

Kinetix 6000 systems may also include any of these optional components:

- One or more integrated axis modules used as follower IAM, 2094-ACxx-Mxx-S (230V) or 2094-BCxx-Mxx-S (460V) and associated axis modules, power rails, motors, and cables as required for the application
- One shunt module, 2094-BSP2 with optional Bulletin 1394 external passive shunt module
- Slot-filler modules, 2094-PRF
- Bulletin 2094 Line Interface Module (LIM)
- Bulletin 2090 Resistive Brake Module (RBM)
- Bulletin 1336 external active shunt module (dynamic brake)

Kinetix 6000 IAM/AM Module Series Change

The peak current ratings of the Kinetix 6000 AM modules (series A and B) are configured at the factory as 150% of continuous current. You can program 460V (series B) AM modules and the equivalent IAM (inverter) modules, for up to 250% of continuous inverter current.

Kinetix 6000 Series Change

IAM Module ⁽¹⁾ Cat. No.	AM Module ⁽¹⁾ Cat. No.	Peak Current Rating	
		Series A (inverter)	Series B (inverter)
2094-BC01-MP5-S	2094-BMP5-S	150%	250%
2094-BC01-M01-S	2094-BM01-S	150%	250%
2094-BC02-M02-S	2094-BM02-S	150%	250%

(1) Contact your Rockwell Automation sales representative for availability of 2094-BC04-M03-S, 2094-BM03-S, 2094-BC07-M05-S, and 2094-BM05-S series-B drive modules.

IMPORTANT

Before your drive will deliver 250% peak performance, you must enable the peak enhancement feature by configuring your drive by using DriveExplorer or RSLogix 5000 software.

Refer to the interactive Peak Enhancement Configuration Utility to recalculate torque and accel/decel limit values, and paste them into the appropriate Axis Properties dialog box in RSLogix 5000 software. To download the utility, go to <http://ab.com/motion/software/peak.html>.

For sizing your drive/motor combination by using series-B drives and the peak enhancement feature, use Motion Analyzer software, version 4.6 or later.

Peak Enhancement Specifications

Drives that support the Peak Enhanced mode have the capability of increasing the maximum inverter peak current to achieve greater overload performance.

IMPORTANT

The Peak Enhancement feature requires use of RSLogix 5000 software version 16 and drive firmware revision 1.111 or later.

Kinetix 6000 Peak Overload Support

IAM/AM Module Cat. No.	Module	Safe-off Drive	Series A	Series B
2094-BCxx-Mxx	IAM	Non safe-off	Standard	Standard
2094-BMxx	AM			
2094-BCxx-Mxx-S	IAM	Safe-off	Standard	Standard or Peak enhanced ⁽¹⁾
2094-BMxx-S	AM			

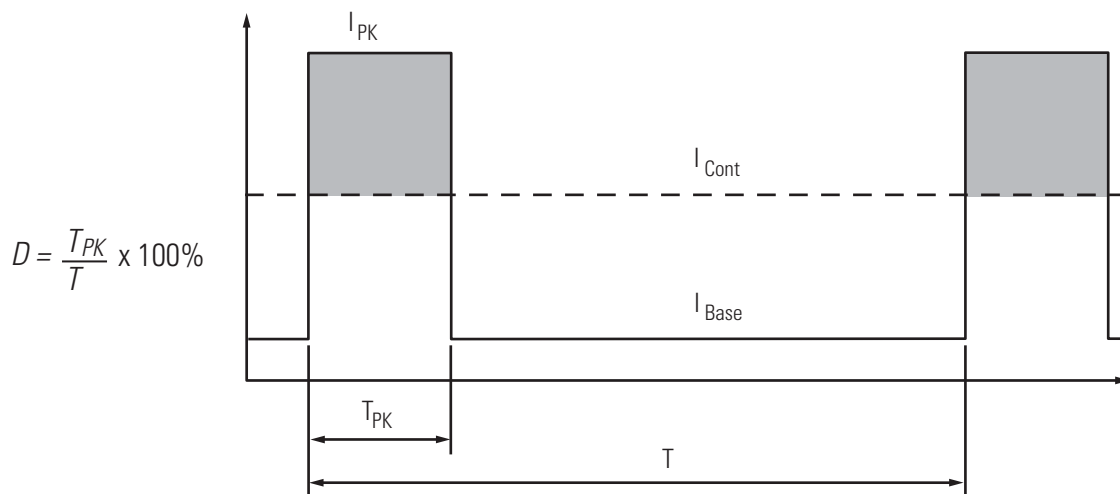
(1) Standard mode is enabled by default to preserve backward compatibility, but you can enable the Peak Enhanced mode to achieve increased peak current performance. Refer to Kinetix 6000 IAM/AM Module Series Change on [page 268](#) for information on enabling the Peak Enhanced mode.

Kinetix 6000 Peak Current Ratings

IAM/AM Module ⁽¹⁾ Cat. No.	Peak Inverter Current Rating		Peak Enhanced Converter Current Rating
	Standard	Peak Enhanced	
2094-BC01-MP5-S	150%	250%	250%
2094-BC01-M01-S	150%	250%	250%
2094-BC02-M02-S	150%	250%	250%
2094-BMP5-S	150%	250%	N/A
2094-BM01-S	150%	250%	N/A
2094-BM02-S	150%	250%	N/A

(1) Contact your Rockwell Automation sales representative for availability of 2094-BC04-M03-S, 2094-BM03-S, 2094-BC07-M05-S, and 2094-BM05-S series-B drive modules.

Load Duty-cycle Profile Example



IMPORTANT

The peak current ratings of the Kinetix 6000 AM modules (series A and B) are configured at the factory as 150% of continuous current. You can program 2094-BMP5-S, 2094-BM01-S, and 2094-BM02-S series-B drives and their equivalent IAM (inverter) modules, up to 250% of continuous inverter current.

AM Module (inverter) 460V Power Specifications (series A and B)

Attribute	2094-BMP5-S (2094-BC01-MP5-S)	2094-BM01-S (2094-BC01-M01-S)	2094-BM02-S (2094-BC02-M02-S)	2094-BM03-S (2094-BC04-M03-S)	2094-BM05-S (2094-BC07-M05-S)
Bandwidth ⁽¹⁾ Velocity loop Current loop	500 Hz 1300 Hz				
PWM frequency	8 kHz		4 kHz		
Nominal input voltage	650V DC				
Continuous current (rms)	2.8 A	6.1 A	10.3 A	21.2 A	34.6 A
Continuous current (sine) 0-pk	4.0 A	8.6 A	14.6 A	30.0 A	48.9 A
Peak current (rms)	4.2 A ⁽²⁾ 7.0 A ⁽³⁾	9.2 A ⁽²⁾ 15.3 A ⁽³⁾	15.5 A ⁽²⁾ 25.8 A ⁽³⁾	31.8 A ⁽²⁾	51.9 A ⁽²⁾
Peak current (0-pk)	5.9 A ⁽²⁾ 9.9 A ⁽³⁾	12.9 A ⁽²⁾ 21.6 A ⁽³⁾	21.8 A ⁽²⁾ 36.4 A ⁽³⁾	45.0 A ⁽²⁾	73.4 A ⁽²⁾
Continuous power out (nom)	1.8 kW	3.9 kW	6.6 kW	13.5 kW	22.0 kW
Internal shunt Continuous power Peak power	50 W 5.6 kW			200 W 22.5 kW	
Internal shunt resistor	115 Ω			28.75 Ω	
Shunt on	805V DC				
Shunt off	755V DC				
Efficiency	98%				
Capacitance	75 μ F	150 μ F	270 μ F	840 μ F	1175 μ F
Capacitive energy absorption	10 J	19 J	35 J	108 J	152 J
Short circuit current rating	200,000 A (rms) symmetrical				

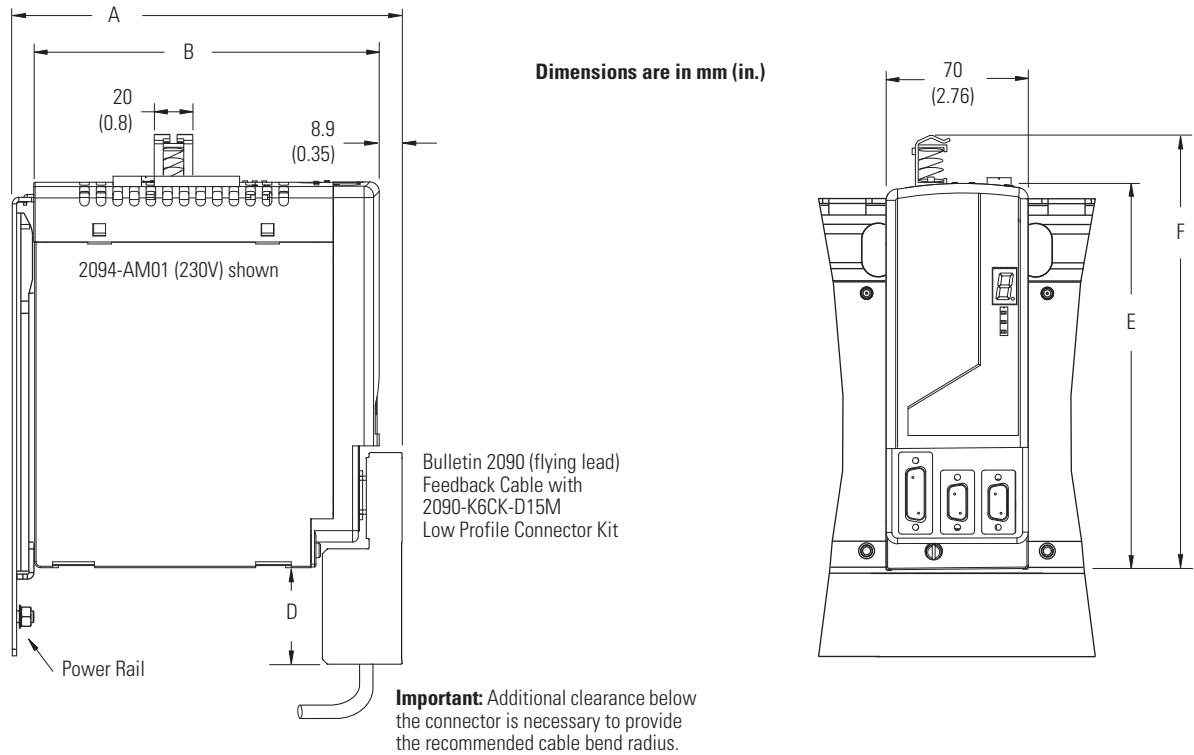
(1) Bandwidth values vary based on tuning parameters and mechanical components.

(2) Applies to Series A drives.

(3) Applies to Series B drives when configured for Peak-enhanced mode. For more information on drive performance in the Peak-enhanced mode, refer to [Peak Enhancement Specifications](#) on [page 272](#).

Axis Module Dimensions

2094-AMP5-S, 2094-AM01-S, and 2094-AM02-S Dimensions (230V)
2094-BMP5-S, 2094-BM01-S, and 2094-BM02-S Dimensions (460V)



Modules are shown mounted to the power rail and the dimensions reflect that in the depth of the module.

AM Module Cat. No.	A mm (in.)	B mm (in.)	D mm (in.)	E mm (in.)	F mm (in.)
2094-AMP5-S	198 (7.8)	176 (7.0)	51 (2.0)	206 (8.2)	231 (9.1)
2094-AM01-S					
2094-AM02-S					
2094-BMP5-S	272 (10.7)	249 (9.8)	0 (0)	256 (10.1)	281 (11.0)
2094-BM01-S					
2094-BM02-S					

Weight Specifications

Kinetix 6000 Module	Cat. No.	Weight, approx. kg (lb)
IAM (230V)	2094-AC05-MP5-S	2.23 (4.9)
	2094-AC05-M01-S	2.27 (5.0)
	2094-AC09-M02-S	2.31 (5.1)
	2094-AC16-M03-S	4.71 (10.4)
	2094-AC32-M05-S	7.43 (16.4)
AM (230V)	2094-AMP5-S	1.46 (3.2)
	2094-AM01-S	1.50 (3.3)
	2094-AM02-S	1.54 (3.4)
	2094-AM03-S	3.13 (6.9)
	2094-AM05-S	3.18 (7.0)
Power rails (Slim)	2094-PRS1	1.05 (2.3)
	2094-PRS2	1.59 (3.5)
	2094-PRS3	2.14 (4.7)
	2094-PRS4	2.67 (5.9)
	2094-PRS5	3.11 (6.8)
	2094-PRS6	3.55 (7.8)
	2094-PRS7	3.99 (8.8)
	2094-PRS8	4.43 (9.7)

Kinetix 6000 Module	Cat. No.	Weight, approx. kg (lb)
IAM (460V)	2094-BC01-MP5-S	4.98 (11.0)
	2094-BC01-M01-S	5.03 (11.1)
	2094-BC02-M02-S	5.08 (11.2)
	2094-BC04-M03-S	9.60 (21.1)
	2094-BC07-M05-S	10.1 (22.3)
AM (460V)	2094-BMP5-S	2.44 (5.4)
	2094-BM01-S	2.49 (5.5)
	2094-BM02-S	2.54 (5.6)
	2094-BM03-S	4.58 (10.1)
	2094-BM05-S	4.98 (11.0)
Shunt module	2094-BSP2	3.10 (6.8)
Slot-filler module	2094-PRF	0.45 (1.0)

Maximum Feedback Cable Lengths

Although motor feedback cables are available in standard lengths up to 90 m (295.3 ft), the drive/motor/feedback combination may limit the maximum feedback cable length. These tables assume the use of recommended cables as shown in the Motor/Actuator Cable Selection table on [page 380](#).

Cable Lengths for Compatible Rotary Motors

Motor Cat. No.	Absolute High-resolution (5V) Encoder m (ft)	Absolute High-resolution (9V) Encoder m (ft)	Incremental/TTL (5V) Encoder m (ft)	Resolver m (ft)
MPL-A15xxx... MPL-A2xxx-E/V	30 (98.4)			
MPL-A3xxx... MPL-A5xxx-S/M ⁽¹⁾	30 (98.4)			
MPL-B15xxx... MPL-B2xxx-E/V		90 (295.3)		
MPL-B3xxx... MPL-B5xxx-S/M		90 (295.3)		
MPL-A/B15xxx... MPL-A/B45xxx-H			30 (98.4)	
MPL-Bxxx-R				90 (295.3)
MPM-Axxxx-S/M	30 (98.4)			