPL-A1303*x*, VPL-A1304*x*, VPL-A1306*x*		

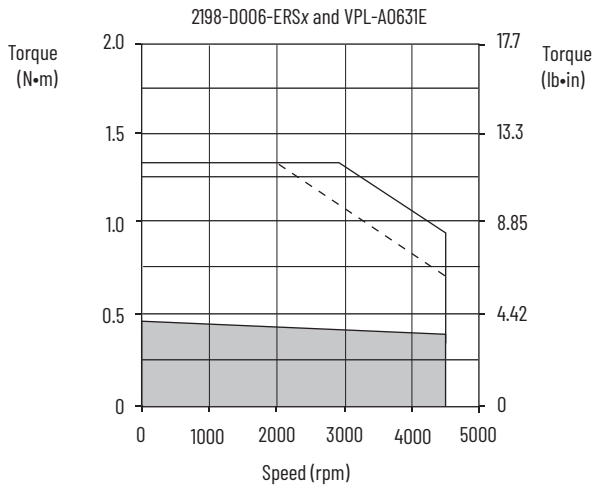
(1) Use 2090-CSxM1DE or 2090-CSxM1DG cables. Cable length *xx* is in meters, 1.0...50.0 m (3.3...164.0 ft) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5700 Servo Drives User Manual, publication 2198-UM002. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

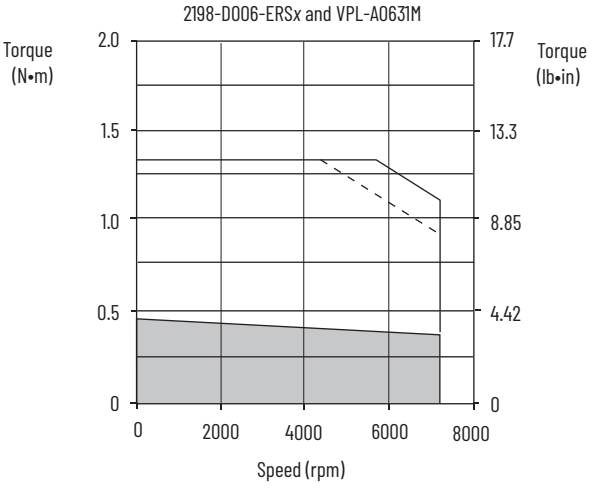
Kinetix VPL Motor Performance Specifications with Kinetix 5700 (200V-class) Drives

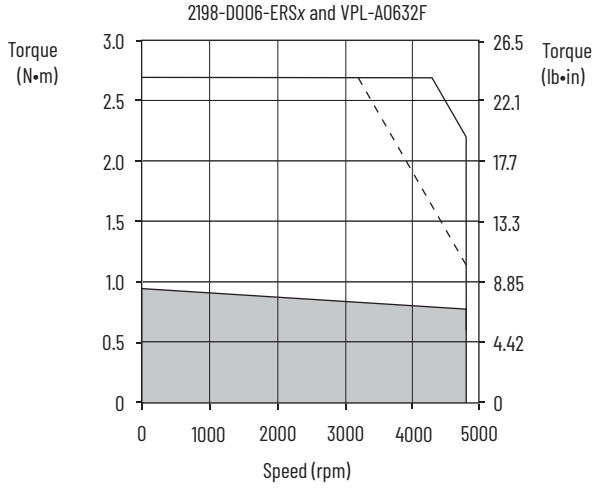
Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (240V AC Input)
VPL-A0631E	4500	4500	1.20	0.46 (4)	4.20	1.33 (12)	0.19 (0.3)	2198-D006-ERS*x*
VPL-A0631M	7200	7200	1.92	0.46 (4)	6.48	1.33 (12)	0.28 (0.4)	2198-D006-ERS*x*
VPL-A0632F	4800	4800	2.55	0.93 (8)	8.75	2.69 (24)	0.39 (0.5)	2198-D006-ERS*x*
VPL-A0633C	3000	3000	2.50	1.27 (11)	8.75	4.09 (36)	0.37 (0.5)	2198-D006-ERS*x*
VPL-A0633F	4500	4500	3.52	1.27 (11)	8.80	2.87 (25)	0.44 (0.6)	2198-D006-ERS*x*
					12.60	4.09 (36)		2198-D012-ERS*x*
VPL-A0751E	4800	4800	2.90	1.01 (9)	8.80	2.20 (19)	0.50 (0.7)	2198-D006-ERS*x*
					9.12	2.27 (20)		2198-D012-ERS*x*
VPL-A0752C	3300	3300	3.80	1.61 (14)	13.30	4.39 (39)	0.49 (0.7)	2198-D012-ERS*x*
VPL-A0752E	4800	4800	4.90	1.61 (14)	17.70	4.10 (36)	0.66 (0.9)	2198-D012-ERS*x*
					18.90	4.39 (39)		2198-D020-ERS*x*
VPL-A0753C	3300	3300	4.90	2.16 (19)	17.70	6.55 (58)	0.59 (0.8)	2198-D012-ERS*x*
					18.90	7.02 (62)		2198-D020-ERS*x*
VPL-A0753E	4600	4600	6.12	2.28 (20)	17.70	5.13 (45)	0.80 (1.1)	2198-D012-ERS*x*
					25.34	7.35 (65)		2198-D020-ERS*x*
VPL-A1001C	2800	2800	3.61	1.93 (17)	8.80	3.22 (28)	0.56 (0.8)	2198-D006-ERS*x*
					10.38	3.78 (33)		2198-D012-ERS*x*
VPL-A1001M	6500	6500	7.15	1.95 (17)	17.70	3.31 (29)	1.29 (1.7)	2198-D012-ERS*x*
					20.20	3.78 (33)		2198-D020-ERS*x*
VPL-A1002C	3000	3000	6.24	3.39 (30)	17.70	6.80 (60)	1.03 (1.4)	2198-D012-ERS*x*
					20.33	7.82 (69)		2198-D020-ERS*x*
VPL-A1002F	5000	5000	10.04	3.26 (29)	28.30	6.77 (60)	1.60 (2.1)	2198-D020-ERS*x*
					34.30	7.82 (69)		2198-D032-ERS*x*
VPL-A1003C	2250	2250	6.14	4.18 (37)	17.70	9.76 (86)	0.87 (1.2)	2198-D012-ERS*x*
					20.20	11.15 (99)		2198-D020-ERS*x*
VPL-A1003E	3750	3750	9.58	4.18 (37)	28.30	9.76 (86)	1.31 (1.8)	2198-D020-ERS*x*
					28.80	11.15 (99)		2198-D032-ERS*x*
VPL-A1003F	5500	5500	15.62	4.18 (37)	45.90	10.25 (90)	1.90 (2.6)	2198-D032-ERS*x*
					50.00	11.15 (99)		2198-D057-ERS*x*
VPL-A1152B	2150	2150	6.17	5.10 (45)	17.70	10.95 (96)	1.02 (1.4)	2198-D012-ERS*x*
					21.19	13.12 (116)		2198-D020-ERS*x*
VPL-A1152E	3300	3300	10.60	5.08 (45)	28.30	12.14 (107)	1.47 (2.0)	2198-D020-ERS*x*
					32.10	13.12 (116)		2198-D032-ERS*x*
VPL-A1152F	5000	5000	13.56	4.70 (42)	45.80	13.12 (116)	2.16 (3.0)	2198-D032-ERS*x*
VPL-A1153C	2300	2300	8.88	6.55 (58)	28.30	18.30 (162)	1.35 (1.8)	2198-D020-ERS*x*
					33.00	20.33 (180)		2198-D032-ERS*x*
VPL-A1303B	1950	1950	10.34	8.80 (78)	28.30	19.85 (175)	1.61 (2.2)	2198-D020-ERS*x*
					31.00	20.72 (183)		2198-D032-ERS*x*
VPL-A1303F	4000	4000	18.60	7.75 (69)	45.90	15.36 (136)	2.50 (3.4)	2198-D032-ERS*x*
					62.00	20.72 (183)		2198-D057-ERS*x*
VPL-A1304A	1600	1600	9.43	10.29 (91)	28.30	25.03 (221)	1.55 (2.1)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPL-A1304D	3000	3000	18.40	10.20 (90)	45.90	21.48 (190)	2.60 (3.5)	2198-D032-ERS*x*
					58.00	27.10 (240)		2198-D057-ERS*x*
VPL-A1306C	2000	2000	14.78	13.38 (118)	45.90	28.50 (252)	2.13 (2.9)	2198-D032-ERS*x*
					55.83	34.62 (306)		2198-D057-ERS*x*

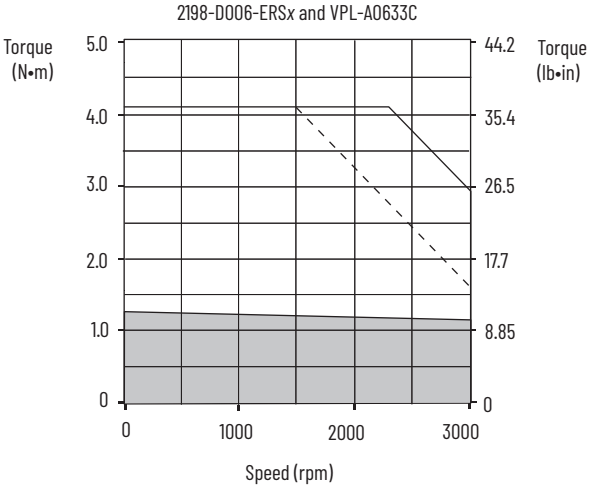
Performance specification data and curves reflect nominal system performance of a typical system with motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

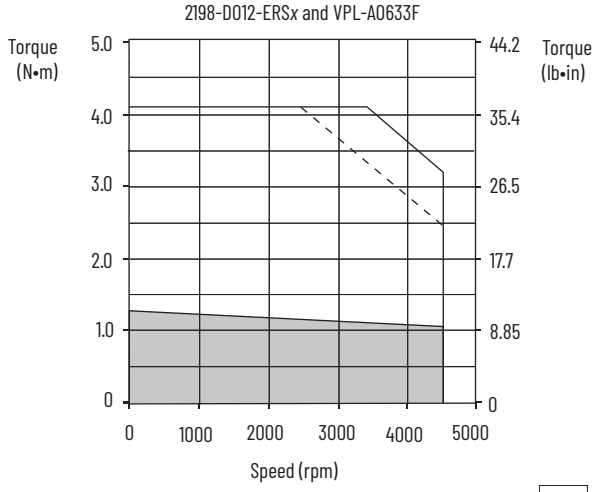
Kinetix 5700 (200V-class) Drives/Kinetix VPL Servo Motor Curves

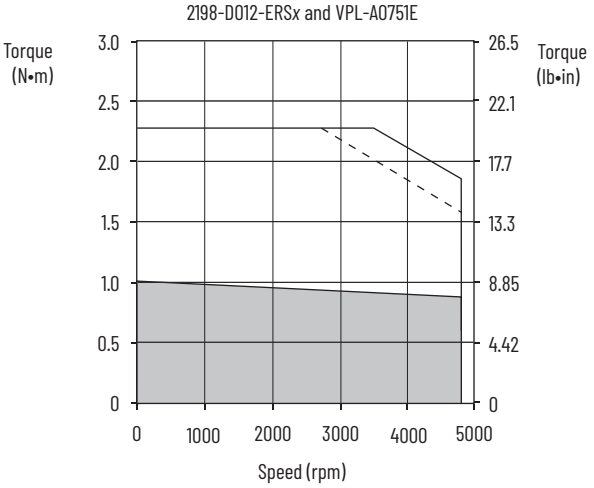






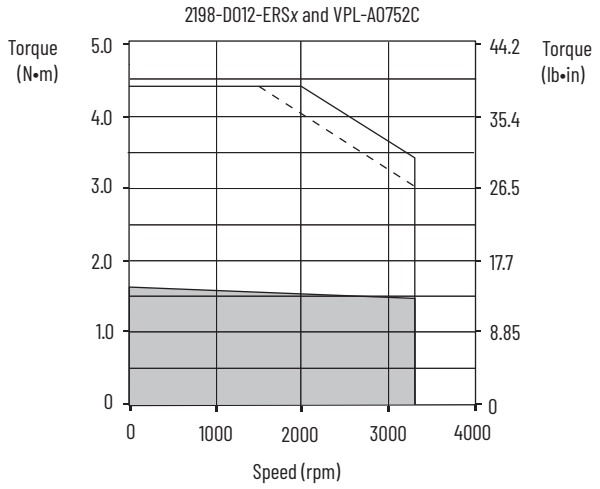


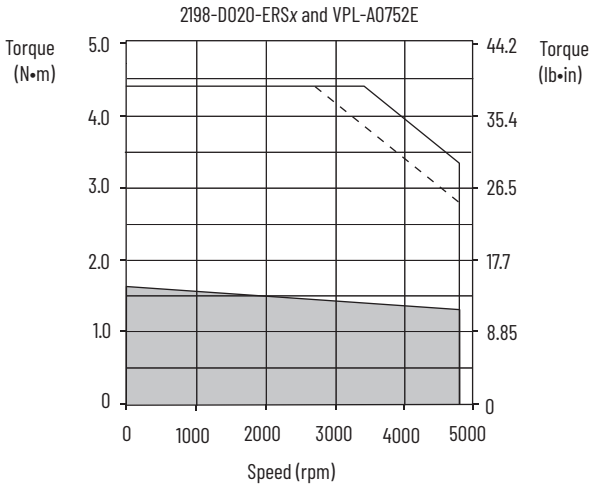


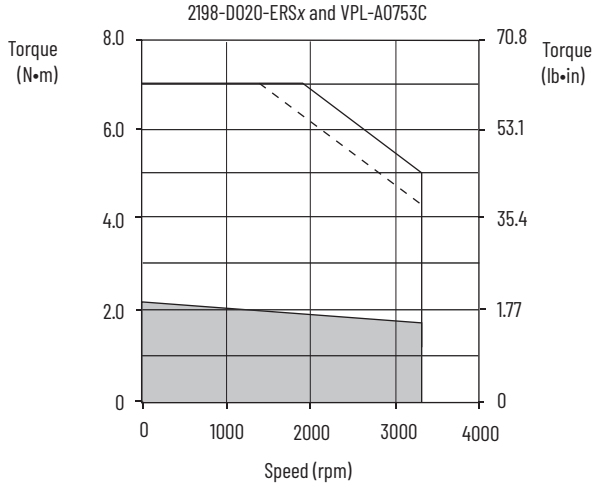


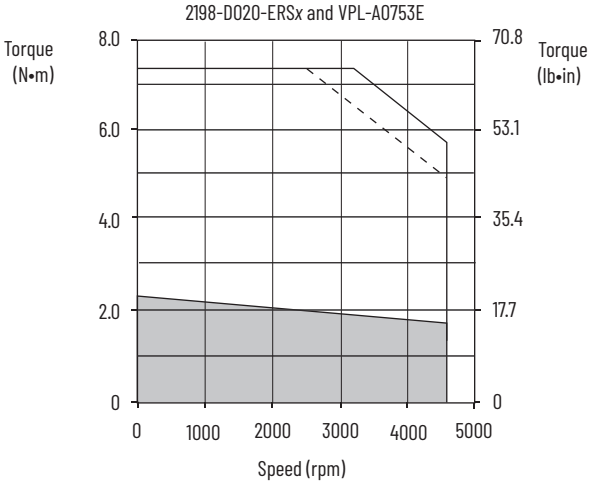
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

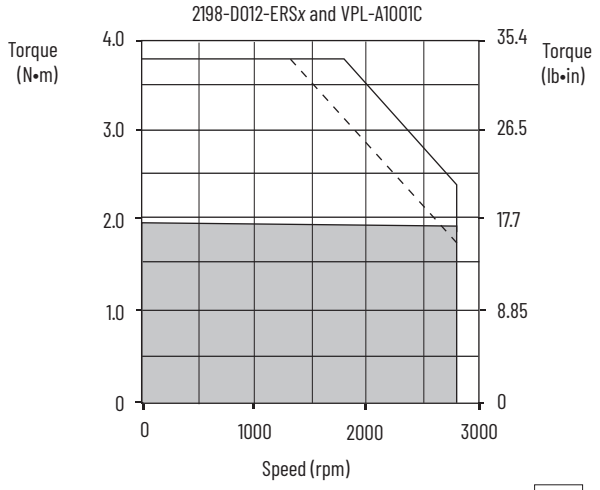
Kinetix 5700 (200V-class) Drives/Kinetix VPL Servo Motor Curves (continued)

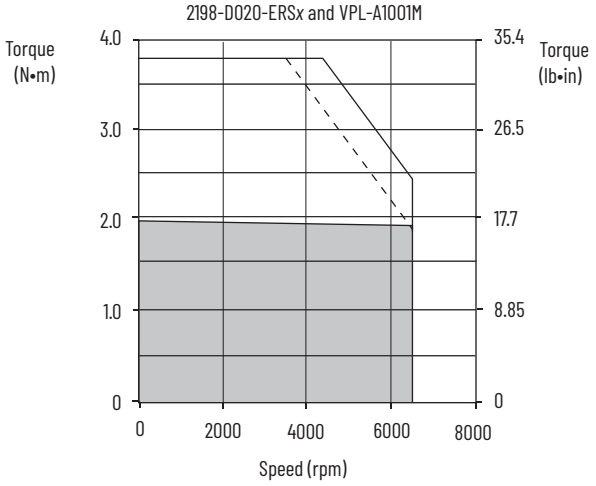






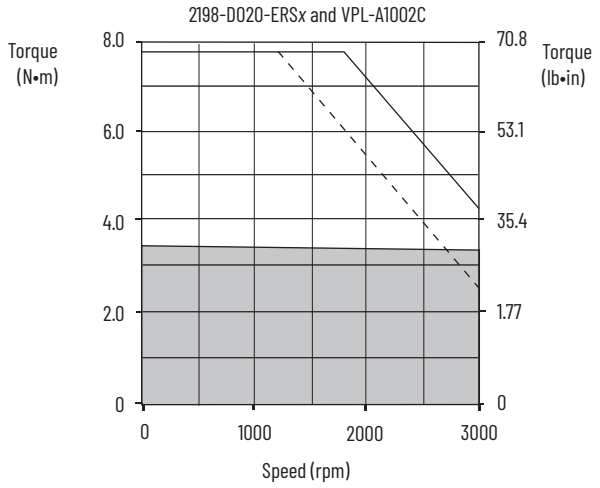


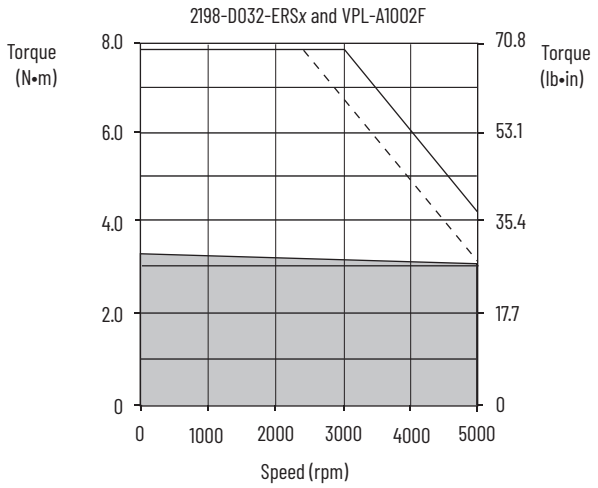


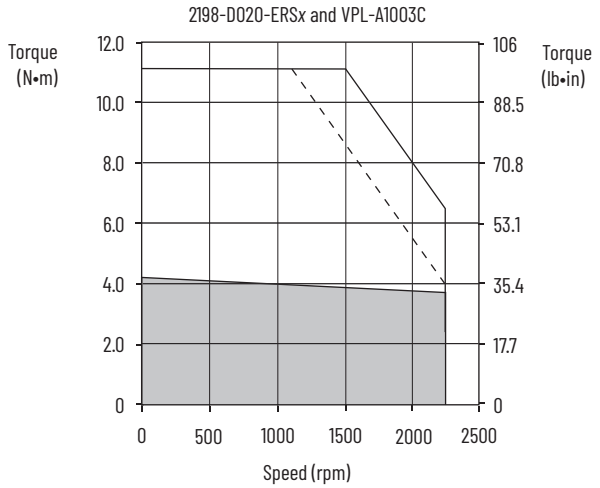


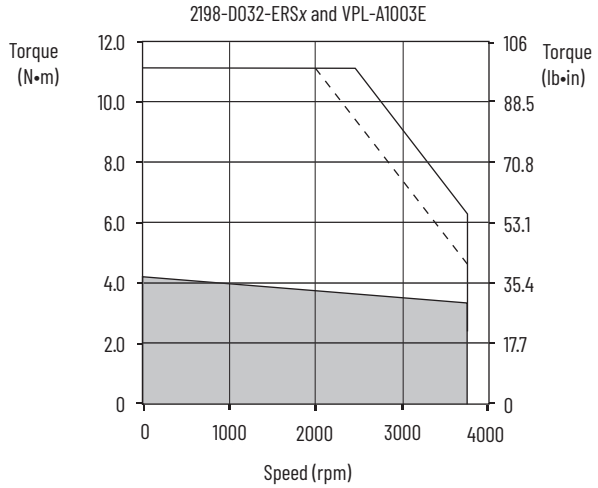
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

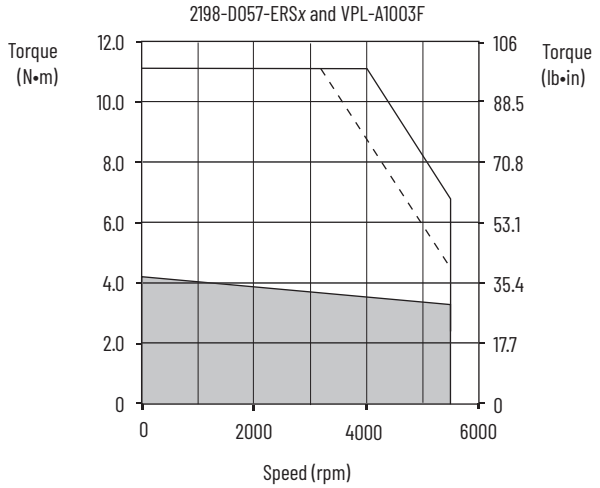
Kinetix 5700 (200V-class) Drives/Kinetix VPL Servo Motor Curves (continued)

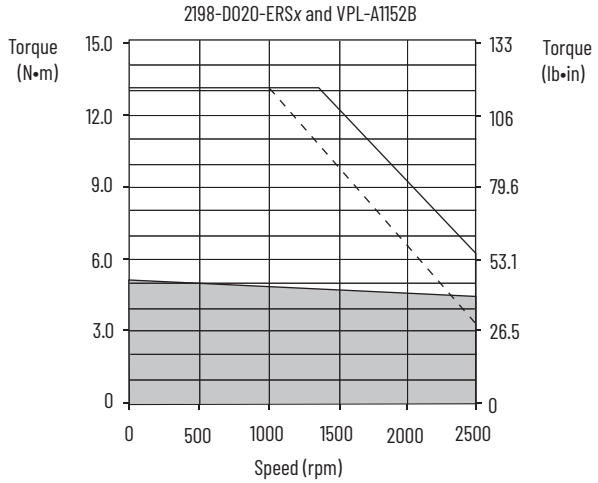








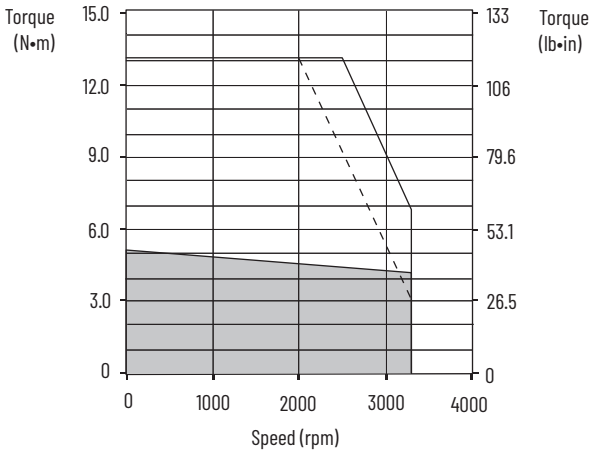




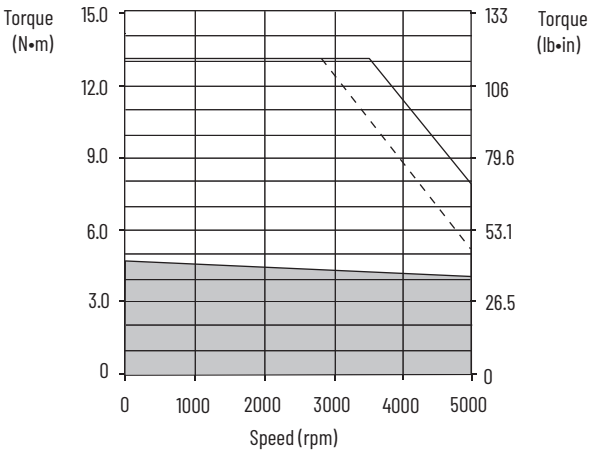
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

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

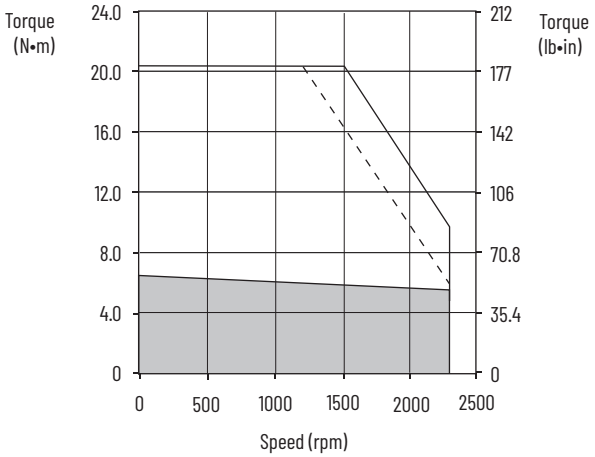
2198-D032-ERSx and VPL-A1152E



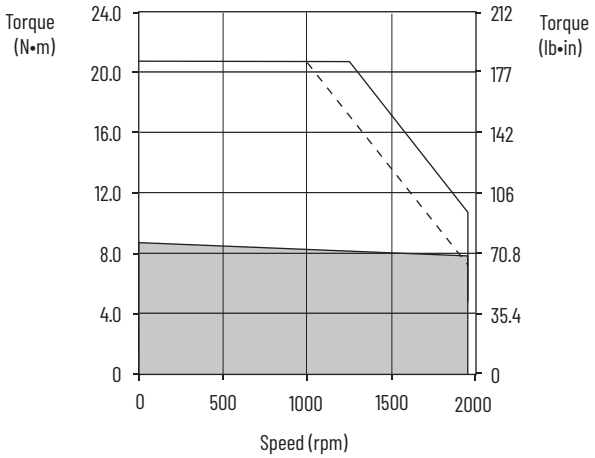
2198-D032-ERSx and VPL-A1152F



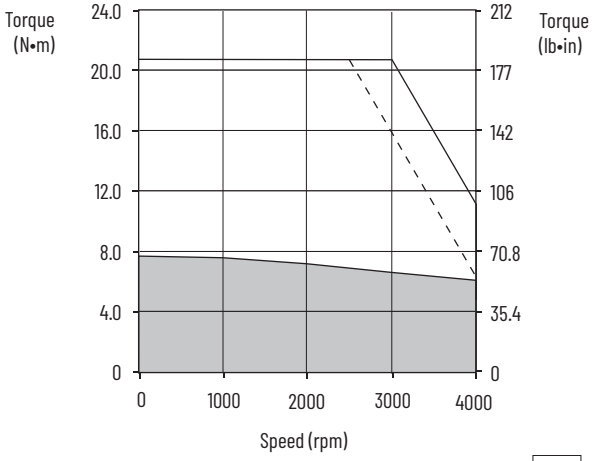
2198-D032-ERSx and VPL-A1153C



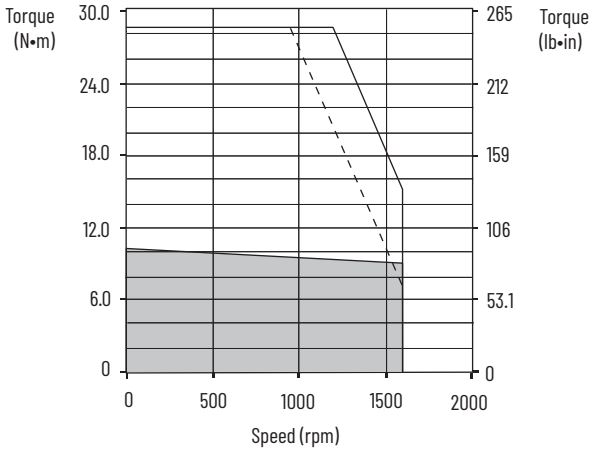
2198-D032-ERSx and VPL-A1303B



2198-D057-ERSx and VPL-A1303F

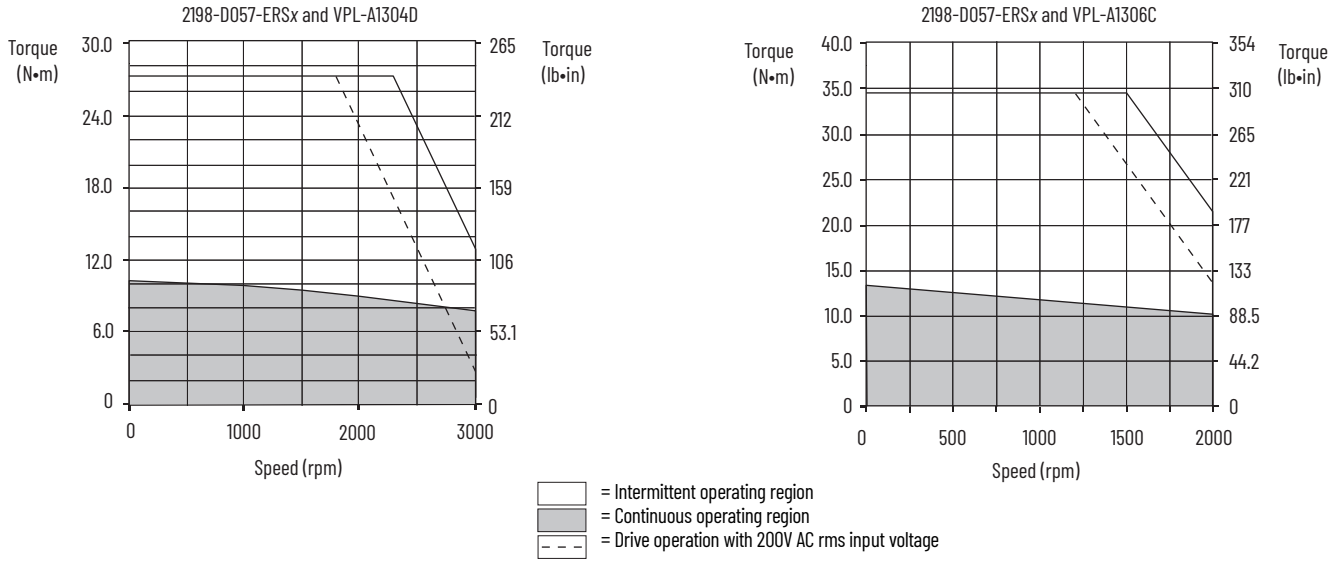


2198-D032-ERSx and VPL-A1304A



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

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



Kinetix 5700 (400V-class) Drives with Kinetix VPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPL motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

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*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPL-B0751M, VPL-B0752*x*, VPL-B0753*x*		
VPL-B1001M, VPL-B1002E, VPL-B1003C, VPL-B1003F		
VPL-B1152C, VPL-B1153E		
VPL-B1002M, VPL-B1003T	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
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*-10*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	

(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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

Kinetix VPL Motor Performance with Kinetix 5700 (400V-class) Drives

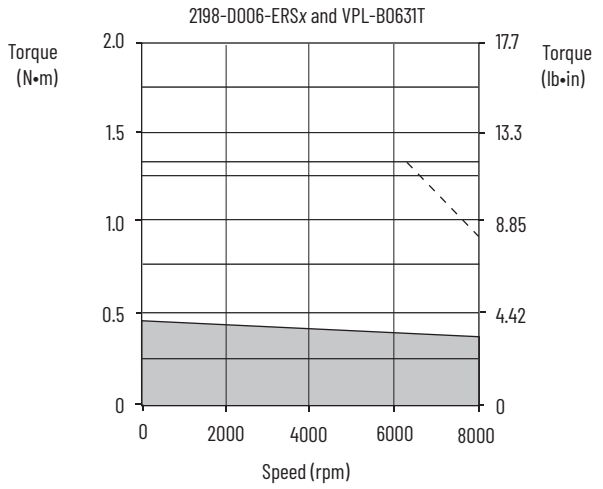
Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPL-B0631T	8000	8000	1.20	0.46 (4)	4.20	1.33 (12)	0.31 (0.4)	2198-D006-ERSx
VPL-B0631U	8000	8000	1.92	0.46 (4)	6.48	1.33 (12)	0.31 (0.4)	2198-D006-ERSx
VPL-B0632F	4600	4600	1.20	0.93 (8)	4.20	2.69 (24)	0.37 (0.5)	2198-D006-ERSx
VPL-B0632T	8000	8000	2.55	0.93 (8)	8.75	2.69 (24)	0.54 (0.7)	2198-D006-ERSx
VPL-B0633M	6500	6700	2.50	1.27 (11)	8.75	4.09 (36)	0.57 (0.8)	2198-D006-ERSx
VPL-B0633T	6500	8000	3.52	1.27 (11)	8.80	2.87 (25)	0.57 (0.8)	2198-D006-ERSx
					12.60	4.09 (36)		2198-D012-ERSx
VPL-B0751M	8000	8000	2.90	1.01 (9)	8.80	2.20 (19)	0.54 (0.7)	2198-D006-ERSx
					9.12	2.27 (20)		2198-D012-ERSx
VPL-B0752E	4900	4900	2.70	1.61 (14)	8.80	4.10 (36)	0.67 (0.9)	2198-D006-ERSx
					9.45	4.39 (39)		2198-D012-ERSx
VPL-B0752F	7000	7000	3.80	1.61 (14)	13.30	4.39 (39)	0.80 (1.1)	2198-D012-ERSx
VPL-B0752M	8000	8000	4.90	1.61 (14)	17.60	4.10 (36)	0.81 (1.1)	2198-D012-ERSx
					18.90	4.39 (39)		2198-D020-ERSx
VPL-B0753E	4500	4500	3.80	2.28 (20)	13.30	7.35 (65)	0.81 (1.1)	2198-D012-ERSx
VPL-B0753F	4500	6600	4.09	2.16 (19)	17.60	6.55 (58)	0.65 (0.9)	2198-D012-ERSx
					18.90	7.02 (62)		2198-D020-ERSx
VPL-B0753M	6000	8000	6.12	2.28 (20)	17.60	5.13 (45)	0.82 (1.1)	2198-D012-ERSx
					25.34	7.35 (65)		2198-D020-ERSx
VPL-B1001M	6000	6000	3.61	1.93 (17)	8.80	3.22 (28)	1.14 (1.5)	2198-D006-ERSx
					10.38	3.78 (33)		2198-D012-ERSx
VPL-B1002E	3300	3300	3.44	3.39 (30)	8.80	6.47 (57)	1.12 (1.5)	2198-D006-ERSx
					10.69	7.82 (69)		2198-D012-ERSx
VPL-B1002M	6000	6000	6.24	3.39 (30)	17.60	6.80 (60)	1.86 (2.5)	2198-D012-ERSx
					20.33	7.82 (69)		2198-D020-ERSx
VPL-B1003C	2500	2500	3.41	4.18 (37)	8.80	9.29 (82)	0.96 (1.3)	2198-D006-ERSx
					10.61	11.15 (99)		2198-D012-ERSx
VPL-B1003F	4750	4750	6.14	4.18 (37)	17.60	9.76 (86)	1.65 (2.2)	2198-D012-ERSx
					20.20	11.15 (99)		2198-D020-ERSx
VPL-B1003T	7000	7000	9.58	4.18 (37)	28.20	10.96 (97)	1.77 (2.4)	2198-D020-ERSx
					28.80	11.15 (99)		2198-D032-ERSx
VPL-B1152C	2250	2250	3.13	5.10 (45)	8.80	10.80 (95)	1.06 (1.4)	2198-D006-ERSx
					10.74	13.12 (116)		2198-D012-ERSx
VPL-B1152F	4000	4500	6.17	5.10 (45)	17.60	10.95 (97)	1.40 (1.9)	2198-D012-ERSx
					21.19	13.12 (116)		2198-D020-ERSx
VPL-B1152T	6500	6500	10.81	5.08 (45)	28.20	12.14 (107)	2.29 (3.1)	2198-D020-ERSx
					32.10	13.12 (116)		2198-D032-ERSx
VPL-B1153E	3200	3200	6.13	6.55 (58)	17.60	16.85 (149)	1.75 (2.4)	2198-D012-ERSx
					21.33	20.33 (180)		2198-D020-ERSx
VPL-B1153F	5000	5000	8.88	6.55 (58)	28.20	18.30 (162)	2.30 (3.1)	2198-D020-ERSx
					33.00	20.33 (180)		2198-D032-ERSx
VPL-B1303C	2250	2250	6.30	8.80 (78)	17.60	19.83 (175)	1.83 (2.5)	2198-D012-ERSx
					18.47	20.72 (183)		2198-D020-ERSx
VPL-B1303F	4000	4000	10.10	8.80 (78)	28.20	19.85 (175)	2.82 (3.8)	2198-D020-ERSx
					31.00	20.72 (183)		2198-D032-ERSx
VPL-B1304C	2150	2150	7.0	10.29 (91)	17.60	22.55 (199)	1.75 (2.4)	2198-D012-ERSx
					22.30	28.45 (252)		2198-D020-ERSx
VPL-B1304E	3500	3500	9.44	10.29 (91)	28.20	25.03 (221)	2.82 (3.8)	2198-D020-ERSx
					33.76	28.45 (252)		2198-D032-ERSx
VPL-B1306C	2500	2500	10.80	13.38 (118)	28.20	31.21 (276)	2.46 (3.3)	2198-D020-ERSx
					32.94	34.62 (306)		2198-D032-ERSx
VPL-B1306F	4250	4250	14.78	13.38 (118)	45.90	28.50 (252)	2.95 (4.0)	2198-D032-ERSx
					55.83	34.62 (306)		2198-D057-ERSx

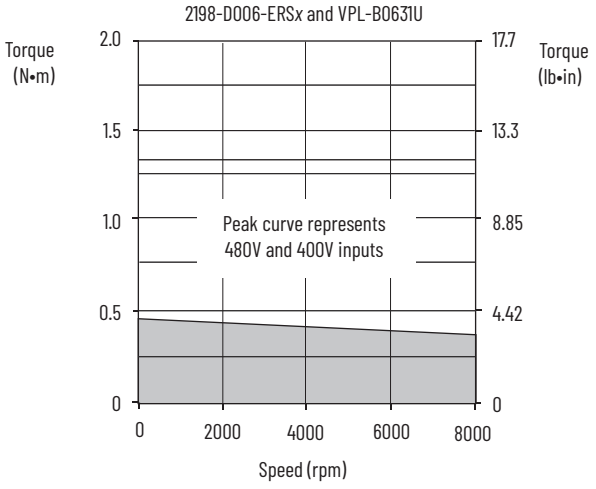
Kinetix VPL Motor Performance with Kinetix 5700 (400V-class) Drives (Continued)

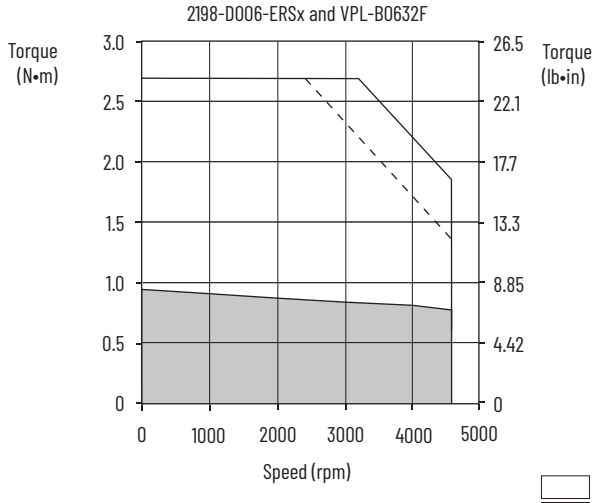
Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A (0-pk)	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (480V AC input)**
VPL-B1651C	2750	2750	10.21	11.50 (102)	28.20	21.68 (192)	2.32 (3.1)	2198-D020-ERS*x*
					29.29	22.45 (199)		2198-D032-ERS*x*
VPL-B1651F	4750	4750	17.60	11.43 (101)	45.90	18.02 (159)	4.38 (5.9)	2198-D032-ERS*x*
					57.27	22.45 (199)		2198-D057-ERS*x*
VPL-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.6)	2198-D032-ERS*x*
					49.88	48.60 (430)		2198-D057-ERS*x*
VPL-B1652F	4000	4000	18.60	17.60 (156)	60.00	48.60 (430)	4.77 (6.4)	2198-D057-ERS*x*
VPL-B1653C	2300	2300	17.75	25.76 (228)	45.90	55.14 (488)	4.38 (5.9)	2198-D032-ERS*x*
					55.60	66.70 (590)		2198-D057-ERS*x*
VPL-B1653D	3000	3000	18.60	24.20 (214)	68.00	67.80 (600)	5.50 (7.3)	2198-D057-ERS*x*
VPL-B1654B	1850	1850	15.54	32.97 (292)	45.90	65.38 (578)	5.55 (7.4)	2198-D032-ERS*x*
					55.75	79.30 (702)		2198-D057-ERS*x*
VPL-B1654D	3000	3000	24.47	32.0 (283)	81.30	75.30 (666)	7.16 (9.6)	2198-D057-ERS*x*

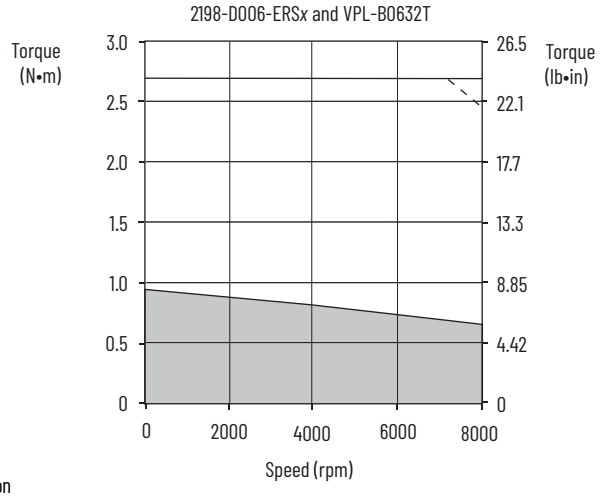
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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





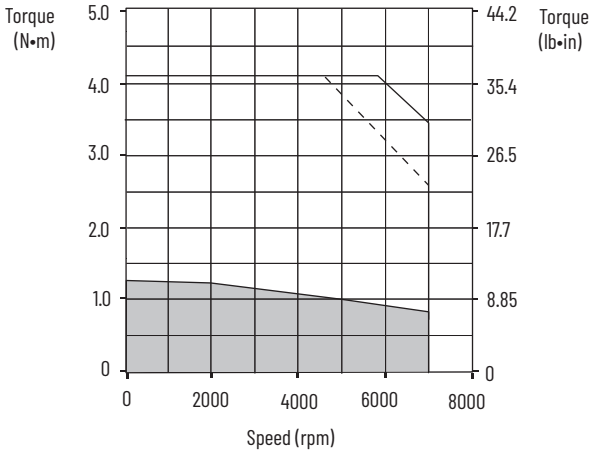




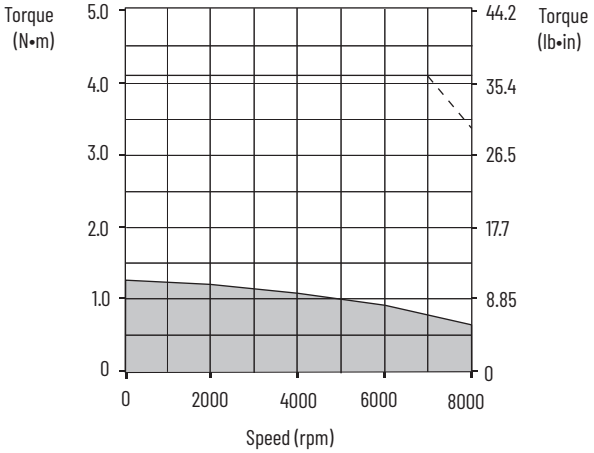
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

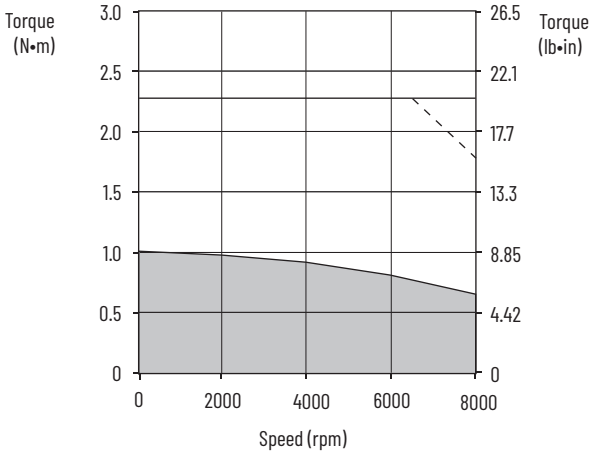
2198-D006-ERSx and VPL-B0633M



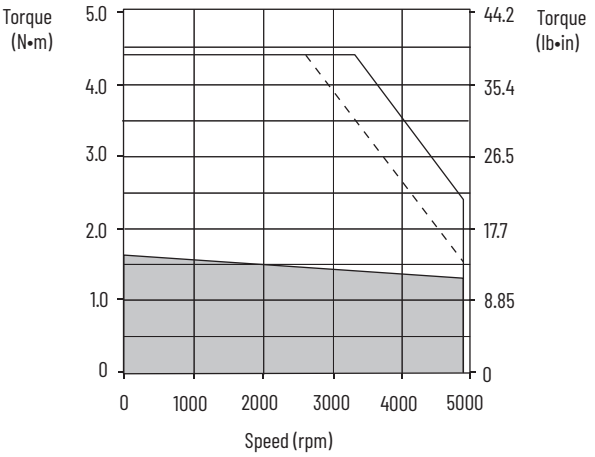
2198-D012-ERSx and VPL-B0633T



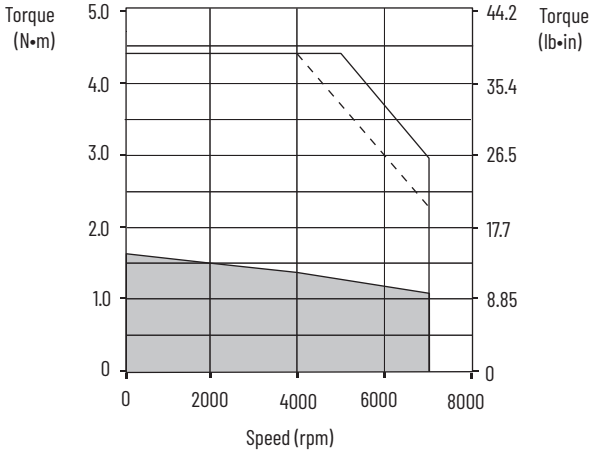
2198-D012-ERSx and VPL-B0751M



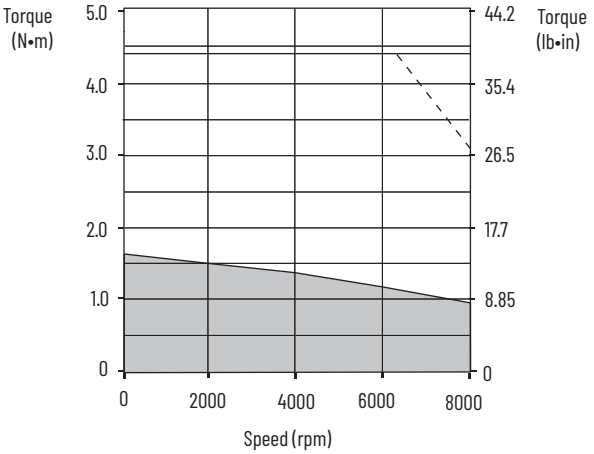
2198-D012-ERSx and VPL-B0752E



2198-D012-ERSx and VPL-B0752F

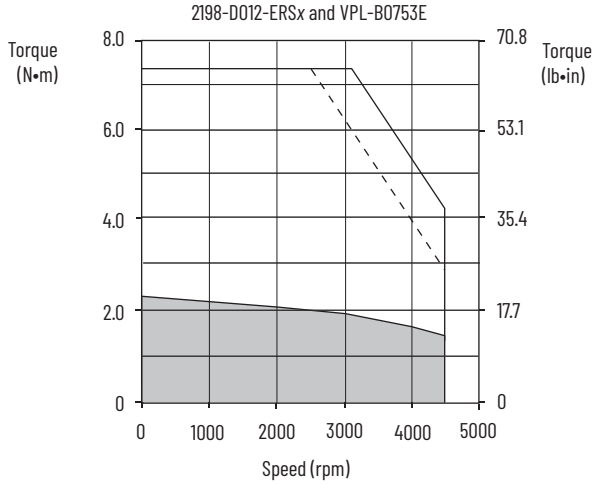


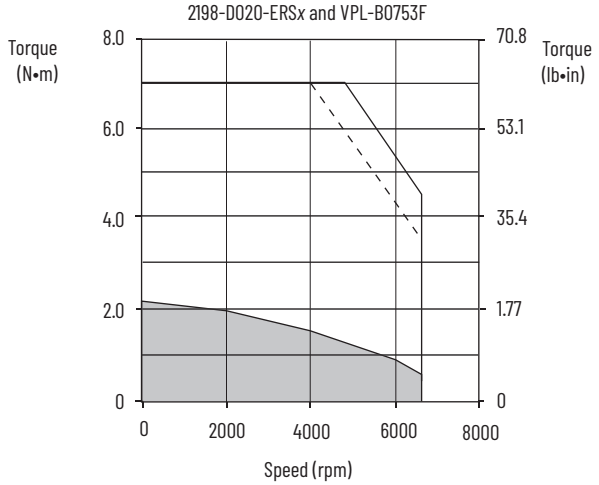
2198-D020-ERSx and VPL-B0752M

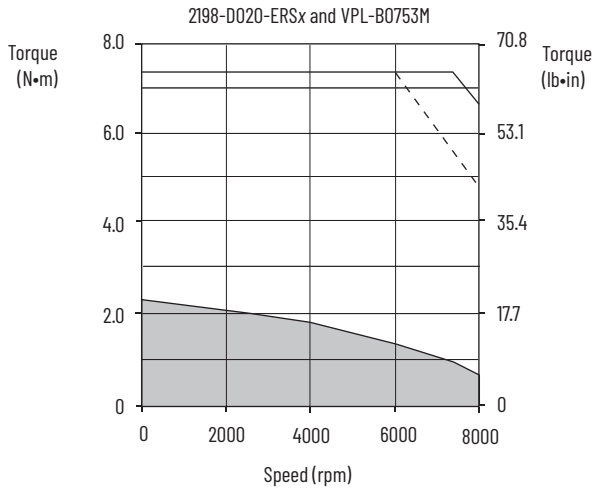


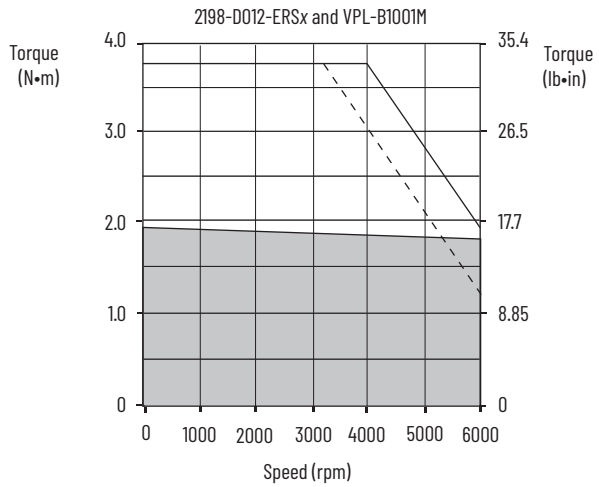
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

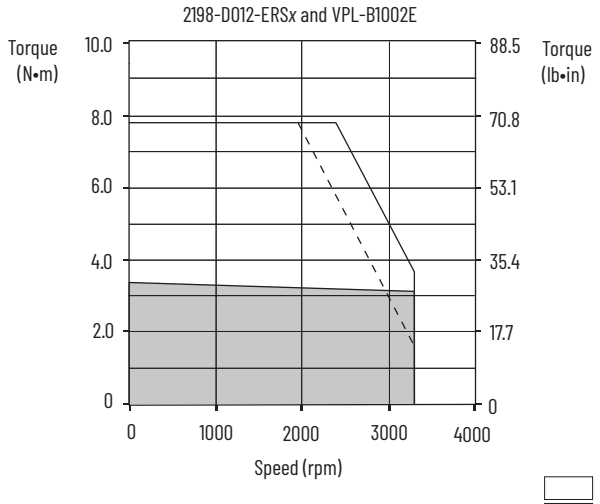
Kinetix 5700 (400V-class) Drives/Kinetix VPL Servo Motor Curves (continued)

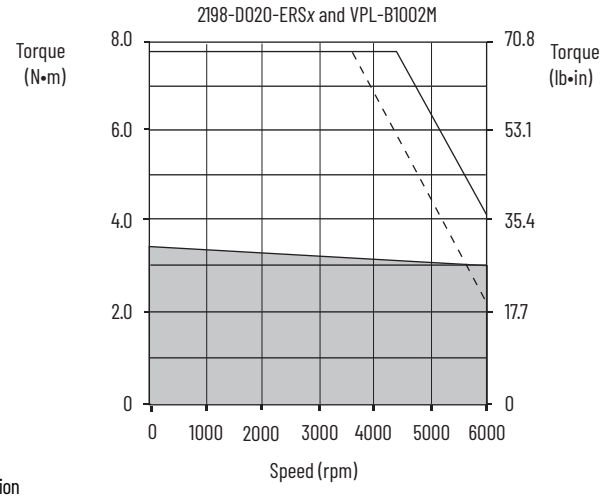








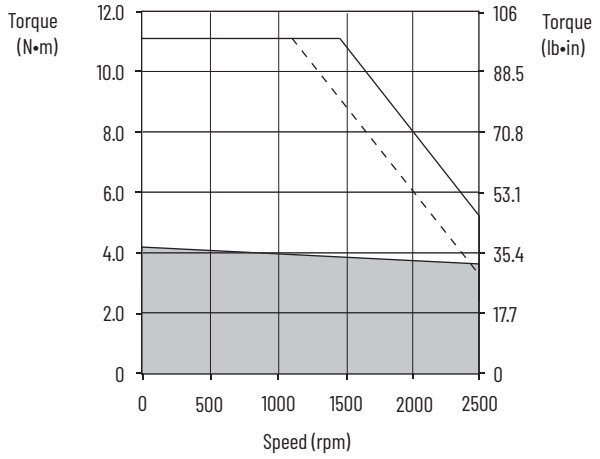




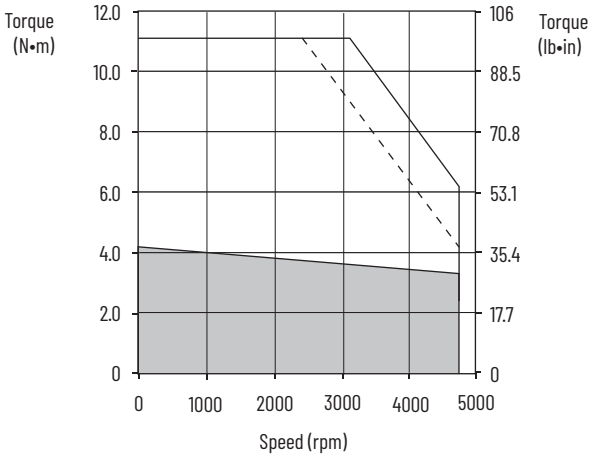
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

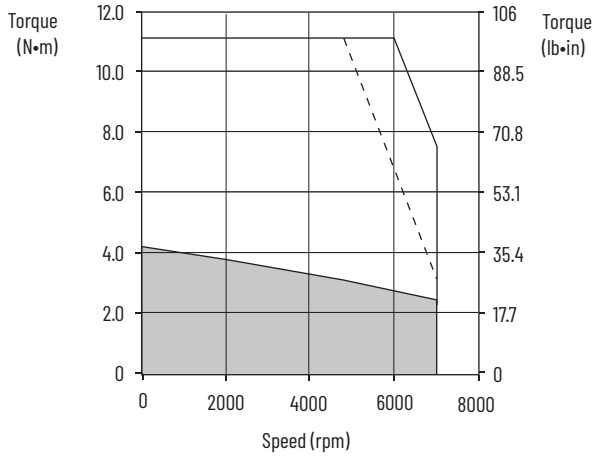
2198-D012-ERS*x* and VPL-B1003C



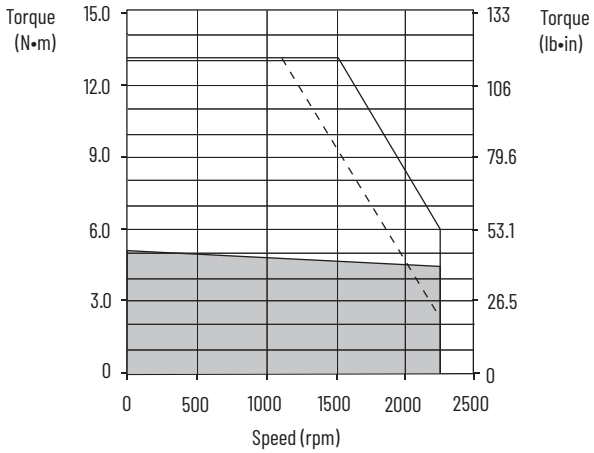
2198-D020-ERS*x* and VPL-B1003F



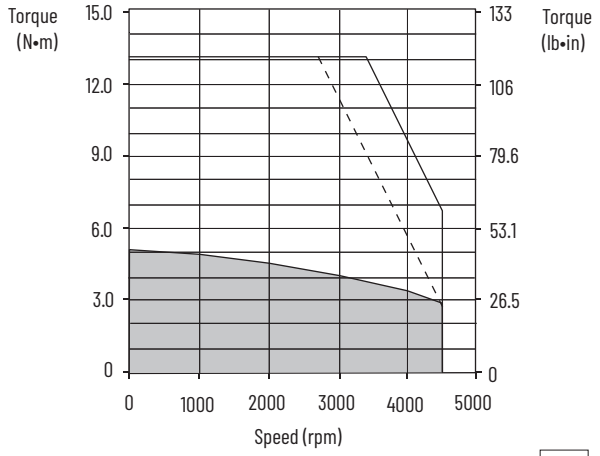
2198-D032-ERS*x* and VPL-B1003T



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



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



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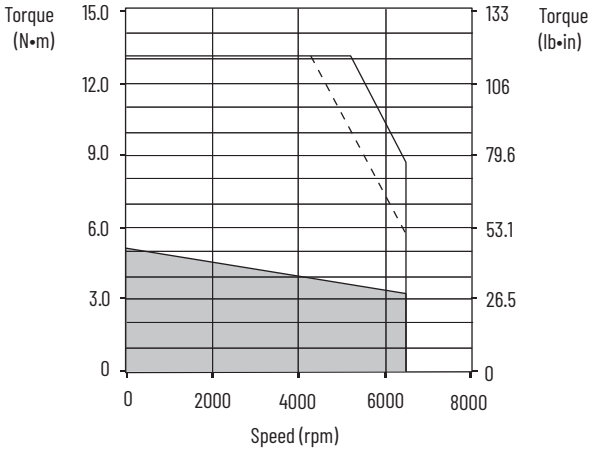
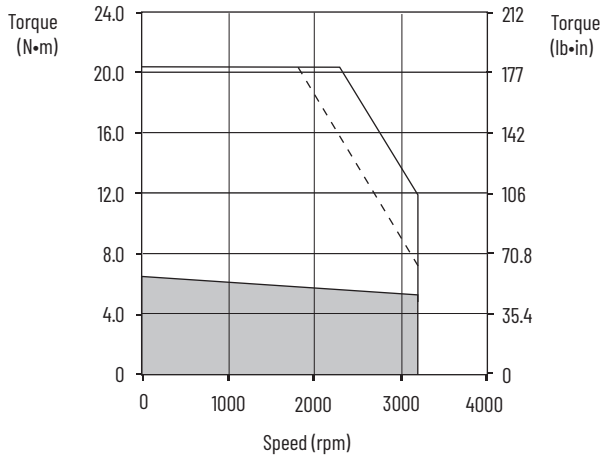


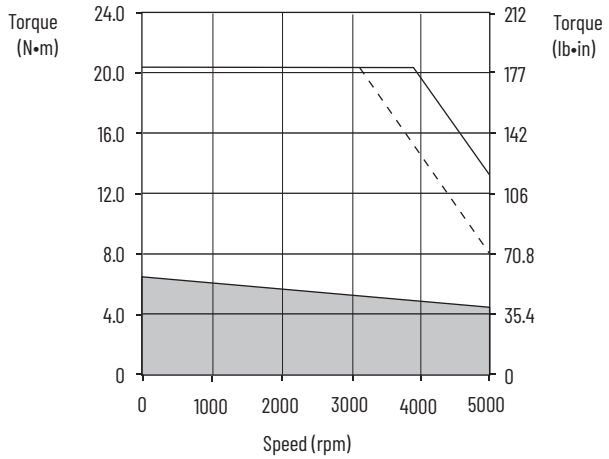
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

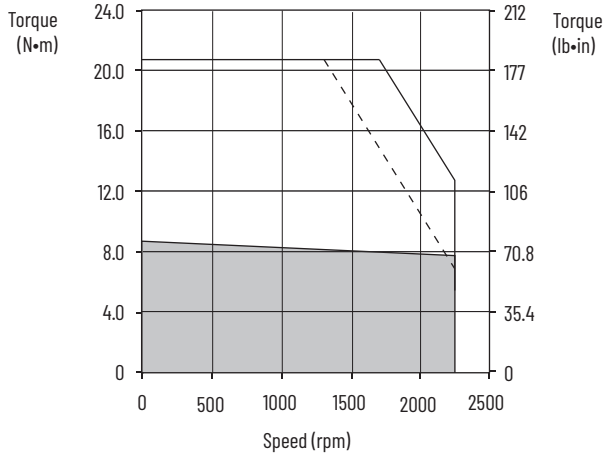
2198-D020-ERSx and VPL-B1153E



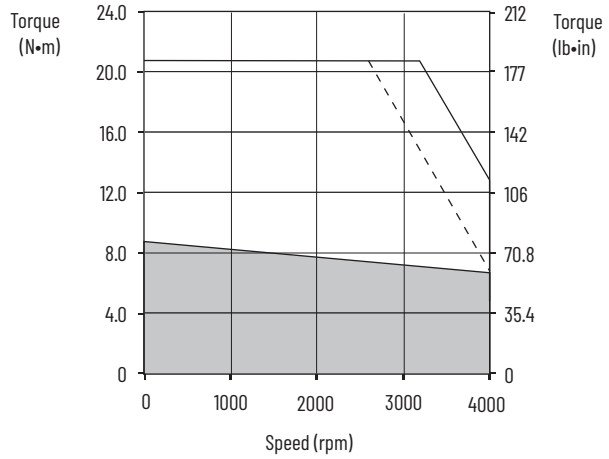
2198-D032-ERSx and VPL-B1153F



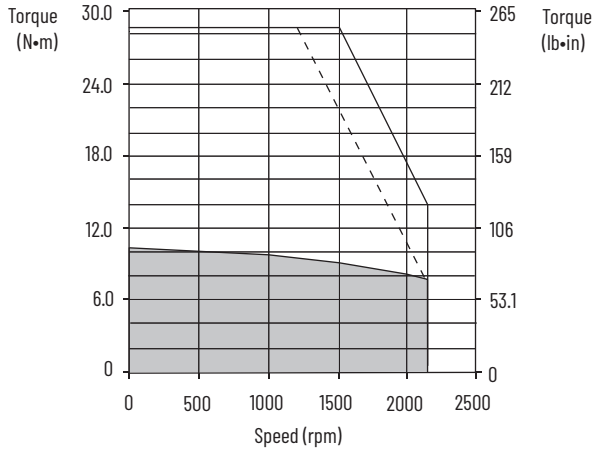
2198-D020-ERSx and VPL-B1303C



2198-D032-ERSx and VPL-B1303F



2198-D020-ERSx and VPL-B1304C



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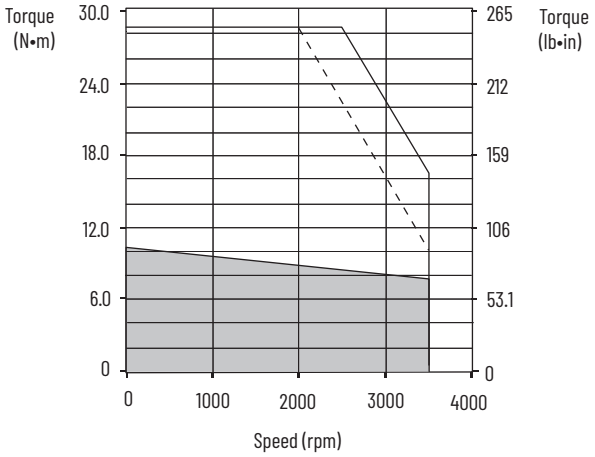
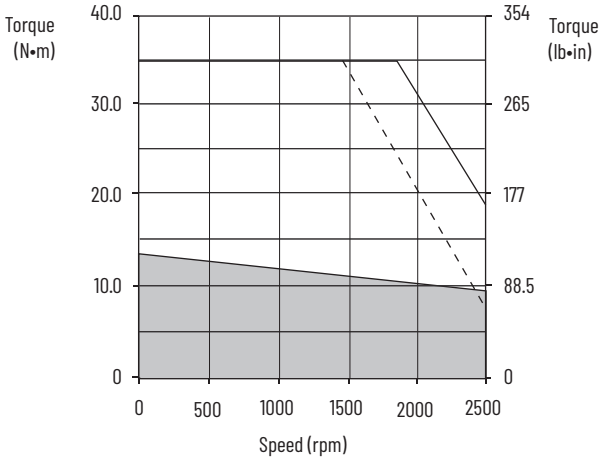


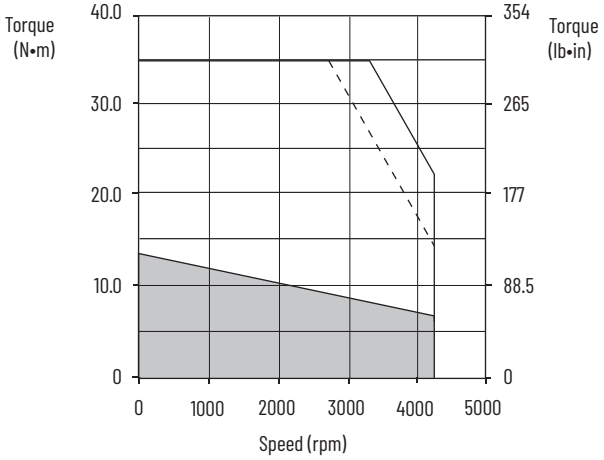
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

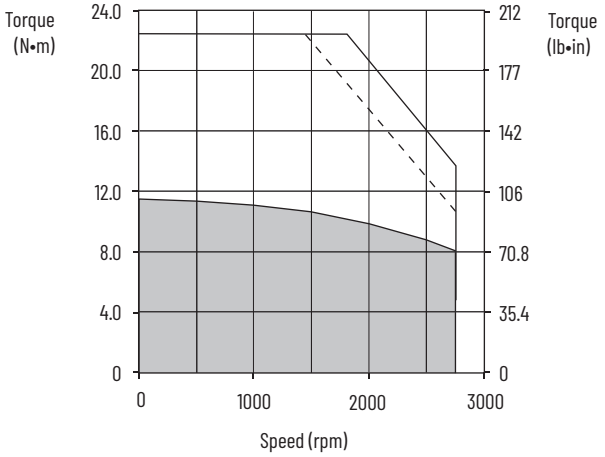
2198-D032-ERS*x* and VPL-B1306C



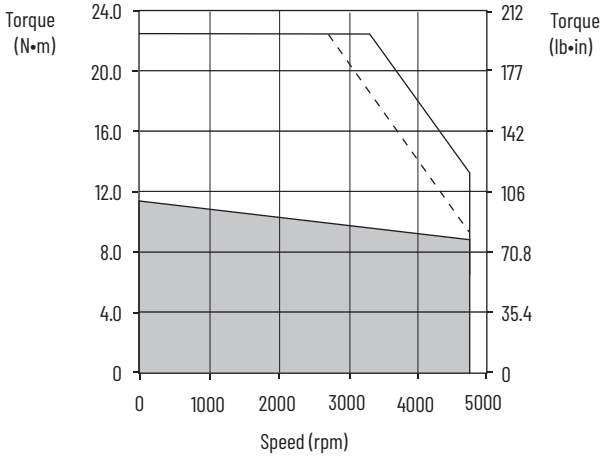
2198-D057-ERS*x* and VPL-B1306F



2198-D032-ERS*x* and VPL-B1651C



2198-D057-ERS*x* and VPL-B1651F



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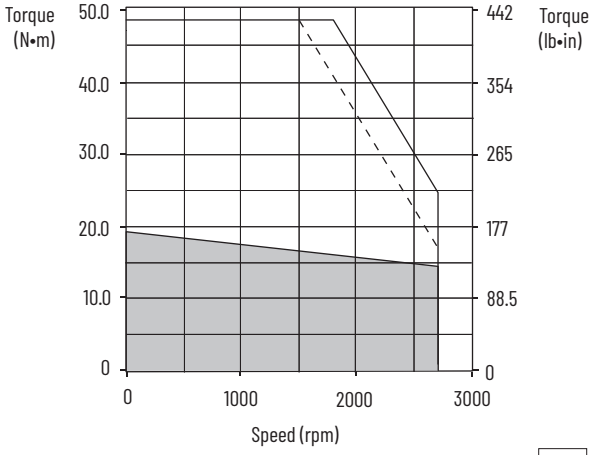
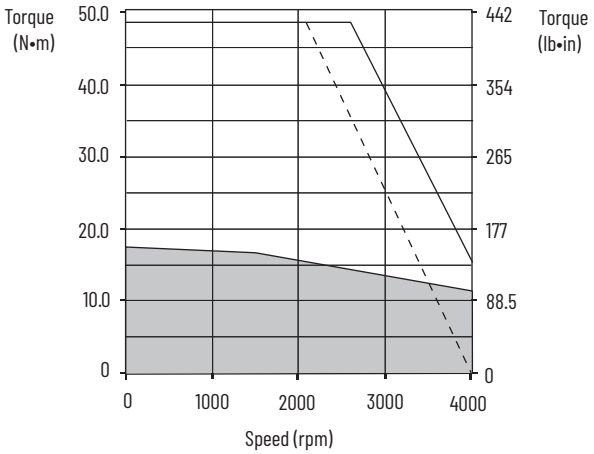
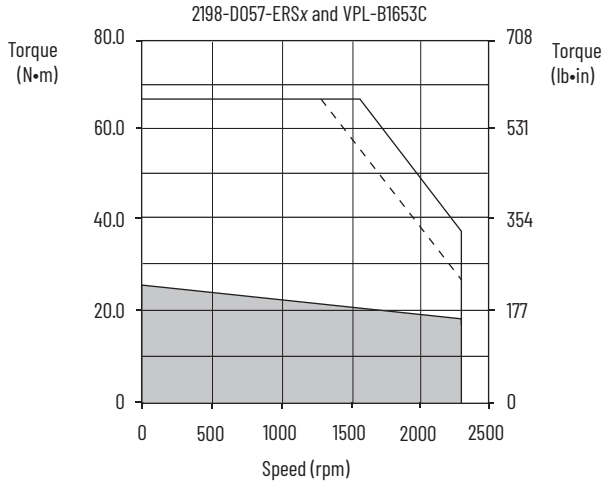


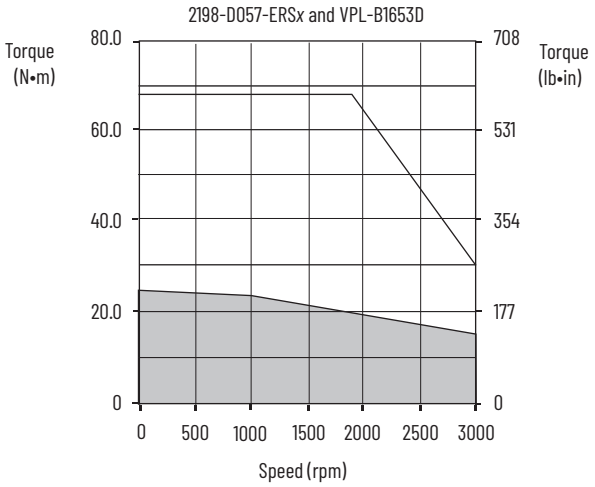
2198-D057-ERS*x* and VPL-B1652F

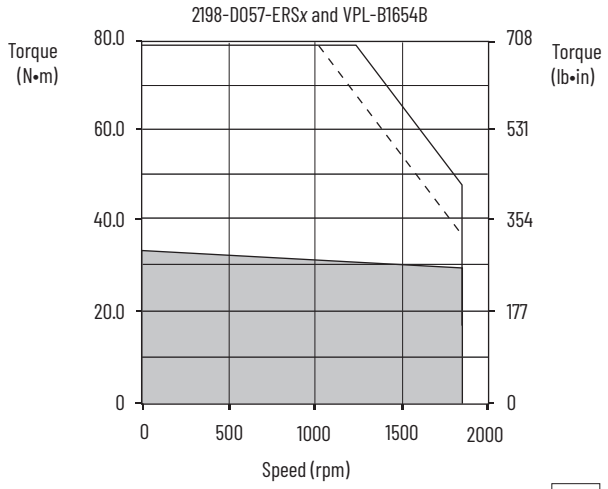


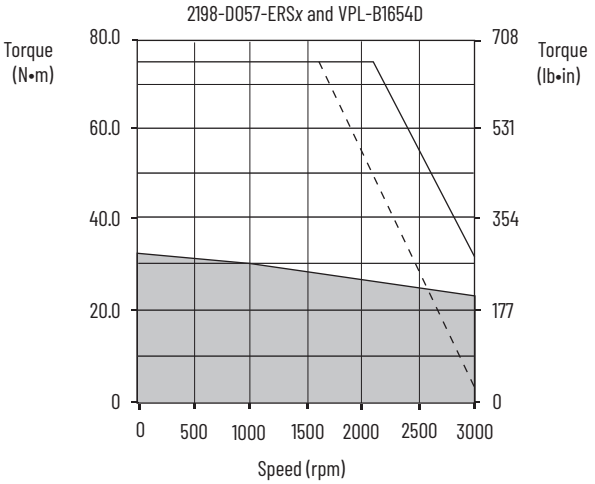
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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









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

Kinetix 5700 (400V-class) Drives with Kinetix VPC Servo Motors

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

ArmorKinetix DSD modules are not compatible with Kinetix VPC motors.

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-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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

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-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-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-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-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-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-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 13.
(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-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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

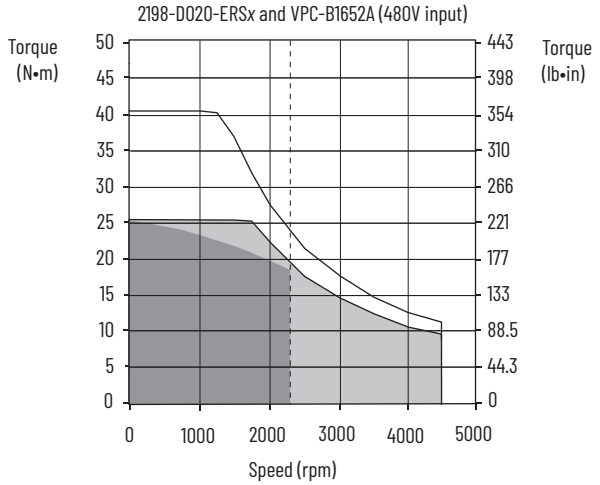
Kinetix VPC Motor Performance with Kinetix 5700 (400V-class) Drives

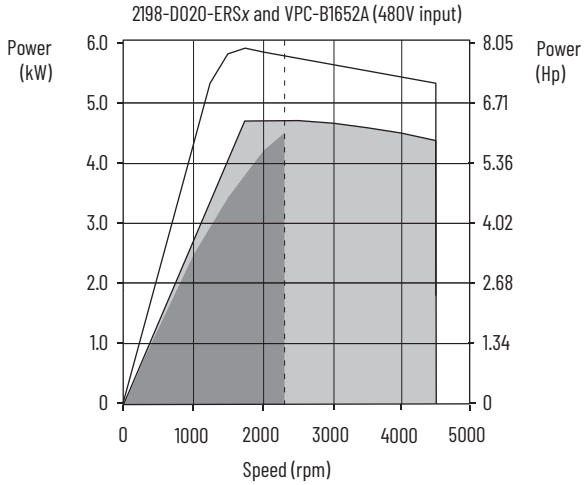
Motor Cat. No. (1)	Rated Speed rpm	Maximum (2) Speed rpm	System Cont. Stall Current A (0-pk)	System Cont. Stall Torque N•m (lb•in)	System Cont. Rated Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPC-B1652A-xxxxAS	1500	2300	11.2	25.2 (223)	21.9 (194)	19.3	40.34 (357)	3.43 (4.6)	2198-D020-ERSx
VPC-B1652A-xxxxFS		4500 (2347)		25.5 (226)	25.5 (226)			4.02 (5.4)	
VPC-B1653A-xxxxAS	1500	2300	15.7	31.8 (281)	28.1 (249)	28.5	60.56 (536)	4.40 (5.9)	2198-D032-ERSx
VPC-B1653A-xxxxFS		4500 (2310)		35.1 (311)	35.1 (311)			5.52 (7.4)	
VPC-B1652D-xxxxAS	3000	4400	15.6	17.6 (156)	15.3 (135)	38.0	40.67 (360)	4.77 (6.4)	2198-D032-ERSx
VPC-B1652D-xxxxFS		5000 (4452)			17.6 (156)			5.51 (7.4)	
VPC-B1653D-xxxxAS	3000	4200	21.4	24.0 (212)	18.5 (164)	56.3	61.4 (543)	5.81 (7.8)	2198-D057-ERSx
VPC-B1653D-xxxxFS		5000 (4294)			24.0 (212)			7.53 (10.1)	
VPC-B1654D-xxxxAS	3000	4200	30.2	35.1 (311)	22.3 (197)	75.1	76.6 (678)	7.01 (9.4)	2198-D057-ERSx
VPC-B1654D-xxxxFS		5000 (4494)			35.1 (311)			10.96 (14.7)	
VPC-B21539-xxxxAS	1000	1500	15.6	52.5 (465)	51.1 (452)	41.6	118.8 (1051)	5.36 (7.2)	2198-D032-ERSx
VPC-B21539-xxxxFS		3000 (1573)			52.5 (465)			5.52 (7.4)	
VPC-B21549-xxxxAS	1000	1500	21.7	72.0 (637)	64.4 (570)	54.3	158.4 (1402)	6.71 (9.0)	2198-D057-ERSx
VPC-B21549-xxxxFS		3000 (1573)			72.0 (637)			7.53 (10.1)	
VPC-B2153A-xxxxAS	1500	2300	21.2	48.0 (425)	46.2 (409)	57.2	111.8 (990)	7.23 (9.7)	2198-D057-ERSx
VPC-B2153A-xxxxFS		4500 (2325)			48.0 (425)			7.53 (10.1)	
VPC-B2154A-xxxxAS	1500	2300	30.8	70.1 (620)	58.7 (520)	72.1	140.1 (1240)	9.17 (12.3)	2198-D057-ERSx
VPC-B2154A-xxxxFS		4500 (2333)			70.1 (620)			10.96 (14.7)	
VPC-B2154B-xxxxAS	2000	3200	41.0	48.0 (425)	45.1 (399)	120.1	131.4 (1163)	9.40 (12.6)	2198-S086-ERSx
VPC-B2154D-xxxxFS	3000	5000 (4294)			48.0 (425)			15.00 (20.1)	
VPC-B2155B-xxxxAS	2000	3200	48.8	59.0 (522)	51.7 (458)	121.6	138.6 (1227)	10.81 (14.5)	2198-S086-ERSx
						139.5	156.7 (1387)		2198-S130-ERSx
VPC-B2155D-xxxxFS	3000	5000 (4172)	48.8	59.0 (522)	59.0 (522)	121.6	138.6 (1227)	18.49 (24.8)	2198-S086-ERSx
						139.5	156.7 (1387)		2198-S130-ERSx
VPC-B2156A-xxxxAS	1500	2800	57.6	70.1 (620)	56.1 (497)	121.6	139.3 (1233)	8.80 (11.8)	2198-S086-ERSx
						171.6	185.5 (1642)		2198-S130-ERSx
VPC-B2156D-xxxxFS	3000	5000 (4101)	57.6	70.1 (620)	70.1 (620)	121.6	139.3 (1233)	22.00 (29.5)	2198-S086-ERSx
						171.6	185.5 (1642)		2198-S130-ERSx
VPC-B30029-xxxxAS	1000	1400	29.2	103.4 (915)	100.2 (887)	56.9	183.7 (1626)	10.51 (14.1)	2198-S086-ERSx
VPC-B30029-xxxxFS		3000 (1493)		105.1 (930)	105.1 (930)			10.96 (14.7)	
VPC-B30039-xxxxAS	1000	1400	38.0	142.4 (1260)	135.7 (1201)	72.2	237.9 (2106)	14.24 (19.1)	2198-S086-ERSx
VPC-B30039-xxxxFS		3000 (1472)		143.3 (1268)	143.3 (1268)			15.00 (20.1)	
VPC-B30049-xxxxAS	1000	1400	46.6	176.1 (1558)	167.7 (1484)	96.6	327.8 (2901)	17.60 (23.6)	2198-S086-ERSx
VPC-B30049-xxxxFS		3000 (1429)		176.7 (1564)	176.7 (1564)			18.49 (24.8)	
VPC-B3002A-xxxxAS	1500	2200	39.6	95.5 (845)	90.6 (802)	82.9	170.4 (1508)	14.24 (19.1)	2198-S086-ERSx
VPC-B3002A-xxxxFS		4000 (2212)			95.5 (845)			15.0 (20.1)	
VPC-B3003A-xxxxAS	1500	2100	56.3	140.3 (1242)	111.3 (985)	108.0	244.8 (2167)	17.44 (23.4)	2198-S086-ERSx
VPC-B3003A-xxxxFS		3500 (2166)			140.3 (1242)			22.0 (29.5)	
VPC-B3004A-xxxxAS	1500	2100	77.6	191.1 (1691)	155.1 (1373)	145.2	319.0 (2823)	25.43 (34.1)	2198-S130-ERSx
VPC-B3004A-xxxxFS		3500 (2128)			191.1 (1691)			29.98 (40.2)	
VPC-B3004B-xxxxAS	2000	2800	76.6	95.5 (845)	78.1 (691)	183.8	225.8 (1998)	16.40 (22.0)	2198-S130-ERSx
						211.1	257.7 (2281)		2198-S160-ERSx
VPC-B3004D-xxxxFS	3000	4000 (4054)	76.6	95.5 (845)	95.5 (845)	183.8	225.8 (1998)	29.98 (40.2)	2198-S130-ERSx
						211.1	257.7 (2281)		2198-S160-ERSx

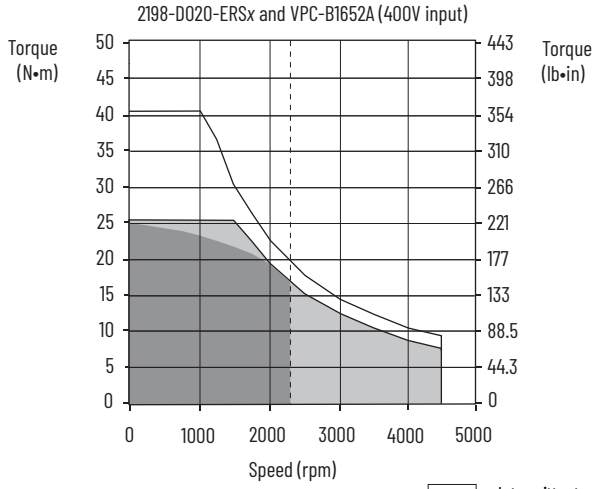
(1) Motors with catalog numbers ending in -*xxxx*FS (forced ventilation) include a cooling fan. Catalog numbers ending in -*xxxx*AS (natural convection) do not include a cooling fan.
(2) Operation beyond maximum speed requires DC-bus protection. Bus overvoltage speed is shown in parentheses. See the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

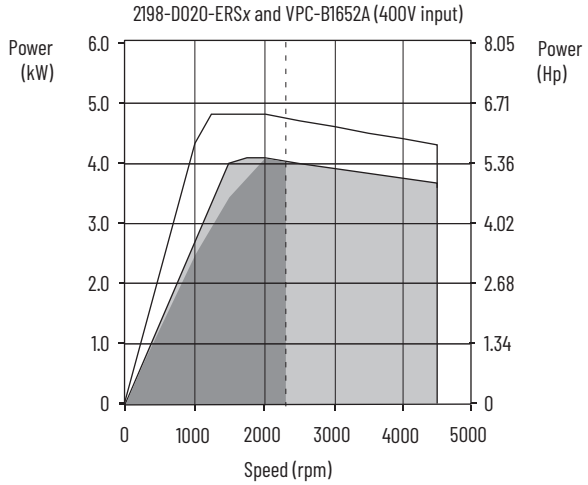
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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



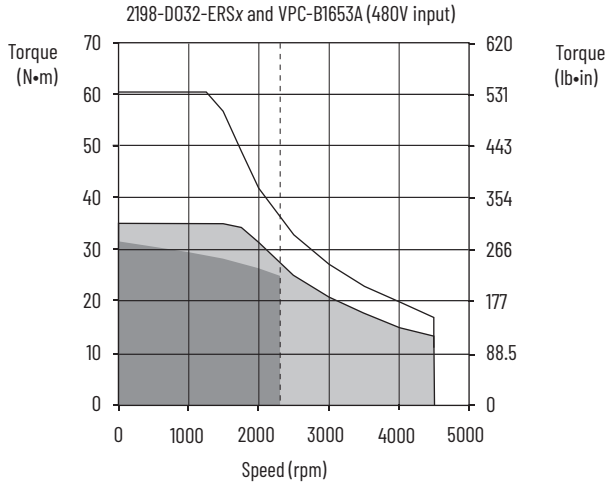


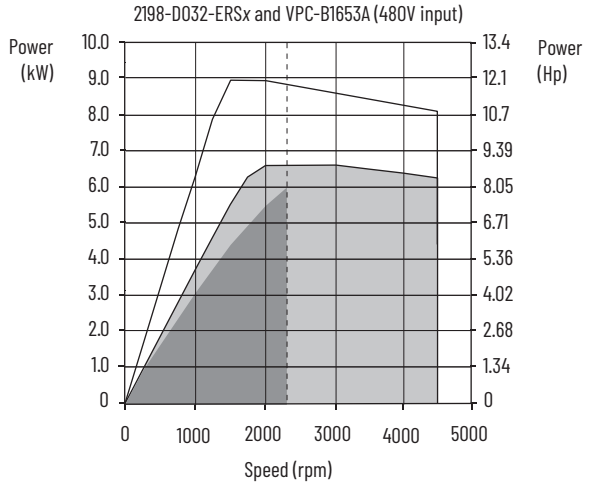


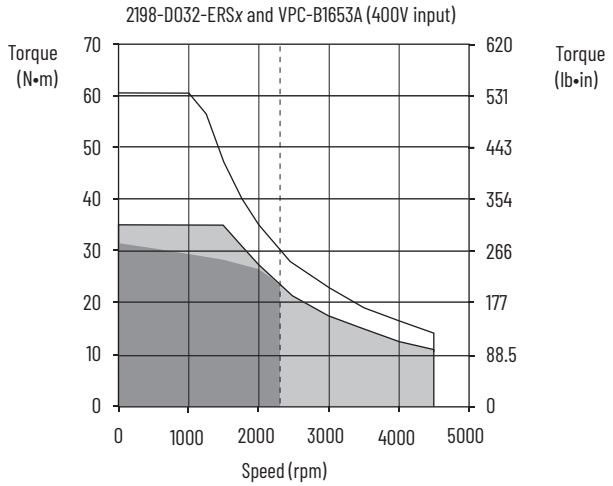


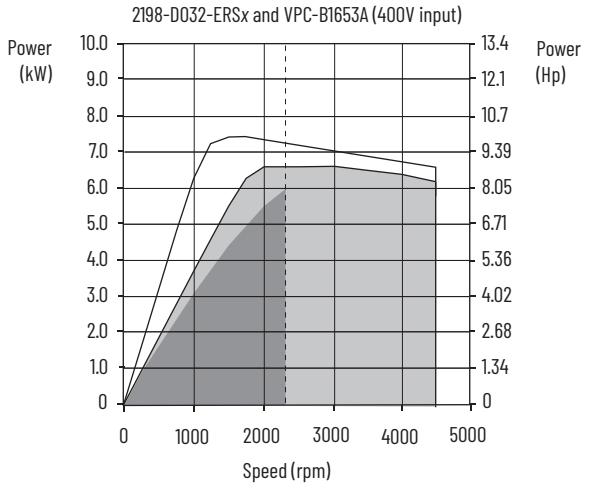
= Intermittent operating region (with and without cooling fan)
= Continuous operating region with cooling fan
= Continuous operating region without cooling fan
= Bus overvoltage speed (maximum inverter safe-speed limit). Operation beyond this speed requires DC-bus protection.

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









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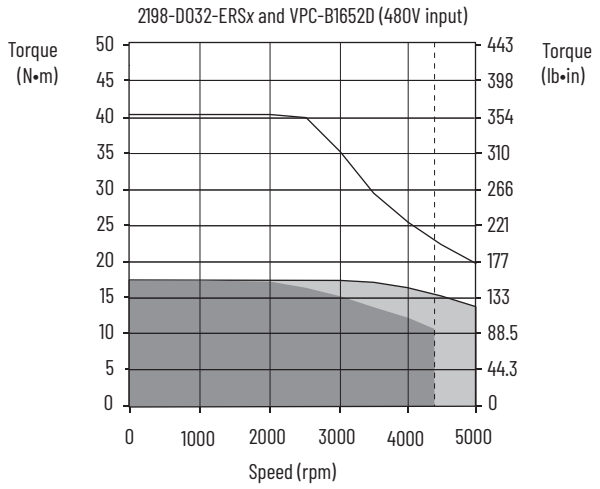
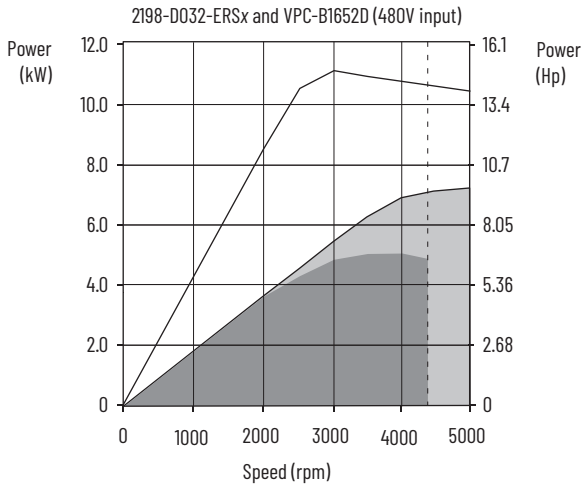
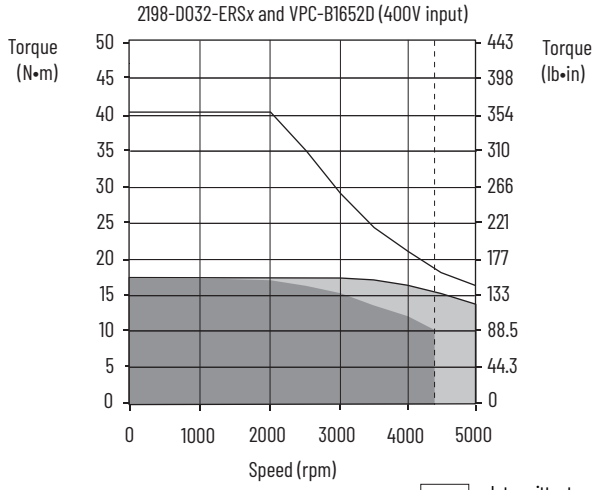
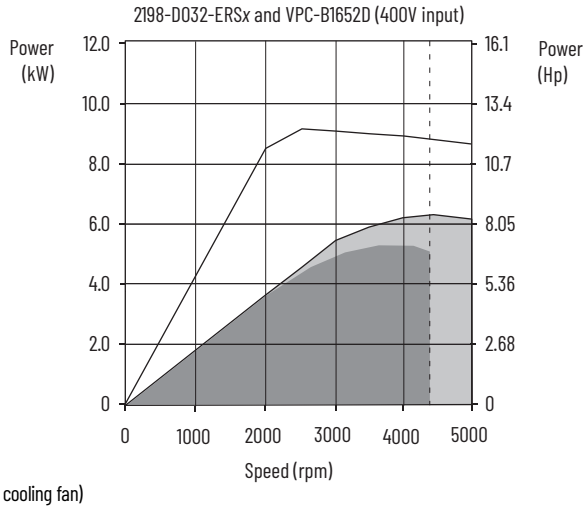
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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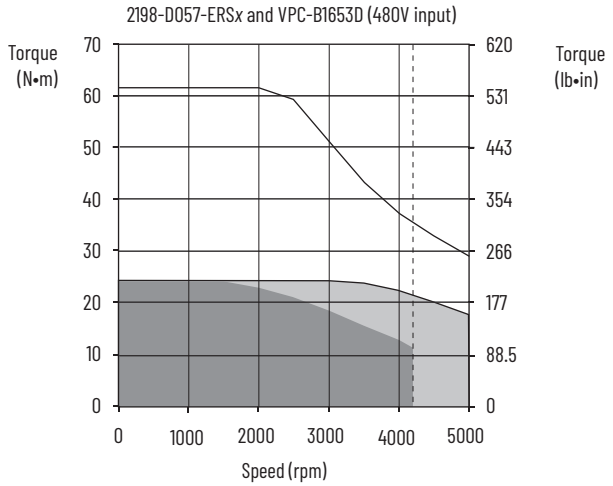
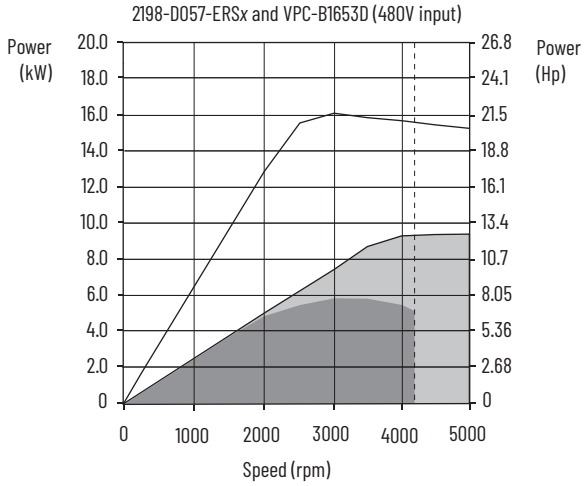
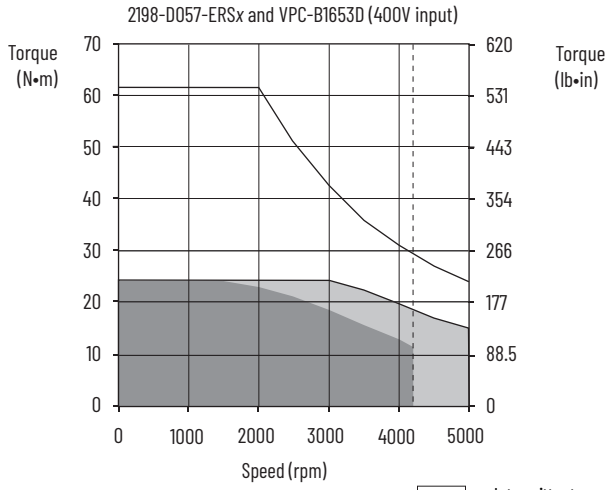
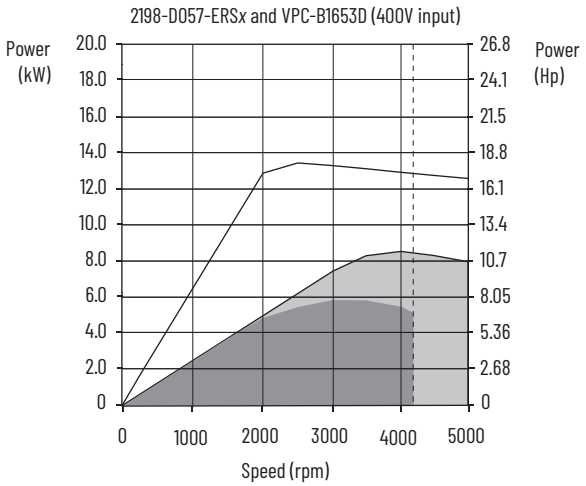
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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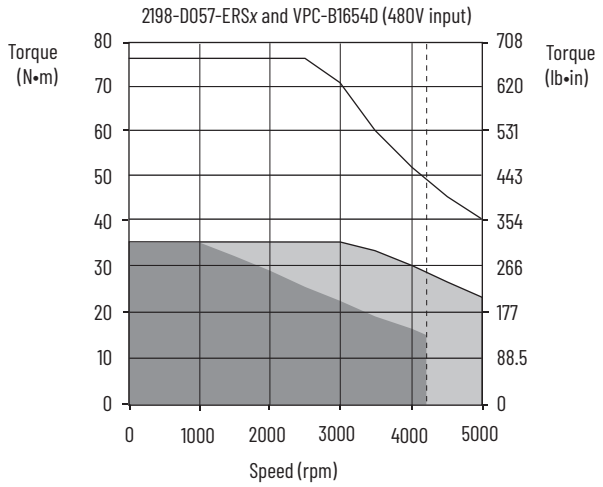
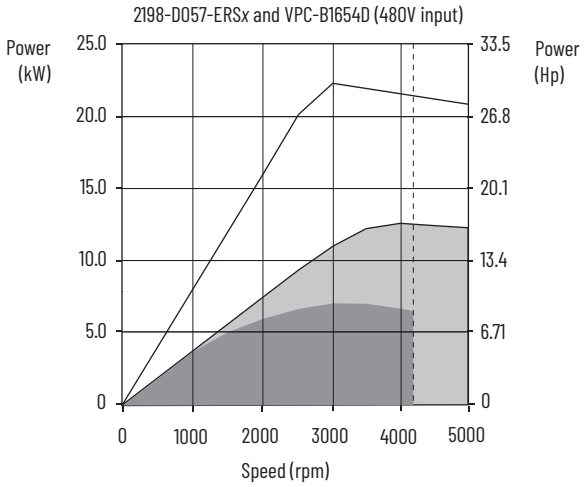
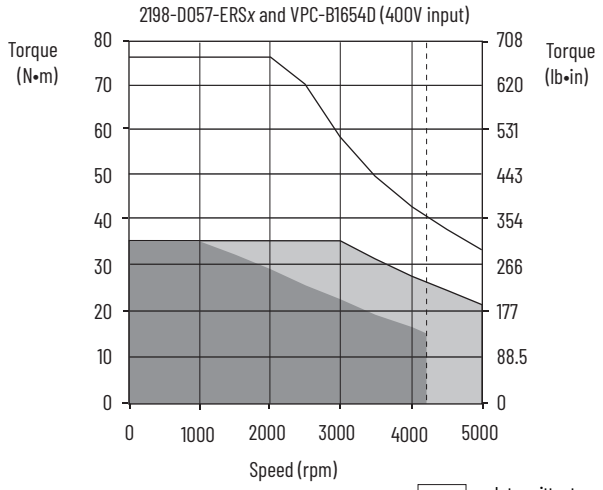
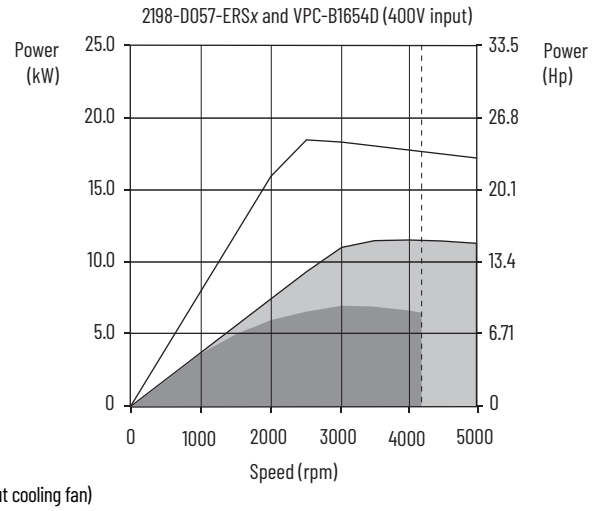
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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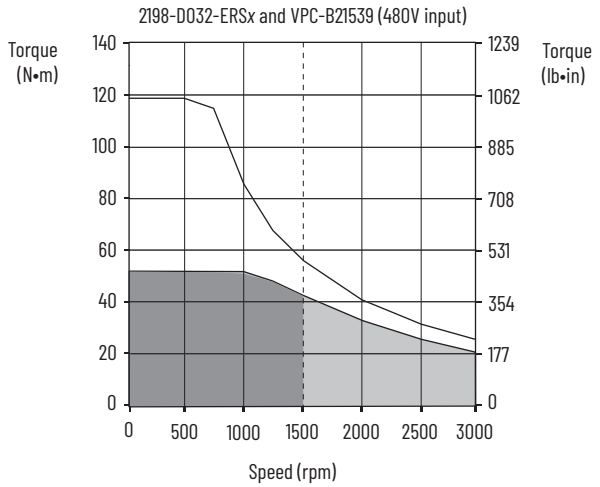
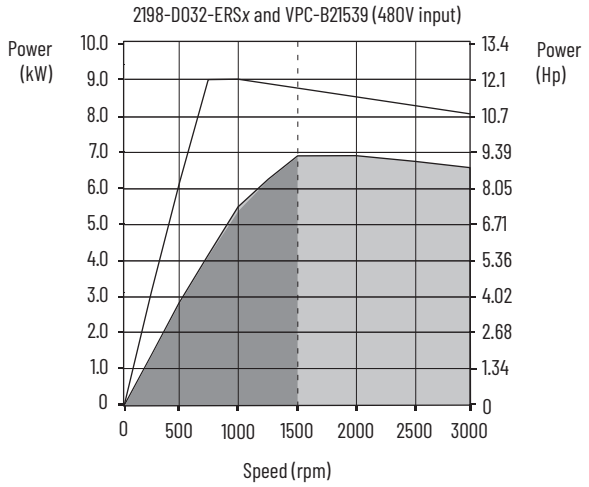
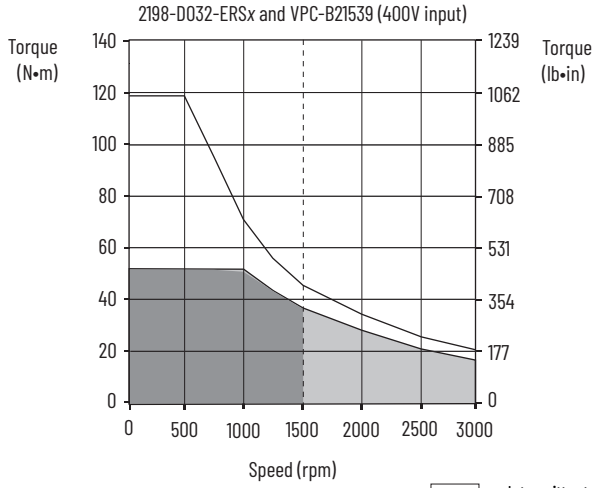
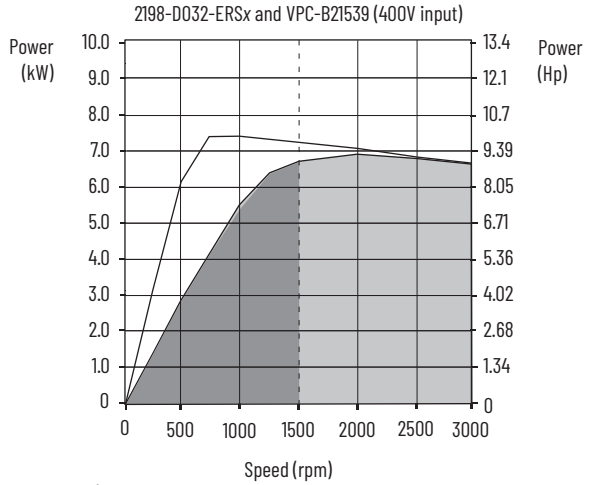
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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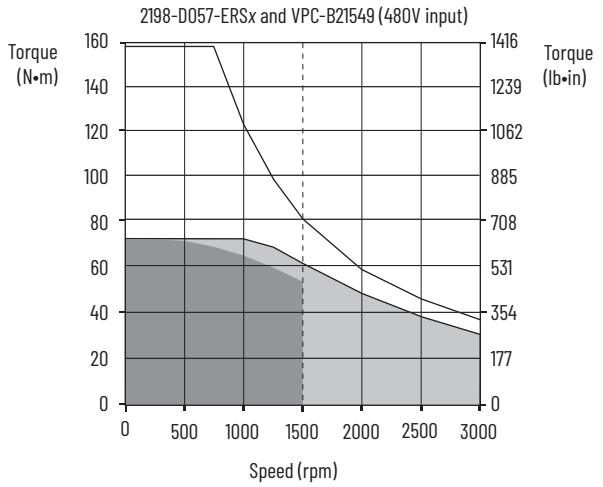
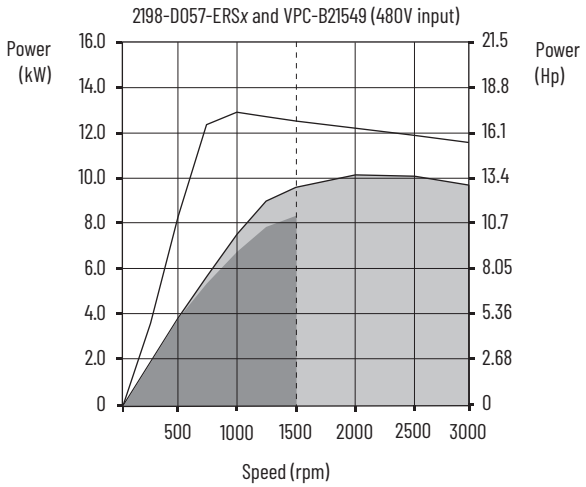
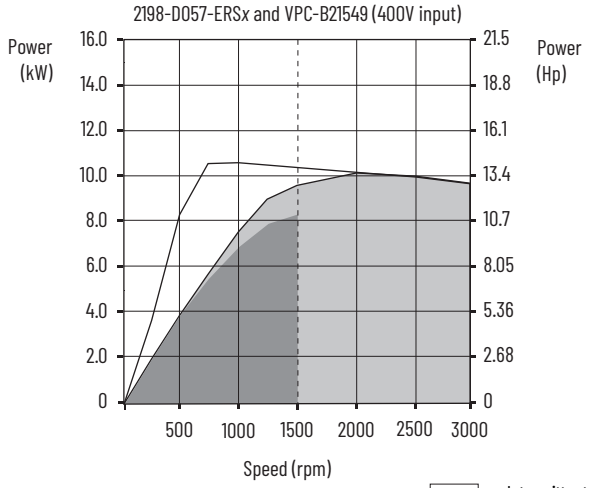
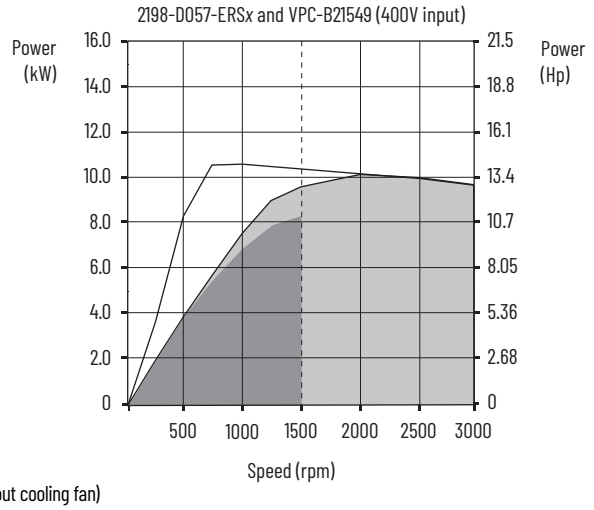
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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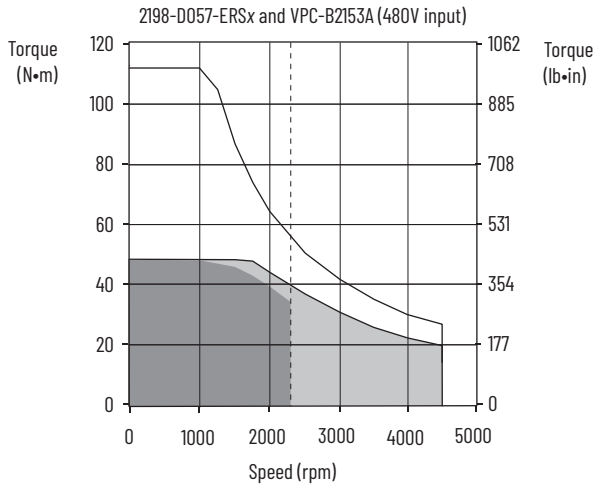
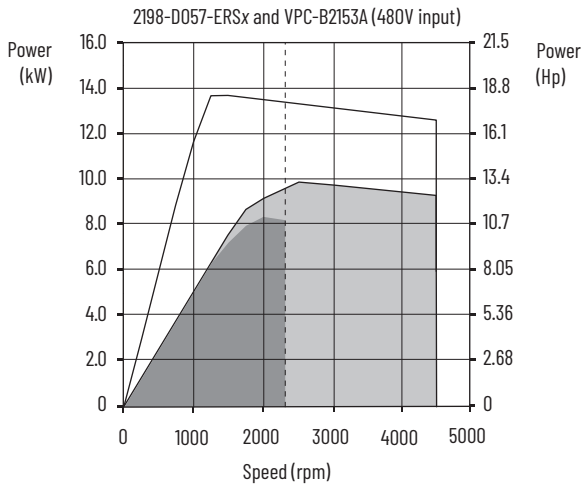
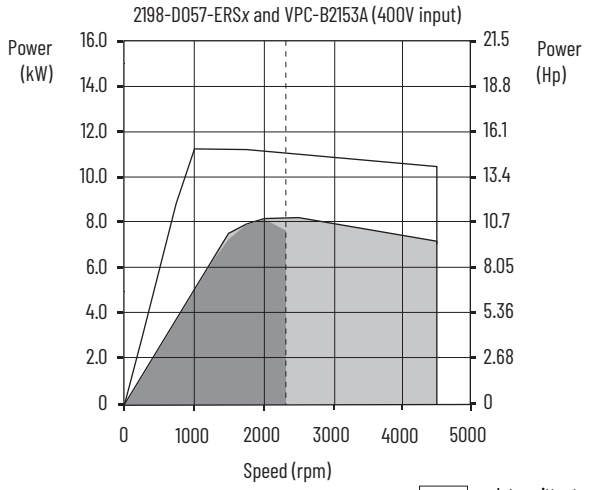
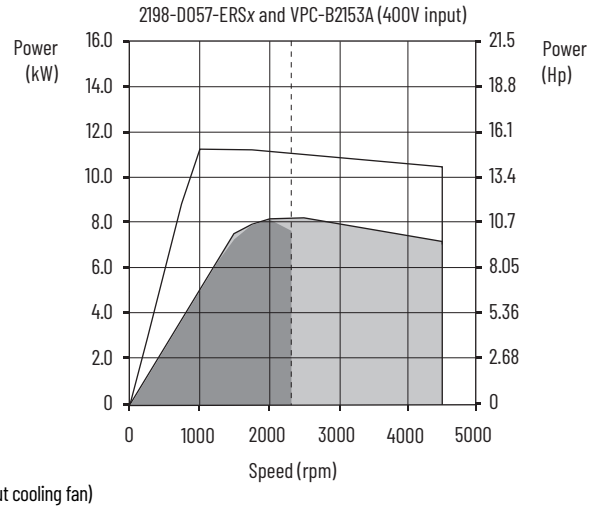
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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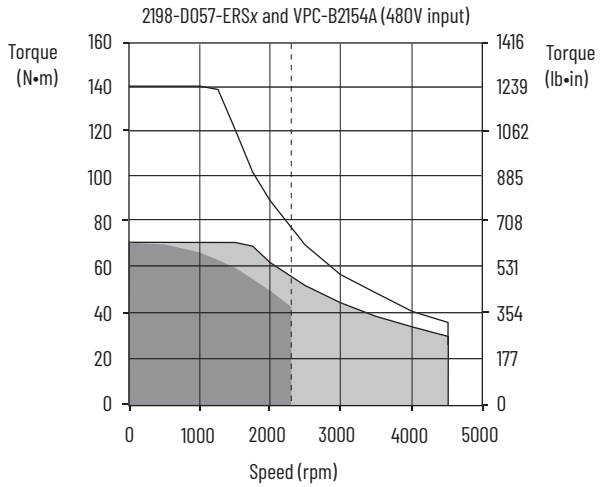
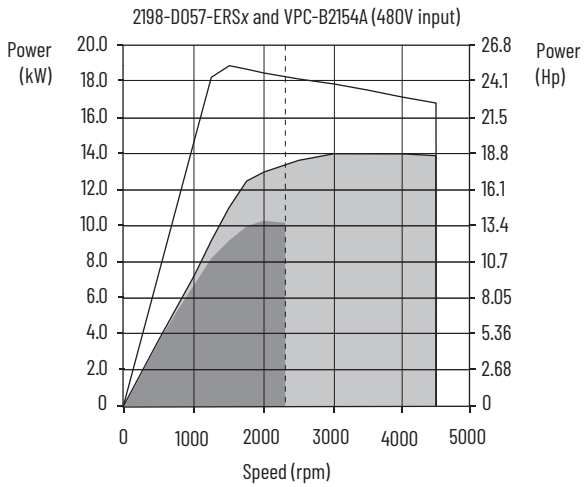
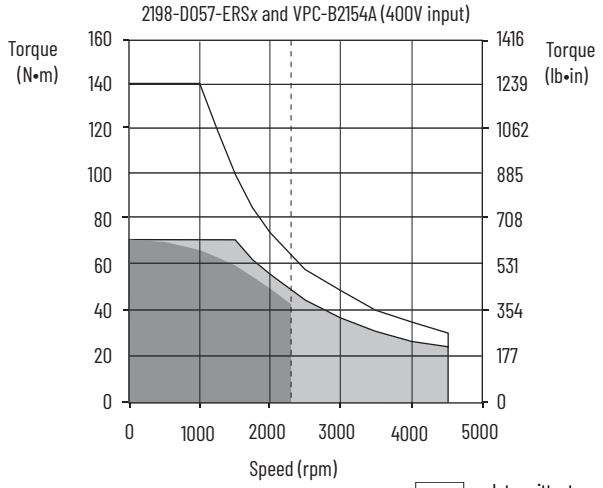
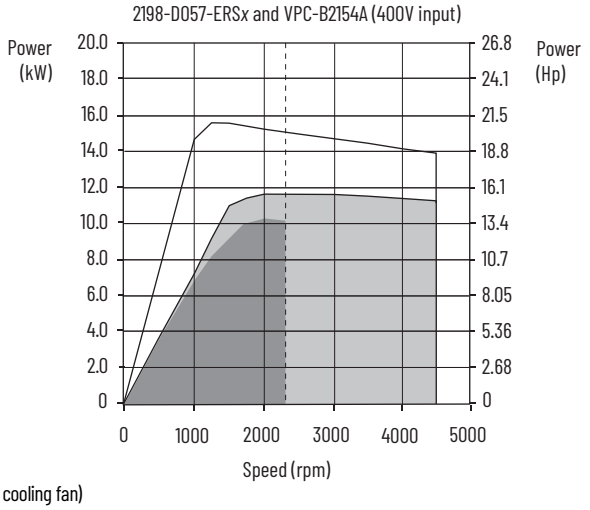
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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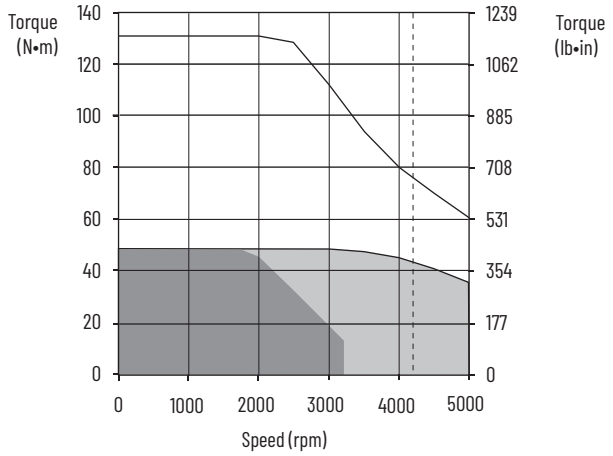
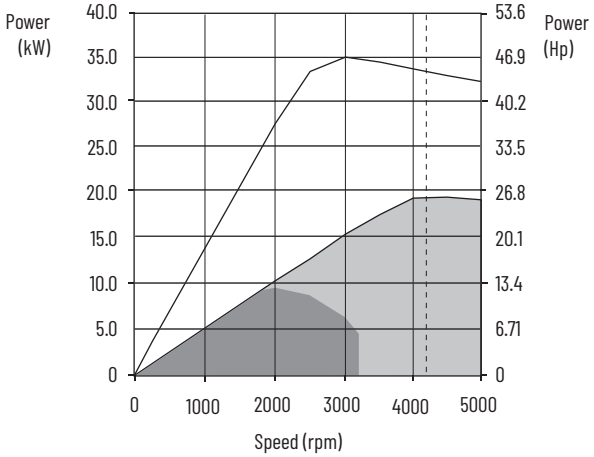
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)

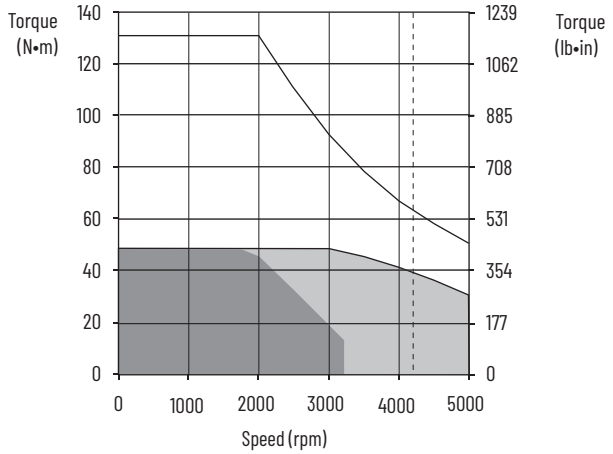
2198-S086-ERSx (480V input) and VPC-B2154D or VPC-B2154B



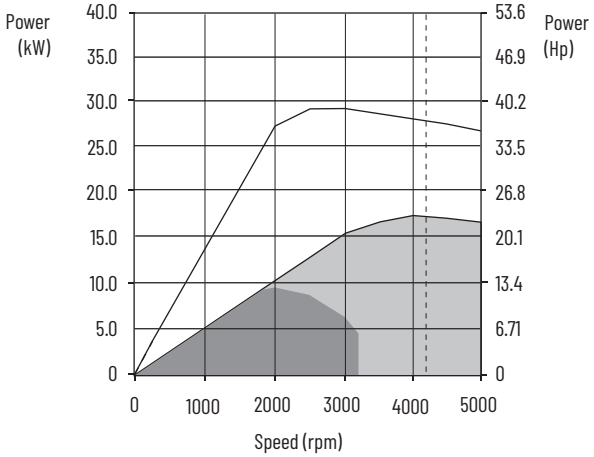
2198-S086-ERSx (480V input) and VPC-B2154D or VPC-B2154B



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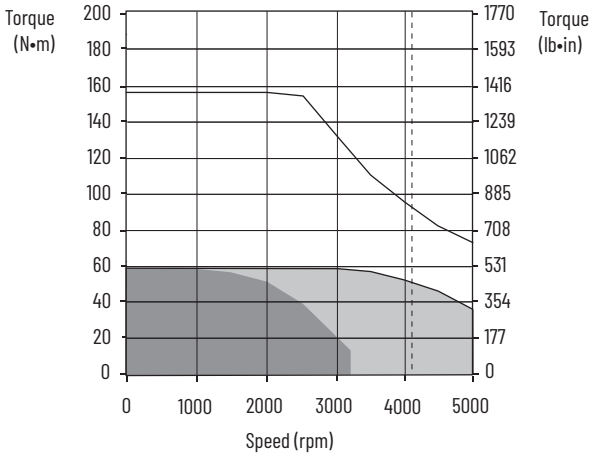
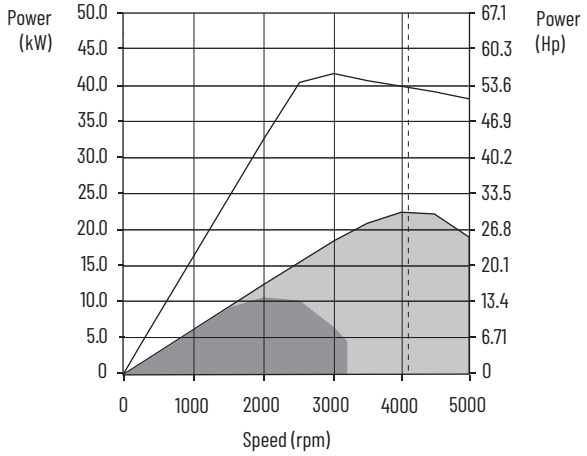
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)

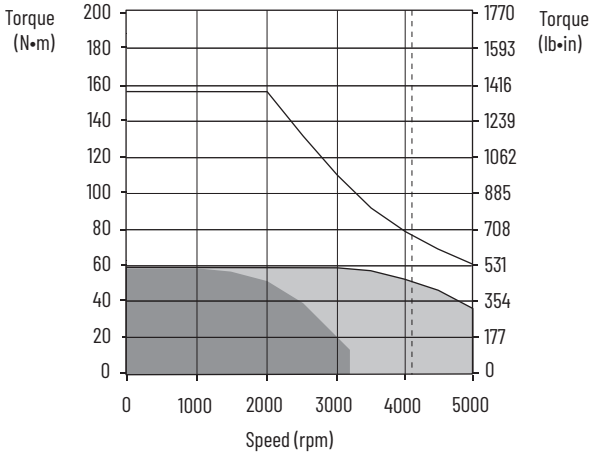
2198-S130-ERSx (480V input) and VPC-B2155D or VPC-B2155B



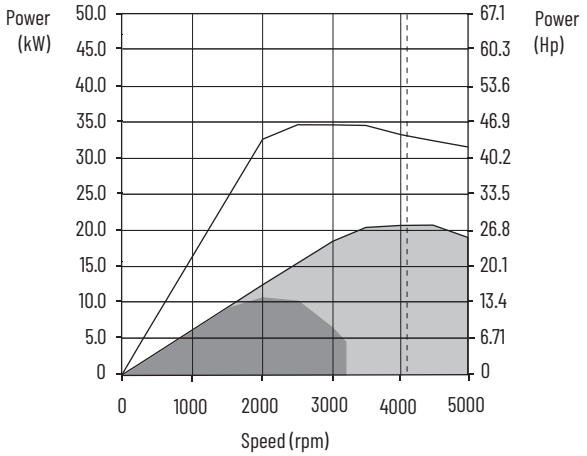
2198-S130-ERSx (480V input) and VPC-B2155D or VPC-B2155B



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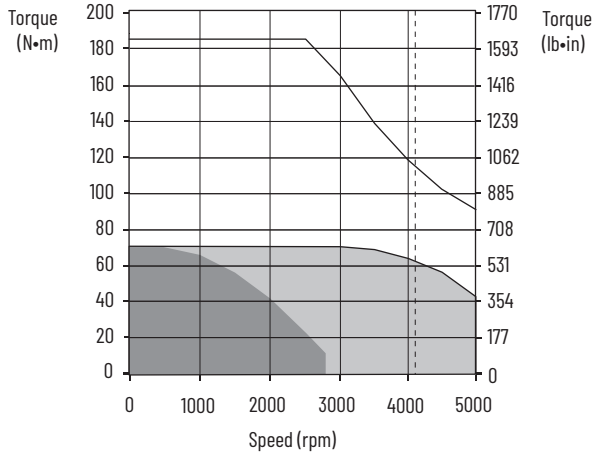
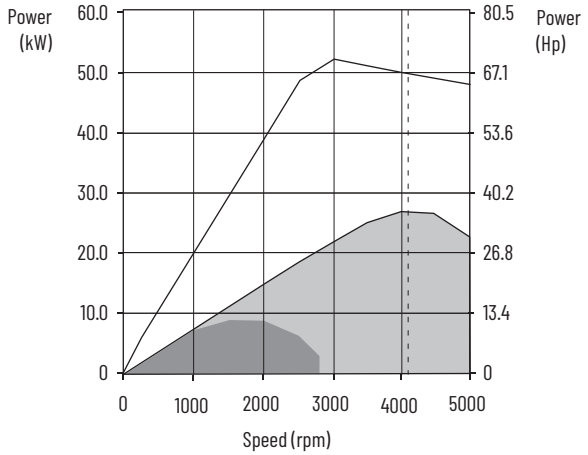
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)

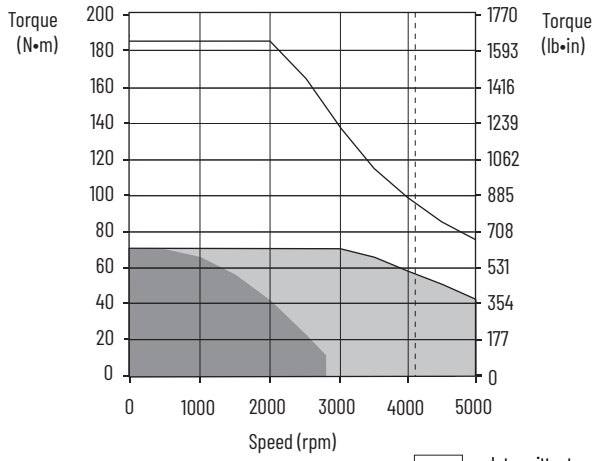
2198-S130-ERSx (480V input) and VPC-B2156D or VPC-B2156A



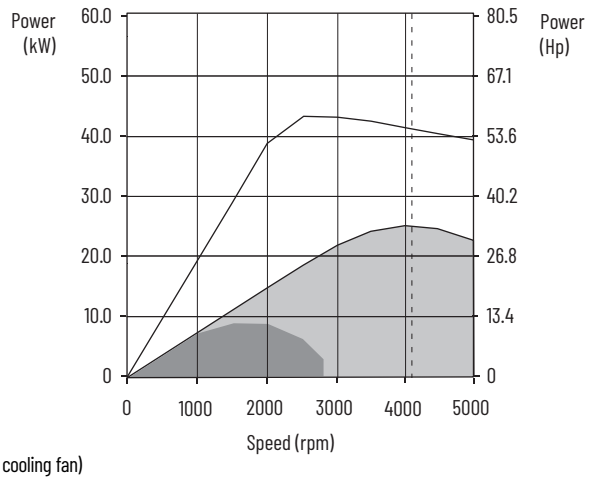
2198-S130-ERSx (480V input) and VPC-B2156D or VPC-B2156A



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



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



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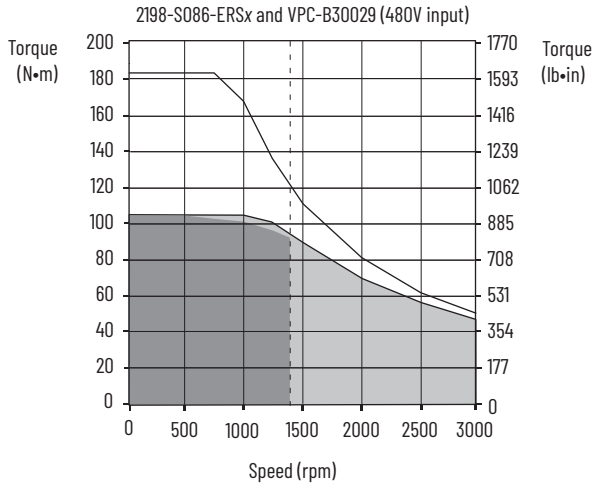
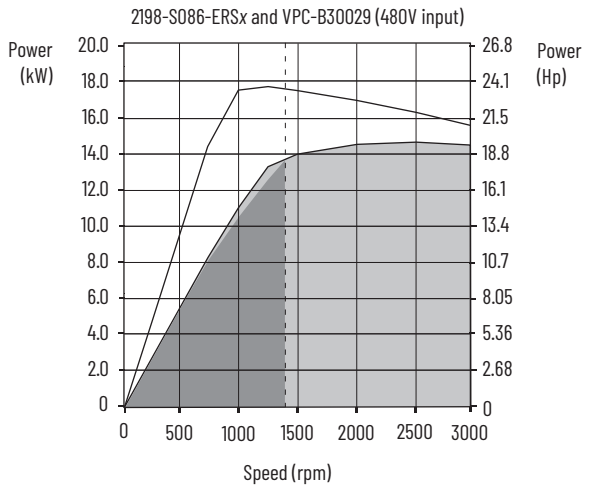
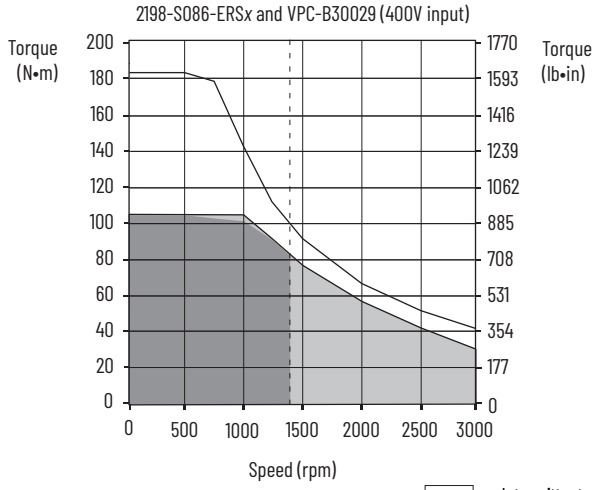
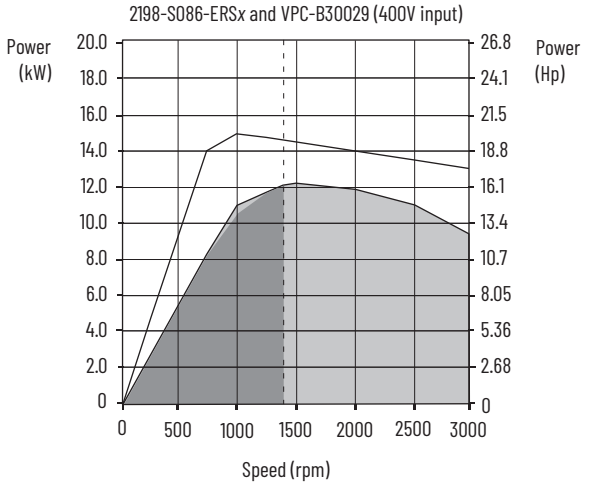
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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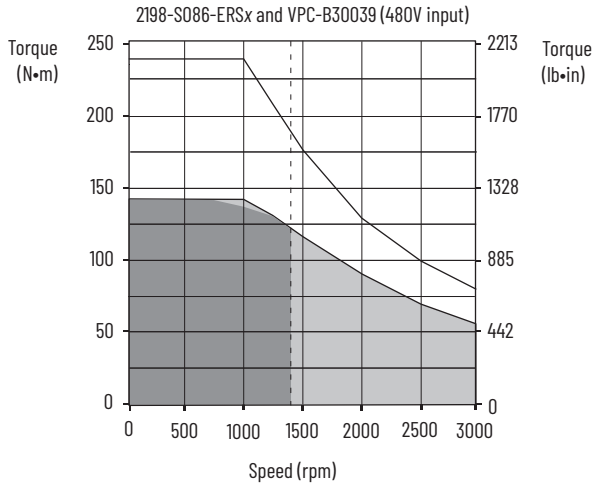
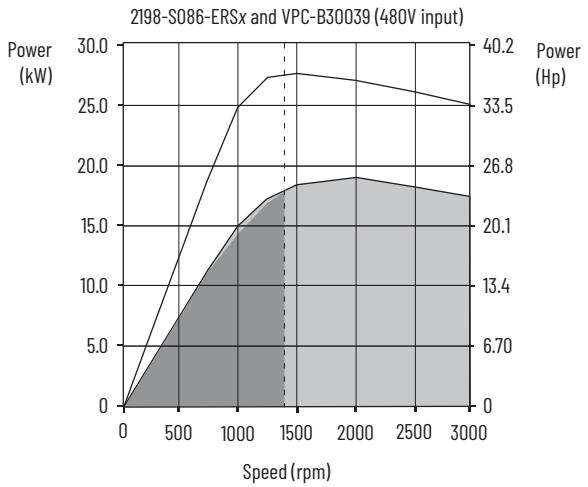
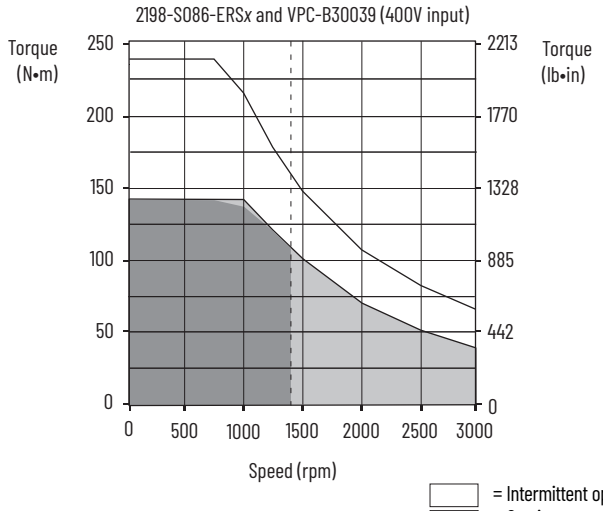
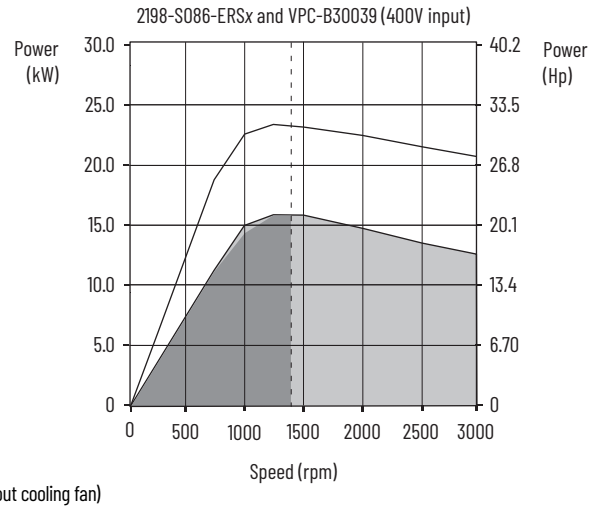
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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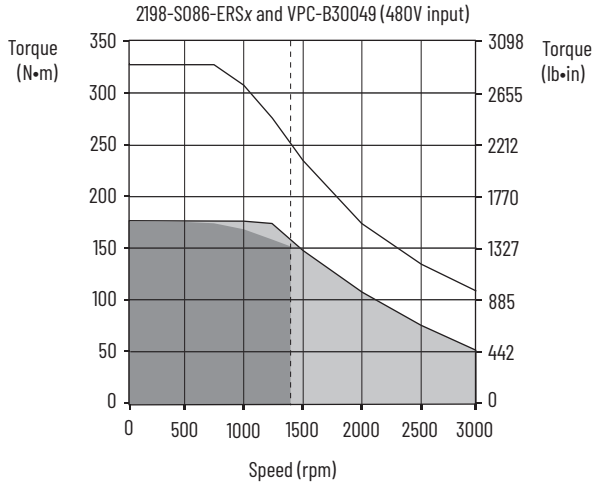
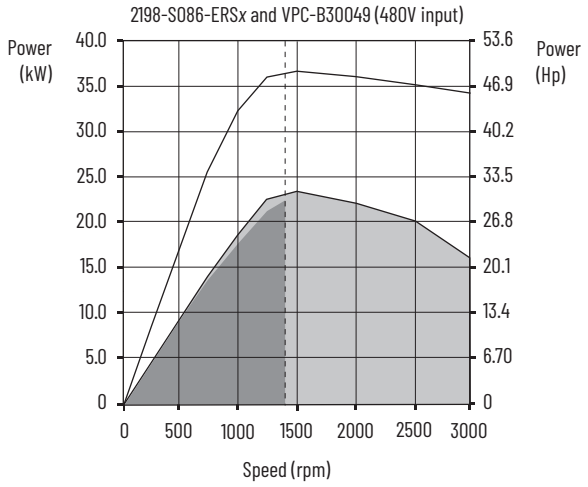
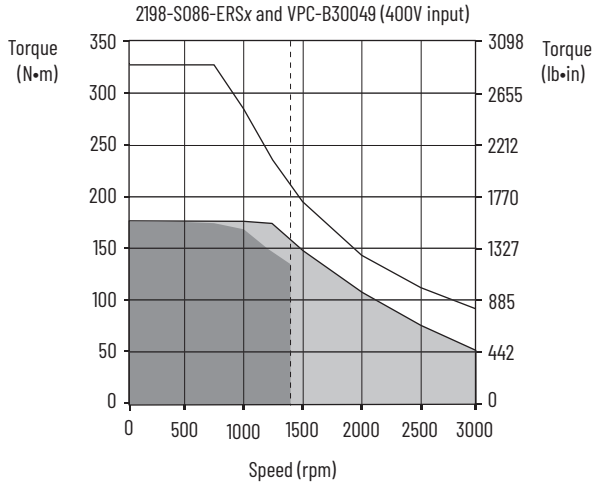
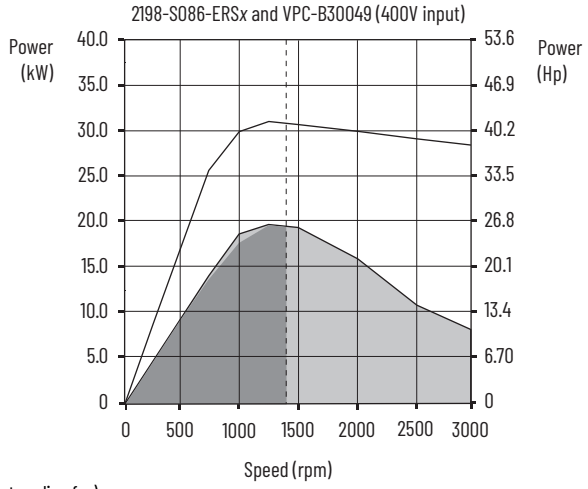
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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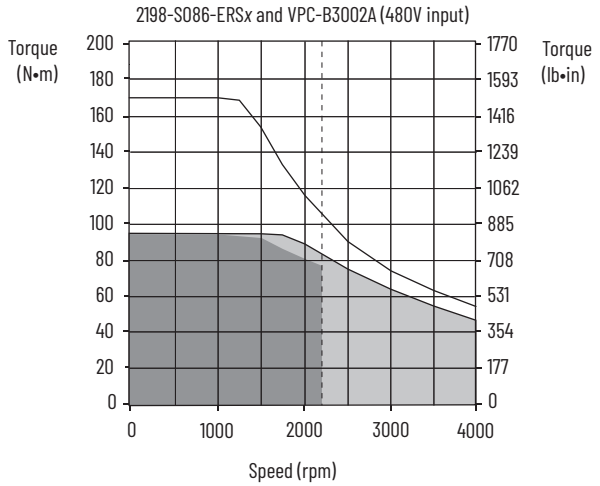
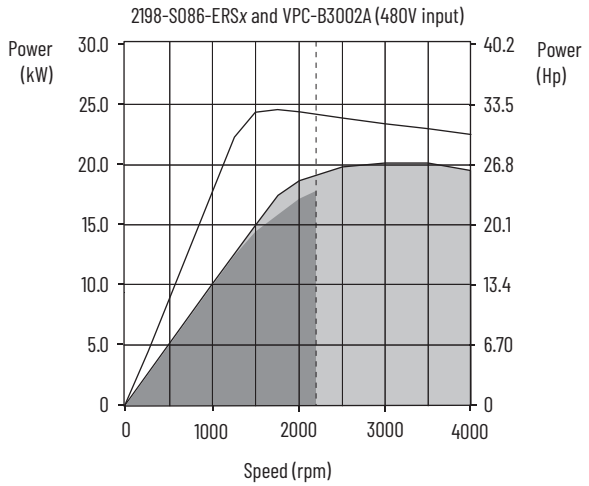
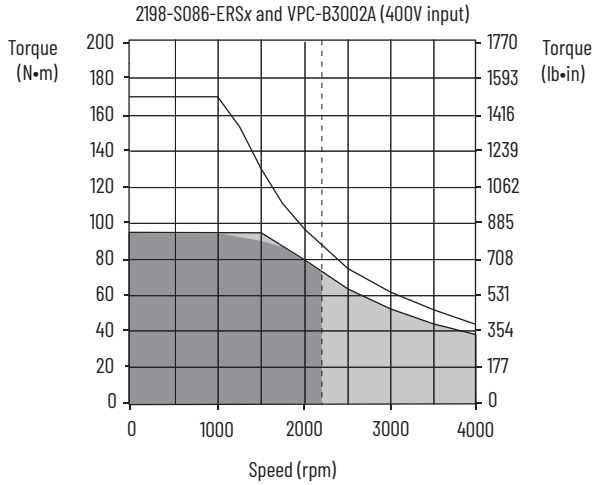
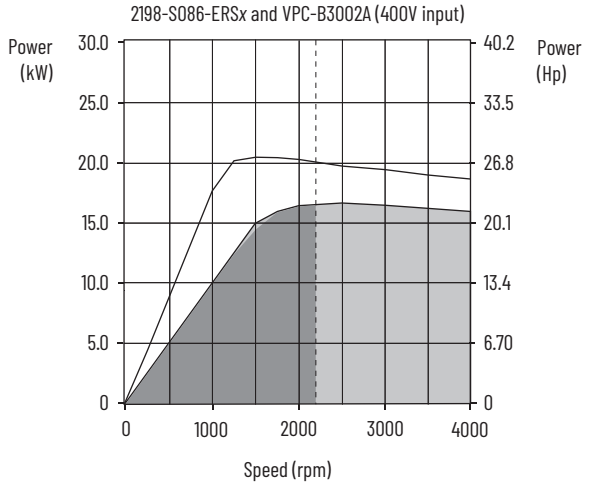
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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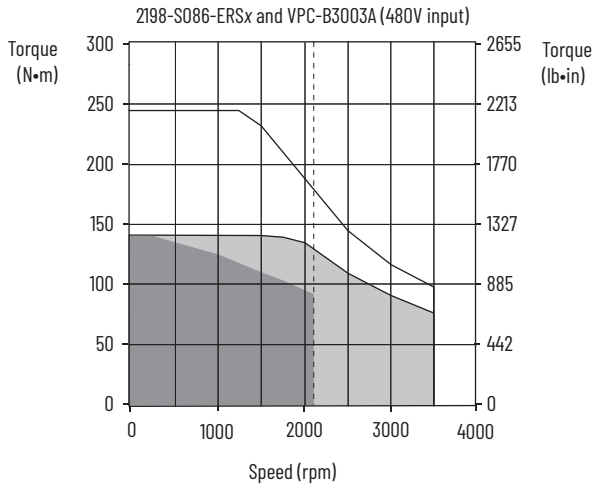
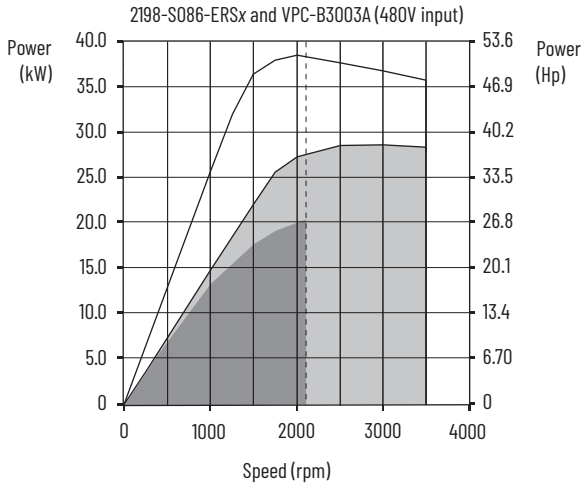
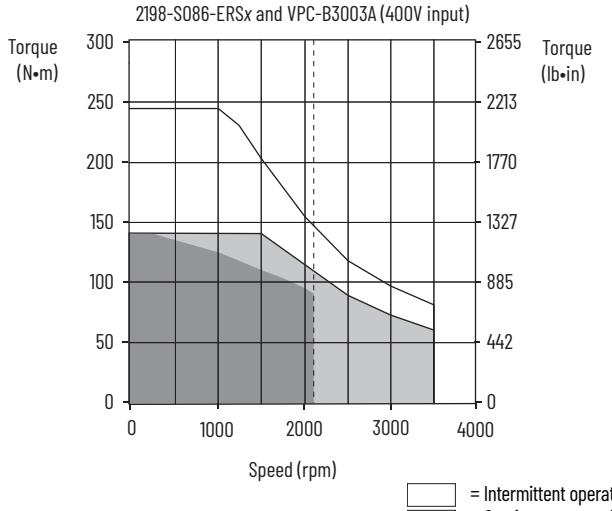
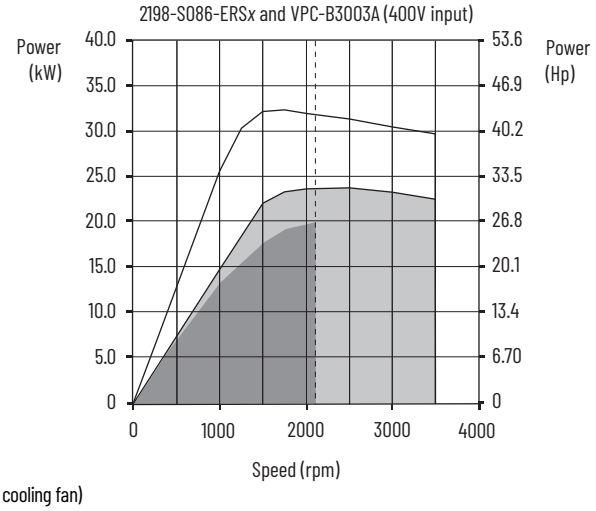
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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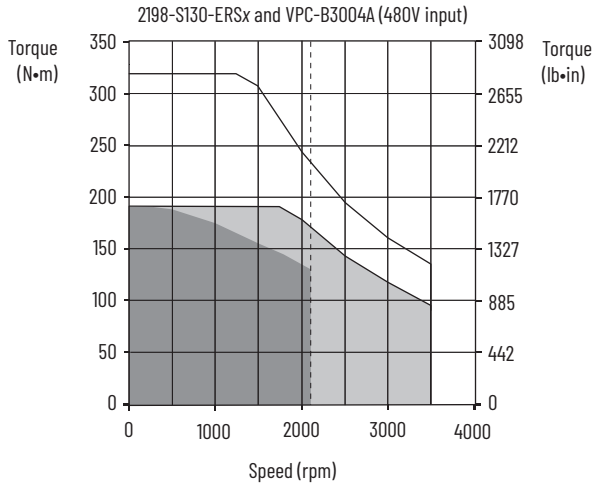
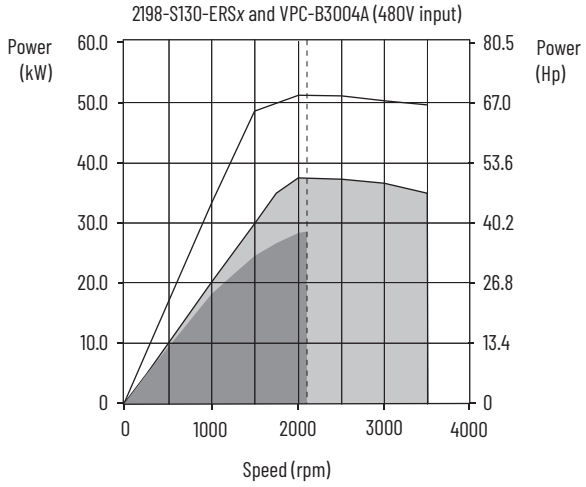
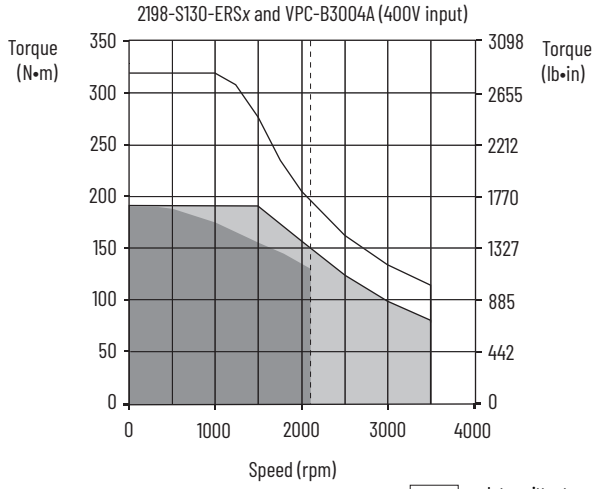
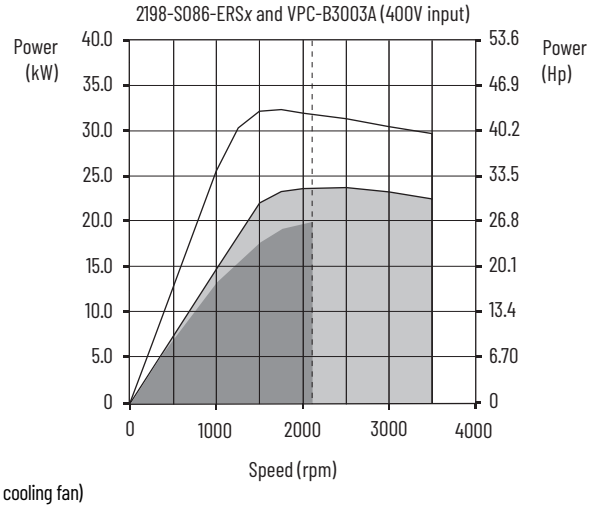
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)









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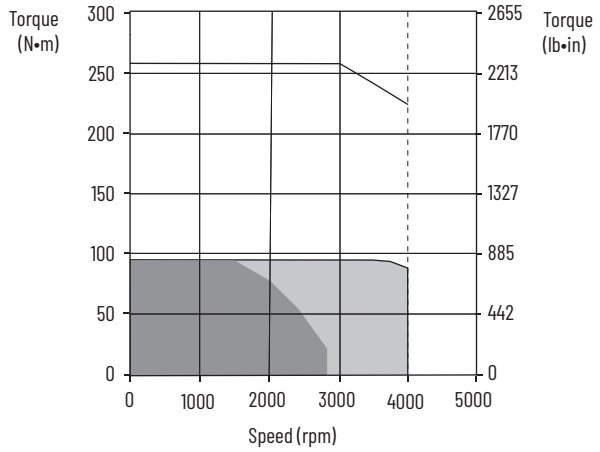
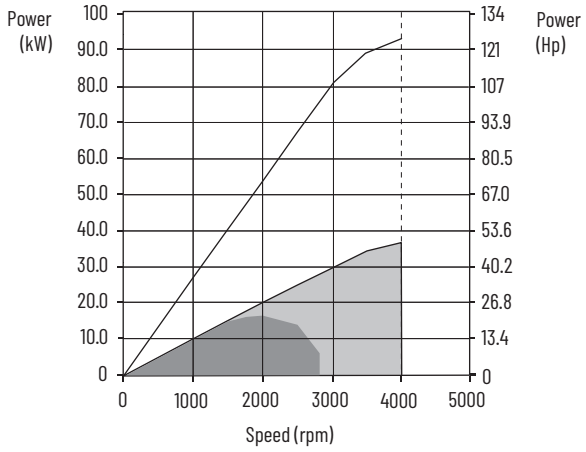
Kinetix 5700 (400V-class) Drives/Kinetix VPC Servo Motor Curves (continued)

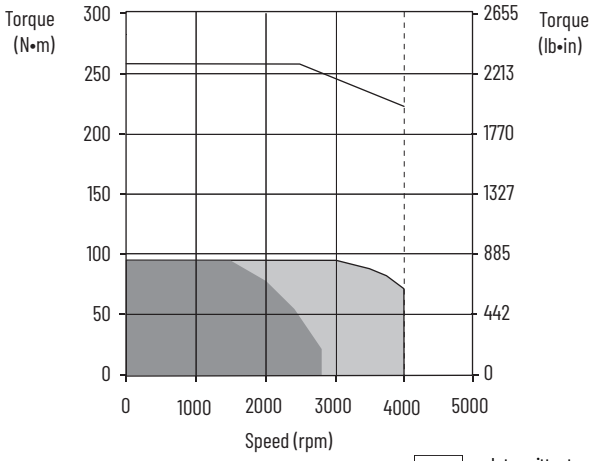
2198-S160-ERSx (480V input) and VPC-B3004D or VPC-B3004B)



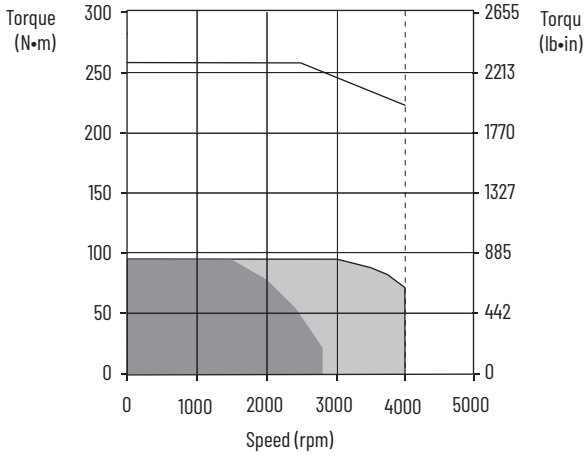
2198-S160-ERSx (480V input) and VPC-B3004D or VPC-B3004B



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



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



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= Continuous operating region with cooling fan
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Kinetix 5700 (200V-class) Drives with Kinetix VPF Servo Motors

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

ArmorKinetix DSD modules are compatible with Kinetix VPF motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

Kinetix VPF Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPF-A0632F, VPF-A0633C, VPF-A0633F	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPF-A0752*x*, VPF-A0753*x*		
VPF-A1001C, VPF-A1003C		
VPF-A1001M, VPF-A1002C, VPF-A1002F, VPF-A1003E, VPF-A1003F	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	
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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

Kinetix VPF Motor Performance with Kinetix 5700 (200V-class) Drives

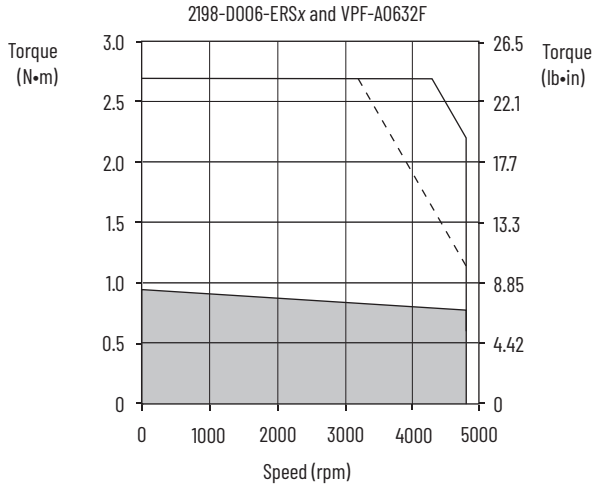
Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (240V AC Input)
VPF-A0632F	4800	4800	2.55	0.93 (8)	8.75	2.69 (24)	0.36 (0.5)	2198-D006-ERS*x*
VPF-A0633C	3000	3000	2.50	1.27 (11)	8.75	4.09 (36)	0.37 (0.5)	2198-D006-ERS*x*
VPF-A0633F	4500	4500	3.52	1.27 (11)	8.80	2.87 (25)	0.47 (0.6)	2198-D006-ERS*x*
					12.60	4.09 (36)		2198-D012-ERS*x*
VPF-A0752C	3300	3300	3.80	1.61 (14)	13.30	4.39 (39)	0.49 (0.7)	2198-D012-ERS*x*
VPF-A0752E	4800	4800	4.90	1.61 (14)	17.70	4.10 (36)	0.63 (0.8)	2198-D012-ERS*x*
					18.90	4.39 (39)		2198-D020-ERS*x*
VPF-A0753C	3300	3300	4.09	2.16 (19)	17.70	6.55 (58)	0.59 (0.7)	2198-D012-ERS*x*
					18.90	7.02 (62)		2198-D020-ERS*x*
VPF-A0753E	4600	4600	6.12	2.28 (20)	17.70	5.13 (45)	0.76 (1.0)	2198-D012-ERS*x*
					25.34	7.35 (65)		2198-D020-ERS*x*
VPF-A1001C	2800	2800	3.61	1.93 (17)	8.80	3.22 (28)	0.56 (0.8)	2198-D006-ERS*x*
					10.38	3.78 (33)		2198-D012-ERS*x*
VPF-A1001M	6500	6500	7.15	1.95 (17)	17.70	3.31 (29)	1.29 (1.7)	2198-D012-ERS*x*
					20.20	3.78 (33)		2198-D020-ERS*x*
VPF-A1002C	3000	3000	6.24	3.39 (30)	17.70	6.80 (60)	1.03 (1.4)	2198-D012-ERS*x*
					20.33	7.82 (69)		2198-D020-ERS*x*
VPF-A1002F	5000	5000	10.04	3.26 (29)	28.30	6.77 (60)	1.60 (2.1)	2198-D020-ERS*x*
					34.30	7.82 (69)		2198-D032-ERS*x*
VPF-A1003C	2250	2250	6.14	4.18 (37)	17.70	9.76 (86)	0.83 (1.1)	2198-D012-ERS*x*
					20.20	11.15 (99)		2198-D020-ERS*x*
VPF-A1003E	3750	3750	9.58	4.18 (37)	28.30	9.76 (86)	1.25 (1.7)	2198-D020-ERS*x*
					28.80	11.15 (99)		2198-D032-ERS*x*
VPF-A1003F	5500	5500	15.62	4.18 (37)	45.90	10.25 (90)	1.81 (2.4)	2198-D032-ERS*x*
					50.0	11.15 (99)		2198-D057-ERS*x*
VPF-A1153C	2300	2300	8.88	6.50 (58)	28.30	18.30 (162)	1.16 (1.6)	2198-D020-ERS*x*
					33.0	20.33 (180)		2198-D032-ERS*x*
VPF-A1303B	1950	1950	10.34	8.80 (78)	28.30	19.85 (175)	1.53 (2.1)	2198-D020-ERS*x*
					31.0	20.72 (183)		2198-D032-ERS*x*

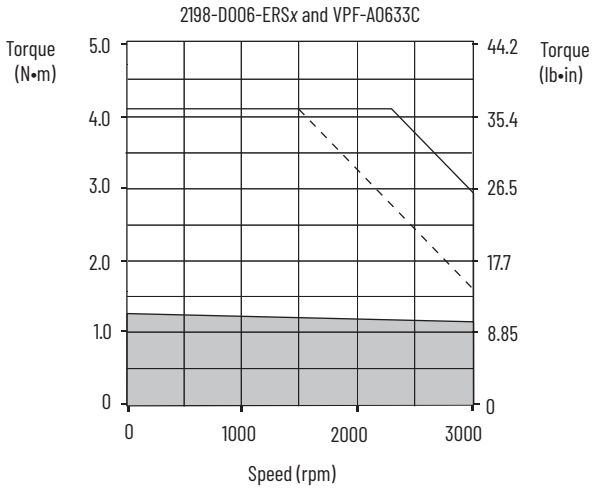
Kinetix VPF Motor Performance with Kinetix 5700 (200V-class) Drives (Continued)

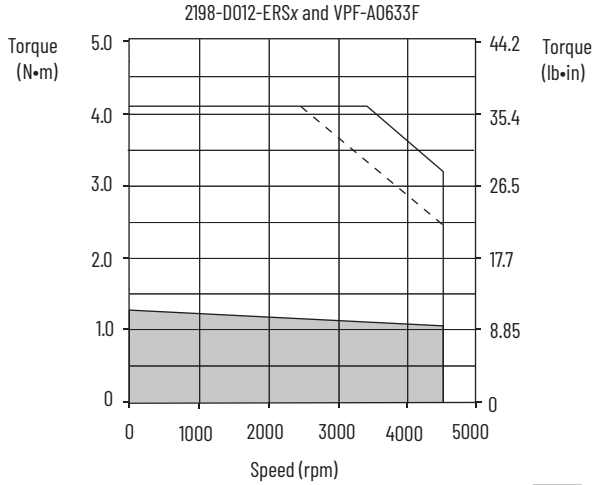
Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (240V AC Input)**
VPF-A1303F	4000	4000	18.60	7.75 (69)	45.90	15.36 (136)	2.25 (3.0)	2198-D032-ERS*x*
					62.0	20.72 (183)		2198-D057-ERS*x*
VPF-A1304A	1600	1600	9.43	10.29 (91)	28.30	25.03 (221)	1.47 (2.0)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPF-A1304D	3000	3000	18.40	10.20 (90)	45.90	21.48 (190)	1.98 (2.7)	2198-D032-ERS*x*
					58.0	27.10 (240)		2198-D057-ERS*x*

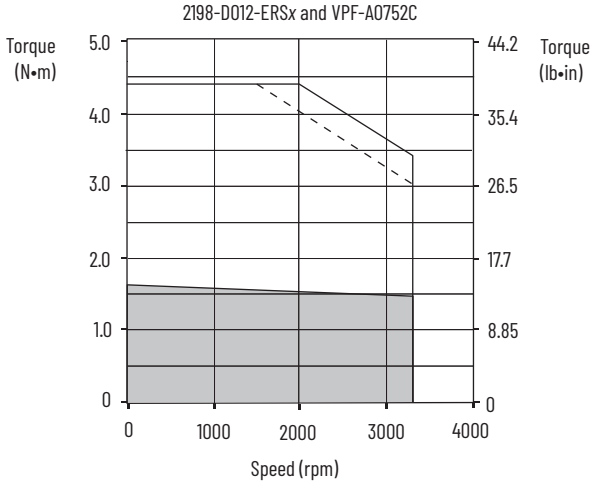
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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



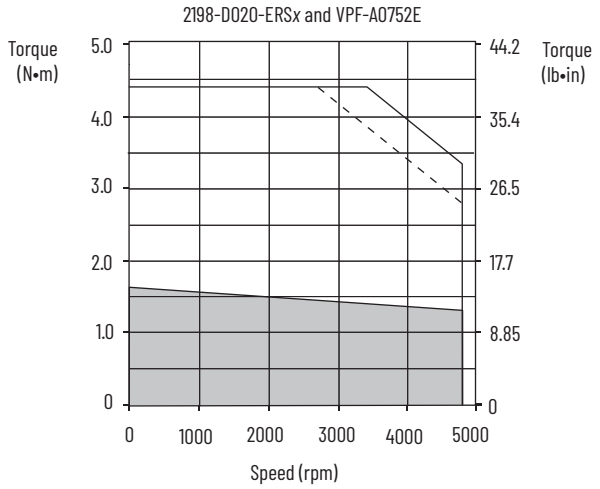


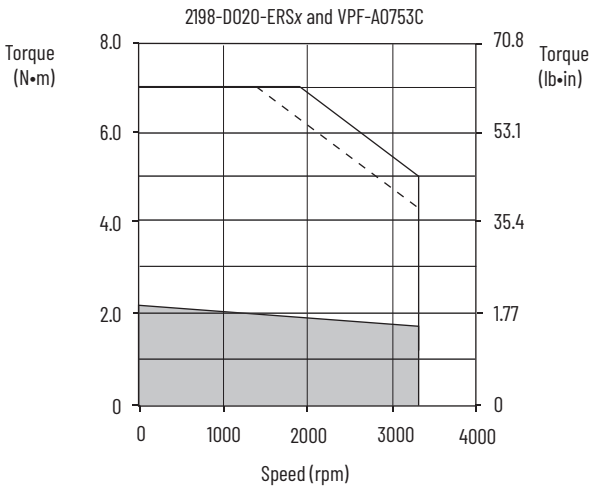


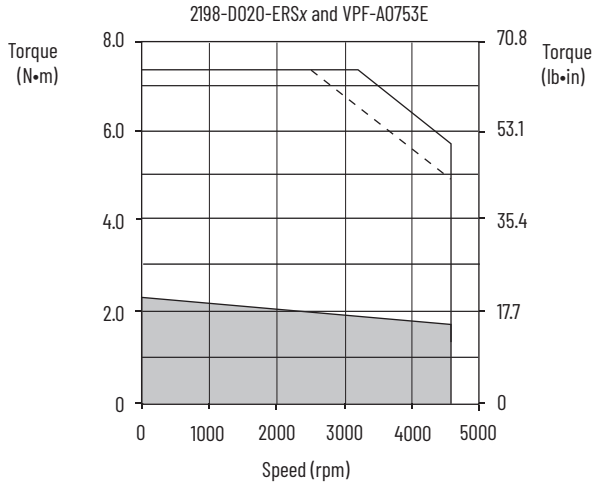


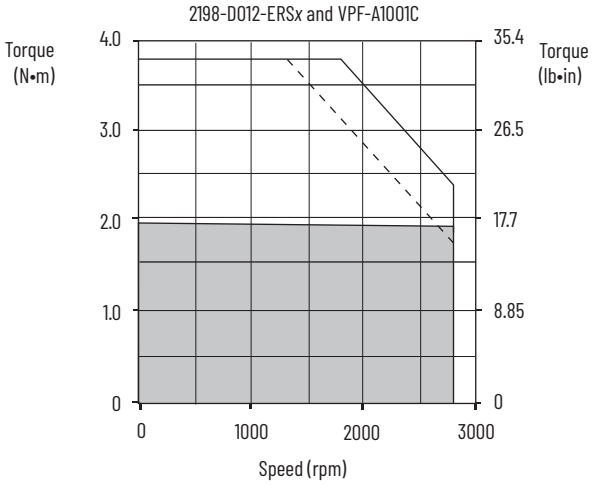
= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

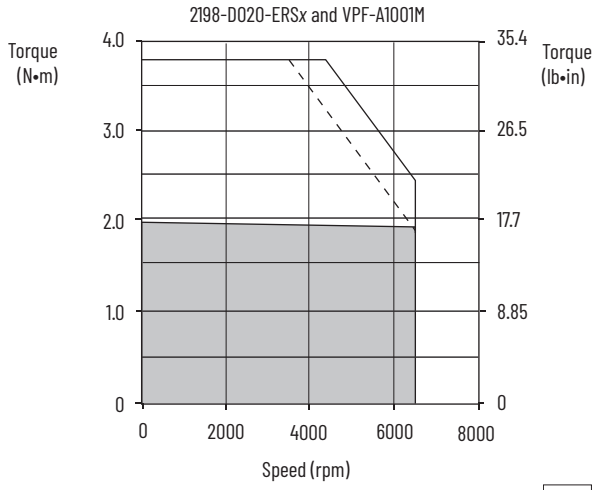
Kinetix 5700 (200V-class) Drives/Kinetix VPF Servo Motor Curves (continued)

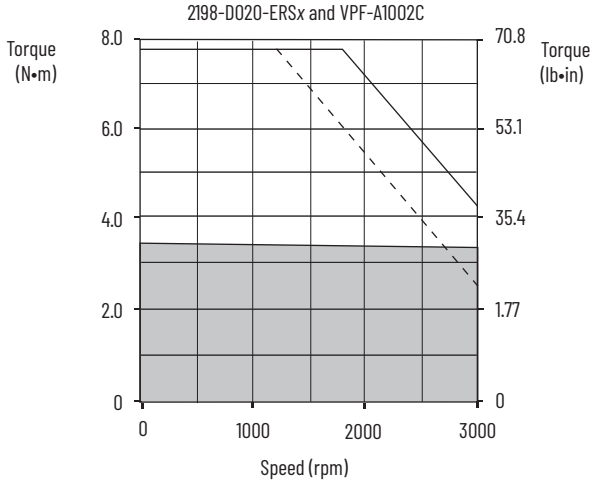








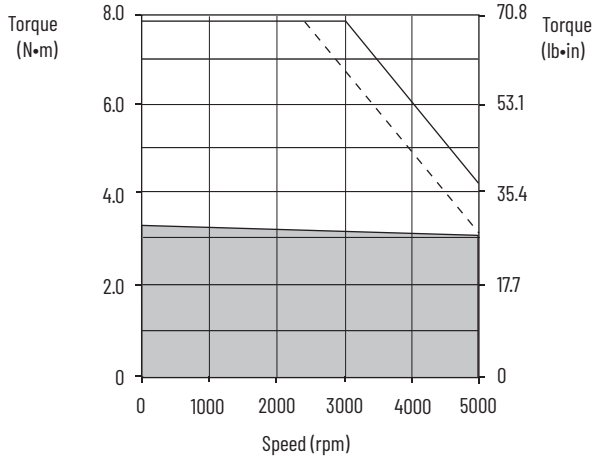




= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

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

2198-D032-ERSx and VPF-A1002F



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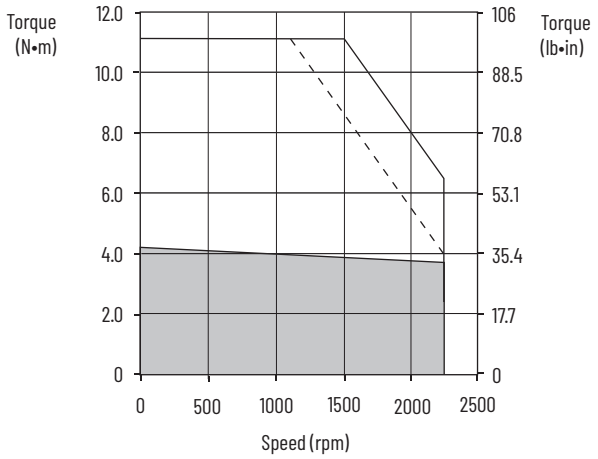

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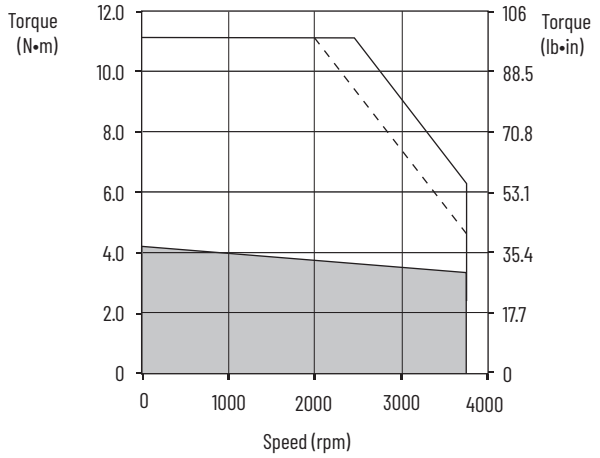

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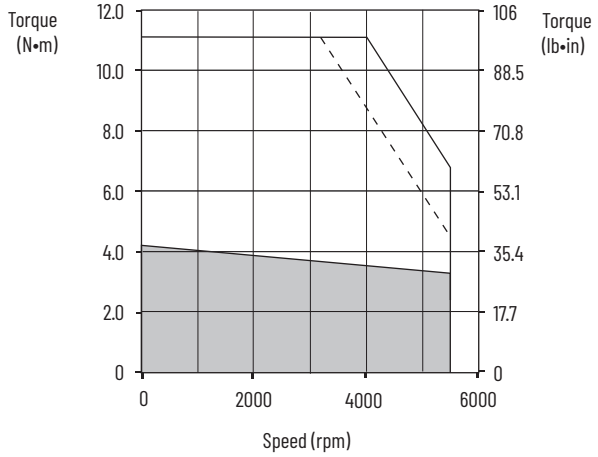
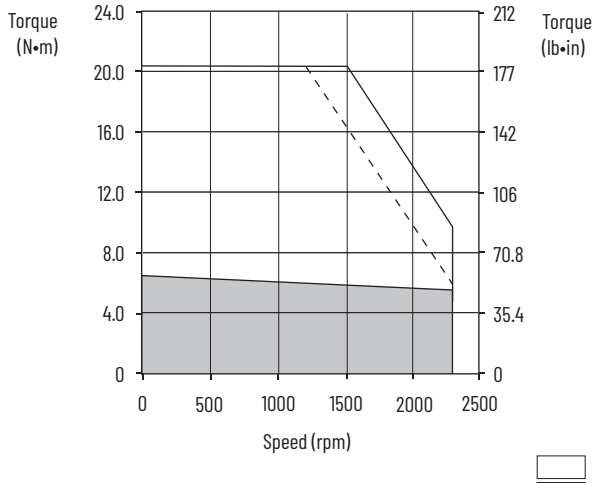


2198-D032-ERSx and VPF-A1153C



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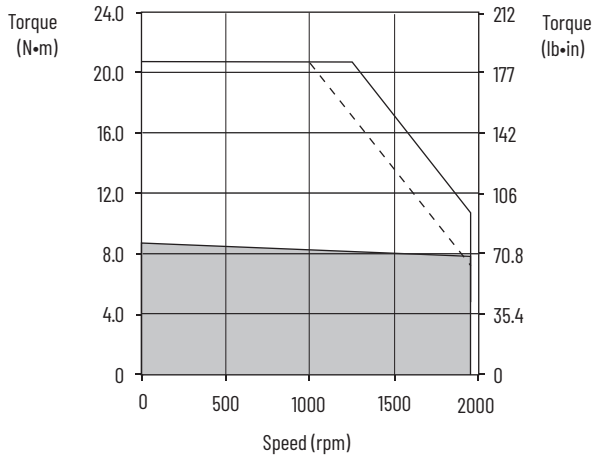
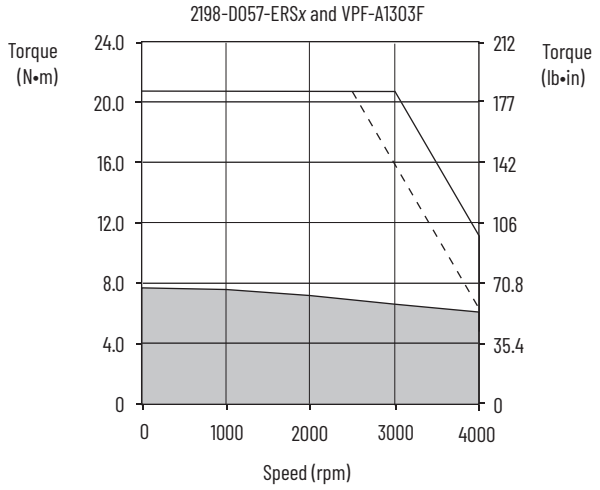
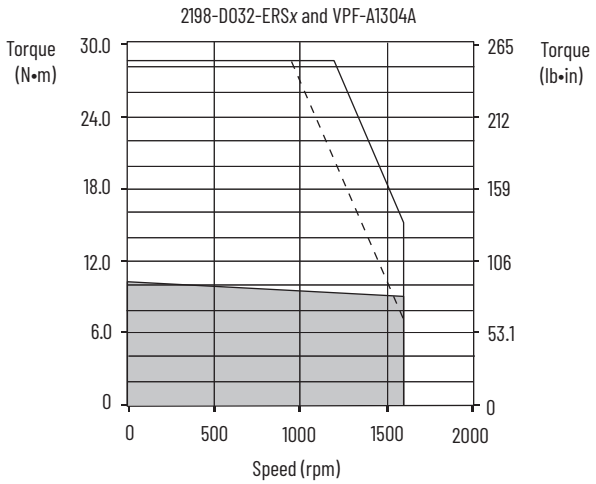
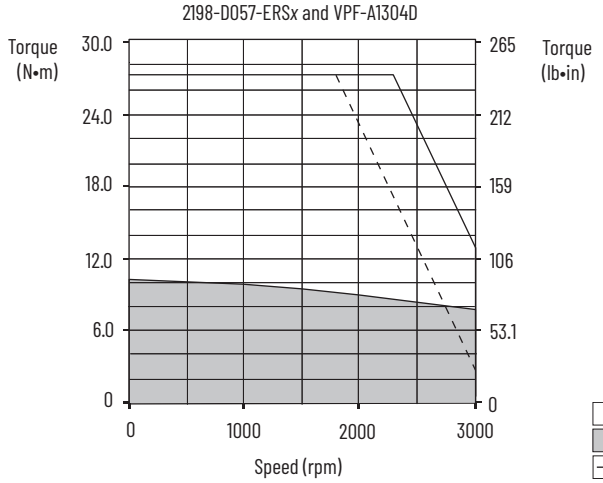


= Intermittent operating region
= Continuous operating region
= Drive operation with 200V AC rms input voltage

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







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

Kinetix 5700 (400V-class) Drives with Kinetix VPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPF motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

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-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) 2090-CSBM1P7-14AF*xx*	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPF-B0752E, VPF-B0752F, VPF-B0752M, VPF-B0753E, VPF-B0753F, VPF-B0753M		
VPF-B1001M, VPF-B1002E, VPF-B1003C, VPF-B1003F		
VPF-B1153E		
VPF-B1002M, VPF-B1003T	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	
VPF-B1153F		
VPF-B1303C, VPF-B1303F, VPF-B1304C, VPF-B1304E		
VPF-B1652C		

(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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

Kinetix VPF Motor Performance with Kinetix 5700 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPF-B0632F	4600	4600	1.20	0.93 (8)	4.20	2.69 (24)	0.34 (0.5)	2198-D006-ERS*x*
VPF-B0632T	8000	8000	2.55	0.93 (8)	8.75	2.69 (24)	0.41 (0.5)	2198-D006-ERS*x*
VPF-B0633M	6700	6700	2.50	1.27 (11)	8.75	4.09 (36)	0.49 (0.7)	2198-D006-ERS*x*
VPF-B0633T	8000	8000	3.52	1.27 (11)	8.80	2.87 (25)	0.48 (0.6)	2198-D006-ERS*x*
					12.60	4.09 (36)		2198-D012-ERS*x*
VPF-B0752E	4900	4900	2.70	1.61 (14)	8.80	4.10 (36)	0.64 (0.9)	2198-D006-ERS*x*
					9.45	4.39 (39)		2198-D012-ERS*x*
VPF-B0752F	7000	7000	3.80	1.61 (14)	13.30	4.39 (39)	0.76 (1.0)	2198-D012-ERS*x*
VPF-B0752M	8000	8000	4.90	1.61 (14)	17.60	4.10 (36)	0.77 (1.0)	2198-D012-ERS*x*
					18.90	4.39 (39)		2198-D020-ERS*x*
VPF-B0753E	4500	4500	3.80	2.28 (20)	13.30	7.35 (65)	0.77 (1.0)	2198-D012-ERS*x*
VPF-B0753F	6600	6600	4.09	2.16 (19)	17.60	6.55 (58)	0.61 (0.8)	2198-D012-ERS*x*
					18.90	7.02 (62)		2198-D020-ERS*x*
VPF-B0753M	8000	8000	6.12	2.28 (20)	17.60	5.13 (45)	0.78 (1.1)	2198-D012-ERS*x*
					25.34	7.35 (65)		2198-D020-ERS*x*
VPF-B1001M	6000	6000	3.61	1.93 (17)	8.80	3.22 (28)	1.14 (1.5)	2198-D006-ERS*x*
					10.38	3.78 (33)		2198-D012-ERS*x*
VPF-B1002E	3300	3300	3.44	3.39 (30)	8.80	6.47 (57)	1.12 (1.5)	2198-D006-ERS*x*
					10.69	7.82 (69)		2198-D012-ERS*x*
VPF-B1002M	6000	6000	6.24	3.39 (30)	17.60	6.80 (60)	1.86 (2.5)	2198-D012-ERS*x*
					20.33	7.82 (69)		2198-D020-ERS*x*
VPF-B1003C	2500	2500	3.41	4.18 (37)	8.80	9.29 (82)	0.91 (1.2)	2198-D006-ERS*x*
					10.61	11.15 (99)		2198-D012-ERS*x*
VPF-B1003F	4750	4750	6.14	4.18 (37)	17.60	9.76 (86)	1.57 (2.1)	2198-D012-ERS*x*
					20.20	11.15 (99)		2198-D020-ERS*x*
VPF-B1003T	7000	7000	9.58	4.18 (37)	28.20	9.76 (86)	1.68 (2.3)	2198-D020-ERS*x*
					28.80	11.15 (99)		2198-D032-ERS*x*

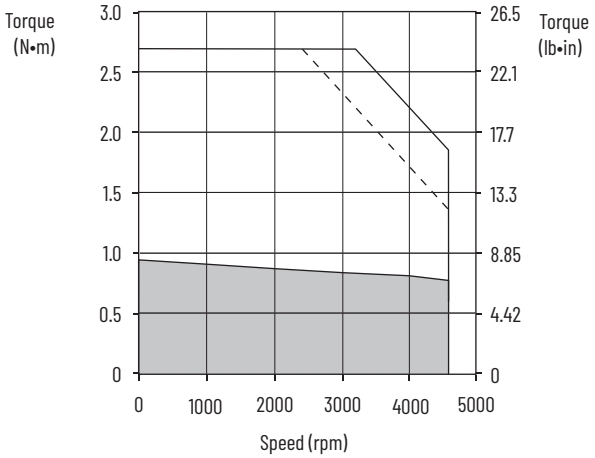
Kinetix VPF Motor Performance with Kinetix 5700 (400V-class) Drives (Continued)

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-B1153E	3200	3200	6.13	6.50 (58)	17.60	16.85 (149)	1.40 (1.9)	2198-D012-ERS*x*
					21.33	20.33 (180)		2198-D020-ERS*x*
VPF-B1153F	5000	5000	8.88	6.50 (58)	28.20	18.30 (162)	1.49 (2.0)	2198-D020-ERS*x*
					33.0	20.33 (180)		2198-D032-ERS*x*
VPF-B1303C	2250	2250	6.30	8.80 (78)	17.60	19.83 (175)	1.74 (2.3)	2198-D012-ERS*x*
					18.47	20.72 (183)		2198-D020-ERS*x*
VPF-B1303F	4000	4000	10.10	8.80 (78)	28.20	19.85 (175)	2.54 (3.4)	2198-D020-ERS*x*
					31.0	20.72 (183)		2198-D032-ERS*x*
VPF-B1304C	2150	2150	7.0	10.29 (91)	17.60	22.55 (199)	1.49 (2.0)	2198-D012-ERS*x*
					22.3	28.45 (252)		2198-D020-ERS*x*
VPF-B1304E	3500	3500	9.44	10.29 (91)	28.20	25.03 (221)	2.40 (3.2)	2198-D020-ERS*x*
					33.76	28.45 (252)		2198-D032-ERS*x*
VPF-B1652C	2700	2700	16.0	19.40 (172)	45.90	44.78 (396)	4.18 (5.6)	2198-D032-ERS*x*
					49.88	48.60 (430)		2198-D057-ERS*x*

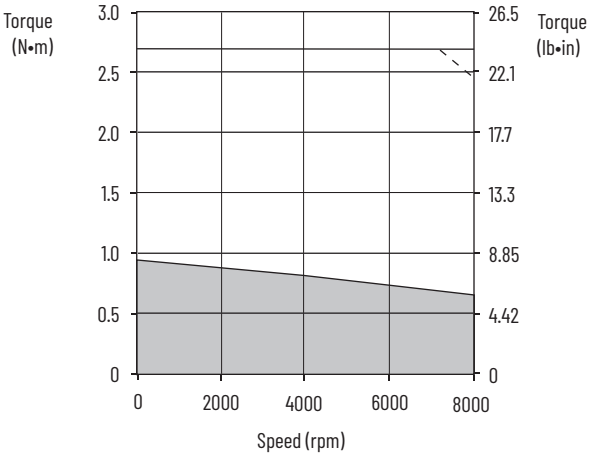
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

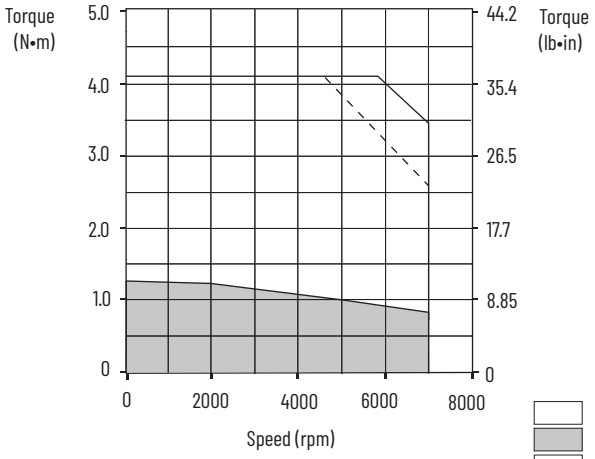
2198-D006-ERS*x* and VPF-B0632F



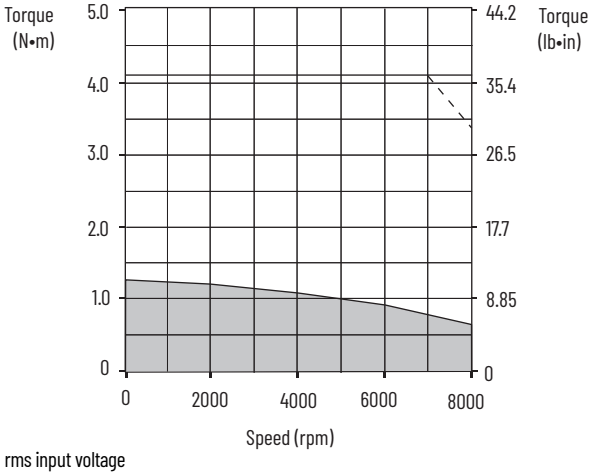
2198-D006-ERS*x* and VPF-B0632T



2198-D006-ERS*x* and VPF-B0633M



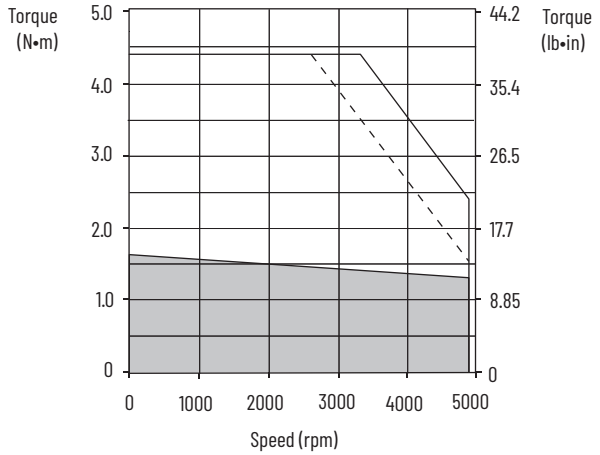
2198-D012-ERS*x* and VPF-B0633T



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

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

2198-D012-ERSx and VPF-B0752E



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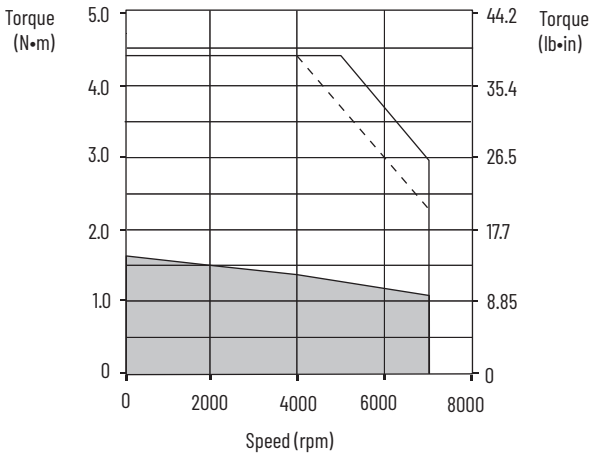

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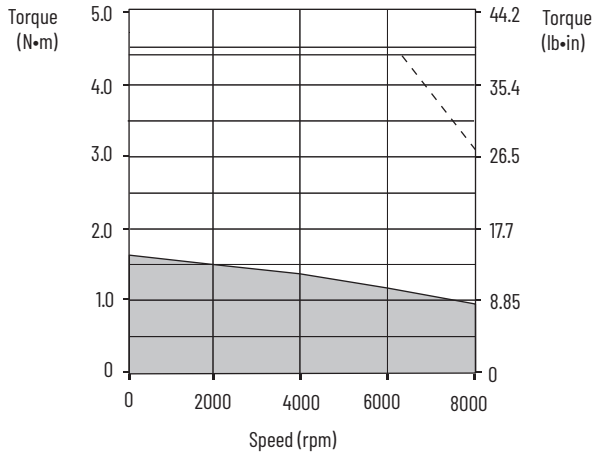
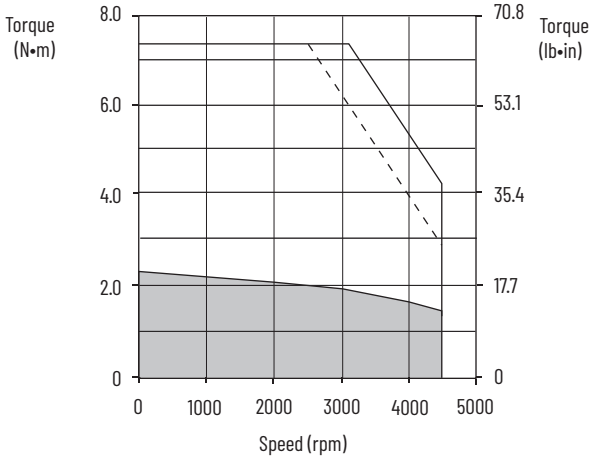


2198-D012-ERSx and VPF-B0753E



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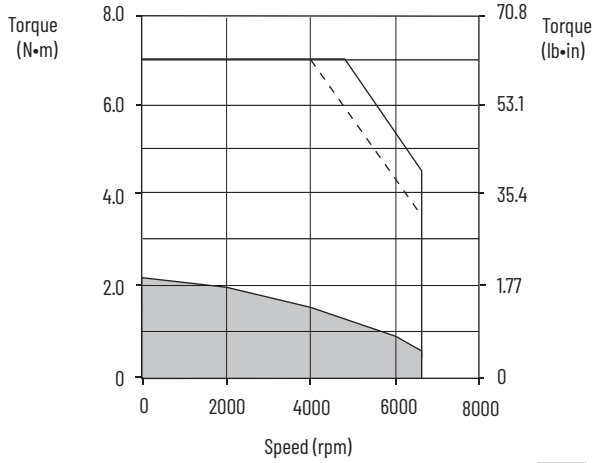

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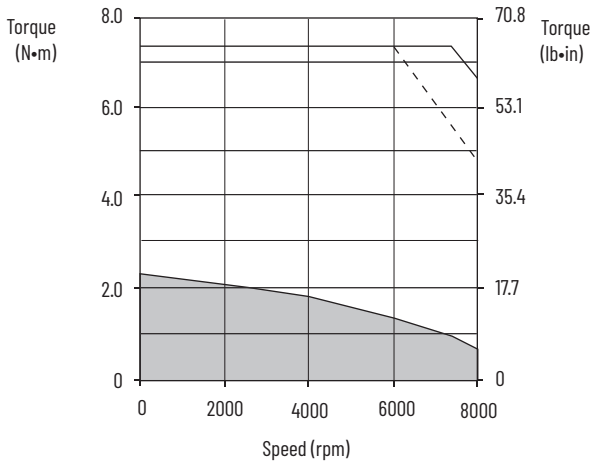
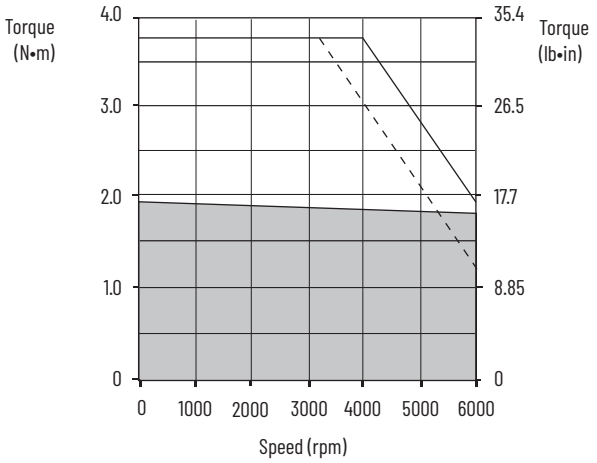


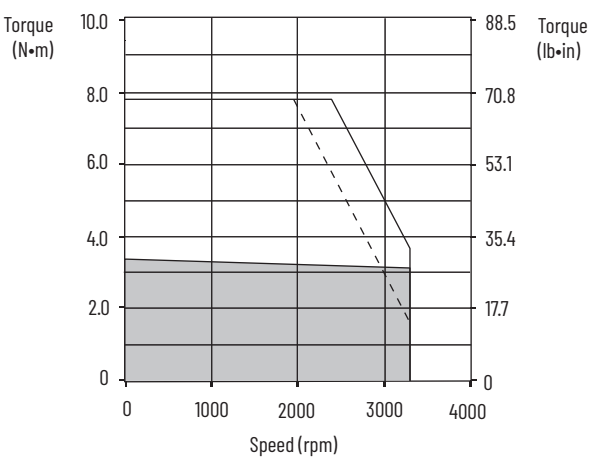
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

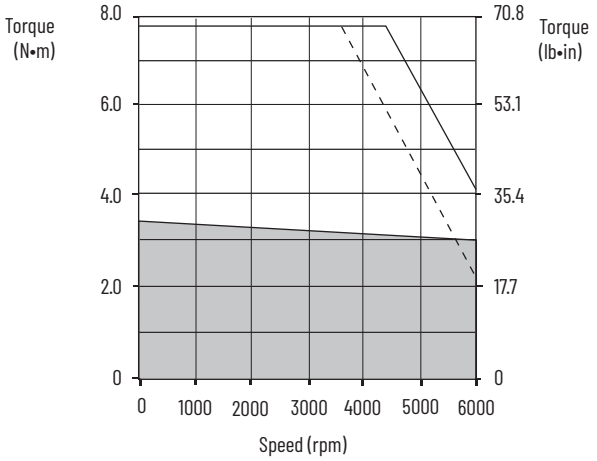
2198-D012-ERS*x* and VPF-B1001M



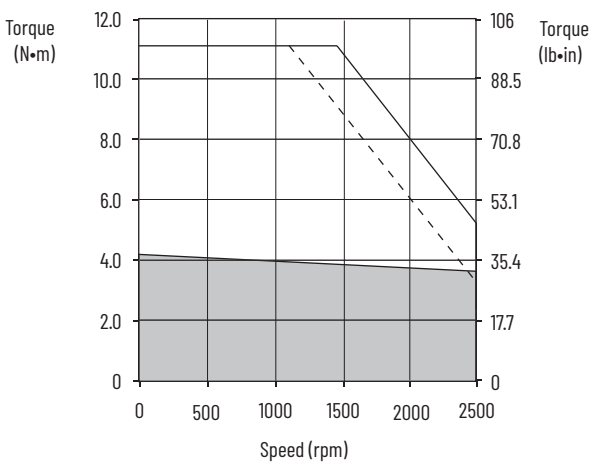
2198-D012-ERS*x* and VPF-B1002E



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



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



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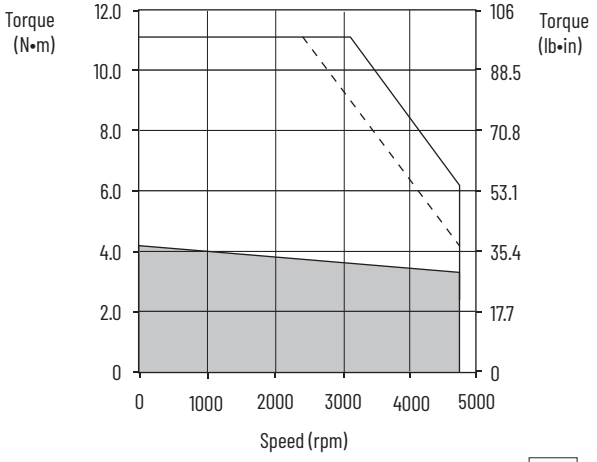
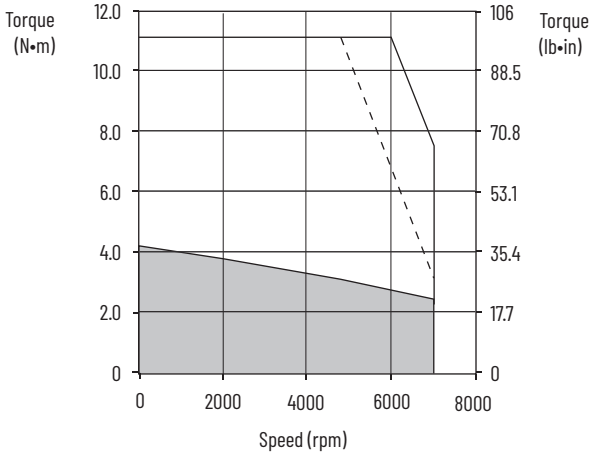


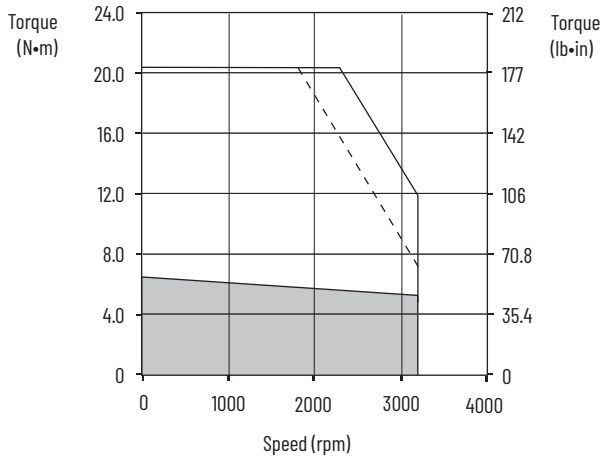
2198-D032-ERS*x* and VPF-B1003T



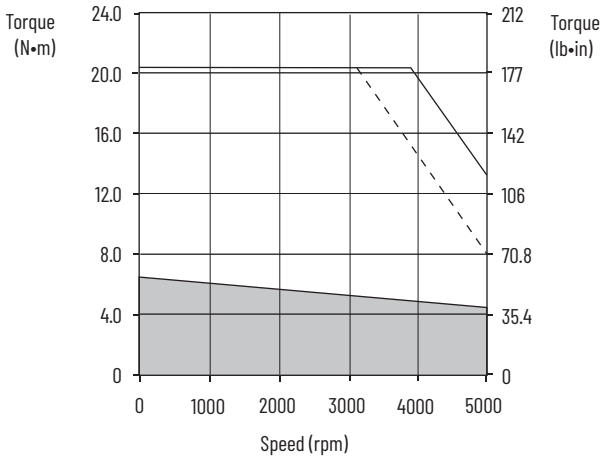
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

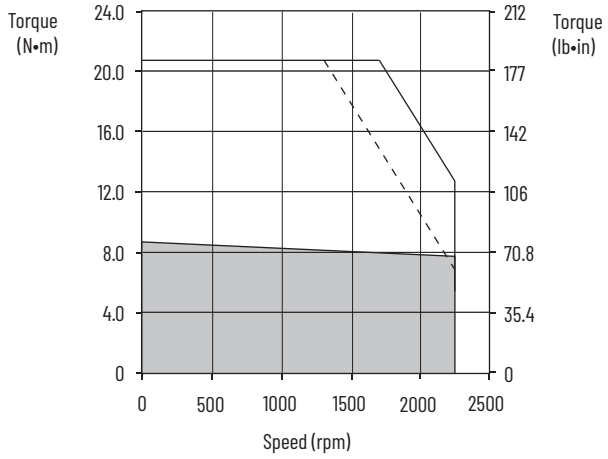
2198-D020-ERSx and VPF-B1153E



2198-D032-ERSx and VPF-B1153F



2198-D020-ERSx and VPF-B1303C



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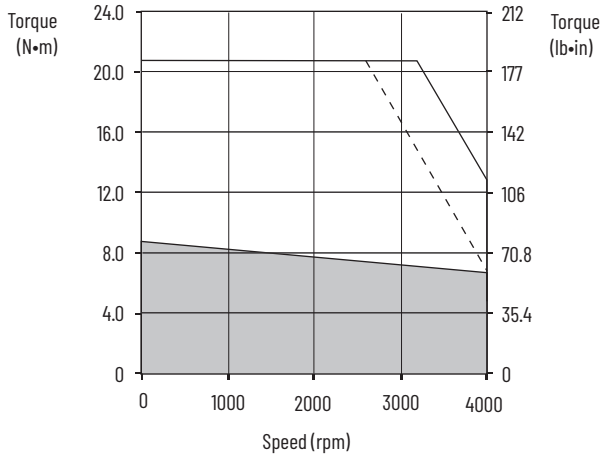
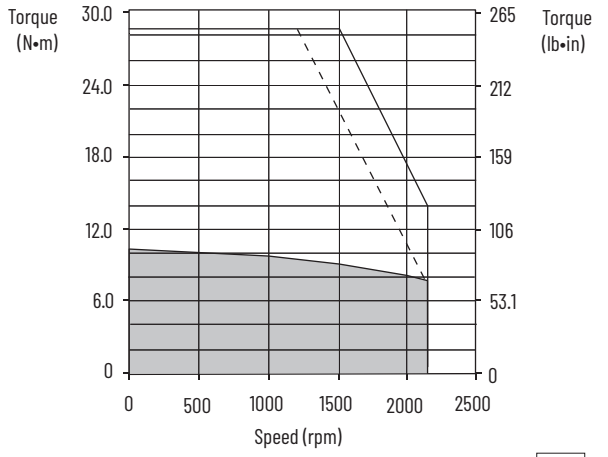
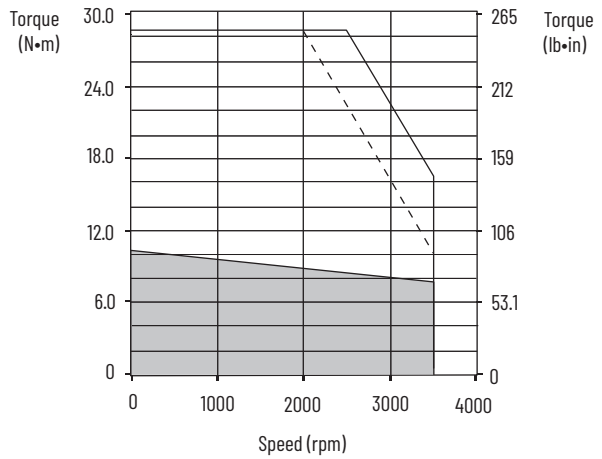


2198-D020-ERSx and VPF-B1304C

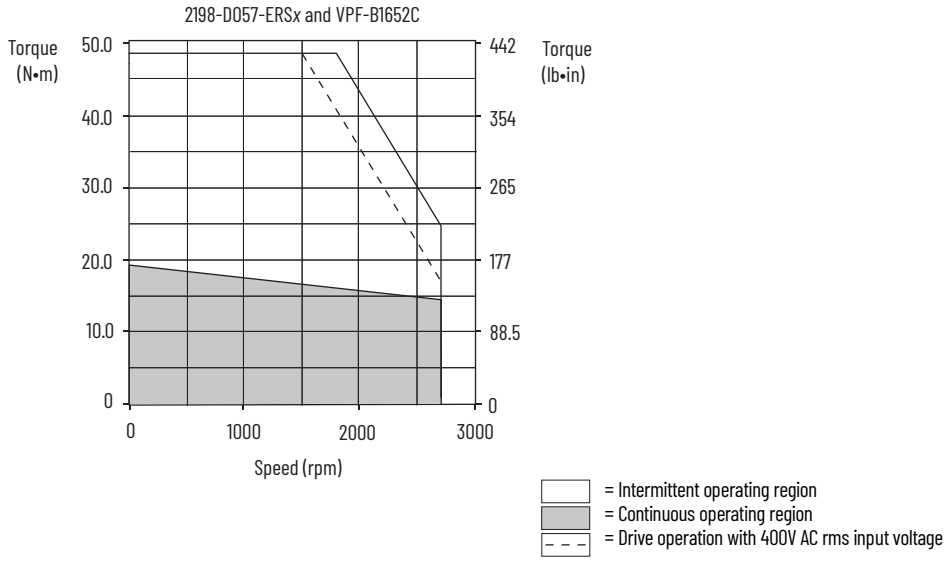


2198-D032-ERSx and VPF-B1304E



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

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



Kinetix 5700 (200V-class) Drives with Kinetix VPH Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPH motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

Kinetix VPH Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Single Cable Cat. No. (1)	Feedback Type
VPH-A0633F VPH-A0753F	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPH-A1003F VPH-A1152E VPH-A1153C	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	
VPH-A1304D		

(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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

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

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (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 (0.6)	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 (0.9)	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 (1.8)	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 (1.4)	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 (1.5)	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 (2.4)	2198-D032-ERS*x*
					58.00	27.10 (239.9)		2198-D057-ERS*x*

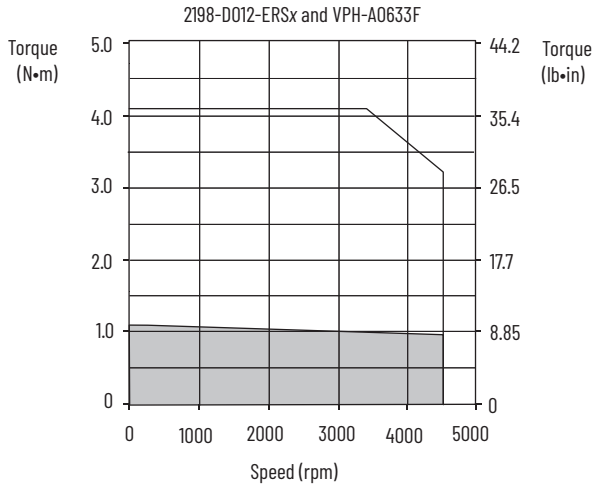
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

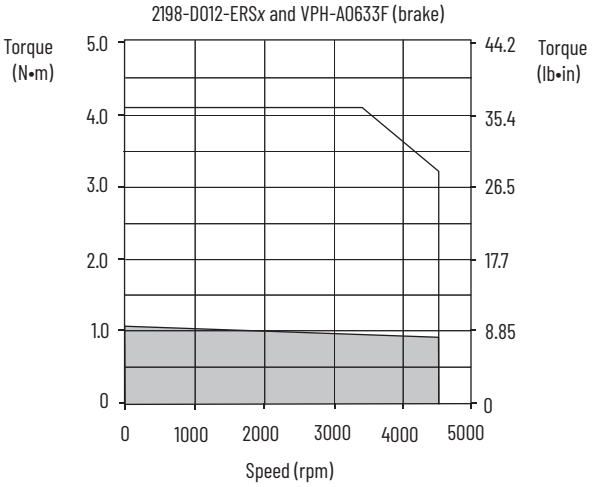
Kinetix VPH (brake) Motor Performance with Kinetix 5700 (200V-class) Drives

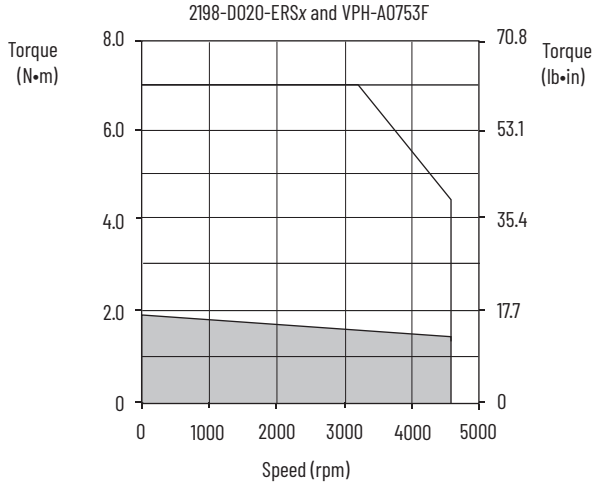
Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (240V AC input)**
VPH-A0633F-*xxx*4	4500	4500	2.91	1.07 (9.5)	8.80	2.86 (25.3)	0.43 (0.6)	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 (0.8)	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 (1.4)	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 (1.4)	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 (1.5)	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 (2.4)	2198-D032-ERS*x*
					58.00	27.10 (139.9)		2198-D057-ERS*x*

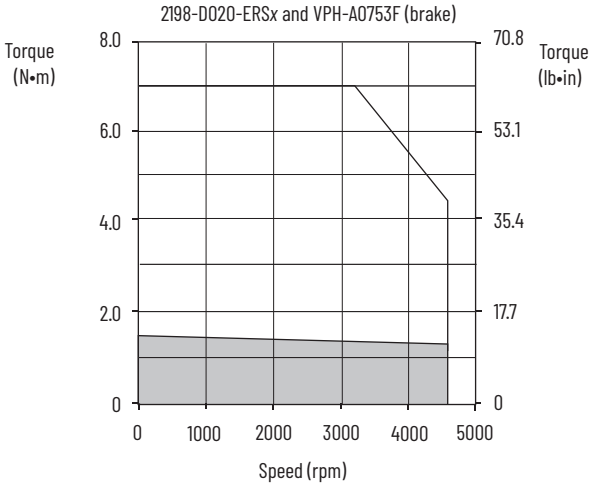
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

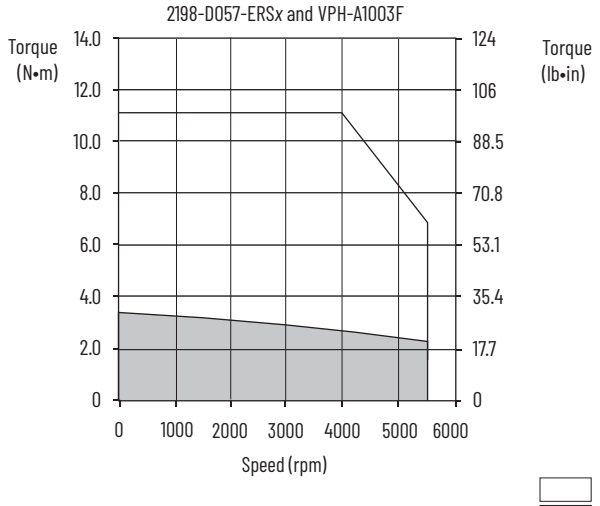
Kinetix 5700 (200V-class) Drives/Kinetix VPH Hygienic Servo Motor Curves

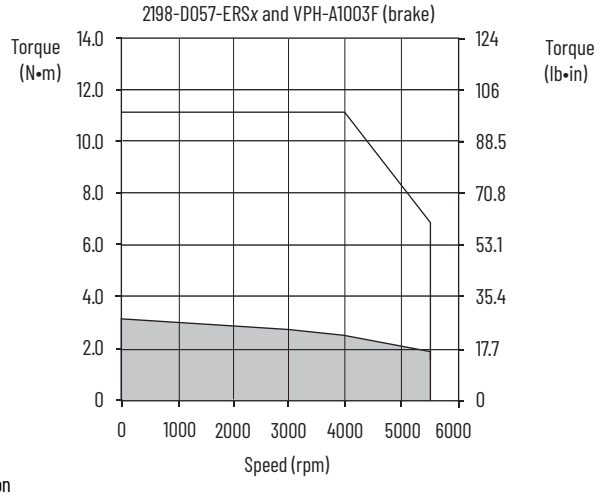










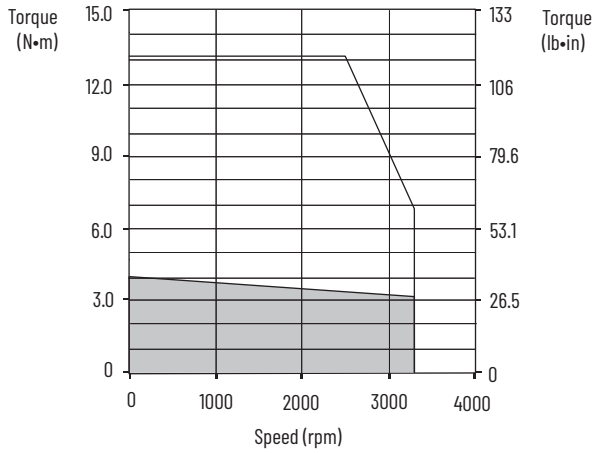


= Intermittent operating region

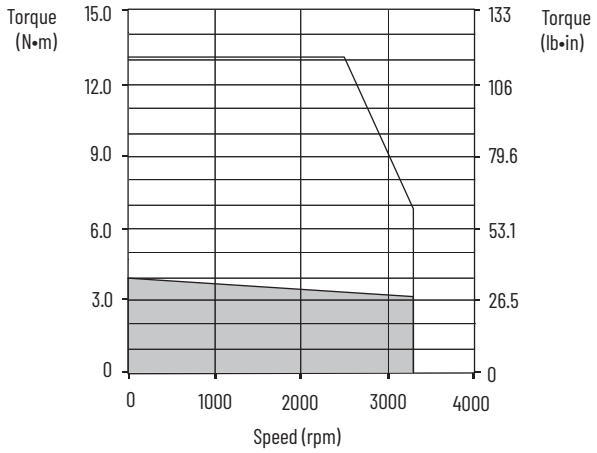
= Continuous operating region

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

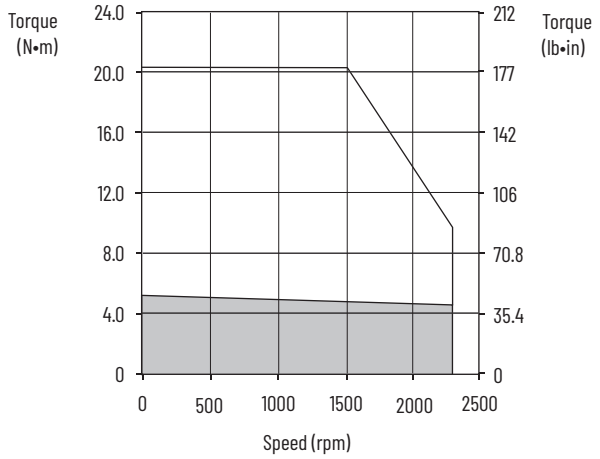
2198-D032-ERS*x* and VPH-A1152E



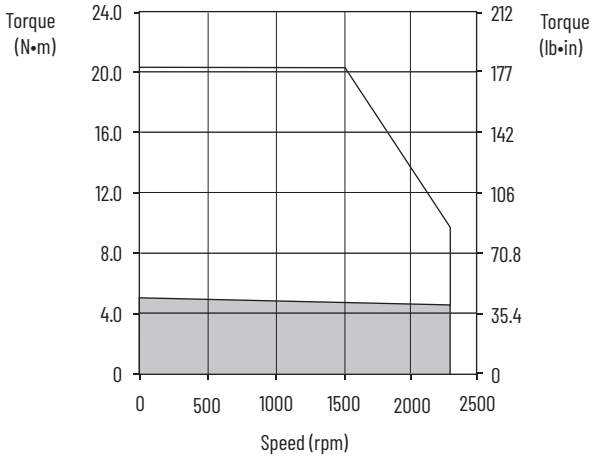
2198-D032-ERS*x* and VPH-A1152E (brake)



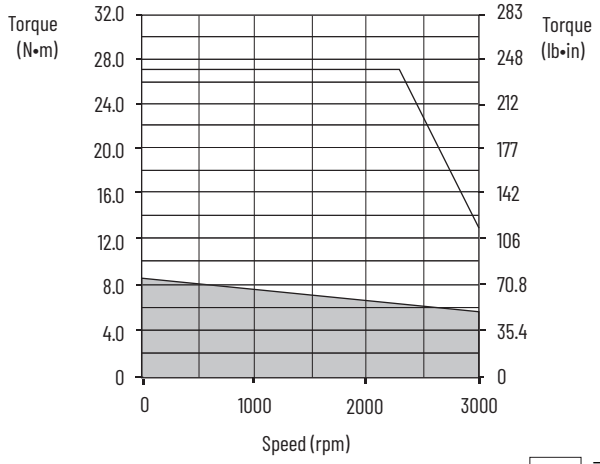
2198-D032-ERS*x* and VPH-A1153C



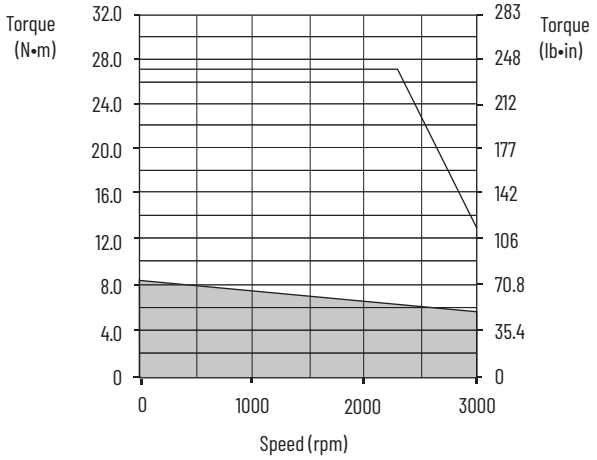
2198-D032-ERS*x* and VPH-A1153C (brake)



2198-D057-ERS*x* and VPH-A1304D



2198-D057-ERS*x* and VPH-A1304D (brake)



= Intermittent operating region

= Continuous operating region

Kinetix 5700 (400V-class) Drives with Kinetix VPH Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPH motors 63mm, 75 mm, 100 mm, 115 mm, and 130 mm frame sizes.

Kinetix VPH Motor Cable Combinations

Rotary Motor (400V-class) (1) Cat. No.	Single Cable Cat. No. (2)	Feedback Type
VPH-B0632T, VPH-B0633M	2090-CSBM1D*x*-18*x*A*xx* or 2090-CSWM1D*x*-18*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-18*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	Single-turn or Absolute, Multi-turn Digital Encoder • SIL 2/PLd Rated • Hiperface DSL Protocol
VPH-B0753F		
VPH-B1001F, VPH-B1003F		
VPH-B1152F		
VPH-B1153E	2090-CSBM1D*x*-14*x*A*xx* or 2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	
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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

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

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (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 (0.7)	2198-D006-ERS*x*
VPH-B0633M-*xxx*2	6700	6700	2.05	1.03 (9.2)	8.75	4.09 (36.0)	0.50 (0.7)	2198-D006-ERS*x*
VPH-B0753F-*xxx*2	6600	6600	3.68	1.87 (16.6)	17.60	6.54 (58.0)	0.74 (1.0)	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 (0.9)	2198-D006-ERS*x*
VPH-B1003F-*xxx*2	4750	4750	4.93	3.43 (30.4)	17.60	9.71 (86.0)	1.36 (1.8)	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 (1.8)	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 (1.7)	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 (2.9)	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 (4.2)	2198-D032-ERS*x*
					68.0	67.80 (600)		2198-D057-ERS*x*

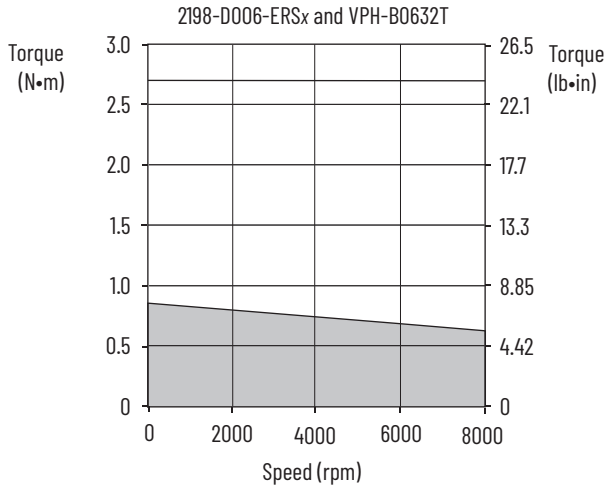
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

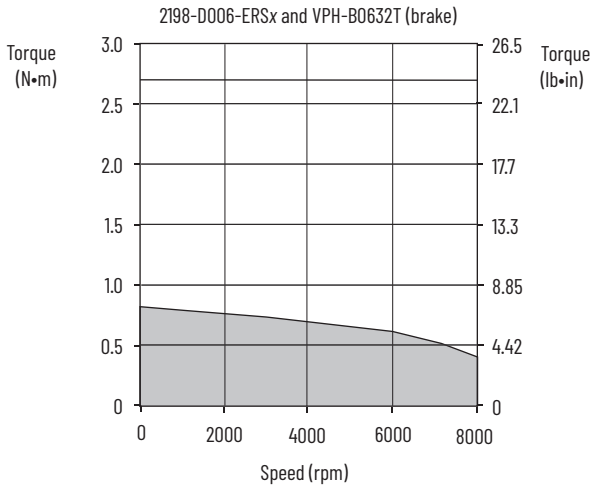
Kinetix VPH (brake) Motor Performance with Kinetix 5700 (400V-class) Drives

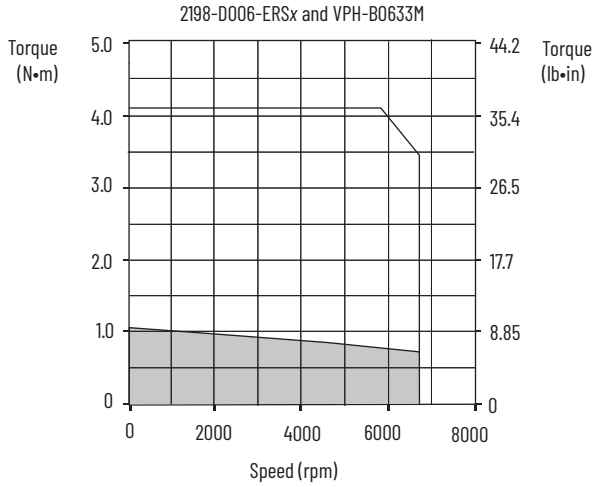
Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (480V AC input)**
VPH-B0632T-*xxx*4	7200	8000	2.43	0.80 (7.1)	8.75	2.69 (24.0)	0.40 (0.5)	2198-D006-ERS*x*
VPH-B0633M-*xxx*4	6700	6700	1.97	1.01 (8.9)	8.75	4.09 (36.0)	0.50 (0.6)	2198-D006-ERS*x*
VPH-B0753F-*xxx*4	6600	6600	3.49	1.81 (16.0)	8.80	3.27 (28.9)	0.68 (0.9)	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 (0.9)	2198-D006-ERS*x*
VPH-B1003F-*xxx*4	4750	4750	4.89	3.29 (29.1)	17.60	9.71 (86.0)	1.16 (1.6)	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 (1.8)	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 (1.5)	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 (2.4)	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 (3.9)	2198-D032-ERS*x*
					68.00	67.80 (600)		2198-D057-ERS*x*

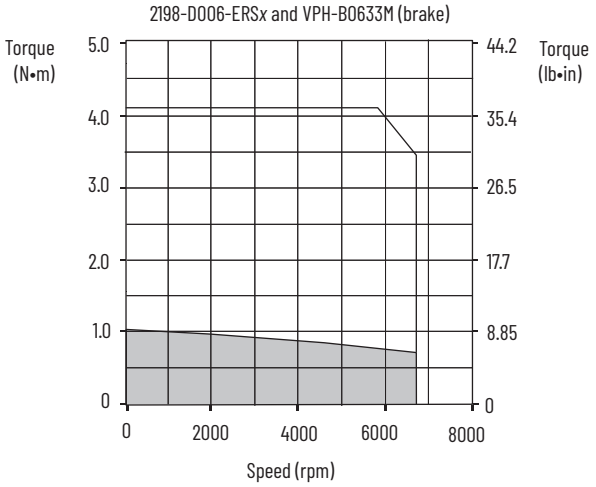
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

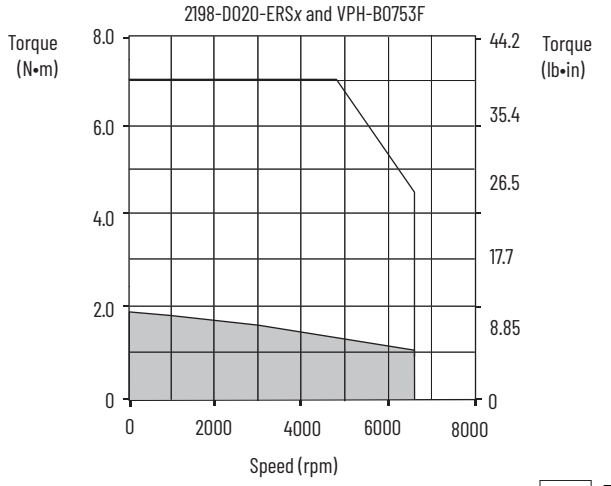
Kinetix 5700 (400V-class) Drives/Kinetix VPH Hygienic Servo Motor Curves

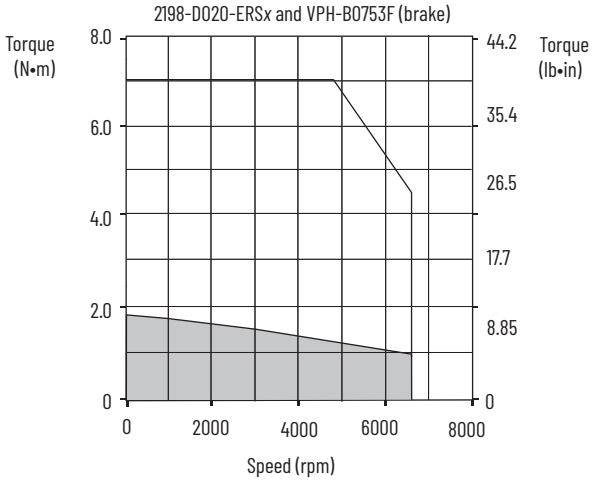










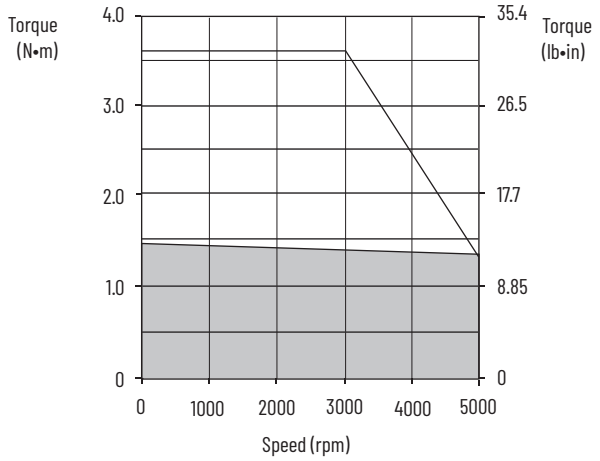


= Intermittent operating region

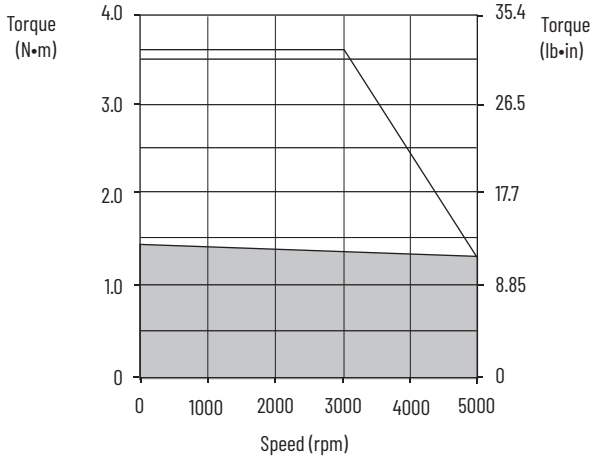
= Continuous operating region

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

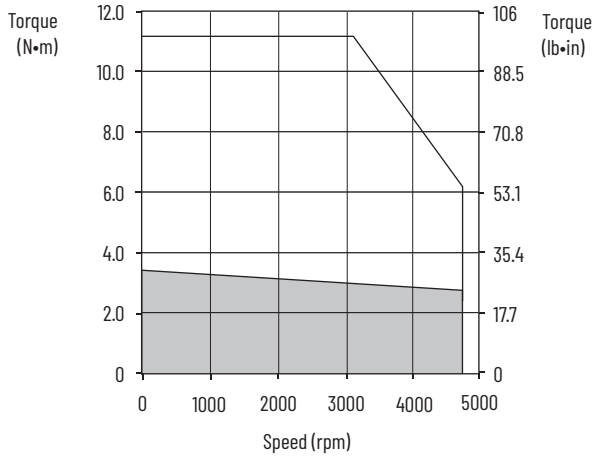
2198-D006-ERSx and VPH-B1001F



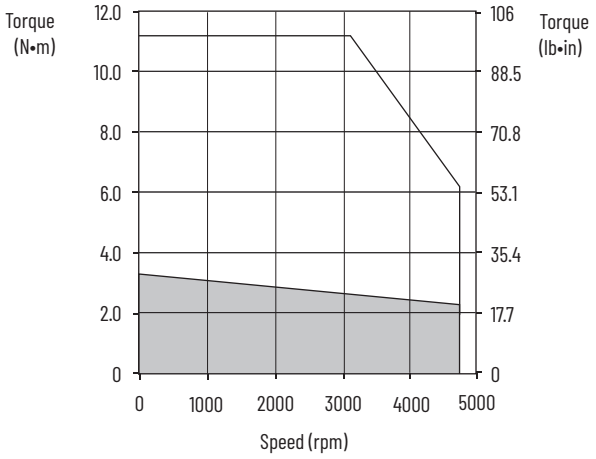
2198-D006-ERSx and VPH-B1001F (brake)



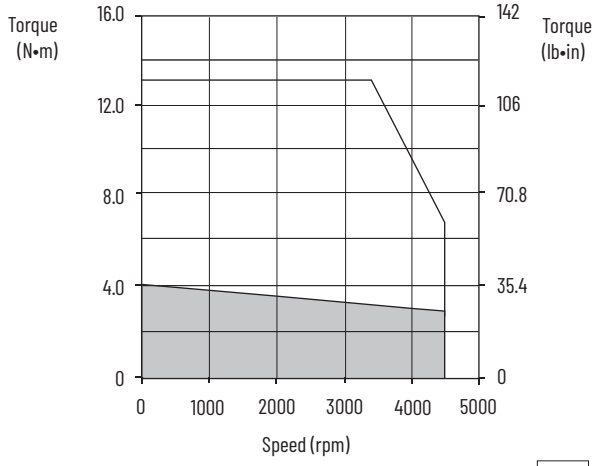
2198-D020-ERSx and VPH-B1003F



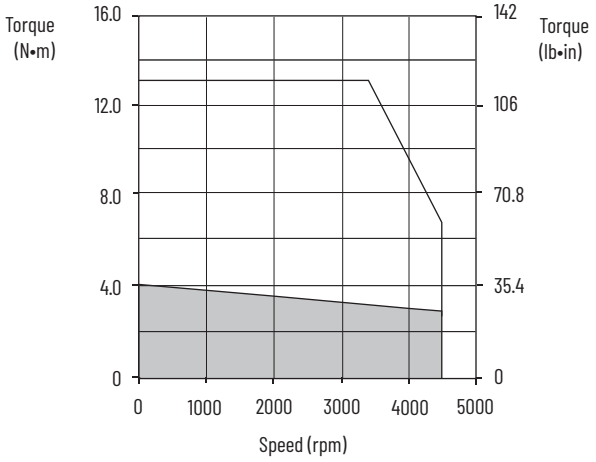
2198-D020-ERSx and VPH-B1003F (brake)



2198-D020-ERSx and VPH-B1152F



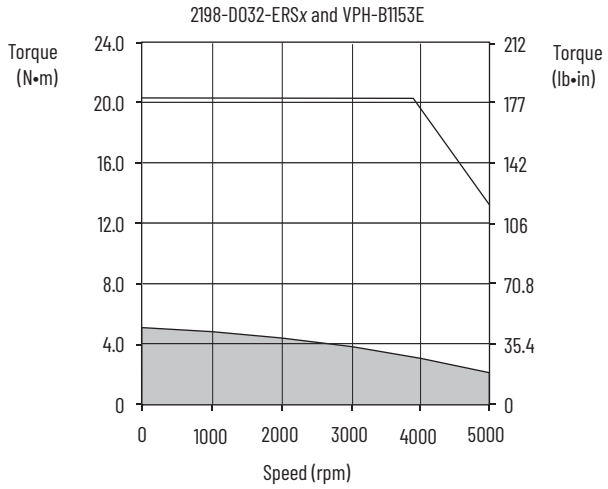
2198-D020-ERSx and VPH-B1152F (brake)

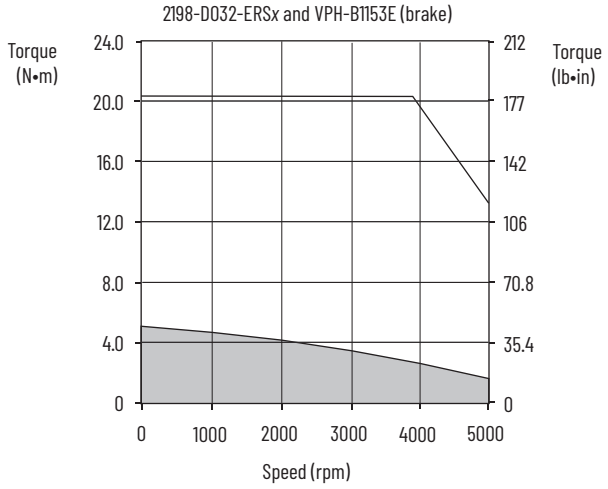


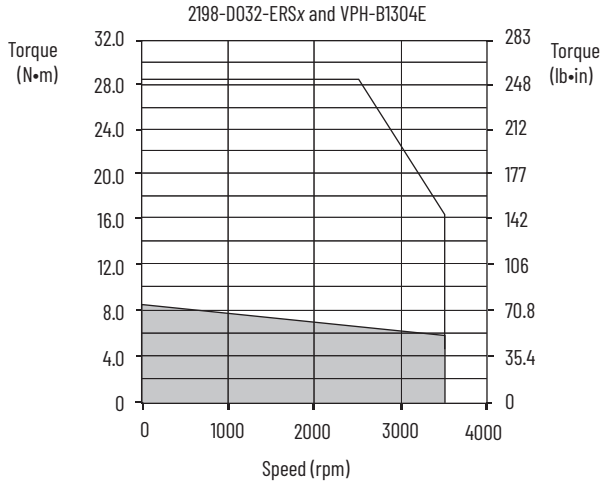
= Intermittent operating region

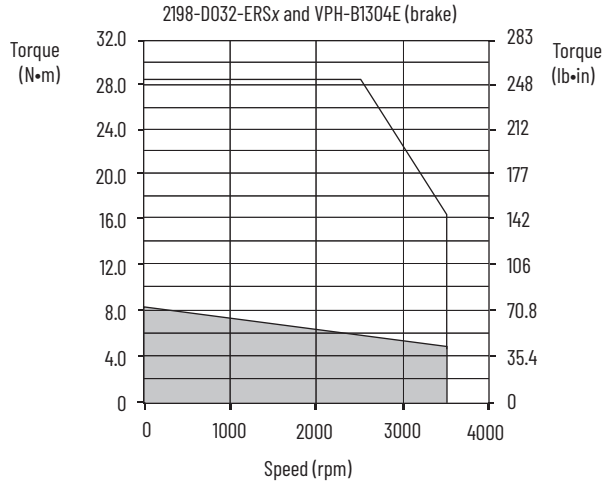
= Continuous operating region

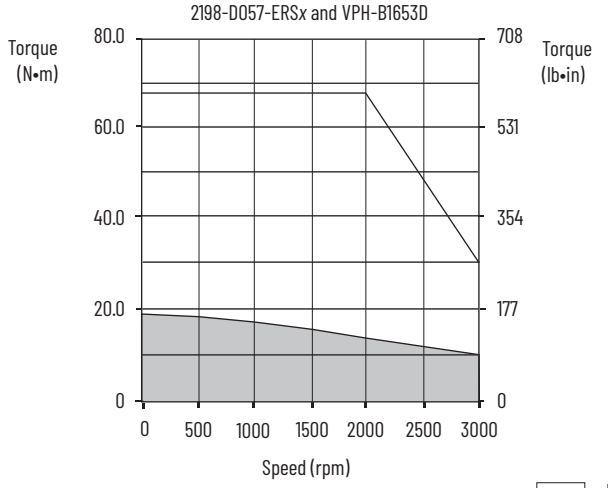
Kinetix 5700 (400V-class) Drives/Kinetix VPH Hygienic Servo Motor Curves (continued)

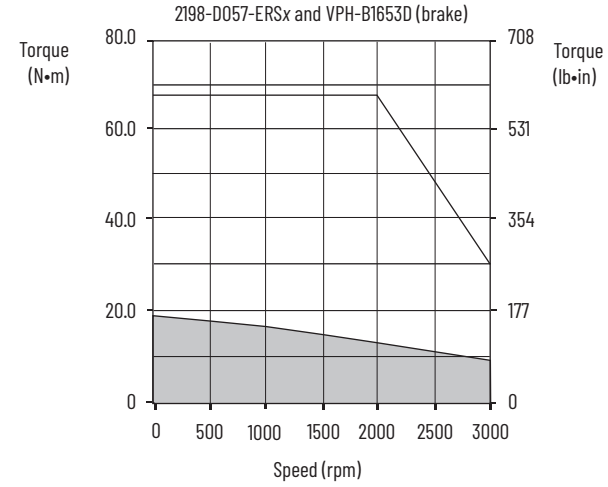












= Intermittent operating region
= Continuous operating region

Kinetix 5700 (400V-class) Drives with Kinetix VPS Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix VPS motors 130 mm frame size.

Kinetix VPS Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Single Motor Cable (1)	Feedback Type
VPS-B1304D	2090-CSWM1D*x*-14*x*A*xx* (standard, non-flex) 2090-CSBM1D*x*-14*x*F*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx*	Absolute, Multi-turn Digital Encoder with Hiperface DSL Protocol
VPS-B1653D		

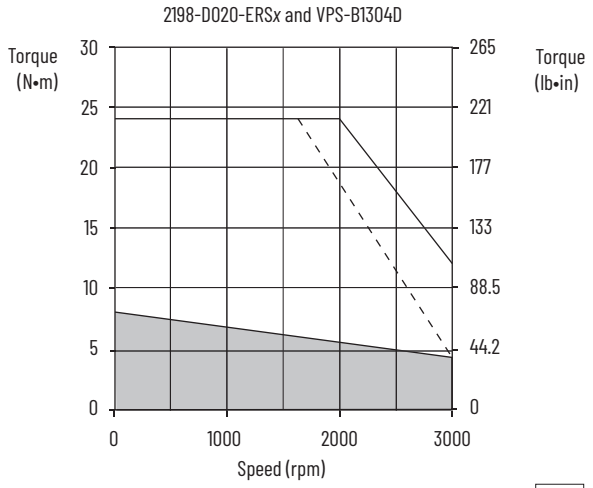
(1) Use 2090-CS*x*M1DE or 2090-CS*x*M1DG cables. Cable length *xx* is in meters, 01 (3.3)...50 (164) in 1.0 m (3.3 ft) increments. For information on maximum cable lengths see Kinetix 5700 Servo Drives User Manual, publication 2198-UM002. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

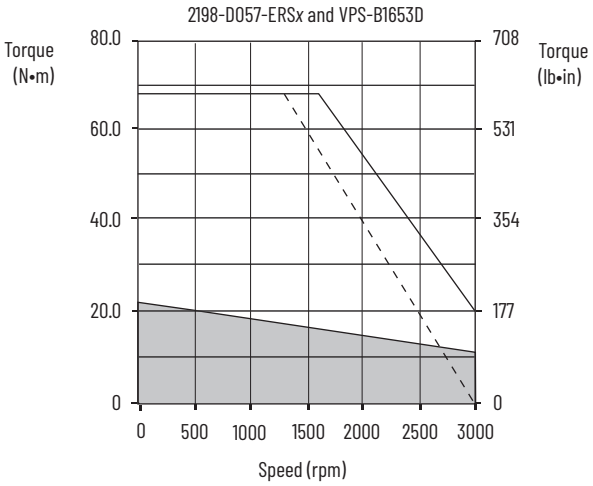
Kinetix VPS Motor Performance with Kinetix 5700 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A (0-pk)	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPS-B1304D	3000	3000	7.1	8.1 (72)	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-class) Drives/Kinetix VPS Servo Motor Curves





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

Kinetix 5700 (200V-class) Drives with Kinetix MPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 230V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPL motors 100...130 mm frame sizes.

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-XXNxMP (bayonet) cables. For help with migration or to select bayonet transition cables, contact your Rockwell Automation sales representative.

Kinetix MPL Motor Cable Combinations

Rotary Motor (200V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPL-A1510V-*xx*7*x*AA, MPL-A1520U-*xx*7*x*AA, MPL-A1530U-*xx*7*x*AA	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (2) (3) (standard, non-flex) or 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-XXNFMF-S*xx* (standard, non-flex) (4) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Incremental Feedback 2090-CFBM7S7-CDAFxx (ArmorKinetix)
MPL-A210V-*xx*7*x*AA, MPL-A220T-*xx*7*x*AA, MPL-A230P-*xx*7*x*AA		
MPL-A310F-*xx*7*x*AA, MPL-A310P-*xx*7*x*AA, MPL-A320H-*xx*7*x*AA, MPL-A320P,-*xx*7*x*AA, MPL-A330P-*xx*7*x*AA	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex) 2090-CSBM1P7-14AFxx	
MPL-A420P-*xx*7*x*AA, MPL-A430H-*xx*7*x*AA		
MPL-A4530F-*xx*7*x*AA, MPL-A4540C-*xx*7*x*AA		
MPL-A430P-*xx*7*x*AA	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex) 2090-CSBM1P7-14AFxx	
MPL-A4530K-*xx*7*x*AA, MPL-A4540F-*xx*7*x*AA		
MPL-A4560F-*xx*7*x*AA	2090-CP*x*M7DF-12AA*xx* (standard, non-flex) 2090-CSBM1P7-14AFxx	
MPL-A520K-*xx*7*x*AA	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPL-A540K-*xx*7*x*AA, MPL-A560F-*xx*7*x*AA	2090-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-08AF*xx* (continuous-flex)	

(1) Use the 2198-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 13.
(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 Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

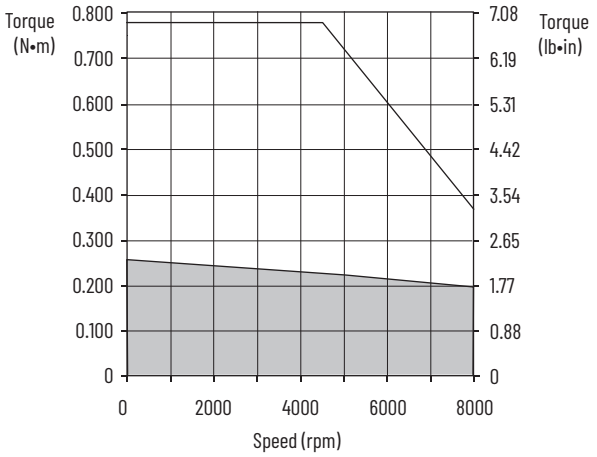
Kinetix MPL Motor Performance Specifications with Kinetix 5700 (200V-class) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 (230V AC input)**
MPL-A1510V	8000	8000	1.05	0.26 (2.3)	3.40	0.77 (6.8)	0.16 (0.2)	2198-D006-ERS*x*
MPL-A1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27 (0.4)	2198-D006-ERS*x*
MPL-A1530U	7000	7000	2.82	0.90 (8.0)	10.1	2.82 (24.9)	0.39 (0.5)	2198-D012-ERS*x*
MPL-A210V	8000	8000	3.09	0.55 (4.8)	10.2	1.52 (13.4)	0.37 (0.5)	2198-D012-ERS*x*
MPL-A220T	6000	6000	4.54	1.61 (14.2)	15.5	4.74 (41.9)	0.62 (0.8)	2198-D012-ERS*x*
MPL-A230P	5000	5000	5.40	2.10 (18.6)	23.0	8.2 (73.0)	0.86 (1.2)	2198-D020-ERS*x*
MPL-A310F	3000	3000	3.20	1.58 (14.0)	8.80	3.44 (30.4)	0.46 (0.6)	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 (1.0)	2198-D012-ERS*x*
MPL-A320H	3500	3500	6.10	3.05 (27.0)	19.3	7.91 (70.0)	0.96 (1.3)	2198-D020-ERS*x*
MPL-A320P	5000	5000	9.00	3.05 (27.0)	28.3	7.60 (44.8)	1.27 (1.7)	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)	1.79 (2.4)	2198-D032-ERS*x*
MPL-A420P	5000	5000	12.7	4.79 (42.3)	46.0	13.5 (120)	2.01 (2.7)	2198-D032-ERS*x*
MPL-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.8 (175)	1.79 (2.4)	2198-D032-ERS*x*
MPL-A430P	5000	5000	16.80	5.99 (52.9)	67.0	19.8 (175)	2.24 (3.0)	2198-D057-ERS*x*
MPL-A4530F	2800	2800	13.40	8.36 (74.0)	42.0	20.3 (179)	1.986(2.5)	2198-D032-ERS*x*
MPL-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.3 (179)	2.54 (3.4)	2198-D057-ERS*x*
MPL-A4540C	1500	1500	9.40	10.30 (91.1)	28.3	26.23 (232)	1.49 (2.0)	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)	2.61 (3.5)	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)	2.98 (4.0)	2198-D057-ERS*x*
MPL-A520K	4000	4000	23.0	10.77 (95.2)	65.0	24.3 (215)	3.50 (4.7)	2198-D057-ERS*x*
MPL-A540K	4000	4000	41.5	19.42 (171)	73.4	31.3 (277)	5.52 (7.4)	2198-S086-ERS*x*
MPL-A560F	3000	3000	42.0	27.39 (242)	73.4	39.6 (350)	5.29 (7.1)	2198-S086-ERS*x*

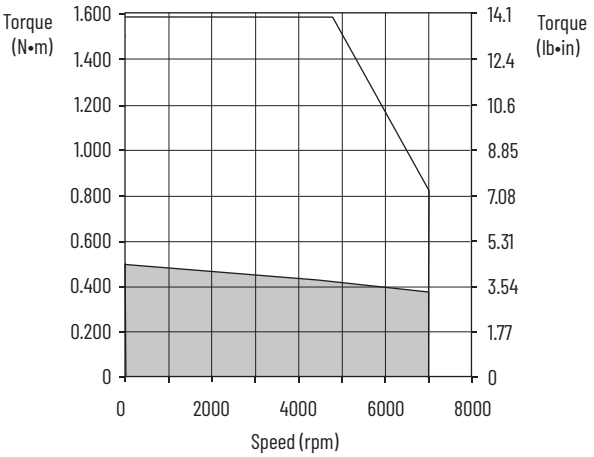
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

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



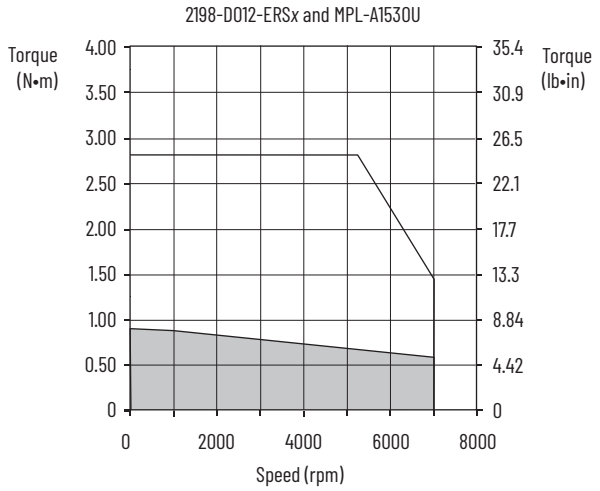
2198-D006-ERS*x* and MPL-A1520U

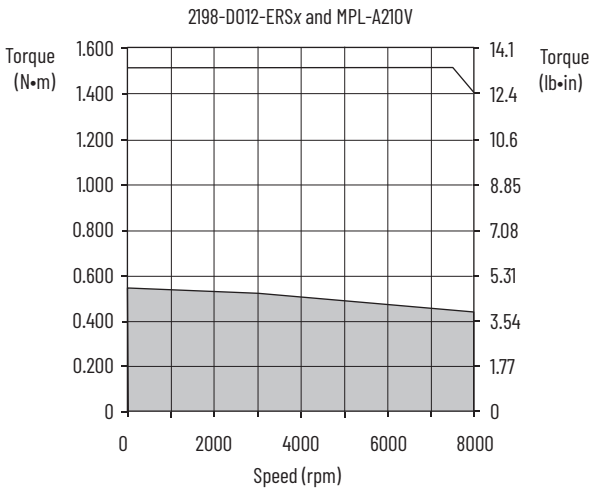


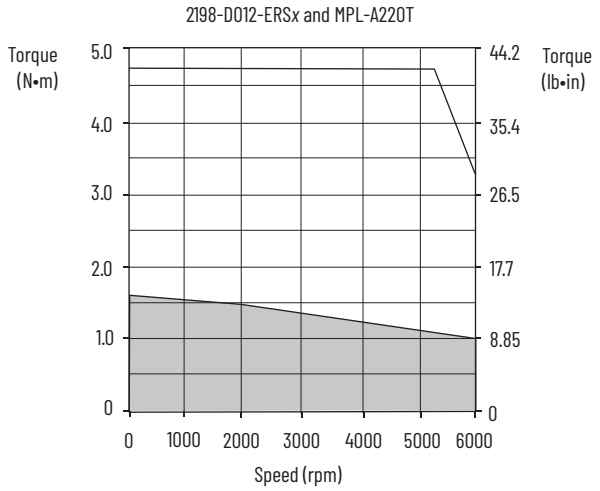
= Intermittent operating region

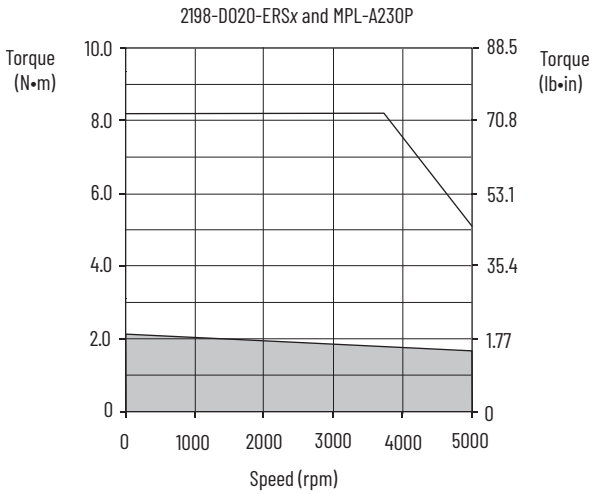
= Continuous operating region

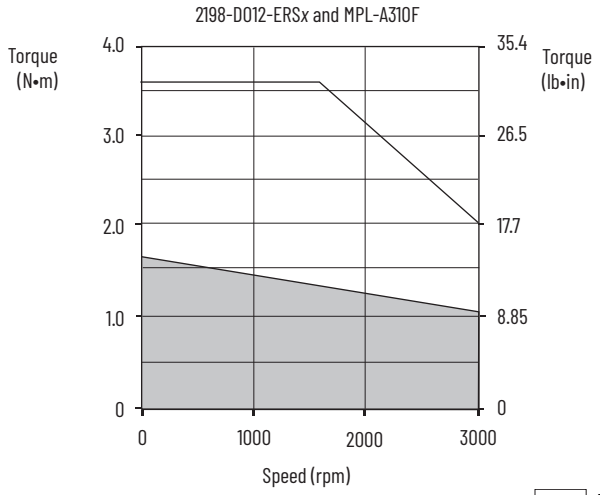
Kinetix 5700 (200V-class) Drives/Kinetix MPL Servo Motor Curves (continued)

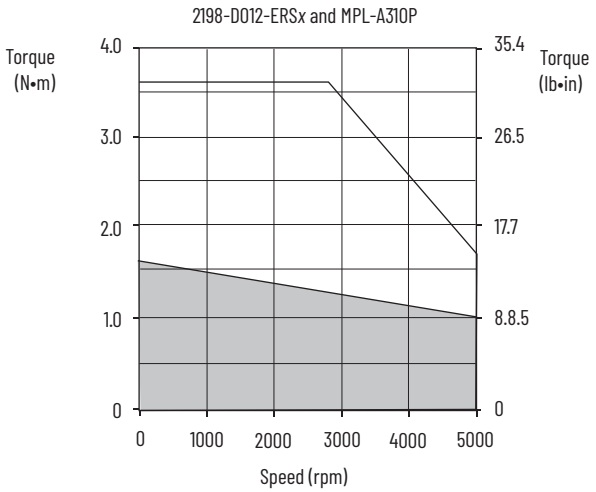








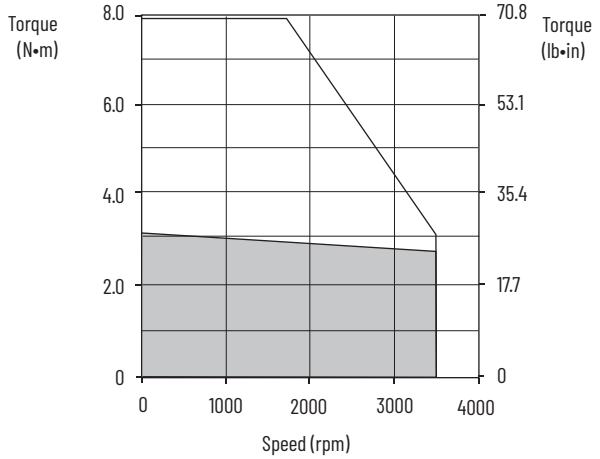




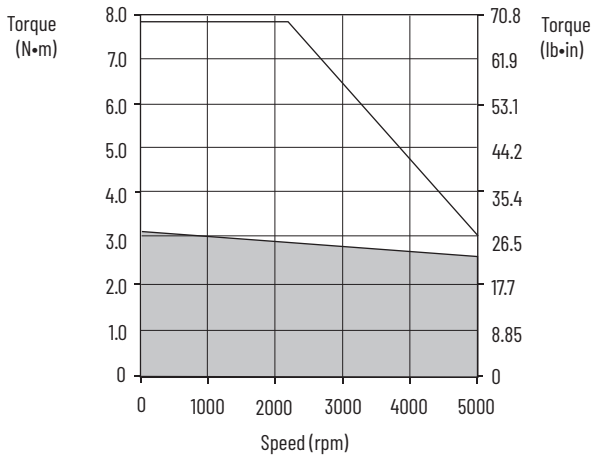
= Intermittent operating region
= Continuous operating region

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

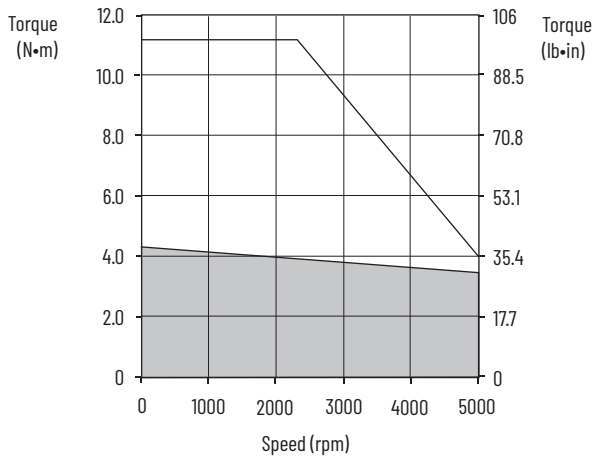
2198-D020-ERS*x* and MPL-A320H



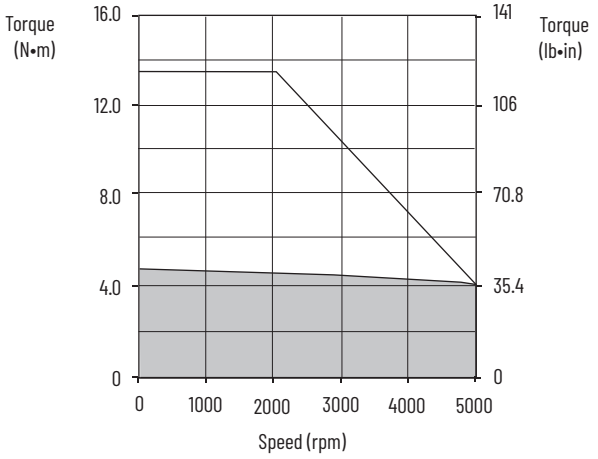
2198-D032-ERS*x* and MPL-A320P



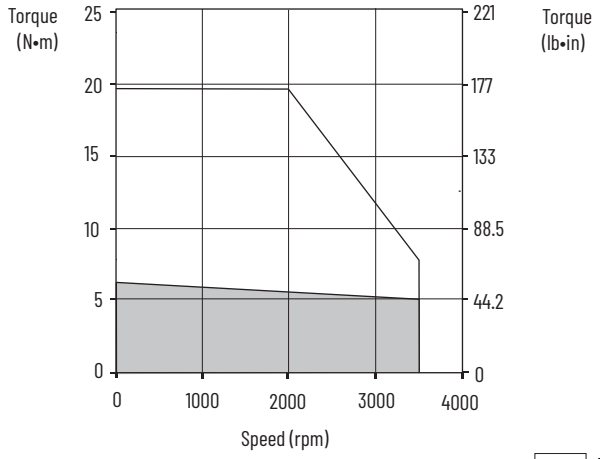
2198-D032-ERS*x* and MPL-A330P



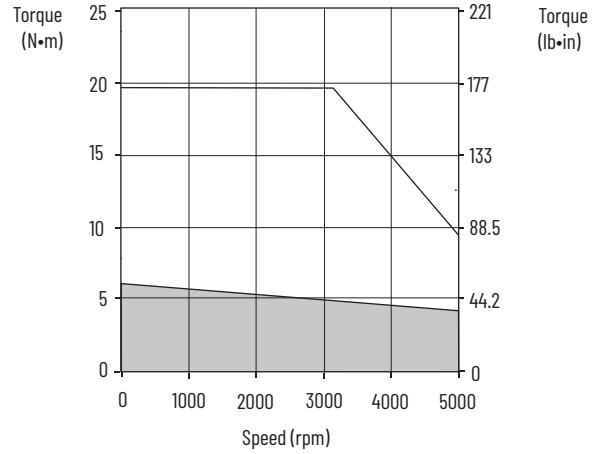
2198-D032-ERS*x* and MPL-A420P



2198-D032-ERS*x* and MPL-A430H



2198-D057-ERS*x* and MPL-A430P

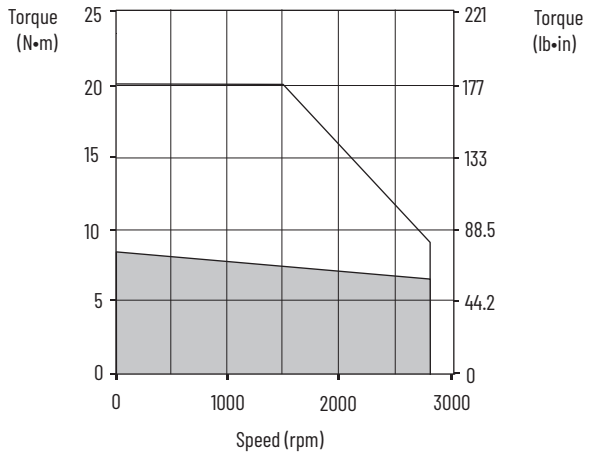


= Intermittent operating region

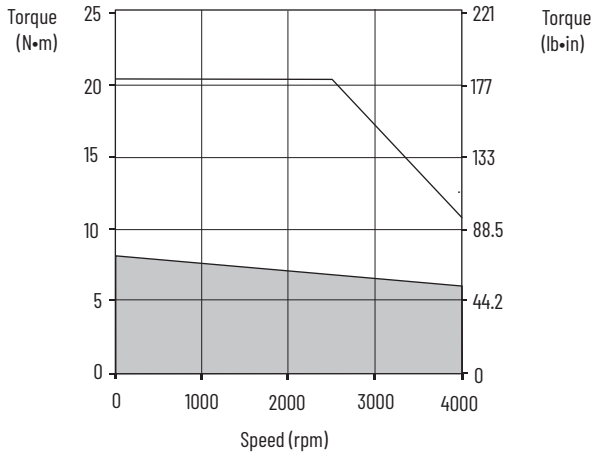
= Continuous operating region

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

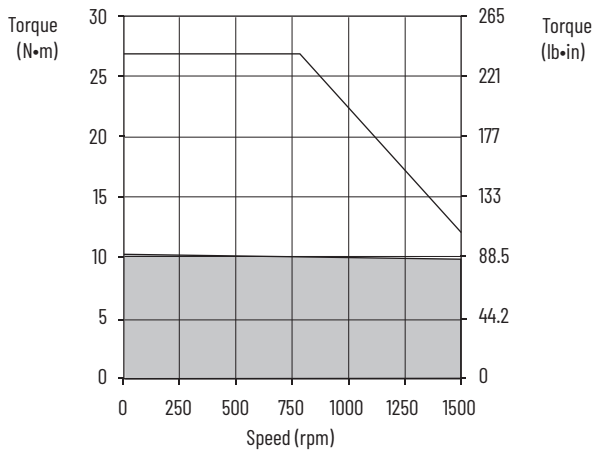
2198-D032-ERSx and MPL-A4530F



2198-D057-ERSx and MPL-A4530K



2198-D032-ERSx and MPL-A4540C



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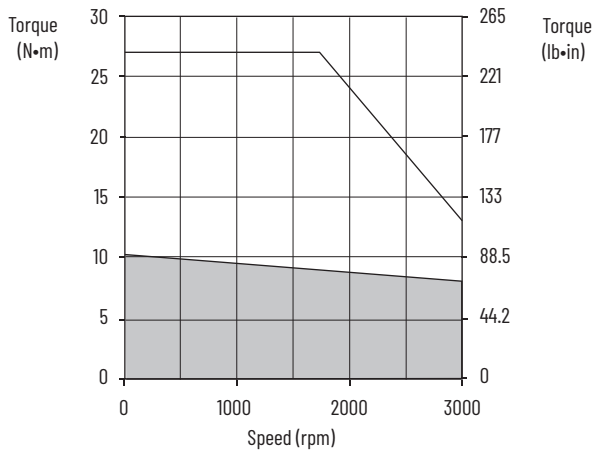

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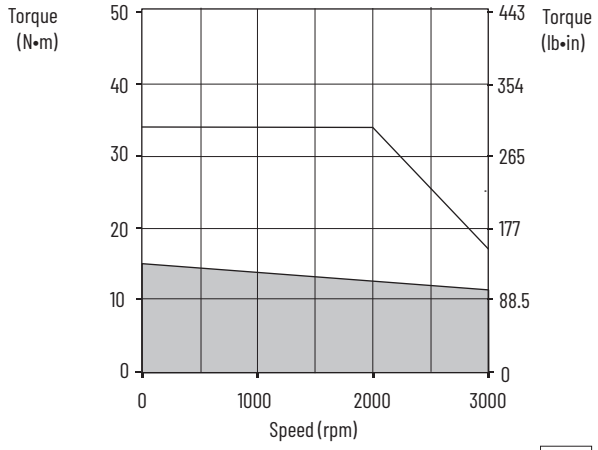

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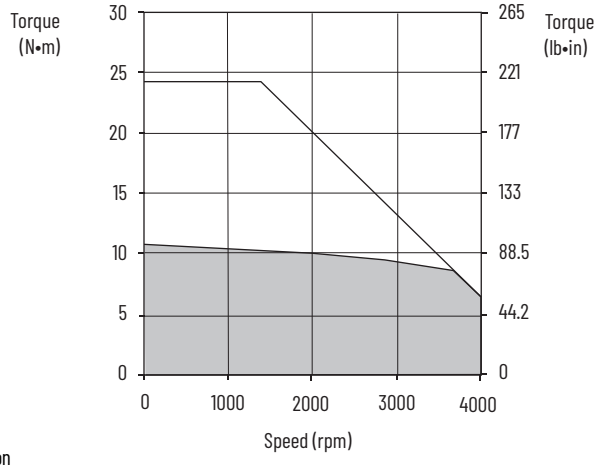
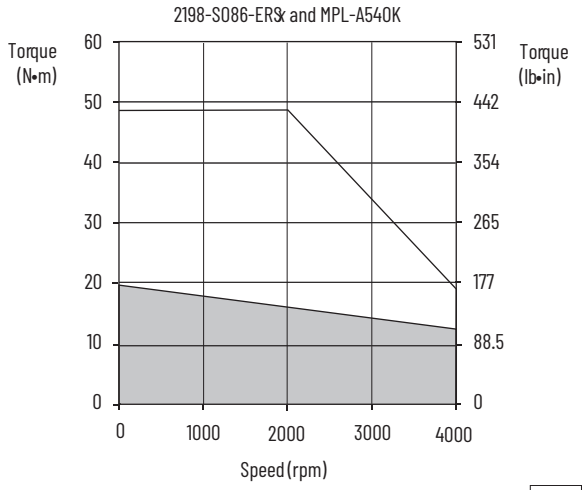
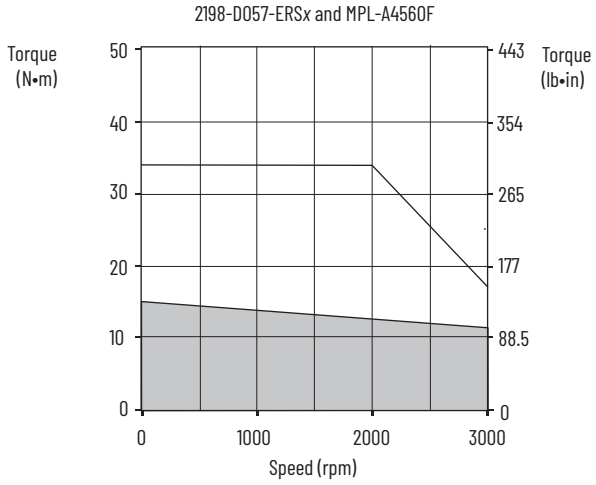


= Intermittent operating region

= Continuous operating region

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





= Intermittent operating region

= Continuous operating region

Kinetix 5700 (400V-class) Drives with Kinetix MPL Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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***x*AA) 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-XXNxMP (bayonet) cables. For help with migration or to select bayonet transition cables, contact your Rockwell Automation sales representative.

ArmorKinetix DSD modules are compatible with Kinetix MPL motors 100...130 mm frame sizes.

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-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-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 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
MPL-B210V-*xx*7xAA, MPL-B220T-*xx*7xAA, MPL-B230P-*xx*7xAA		
MPL-B310P-*xx*7xAA, MPL-B320P-*xx*7xAA, MPL-B330P-*xx*7xAA	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
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	2090-CPxM7DF-16AA*xx* (standard, non-flex) 2090-CPxM7DF-16AF*xx* (continuous-flex)	
MPL-B540D-*xx*7xAA, MPL-B540K-*xx*7xAA, MPL-B560F-*xx*7xAA	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex)	
MPL-B580F-*xx*7xAA, MPL-B580J-*xx*7xAA	2090-CPxM7DF-10AA*xx* (standard, non-flex) 2090-CPxM7DF-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-CPxM7DF-08AA*xx* (standard, non-flex) 2090-CPxM7DF-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 13.
(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***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 MPL-B*xxxx-xx***2**AA can use the cable size as specified in the table regardless of cable length.

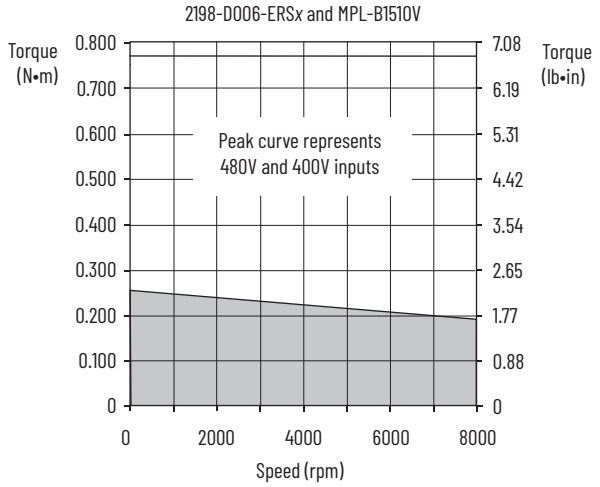
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

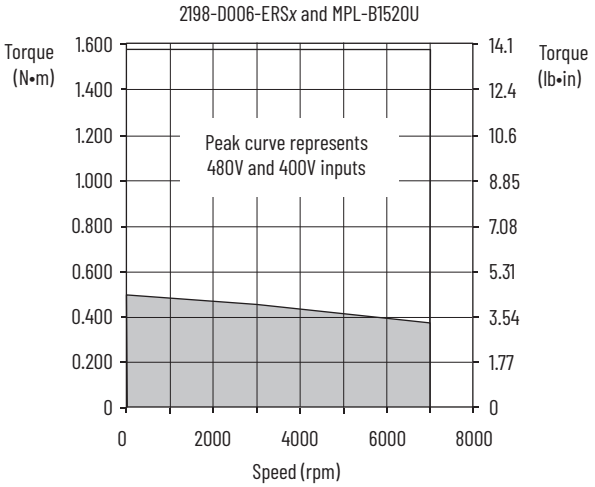
Kinetix MPL Motor Performance with Kinetix 5700 (400V-class) Drives

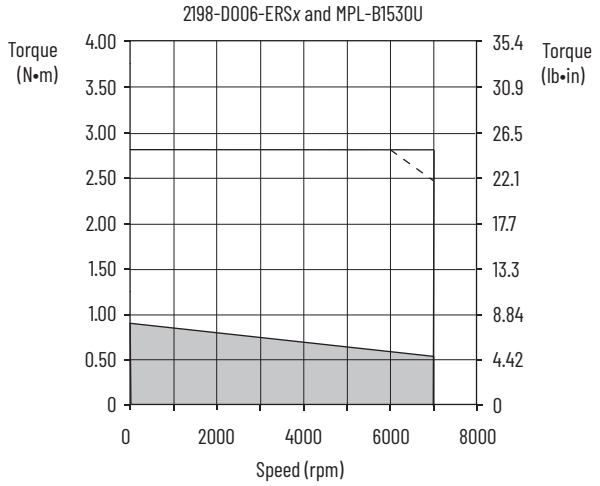
Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 (480V AC input)
MPL-B1510V	8000	8000	0.95	0.26 (2.3)	3.10	0.77 (6.8)	0.16 (0.2)	2198-D006-ERS*x*
MPL-B1520U	7000	7000	1.80	0.49 (4.3)	6.10	1.58 (13.9)	0.27 (0.4)	2198-D006-ERS*x*
MPL-B1530U	7000	7000	2.0	0.90 (8.0)	7.20	2.82 (24.9)	0.39 (0.5)	2198-D006-ERS*x*
MPL-B210V	8000	8000	1.75	0.55 (4.9)	5.80	1.52 (13.4)	0.37 (0.5)	2198-D006-ERS*x*
MPL-B220T	6000	6000	3.30	1.61 (14.2)	8.80	3.67 (32.5)	0.62 (0.8)	2198-D006-ERS*x*
					11.3	4.74 (41.9)		2198-D012-ERS*x*
MPL-B230P	5000	5000	2.60	2.10 (18.6)	8.80	6.39 (56.6)	0.86 (1.2)	2198-D006-ERS*x*
					11.3	8.20 (73.0)		2198-D012-ERS*x*
MPL-B310P	5000	5000	2.4	1.6 (14.1)	7.10	3.6 (32)	0.77 (1.0)	2198-D006-ERS*x*
MPL-B320P	5000	5000	4.5	3.10 (27)	14.0	8.2 (72.5)	1.49 (2.0)	2198-D012-ERS*x*
MPL-B330P	5000	5000	6.1	4.18 (37)	17.6	10.4 (92.0)	1.79 (2.4)	2198-D012-ERS*x*
					19.0	11.1 (98)		2198-D020-ERS*x*
MPL-B420P	5000	5000	6.4	4.74 (42)	17.6	11.3 (100)	1.86 (2.4)	2198-D012-ERS*x*
					22.0	13.5 (119)		2198-D020-ERS*x*
MPL-B430P	5000	5000	9.2	6.55 (58)	28.2	17.6 (156)	2.23 (3.0)	2198-D020-ERS*x*
					32.0	19.8 (175)		2198-D032-ERS*x*
MPL-B4530F	3000	3000	7.0	8.25 (73)	17.6	17.7 (157)	2.09 (2.8)	2198-D012-ERS*x*
					21.0	20.3 (180)		2198-D020-ERS*x*
MPL-B4530K	4000	4000	11.0	8.25 (73)	28.2	18.7 (166)	2.61 (3.5)	2198-D020-ERS*x*
					31.0	20.3 (179)		2198-D032-ERS*x*
MPL-B4540F	3000	3000	9.1	10.20 (90)	28.2	26.2 (232)	2.61 (3.5)	2198-D020-ERS*x*
					29.0	27.1 (240)		2198-D032-ERS*x*
MPL-B4560F	3000	3000	11.3	13.85 (123)	28.2	28.4 (251)	3.20 (4.3)	2198-D020-ERS*x*
			11.8	14.0 (124)	36.0	34.4 (304)		2198-D032-ERS*x*
MPL-B520K	3500	4000	11.3	10.4 (92)	28.2	20.6 (182)	3.50 (4.7)	2198-D020-ERS*x*
			11.5	10.7 (95)	33.0	23.2 (205)		2198-D032-ERS*x*
MPL-B540D	2000	2000	10.5	19.4 (172)	23.0	41.0 (362)	3.43 (4.6)	2198-D020-ERS*x*
MPL-B540K	4000	4000	20.5	19.4 (172)	60.0	48.6 (430)	5.37 (7.2)	2198-D057-ERS*x*
MPL-B560F	3000	3000	20.6	26.8 (237)	68.0	67.8 (600)	5.52 (7.4)	2198-D057-ERS*x*
MPL-B580F	3000	3000	26.0	34.0 (301)	81.3	81.0 (717)	7.08 (9.5)	2198-D057-ERS*x*
					94.0	87.0 (770)		2198-S086-ERS*x*
MPL-B580J	3800	3800	32.0	34.0 (301)	81.3	73.0 (646)	7.90 (10.6)	2198-D057-ERS*x*
					94.0	81.0 (717)		2198-S086-ERS*x*
MPL-B640F	2000	3000	32.1	36.7 (325)	65.0	72.3 (640)	6.04 (8.1)	2198-D057-ERS*x*
MPL-B660F	2000	3000	38.5	48.0 (425)	96.0	101.1 (895)	6.04 (8.1)	2198-S086-ERS*x*
MPL-B680D	2000	2000	34.0	62.8 (556)	94.0	154.2 (1365)	9.32 (12.5)	2198-S086-ERS*x*
MPL-B680F	2000	3000	48.0	60.0 (531)	96.0	108.5 (960)	7.56 (10.0)	2198-S086-ERS*x*
MPL-B680H	2000	3500	51.0	60.0 (531)	121.6	130 (1150)	7.56 (10.0)	2198-S086-ERS*x*
					140	146.9 (1300)		2198-S130-ERS*x*
MPL-B860D	2000	2000	47.5	83.0 (735)	95.5	152.5 (1350)	12.53 (16.8)	2198-S086-ERS*x*
MPL-B880C	1500	1500	47.5	110 (973)	97.5	203 (1797)	12.60 (16.9)	2198-S086-ERS*x*
MPL-B880D	2000	2000	67.0	110 (973)	96.0	147 (1301)	12.60 (16.9)	2198-S130-ERS*x*
MPL-B960B	1200	1200	42.5	130 (1150)	94.0	231 (2044)	12.68 (17.0)	2198-S086-ERS*x*
MPL-B960C	1500	1500	55.0	124.3 (1100)	121.6	219.8 (1945)	14.76 (19.8)	2198-S086-ERS*x*
					125	226 (2000)		2198-S130-ERS*x*
MPL-B960D	2000	2000	70.0	124.3 (1100)	125	226 (2000)	14.99 (20.1)	2198-S130-ERS*x*
MPL-B980B	1000	1000	40.0	162.7 (1444)	94.0	278 (2460)	15.21 (20.4)	2198-S086-ERS*x*
MPL-B980C	1500	1500	68.2	158.2 (1400)	140	271.2 (2400)	16.78 (22.5)	2198-S130-ERS*x*
MPL-B980D	2000	2000	79.0	158.2 (1400)	140	260 (2300)	18.57 (24.9)	2198-S130-ERS*x*
MPL-B980E	1500	2750	105	141 (1250)	226.2	233 (2062)	12.98 (17.4)	2198-S160-ERS*x*
					230	237 (2100)		2198-S263-ERS*x*

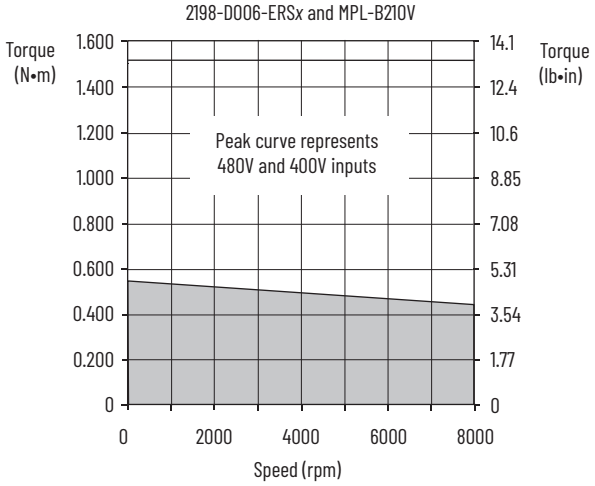
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

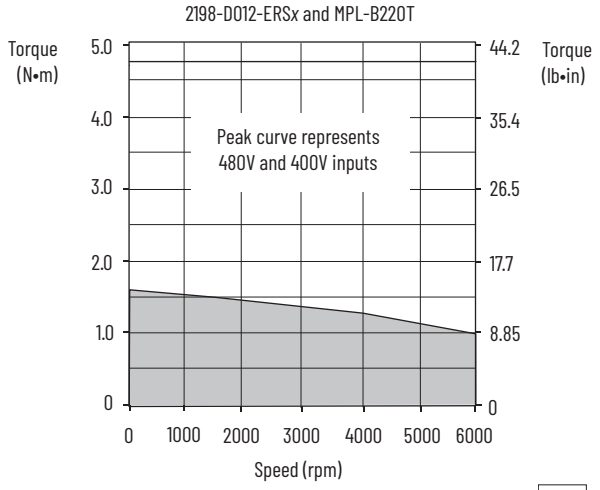
Kinetix 5700 (400V-class) Drives/Kinetix MPL Servo Motor Curves

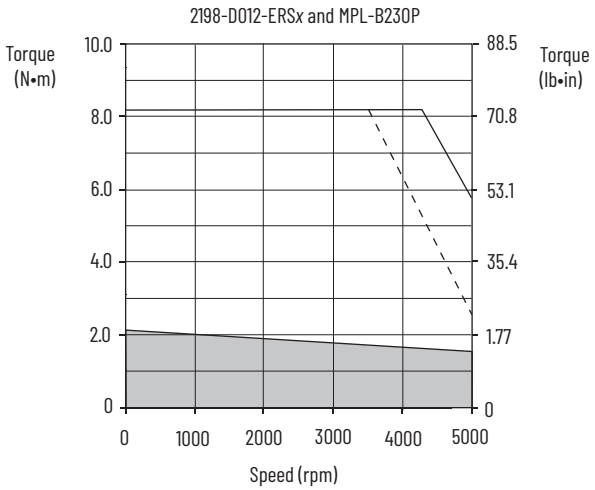








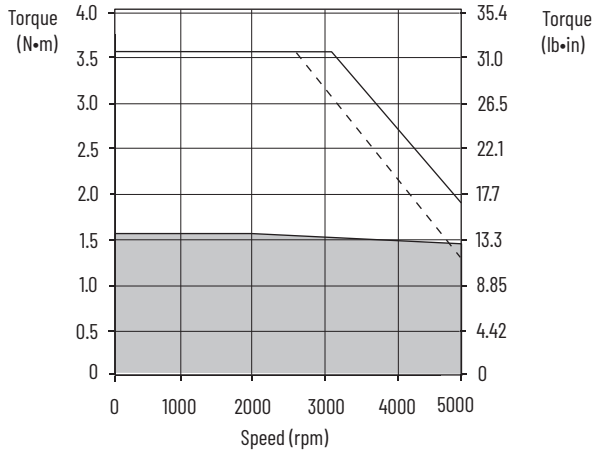




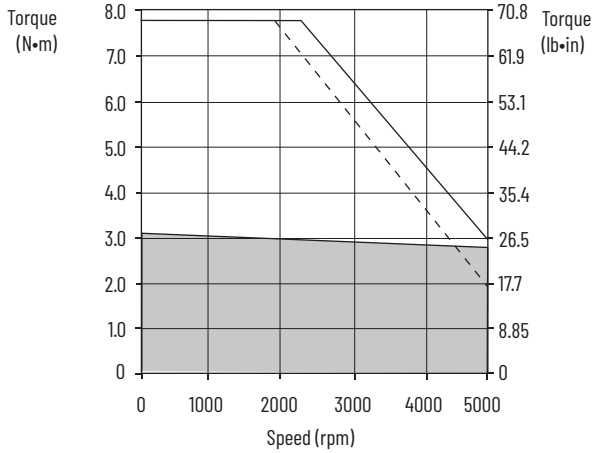
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

2198-D006-ERSx and MPL-B310P



2198-D012-ERSx and MPL-B320P



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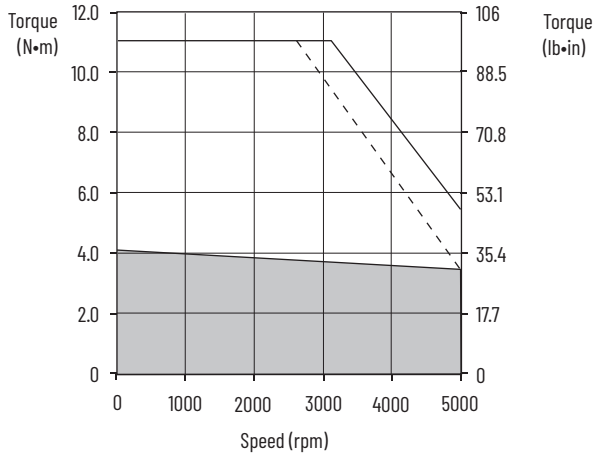
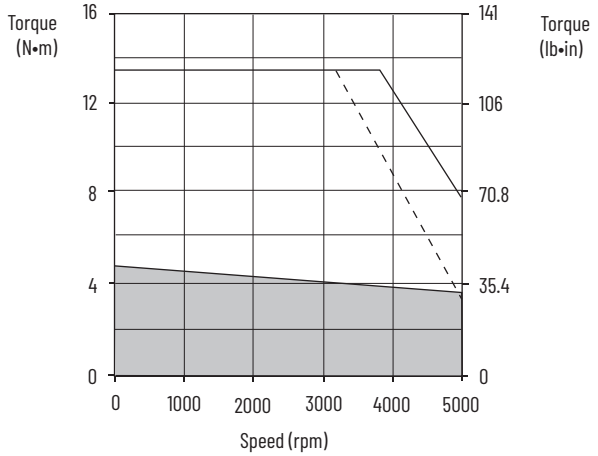
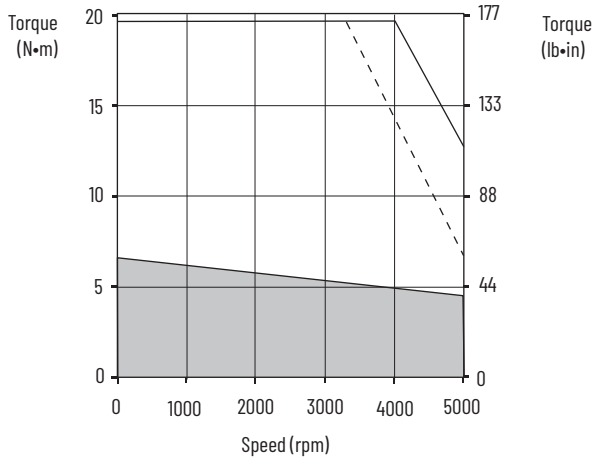


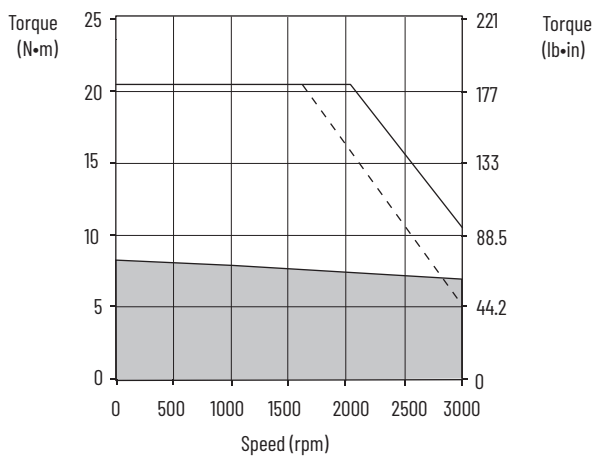
2198-D020-ERSx and MPL-B420P



2198-D032-ERSx and MPL-B430P



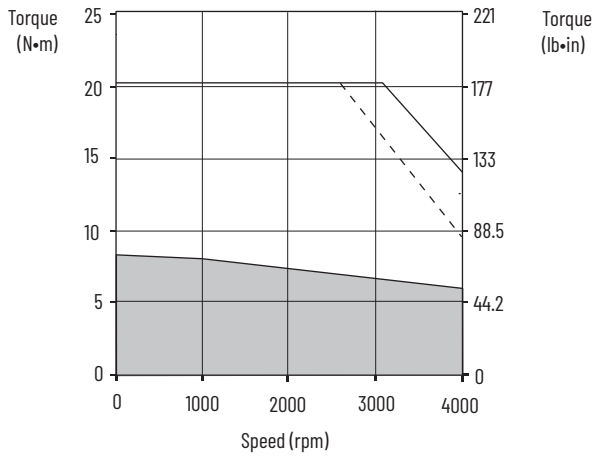
2198-D020-ERSx and MPL-B4530F



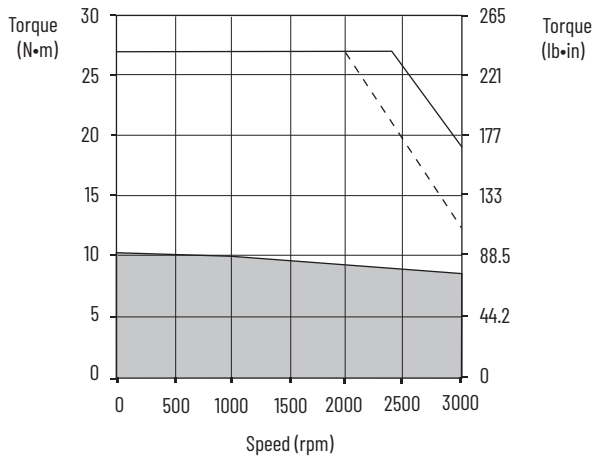
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

2198-D032-ERSx and MPL-B4530K



2198-D032-ERSx and MPL-B4540F



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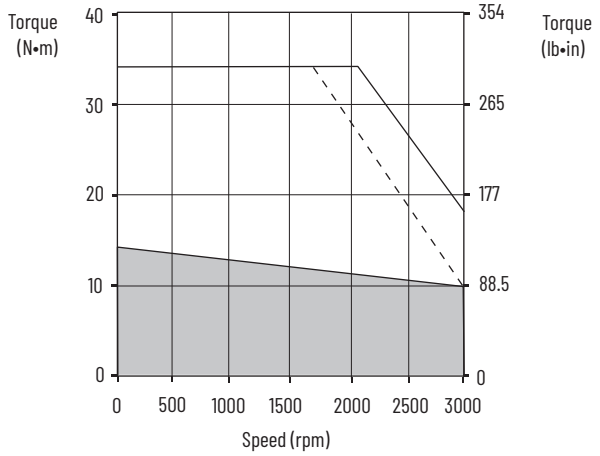
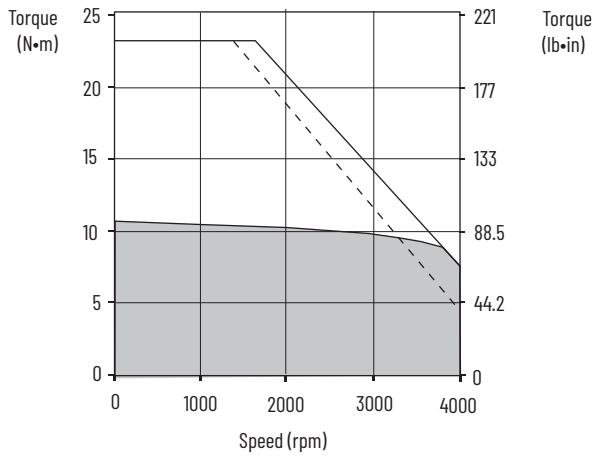
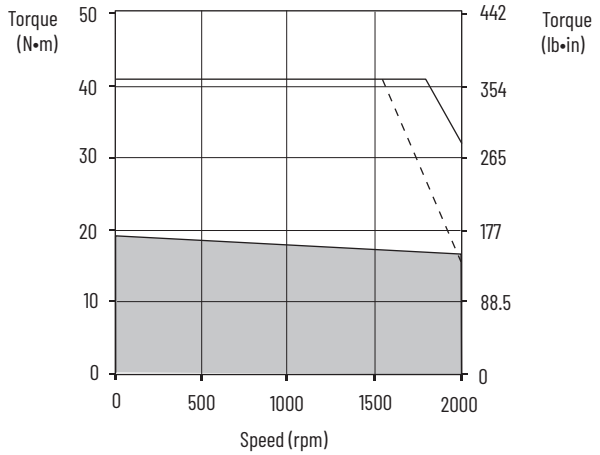


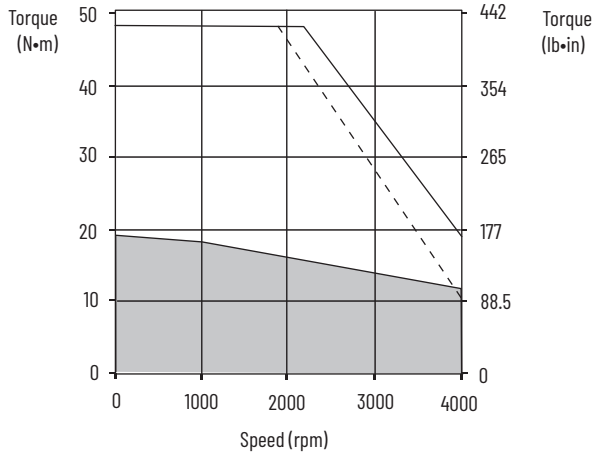
2198-D032-ERSx and MPL-B520K



2198-D032-ERSx and MPL-B540D



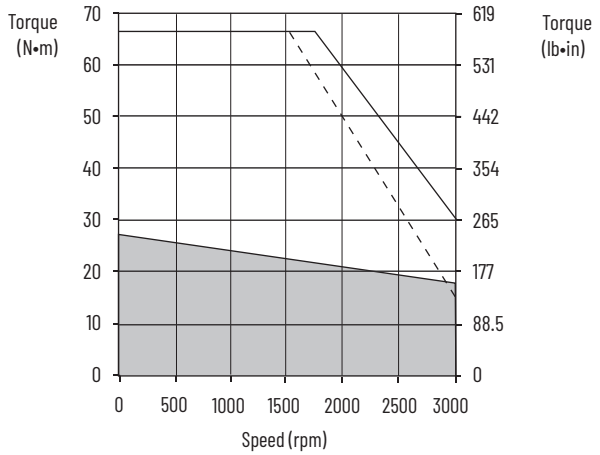
2198-D057-ERSx and MPL-B540K



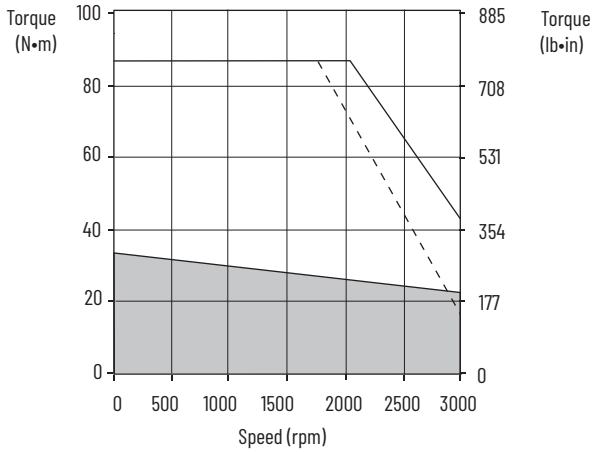
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

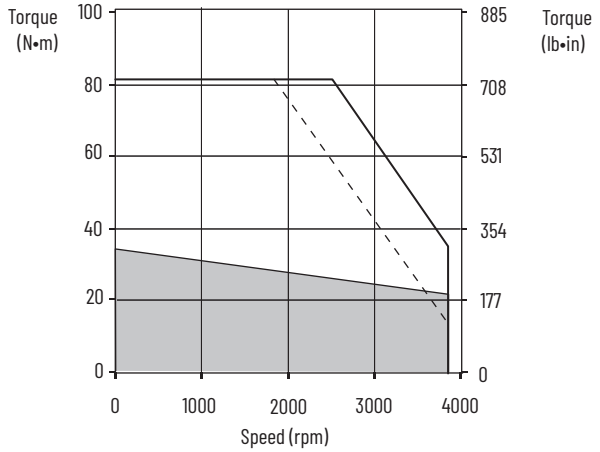
2198-D057-ERS*x* and MPL-B560F



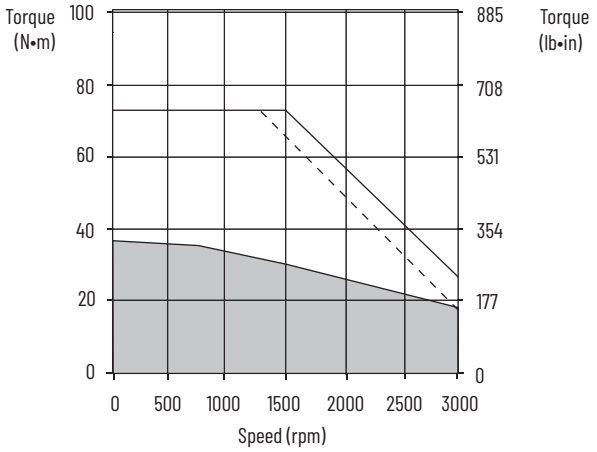
2198-S086-ERS*x* and MPL-B580F



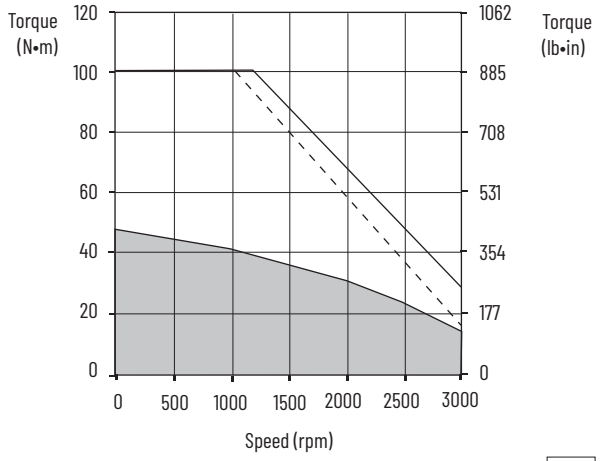
2198-S086-ERS*x* and MPL-B580J



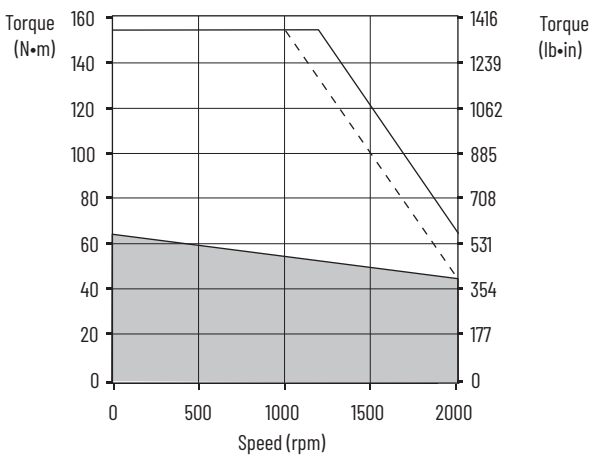
2198-D057-ERS*x* and MPL-B640F



2198-S086-ERS*x* and MPL-B660F



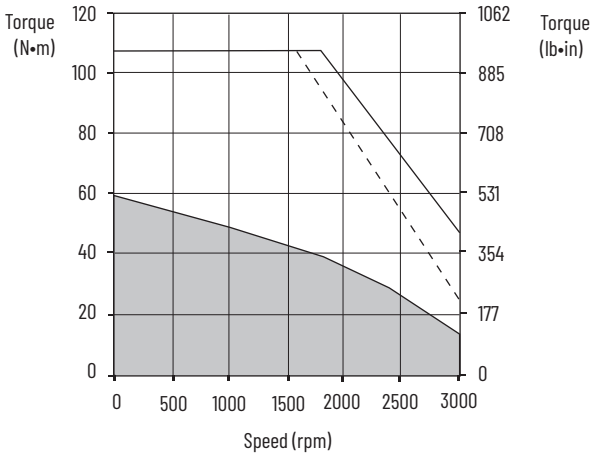
2198-S086-ERS*x* and MPL-B680D



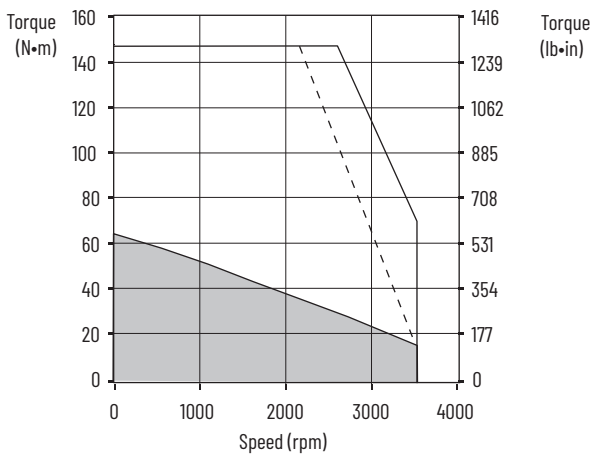
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

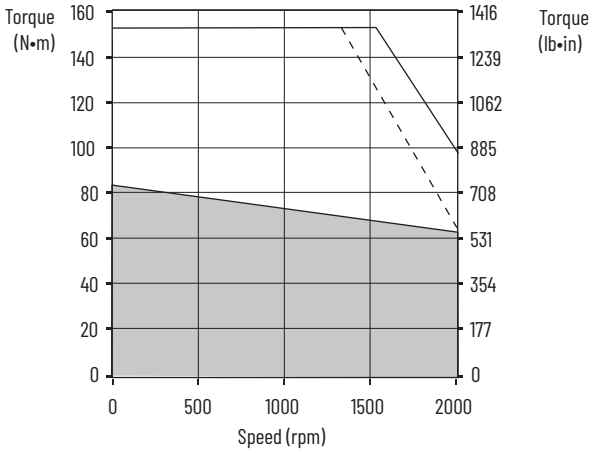
2198-S086-ERSx and MPL-B680F



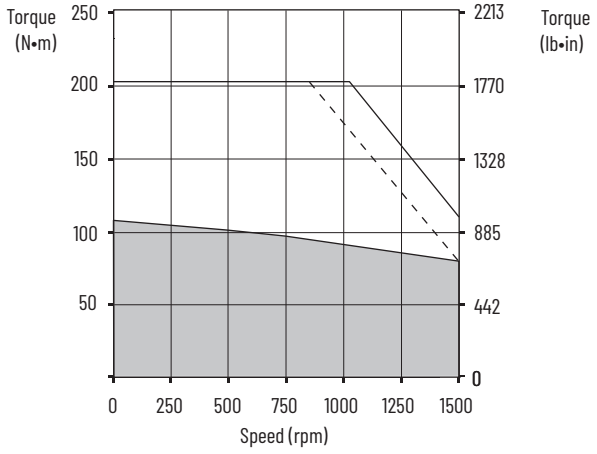
2198-S130-ERSx and MPL-B680H



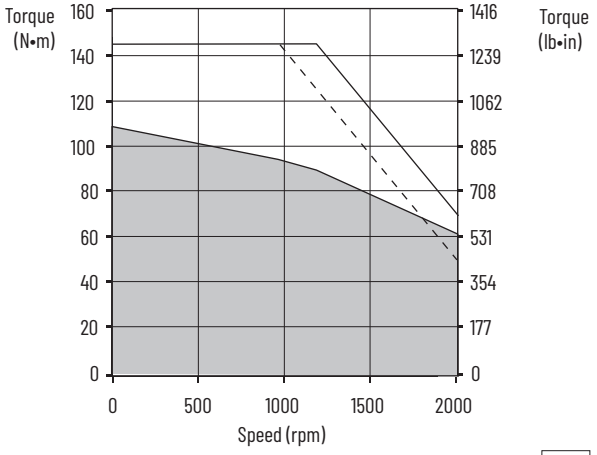
2198-S086-ERSx and MPL-B860D



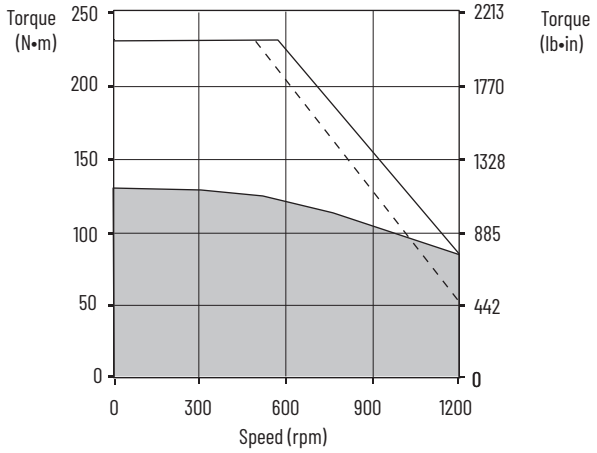
2198-S086-ERSx and MPL-B880C



2198-S130-ERSx and MPL-B880D



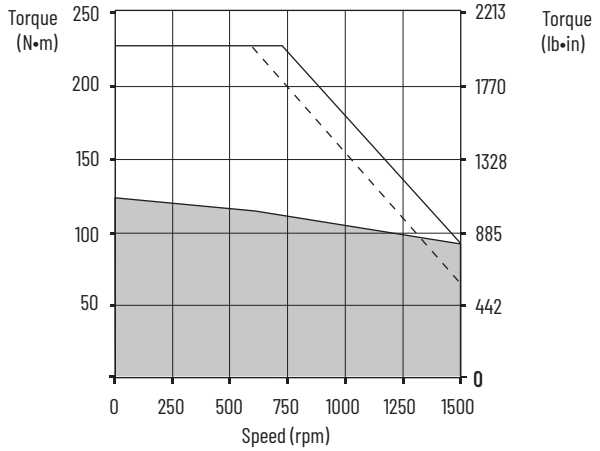
2198-S086-ERSx and MPL-B960B



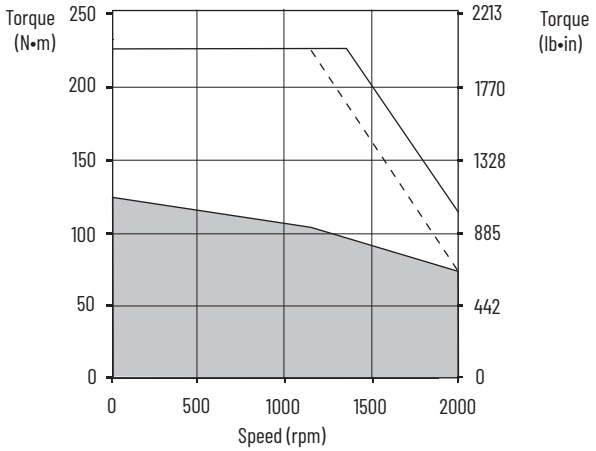
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

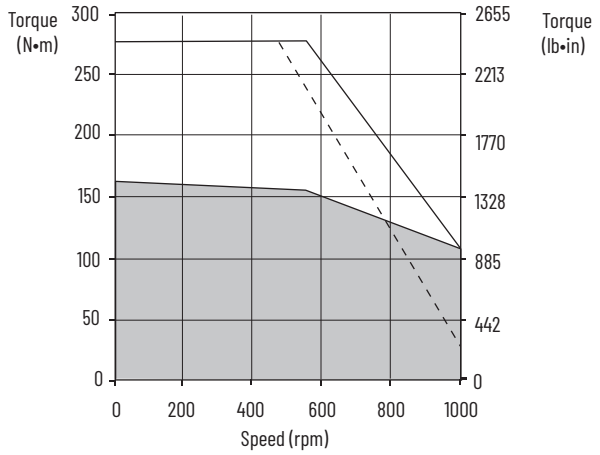
2198-S130-ERS*x* and MPL-B960C



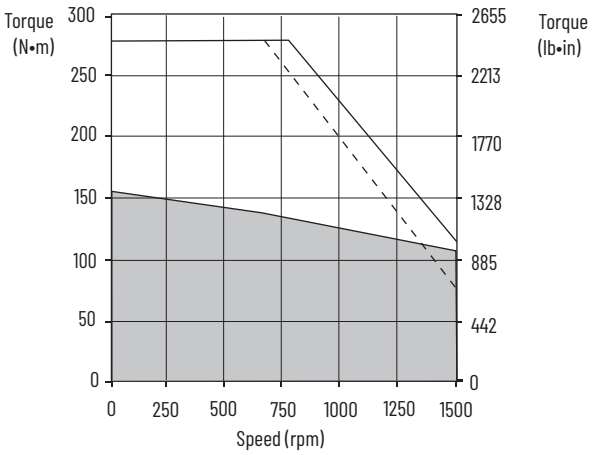
2198-S130-ERS*x* and MPL-B960D



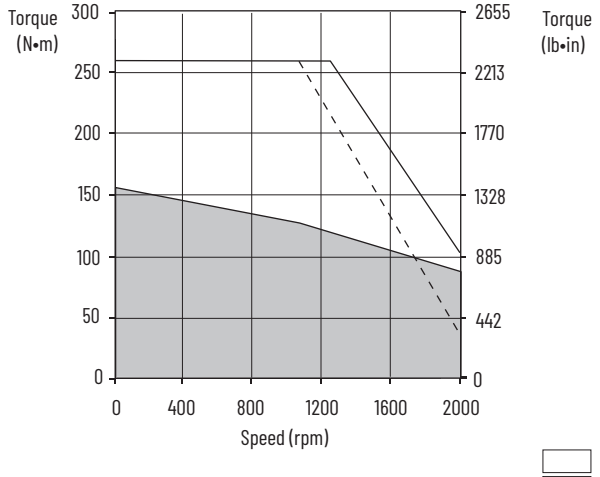
2198-S086-ERS*x* and MPL-B980B



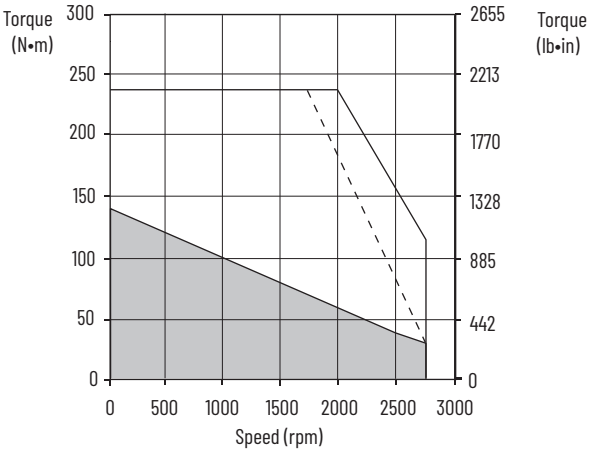
2198-S130-ERS*x* and MPL-B980C



2198-S130-ERS*x* and MPL-B980D



2198-S263-ERS*x* and MPL-B980E



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

Kinetix 5700 (200V-class) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) and ArmorKinetix modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPM motors 100...130 mm frame sizes.

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-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
MPM-A1302F	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
MPM-A1304F	2090-CPxM7DF-12AA*xx* (standard, non-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
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 16.
(2) Applies to Kinetix 5700 drives and MPM-A1*xxxx*-M/S motors with absolute high-resolution feedback.

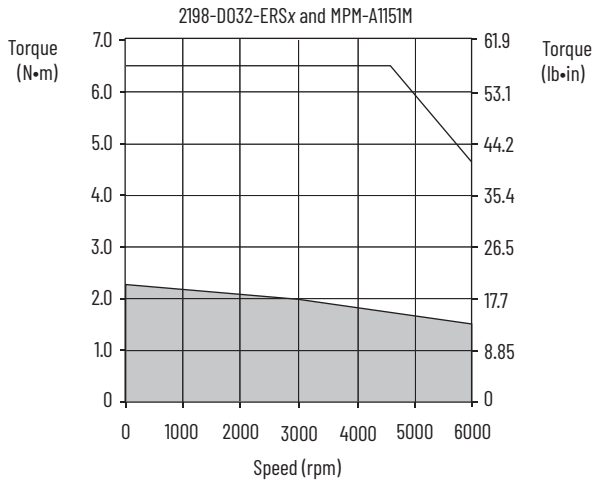
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

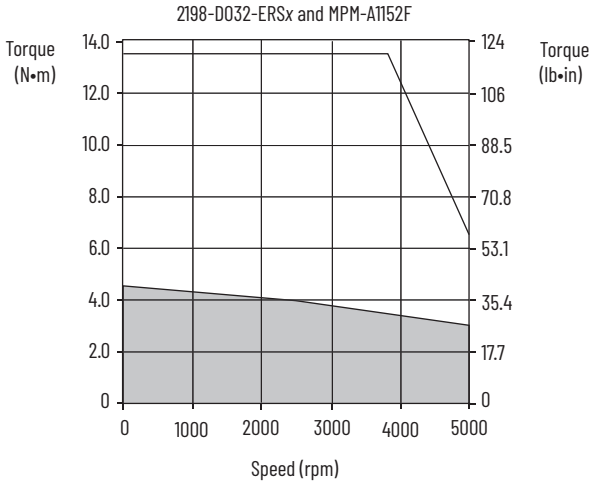
Kinetix MPM Motor Performance Specifications with Kinetix 5700 (200V-class) Drives

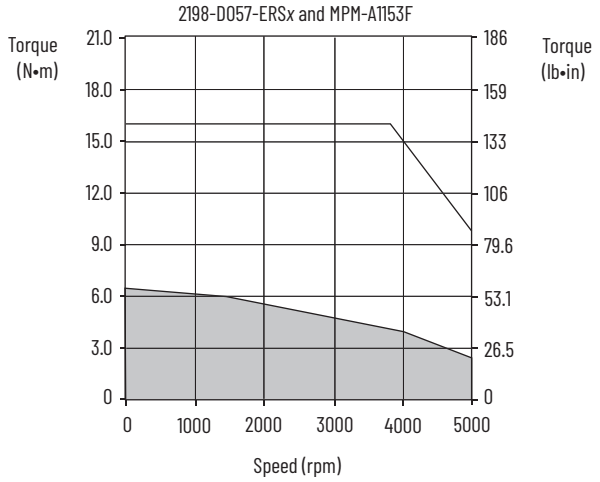
Rotary Motor Cat. No.	Base Speed rpm	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (240V AC input)
MPM-A1151M	4500	5000	6000	7.65	2.3 (20.3)	28.3	6.2 (54.9)	0.90 (1.2)	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 (1.9)	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 (1.9)	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 (2.2)	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 (3.0)	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 (3.4)	2198-D057-ERS*x*
MPM-A1652F	3000	3500	4000	33.54	13.5 (119)	103.2	36.0 (319)	4.03 (5.4)	2198-S086-ERS*x*
MPM-A1653F	3000	3000	4000	42.4	18.6 (165)	119.1	42.0 (372)	5.10 (6.8)	2198-S086-ERS*x*
MPM-A2152F	3000	2000	4000	58.4	27.0 (239)	121.6	54.1 (479)	5.20 (7.0)	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 (7.8)	2198-S086-ERS*x*
MPM-A2154C	1500	1750	2000	58.68	55.0 (487)	121.6	101 (894)	6.50 (8.7)	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 (9.4)	2198-S086-ERS*x*
						128.2	84.0 (743)		2198-S130-ERS*x*

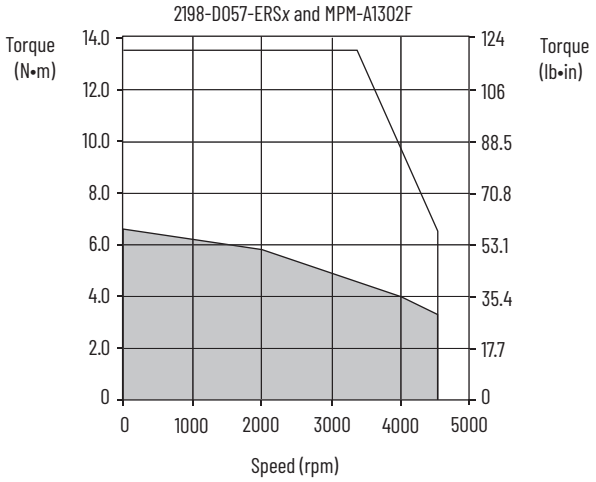
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

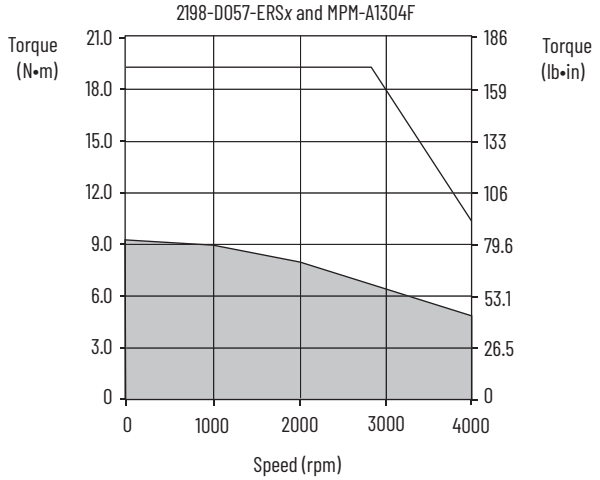
Kinetix 5700 (200V-class) Drives/Kinetix MPM Servo Motor Curves

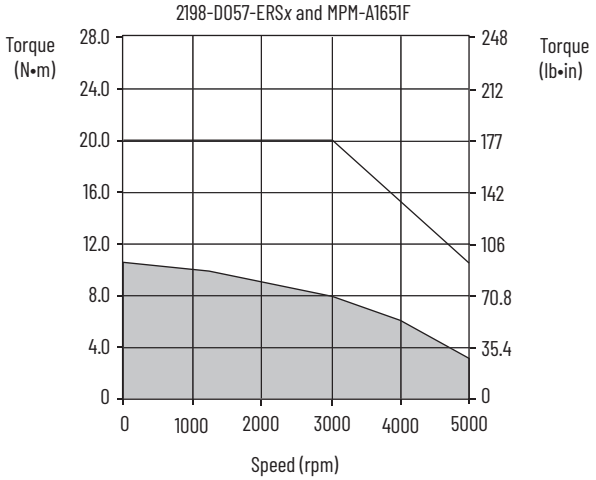






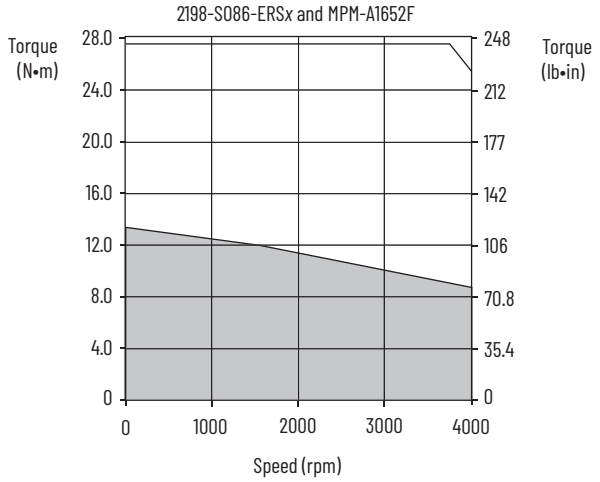


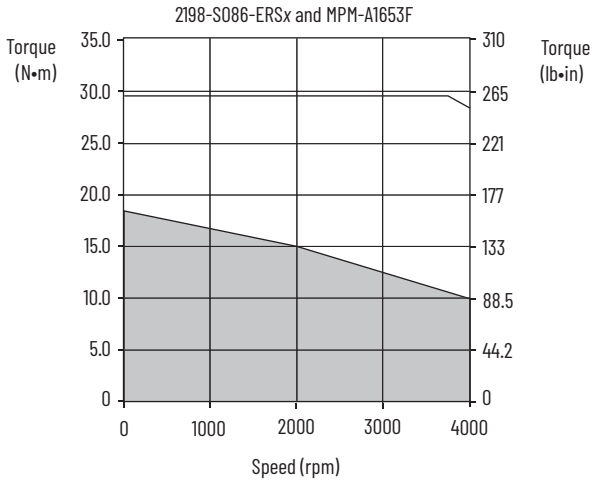


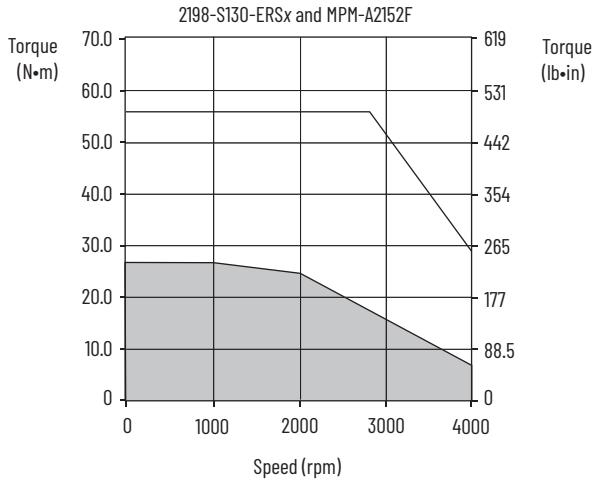


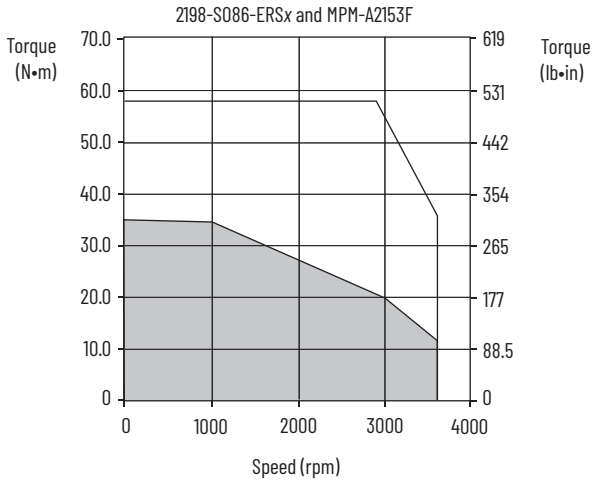
= Intermittent operating region
= Continuous operating region

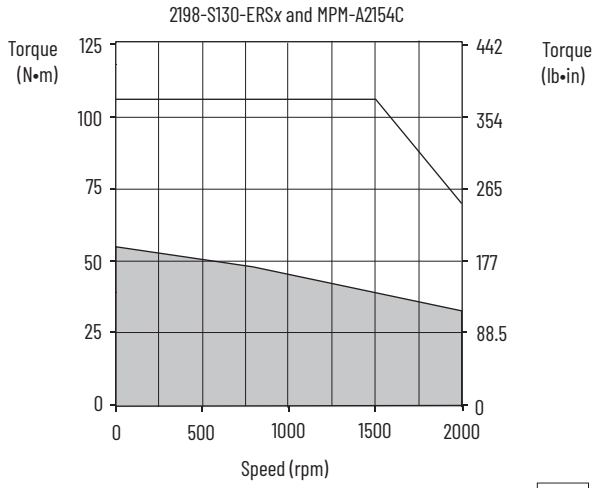
Kinetix 5700 (200V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

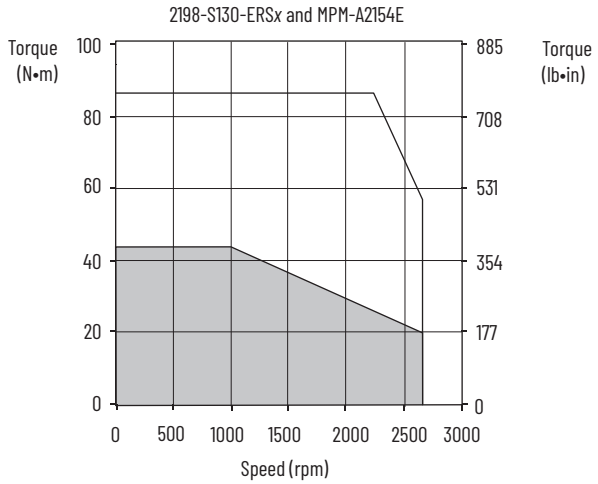












= Intermittent operating region

= Continuous operating region

Kinetix 5700 (400V-class) Drives with Kinetix MPM Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPM motors 100...130 mm frame sizes.

Kinetix MPM Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPM-B1151*x*, MPM-B1152*x*, MPM-B1153E, MPM-B1153F	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) (2) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
MPM-B1302F, MPM-B1302M, MPM-B1304C, MPM-B1304E		
MPM-B1651C, MPM-B1652C	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	
MPM-B1153T	2090-CP*x*M7DF-14AA*xx* (standard, non-flex) 2090-CP*x*M7DF-14AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
MPM-B1302T, MPM-B1304M		
MPM-B1651F, MPM-B1653C	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	
MPM-B1651M, MPM-B1652E, MPM-B1652F, MPM-B1653E	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	
MPM-B2152C, MPM-B2153B (3)		
MPM-B1653F	2090-CP*x*M7DF-08AA*xx* (standard, non-flex) 2090-CP*x*M7DF-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 16.
(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*-*x*J7**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*-*x*J7**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 Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

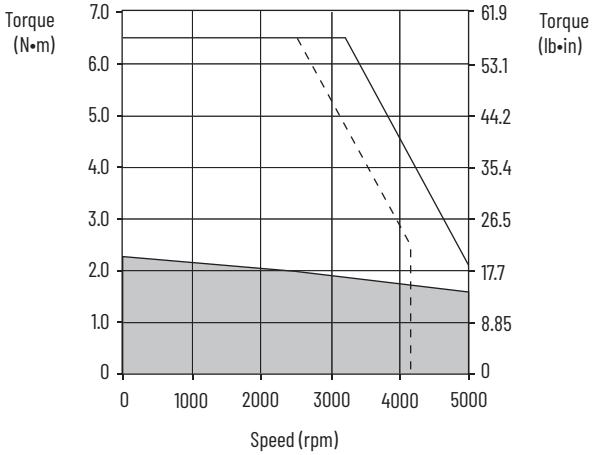
Kinetix MPM Motor Performance with Kinetix 5700 (400V-class) Drives

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 (Hp)	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 (1.0)	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 (1.2)	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 (1.6)	2198-D012-ERSx
MPM-B1152F	3000	4000	5200	6.17	5.0 (44.2)	17.6	11.7 (103)	1.40 (1.9)	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 (1.9)	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 (1.9)	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 (1.9)	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 (1.9)	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 (2.2)	2198-D020-ERSx
MPM-B1302M	4500	4000	6000	12.57	6.6 (58.4)	32.4	13.5 (119)	1.65 (2.2)	2198-D032-ERSx
MPM-B1302T	6000	4000	7000	16.83	6.7 (59.3)	43.4	13.5 (119)	1.65 (2.2)	2198-D032-ERSx
MPM-B1304C	1500	1870	2750	7.00	10.3 (91.1)	17.6	22.8 (202)	2.00 (2.6)	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 (2.9)	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 (2.9)	2198-D057-ERSx
MPM-B1651C	1500	3000	3500	10.21	11.4 (101)	28.2	22.7 (201)	2.50 (3.4)	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 (3.4)	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 (3.4)	2198-D057-ERSx
MPM-B1652C	1500	2500	2500	11.51	16.0 (142)	33.6	40.0 (354)	3.80 (5.1)	2198-D032-ERSx
MPM-B1652E	2250	3500	3500	20.94	21.1 (187)	60.5	48.0 (425)	4.30 (5.8)	2198-D057-ERSx
MPM-B1652F	3000	3500	4500	28.74	21.1 (187)	84.1	48.0 (425)	4.30 (5.8)	2198-D057-ERSx
MPM-B1653C	1500	2000	2500	20.05	26.7 (236)	59.2	67.8 (600)	4.60 (6.2)	2198-D057-ERSx
MPM-B1653E	2250	3000	3500	27.00	26.8 (237)	72.9	62.0 (549)	5.10 (6.8)	2198-D057-ERSx
MPM-B1653F	3000	3000	4000	34.94	31.0 (274)	94.3	56.1 (496)	5.10 (6.8)	2198-S086-ERSx
MPM-B2152C	1500	2000	2500	27.40	36.7 (325)	55.4	72.3 (640)	5.60 (7.5)	2198-D057-ERSx
MPM-B2152F	3000	2500	4500	43.54	34.1 (302)	98.0	72.2 (639)	5.90 (7.9)	2198-S086-ERSx
MPM-B2152M	4500	2500	5000	44.58	34.1 (302)	76.3	50.0 (442)	5.90 (7.9)	2198-S086-ERSx
MPM-B2153B	1250	1750	2000	24.06	48.0 (425)	60.0	101 (895)	6.80 (9.1)	2198-D057-ERSx
MPM-B2153E	2250	2000	3000	39.63	47.9 (424)	98.6	101 (895)	7.20 (9.7)	2198-S086-ERSx
MPM-B2153F	3000	2000	3800	43.86	45.6 (403)	98.4	98.9 (875)	7.20 (9.7)	2198-S086-ERSx
MPM-B2154B	1250	1750	2000	35.46	62.7 (555)	98.0	154 (1363)	6.90 (9.4)	2198-S086-ERSx
MPM-B2154E	2250	2000	3000	43.68	55.9 (495)	98.3	112 (991)	7.50 (10.0)	2198-S086-ERSx
MPM-B2154F	3000	2000	3300	44.40	56.2 (497)	83.6	87.9 (778)	7.50 (10.0)	2198-S086-ERSx

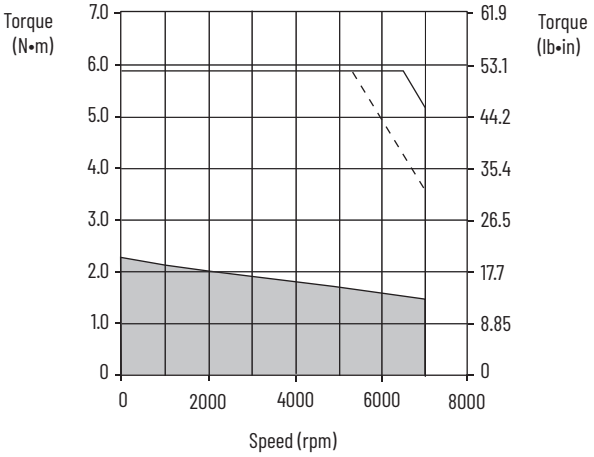
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

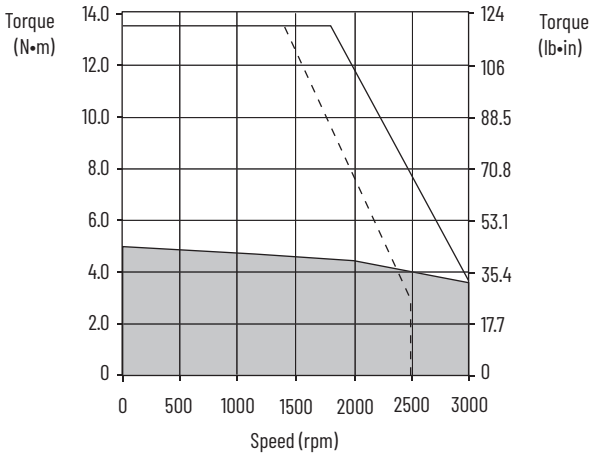
2198-D012-ERS*x* and MPM-B1151F



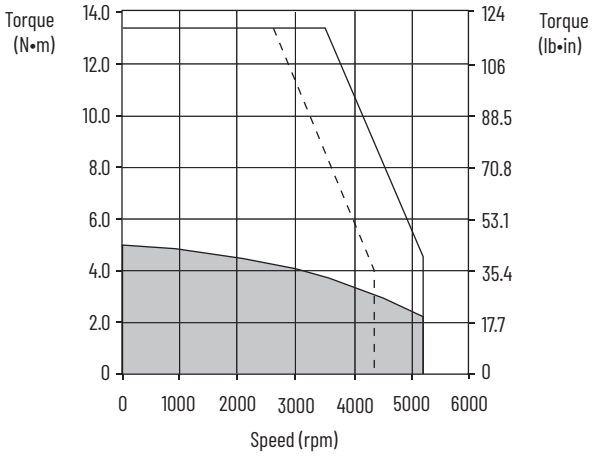
2198-D020-ERS*x* and MPM-B1151T



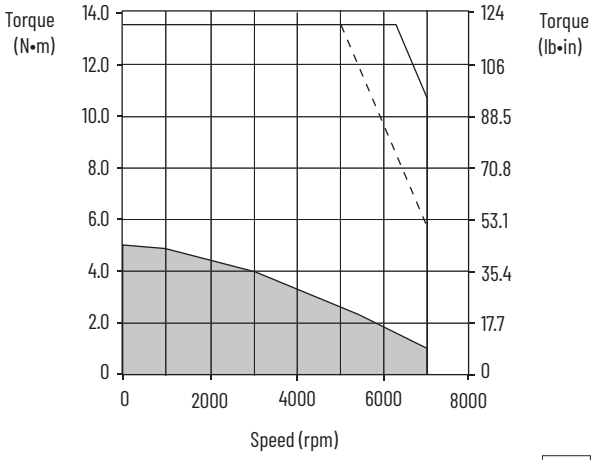
2198-D012-ERS*x* and MPM-B1152C



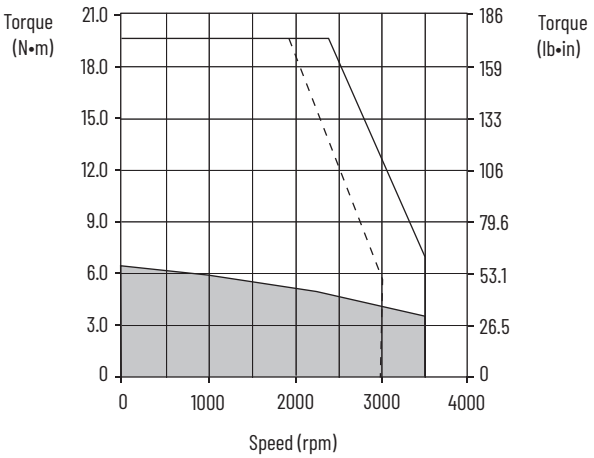
2198-D020-ERS*x* and MPM-B1152F



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



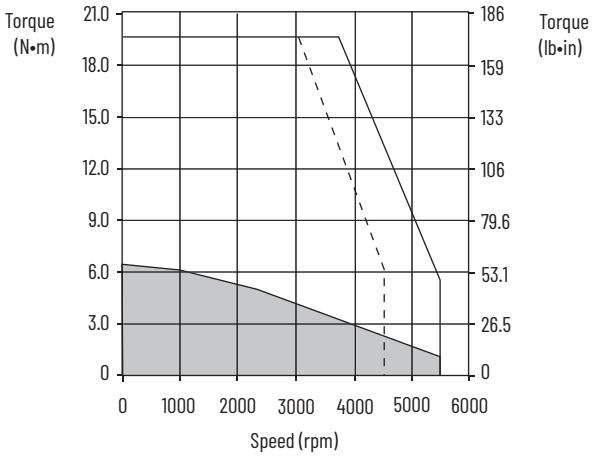
2198-D020-ERS*x* and MPM-B1153E



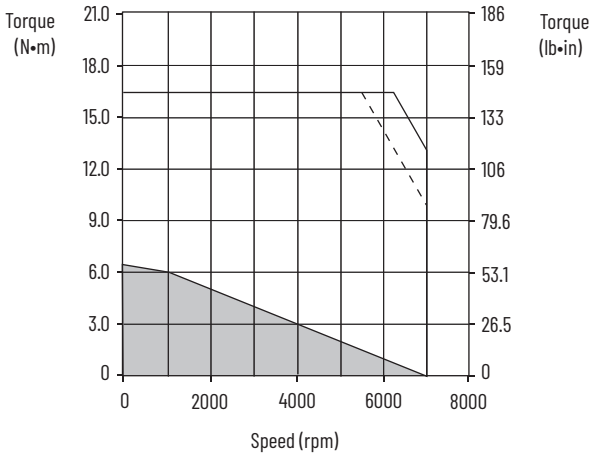
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

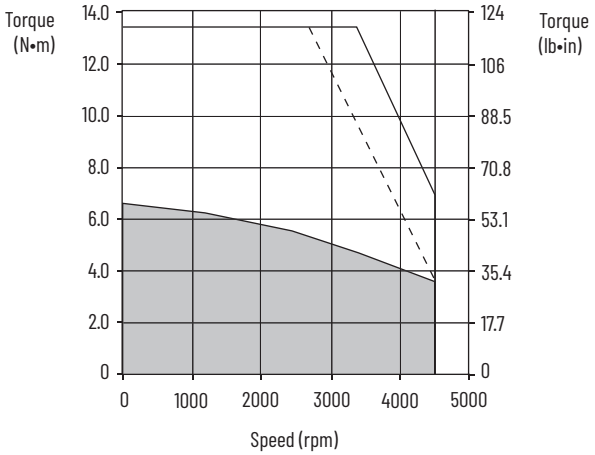
2198-D032-ERS*x* and MPM-B1153F



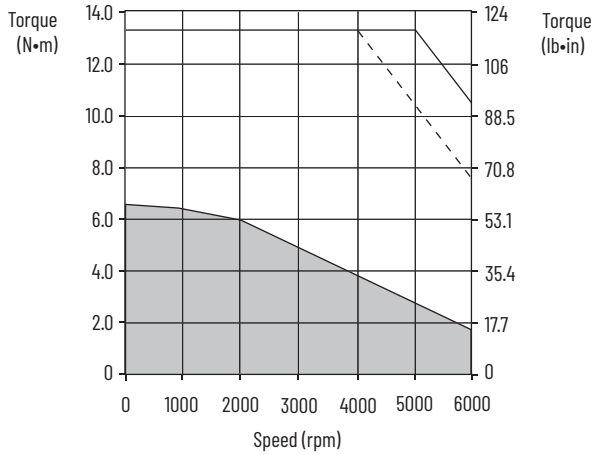
2198-D057-ERS*x* and MPM-B1153T



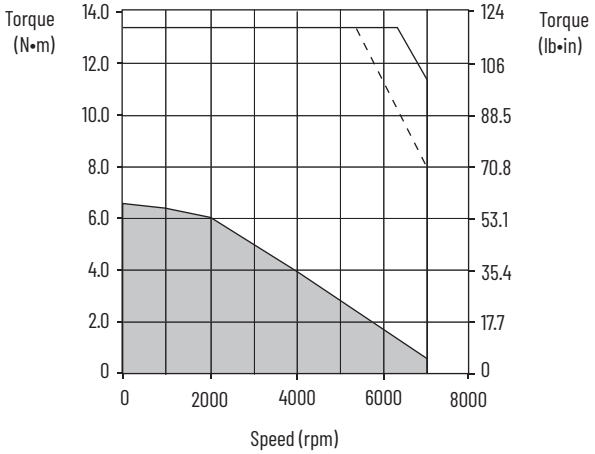
2198-D020-ERS*x* and MPM-B1302F



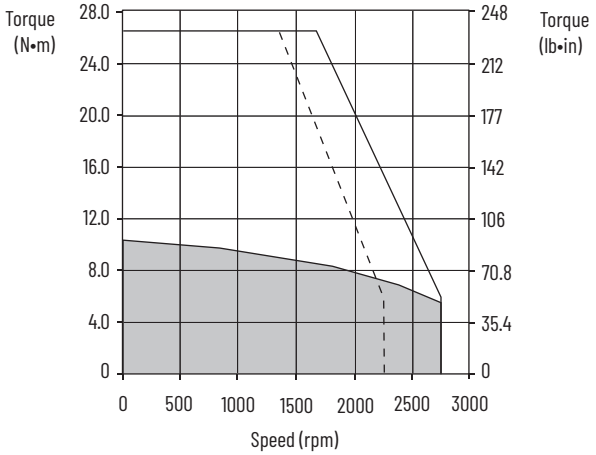
2198-D032-ERS*x* and MPM-B1302M



2198-D032-ERS*x* and MPM-B1302T



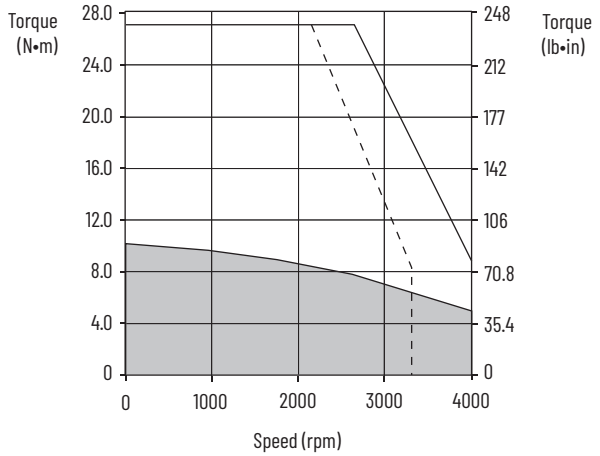
2198-D020-ERS*x* and MPM-B1304C



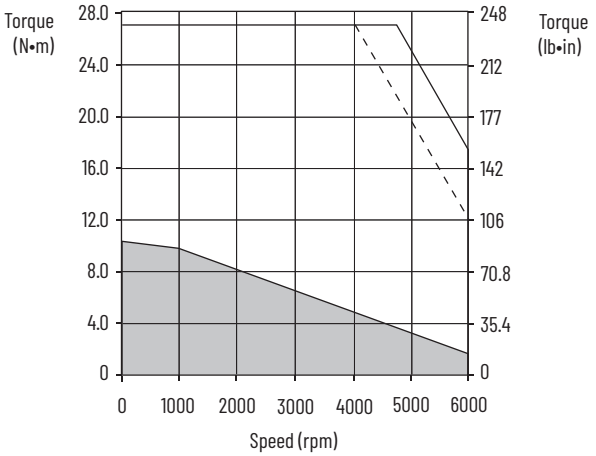
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

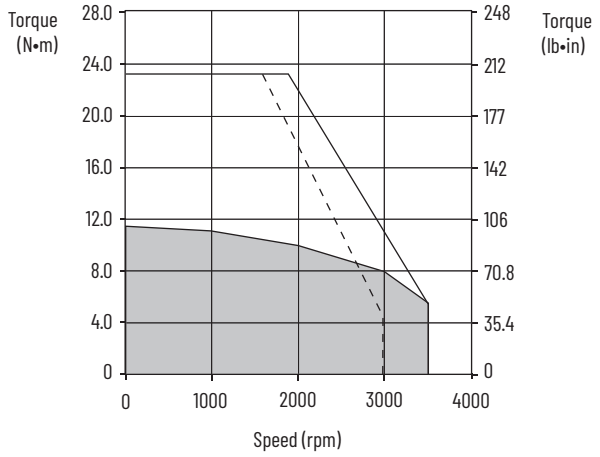
2198-D032-ERSx and MPM-B1304E



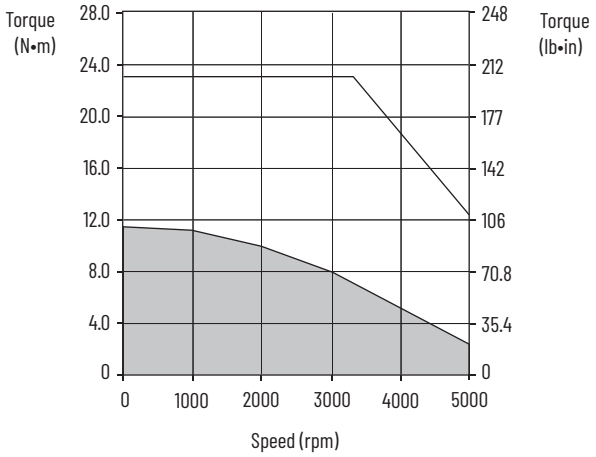
2198-D057-ERSx and MPM-B1304M



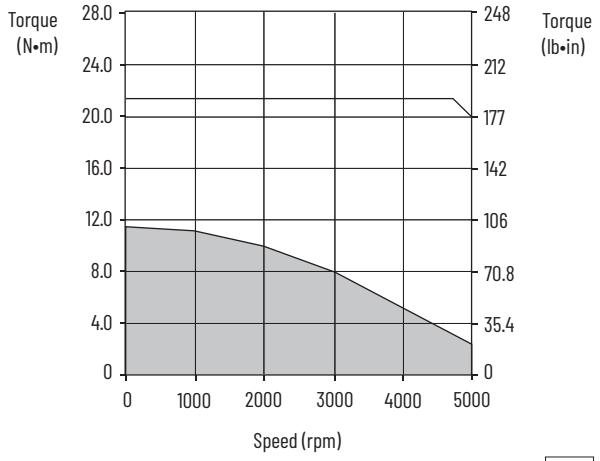
2198-D032-ERSx and MPM-B1651C



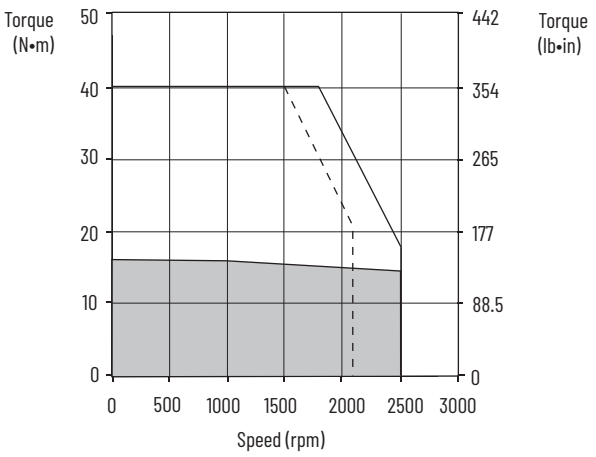
2198-D057-ERSx and MPM-B1651F



2198-D057-ERSx and MPM-B1651M



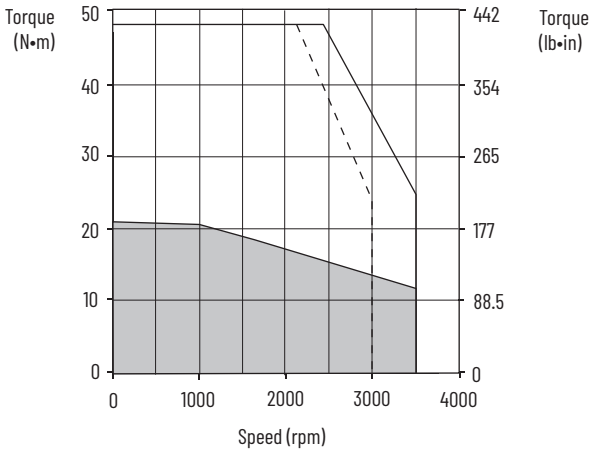
2198-D032-ERSx and MPM-B1652C



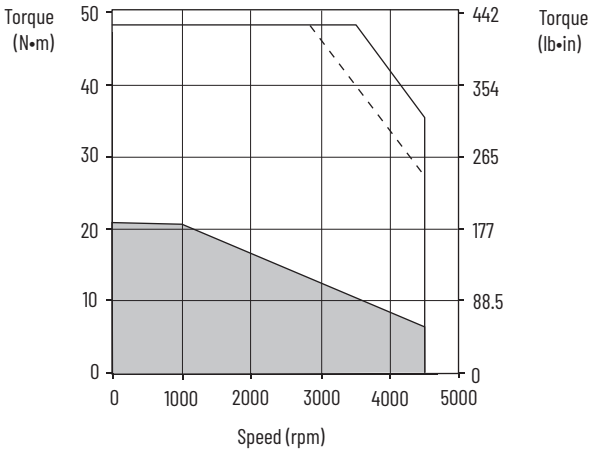
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

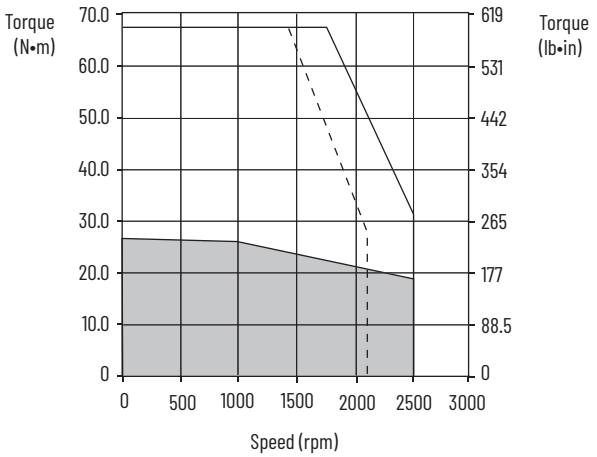
2198-D057-ERS*x* and MPM-B1652E



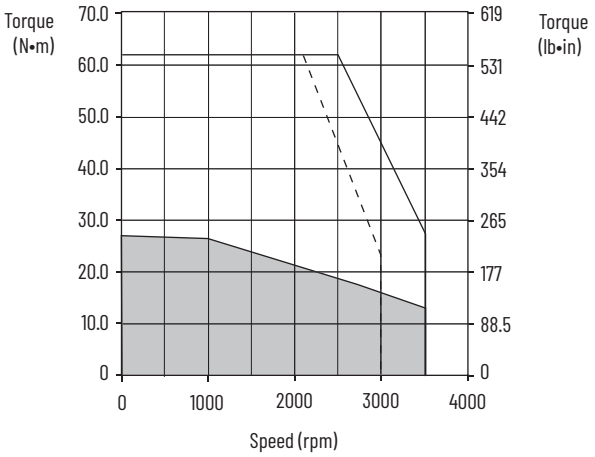
2198-D057-ERS*x* and MPM-B1652F



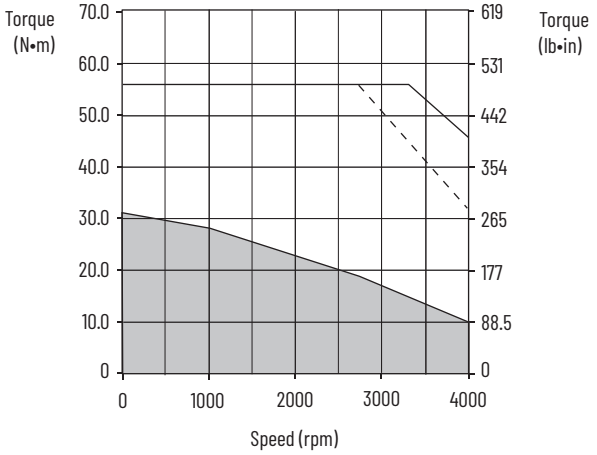
2198-D057-ERS*x* and MPM-B1653C



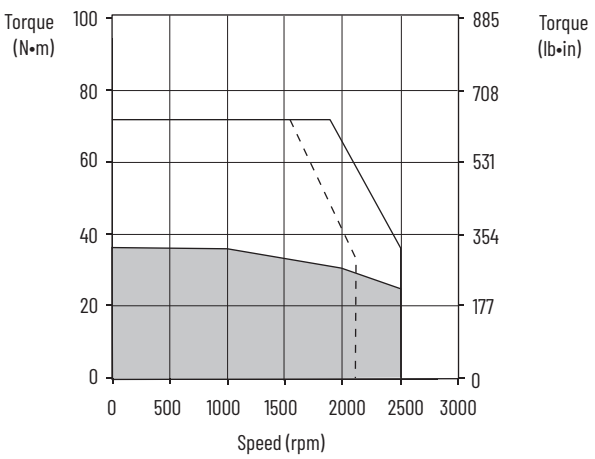
2198-D057-ERS*x* and MPM-B1653E



2198-S086-ERS*x* and MPM-B1653F

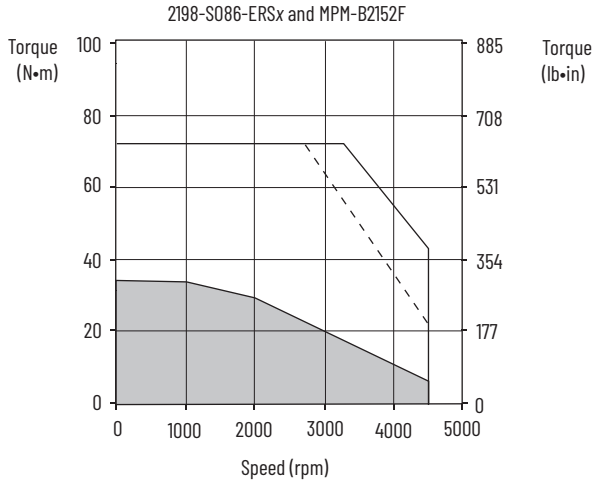


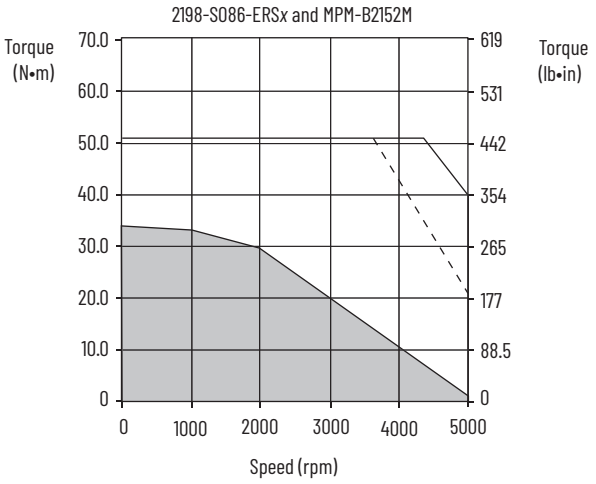
2198-D057-ERS*x* and MPM-B2152C

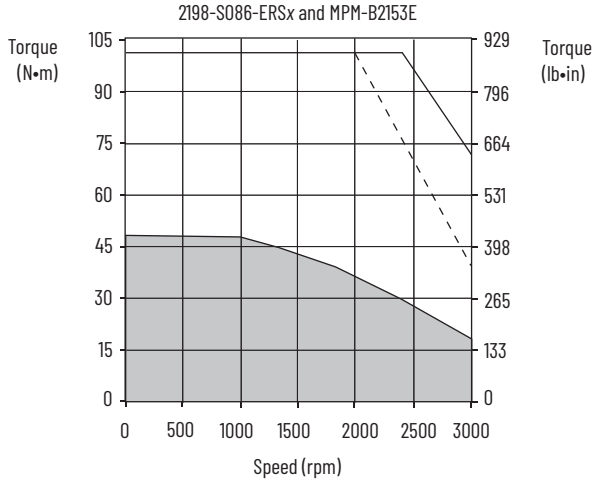


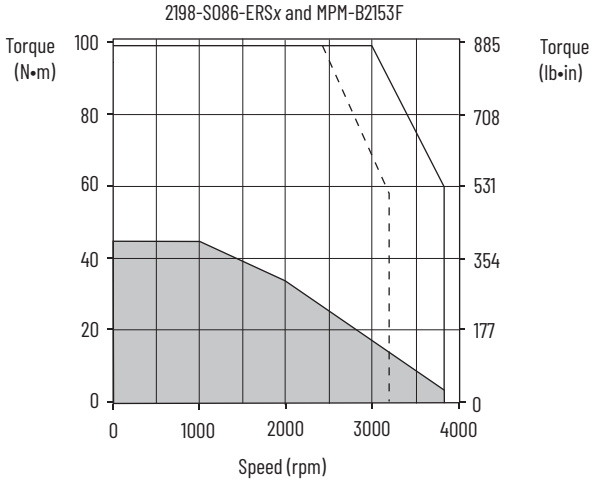
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

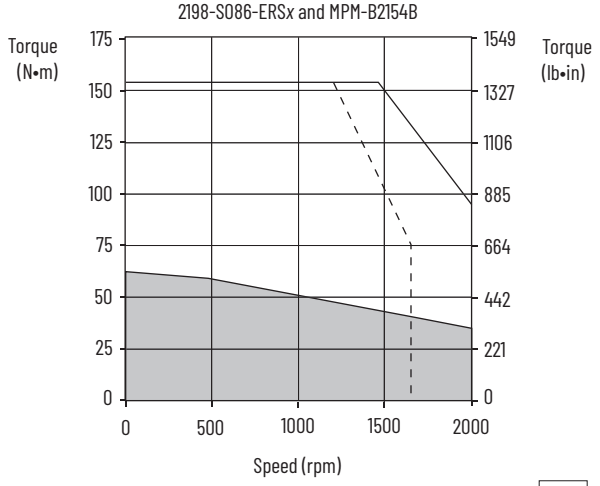
Kinetix 5700 (400V-class) Drives/Kinetix MPM Servo Motor Curves (continued)

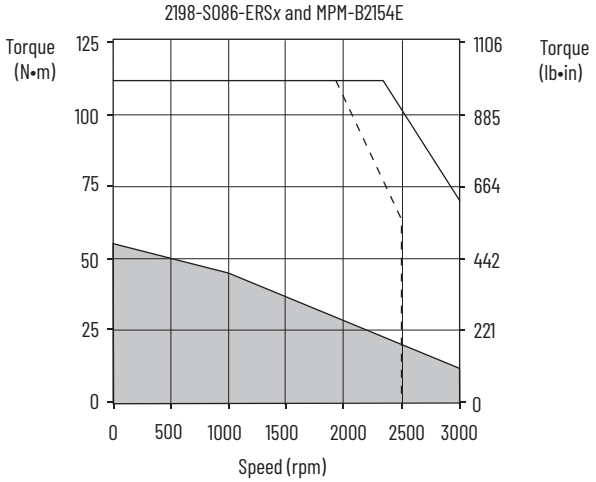






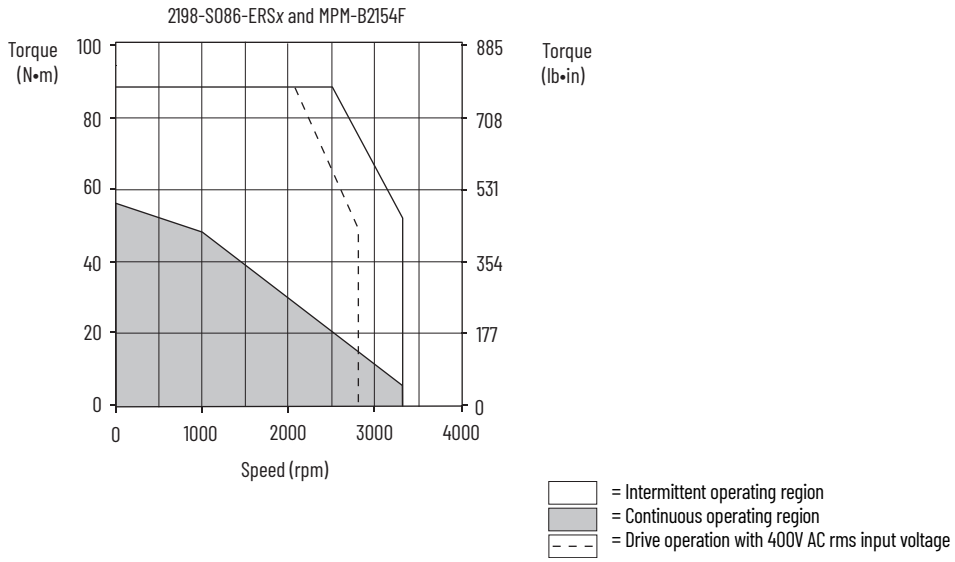






= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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



Kinetix 5700 (200V-class) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) and ArmorKinetix modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPF motors 100...130 mm frame sizes.

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-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
MPF-A430H		
MPF-A430P MPF-A4540F, MPF-A4530K	2090-CPxM7DF-14AA*xx* (standard, non-flex) 2090-CPxM7DF-14AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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

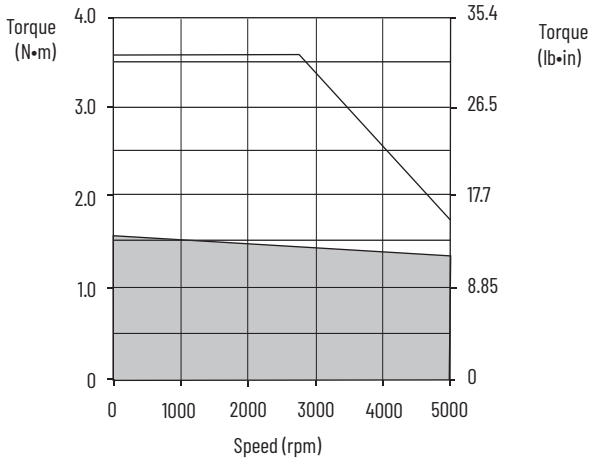
Kinetix MPF Motor Performance Specifications with Kinetix 5700 (200V-class) Drives

Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (240V AC input)**
MPF-A310P	4750	5000	4.85	1.58 (14.0)	14.0	3.61 (31.9)	0.73 (1.0)	2198-D012-ERS*x*
MPF-A320H	3350	3500	6.10	3.05 (27.0)	17.7	7.33 (64.9)	0.96 (1.3)	2198-D012-ERS*x*
					19.3	7.91 (70.0)		2198-D020-ERS*x*
MPF-A320P	4750	5000	9.00	3.05 (27.0)	28.3	7.59 (67.2)	1.27 (1.7)	2198-D020-ERS*x*
					29.5	7.91 (70.0)		2198-D032-ERS*x*
MPF-A330P	5000	5000	12.0	4.18 (37.0)	38.0	11.10 (98.2)	1.57 (2.1)	2198-D032-ERS*x*
MPF-A430H	3500	3500	12.2	6.21 (55.0)	45.0	19.80 (175)	1.79 (2.4)	2198-D032-ERS*x*
MPF-A430P	5000	5000	16.80	5.99 (53.0)	45.9	14.4 (127)	1.86 (2.5)	2198-D032-ERS*x*
					67.0	19.80 (175)		2198-D057-ERS*x*
MPF-A4530K	4000	4000	19.50	8.13 (71.9)	62.0	20.30 (179)	2.31 (3.1)	2198-D057-ERS*x*
MPF-A4540F	3000	3000	18.40	10.20 (90.3)	45.9	22.09 (195)	2.54 (3.4)	2198-D032-ERS*x*
					57.4	27.10 (239)		2198-D057-ERS*x*
MPF-A540K	4000	4000	41.50	19.40 (172)	120.0	48.60 (430)	4.10 (5.5)	2198-S086-ERS*x*

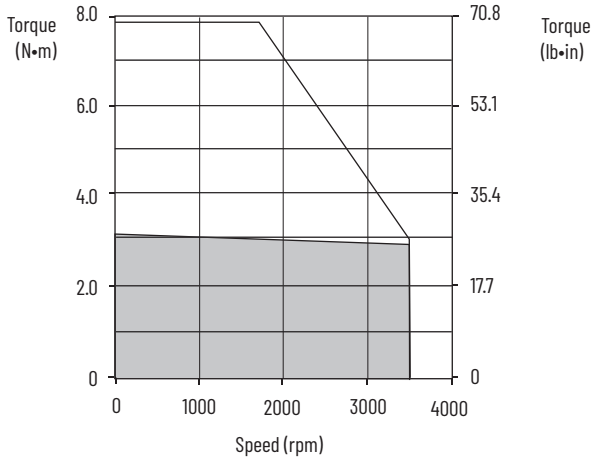
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

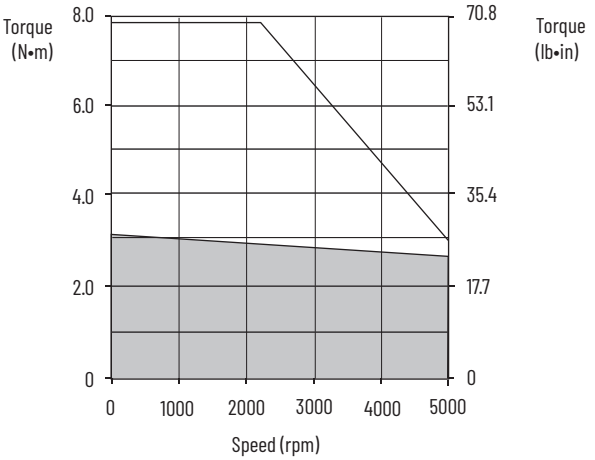
2198-D012-ERS*x* and MPF-A310P



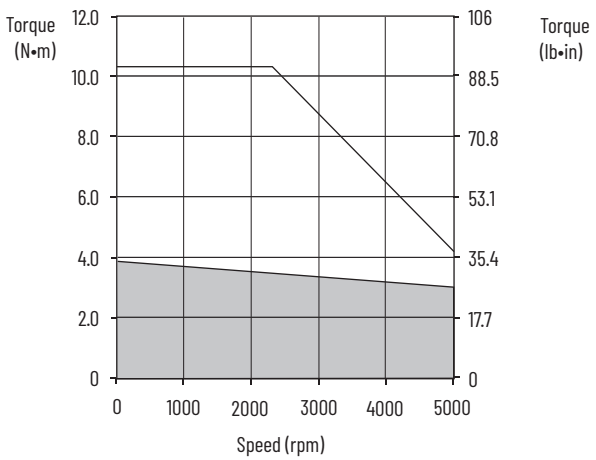
2198-D020-ERS*x* and MPF-A320H



2198-D032-ERS*x* and MPF-A320P



2198-D032-ERS*x* and MPF-A330P

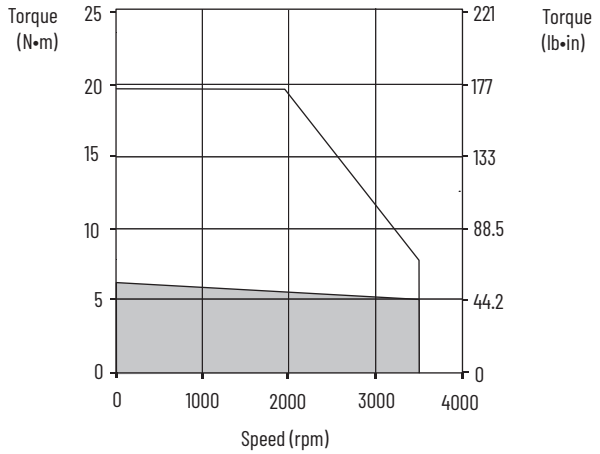


= Intermittent operating region

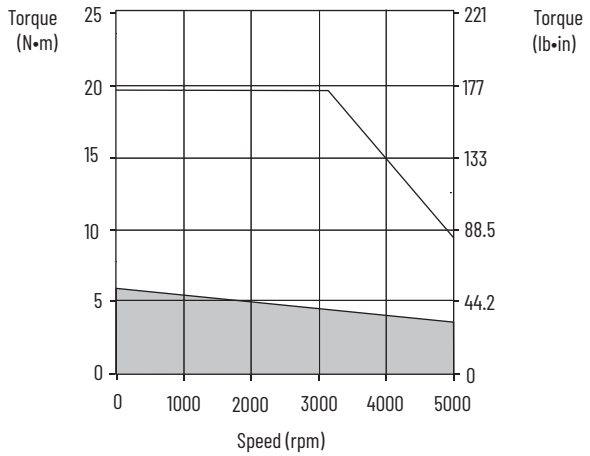
= Continuous operating region

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

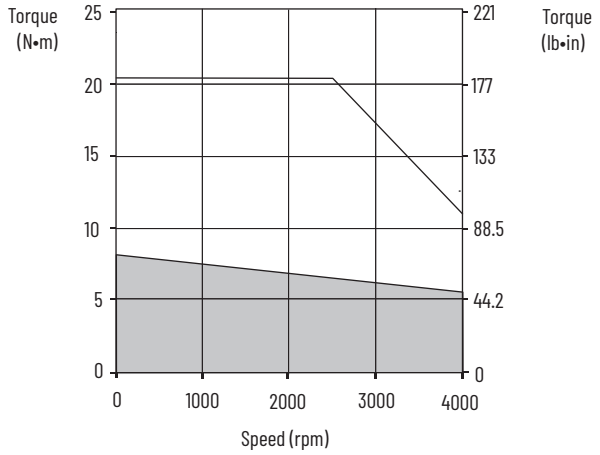
2198-D032-ERSx and MPF-A430H



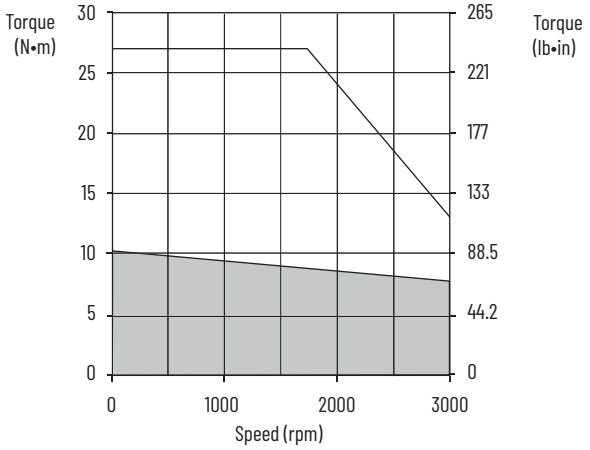
2198-D057-ERSx and MPF-A430P



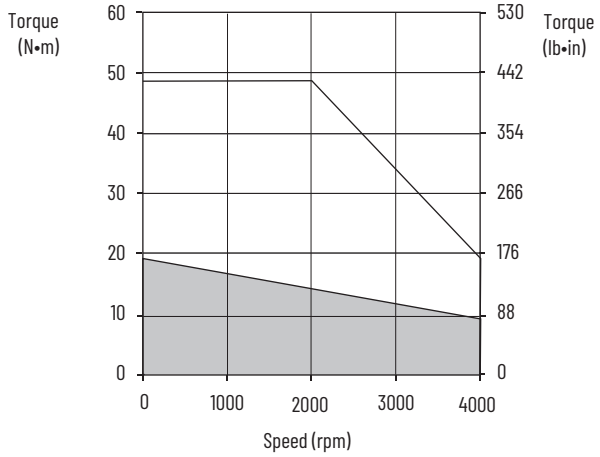
2198-D057-ERSx and MPF-A4530K



2198-D057-ERSx and MPF-A4540F



2198-S086-ERSx and MPF-A540K



= Intermittent operating region

= Continuous operating region

Kinetix 5700 (400V-class) Drives with Kinetix MPF Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) and ArmorKinetix DSD modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPF motors 100...130 mm frame sizes.

Kinetix MPF Motor Cable Combinations

Rotary Motor (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MPF-B310P, MPF-B320P, MPF-B330P	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
MPF-B430P		
MPF-B4530K, MPF-B4540F		
MPF-B540K	2090-CP*x*M7DF-10AA*xx* (standard, non-flex) 2090-CP*x*M7DF-10AF*xx* (continuous-flex)	2090-CFBM7S7-CDAF*xx* (ArmorKinetix)

(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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

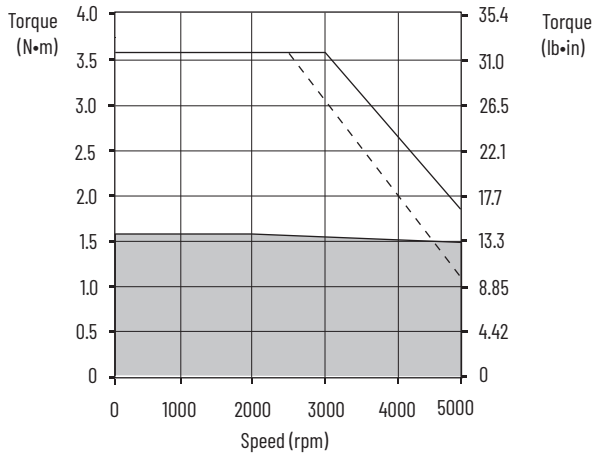
Kinetix MPF Motor Performance Specifications with Kinetix 5700 (400V-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
MPF-B310P	5000	5000	2.40	1.60 (14)	7.10	3.6 (32)	0.77 (1.0)	2198-D006-ERS*x*
MPF-B320P	5000	5000	4.50	3.10 (27)	14.0	7.8 (69)	1.49 (2.0)	2198-D012-ERS*x*
MPF-B330P	5000	5000	6.10	4.18 (37)	17.6	10.4 (92)	1.57 (2.1)	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)	2.01 (2.7)	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)	2.38 (3.2)	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)	2.54 (3.4)	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)	4.10 (5.5)	2198-D057-ERS*x*

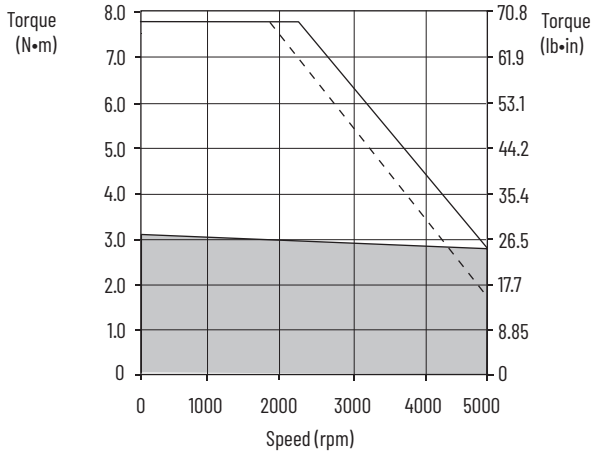
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

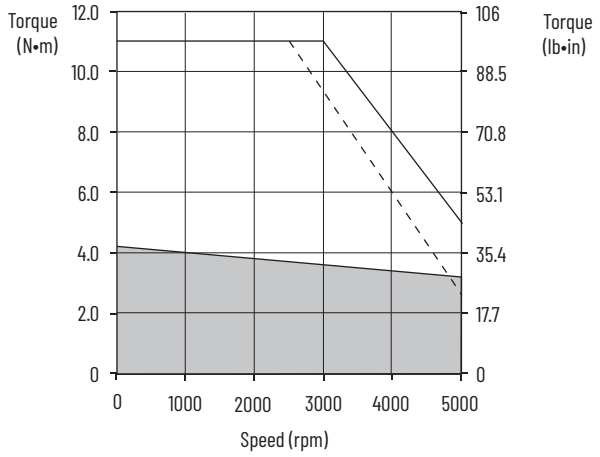
2198-D006-ERS*x* and MPF-B310P



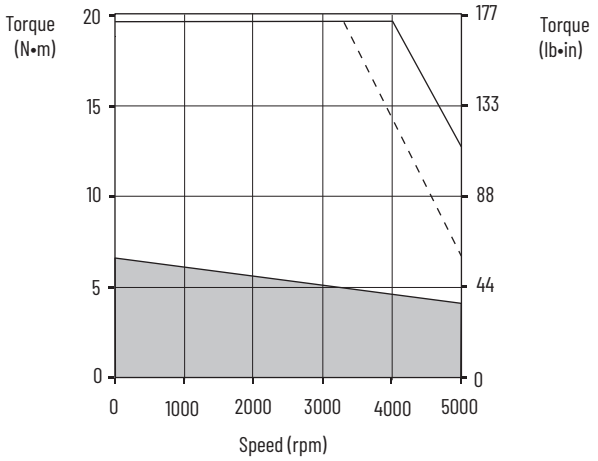
2198-D012-ERS*x* and MPF-B320P



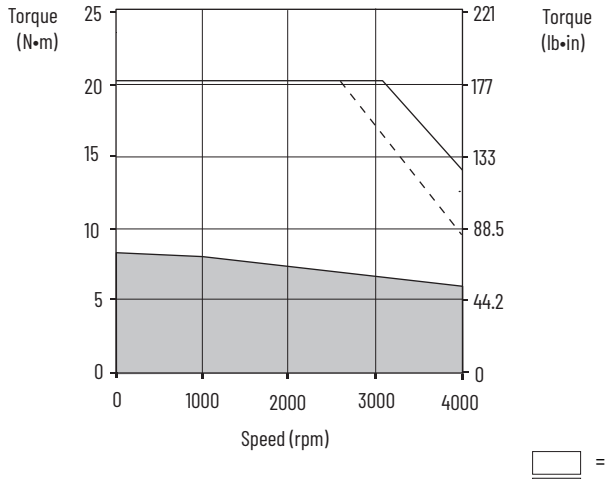
2198-D020-ERS*x* and MPF-B330P



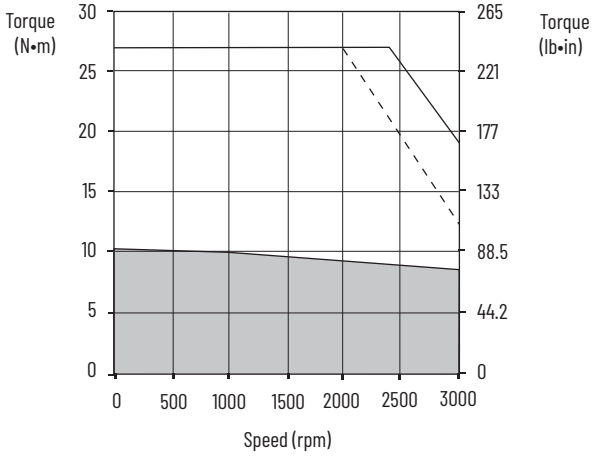
2198-D032-ERS*x* and MPF-B430P



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

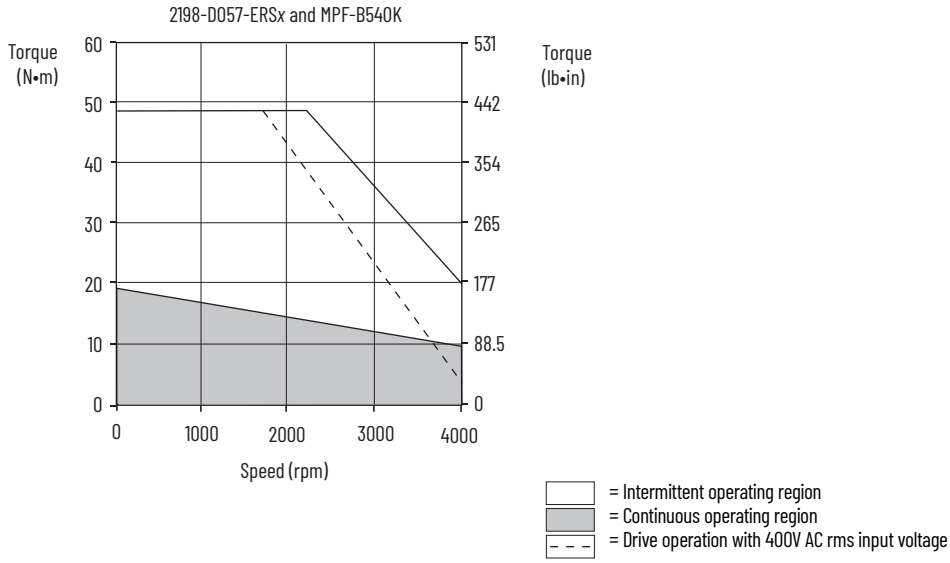


2198-D032-ERS*x* and MPF-B4540F



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

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



Kinetix 5700 (200V-class) Drives with Kinetix MPS Motors

This section provides system combination information for the Kinetix 5700 drives (with 240V, nominal input) and ArmorKinetix modules 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.

ArmorKinetix DSD modules are compatible with Kinetix MPS motors 100...130 mm frame sizes.

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-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
MPS-A4540F		

(1) Use the 2198-H2DCK (series B or later) Hiperface-to-DSL feedback converter kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 16.

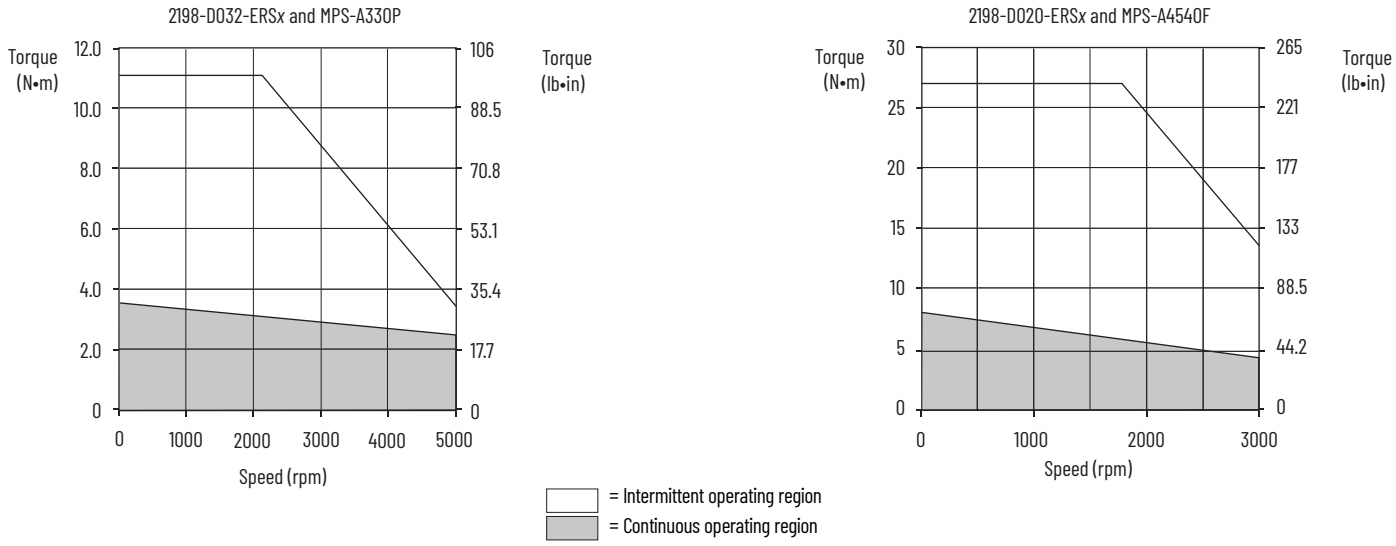
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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-class) Drives

Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives (240V AC input)
MPS-A330P	5000	5000	9.80	3.60 (32)	28.3	8.79 (77.8)	1.27 (1.7)	2198-D020-ERS*x*
					38.0	11.10 (98.2)		2198-D032-ERS*x*
MPS-A4540F	3000	3000	14.4	8.1 (72)	45.9	22.84 (202)	1.42 (1.9)	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-class) Drives/Kinetix MPS Servo Motor Curves



Kinetix 5700 (400V-class) Drives with Kinetix MPS Servo Motors

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

ArmorKinetix DSD modules are compatible with Kinetix MPL motors 100...130 mm frame sizes.

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-CSBM1P7-14AFxx (ArmorKinetix)	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)	2090-CFBM7S7-CDAF*xx* (ArmorKinetix)

(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 16.

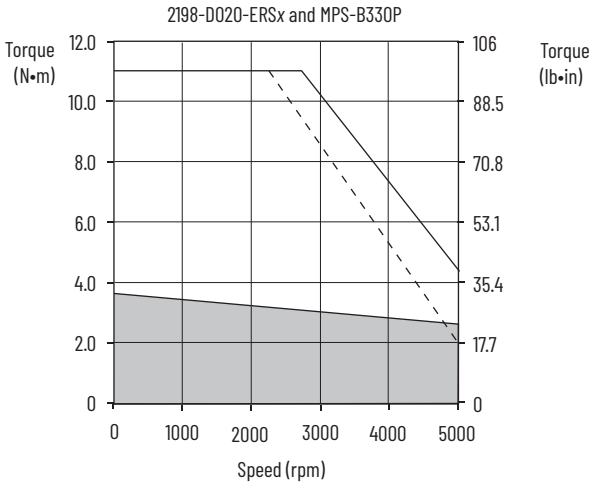
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

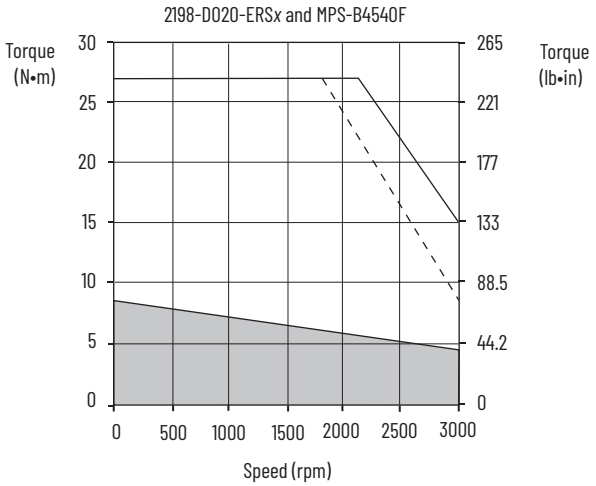
Kinetix MPS Motor Performance Specifications with Kinetix 5700 (400V-class) Drives

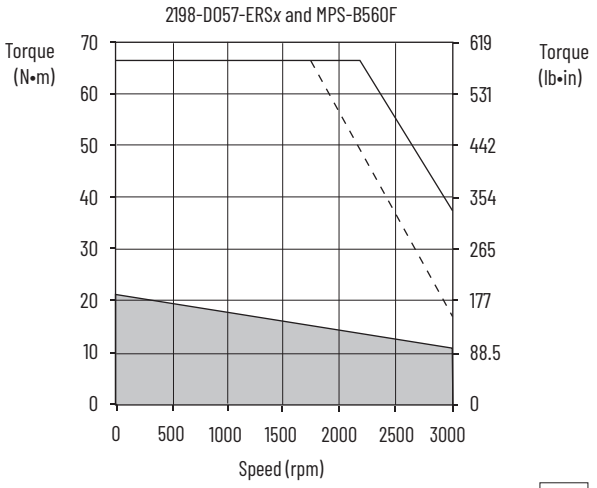
Rotary Motor Cat. No.	**Rated Speed** rpm	**Maximum Speed** rpm	**System Continuous Stall Current** A 0-pk	**System Continuous Stall Torque** N•m (lb•in)	**System Peak Stall Current** A 0-pk	**System Peak Stall Torque** N•m (lb•in)	**Motor Rated Output** kW (Hp)	**Kinetix 5700 Drives (480V AC input)**
MPS-B330P	5000	5000	4.9	3.60 (32)	17.6	10.5 (92.9)	1.27 (1.7)	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)	1.42 (1.9)	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)	3.50 (4.7)	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-class) Drives/Kinetix MPS Servo Motor Curves







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

Kinetix 5700 (400V-class) 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 with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 16.

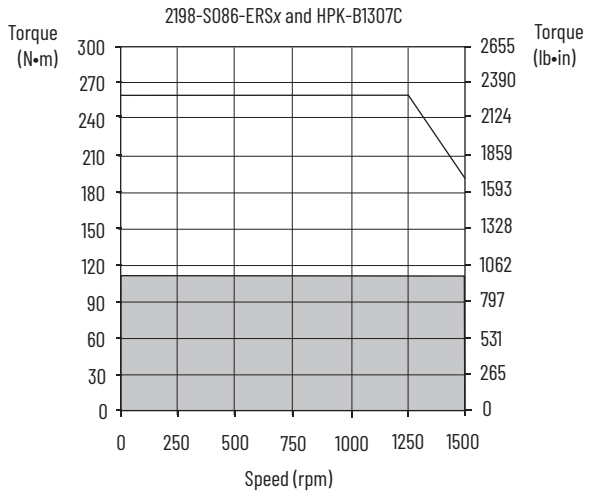
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

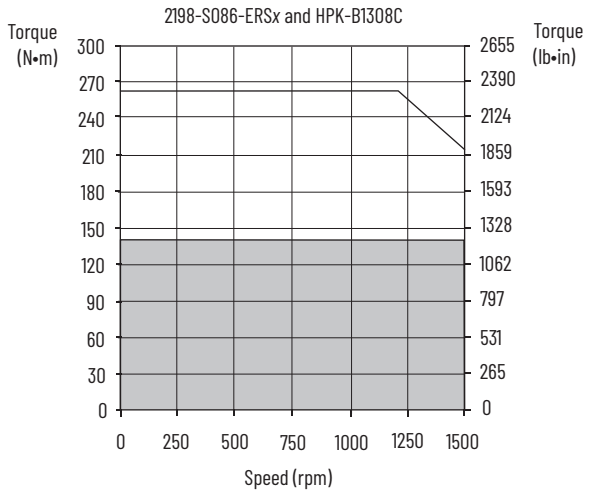
Kinetix HPK (460V) Motor Performance with Kinetix 5700 (400V-class) Drives

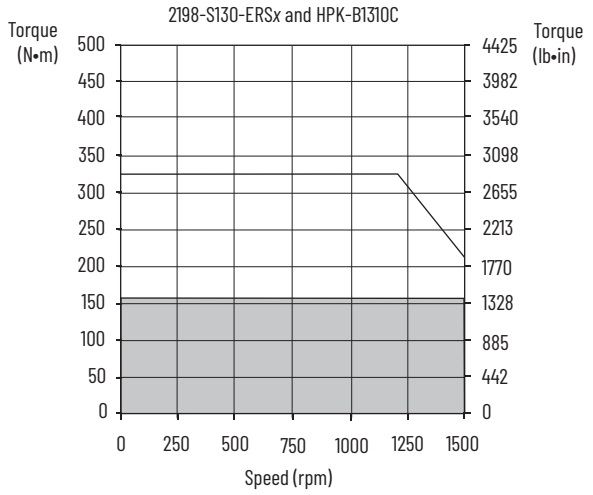
Rotary Motor Cat. No.	Rated Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 (480V AC input)
HPK-B1307C	1500	3000	48.2	112 (991)	113.0	260 (2301)	17.08 (22.9)	2198-S086-ERS*x*
HPK-B1308C			59.6	141 (1248)	119.3	262 (2319)	21.55 (28.9)	2198-S086-ERS*x*
HPK-B1310C			64.9	155 (1372)	144.0	325 (2876)	23.79 (31.9)	2198-S130-ERS*x*
HPK-B1613C			109.8	271 (2398)	217.0	542 (4797)	41.68 (55.9)	2198-S160-ERS*x*
HPK-B1307E	3000	5000	81.0	96.0 (849)	146.6	165 (1460)	29.75 (39.9)	2198-S130-ERS*x*
HPK-B1308E			91.4	115 (1018)	190.3	230 (2036)	35.64 (47.8)	2198-S160-ERS*x*
HPK-B1609E			120.2	150 (1327)	217.0	270 (2390)	46.46 (62.3)	2198-S160-ERS*x*
HPK-B1611E	3000	5000	149.0	183 (1619)	338.4	400 (3540)	56.97 (76.4)	2198-S263-ERS*x*
HPK-B1815C	1500	3000	153.7	360 (3186)	402.0	850 (7523)	55.85 (74.9)	2198-S312-ERS*x*
HPK-B1613E	3000	5000	191.0	237 (2097)	440.0	520 (4602)	73.68 (98.8)	2198-S312-ERS*x*
HPK-B2010C	1500	3000	196.4	482 (4266)	440.0	970 (8585)	75.94 (100.5)	2198-S312-ERS*x*
HPK-B2010E	3000	5000	254.0	295 (2611)	440.0	500 (4425)	92.02 (123.4)	2198-S312-ERS*x*
HPK-B2212C	1500	3000	254.0	607 (5372)	440.0	1105 (9780)	94.03 (126.1)	2198-S312-ERS*x*

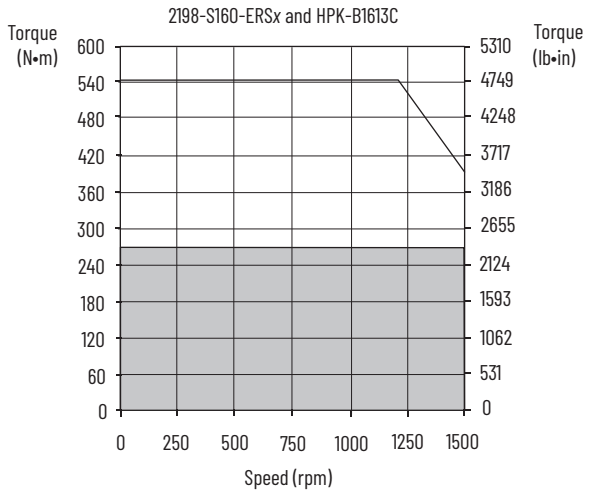
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

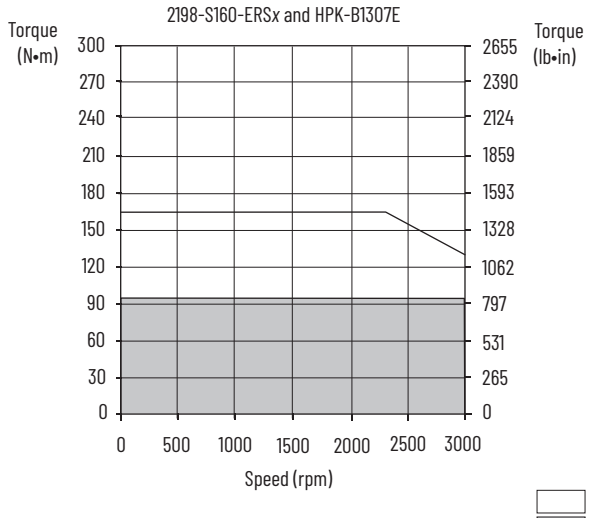
Kinetix 5700 (400V-class) Drives/Kinetix HPK (460V) Motor Curves

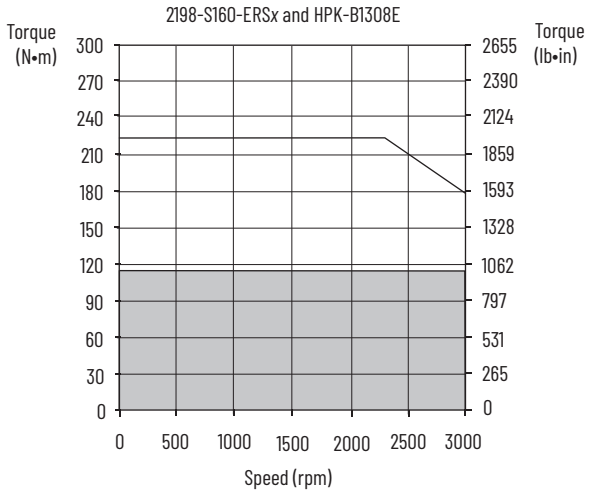






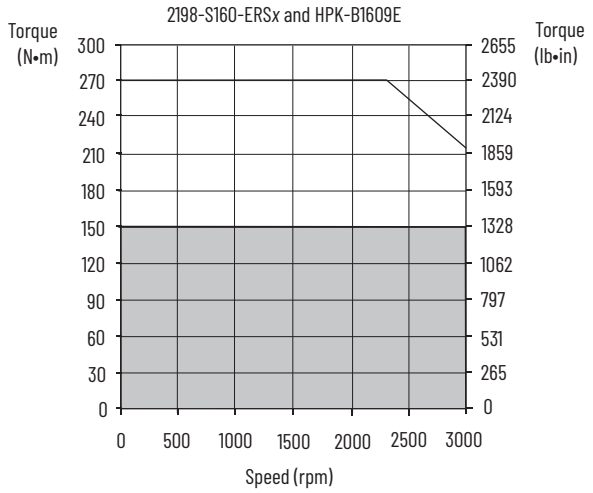


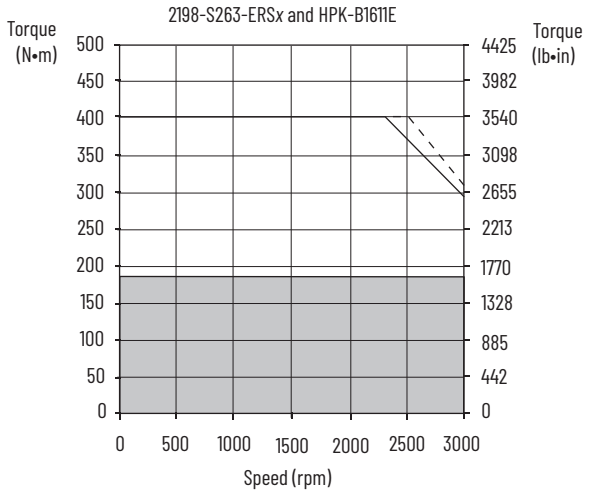


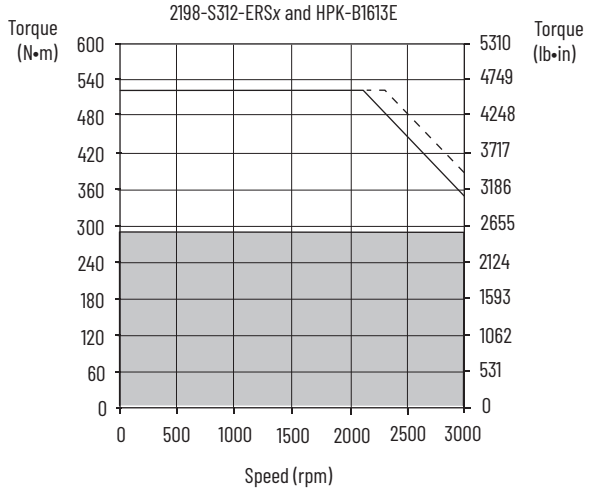


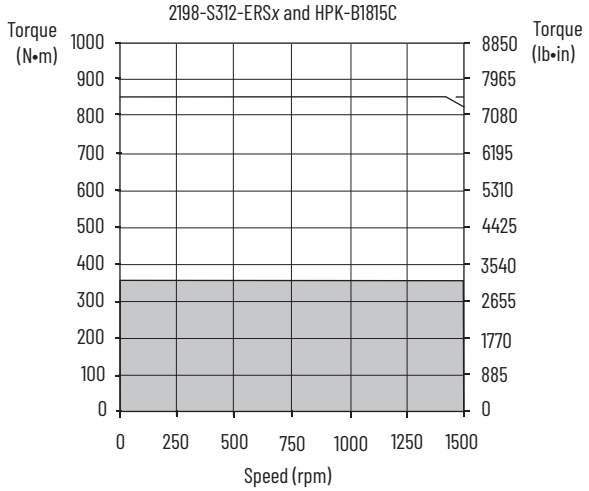
= Intermittent operating region
= Continuous operating region

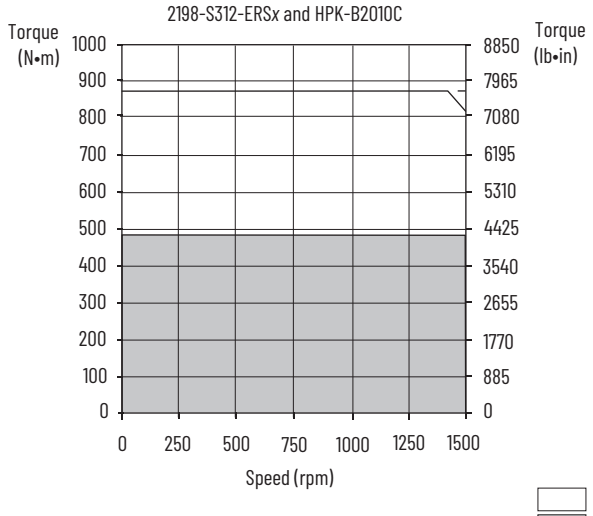
Kinetix 5700 (400V-class) Drives/Kinetix HPK (460V) Motor Curves (continued)

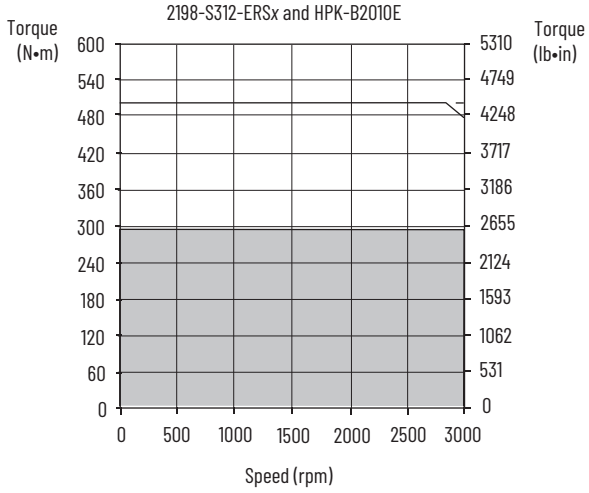






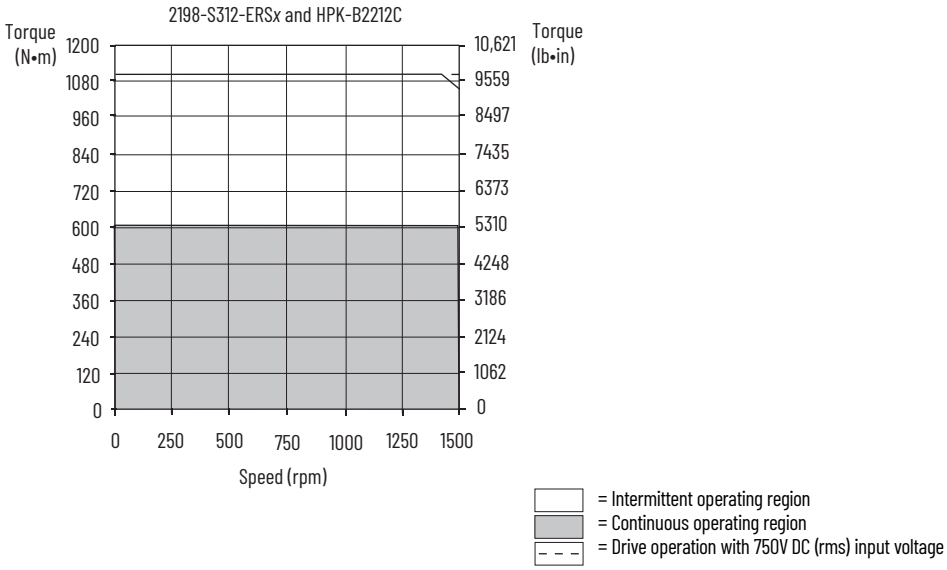






= Intermittent operating region
= Continuous operating region
= Drive operation with 750V DC (rms) input voltage

Kinetix 5700 (400V-class) 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 16.

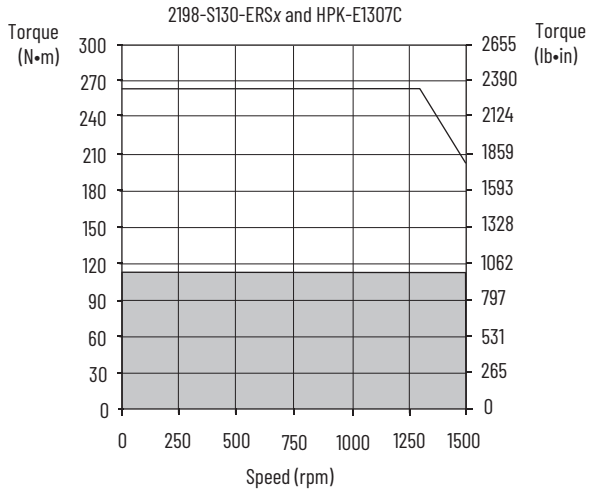
For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for more information.
Cable length *xx* is in meters. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for standard cable lengths.

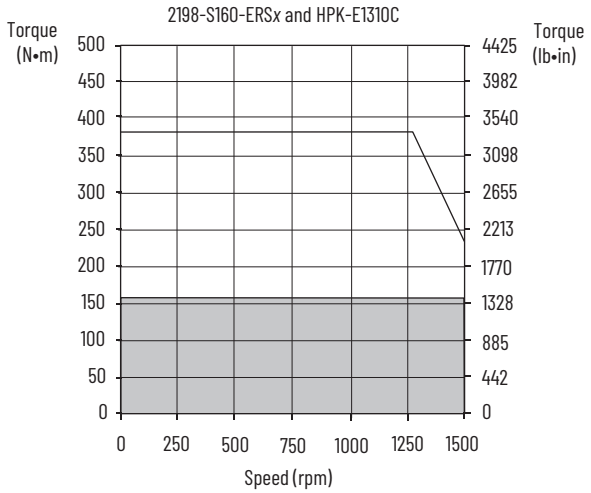
Kinetix HPK (400V) Motor Performance with Kinetix 5700 (400V-class) Drives

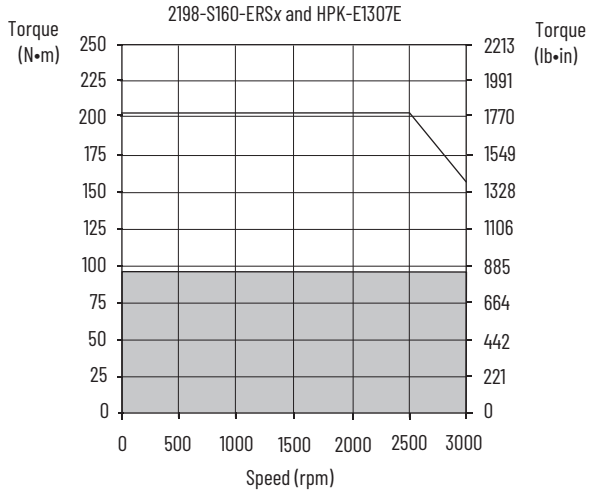
Rotary Motor Cat. No.	Base Speed rpm	Maximum Speed rpm	System Continuous Stall Current A 0-pk	System Continuous Stall Torque N•m (lb•in)	System Peak Stall Current A 0-pk	System Peak Stall Torque N•m (lb•in)	Motor Rated Output kW (Hp)	Kinetix 5700 (480V AC input)
HPK-E1307C	1500	3000	58.5	112 (991)	146.6	263 (2327)	17.08 (22.9)	2198-S130-ERS*x*
HPK-E1310C			80.0	155 (1372)	200.0	380 (3363)	24.16 (32.4)	2198-S160-ERS*x*
HPK-E1307E	3000	5000	102.0	96.0 (849)	217.0	202 (1788)	29.75 (39.9)	2198-S160-ERS*x*
HPK-E1308E			112.8	107 (947)	217.7	200 (1770)	33.55 (45.0)	2198-S160-ERS*x*
HPK-E1613C	1500	3000	133.0	271 (2399)	310.0	625 (5532)	41.68 (55.9)	2198-S263-ERS*x*
HPK-E1815C			187.0	360 (3186)	440.0	840 (7435)	55.93 (75.0)	2198-S312-ERS*x*
HPK-E2010C			243.0	482 (4266)	440.0	870 (7700)	75.02 (100.6)	2198-S312-ERS*x*
HPK-E1609E	3000	5000	153.7	156 (1381)	356.7	359 (3177)	48.40 (64.9)	2198-S263-ERS*x*
HPK-E1611E			185.0	183 (1620)	440.0	430 (3806)	44.97 (60.3)	2198-S312-ERS*x*
HPK-E1613E			242.5	237 (2098)	440.0	430 (3806)	73.68 (98.8)	2198-S312-ERS*x*

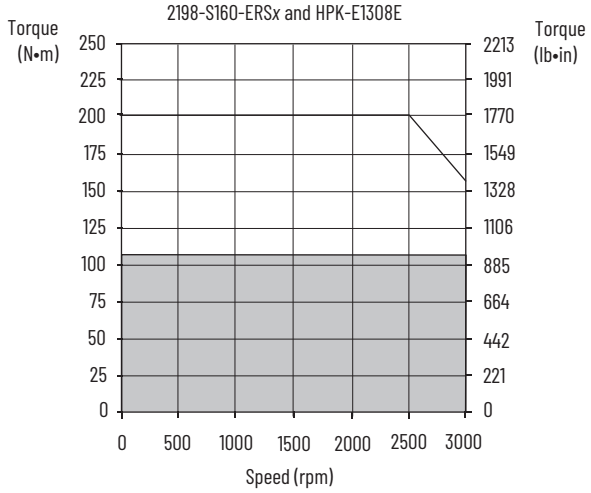
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

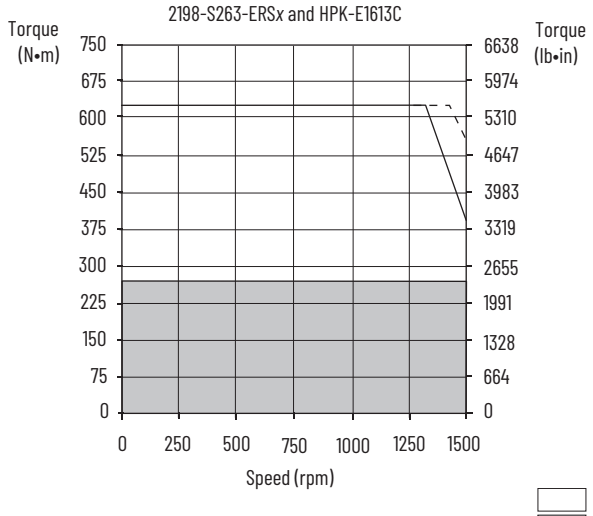
Kinetix 5700 (400V-class) Drives/Kinetix HPK (400V) Motor Curves

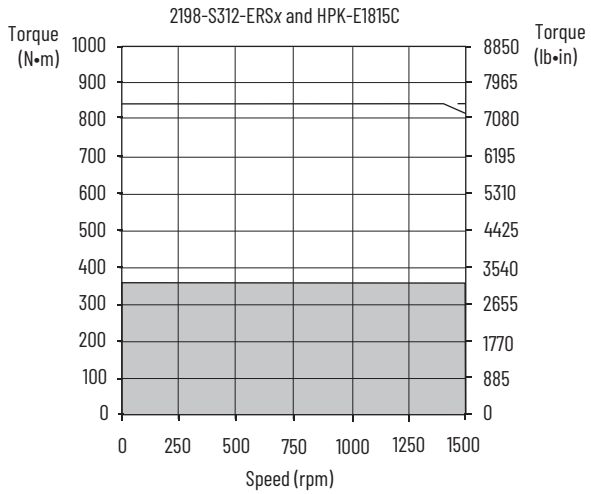






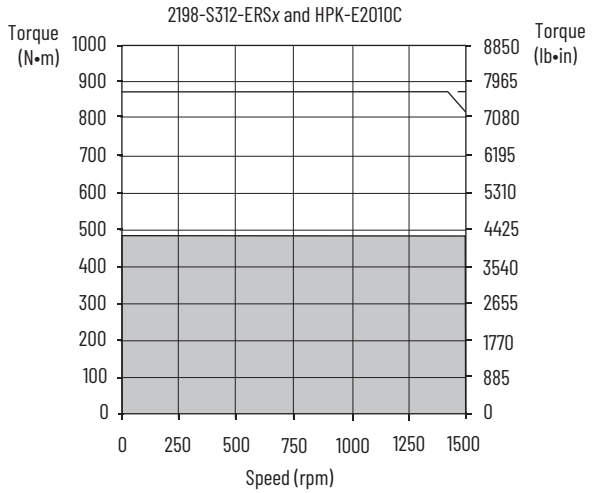


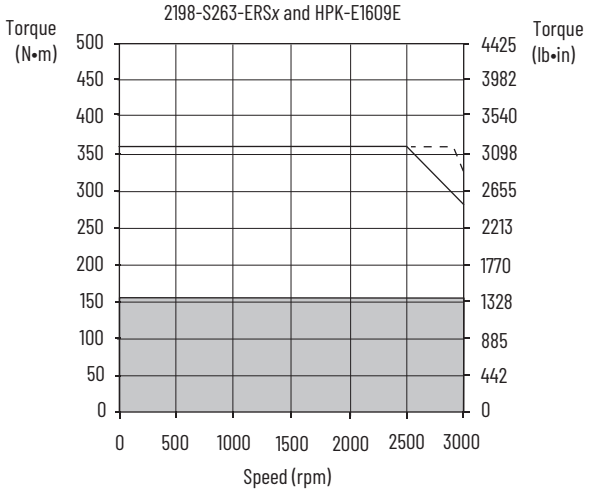


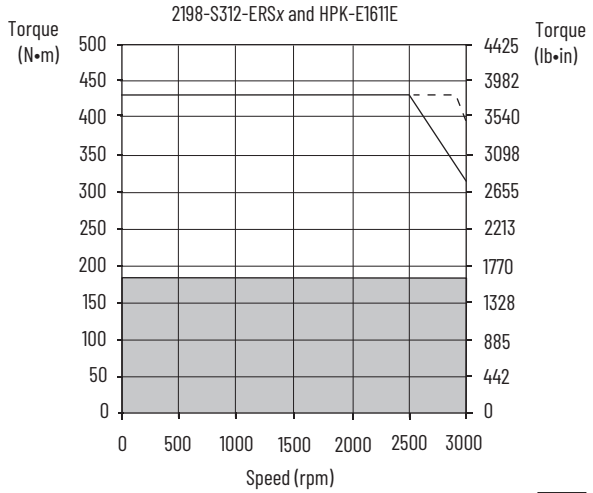


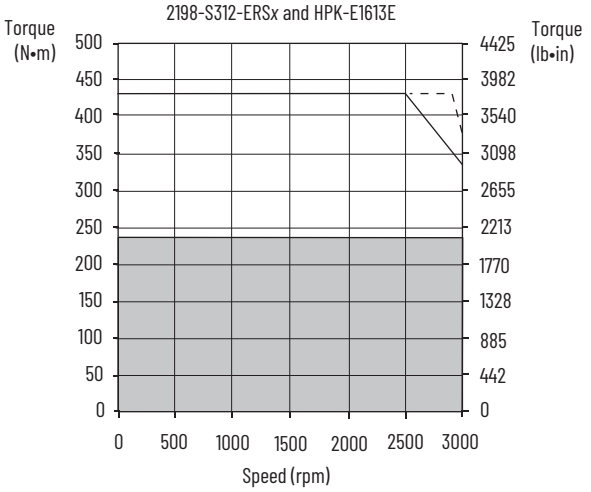
= Intermittent operating region
= Continuous operating region
= Drive operation with 750V DC (rms) input voltage

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









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

Kinetix 5700 (400V-class) Drives with Kinetix MMA Main Motors

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

Kinetix MMA Motor Cable Combinations (400V motors)

Motor Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable (1)
MMA-B080, MMA-B100, MMA-B132, MMA-B160, MMA-B180, MMA-B225	Customer Supplied(2)	2090-CFBM7DF-CDAA*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Absolute High-resolution Feedback

(1) Use the 2198-K57CK-D15M feedback connector kit with flying-lead cables on the drive end. Refer to Required Drive Accessories on page 16.
(2) See Kinetix MMA Asynchronous Motor Frequently Asked Questions for Good Installation Processes, Knowledgebase article https://rockwellautomation.custhelp.com/app/answers/answer_view/a_id/1132852.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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.

Rotary Motor Cat. No.	Rated Speed, rpm	Maximum Speed at Rated Power (1) rpm		System Continuous Stall Current, A rms	System Continuous Stall Torque(2) N•m (in•lb)	System Peak Stall Current, A rms	System Peak Stall Torque N•m (in•lb)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives(3)
		400V AC	480V AC						
MMA-B080A06	580	1400	1740	1.6	10.5 (93)	4	25 (221)	0.6 (0.8)	2198-D006-ERSx
MMA-B080A10	1000	2400	3000	2.3	10 (89)	6	25 (221)	1 (1.3)	2198-D006-ERSx
MMA-B080A15	1500	3600	4500	3.3	9.5 (84)	9	25 (221)	1.5 (2)	2198-D012-ERSx
MMA-B080A18	1800	4300	5400	3.9	9.5 (84)	10	25 (221)	1.8 (2.4)	2198-D012-ERSx
MMA-B080A22	2200	5200	6000	4.5	9 (80)	12.5	24 (214)	2.1 (2.8)	2198-D012-ERSx
	2200	5200	6000	4.5	9 (80)	13	25 (221)	2.1 (2.8)	2198-D020-ERSx
MMA-B080A26	2600	6000	6000	5	8.6 (76)	12.5	24 (214)	2.3 (3.1)	2198-D012-ERSx
	2600	6000	6000	5	8.6 (76)	15	25 (221)	2.3 (3.1)	2198-D020-ERSx
MMA-B080B06	580	1400	1740	2.3	15.4 (136)	5	35 (310)	0.9 (1.2)	2198-D006-ERSx
MMA-B080B10	1000	2400	3000	3.4	14.7 (130)	8	35 (310)	1.5 (2)	2198-D012-ERSx
MMA-B080B15	1500	3600	4500	4.7	14 (124)	12	35 (310)	2.2 (3)	2198-D012-ERSx
MMA-B080B18	1800	4300	5400	5.6	14 (124)	14	35 (310)	2.6 (3.5)	2198-D020-ERSx
MMA-B080B22	2200	5200	6000	6.5	13.3 (118)	17	35 (310)	3.1 (4.2)	2198-D020-ERSx
MMA-B080B26	2600	6000	6000	7.3	12.6 (112)	20	35 (310)	3.4 (4.6)	2198-D020-ERSx
MMA-B080C06	580	1400	1740	3	20.9 (185)	7	48 (425)	1.3 (1.7)	2198-D012-ERSx
MMA-B080C10	1000	2400	3000	4.5	20 (177)	11	48 (425)	2.1 (2.8)	2198-D012-ERSx
MMA-B080C15	1500	3600	4500	6.3	19 (168)	16	48 (425)	3 (4)	2198-D020-ERSx
MMA-B080C18	1800	4300	5400	7.5	19 (168)	19	48 (425)	3.6 (4.8)	2198-D020-ERSx
MMA-B080C22	2200	5200	6000	8.7	18.1 (160)	23	48 (425)	4.2 (5.6)	2198-D032-ERSx
MMA-B080C26	2600	6000	6000	9.8	17.1 (151)	28	48 (425)	4.7 (6.3)	2198-D032-ERSx
MMA-B080D06	580	1400	1740	4	28.1 (249)	9	65 (575)	1.7 (2.3)	2198-D012-ERSx
MMA-B080D10	1000	2400	3000	6	26.8 (237)	15	65 (575)	2.8 (3.8)	2198-D020-ERSx
MMA-B080D15	1500	3600	4500	8.4	25.5 (226)	21	65 (575)	4 (5.4)	2198-D032-ERSx
MMA-B080D18	1800	4300	5400	10	25.5 (226)	25	65 (575)	4.8 (6.4)	2198-D032-ERSx
MMA-B080D22	2200	5200	6000	11.6	24.2 (214)	31	65 (575)	5.6 (7.5)	2198-D032-ERSx
MMA-B080D26	2600	6000	6000	12.9	23 (204)	32.5	59 (522)	6.2 (8.3)	2198-D032-ERSx
						36	65 (575)		2198-D057-ERSx
MMA-B080E06	580	1400	1740	5	35.6 (317)	12	88 (779)	2.3 (3.1)	2198-D012-ERSx
				5.4	38.5 (341)				2198-D020-ERSx
MMA-B080E10	1000	2400	3000	8	36 (320)	20	88 (779)	3.8 (5.1)	2198-D020-ERSx
				8.2	36.8 (326)				2198-D032-ERSx
MMA-B080E15	1500	3600	4500	11.3	35 (310)	28	88 (779)	5.5 (7.4)	2198-D032-ERSx

Rotary Motor Cat. No.	Rated Speed, rpm	Maximum Speed at Rated Power[1] rpm		System Continuous Stall Current, A rms	System Continuous Stall Torque[2] N•m (in•lb)	System Peak Stall Current, A rms	System Peak Stall Torque N•m (in•lb)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives[3]
		400V AC	480V AC						
MMA-B080E18	1800	4300	5400	13.5	35 (310)	34	88 (779)	6.6 (8.9)	2198-D057-ERSx
MMA-B080E22	2200	5200	6000	15.7	33.3 (295)	41	88 (779)	7.7 (10.3)	2198-D057-ERSx
MMA-B080E26	2600	6000	6000	17.5	31.5 (279)	49	88 (779)	8.6 (11.5)	2198-D057-ERSx
MMA-B100A06	580	1400	1740	5	35.6 (317)	11	80 (708)	2.3 (3.1)	2198-D012-ERSx
				5.4	38.5 (341)				2198-D020-ERSx
MMA-B100A10	1000	2400	3000	8	36 (320)	18	80 (708)	3.8 (5.1)	2198-D020-ERSx
				8.2	36.8 (326)	26			2198-D032-ERSx
MMA-B100A15	1500	3600	4500	11.3	35 (310)	26	80 (708)	5.5 (7.4)	2198-D032-ERSx
MMA-B100A18	1800	4300	5400	13	33.7 (300)	31	80 (708)	6.6 (8.9)	2198-D032-ERSx
				13.5	35 (310)	38			2198-D057-ERSx
MMA-B100A22	2200	5200	6000	15.7	33.3 (295)	38	80 (708)	7.7 (10.3)	2198-D057-ERSx
MMA-B100A26	2600	6000	6000	17.5	31.5 (279)	44	80 (708)	8.6 (11.5)	2198-D057-ERSx
MMA-B100B06	580	1400	1740	7.3	52.3 (463)	17	120 (1062)	3.2 (4.3)	2198-D020-ERSx
MMA-B100B10	1000	2400	3000	11	49.9 (442)	26	120 (1062)	5.2 (7)	2198-D032-ERSx
MMA-B100B15	1500	3600	4500	15.2	47.5 (420)	38	120 (1062)	7.5 (10.1)	2198-D057-ERSx
MMA-B100B18	1800	4300	5400	18.2	47.5 (420)	46	120 (1062)	9 (12.1)	2198-D057-ERSx
MMA-B100B22	2200	5200	6000	21.1	45.1 (399)	56	120 (1062)	10.4 (13.9	2198-D057-ERSx
MMA-B100B26	2600	6000	6000	23.5	42.8 (379)	66	120 (1062)	11.6 (15.6)	2198-S086-ERSx
MMA-B100C06	580	1400	1740	8.9	64.4 (570)	21	150 (1328)	3.9 (5.2)	2198-D032-ERSx
MMA-B100C10	1000	2400	3000	13.5	61.4 (543)	33	150 (1328)	6.4 (8.6)	2198-D057-ERSx
MMA-B100C15	1500	3600	4500	18.7	58.5 (518)	48	150 (1328)	9.2 (12.3)	2198-D057-ERSx
MMA-B100C18	1800	4300	5400	22.4	58.5 (518)	57	150 (1328)	11 (14.8)	2198-D057-ERSx
MMA-B100C22	2200	5200	6000	25.9	55.6 (492)	70	150 (1328)	12.8 (17.2)	2198-S086-ERSx
MMA-B100C26	2600	6000	6000	29	52.7 (466)	83	150 (1328)	14.3 (19.2)	2198-S086-ERSx
MMA-B100D06	580	1400	1740	10.6	77 (682)	25	180 (1593)	4.7 (6.3)	2198-D032-ERSx
MMA-B100D10	1000	2400	3000	16	73.5 (651)	39	180 (1593)	7.7 (10.3)	2198-D057-ERSx
MMA-B100D15	1500	3600	4500	22.1	70 (620)	57	180 (1593)	11 (14.8)	2198-D057-ERSx
MMA-B100D18	1800	4300	5400	26.5	70 (620)	68	180 (1593)	13.2 (17.7)	2198-S086-ERSx
MMA-B100D22	2200	5200	6000	30.7	66.5 (589)	83	180 (1593)	15.3 (20.5)	2198-S086-ERSx
MMA-B100D26	2600	6000	6000	34.3	63 (558)	98	180 (1593)	17.2 (23.1)	2198-S130-ERSx
MMA-B100E06	580	1400	1740	13	94.6 (837)	30	220 (1947)	5.7 (7.6)	2198-D032-ERSx
MMA-B100E10	1000	2400	3000	19.6	90.3 (799)	48	220 (1947)	9.5 (12.7)	2198-D057-ERSx
MMA-B100E15	1500	3600	4500	27.2	86 (761)	70	220 (1947)	13.5 (18.1)	2198-S086-ERSx
MMA-B100E18	1800	4300	5400	32.5	86 (761)	83	220 (1947)	16.2 (21.7)	2198-S086-ERSx
MMA-B100E22	2200	5200	6000	37.7	81.7 (723)	86	185 (1651)	18.8 (25.2)	2198-S086-ERSx
						102	220 (1947)		2198-S130-ERSx
MMA-B100E26	2600	6000	6000	42.1	77.4 (685)	86	158 (1403)	21.1 (28.3)	2198-S086-ERSx
						120	220 (1947)		2198-S130-ERSx
MMA-B132A06	580	1400	1740	12.6	105 (929)	24	200 (1770)	6.4 (8.6)	2198-D032-ERSx
MMA-B132A10	1000	2400	3000	20.3	100 (885)	41	200 (1770)	10.5 (14.1)	2198-D057-ERSx
MMA-B132A15	1500	3600	4500	28.1	95.5 (845)	59	200 (1770)	15 (20.1)	2198-S086-ERSx
MMA-B132A18	1800	4300	5400	33.6	95.5 (845)	70	200 (1770)	18 (24.1)	2198-S086-ERSx
MMA-B132A22	2200	5200	6000	39	90.7 (803)	86	200 (1770)	20.9 (28)	2198-S086-ERSx
MMA-B132A26	2600	6000	6000	43.5	86 (761)	101	200 (1770)	23.4 (31.4)	2198-S130-ERSx
MMA-B132B06	580	1400	1740	13	108 (962)	29	240 (2124)	8.1 (10.9)	2198-D032-ERSx
				16	133 (1177)				2198-D057-ERSx
MMA-B132B10	1000	2400	3000	23	112 (996)	49	240 (2124)	13.3 (17.8)	2198-D057-ERSx
				26.1	127 (1124)				2198-D086-ERSx
MMA-B132B15	1500	3600	4500	36.1	121 (1071)	72	240 (2124)	19 (25.5)	2198-S086-ERSx
MMA-B132B18	1800	4300	5400	43	120 (1071)	86	240 (2124)	22.8 (30.6)	2198-S086-ERSx
				43.2	121 (1071)				2198-S130-ERSx
MMA-B132B22	2200	5200	6000	50.1	115 (1018)	105	240 (2124)	26.5 (35.5)	2198-S130-ERSx

Rotary Motor Cat. No.	Rated Speed, rpm	Maximum Speed at Rated Power[1] rpm		System Continuous Stall Current, A rms	System Continuous Stall Torque[2] N•m (in•lb)	System Peak Stall Current, A rms	System Peak Stall Torque N•m (in•lb)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives[3]
		400V AC	480V AC						
MMA-B132B26	2600	6000	6000	56	109 (965)	123	240 (2124)	29.6 (39.7)	2198-S130-ERSx
MMA-B132C06	580	1400	1740	18.5	154 (1363)	34	280 (2478)	9.4 (12.6)	2198-D057-ERSx
MMA-B132C10	1000	2400	3000	23	114 (1013)	57	280 (2478)	15.4 (20.7)	2198-D057-ERSx
				29.7	147 (1301)				2198-S086-ERSx
MMA-B132C15	1500	3600	4500	41.2	140 (1239)	82	280 (2478)	22 (29.5)	2198-S086-ERSx
MMA-B132C18	1800	4300	5400	49.3	140 (1239)	99	280 (2478)	26.4 (35.4)	2198-S130-ERSx
MMA-B132C22	2200	5200	6000	57.1	133 (1177)	120	280 (2478)	30.6 (41.0)	2198-S130-ERSx
MMA-B132C26	2600	6000	6000	63.8	126 (1115)	130	256 (2281)	34.3 (46.0)	2198-S130-ERSx
						142	280 (2478)		2198-S160-ERSx
MMA-B132D06	580	1400	1740	21	175 (1549)	38	320 (2832)	10.6 (14.2)	2198-D057-ERSx
MMA-B132D10	1000	2400	3000	33.8	167 (1478)	65	320 (2832)	17.5 (23.5)	2198-S086-ERSx
MMA-B132D15	1500	3600	4500	46.9	159 (1407)	94	320 (2832)	25 (33.5)	2198-S130-ERSx
MMA-B132D18	1800	4300	5400	56.1	159 (1407)	113	320 (2832)	30 (40.2)	2198-S130-ERSx
MMA-B132D22	2200	5200	6000	65	151 (1336)	130	301 (2683)	34.8 (46.7)	2198-S130-ERSx
						138	320 (2832)		2198-S160-ERSx
MMA-B132D26	2600	6000	6000	72.6	143 (1266)	160	316 (2813)	39 (52.3)	2198-S160-ERSx
						162	320 (2832)		2198-S263-ERSx
MMA-B132E06	580	1400	1740	23	191 (1702)	48	400 (3540)	13.2 (17.7)	2198-D057-ERSx
				26.1	217 (1921)				2198-D086-ERSx
MMA-B132E10	1000	2400	3000	40.7	207 (1832)	79	400 (3540)	21.7 (29.1)	2198-S086-ERSx
MMA-B132E15	1500	3600	4500	56.3	198 (1752)	114	400 (3540)	31 (41.6)	2198-S130-ERSx
MMA-B132E18	1800	4300	5400	67.4	198 (1752)	136	400 (3540)	37.2 (49.9)	2198-S160-ERSx
MMA-B132E22	2200	5200	6000	78.1	188 (1664)	160	386 (3431)	43.2 (57.9)	2198-S160-ERSx
						166	400 (3540)		2198-S263-ERSx
MMA-B132E26	2600	6000	6000	87.3	178 (1575)	196	400 (3540)	48.4 (64.9)	2198-S263-ERSx
MMA-B160A06	580	1400	1740	23	196 (1749)	53	450 (3983)	15.3 (20.5)	2198-D057-ERSx
				29.5	252 (2230)				2198-D086-ERSx
MMA-B160A10	1000	2400	3000	47.8	240 (2124)	90	450 (3983)	25.2 (33.8)	2198-S130-ERSx
MMA-B160A15	1500	3600	4500	65	225 (2001)	130	450 (3983)	36 (48.3)	2198-S130-ERSx
				66.2	229 (2027)				2198-S160-ERSx
MMA-B160A18	1800	4300	5400	75.2	218 (1925)	156	450 (3983)	41 (55.0)	2198-S160-ERSx
MMA-B160A22	2200	5200	6000	82.5	195 (1729)	189	450 (3983)	45 (60.3)	2198-S263-ERSx
MMA-B160A26	2600	6000	6000	86.3	173 (1528)	225	450 (3983)	47 (63.0)	2198-S263-ERSx
MMA-B160B06	580	1400	1740	34.5	294 (2602)	61	520 (4602)	17.9 (24.0)	2198-S086-ERSx
MMA-B160B10	1000	2400	3000	55.8	281 (2487)	103	520 (4602)	29.4 (39.4)	2198-S130-ERSx
MMA-B160B15	1500	3600	4500	77.3	268 (2372)	150	520 (4602)	42 (56.3)	2198-S160-ERSx
MMA-B160B18	1800	4300	5400	82.6	239 (2113)	179	520 (4602)	45 (60.3)	2198-S263-ERSx
MMA-B160B22	2200	5200	6000	89.6	213 (1882)	219	520 (4602)	49 (65.7)	2198-S263-ERSx
MMA-B160B26	2600	6000	6000	101	202 (1788)	259	520 (4602)	55 (73.8)	2198-S263-ERSx
MMA-B160C06	580	1400	1740	40.2	343 (3036)	70	600 (5310)	20.8 (27.9)	2198-S086-ERSx
MMA-B160C10	1000	2400	3000	62.7	328 (2903)	115	600 (5310)	34.3 (46.0)	2198-S130-ERSx
MMA-B160C15	1500	3600	4500	86.9	312 (2761)	167	600 (5310)	49 (65.7)	2198-S263-ERSx
MMA-B160C18	1800	4300	5400	104	312 (2761)	200	600 (5310)	58.8 (78.9)	2198-S263-ERSx
MMA-B160C22	2200	5200	6000	114	282 (2497)	243	600 (5310)	65 (87.2)	2198-S263-ERSx
MMA-B160C26	2600	6000	6000	120	250 (2210)	263	548 (4876)	68 (91.2)	2198-S263-ERSx
						288	600 (5310)		2198-S312-ERSx
MMA-B160D06	580	1400	1740	43	367 (3267)	82	700 (6196)	23.4 (31.4)	2198-S086-ERSx
				45.1	385 (3408)				2198-S130-ERSx
MMA-B160D10	1000	2400	3000	71.1	368 (3257)	135	700 (6196)	38.5 (51.6)	2198-S160-ERSx
MMA-B160D15	1500	3600	4500	98.6	350 (3098)	197	700 (6196)	55 (73.8)	2198-S263-ERSx
MMA-B160D18	1800	4300	5400	118	350 (3098)	236	700 (6196)	66 (88.5)	2198-S263-ERSx

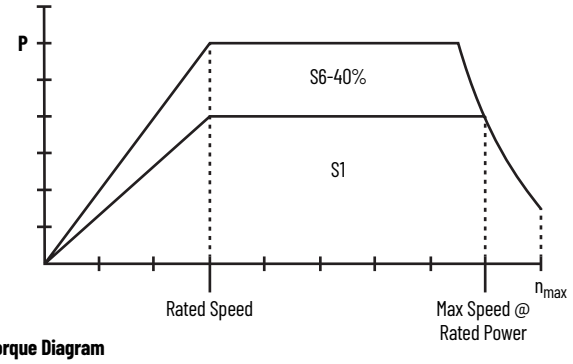
Rotary Motor Cat. No.	Rated Speed, rpm	Maximum Speed at Rated Power[1] rpm		System Continuous Stall Current, A rms	System Continuous Stall Torque[2] N•m (in•lb)	System Peak Stall Current, A rms	System Peak Stall Torque N•m (in•lb)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives[3]
		400V AC	480V AC						
MMA-B160D22	2200	5200	6000	137	333 (2947)	263	639 (5689)	76.6 (102.7)	2198-S263-ERSx
						288	700 (6196)		2198-S312-ERSx
MMA-B160D26	2600	6000	6000	153	315 (2788)	312	640 (5696)	85.8 (115.1)	2198-S312-ERSx
						340	700 (6196)		–
MMA-B180A06	580	1400	1740	43	371 (3284)	85	730 (6461)	22.6 (30.3)	2198-S086-ERSx
MMA-B180A10	1000	2400	3000	69.1	358 (3169)	141	730 (6461)	37.4 (50.2)	2198-S160-ERSx
MMA-B180A15	1500	3600	4500	95	337.5 (2987)	206	730 (6461)	53 (71.1)	2198-S263-ERSx
MMA-B180A18	1800	4300	5400	110	327 (2894)	247	730 (6461)	61.6 (82.6)	2198-S263-ERSx
MMA-B180A22	2200	5200	6000	117	285 (2522)	263	640 (5696)	65.7 (88.1)	2198-S263-ERSx
						300	730 (6461)		2198-S312-ERSx
MMA-B180B06	580	1400	1740	57.4	495 (4381)	116	1000 (8851)	30.1 (40.4)	2198-S130-ERSx
MMA-B180B10	1000	2400	3000	92	477 (4222)	193	1000 (8851)	49.9 (66.9)	2198-S263-ERSx
MMA-B180B15	1500	3600	4500	125	446 (3947)	263	939 (8360)	70 (93.9)	2198-S263-ERSx
						280	1000 (8851)		2198-S312-ERSx
MMA-B180B18	1800	4300	5400	147	436 (3859)	263	780 (6946)	82.1 (110.1)	2198-S263-ERSx
						312	926 (8240)		2198-S312-ERSx
						337	1000 (8851)		–
MMA-B180B22	2200	5200	6000	157	381 (3372)	411	1000 (8851)	87.7 (117.6)	–
MMA-B180C06	580	1400	1740	64.5	557 (4930)	130	1122 (9988)	33.8 (45.3)	2198-S130-ERSx
						139	1200 (10621)		2198-S160-ERSx
MMA-B180C10	1000	2400	3000	103	536 (4744)	231	1200 (10621)	56.2 (75.4)	2198-S263-ERSx
MMA-B180C15	1500	3600	4500	143	510 (4514)	263	936 (8335)	80 (107.3)	2198-S263-ERSx
						312	1111 (9888)		2198-S312-ERSx
						337	1200 (10621)		–
MMA-B180C18	1800	4300	5400	165	490 (4337)	312	927 (8248)	92.3 (123.8)	2198-S312-ERSx
						404	1200 (10621)		–
MMA-B180C22	2200	5200	6000	176	428 (3788)	312	729 (6759)	98.6 (132.2)	2198-S312-ERSx
						493	1200 (10621)		–
MMA-B180D06	580	1400	1740	71.6	618 (5470)	160	1400 (12391)	37.5 (50.3)	2198-S160-ERSx
MMA-B180D10	1000	2400	3000	115	595 (5266)	271	1400 (12391)	62.3 (83.5)	2198-S312-ERSx
MMA-B180D15	1500	3600	4500	157	560 (4956)	312	1109 (9867)	88 (118.0)	2198-S312-ERSx
						394	1400 (12391)		–
MMA-B180D18	1800	4300	5400	183	544 (4815)	312	927 (8254)	102 (136.8)	2198-S312-ERSx
						471	1400 (12391)		–
MMA-B180D22	2200	5200	6000	196	475 (4204)	578	1400 (12391)	109 (146.2)	–
MMA-B225A06	580	1400	1740	75.5	651 (5762)	139	1200 (10621)	39.6 (53.1)	2198-S160-ERSx
MMA-B225A10	1000	2400	3000	121	627 (5549)	232	1200 (10621)	65.7 (88.1)	2198-S263-ERSx
MMA-B225A15	1500	3600	4500	165	586 (5187)	339	1200 (10621)	92 (123.4)	–
MMA-B225A18	1800	4300	4799	193	573 (5071)	405	1200 (10621)	108 (144.8)	–
MMA-B225B06	580	1400	1740	90	778 (6886)	174	1500 (13276)	47.2 (63.3)	2198-S263-ERSx
MMA-B225B10	1000	2400	3000	145	749 (6629)	263	1365 (12148)	78.4 (105.1)	2198-S263-ERSx
						289	1500 (13276)		2198-S312-ERSx
MMA-B225B15	1500	3600	4500	198	703 (6222)	422	1500 (13276)	110 (147.5)	–
MMA-B225B18	1800	4300	4799	230	684 (6054)	504	1500 (13276)	129 (173)	–
MMA-B225C06	580	1400	1740	99	855 (7567)	208	1800 (15931)	51.9 (69.6)	2198-S263-ERSx
MMA-B225C10	1000	2400	3000	159	824 (7293)	312	1609 (14322)	86.2 (115.6)	2198-S312-ERSx
						349	1800 (15931)		–
MMA-B225C15	1500	3600	4500	216	767 (6789)	507	1800 (15931)	120 (160.9)	–
MMA-B225C18	1800	4300	4799	253	752 (6656)	605	1800 (15931)	142 (190.4)	–
MMA-B225D06	580	1400	1740	116	1001 (8860)	263	2274 (20239)	60.8 (81.5)	2198-S263-ERSx
						266	2300 (20357)		2198-S312-ERSx

Rotary Motor Cat. No.	Rated Speed, rpm	Maximum Speed at Rated Power[1] rpm		System Continuous Stall Current, A rms	System Continuous Stall Torque[2] N•m (in•lb)	System Peak Stall Current, A rms	System Peak Stall Torque N•m (in•lb)	Motor Rated Output kW (Hp)	Kinetix 5700 Drives[3]
		400V AC	480V AC						
MMA-B225D10	1000	2400	3000	186	964 (8532)	312	1616 (14384)	101 (135.4)	2198-S312-ERSx
						444	2300 (20357)		–
MMA-B225D15	1500	3600	4500	250	890 (7877)	648	2300 (20357)	140 (187.7)	–
MMA-B225D18	1800	4300	4799	296	881 (7798)	773	2300 (20357)	166 (222.6)	–
MMA-B225E06	580	1400	1740	144	1239 (10966)	263	2264 (20152)	75.3 (101.0)	2198-S263-ERSx
						302	2600 (23012)		2198-S312-ERSx
MMA-B225E10	1000	2400	3000	230	1193 (10559)	503	2600 (23012)	125 (167.6)	–
MMA-B225E15	1500	3600	4500	313	1115 (9869)	730	2600 (23012)	175 (234.7)	–
MMA-B225E18	1800	4300	4799	366	1090 (9647)	875	2600 (23012)	205 (274.9)	–

(1) Motor may not be able to reach max speed due to mechanical limitations. Mechanical maximum speed is dependent on the bearing, brake, and encoder type. Refer to Kinetix MMA Asynchronous Main Motors Installation Instructions, publication MM-IN001, and Proposal Works software for specific motor information.
(2) Torque values were rounded to the nearest whole number, each unit was rounded separately.
(3) Where no Kinetix 5700 Drive is listed, we recommend a PowerFlex 750-Series. See PowerFlex 750-series AC Drives Technical Data, publication 750-TD001.

Kinetix MMA (400V-class) Motor Power and Torque Curves

Power Diagram



Torque Diagram

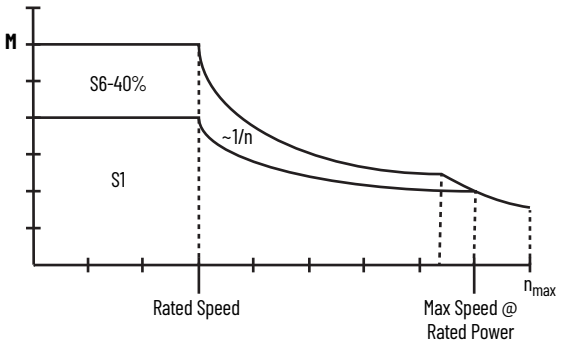


Chart Legend	
Nn[1]	Rated (nominal) speed
n1	Max. operating speed at full rated power
n_{max}[1]	max. allowed mechanical speed
P	power
M	torque
S1[2]	continuous running duty
S6[2]	continuous operation periodic duty

(1) N_{max} is the true maximum speed and n1 is the reference to the speed that you can achieve at constant power. N_{max} may not give you full rated power. It is possible for N_{max} to be less than n1 based on motor configuration.
(2) For additional information, see IEC 60034-1.

Kinetix 5700 (400V-class) Drives with Kinetix RDB Servo Motors

This section provides system combination information for the Kinetix 5700 drives (with 400V and 480V, nominal input) when matched with Kinetix RDB 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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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-class) 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 Drives (480V AC input)
RDB-B21519	750	1235	9.9	32.7 (289)	27.3	86.5 (766)	3.64 (4.9)	2198-D020-ERS*x*
RDB-B2151C	1500	2125	17.3	32.7 (289)	46.4	86.5 (766)	5.23 (7.0)	2198-D032-ERS*x*
RDB-B21529	750	1035	12.2	45.4 (402)	32.8	116 (1027)	4.33 (5.8)	2198-D032-ERS*x*
RDB-B2152C	1500	2125	23.5	45.4 (402)	63.2	116 (1027)	6.41 (8.6)	2198-D057-ERS*x*
RDB-B21539	750	1250	15.8	53.7 (475)	45.9	137 (1213)	5.34 (7.2)	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 (7.9)	2198-D057-ERS*x*
RDB-B29014	200	450	5.9	49.2 (435)	17.6	110 (973)	1.97 (2.6)	2198-D012-ERS*x*
RDB-B29016	375	785	10.0	49.2 (435)	28.2	100 (885)	3.18 (4.3)	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 (4.5)	2198-D057-ERS*x*
RDB-B29024	200	435	10.7	98.0 (867)	28.2	183 (1620)	3.33 (4.5)	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 (5.4)	2198-D057-ERS*x*
RDB-B29029	750	1200	36.2	98.0 (867)	111	214 (1894)	4.05 (5.4)	2198-S086-ERS*x*
RDB-B29034	200	500	17.4	140 (1239)	56.6	318 (2815)	5.16 (6.9)	2198-D057-ERS*x*
RDB-B29036	375	750	26.0	140 (1239)	32.5	122 (1080)	5.49 (7.4)	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 (5.9)	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 (7.0)	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 (6.5)	2198-S086-ERS*x*

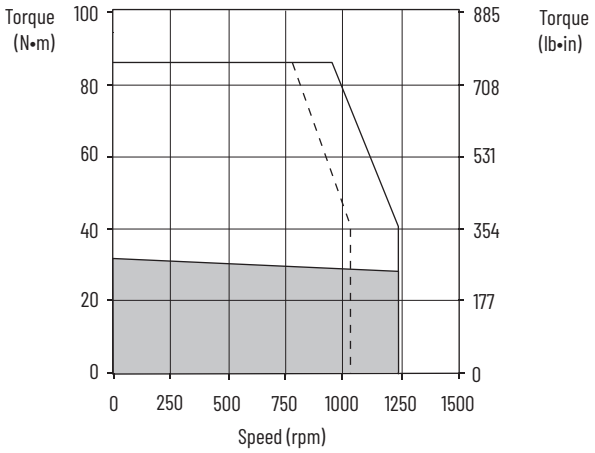
Kinetix RDB Motor Performance with Kinetix 5700 (400V-class) Drives (Continued)

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 (Hp)	**Kinetix 5700 Drives (480V AC input)**
RDB-B41018	625	700	48.8	183 (1619)	121.6	295 (2611)	4.83 (6.5)	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 (9.8)	2198-S086-ERS*x*
RDB-B41026	375	600	50.9	308 (2726)	121.6	478 (4231)	7.29 (9.8)	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 (11.7)	2198-S086-ERS*x*
					183.8	1010 (8939)		2198-S130-ERS*x*

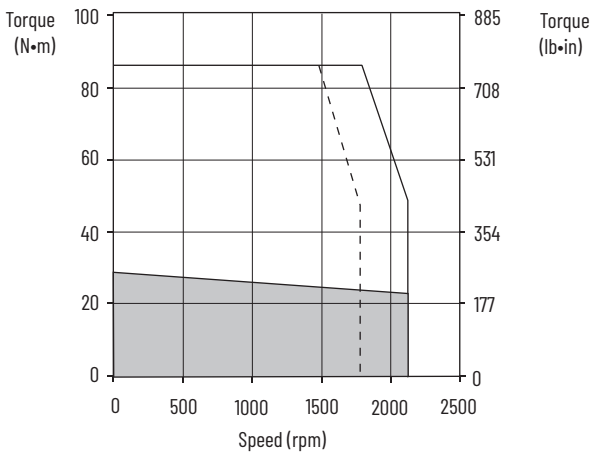
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 (400V-class) Drives with Kinetix RDB Motor Curves

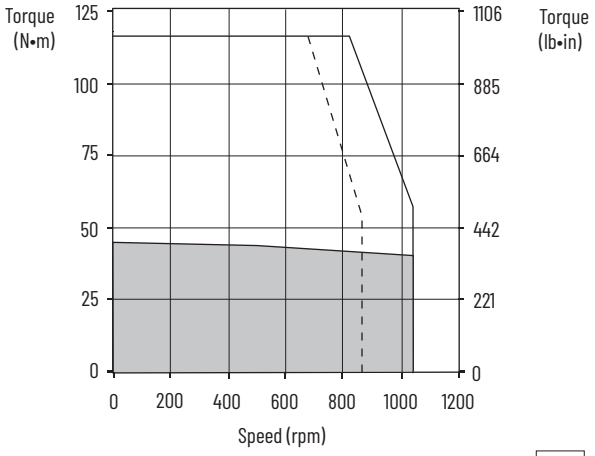
2198-D020-ERS*x* and RDB-B21519



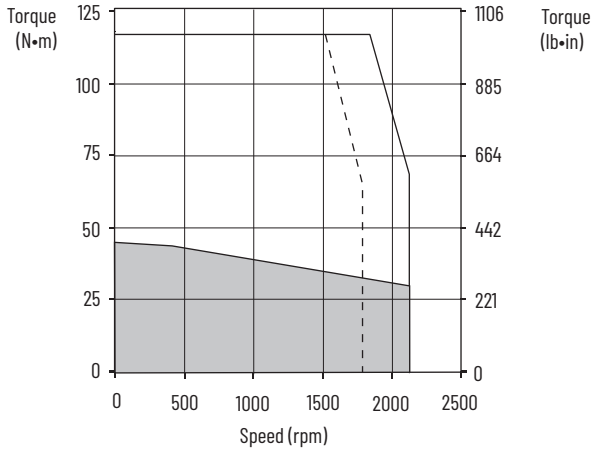
2198-D032-ERS*x* and RDB-B2151C



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



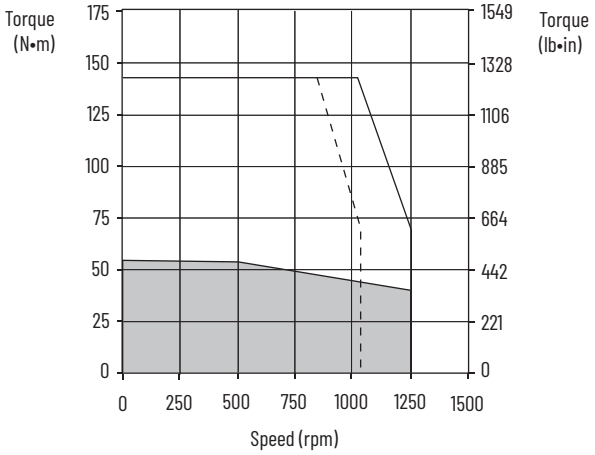
2198-D057-ERS*x* and RDB-B2152C



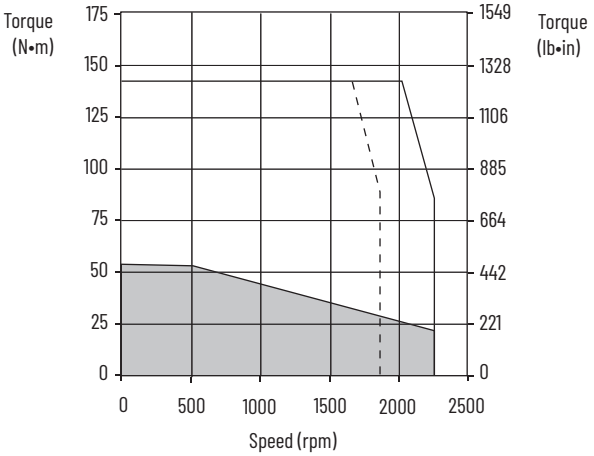
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

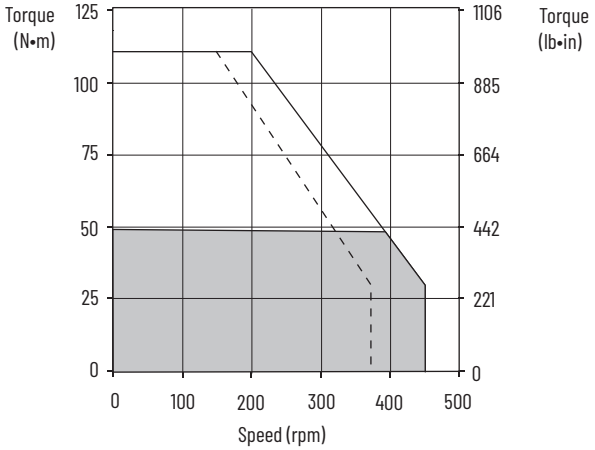
2198-D057-ERSx and RDB-21539



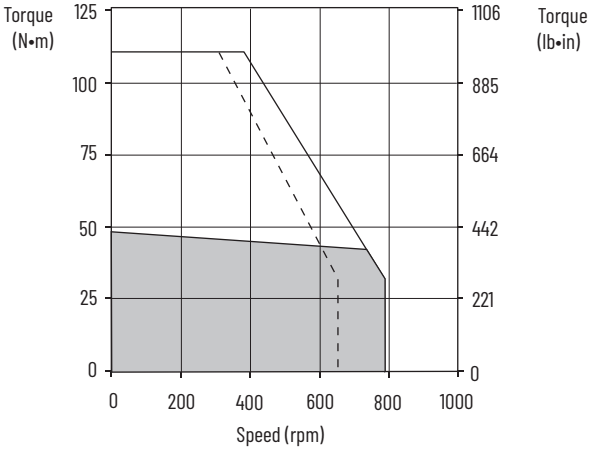
2198-D057-ERSx and RDB-2153C



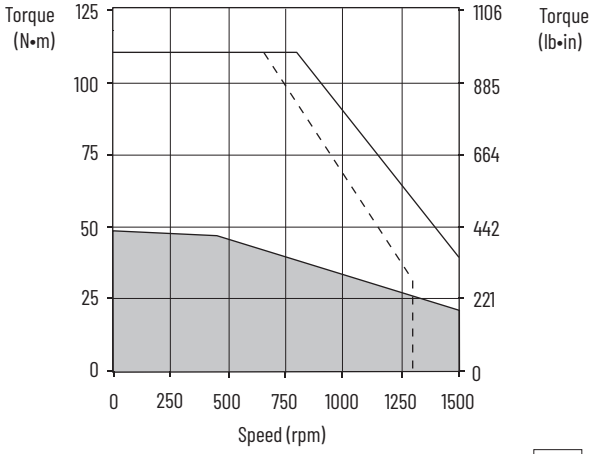
2198-D012-ERSx and RDB-B29014



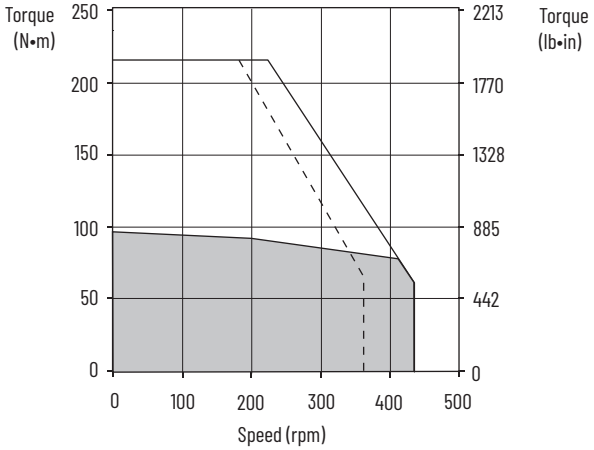
2198-D032-ERSx and RDB-B29016



2198-D057-ERSx and RDB-B29019



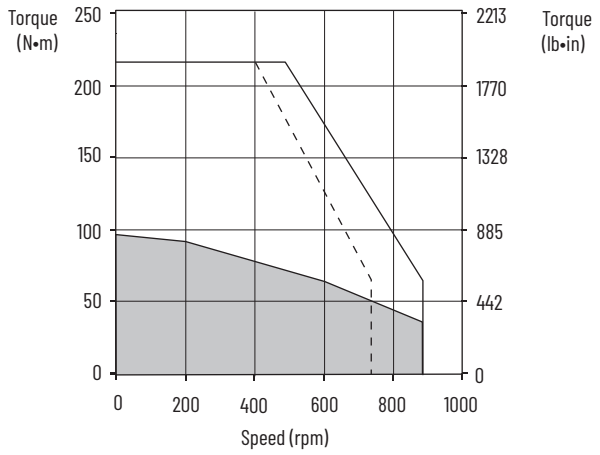
2198-D032-ERSx and RDB-B29024



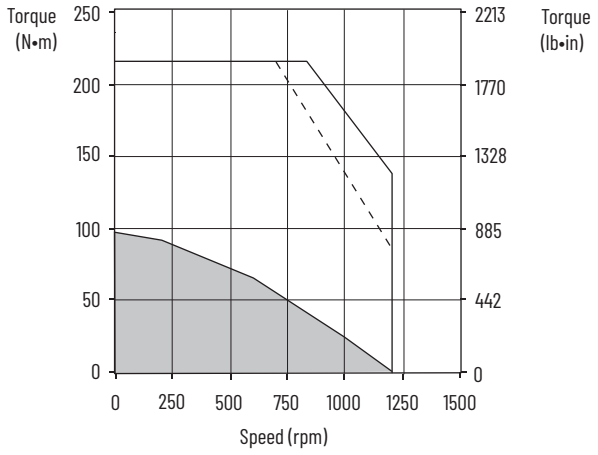
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

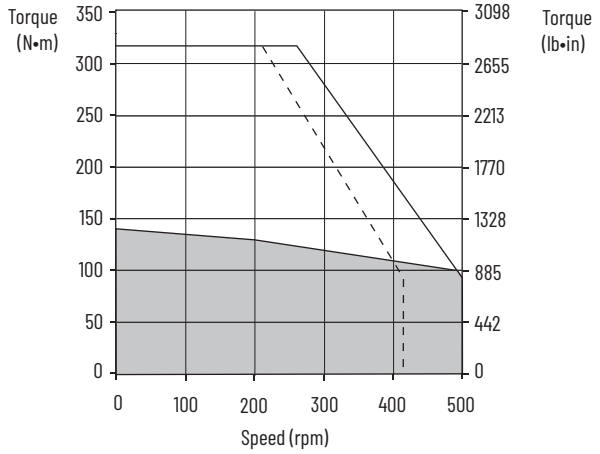
2198-D057-ERSx and RDB-B29026



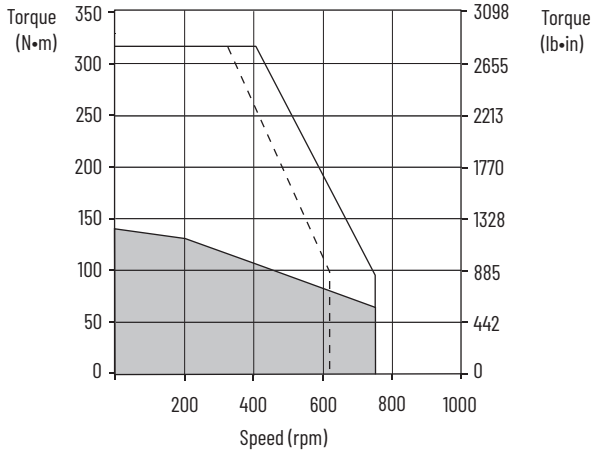
2198-S086-ERSx and RDB-B29029



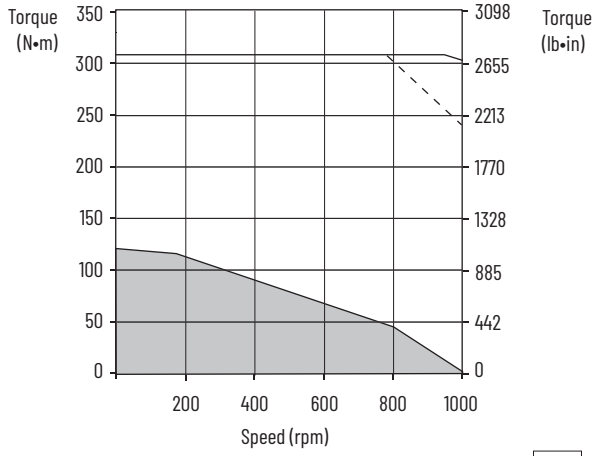
2198-D057-ERSx and RDB-B29034



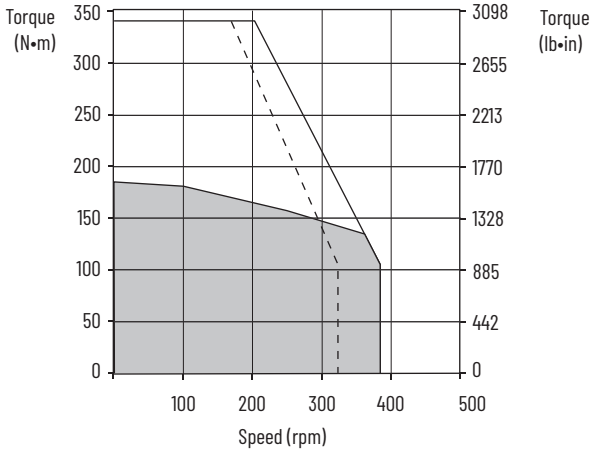
2198-S086-ERSx and RDB-B29036



2198-S130-ERSx and RDB-B29039



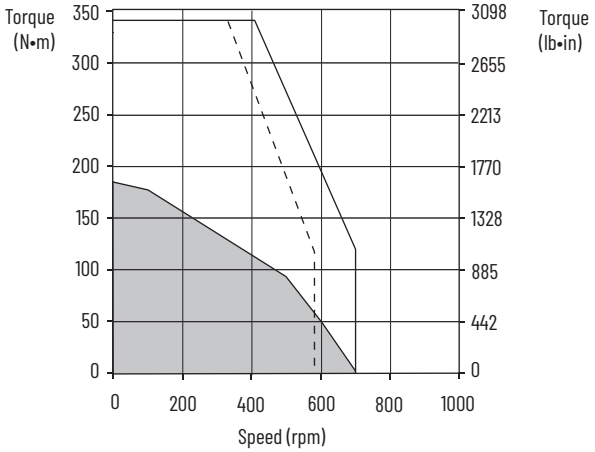
2198-D057-ERSx and RDB-B41014



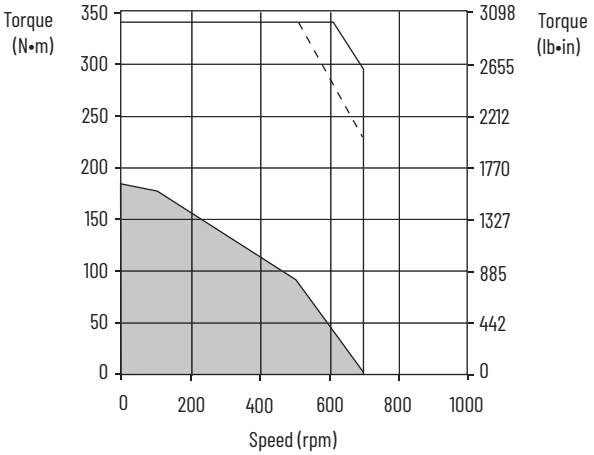
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

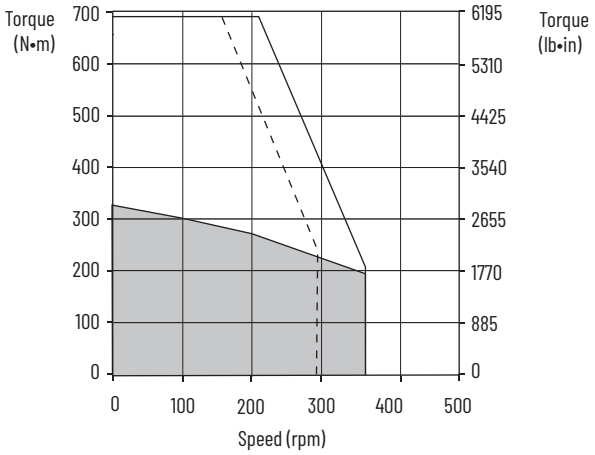
2198-S086-ERS*x* and RDB-B41016



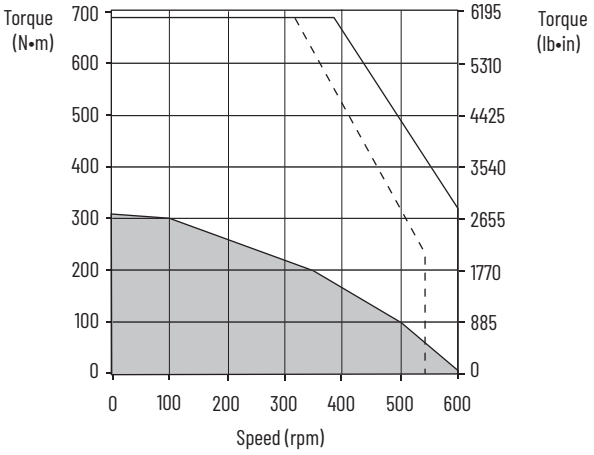
2198-S130-ERS*x* and RDB-B41018



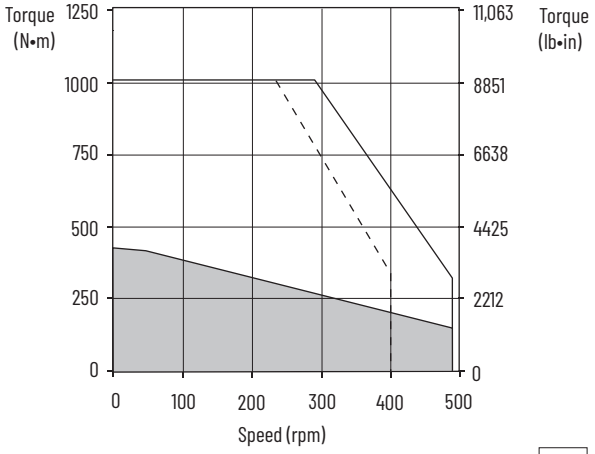
2198-S086-ERS*x* and RDB-B41024



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 Kinetix LDAT Linear Thrusters

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

ArmorKinetix DSD modules are compatible with Kinetix LDAT linear thrusters.

Kinetix LDAT 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-CSBM1P7-14AF*xx* (ArmorKinetix)	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 2090-CFBM7S7-CDAFxx (ArmorKinetix)
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*-E*xx*		
LDAT-S102*xxx-xxx*, LDAT-S103*xxx-xxx*, LDAT-S104*xxx-xxx*, LDAT-S106*xxx*-E*xx*		
LDAT-S152*xxx-xxx*, LDAT-S153*xxx-xxx*, LDAT-S154*xxx-xxx*, LDAT-S156*xxx*-E*xx*		
LDAT-S076*xxx*-D*xx*	2090-CPWM7DF-14AA*xx* (standard, non-flex) 2090-CPWM7DF-14AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	
LDAT-S106*xxx*-D*xx*		
LDAT-S156*xxx*-D*xx*		

(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 16.
(2) Applies to Kinetix 5700 drives and LDAT-S*xxxxxx-x*D*x* linear thrusters with absolute high-resolution feedback.
(3) Applies to Kinetix 5700 drives and LDAT-S*xxxxxx-x*B*x* linear thrusters with incremental feedback.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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 LDAT Performance Specifications with Kinetix 5700 (400V-class) Drives

Performance Specifications with Frame 30 Linear Thrusters

Linear Thruster Cat. No.	**Velocity, max 460V AC** m/s	**System Continuous Stall Current** Amps 0-pk	**System Continuous Stall Force** N (lb)	**System Peak Stall Current** Amps 0-pk	**System Peak Stall Force** N (lb)	**Rated Output 460V AC** kW (Hp)	**Kinetix 5700 Drives (480V AC input)**
LDAT-S031010-D*xx*	2.4	4.8	81 (18)	12.2	168 (38)	0.20 (0.3)	2198-D012-ERS*x*
LDAT-S031020-D*xx*	3.1					0.25 (0.3)	
LDAT-S031030-D*xx*	3.5					0.29 (0.4)	
LDAT-S031040-D*xx*	3.8					0.31 (0.5)	
LDAT-S032010-D*xx*	3.1	7.4	126 (28)	24.3	336 (76)	0.40 (0.5)	2198-D020-ERS*x*
LDAT-S032020-D*xx*	4.1					0.52 (0.7)	
LDAT-S032030-D*xx*	4.7					0.59 (0.8)	
LDAT-S032040-D*xx*	5.0					0.63 (0.8)	
LDAT-S032010-E*xx*	3.1	3.7		12.2		0.40 (0.5)	2198-D012-ERS*x*
LDAT-S032020-E*xx*	4.1					0.52 (0.7)	
LDAT-S032030-E*xx*	4.7					0.59 (0.8)	
LDAT-S032040-E*xx*	5.0					0.63 (0.8)	
LDAT-S033010-D*xx*	3.5	11.1	190 (43)	36.5	504 (113)	0.67 (0.9)	2198-D032-ERS*x*
LDAT-S033020-D*xx*	4.7					0.88 (1.1)	
LDAT-S033030-D*xx*	5.0					0.95 (1.3)	
LDAT-S033040-D*xx*							
LDAT-S033010-E*xx*	3.5	3.7		12.2		0.67 (0.9)	2198-D012-ERS*x*
LDAT-S033020-E*xx*	4.7					0.87 (1.2)	
LDAT-S033030-E*xx*	5.0					0.91 (1.2)	
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 (Hp)	**Kinetix 5700 Drives (480V AC input)**
LDAT-S051010-D*xx*	2.8	3.1	119 (27)	11.4	363 (82)	0.34 (0.5)	2198-D012-ERS*x*
LDAT-S051020-D*xx*	3.7					0.43 (0.6)	
LDAT-S051030-D*xx*	4.1					0.49 (0.7)	
LDAT-S051040-D*xx*	4.4					0.53 (0.7)	
LDAT-S051050-D*xx*	4.7					0.55 (0.7)	
LDAT-S052010-D*xx*	3.7	6.2	251 (56)	22.7	727 (163)	0.92 (1.2)	2198-D020-ERS*x*
LDAT-S052020-D*xx*	4.8					1.20 (1.6)	
LDAT-S052030-D*xx*	5.0					1.24 (1.7)	
LDAT-S052040-D*xx*							
LDAT-S052050-D*xx*							
LDAT-S052010-E*xx*	3.7	3.1		11.4		0.80 (1.1)	2198-D012-ERS*x*
LDAT-S052020-E*xx*	4.6					0.98 (1.3)	
LDAT-S052030-E*xx*	4.6					1.02 (1.4)	
LDAT-S052040-E*xx*							
LDAT-S052050-E*xx*							
LDAT-S053010-D*xx*	4.1	9.4	378 (85)	34.2	1093 (246)	1.56 (2.1)	2198-D032-ERS*x*
LDAT-S053020-D*xx*	5.0					1.87 (2.5)	
LDAT-S053030-D*xx* ... LDAT-S053050-D*xx*							
LDAT-S053010-E*xx* ... LDAT-S053050-E*xx*	3.5	3.1		11.4		1.04 (1.4)	2198-D012-ERS*x*
LDAT-S054010-D*xx*	4.4	12.4	509 (114)	45.5	1453 (327)	2.26 (3.0)	2198-D032-ERS*x*
LDAT-S054020-D*xx* ... LDAT-S054050-D*xx*	5.00					2.53 (3.4)	
LDAT-S054010-E*xx*	4.4	6.2		22.7		1.87 (2.5)	2198-D020-ERS*x*
LDAT-S054020-E*xx* ... LDAT-S054050-E*xx*	5.0					2.05 (2.7)	

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 (Hp)	**Kinetix 5700 Drives (480V AC input)**
LDAT-S072010-D*xx*	3.9	6.0	364 (82)	22.0	1055 (237)	1.37 (1.8)	2198-D020-ERS*x*
LDAT-S072020-D*xx*	5.0					1.64 (2.2)	
LDAT-S072030-D*xx* ... LDAT-S072070-D*xx*							
LDAT-S072010-E*xx*	3.5	3.0		11.0		1.03 (1.4)	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 (3.0)	2198-D032-ERS*x*
LDAT-S073020-D*xx* ... LDAT-S073070-D*xx*	5.0					2.50 (3.4)	
LDAT-S073010-E*xx* ... LDAT-S073070-E*xx*	2.4	3.0		10.9		1.01 (1.4)	2198-D012-ERS*x*
LDAT-S074010-D*xx*	4.7	11.9	730 (164)	43.5	2088 (469)	3.15 (4.2)	2198-D032-ERS*x*
LDAT-S074020-D*xx* ... LDAT-S074070-D*xx*	5.0					3.30 (4.4)	
LDAT-S074010-E*xx* ... LDAT-S074070-E*xx*	3.5	6.0		21.7		2.08 (2.8)	2198-D020-ERS*x*
LDAT-S076010-D*xx*	5.0	18.2	1122 (252)	66.4	3189 (717)	5.02 (6.7)	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 (4.3)	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 (Hp)	**Kinetix 5700 Drives (480V AC input)**
LDAT-S102010-D*xx*	3.4	5.7	456 (103)	21.0	1289 (290)	1.44 (1.9)	2198-D020-ERS*x*
LDAT-S102020-D*xx*	4.4					1.74 (2.3)	
LDAT-S102030-D*xx*	5.0					1.91 (2.6)	
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 (1.3)	2198-D012-ERS*x*
LDAT-S103010-D*xx*	3.8	8.6	702 (158)	31.5	1935 (435)	2.41 (2.3)	2198-D032-ERS*x*
LDAT-S103020-D*xx*	5.0					2.93 (3.9)	
LDAT-S103030-D*xx* ... LDAT-S103090-D*xx*							
LDAT-S103010-E*xx* ... LDAT-S103090-E*xx*	1.8	2.9		10.5		0.92 (1.2)	2198-D012-ERS*x*
LDAT-S104010-D*xx*	4.1	11.5	929 (209)	42.0	2578 (580)	3.76 (5.0)	2198-D032-ERS*x*
LDAT-S104020-D*xx*	5.0					4.29 (5.8)	
LDAT-S104030-D*xx* ... LDAT-S104090-D*xx*							
LDAT-S104010-E*xx* ... LDAT-S104090-E*xx*	2.7	5.7		21.0		2.07 (2.8)	2198-D020-ERS*x*
LDAT-S106010-D*xx*	4.5	17.3	1403 (315)	63.0	3871 (870)	5.41 (7.3)	2198-D057-ERS*x*
LDAT-S106020-D*xx* ... LDAT-S106090-D*xx*	5.0					5.87 (7.9)	
LDAT-S106010-E*xx* ... LDAT-S106090-E*xx*	2.7	8.6		31.5		2.94 (3.9)	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.

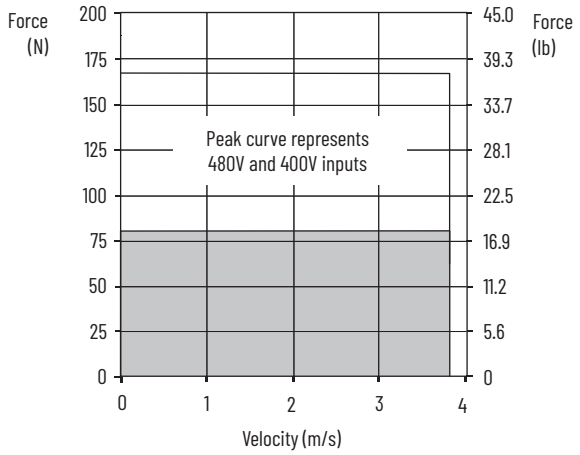
Performance Specifications with Frame 150 Linear Thrusters

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 (Hp)	**Kinetix 5700 Drives (480V AC input)**
LDAT-S152010-D*xx*	3.2	5.3	643 (145)	19.5	1799 (404)	1.76 (2.4)	2198-D020-ERS*x*
LDAT-S152020-D*xx* ... LDAT-S152090-D*xx*	3.5					1.89 (2.5)	
LDAT-S152010-E*xx* ... LDAT-S152090-E*xx*	1.8	2.7		9.8		0.87 (1.0)	2198-D012-ERS*x*
LDAT-S153010-D*xx* ... LDAT-S153090-D*xx*	3.6	8.0	978 (220)	29.1	2680 (602)	2.87 (3.8)	2198-D032-ERS*x*
LDAT-S153010-E*xx* ... LDAT-S153090-E*xx*	1.2	2.7		9.1		0.80 (1.1)	2198-D012-ERS*x*
LDAT-S154010-D*xx* ... LDAT-S154090-D*xx*	3.5	10.7	1306 (294)	39.1	3597 (809)	3.83 (5.1)	2198-D032-ERS*x*
LDAT-S154010-E*xx* ... LDAT-S154090-E*xx*	1.8	5.3		19.5		1.78 (2.4)	2198-D020-ERS*x*
LDAT-S156010-D*xx* ... LDAT-S156090-D*xx*	3.6	16.3	1997 (449)	59.4	5469 (1229)	5.85 (7.8)	2198-D057-ERS*x*
LDAT-S156010-E*xx* ... LDAT-S156090-E*xx*	1.8	8.1		19.8		2.71 (3.6)	2198-D020-ERS*x*

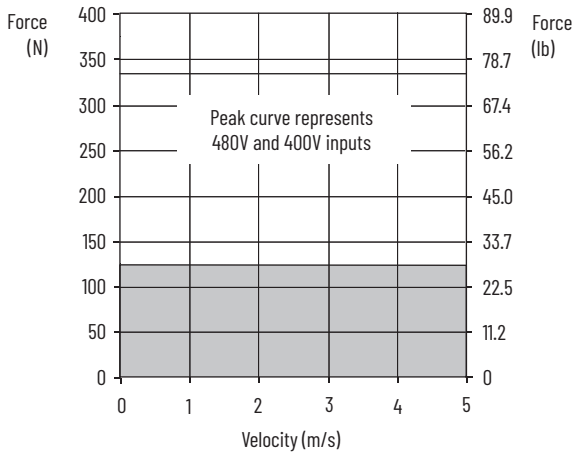
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

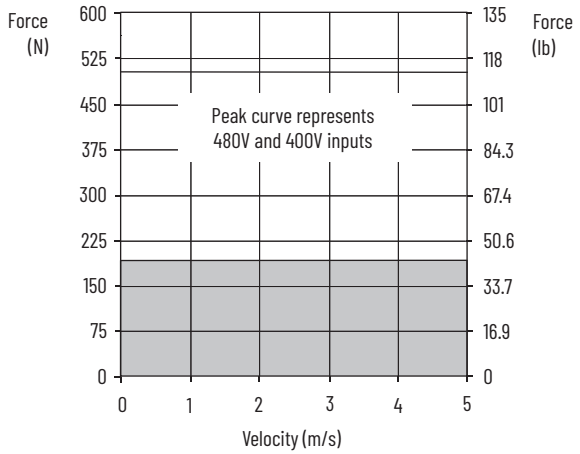
2198-D012-ERS*x* and LDAT-S031040-D*xx*



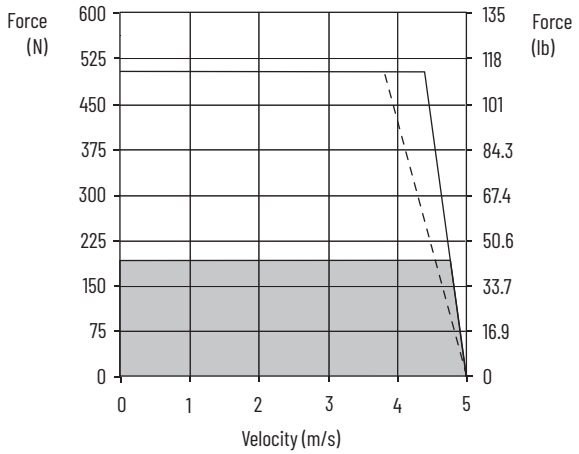
2198-D020-ERS*x* and LDAT-S032040-D*xx*
2198-D012-ERS*x* and LDAT-S032040-E*xx*



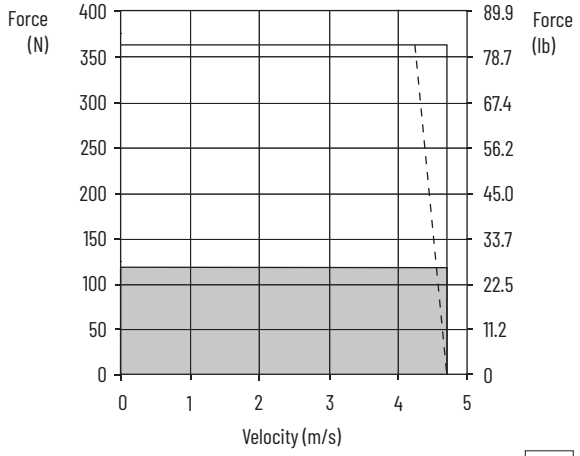
2198-D032-ERS*x* and LDAT-S033040-D*xx*



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



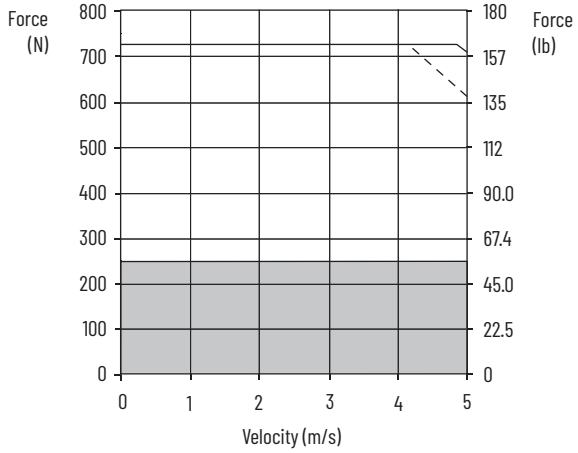
2198-D012-ERS*x* and LDAT-S051050-D*xx*



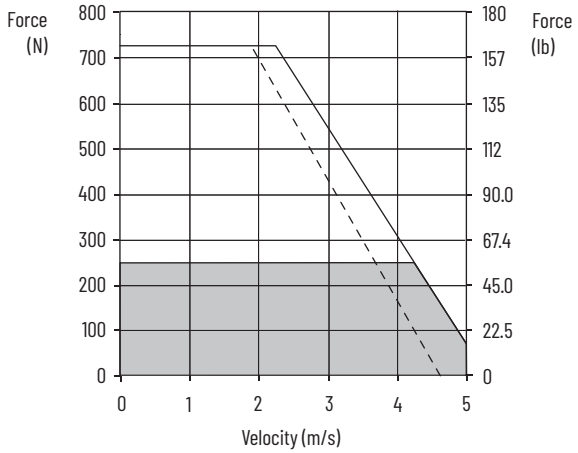
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

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

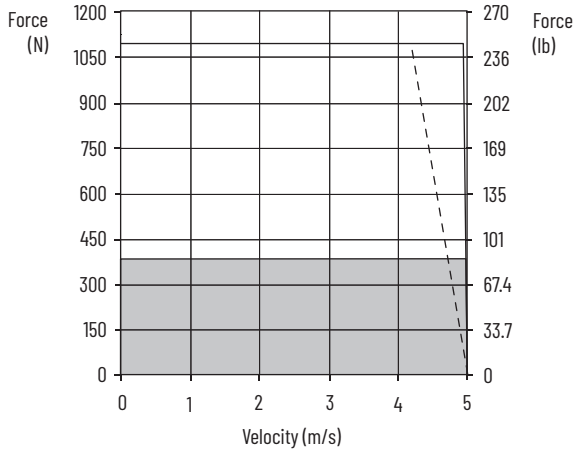
2198-D020-ERS*x* and LDAT-S052050-D*xx*



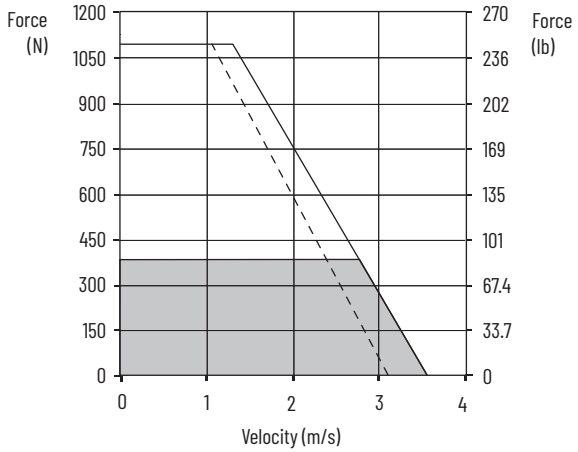
2198-D012-ERS*x* and LDAT-S052050-E*xx*



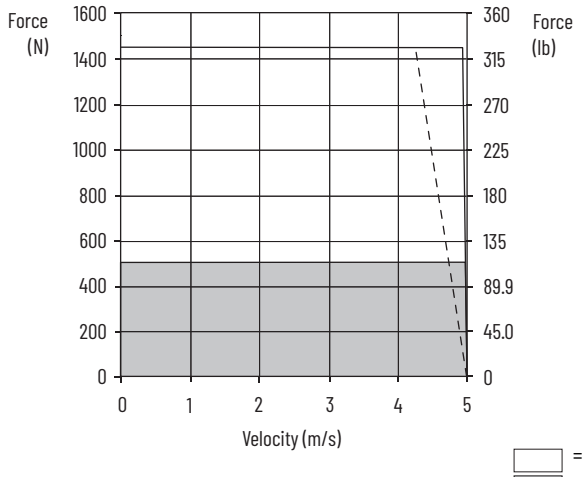
2198-D032-ERS*x* and LDAT-S053050-D*xx*



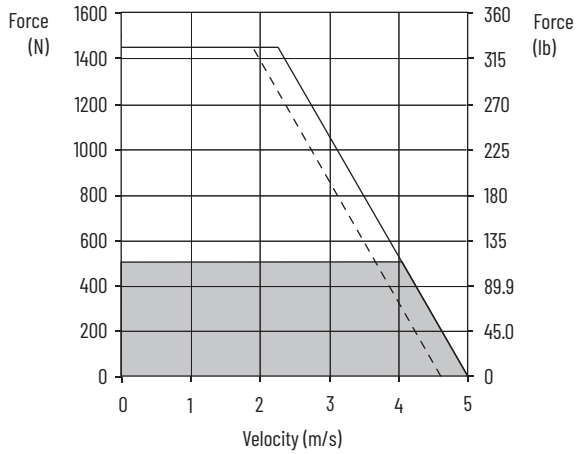
2198-D012-ERS*x* and LDAT-S053050-E*xx*



2198-D032-ERS*x* and LDAT-S054050-D*xx*



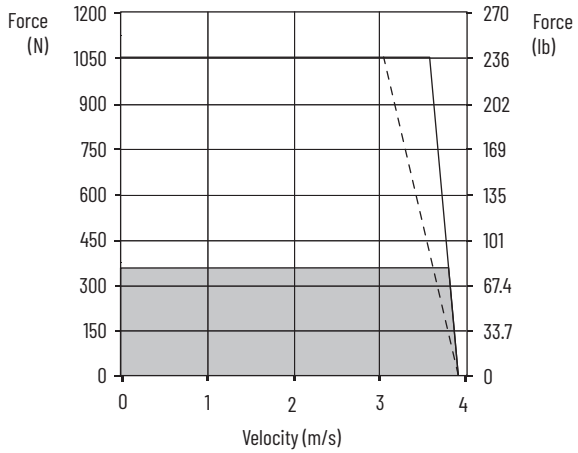
2198-D020-ERS*x* and LDAT-S054050-E*xx*



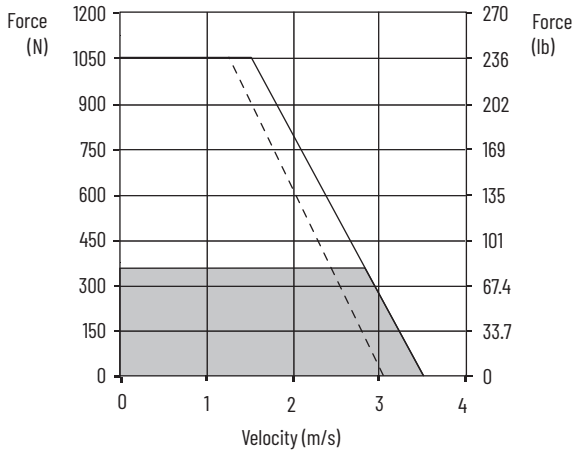
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

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

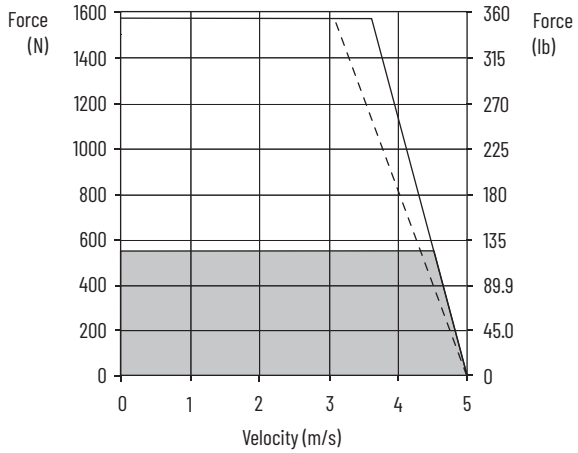
2198-D020-ERS*x* and LDAT-S072070-D*xx*



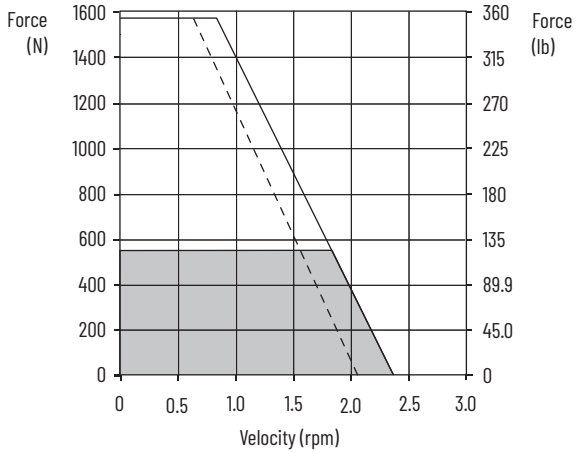
2198-D012-ERS*x* and LDAT-S072070-E*xx*



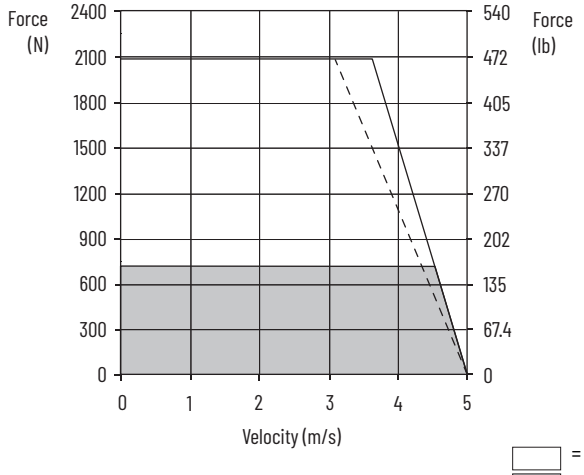
2198-D032-ERS*x* and LDAT-S073070-D*xx*



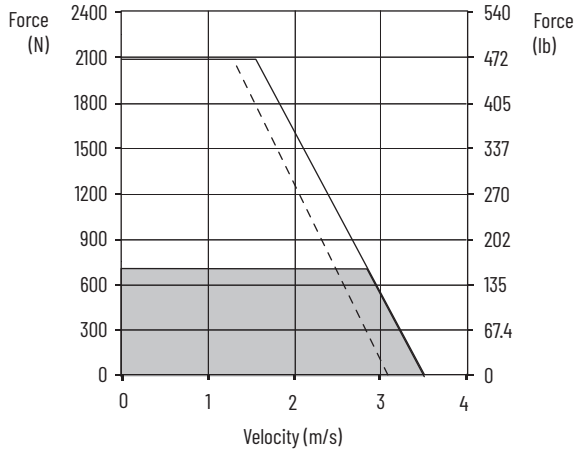
2198-D012-ERS*x* and LDAT-S073070-E*xx*



2198-D032-ERS*x* and LDAT-S074070-D*xx*



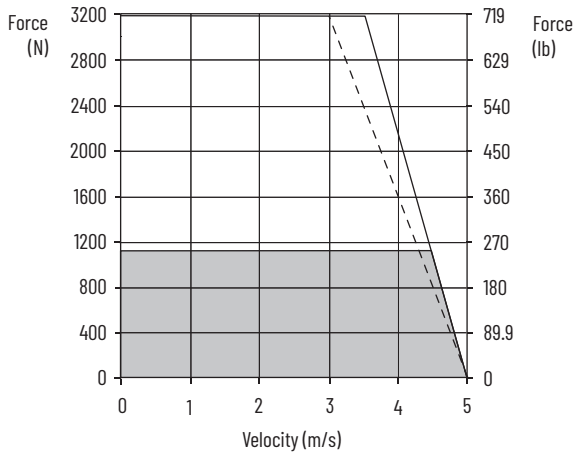
2198-D020-ERS*x* and LDAT-S074070-E*xx*



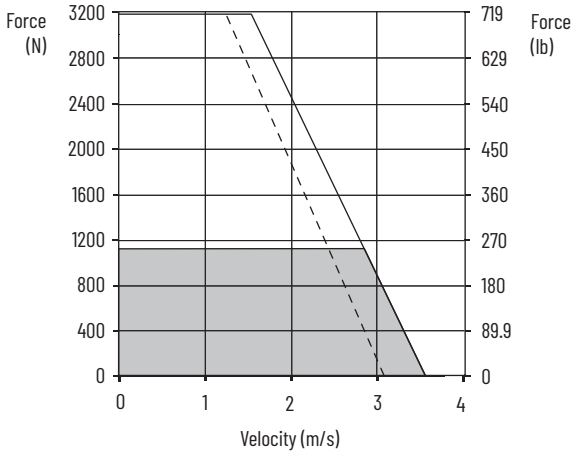
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

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

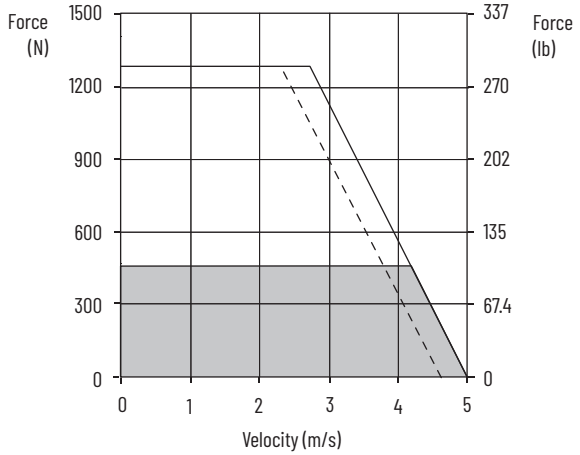
2198-D057-ERS*x* and LDAT-S076070-D*xx*



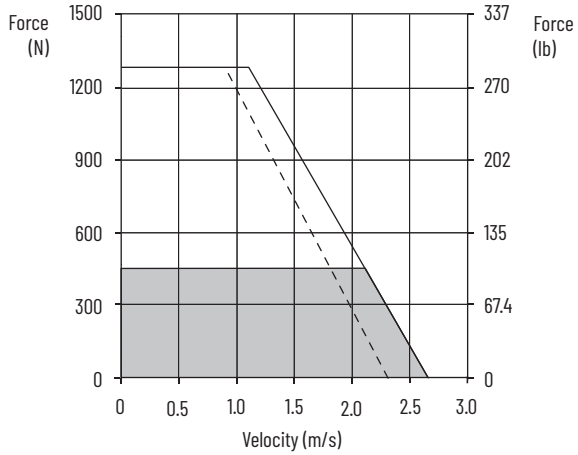
2198-D032-ERS*x* and LDAT-S076070-E*xx*



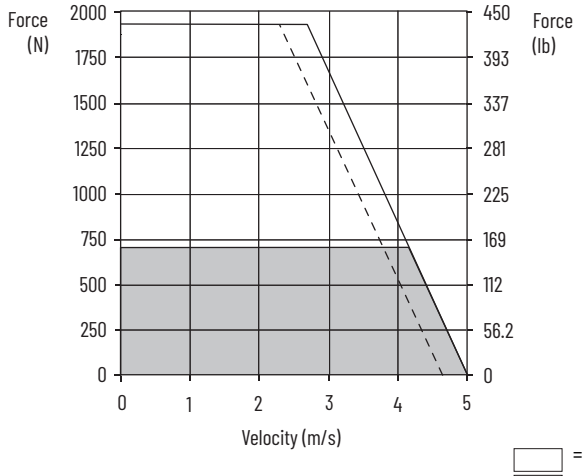
2198-D020-ERS*x* and LDAT-S102090-D*xx*



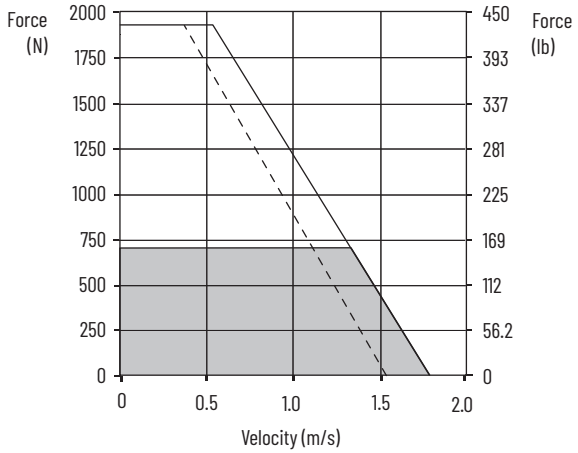
2198-D012-ERS*x* and LDAT-S102090-E*xx*



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



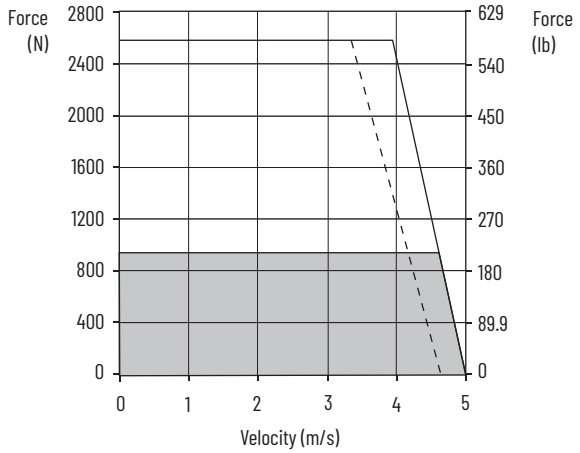
2198-D012-ERS*x* and LDAT-S103090-E*xx*



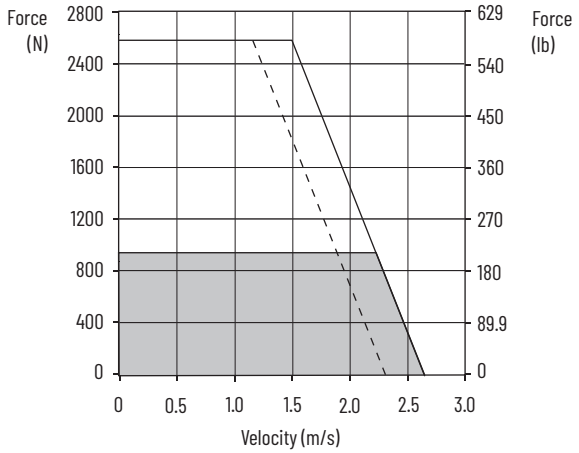
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

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

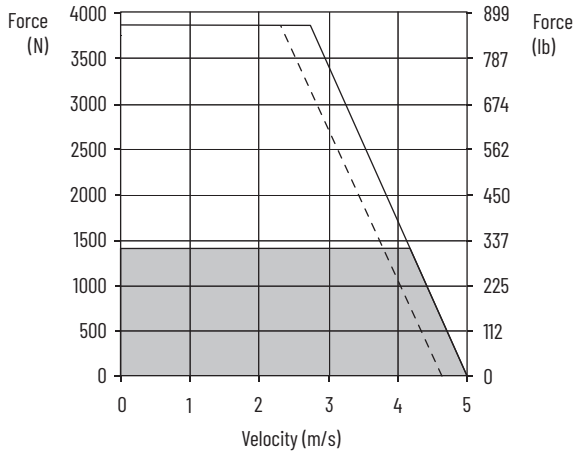
2198-D032-ERS*x* and LDAT-S104090-D*xx*



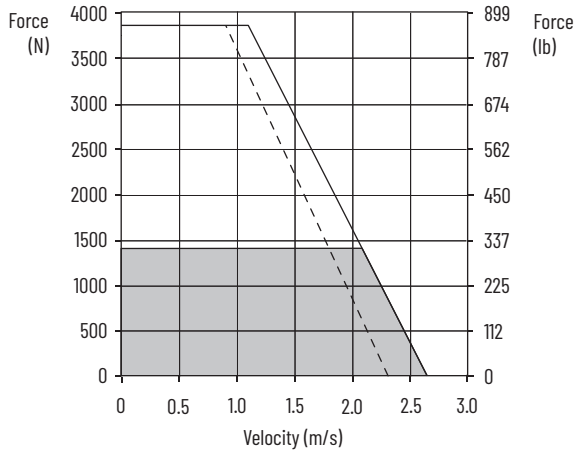
2198-D020-ERS*x* and LDAT-S104090-E*xx*



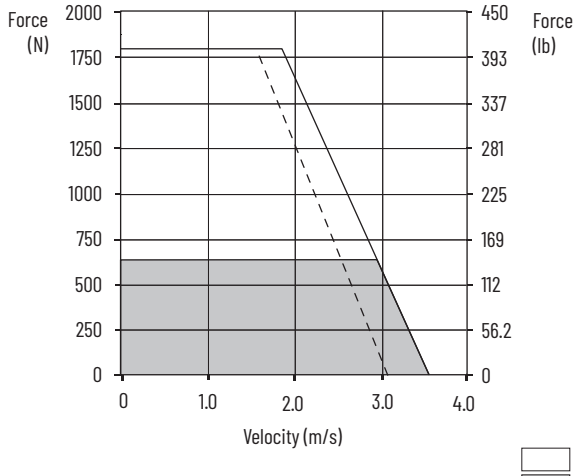
2198-D057-ERS*x* and LDAT-S106090-D*xx*



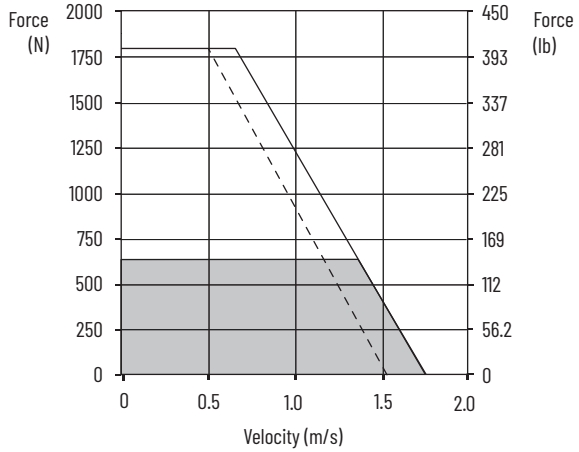
2198-D032-ERS*x* and LDAT-S106090-E*xx*



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



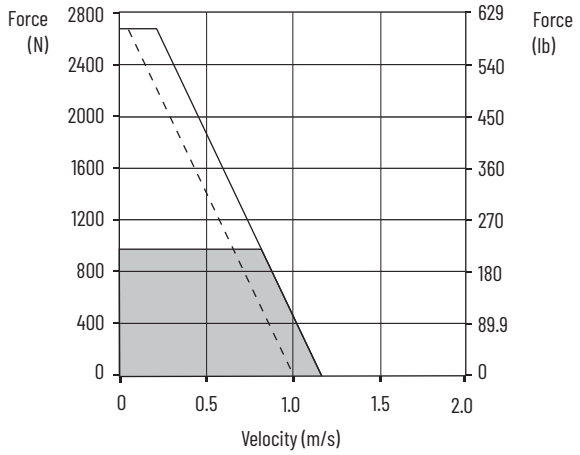
2198-D012-ERS*x* and LDAT-S152090-E*xx*



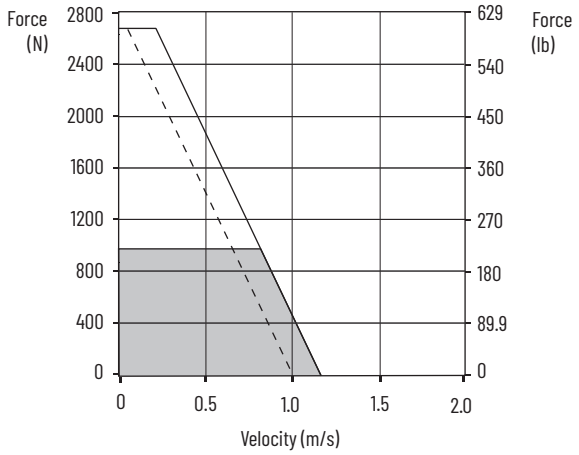
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC input voltage

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

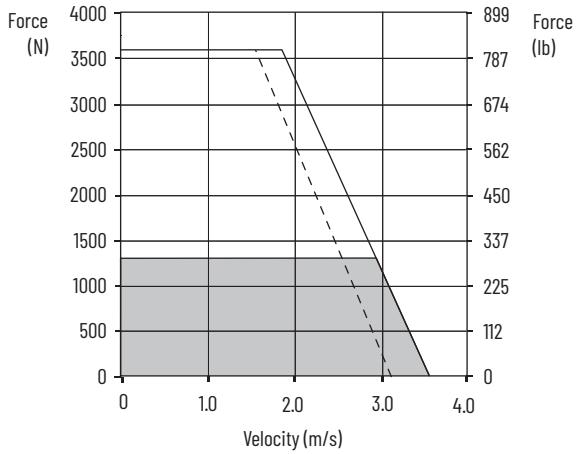
2198-D012-ERS*x* and LDAT-S153090-E*xx*



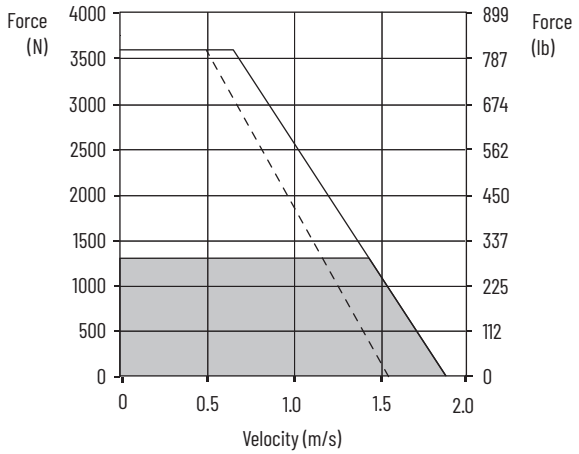
2198-D012-ERS*x* and LDAT-S153090-E*xx*



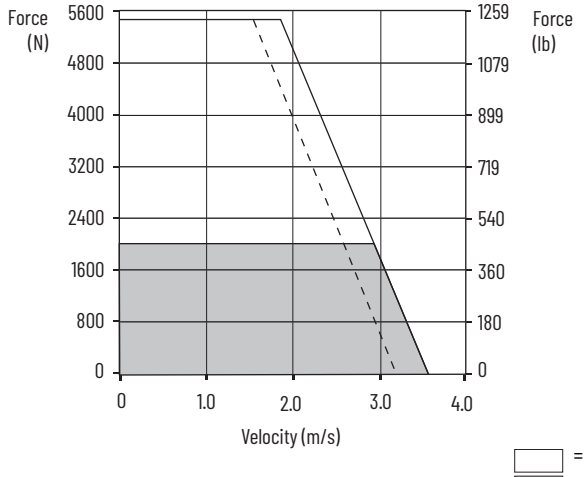
2198-D032-ERS*x* and LDAT-S154090-D*xx*



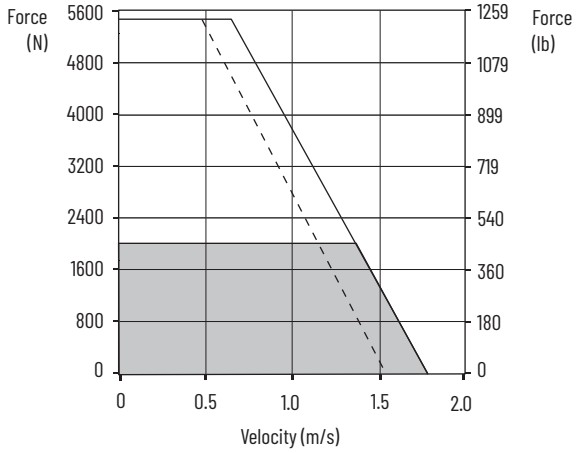
2198-D020-ERS*x* and LDAT-S154090-E*xx*



2198-D057-ERS*x* and LDAT-S156090-D*xx*



2198-D020-ERS*x* and LDAT-S156090-E*xx*



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

Kinetix 5700 (400V-class) Drives with Kinetix MPAS Linear Stages

This section provides system combination information for the Kinetix 5700 drives (with 400V 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 (400V-class) Cat. No.	Motor Power/Brake Cable	Motor Feedback Cable [1]
MPAS-B*xxxx*1-V05S*x*A [2] MPAS-B*xxxx*2-V20S*x*A	2090-CP*x*M7DF-16AA*xx* (standard, non-flex) 2090-CP*x*M7DF-16AF*xx* (continuous-flex)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback
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 16.
(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 Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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-class) Drives

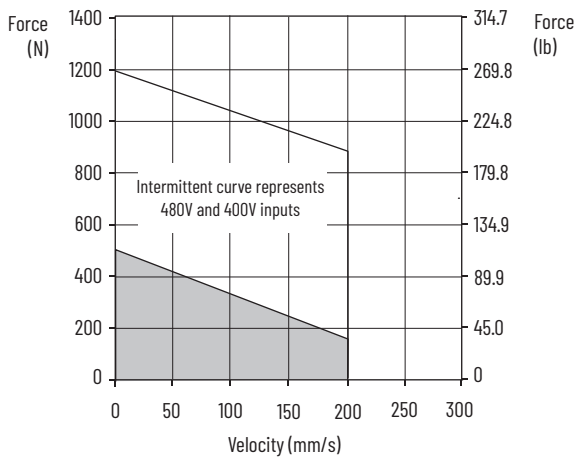
Linear Stage Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW (Hp)	Kinetix 5700 Drives (480V AC input)
MPAS-B*xxxx*1-V05S*x*A	200 (7.9) [1]	1.75	521 (117)	3.50	1212 (272)	0.37 (0.5)	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 (0.8)	2198-D006-ERS*x*
MPAS-B8*xxx*F-ALM02C	5000 (200)	3.50	189 (42.5)	9.30	456 (103)	0.53 (0.7)	2198-D012-ERS*x*
MPAS-B8*xxx*F-ALMS2C	5000 (200)	3.15	159 (35.7)	8.37	399 (89.7)	0.48 (0.6)	2198-D006-ERS*x*
MPAS-B9*xxx*L-ALM02C	5000 (200)	3.40	285 (64.1)	9.10	680 (153)	0.77 (1.0)	2198-D012-ERS*x*
MPAS-B9*xxx*L-ALMS2C	5000 (200)	3.03	245 (55.1)	8.19	601 (135)	0.69 (0.9)	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).

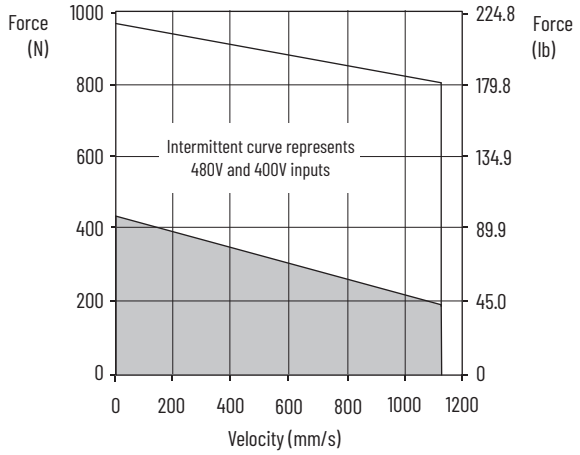
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

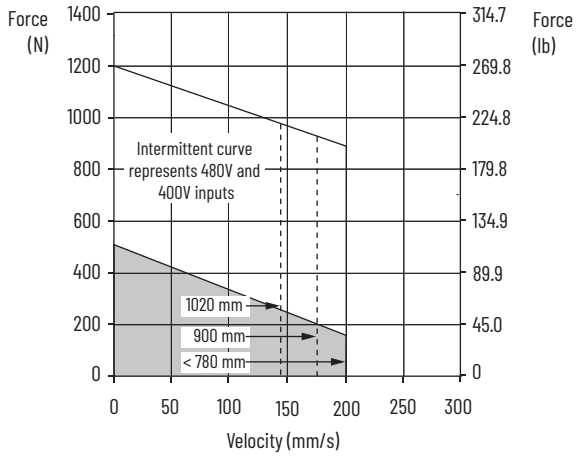
2198-D006-ERSx and MPAS-B6xxx1-V05SxA



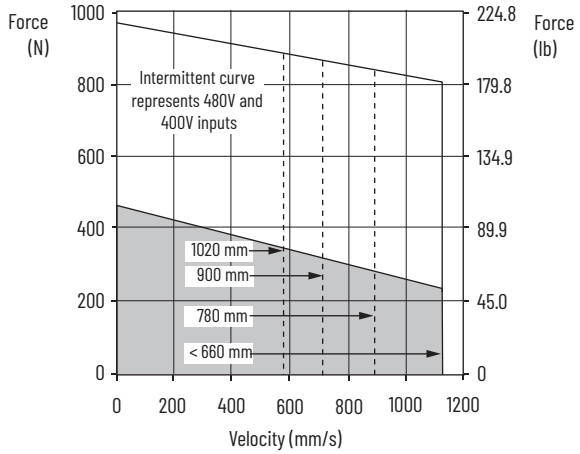
2198-D006-ERSx and MPAS-B6xxx2-V20SxA



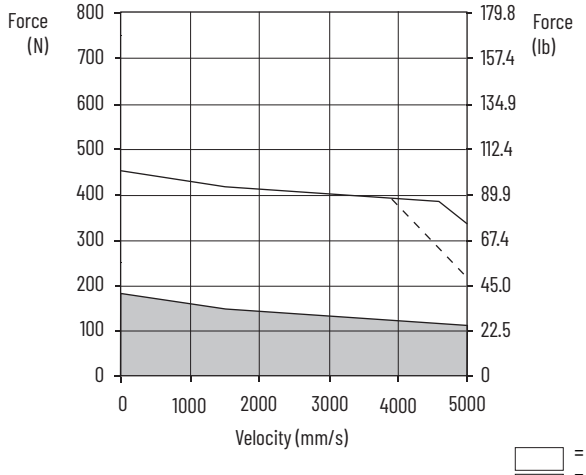
2198-D006-ERSx and MPAS-B8xxx1-V05SxA



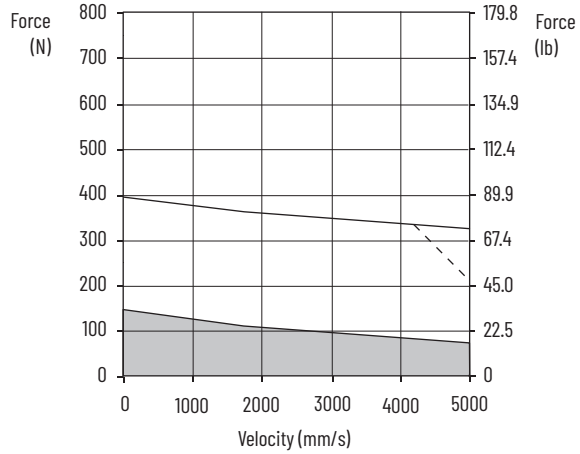
2198-D006-ERSx and MPAS-B8xxx2-V20SxA



2198-D012-ERSx and MPAS-B8xxxF-ALM02C

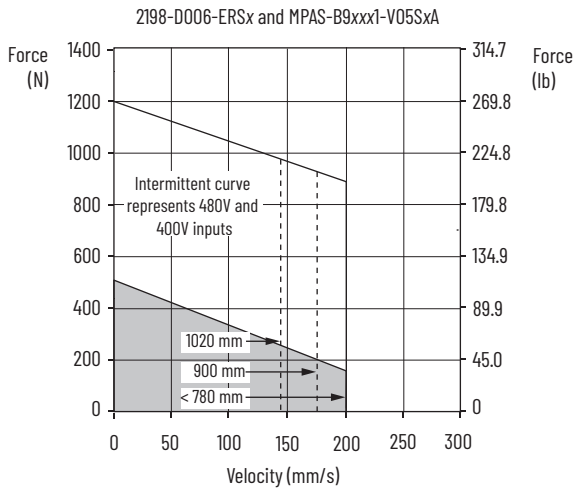


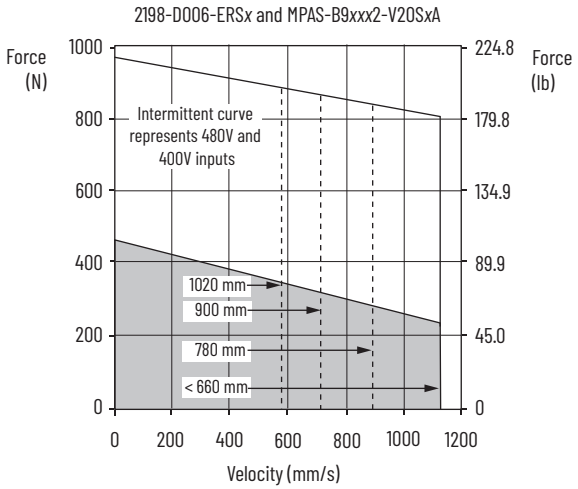
2198-D006-ERSx and MPAS-B8xxxF-ALMS2C

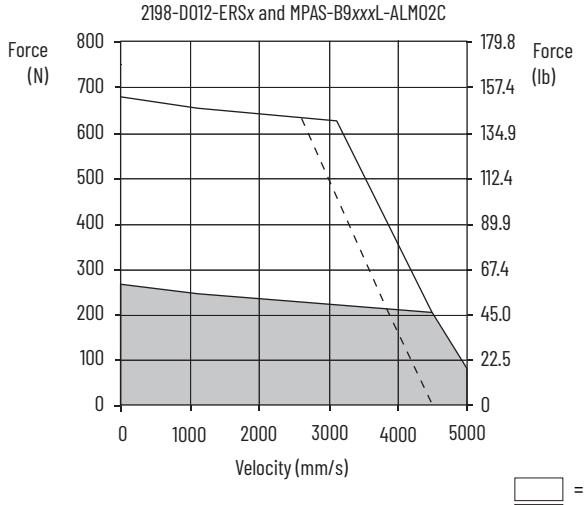


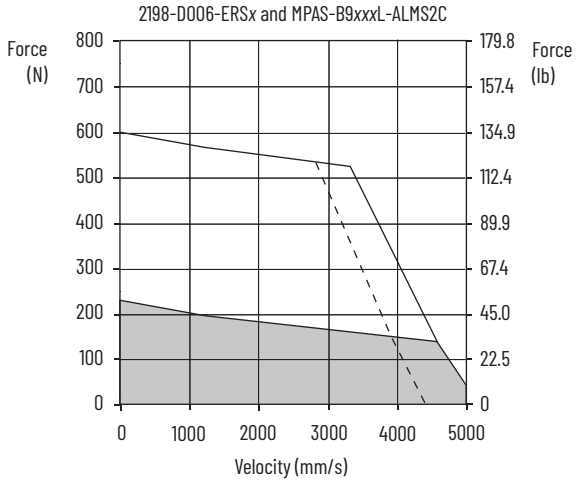
= Intermittent operating region
= Continuous operating region
= System operation with 400V AC rms input voltage
= System operation for specified stroke length

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









= 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.

ArmorKinetix DSD modules are compatible with Kinetix VPAR electric cylinders.

Kinetix VPAR Cable Combinations

Electric Cylinder (400V-class) (1) Cat. No.	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) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	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) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	

(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-CSxM1DE or 2090-CSxM1DG 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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004, for cable specifications. For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Single Motor Cable Overview beginning on page 24.

Kinetix VPAR Performance Specifications with Kinetix 5700 Drives

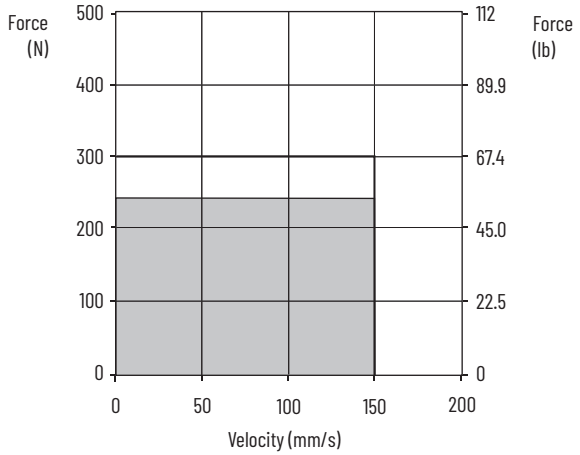
Performance Specifications with Kinetix 5700 (400V-class) Drives

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW (Hp)	Kinetix 5700 Drives (480V AC input)
VPAR-B1*xxx*B	150	0.41	240 (53.9)	1.34	300 (67.4)	0.11 (0.1)	2198-D006-ERS*x*
VPAR-B1*xxx*E	500	1.20	280 (62.9)	2.10	350 (78.7)	0.24 (0.3)	2198-D006-ERS*x*
VPAR-B2*xxx*C	250	1.25	420 (94.4)	2.67	525 (118)	0.25 (0.3)	2198-D006-ERS*x*
VPAR-B2*xxx*F	640	3.10	640 (144)	5.80	800 (180)	0.56 (0.8)	2198-D012-ERS*x*
VPAR-B3*xxx*E	500	5.10	2000 (450)	13.0	2500 (562)	1.30 (1.7)	2198-D012-ERS*x*
VPAR-B3*xxx*H	1000	8.60	1284 (289)	17.0	1625 (365)	1.68 (2.3)	2198-D020-ERS*x*

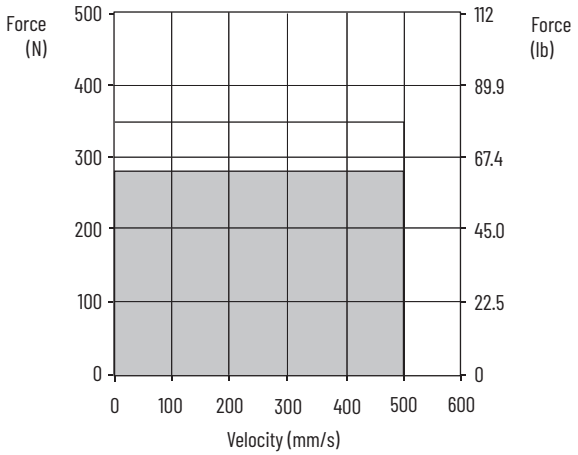
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 Drives/Kinetix VPAR Electric Cylinder Curves

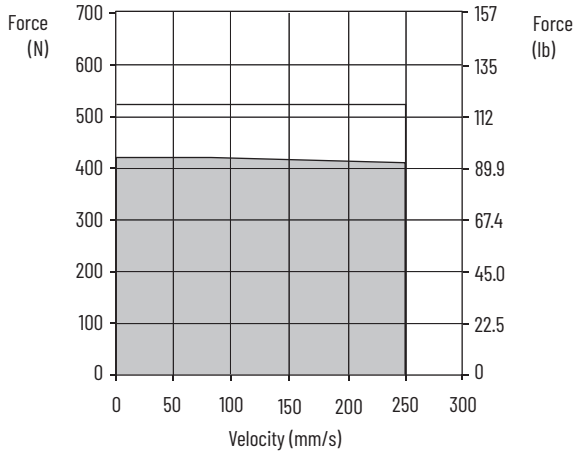
2198-D006-ERS*x* and VPAR-B1*xxx*B



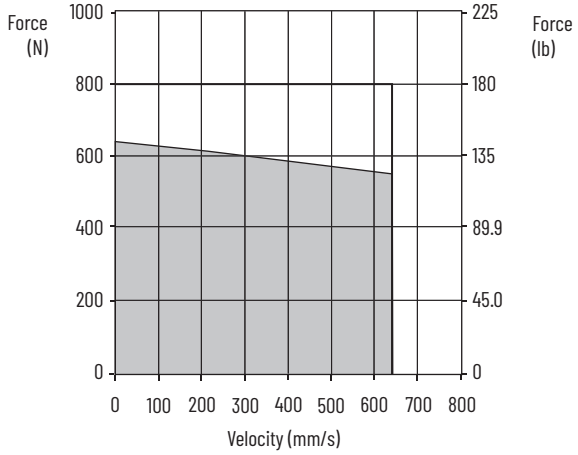
2198-D006-ERS*x* and VPAR-B1*xxx*E



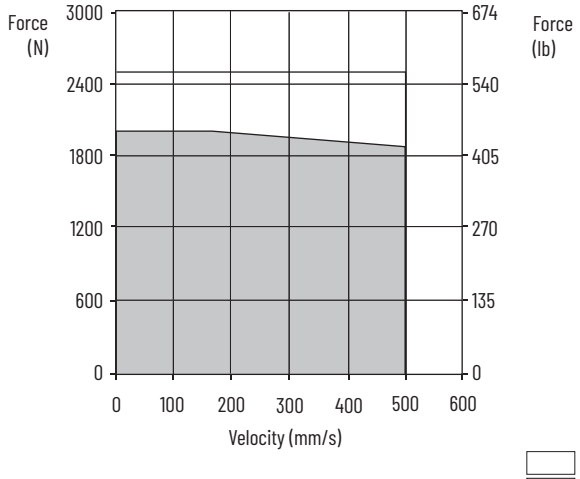
2198-D006-ERS*x* and VPAR-B2*xxx*C



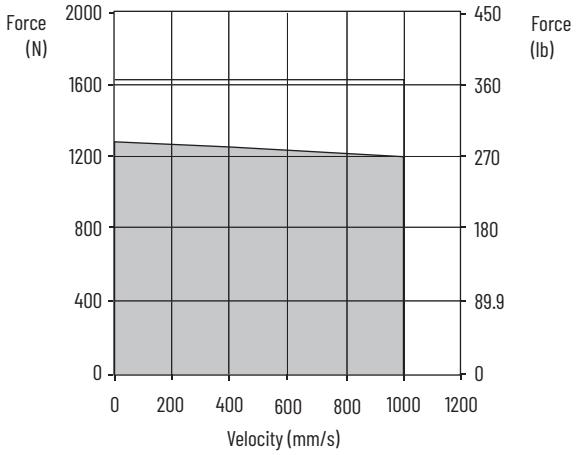
2198-D012-ERS*x* and VPAR-B2*xxx*F



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.

ArmorKinetix DSD modules are compatible with Kinetix MPAR electric cylinders.

Kinetix MPAR Cable Combinations

Electric Cylinder (400V-class) Cat. No.	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-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-CFBM7DF-CEAA*xx* (standard, non-flex) 2090-CFBM7DF-CEAF*xx* (continuous-flex) Absolute High-resolution Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)

(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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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

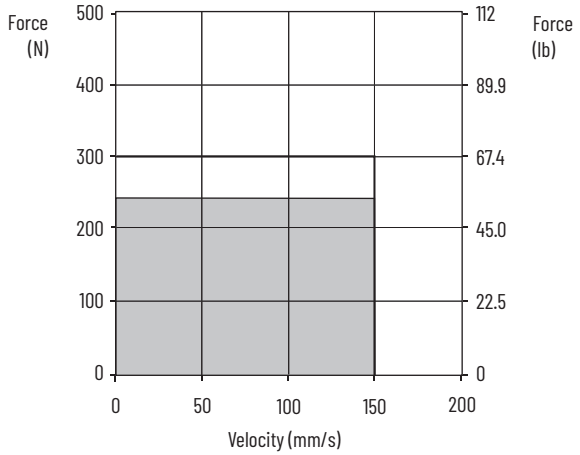
Performance Specifications with Kinetix 5700 (400V-class) Drives

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW (Hp)	Kinetix 5700 Drives (480V AC input)
MPAR-B1*xxx*B	150	1.15	240 (53.9)	1.35	300 (67.4)	0.04 (0.1)	2198-D006-ERS*x*
MPAR-B1*xxx*E	500	1.49	280 (62.9)	1.71	350 (78.7)	0.14 (0.2)	2198-D006-ERS*x*
MPAR-B2*xxx*C	250	1.67	420 (94.4)	1.90	525 (118)	0.11 (0.1)	2198-D006-ERS*x*
MPAR-B2*xxx*F	640	3.29	640 (144)	3.93	800 (180)	0.41 (0.5)	2198-D006-ERS*x*
MPAR-B3*xxx*E	500	5.16	2000 (450)	6.17	2500 (562)	1.0 (1.3)	2198-D012-ERS*x*
MPAR-B3*xxx*H	1000	6.13	1300 (292)	6.79	1625 (365)	1.3 (1.7)	2198-D012-ERS*x*

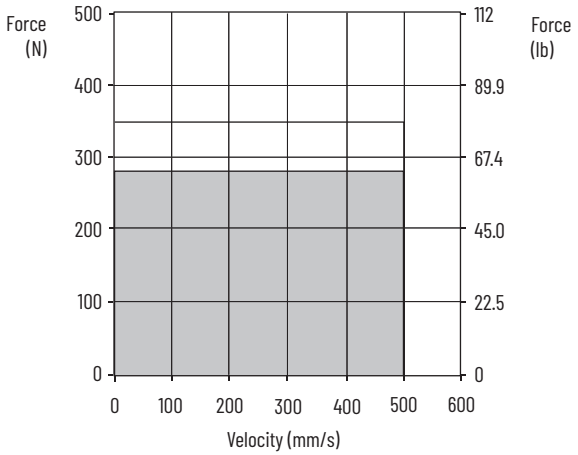
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

Kinetix 5700 Drives/Kinetix MPAR Electric Cylinder Curves

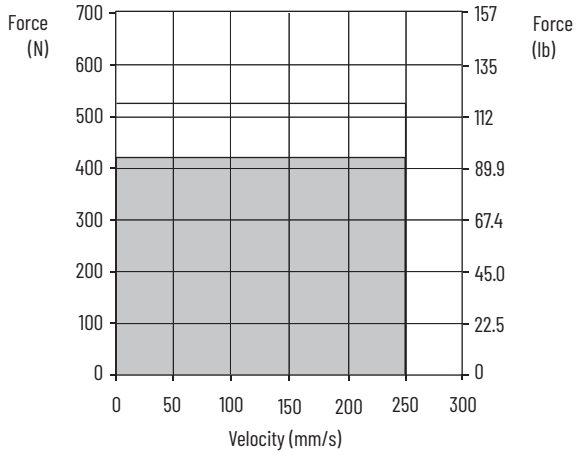
2198-D006-ERS*x* and MPAR-B1*xxx*B-V*x*A



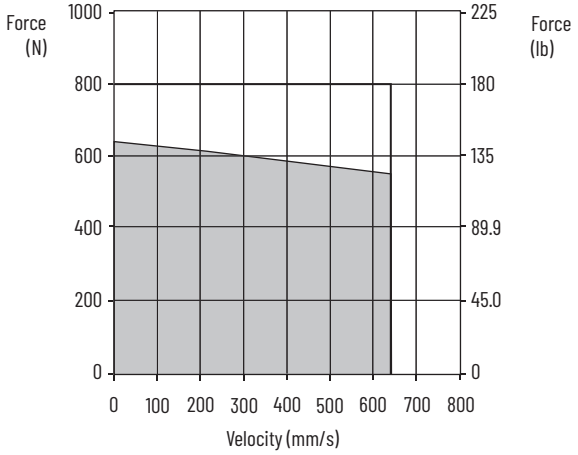
2198-D006-ERS*x* and MPAR-B1*xxx*E-V*x*A



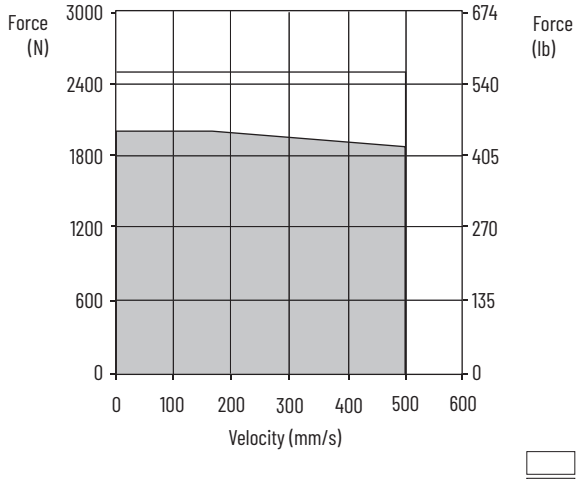
2198-D006-ERS*x* and MPAR-B2*xxx*C-V*x*A



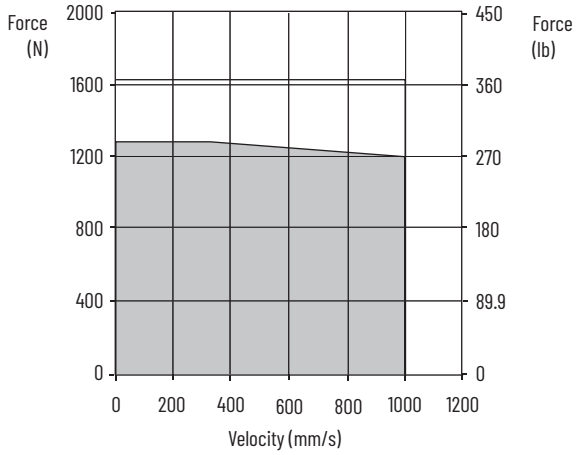
2198-D006-ERS*x* and MPAR-B2*xxx*F-V*x*A



2198-D012-ERS*x* and MPAR-B3*xxx*E-M*x*A



2198-D012-ERS*x* and MPAR-B3*xxx*H-M*x*A



= 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 (400V-class) Cat. No.	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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25.
Motor-end connector kits are available for motor power/brake and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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-class) Drives

Performance Specifications with Ball Screw Electric Cylinders

Electric Cylinder Cat. No.	Maximum Speed mm/s (in/s)	System Continuous Stall Current Amps 0-pk	System Continuous Stall Force N (lb)		System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Motor Output Power Rating kW (Hp)	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(0.3)	2198-D006-ERS*x*
MPAI-B2150CV3		1.29	1446 (325)	1147 (258)	3.25		0.25 (0.3)	
MPAI-B2300CV3								
MPAI-B3076CM1	305 (12)	1.35	1624 (365)	1290 (290)	4.57	4448 (1000)	0.27 (0.4)	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 (0.5)	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 (0.6)	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 (0.7)	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.

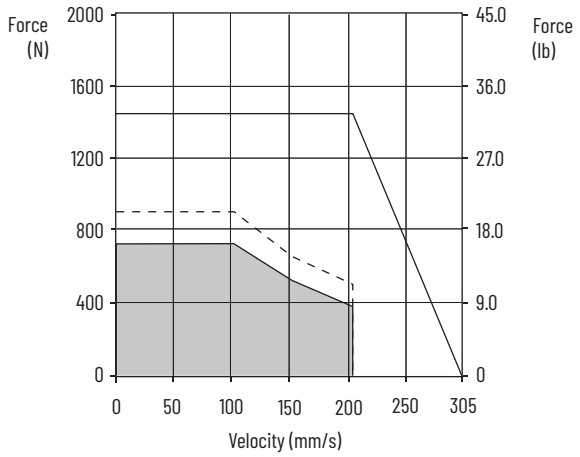
Performance Specifications with Roller Screw Electric Cylinders

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 (Hp)	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 (0.4)	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 (0.5)	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 (0.6)	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)							

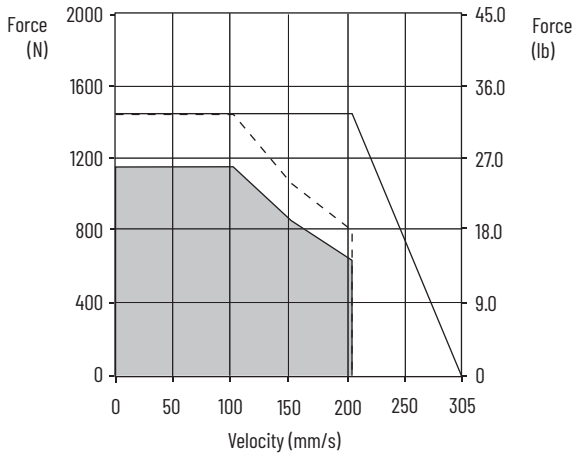
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

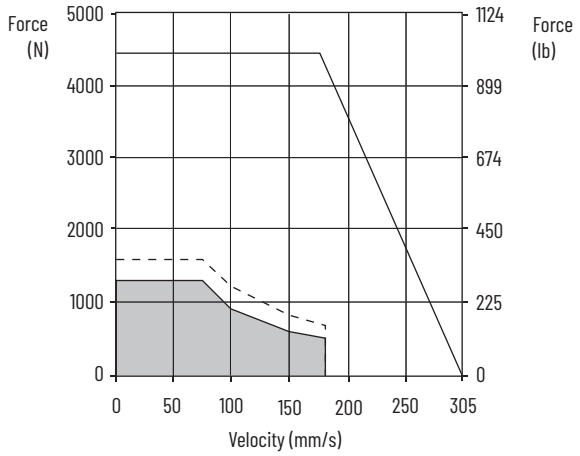
2198-D006-ERS*x* and MPAI-B2076CV1



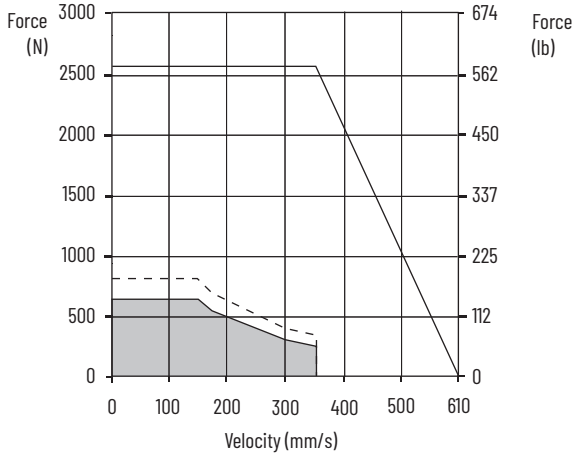
2198-D006-ERS*x* and MPAI-B2*xxx*CV3



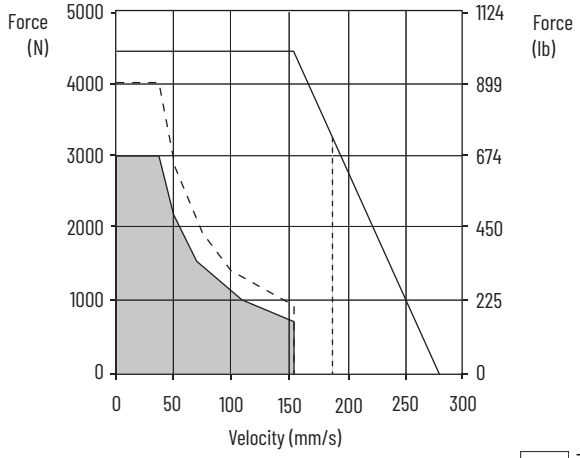
2198-D006-ERS*x* and MPAI-B3076CM1



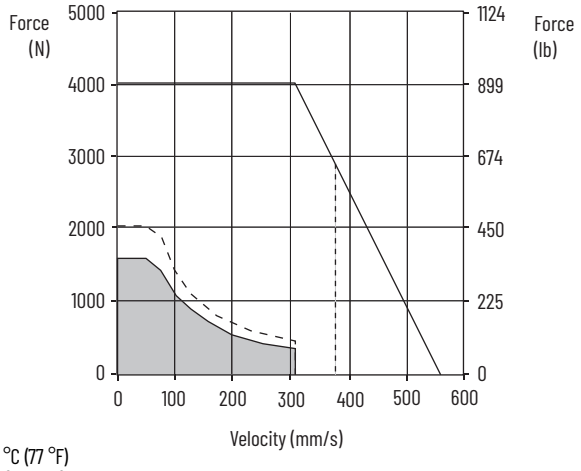
2198-D006-ERS*x* and MPAI-B3076EM1



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

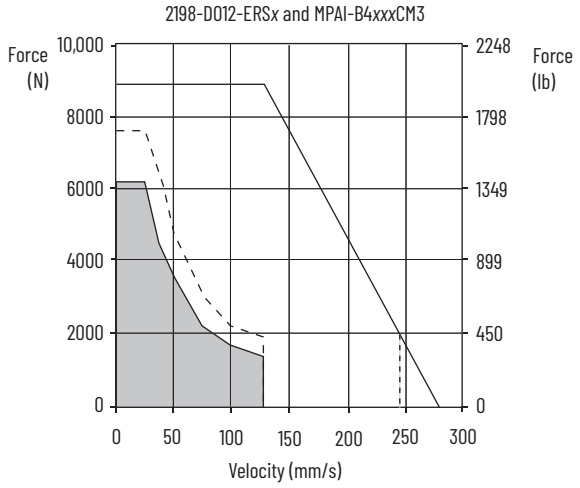


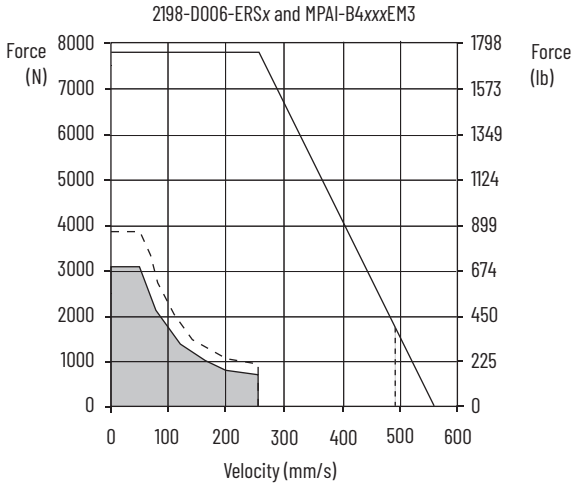
2198-D006-ERS*x* and MPAI-B3*xxx*EM3

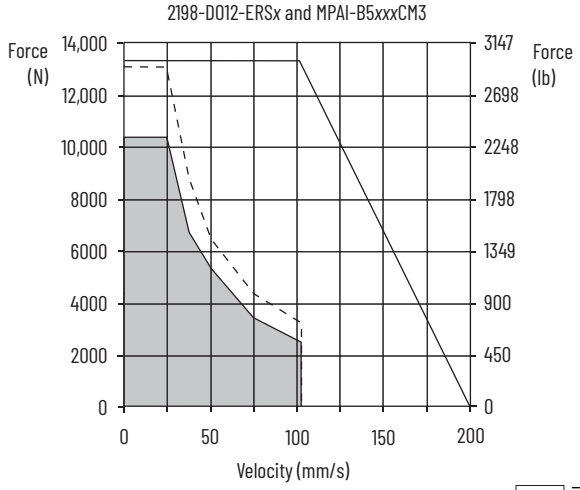


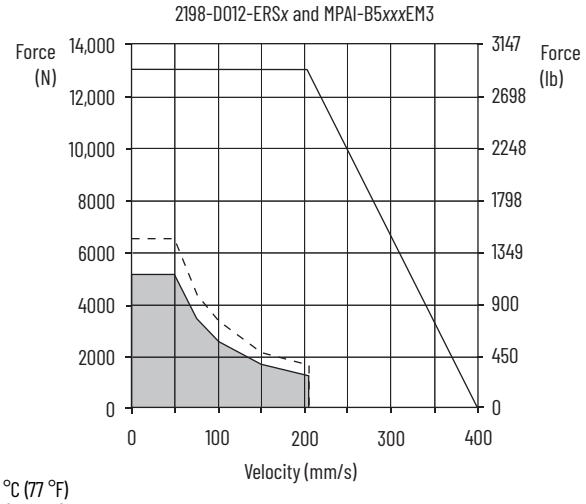
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076...300 mm (3...12 in.) stroke lengths

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





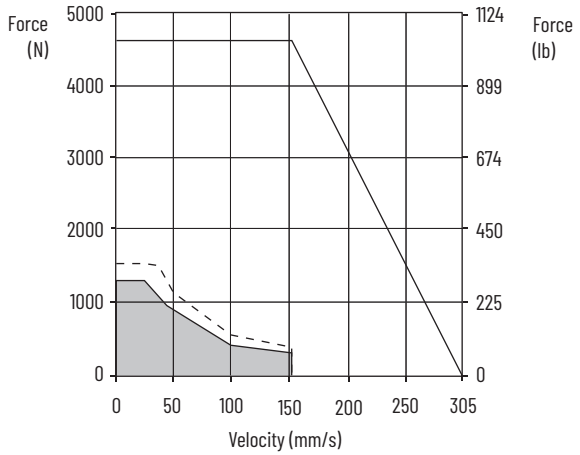




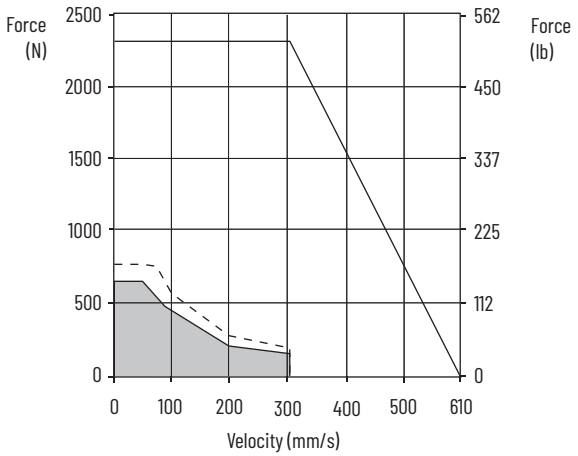
= Continuous operating region @ 25 °C (77 °F)
= Continuous operating region @ 40 °C (104 °F)
= Intermittent operating region, 450 mm (18 in.) stroke length only
= Intermittent operating region, 076...300 mm (3...12 in.) stroke lengths

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

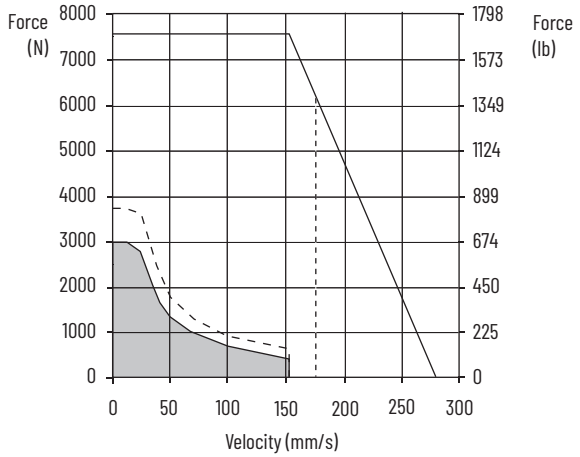
2198-D006-ERS*x* and MPAI-B3076RM1



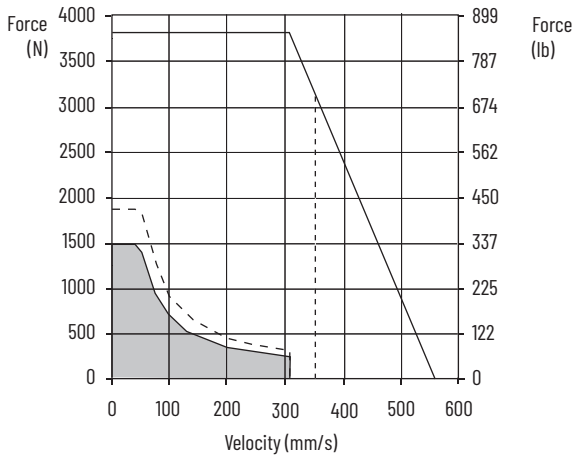
2198-D006-ERS*x* and MPAI-B3076SM1



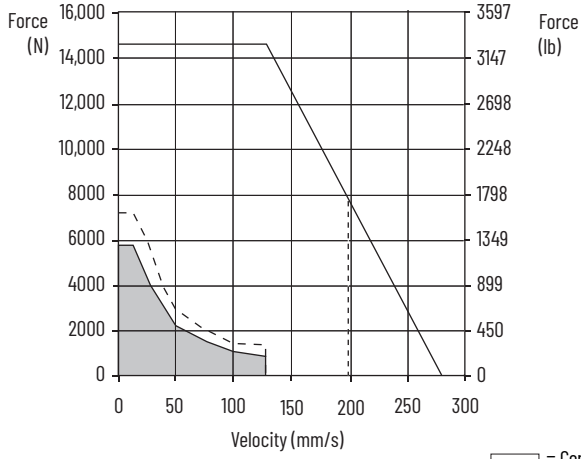
2198-D006-ERS*x* and MPAI-B3*xxx*RM3



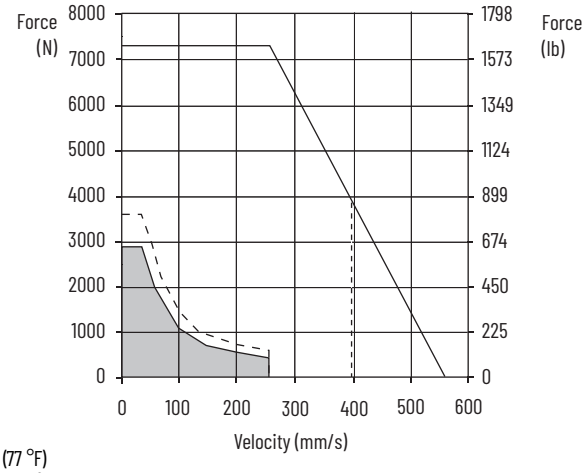
2198-D006-ERS*x* and MPAI-B3*xxx*SM3



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-class) Drives with Kinetix LDC Linear Motors

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

ArmorKinetix DSD modules are compatible with Kinetix LDC linear motors.

Kinetix LDC Cable Combinations

Linear Motor Cat. No.	Motor Power Cable	Motor Feedback Cable (1)
LDC-C030100-DHT, LDC-C030200-DHT, LDC-C030200-EHT	2090-CPWM7DF-16AA*xx* (standard, non-flex) 2090-CPWM7DF-16AF*xx* (continuous-flex) 2090-CSBM1P7-14AF*xx* (ArmorKinetix)	2090-XXNFMF-S*xx* (standard, non-flex) 2090-CFBM7DF-CDAF*xx* (continuous-flex) Sin/Cos or TTL Encoder Feedback 2090-CFBM7S7-CDAF*xx* (ArmorKinetix)
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 16.

For cable configuration illustrations and feature descriptions, by catalog number, refer to Kinetix 2090 Motor Power/Brake and Feedback Cables Overview beginning on page 25. Motor-end connector kits, and panel-mounted breakout components (drive end), are available for motor power and feedback cables. Refer to the Kinetix Rotary and Linear Motion Cable Specifications, 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 LDC Performance Specifications with Kinetix 5700 (400V-class) Drives

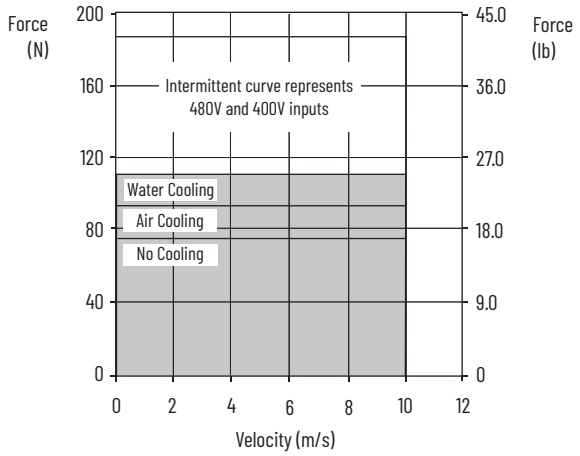
Linear Motor Cat. No.	Maximum Speed m/s (ft/s)	System Continuous (1) Stall Current Amps 0-pk	System Continuous (1) Stall Force N (lb)	System Peak Stall Current Amps 0-pk	System Peak Stall Force N (lb)	Linear Motor Rated Output kW (Hp)	Kinetix 5700 Drives (480V AC input)
LDC-C030100-DHT	10.0 (32.8)	4.1...6.1	74...111 (17...25)	12.1	188 (42)	0.37...0.55 (0.5...0.7)	2198-D012-ERS*x*
LDC-C030200-DHT		8.1...12.2	148...222 (33...50)	24.3	375 (84)	0.74...1.11 (0.9...1.5)	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 (0.8...1.2)	2198-D012-ERS*x*
LDC-C050200-DHT		7.9...11.8	240...359 (54...81)	23.3	600 (135)	1.20...1.79 (1.6...2.4)	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 (2.4...3.6)	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 (2.3...3.5)	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 (3.5...5.3)	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 (4.7...7.0)	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 (4.5...6.8)	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 (6.0...9.0)	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 (9.0...13.6)	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 (8.6...12.9)	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 (12.9...19.3)	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).

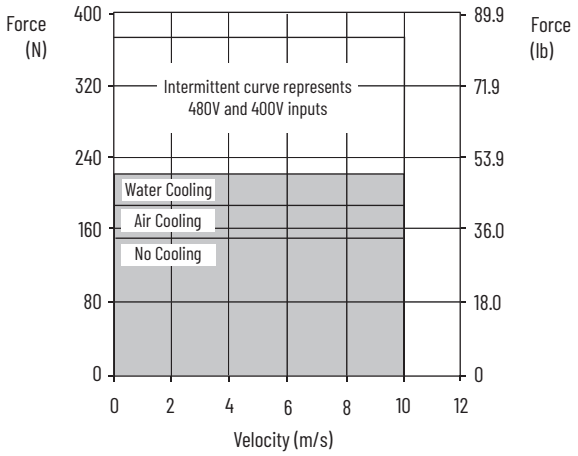
Performance specification data and curves reflect nominal system performance of a typical system with the motor ambient at 40 °C (104 °F), drive ambient at 50 °C (122 °F), and rated line voltage. For additional information on ambient and line conditions, refer to Motion Analyzer software.

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

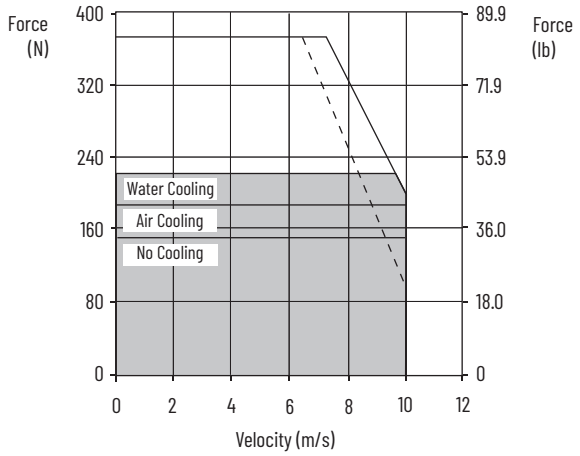
2198-D012-ERS*x* and LDC-C030100-DHT



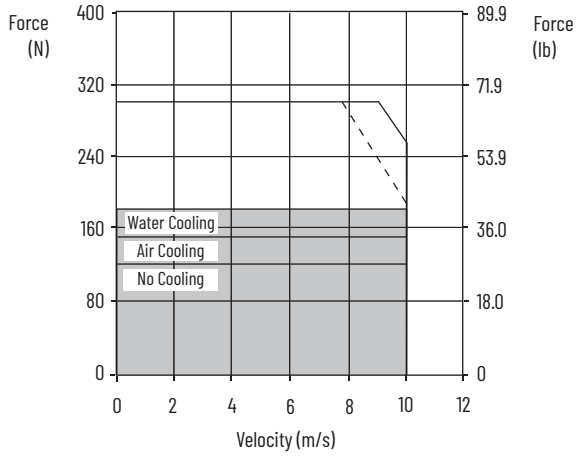
2198-D020-ERS*x* and LDC-C030200-DHT



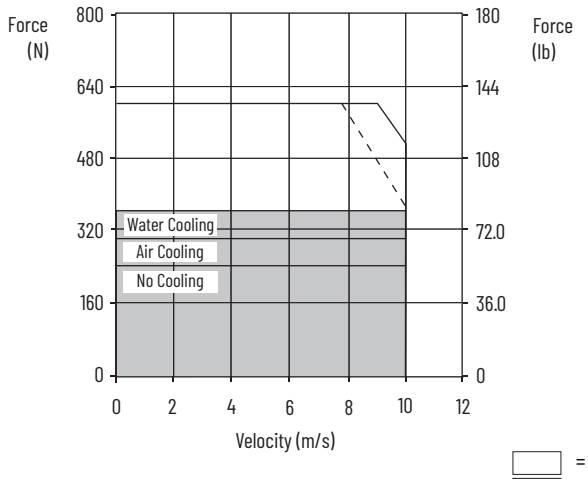
2198-D012-ERS*x* and LDC-C030200-EHT



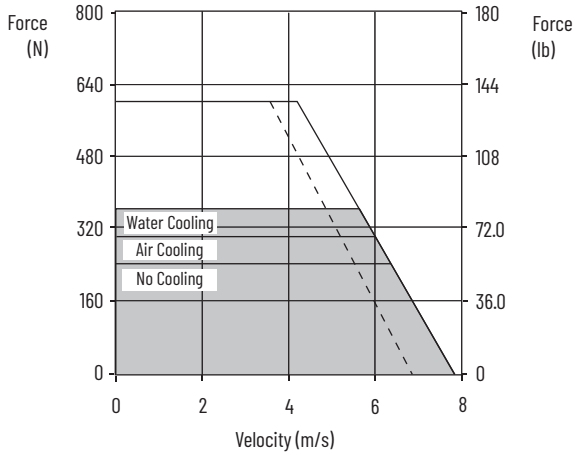
2198-D012-ERS*x* and LDC-C050100-DHT



2198-D020-ERSx and LDC-C050200-DHT



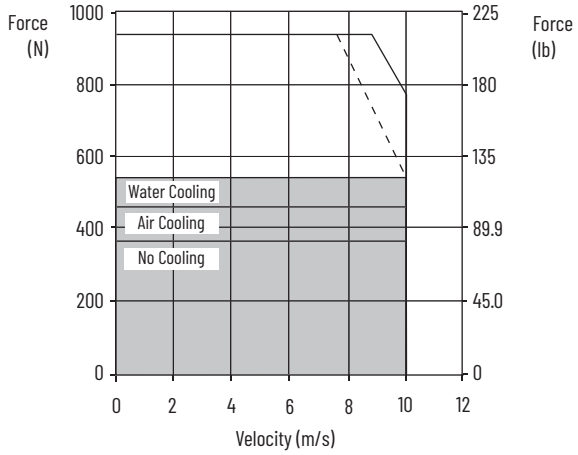
2198-D012-ERSx and LDC-C050200-EHT



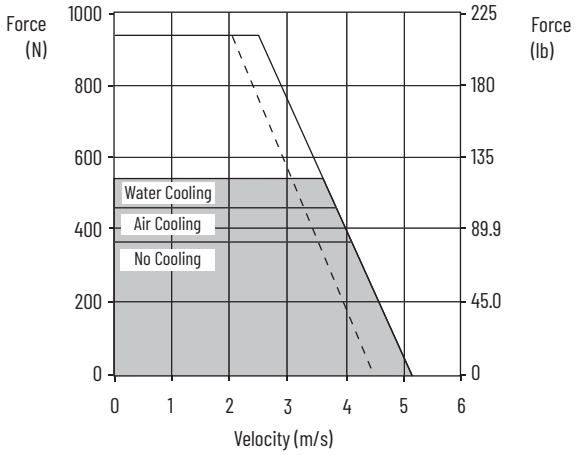
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

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

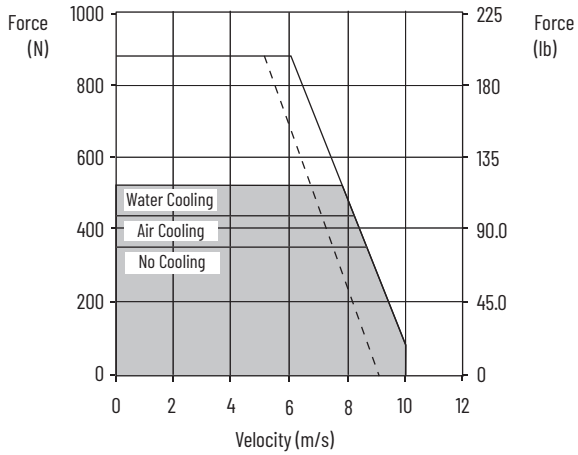
2198-D032-ERSx and LDC-C050300-DHT



2198-D012-ERSx and LDC-C050300-EHT



2198-D020-ERSx and LDC-C075200-DHT



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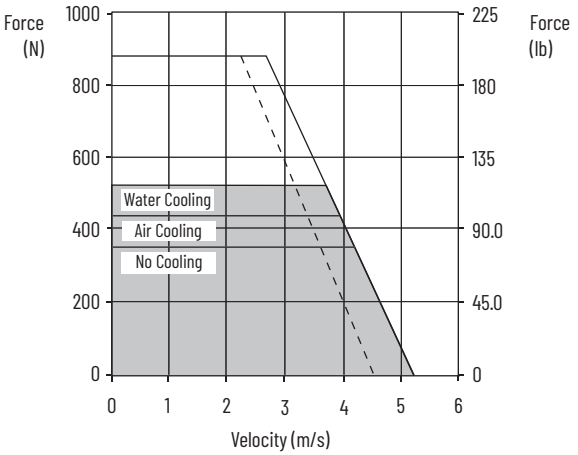
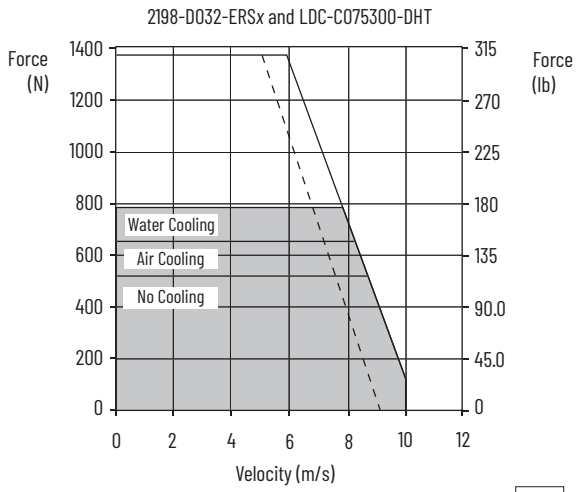
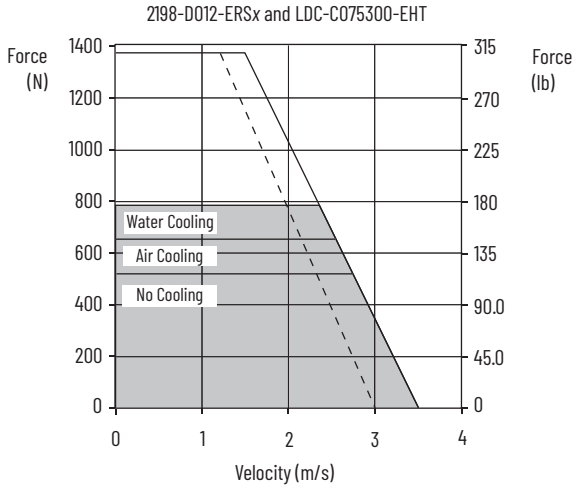
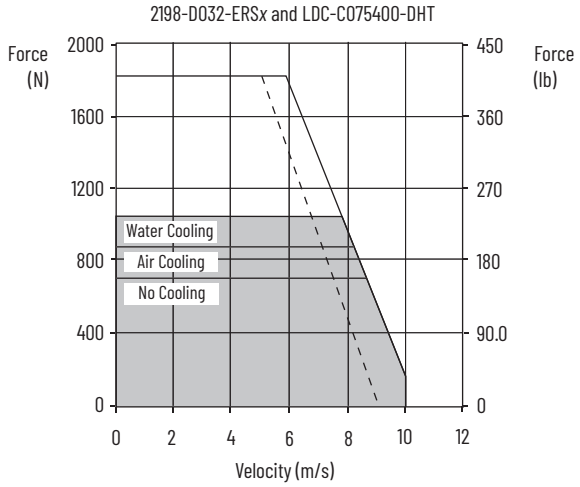


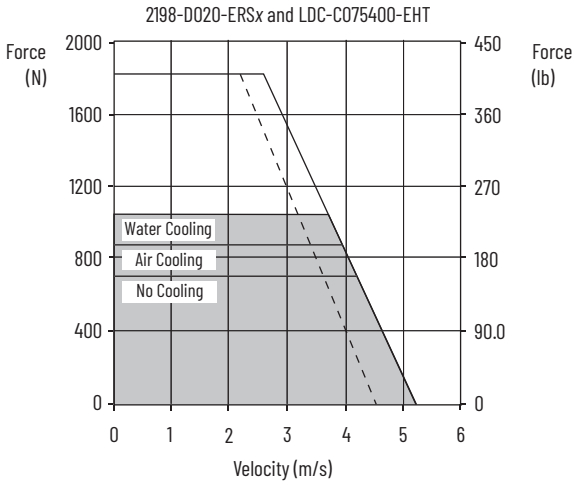


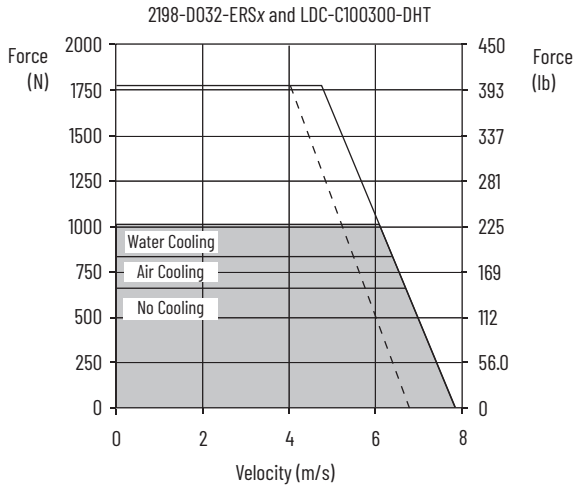


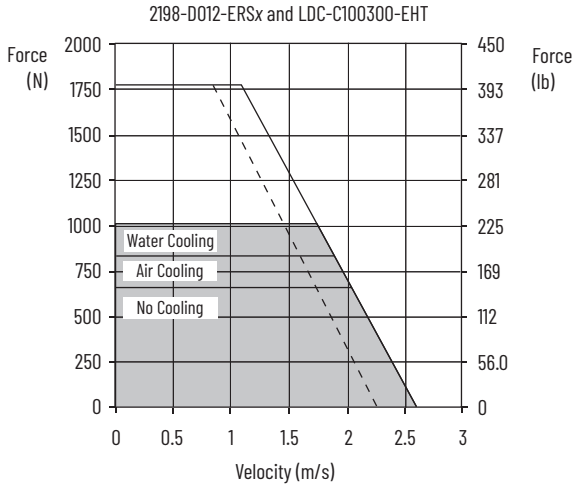
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

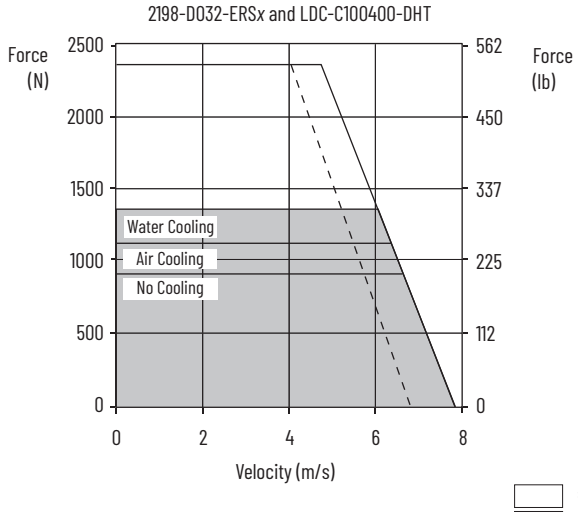
Kinetix 5700 (400V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

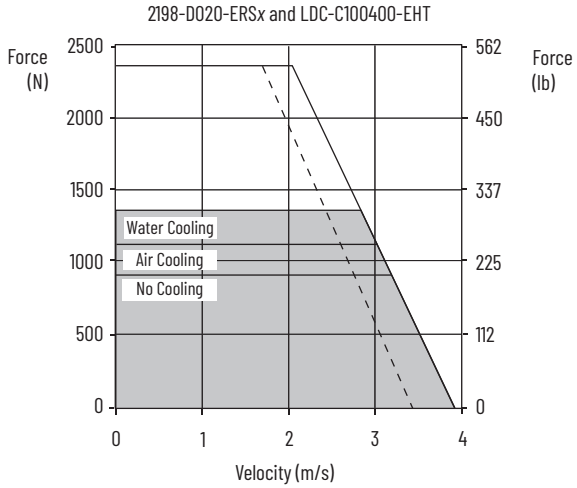






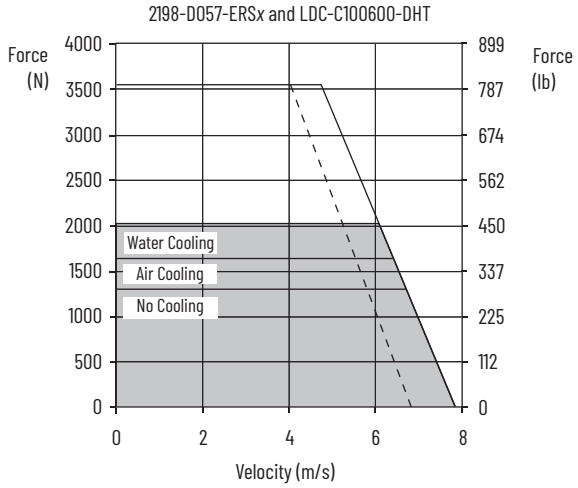


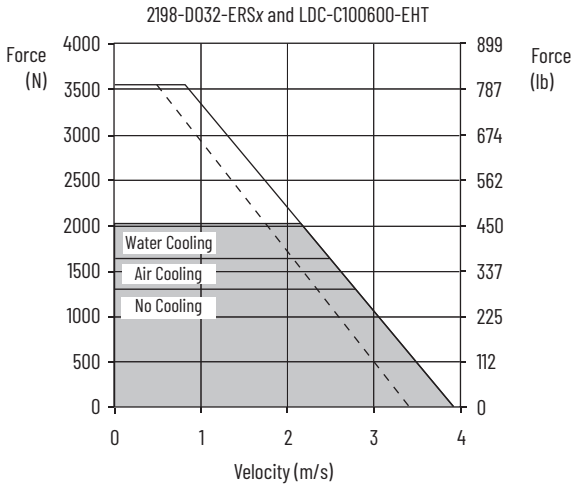


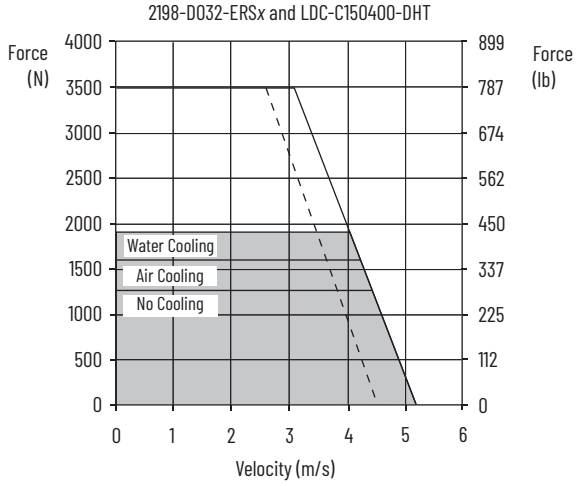


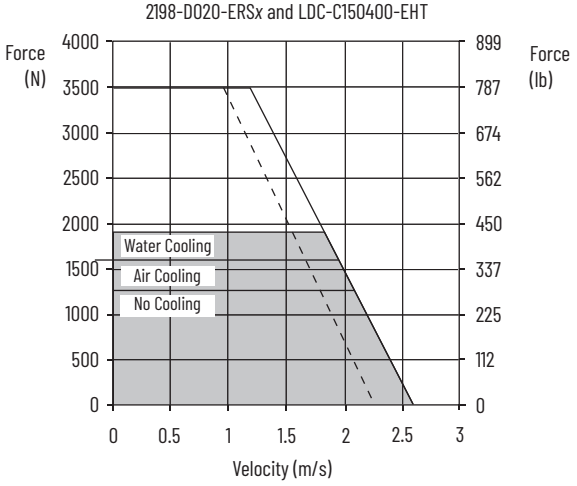
= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

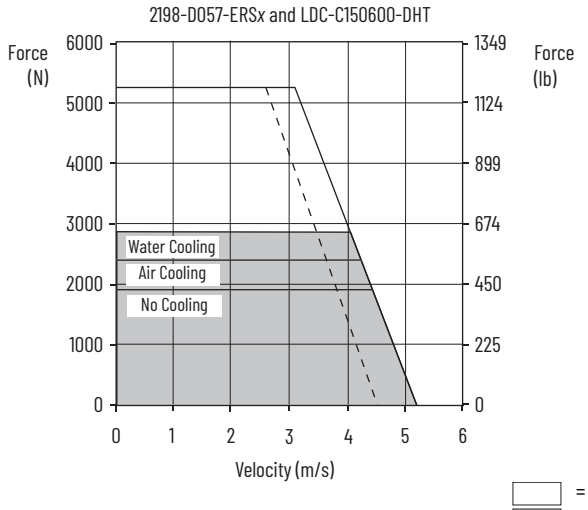
Kinetix 5700 (400V-class) Drives/Kinetix LDC Linear Motor Curves (continued)

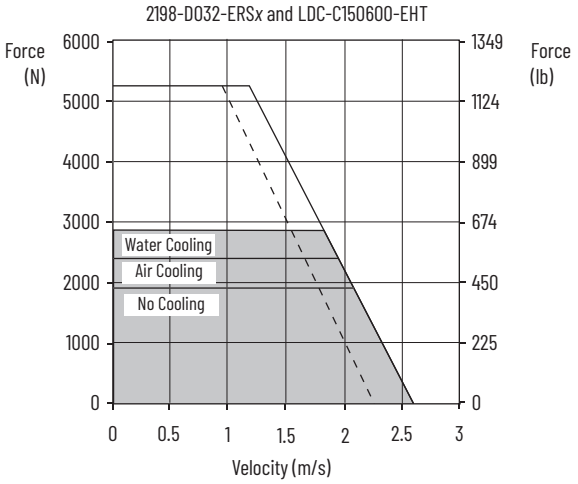












= Intermittent operating region
= Continuous operating region
= Drive operation with 400V AC rms input voltage

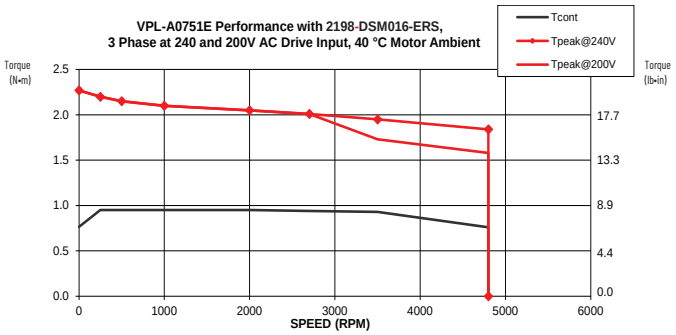
ArmorKinetix Distributed Servo Motor

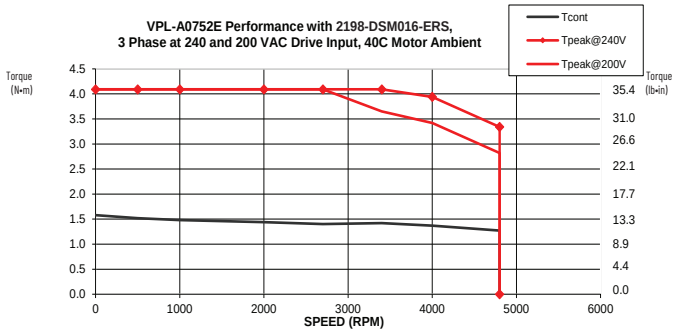
ArmorKinetix Distributed Servo Motor Performance (200V-class)

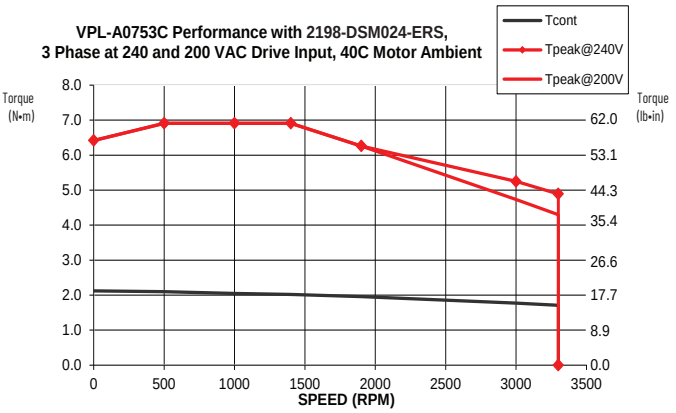
200V-class Distributed Servo Drive (DSM) Torque-Speed Data

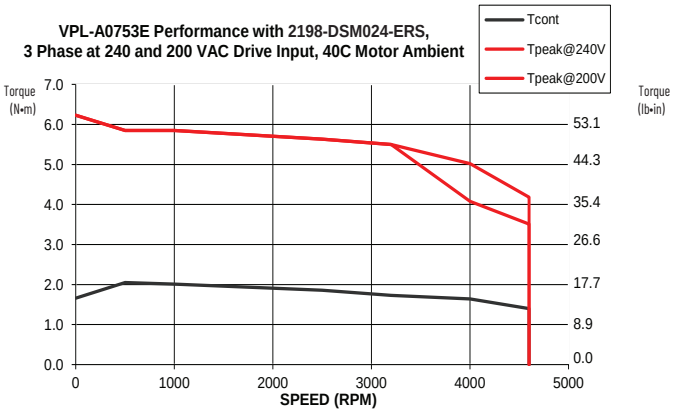
DSM Module Cat. No.	System Peak Stall Current A 0-pk (A rms)	System Peak Stall Torque N•m (lb•in)	System Continuous Stall Current A 0-pk (A rms)	System Continuous Stall Torque N•m (lb•in)	Rated Speed (max speed at peak torque) rpm	Maximum Speed rpm	Torque at Rated (max) Speed N•m (lb•in)	Output Frequency Hz
2198-DSM016-ERSx-A0751E-xxxxx	9.12 (6.47)	2.27 (20.10)	2.9 (2.05)	0.95 (8.41)	3100	4800	0.76 (6.73)	0...320
2198-DSM016-ERSx-A0752E-xxxxx	17.61 (12.53)	4.09 (36.20)	4.8 (3.40)	1.58 (14.00)	3100	4800	1.27 (11.24)	0...320
2198-DSM024-ERSx-A0753Cxxxxx	18.6 (13.2)	6.91 (61.16)	4.01 (2.84)	2.12 (18.76)	1600	3300	1.71 (15.13)	0...220
2198-DSM024-ERSx-A0753E-xxxxx	21.5 (15.25)	6.23 (55.14)	5.50 (3.90)	2.05 (18.14)	2900	4600	1.40 (12.39)	0...307
2198-DSM016-ERSx-A1001C-xxxxx	10.38 (7.36)	3.78 (33.46)	3.31 (2.35)	1.77 (15.67)	1650	2800	1.72 (15.22)	0...187
2198-DSM016-ERSx-A1002C-xxxxx	20.33 (14.41)	7.82 (69.21)	6.24 (4.42)	3.38 (29.92)	1650	3000	3.27 (28.94)	0...200
2198-DSM024-ERSx-A1003C-xxxxx	20.2 (14.32)	11.15 (98.69)	5.95 (4.22)	4.05 (35.85)	1350	2250	3.35 (29.65)	0...150
2198-DSM024-ERSx-A1003E-xxxxx	27.4 (19.43)	10.64 (94.17)	9.12 (6.47)	3.98 (35.23)	2250	3750	3.34 (29.56)	0...250
2198-DSM016-ERSx-A1152B-xxxxx	21.19 (15.03)	13.12 (116.12)	5.94 (4.21)	4.91 (43.46)	1200	2150	4.35 (38.50)	0...143
2198-DSM024-ERSx-A1152E-xxxxx	30.8 (21.84)	12.58 (111.34)	10.1 (7.16)	4.82 (42.66)	2000	3300	4.08 (36.11)	0...220
2198-DSM024-ERSx-A1153A-xxxxx	21.33 (15.1)	20.26 (179.32)	5.83 (4.14)	6.35 (56.20)	1100	1600	5.58 (49.39)	0...106
2198-DSM024-ERSx-A1153C-xxxxx	29.36 (20.82)	18.09 (160.11)	8.11 (5.75)	5.98 (52.93)	1350	2300	5.50 (48.68)	0...153
2198-DSM016-ERSx-A1303A-xxxxx	31 (21.99)	20.70 (183.21)	9.52 (6.75)	8.10 (71.69)	800	1150	7.80 (69.04)	0...76
2198-DSM024-ERSx-A1303B-xxxxx	29.5 (20.86)	19.92 (176.31)	8.78 (6.21)	7.65 (67.71)	1200	2000	6.57 (58.15)	0...133
2198-DSM024-ERSx-A1304A-xxxxx	29.87 (21.18)	25.17 (222.77)	8.72 (6.18)	9.52 (84.26)	975	1600	9.23 (81.69)	0...107
2198-DSM024-ERSx-A1306A-xxxxx	29.70 (21.06)	31.21 (276.23)	9.72 (6.89)	11.90 (105.32)	825	1250	11.08 (98.07)	0...83

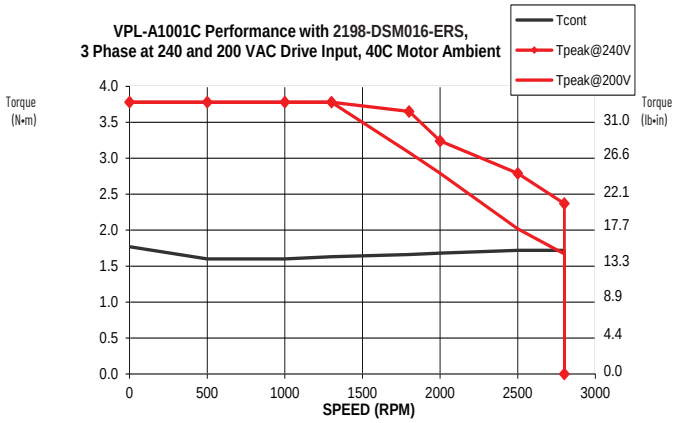
ArmorKinetix (200V-class) Distributed Servo Motor Curves

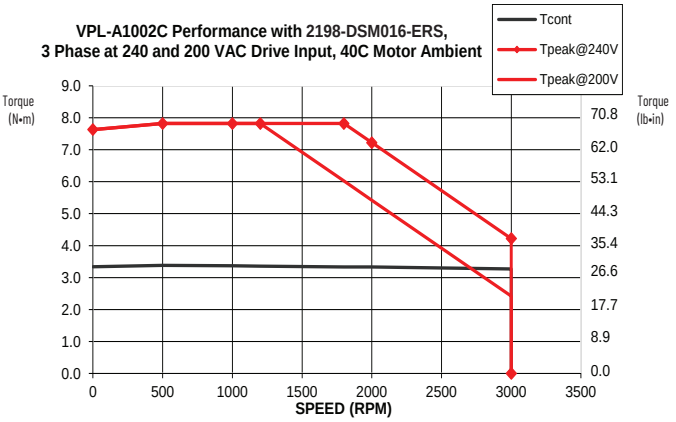


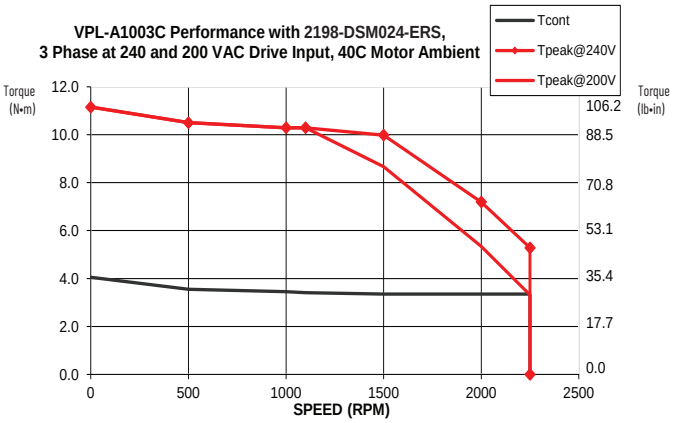


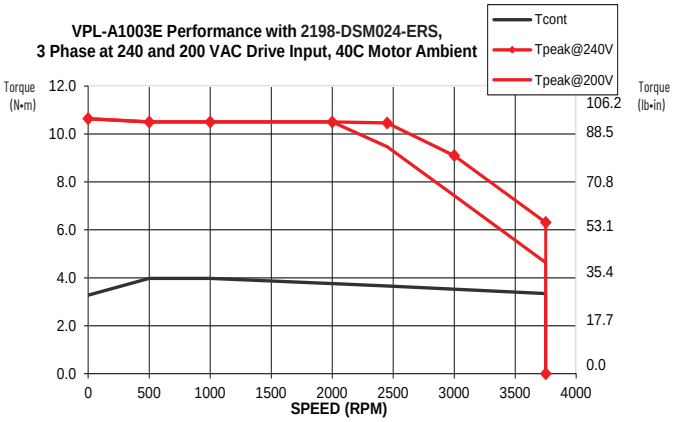




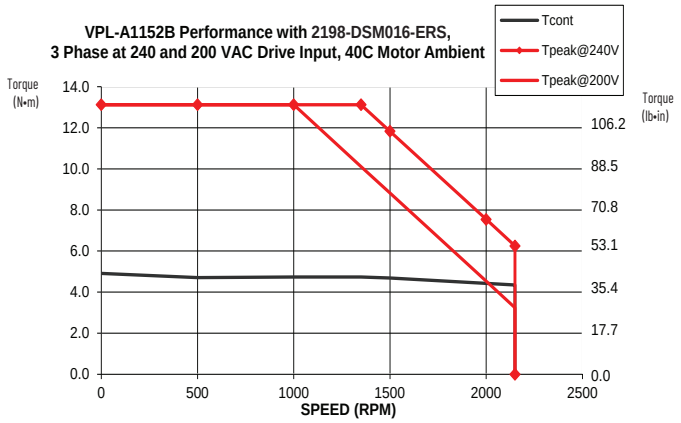


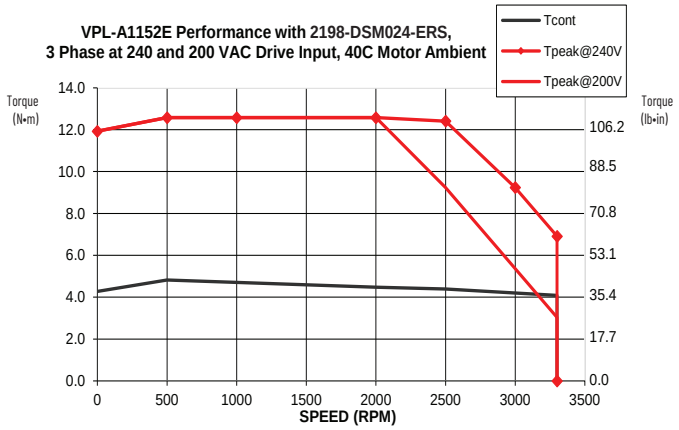


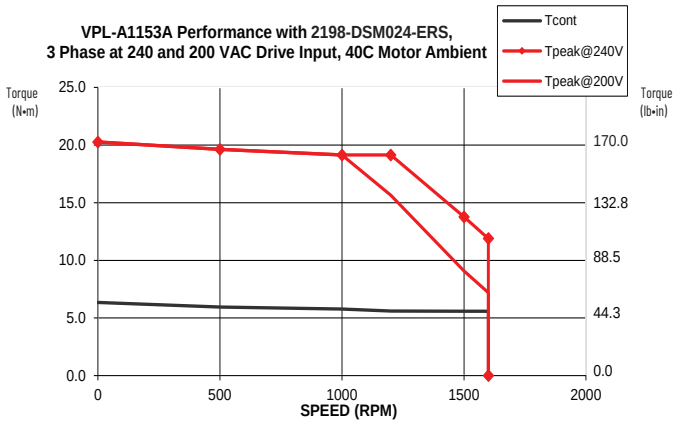


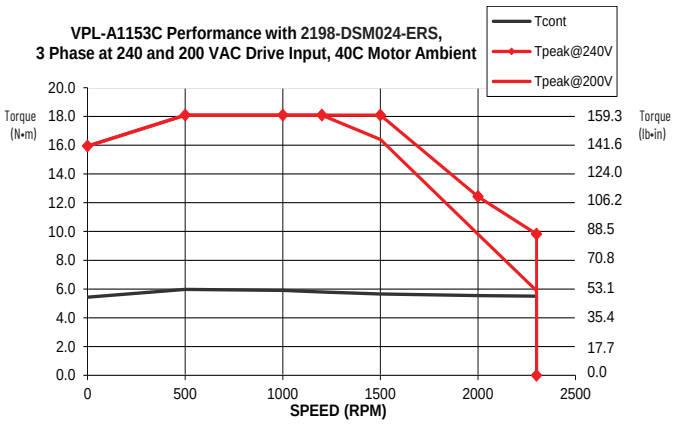


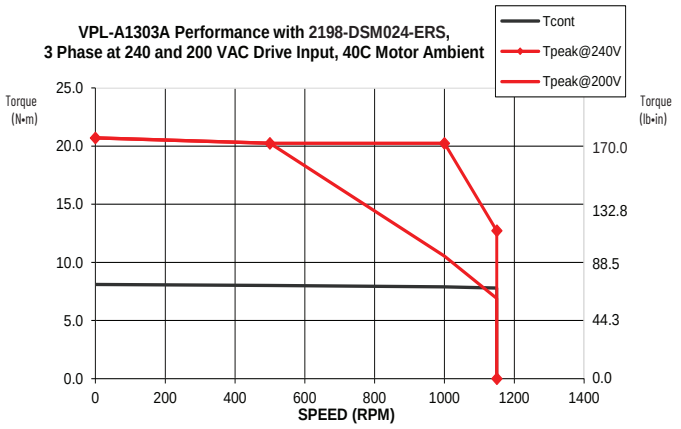
ArmorKinetix (200V-class) Distributed Servo Motor Curves (continued)

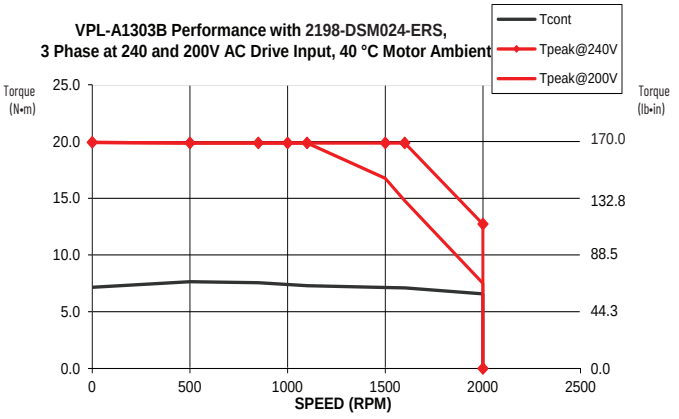


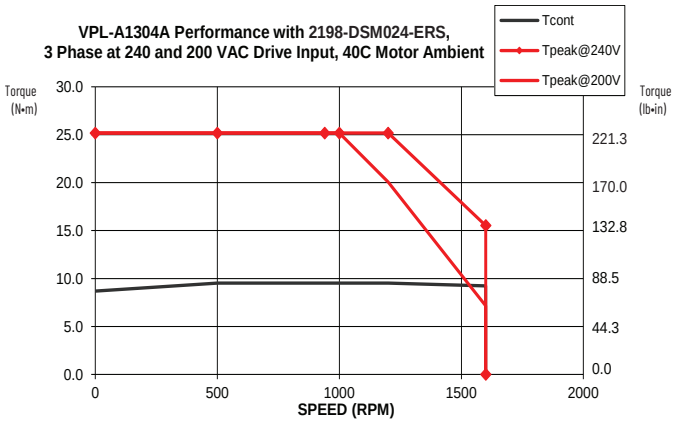


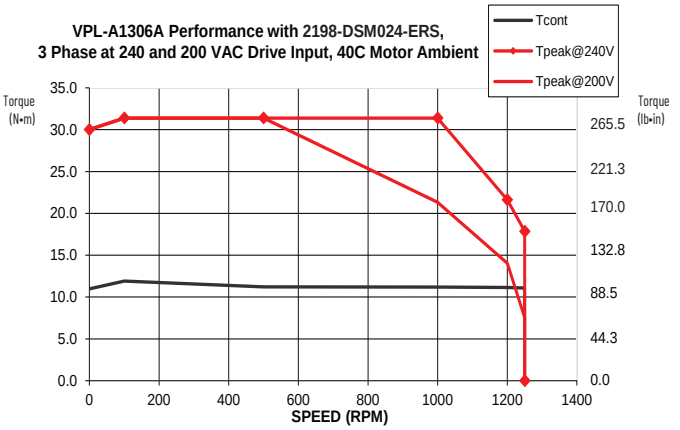










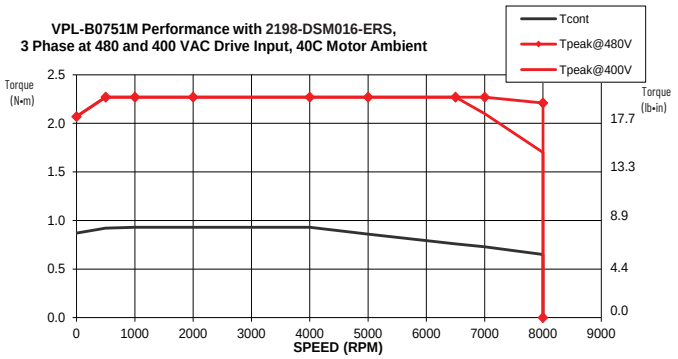


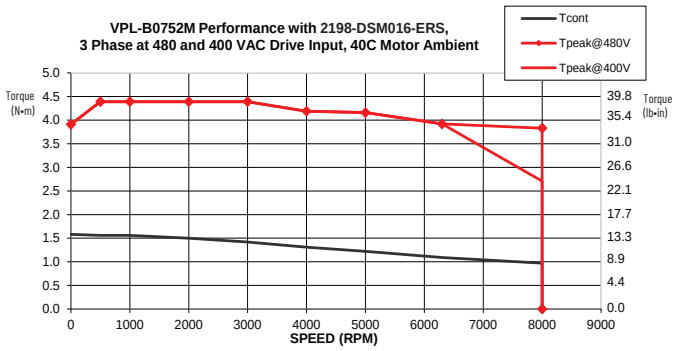
ArmorKinetix Distributed Servo Motor Performance (400V-class)

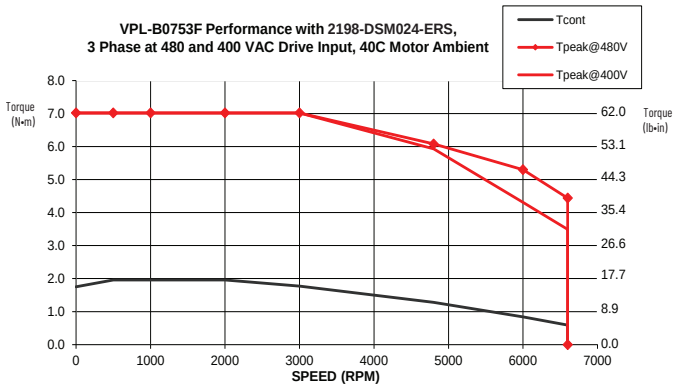
400V-class Distributed Servo Drive (DSM) Torque-Speed Data

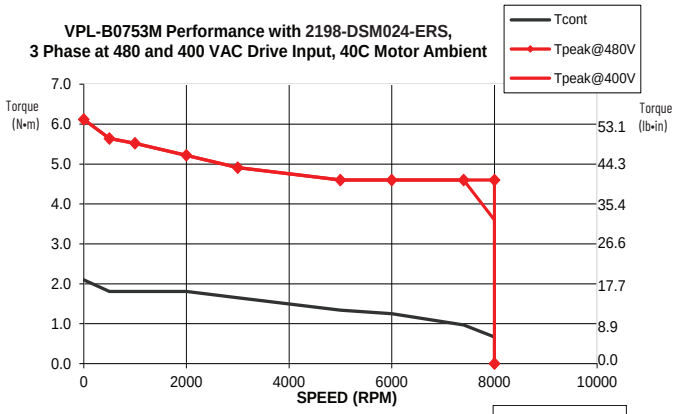
DSM Module Cat. No.	System Peak Stall Current A 0-pk (A rms)	System Peak Stall Torque N•m (lb•in)	System Continuous Stall Current A 0-pk (A rms)	System Continuous Stall Torque N•m (lb•in)	Rated Speed (max speed at peak torque) rpm	Maximum Speed rpm	Torque at Rated (max) Speed N•m (lb•in)	Output Frequency Hz
2198-DSM016-ERSx-B0751M-xxxxx	9.12 (6.47)	2.27 (20.10)	2.7 (1.91)	0.93 (8.23)	7200	8000	0.65 (5.75)	0...533
2198-DSM016-ERSx-B0752M-xxxxx	18.9 (13.4)	4.39 (38.85)	4.81 (3.41)	1.58 (14.00)	7000	8000	0.97 (8.59)	0...533
2198-DSM024-ERSx-B0753F-xxxxx	18.9 (13.4)	7.02 (62.13)	3.75 (2.66)	1.96 (17.35)	4200	6600	1.38 (12.21)	0...440
2198-DSM024-ERSx-B0753M-xxxxx	21.1 (14.92)	6.12 (54.17)	5.64 (3.99)	2.10 (18.59)	6600	8000	1.25 (11.06)	0...533
2198-DSM016-ERSx-B1001M-xxxxx	10.38 (7.36)	3.78 (33.46)	3.37 (2.39)	1.79 (15.84)	3500	6000	1.63 (14.43)	0...400
2198-DSM016-ERSx-B1002M-xxxxx	20.33 (14.42)	7.82 (69.21)	6.12 (4.34)	3.33 (29.47)	4000	6000	2.97 (26.29)	0...400
2198-DSM024-ERSx-B1003F-xxxxx	20.2 (14.23)	11.15 (98.69)	5.79 (4.10)	3.94 (34.87)	3000	4750	3.32 (29.38)	0...317
2198-DSM024-ERSx-B1003T-xxxxx	23.94 (16.98)	9.27 (82.05)	8.62 (6.11)	3.67 (32.48)	5500	7000	2.42 (21.42)	0...467
2198-DSM016-ERSx-B1152F-xxxxx	21.19 (15.03)	13.12 (116.12)	5.93 (4.21)	4.90 (43.37)	3000	4500	3.34 (29.56)	0...300
2198-DSM024-ERSx-B1152T-xxxxx	29.7 (21.06)	12.14 (107.45)	10.41 (7.38)	4.89 (43.28)	4750	6500	3.17 (28.06)	0...433
2198-DSM024-ERSx-B1153E-xxxxx	21.33 (15.12)	20.33 (179.94)	5.83 (4.13)	6.23 (55.14)	2100	3200	5.23 (46.29)	0...213
2198-DSM024-ERSx-B1153F-xxxxx	30.16 (21.39)	18.58 (164.45)	7.86 (5.57)	5.80 (51.33)	3500	5000	4.20 (37.17)	0...333
2198-DSM016-ERSx-B1303C-xxxxx	18.04 (12.79)	20.24 (179.14)	5.89 (4.18)	8.21 (72.66)	1500	2250	7.75 (68.59)	0...150
2198-DSM024-ERSx-B1303F-xxxxx	29.5 (20.92)	19.71 (174.45)	8.78 (6.23)	7.65 (67.71)	2900	4000	6.42 (56.82)	0...267
2198-DSM016-ERSx-B1304C-xxxxx	22.07 (15.65)	25.60 (226.58)	6.67 (4.73)	9.81 (86.83)	1400	2150	7.75 (68.59)	0...143
2198-DSM024-ERSx-B1304E-xxxxx	28.65 (20.32)	24.14 (213.66)	8.26 (5.86)	9.00 (79.66)	2300	3500	7.39 (65.41)	0...233
2198-DSM024-ERSx-B1306C-xxxxx	29.70 (21.06)	31.21 (276.23)	9.72 (6.89)	11.90 (105.32)	1650	2500	8.62 (76.29)	0...167

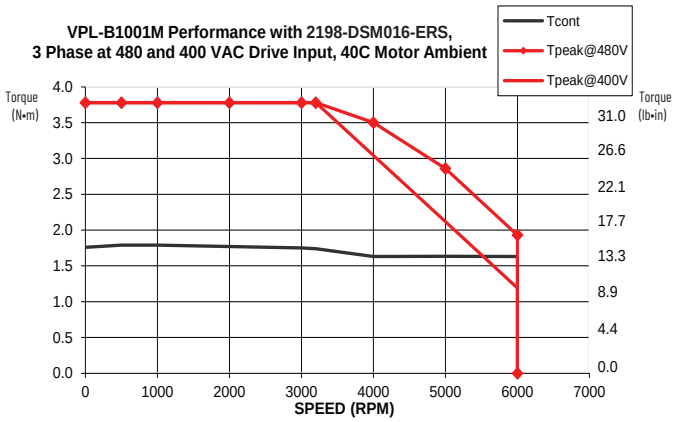
ArmorKinetix (400V-class) Distributed Servo Motor Curves

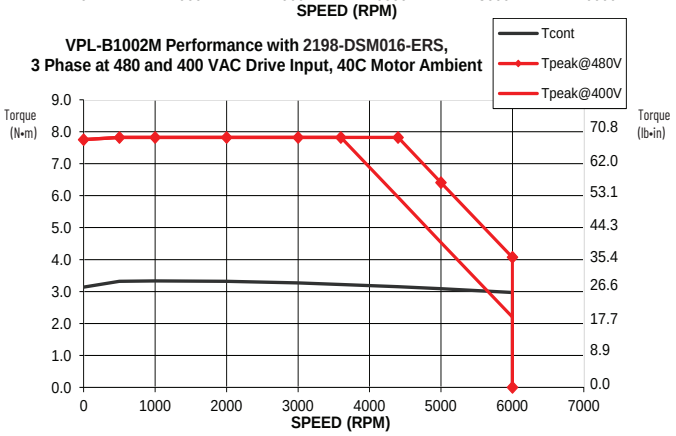


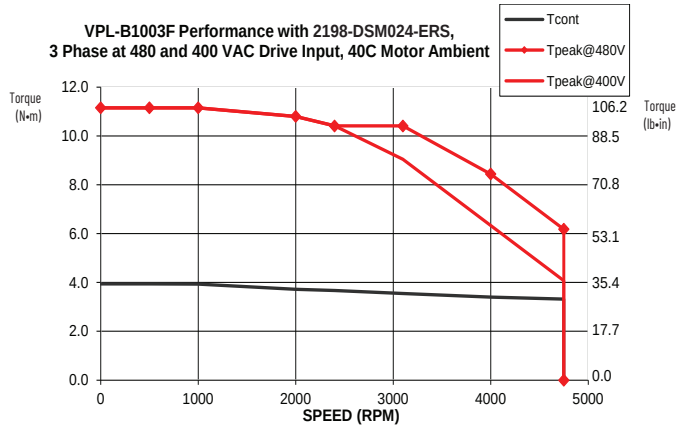


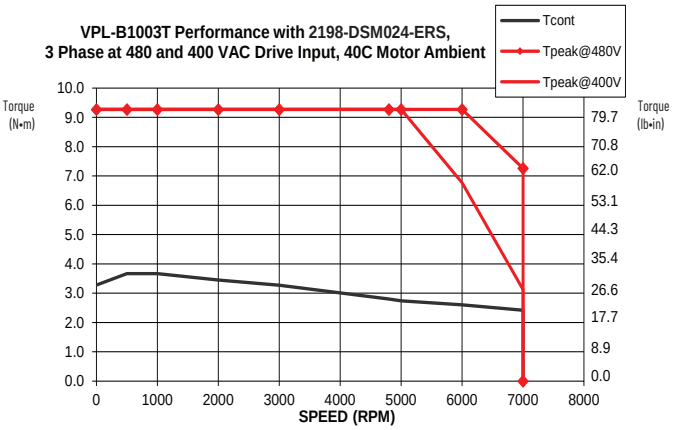




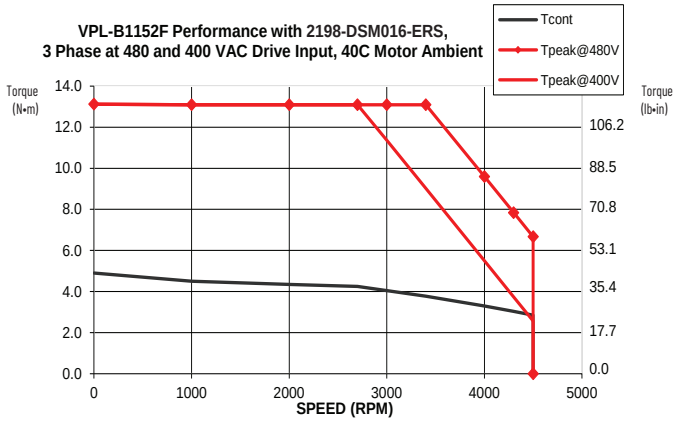


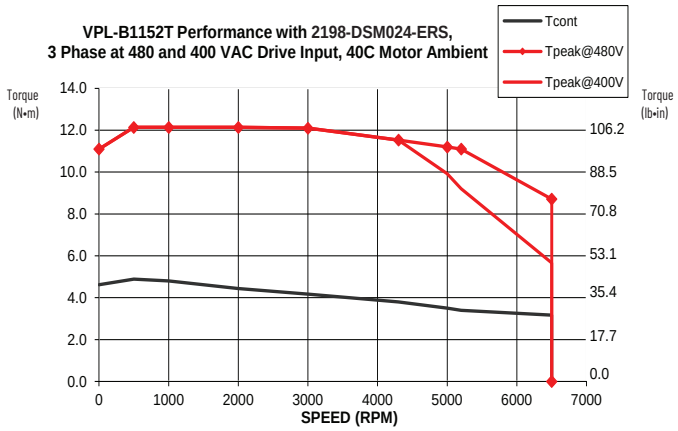


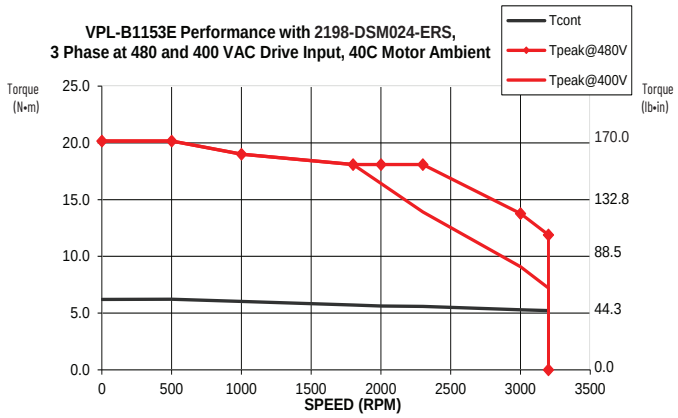


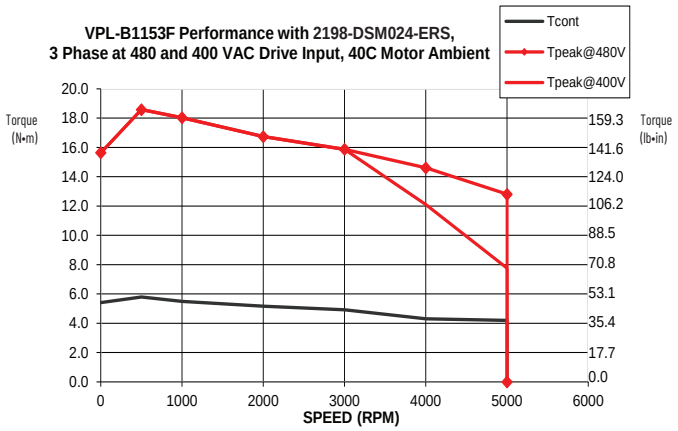


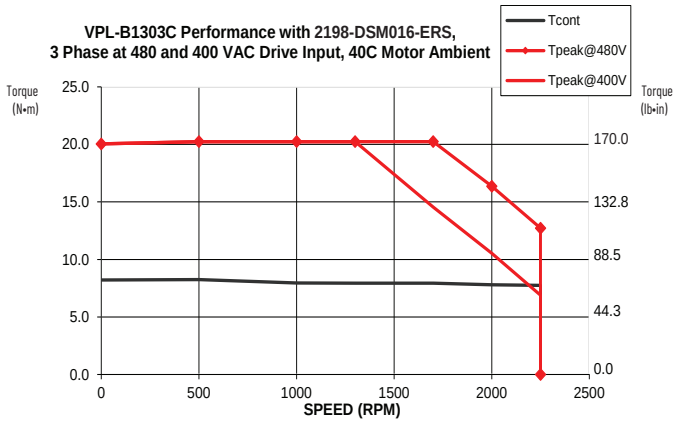
ArmorKinetix (400V-class) Distributed Servo Motor Curves (continued)

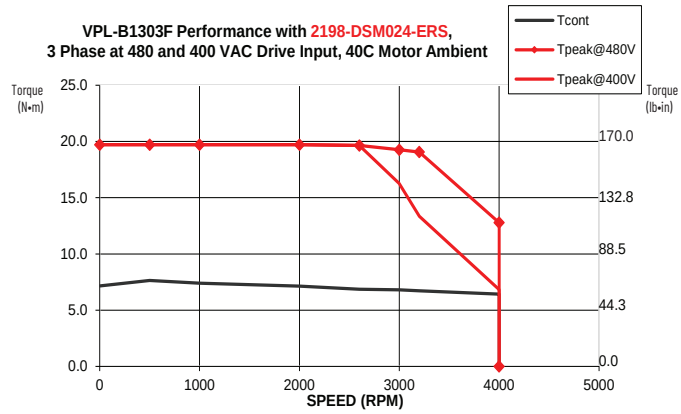


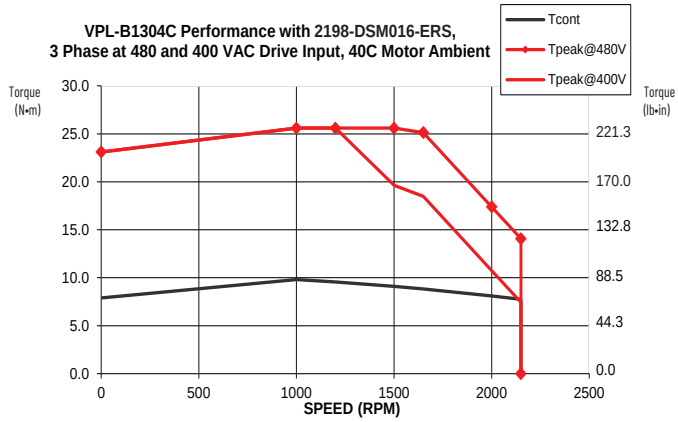


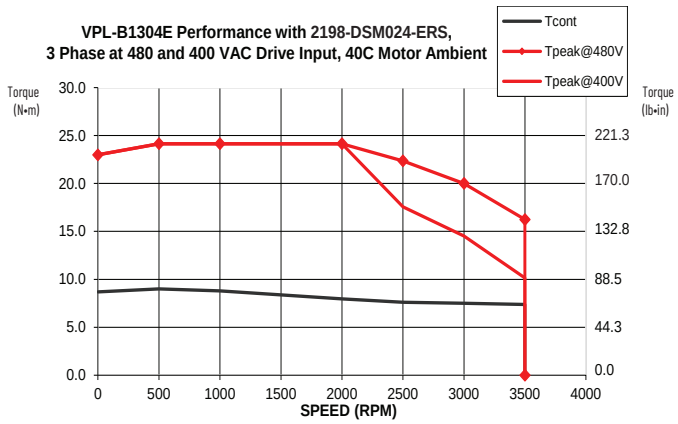












Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
Kinetix Rotary Motion Specifications, publication KNX-TD001	Product specifications for Kinetix VP, Kinetix MP, Kinetix TL and TLY, Kinetix RDB, Kinetix MMA, 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 Kinetix LDC and Kinetix LDL linear motors.
Kinetix 5700, 5500, 5300, and 5100 Servo Drives Specifications Technical Data, 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 Rotary and Linear Motion Cable Specifications, publication KNX-TD004	Provides product specifications for Kinetix 2090 motor and interface cables, low-profile connector kits, drive power components, and other servo drive accessory items.
Kinetix Servo Drive Performance Specifications per Ecodesign Regulation (EU) 2019/1781 technical data, publication KNX-TD006	Provides energy efficiency performance data for Rockwell Automation Kinetix Servo drives. This data supports IE2 compliance of Kinetix Servo drives per EU 2019/1781.
Kinetix 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	Explains how the Kinetix 5700 drives can be used in up to Safety Integrity Level (SIL 3), Performance Level (PLe) applications.
ArmorKinetix System User Manual, publication 2198-UM006	Provides information on how to install, configure, startup, and troubleshoot your ArmorKinetix system.
Kinetix 5700 Safe Monitor Functions Safety Reference Manual, publication 2198-RM007	Explains how the ArmorKinetix modules can be used in up to Safety Integrity Level (SIL 3), Performance Level (PLe) applications.
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 KNX-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.
FactoryTalk® Motion Analyzer™ System Sizing and Selection Tool website rok.auto/motion-analyzer	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.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
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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Waste Electrical and Electronic Equipment (WEEE)

At the end of life, this equipment should be collected separately from any unsorted municipal waste.

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

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

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AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2663 0600, Fax: (32) 2 663 0640
ASIA PACIFIC: Rockwell Automation SEA Pte Ltd, 2 Corporation Road, #04-05, Main Lobby, Corporation Place, Singapore 618494, Tel: (65) 6510 6608, FAX: (65) 6510 6699
UNITED KINGDOM: Rockwell Automation Ltd., Pitfield, Kiln Farm, Milton Keynes, MK11 3DR, United Kingdom, Tel: (44)(1908) 838-800, Fax: (44)(1908) 261-917

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