

Catalog Number Explanation

Kinetix 5700 Drive Modules	Module Cat. No.	Module Width mm	Input Voltage	Continuous Output Power kW	Continuous Output Current to Bus A _{DC rms}	Continuous Output Current A 0-pk
DC-bus Power Supply	2198-P031 2198-P070	55	324...528V AC rms, three-phase	7 17	10.5 25.5	—
	2198-P141 2198-P208	85		31 46	46.9 69.2	
Dual-axis Inverters	2198-D006-ERS3 2198-D012-ERS3 2198-D020-ERS3 2198-D032-ERS3	55	—	1.7 3.4 5.5 8.9	—	3.5 7.0 11.3 18.3
	2198-D057-ERS3	85		15.9		32.5
Single-axis Inverters	2198-S086-ERS3 2198-S130-ERS3	85	—	29.7 44.9		60.8 91.9
	2198-S160-ERS3	100		60.1		120.2

Integrated Architecture Tools and Resources

Integrated Architecture® tools can help you plan and configure a system, and migrate system architectures. For more information, go to:
<http://www.rockwellautomation.com/global/support/integrated-architecture-tools/overview.page?>

Migration Services

Throughout the product lifecycle, as products mature, Rockwell Automation is there to help you get the most out of your current equipment, to help you determine your next steps, and to help you lay out a plan for the transition to newer technology.

Whether you choose to migrate all at once or use our unique, phased approach to help minimize the costs, risks, and complexities that are involved with legacy products and systems, Rockwell Automation has the tools and the experience to guide you through the transition.

For more information, see the Migration Solutions Brochure, publication [MIGRAT-BR002](#).

In this section, the Kinetix 6000 servo drives are paired with Kinetix 5700 replacement drives. In addition, the output ratings and dimension differences of the drives are included.

Output Current Comparison

IMPORTANT Review the performance capabilities of the replacement drive to make sure that the replacement drive can deliver the required level of continuous and peak current to the motor.

Table 9 - Kinetix 5700 Replacement Drives by Output Current

Kinetix 6000 Servo Drives					Kinetix 5700 Servo Drives (replacement drives) ⁽¹⁾				
Servo Drive Cat. No.	Input Voltage Range	Nominal Voltage Range	Continuous Current A (rms)	Peak Current A (rms)	Servo Drive Cat. No.	Input Voltage Range	Nominal Voltage Range	Continuous Current ⁽²⁾ A (rms)	Peak Current ⁽²⁾ A (rms)
N/A					2198-D006-ERS3			2.5	6.3
2094-BMP5-S (2094-BC01-MP5-S)	324...528V (three-phase)	360...480V (three-phase)	2.8	7.0	2198-D012-ERS3	324...528V (three-phase)	480V (three-phase)	5.0	12.5
2094-BM01-S (2094-BC01-M01-S)			6.1	15.3	2198-D020-ERS3			8.0	20.0
2094-BM02-S (2094-BC02-M02-S)			10.3	25.8	2198-D032-ERS3			13.0	32.5
2094-BM03-S (2094-BC04-M03-S)			21.2	53.0	2198-D057-ERS3			23.0	57.5
2094-BM05-S (2094-BC07-M05-S)			34.6	69.2	2198-S086-ERS3			43.0	86.0
N/A					2198-S130-ERS3			65.0	130.0
					2198-S160-ERS3			85.0	160.0

(1) In this example, the 2198-D006-ERS3, 2198-S130-ERS3, and 2198-S160-ERS3 inverters are not used.

(2) These Kinetix 5700 replacement (inverter) drives require a properly sized DC-bus power supply (converter) to deliver the required level of peak and continuous current to the motor.

IMPORTANT We recommend Motion Analyzer, the Rockwell Automation online system sizing tool, to select the Kinetix 5700 replacement drives for your Kinetix 6000 drive system. Use Motion Analyzer to verify compatibility and make sure that your replacement drive is capable of delivering the required level of peak and continuous current to the motor. Create a user account and access the tool and at: <https://motionanalyzer.rockwellautomation.com/>.

Dimension Comparison

The following table provides overall drive dimensions (height, width, and depth) and the differences between the two drive families.

Table 10 - Kinetix 5700 Replacement Drives Dimensions

Kinetix 6000 Servo Drives (series B and C)				Kinetix 5700 Servo Drives (replacement drives)				Dimension Differences		
Servo Drive Cat. No.	Height mm (in.)	Width mm (in.)	Depth mm (in.)	Servo Drive Cat. No.	Height mm (in.)	Width mm (in.)	Depth mm (in.)	Height ⁽²⁾ mm (in.)	Width ⁽²⁾ mm (in.)	Depth ⁽²⁾ mm (in.)
N/A				2198-D006-ERS3					-15 (0.59)	
2094-BMP5-S	287 (11.3)	70 (2.76)	249 (9.8)	2198-D012-ERS3	358 (14.09)	55 (2.17)	252 (9.92)	71 (2.80)	-70 (2.76)	3.0 (0.12)
2094-BC01-MP5-S		125 (4.9)		2198-D020-ERS3					-15 (0.59)	
2094-BMP5-S		70 (2.76)		2198-D032-ERS3					-70 (2.76)	
2094-BC01-M01-S		125 (4.9)		2198-D057-ERS3					-15 (0.59)	
2094-BM02-S		70 (2.76)		2198-S086-ERS3					-70 (2.76)	
2094-BC02-M02-S		125 (4.9)		2198-S130-ERS3						
2094-BM03-S (2094-BC04-M03-S)	375 (14.7)	196 (7.7)		2198-S160-ERS3	433 (17.0)	85 (3.35)		58 (2.28)	-111 (4.37)	
2094-BM05-S (2094-BC07-M05-S)	375 (14.7) ⁽¹⁾									
N/A								103 (4.06)	-96 (3.78)	

(1) Height dimension for series A drives is 436 mm (17.2 in.).

(2) A negative value (-) indicates that the height, width, or depth of the Kinetix 5700 servo drive is shorter, narrower, or shallower than the comparable Kinetix 6000 servo drive.

When planning your panel layout, see the Kinetix 5700 Servo Drives User Manual, publication [2198-UM002](#), for clearance requirements.

Transformer Specifications

Follow these voltage requirements for sizing a system transformer.

Table 24 - Transformer Specifications

Drive Cat. No.	Specifications ⁽¹⁾
2094-BC07-M05-S	45 kW continuous x 1.5 = 67.5 KVA
2198-P141	31 kW continuous x 1.5 = 46.5 KVA

(1) An isolation transformer for three-phase input power is not required for the Kinetix 6000 IAM or Kinetix 5700 DC-bus supply.

Shared-bus Connections

Use the following shared-bus connector kits with your Kinetix 5700 drive system.

Table 25 - Shared-bus Connector Kits

Shared-bus Connector Kit Cat. No.	Drive Module Cat. No.	Application	Description
2198-TCON-24VDCIN36 2198-BARCON-xxDCAC100	2198-P141	24V DC input power to control bus	24V input wiring connectors and bus-bars for the Kinetix 5700 drive system 24V shared-bus connection system (optional).
2198-H040-P-T	2198-D012-ERS3 2198-D020-ERS3	Control power sharing	Control power T-connector with bus bars, 55 mm
2198-H070-P-T	2198-D057-ERS3 2198-S086-ERS3	Control power sharing	Control power T-connector with bus bars, 85 mm
2198-BARCON-xxDC200 2198-KITCON-ENDCAP200	2198-Dxxx-ERS3 2198-Sxxx-ERS3	Shared-bus connector kits	DC-bus links (55, 85, and 100 mm) and end caps for the DC-bus shared-bus connection system (required and included with each respective drive module).

Cable Accessories

In this example, the Kinetix 6000 system includes 1326AB motors with resolver interface. You can continue to use the 1326AB motors or replace them. These are your options:

- Keep the Bulletin 1326AB motors and use the Vega resolver converter kit (model 2792503) and custom motor file from Encompass™ partner Elwood Corporation. See your local Rockwell Automation authorized distributor for details on the Kinetix 5700 drives with Bulletin 1326AB motors migration path.
- Replace the Bulletin 1326AB motors with MP-Series™ (Bulletin MPM) motors. [Table 26](#) shows drive and motor combinations along with the corresponding replacement MP-Series (Bulletin MPM) motor.

Table 26 - 1326AB Motor Migration

Kinetix 6000 Drive Cat. No.	1326AB Motor Cat. No.	Bulletin MPM (replacement) Motor Cat. No.
2094-BC07-M05-S	1326AB-B730E	MPM-B2153F
2094-BM03-S	1326AB-B515G	MPM-B1651F
2094-BM02-S	1326AB-B515G	MPM-B1651F
2094-BM01-S	1326AB-B430E	MPM-B1153E
2094-BMP5-S (2x)	1326AB-B410G (2x)	MPM-B1151F (2x)

The Kinetix 5700 drives are paired with these Bulletin MPM motors and require the following cable and connector kit accessory items.

Table 27 - Cable and Connector Kit Accessories

Bulletin MPM (replacement) Motor Cat. No.	Kinetix 5700 (replacement) Drive Cat. No.	Description	Accessory Cat. No.	
MPM-B2153F	2198-S086-ERS3	Single-axis inverter	• 1557J-M8CJBM-x (4x) • 2090-CPxM7DF (6x) • 2090-CFBM7DF-CE (6x) • 2198-K57CK-D15M (6x)	Ethernet cable (1 per module) Bulletin 2090 Power/brake cable (1 per axis) Bulletin 2090 Feedback cable (1 per axis) Universal feedback connector kit (1 per axis)
MPM-B1651F (2x)	2198-D057-ERS3	Dual-axis inverter		
MPM-B1153E	2198-D020-ERS3	Dual-axis inverter (1 axis)		
MPM-B1151F (2x)	2198-D012-ERS3	Dual-axis inverter		
–	2198-P141	DC-bus power supply	1557J-M8CJBM-x	Ethernet cable

See the Rockwell Automation Knowledgebase document [473510](#) for details on the Bulletin 1326AB to Bulletin MPM motor migration path.

Transformer Specifications

Follow these voltage requirements for sizing a system transformer.

Table 31 - Transformer Specifications

Drive Cat. No.	Specifications ⁽¹⁾
2094-BC07-M05-S	45 kW continuous x 1.5 = 67.5 KVA
2198-P208	46 kW continuous x 1.5 = 69.0 KVA

(1) An isolation transformer for three-phase input power is not required for the Kinetix 6000 IAM or Kinetix 5700 DC-bus supply.

Shared-bus Connector Kits

Use the following shared-bus connector kits with your Kinetix 5700 drive system.

Shared-bus Connector Kits Cat. No.	Drive Module Cat. No.	Application	Description
2198-TCON-24VDCIN36 2198-BARCON-xxDCAC100	2198-P208 (1x) 2198-CAPMOD-2240 (2x)	24V DC input power to control bus	24V input wiring connectors and bus-bars for the Kinetix 5700 drive system 24V shared-bus connection system (optional).
2198-H040-P-T	2198-D012-ERS3 (2x) 2198-D020-ERS3 (2x) 2198-D032-ERS3 (3x) 2198-CAPMOD-2240 (2x)	Control power sharing	Control power T-connector with bus bars, 55 mm
2198-H070-P-T	2198-S086-ERS3	Control power sharing	Control power T-connector with bus bars, 85 mm
2198-BARCON-xxDC200 2198-KITCON-ENDCAP200	2198-Dxxx-ERS3 2198-Sxxx-ERS3	Shared-bus connector kits	DC-bus links (55, 85, and 100 mm) and end caps for the DC-bus shared-bus connection system (required and included with each respective drive module).

Cable Accessories

In this example, the Kinetix 6000 system includes 1326AB motors with resolver interface, Bulletin MPM motors, RDD-Series™ direct-drive motors, and LDC-Series linear motors. Some of the existing motors are expected to remain in service, but paired with a replacement Kinetix 5700 drive and the appropriate cables and feedback connector kit.

Table 32 - Kinetix 5700 Drive Migration

Kinetix 6000 Drive Cat. No.	Existing Allen-Bradley® Motor Cat. No.	Kinetix 5700 (replacement) Drive Cat. No.	Description
2094-BC07-M05-S	—	2198-P208	DC-bus power supply
	RDB-B41035-xB72AA	2198-S086-ERS3	Single-axis inverter
2094-BC02-M02-S	RDB-B2151C-xB72AA	2198-D032-ERS3 (1 axis)	Dual-axis inverters
2094-BM02-S (2x)	1326AB-B410G (2x)	2198-D032-ERS3	
2094-BM01-S (2x)	1326AB-B515G (2x)	2198-D020-ERS3	
2094-BM02-S (2x)	MPM-B1153E (2x)	2198-D032-ERS3	
2094-BM01-S (3x)	MPM-B1651F (3x)	2198-D020-ERS3 2198-D032-ERS3 (1 axis)	
2094-BMP5-S (4x)	LDC-C030100-DHTxx (4x)	2198-D012-ERS3 2198-D012-ERS3	