

IAM (460V) Power Specifications

Specification	Description				
	2094-BC01-MP5-S	2094-BC01-M01-S	2094-BC02-M02-S	2094-BC04-M03-S	2094-BC07-M05-S
AC input voltage	324...528V rms three-phase (360...480V nom)				
AC input frequency	47...63 Hz				
Main ac input current ⁽¹⁾ Nom (rms) Max inrush (0-pk)	10 A 10 A		24 A 20 A	44 A 34 A	71 A 56 A
DC input voltage (common bus follower)	458...747V dc				
DC input current (common bus follower)	10 A		24 A	43 A	71 A
Control power ac input voltage	95...264V rms single-phase (230V nom)				
Control power ac input current Nom (@ 220/230V ac) rms Nom (@ 110/115V ac) rms Max inrush (0-pk)	3 A 6 A 25 A				
Nominal bus output voltage	650V dc				
Line loss ride through	20 ms				
Continuous output current to bus (A_{dc})	10 A		24 A	43 A	71 A
Intermittent output current to bus (A_{dc}) ⁽²⁾	20 A		48 A	86 A	142 A
Bus overvoltage	825V dc				
Bus undervoltage	275V dc				
Internal shunt Continuous power Peak power	50 W 5600 W			200 W 22,300 W	
Internal shunt resistor	115 Ω			28.75 Ω	
Shunt on	805V dc				
Shunt off	755V dc				
Continuous power output to bus	6 kW		15 kW	27.6 kW	45 kW
Peak power output	12 kW		30 kW	55.2 kW	90 kW
Efficiency	95%				
Converter inductance	250 μ H			125 μ H	75 μ H
Converter capacitance	110 μ F		220 μ F	940 μ F	1410 μ F

⁽¹⁾ All 2094-xCxx integrated axis modules are limited to 2 contactor cycles per minute (with up to 4 axis modules), or 1 contactor cycle per minute (with 5 to 8 axis modules).

⁽²⁾ Intermittent output current duration equals 250 ms.

Axis Module (inverter) Power Specifications

The following tables list power specifications for the Kinetix 6000 axis modules. The specifications apply to the axis module specified in the column heading by catalog number and the same axis module (inverter section) that resides within an integrated axis module.

AM (inverter) 230V Power Specifications

Specification	Description				
	2094-AMP5-S (2094-AC05-MP5-S)	2094-AM01-S (2094-AC05-M01-S)	2094-AM02-S (2094-AC09-M02-S)	2094-AM03-S (2094-AC16-M03-S)	2094-AM05-S (2094-AC32-M05-S)
Bandwidth ⁽¹⁾ Velocity loop Current loop	500 Hz 1300 Hz				
PWM frequency	8 kHz		4 kHz		
Nominal input voltage	325V dc				
Continuous current (rms)	3.7 A	6.0 A	10.6 A	17.3 A	34.6 A
Continuous current (0-pk)	5.2 A	8.5 A	15.0 A	24.5 A	48.9 A
Peak current (rms) ⁽²⁾	7.4 A	12.0 A	21.2 A	34.6 A	51.9 A
Peak current (0-pk) ⁽²⁾	10.5 A	17.0 A	30.0 A	48.9 A	73.4 A
Continuous power out (nom)	1.2 kW	1.9 kW	3.4 kW	5.5 kW	11.0 kW
Internal shunt Continuous power Peak power	N/A N/A			50 W 1400 W	
Internal shunt resistor	N/A			115 Ω	
Shunt on	N/A			405V dc	
Shunt off	N/A			375V dc	
Efficiency	98%				
Capacitance	390 μ F	660 μ F	780 μ F	1320 μ F	2640 μ F
Capacitive energy absorption	15 J	25 J	29 J	50 J	99 J

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

⁽²⁾ Peak current duration equals 2.5 seconds.

AM (inverter) 460V Power Specifications

Specification	Description				
	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) ⁽²⁾	4.2 A	9.2 A	15.5 A	31.8 A	51.9 A
Peak current (0-pk) ⁽²⁾	5.9 A	12.9 A	21.8 A	45.0 A	73.4 A
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 5600 W			200 W 22,300 W	
Internal shunt resistor	115 Ω			28.75 Ω	
Shunt on	805V dc				
Shunt off	755V dc				
Efficiency	97%				
Capacitance	75 μF	150 μF	270 μF	840 μF	1175 μF
Capacitive energy absorption	10 J	19 J	35 J	108 J	152 J

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

⁽²⁾ Peak current duration equals 2.5 seconds.

Shunt Module Power Specifications

2094 (rail-mounted) Shunt Module Specifications

Kinetix 6000 Drives	Shunt Module Catalog Number	Specifications					Fuse Replacement
		Drive Voltage V ac	Resistance Ω	Peak Power kW	Peak Current A	Continuous Power W	
2094-ACxx-Mxx-S or 2094-BCxx-Mxx-S	2094-BSP2	230	28.75	5.7	14	200	N/A (no internal fuse)
		460		22.5	28		

For External Shunt Module Specifications, refer to page 184.

In the table below, the 230V system specifications are given for the IAM internal shunt resistors, the Kinetix 6000 (2094-BSP2) SM, and the Bulletin 1394 passive external shunt modules.

Shunt Module (230V) System Specifications

Kinetix 6000 (230V) IAM 2094-	Number of Axis Modules Quantity	Shunt Module Specifications					External Passive Shunt Module ⁽¹⁾	System Continuous Shunt Power W
		Catalog Number	Resistance Ω	Peak Current A	Peak Power kW	Continuous Power W		
AC05-MP5-S	0 to 7	N/A ⁽²⁾	—	—	—	—	N/A ⁽²⁾	0
AC05-M01-S			—	—	—	—		0
AC09-M02-S			—	—	—	—		50 ⁽³⁾
AC16-M03-S			—	—	—	—		200 plus ⁽⁴⁾
AC32-M05-S			—	—	—	—		
ACxx-Mxx-S	0 to 6	2094-BSP2	28.75	14.1	5.7	200	N/A ⁽²⁾	200 plus ⁽⁵⁾
ACxx-Mxx-S	0 to 6	2094-BSP2	4	101.3	41	300	1394-SR9A	300 ⁽⁶⁾
ACxx-Mxx-S						900	1394-SR9AF	900 ⁽⁶⁾
ACxx-Mxx-S						1800	1394-SR36A	1800 ⁽⁶⁾
ACxx-Mxx-S						3600	1394-SR36AF	3600 ⁽⁶⁾

⁽¹⁾ Refer to page 184 for external shunt module specifications.

⁽²⁾ Module not part of system configuration.

⁽³⁾ 50 or the sum of the AM internal shunt ratings.

⁽⁴⁾ 200 plus the sum of the AM internal shunt ratings.

⁽⁵⁾ 200 plus the sum of the IAM (2094-AC16-M03 and -AC32-M05 only) and AM internal shunt ratings.

⁽⁶⁾ Use of external shunt disables shunts internal to IAM and AM.

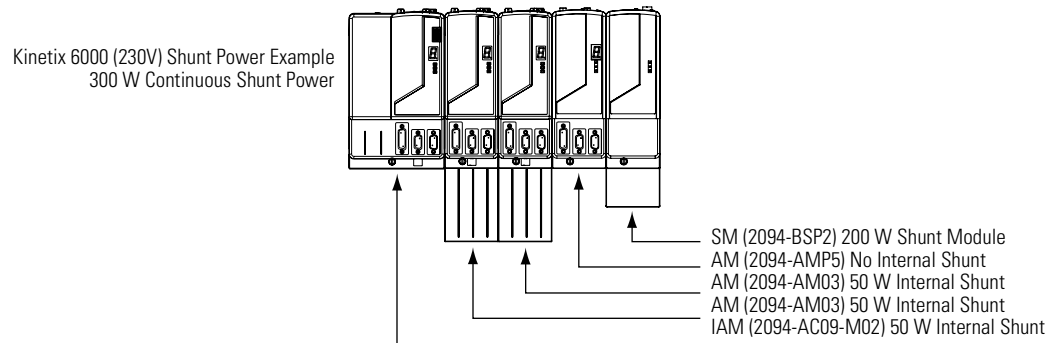
IMPORTANT

The Kinetix 6000 shunt module, catalog number 2094-BSP2, used in combination with the 2094-AC09-M02 IAM, disables the shunt resistor internal to that IAM. This situation is unique to the 2094-AC09-M02 IAM. Shunt resistors internal to adjacent AMs are not disabled.

Refer to the 2094-AC09-M02 example on page 175.

In the example below, the continuous shunt power is 300 W. The 50 W resistor in the IAM is disabled when used in combination with the (2094-BSP2) SM. This example is unique to the 2094-AC09-M02 IAM.

230V Shunt Power Example (2094-AC09-M02)



In the table below, the 460V system specifications are given for the IAM internal shunt resistors, the Kinetix 6000 (2094-BSP2) SM, and the Bulletin 1394 passive external shunt modules.

Shunt Module (460V) System Specifications

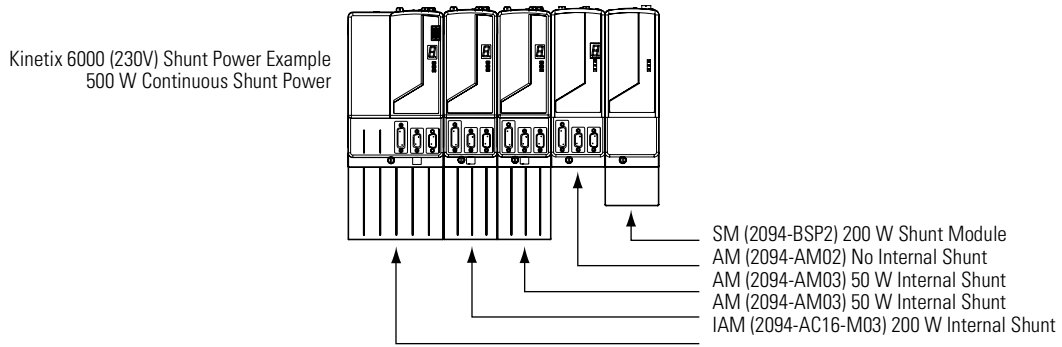
Kinetix 6000 (460V) IAM 2094-	Number of Axis Modules Quantity	Shunt Module Specifications					External Passive Shunt Module ⁽¹⁾	System Continuous Shunt Power W
		Catalog Number	Resistance Ω	Peak Current A	Peak Power kW	Continuous Power W		
BC01-MP5-S	0 to 7	N/A ⁽²⁾	—	—	—	—	N/A ⁽²⁾	50 plus ⁽³⁾
BC01-M01-S			—	—	—	—		50 plus ⁽³⁾
BC02-M02-S			—	—	—	—		50 plus ⁽³⁾
BC04-M03-S			—	—	—	—		200 plus ⁽⁴⁾
BC07-M05-S			—	—	—	—		
BCxx-Mxx-S	1 to 6	2094-BSP2	28.75	28	22.5	200	N/A ⁽²⁾	200 plus ⁽⁵⁾
BCxx-Mxx-S	1 to 6	2094-BSP2	4	201.3	162	300	1394-SR9A	300 ⁽⁶⁾
BCxx-Mxx-S						900	1394-SR9AF	900 ⁽⁶⁾
BCxx-Mxx-S						1800	1394-SR36A	1800 ⁽⁶⁾
BCxx-Mxx-S						3600	1394-SR36AF	3600 ⁽⁶⁾

- (1) Refer to page 184 for external shunt module specifications.
(2) Module not part of system configuration.
(3) 50 plus the sum of the AM internal shunt ratings.
(4) 200 plus the sum of the AM internal shunt ratings.
(5) 200 plus the sum of the IAM and AM internal shunt ratings.
(6) Use of external shunt disables shunts internal to IAM and AM.

In the example below, the sum of the IAM, AMs, and SM equal 500 W of continuous shunt power.

TIP Shunt power adds up the same way for 460V (IAM, AM, and SM) systems too.

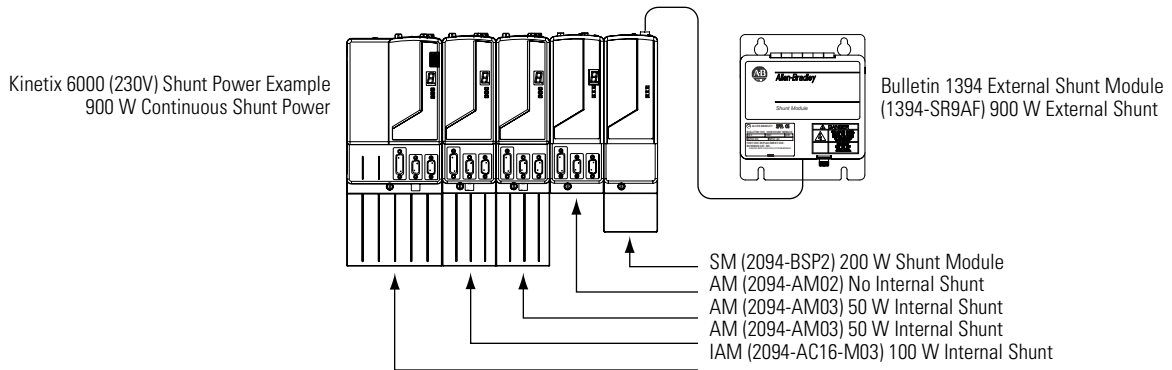
Shunt Power Example (without external shunt)



In the example below, the system is identical to that shown in the example above, except the Kinetix 6000 (2094-BSP2) shunt module is wired to a Bulletin 1394 external shunt module. The IAM and AM internal shunt power is disabled and the continuous shunt power is equal to that of the external shunt module alone.

TIP The external shunt disables the internal shunt capacity of 460V (IAM, AM, and SM) systems too.

Shunt Power Example (with external shunt)



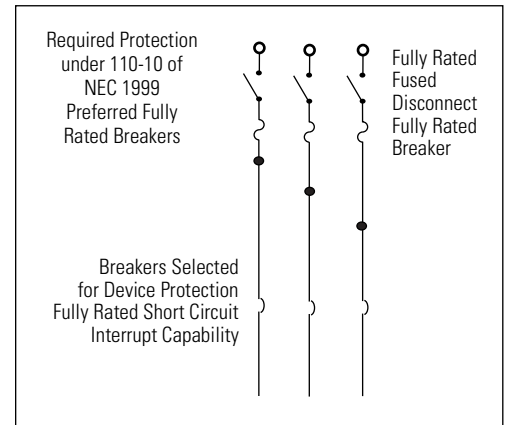
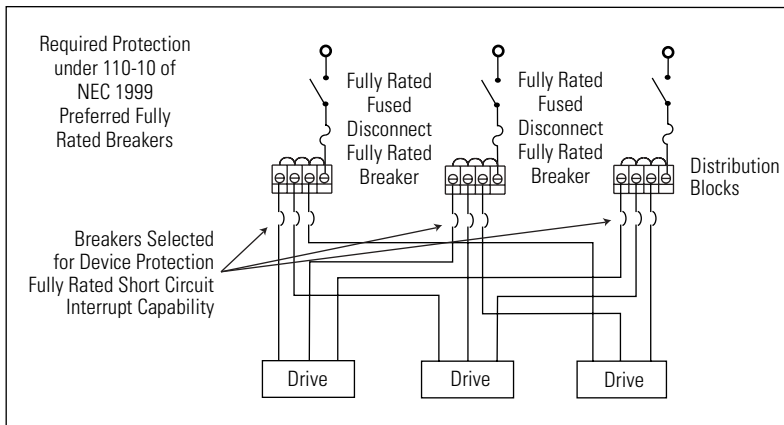
Circuit Breaker/Fuse Specifications

While circuit breakers offer some convenience, there are limitations for their use. Circuit breakers do not handle high current inrush as well as fuses. The Kinetix 6000 needs to be protected by a device having a short circuit interrupt current rating of the service capacity provided or a maximum of 100,000 A.

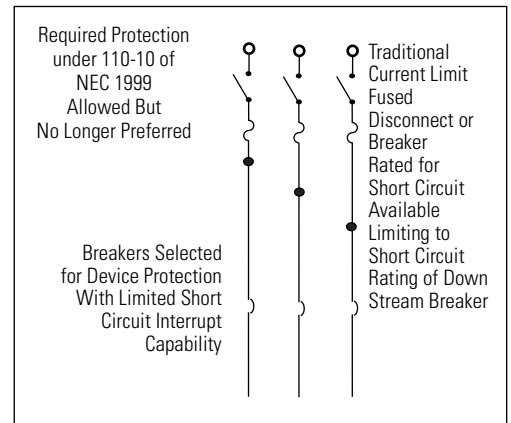
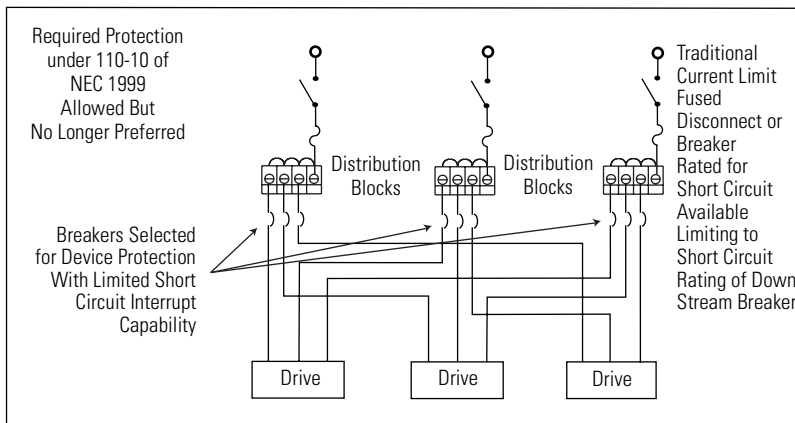
If an upstream circuit protection device is rated for the overload current and short circuit rating, a supplementary circuit protection device (such as the 1492 product) can be used as the only Kinetix 6000 branch circuit protection device. The upstream fully rated device let-through must be less than or equal to the 10 kA interrupt rating of the 1492 circuit protection device.

The wiring interconnection in the figures below provide examples of the needed protection and follows UL and NEC codes. Full compliance is dependent on final wiring design and installation.

Circuit Protection under NEC 1999 110-10 (preferred fully rated devices)



Circuit Protection under NEC 1999 110-10 (allowed but no longer preferred)



Use class CC, J, L, or R fuses, with current rating as indicated in the table below. The following fuse examples and Allen-Bradley circuit breakers are recommended for use with integrated axis modules (2094-xCxx-Mxx-S) when the Line Interface Module (LIM) is not used.

IMPORTANT

Line Interface Modules (2094-ALxxS, -BLxxS, and -XL75S-Cx) provide branch circuit protection to the IAM. Follow all applicable NEC and local codes.

Fuse Specifications

Catalog Number	V ac Input Power			Control Input Power		DC Common Bus Fuse		
	Bussmann Fuse	Allen-Bradley Circuit Breaker ⁽¹⁾		Bussmann Fuse	Allen-Bradley Circuit Breaker ⁽¹⁾	Bussmann Fuse	Ferraz Shawmut Fuse	
2094-AC05-MP5-S	KTK-R-20 (20 A)	1492-CB3H300	140M-F8E-C16	FNQ-R-10 (10 A)	1492-CB2H060	N/A	A50P20-1	
2094-AC05-M01-S			140M-F8E-C20			FWH-35B	A50P35-4	
2094-AC09-M02-S	KTK-R-30 (30 A)	1492-CB3H400	140M-F8E-C20		1492-SP2D200	FWH-60B	A50P60-4	
2094-AC16-M03-S	LPJ-45SP (45 A)	N/A	140U-H6C3-C50			FWH-125B	A50P125-4	
2094-AC32-M05-S	LPJ-80SP (80 A)	N/A	140U-H6C3-C90		1492-CB2H060	N/A	A100P20-1	
2094-BC01-MP5-S	KTK-R-20 (20 A)	1492-CB3H300	140M-F8E-C32			FWJ-40A	A100P40-1	
2094-BC01-M01-S			140M-F8E-C45			FWJ-70A	A100P70-1	
2094-BC02-M02-S	KTK-R-30 (30 A)	1492-CB3H400	140M-F8E-C45			N/A	FWJ-125A	A100P125-1
2094-BC04-M03-S	LPJ-45SP (45 A)	N/A	140U-H6C3-C50					
2094-BC07-M05-S	LPJ-80SP (80 A)		140U-H6C3-C90					

⁽¹⁾ When using Bulletin 1492 circuit protection devices, the maximum short circuit current available from the source is limited to 5000 A.

ATTENTION

Bulletin 1492 and 140M circuit breakers should not be used on the output of an ac drive as an isolating disconnect switch or motor overload device. These devices are designed to operate on sine wave voltage and the drive's PWM waveform does not allow it to operate properly. As a result, damage to the device will occur.

Contactor Ratings

The table below lists the recommended contactor ratings for integrated axis modules installed without a line interface module.

Catalog Number 230V IAM	Contactor	Catalog Number 460V IAM	Contactor
2094-AC05-MP5-S	100-C23x10 (ac coil)	2094-BC01-MP5-S	100-C23x10 (ac coil)
2094-AC05-M01-S	100-C23Zx10 (dc coil)	2094-BC01-M01-S	100-C23Zx10 (dc coil)
2094-AC09-M02-S	100-C37x10 (ac coil)	2094-BC02-M02-S	100-C37x10 (ac coil)
	100-C37Zx10 (dc coil)		100-C37Zx10 (dc coil)
2094-AC16-M03-S	100-C72x10 (ac coil)	2094-BC04-M03-S	100-C60x10 (ac coil)
	100-C72Zx10 (dc coil)		100-C60Zx10 (dc coil)
2094-AC32-M05-S	100-C85x10 (ac coil)	2094-BC07-M05-S	100-C72x10 (ac coil)
	100-C85Zx10 (dc coil)		100-C72Zx10 (dc coil)

Transformer Specifications for Control Power Input

Attribute	Value (460V system)
Input volt-amperes	750VA
Input voltage	460V ac
Output voltage	120...240V ac

Power Dissipation Specifications

Use the following table to size an enclosure and calculate required ventilation for your Kinetix 6000 drive system.

Kinetix 6000 Modules	Usage as % of Rated Power Output (watts)				
	20%	40%	60%	80%	100%
Integrated axis module (IAM converter) ⁽¹⁾					
2094-AC05-MP5-S	19	23	27	31	35
2094-AC05-M01-S					
2094-AC09-M02-S	33	51	69	87	105
2094-AC16-M03-S	18	38	60	83	108
2094-AC32-M05-S	31	64	102	144	190
2094-BC01-MP5-S	15	20	25	30	35
2094-BC01-M01-S					
2094-BC02-M02-S	20	30	40	50	60
2094-BC04-M03-S	22	43	65	86	108
2094-BC07-M05-S	44	77	111	144	177
Integrated axis module (IAM Inverter) or axis module (AM) ⁽¹⁾					
2094-AC05-MP5-S or -AMP5-S	60	65	70	75	80
2094-AC05-M01-S or -AM01-S	62	69	76	83	90
2094-AC09-M02-S or -AM02-S	64	73	82	91	100
2094-AC16-M03-S or -AM03-S	50	72	99	130	165
2094-AC32-M05-S or -AM05-S	106	160	220	285	356
2094-BC01-MP5-S or -BMP5-S	75.7	80.9	86	92	98
2094-BC01-M01-S or -BM01-S	95	120	145	170	195
2094-BC02-M02-S or -BM02-S	98	126	154	182	210
2094-BC04-M03-S or -BM03-S	95	132	171	212	256
2094-BC07-M05-S or -BM05-S	118	182	251	326	406
Shunt module (SM)					
2094-BSP2	68	121	174	227	280

⁽¹⁾ Internal shunt power is not included in the calculations and must be added based on utilization.

General Specifications

This section contains general specifications for your Kinetix 6000 system components.

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 cable length, as shown in the tables below. These tables assume the use of recommended 2090 series cables.

MP-Series (MPL and MPG) Motors

MPL-A (230V) Motors		MPL-B (460V) Motors			MPG-A (230V) Motors	MPG-B (460V) Motors
Absolute High-resolution ⁽¹⁾ m (ft)	Incremental ⁽²⁾ m (ft)	Absolute High-resolution ⁽¹⁾ m (ft)	Incremental ⁽²⁾ m (ft)	Resolver ⁽³⁾ m (ft)	Absolute High-resolution ⁽⁴⁾ m (ft)	Absolute High-resolution ⁽⁴⁾ m (ft)
30 (98.4)	30 (98.4)	90 (295.3)	30 (98.4)	90 (295.3)	30 (98.4)	60 (196.8)

⁽¹⁾ Refers to MPL-A/BxxxS/M (single-turn or multi-turn) low inertia motors with absolute high-resolution feedback.

⁽²⁾ Refers to MPL-A/BxxxH low inertia motors with 2000-line incremental feedback.

⁽³⁾ Refers to MPL-A/BxxxR low inertia motors with 2-pole resolver feedback.

⁽⁴⁾ Refers to MPG-A/BxxxS/M (single-turn or multi-turn) integrated gear motors with absolute high-resolution feedback.

MP-Series (MPF and MPS), 1326AB, and TL-, F-, and Y-Series Motors

MPF-A and MPS-A (230V) Motors	MPF-B and MPS-B (460V) Motors	1326AB (M2L/S2L) (460V) Motors	1326AB (460V) Motors	F- and Y-Series (230V) Motors	TL-Series (230V) Motors
Absolute High-resolution ^{(1) (2)} m (ft)	Absolute High-resolution ^{(1) (2)} m (ft)	Absolute High-resolution ⁽³⁾ m (ft)	Resolver ⁽⁴⁾ m (ft)	Incremental ⁽⁵⁾ m (ft)	Incremental ⁽⁶⁾ m (ft)
30 (98.4)	90 (295.3)	90 (295.3)	90 (295.3)	30 (98.4)	30 (98.4)

⁽¹⁾ Refers to MPF-A/BxxxxS/M (single-turn or multi-turn) food grade motors with absolute high-resolution feedback.

⁽²⁾ Refers to MPS-A/BxxxxS/M (single-turn or multi-turn) stainless steel motors with absolute high-resolution feedback.

⁽³⁾ Refers to 1326AB-Bxxxx-M2L/S2L (single-turn or multi-turn) motors with absolute high-resolution feedback.

⁽⁴⁾ Refers to 1326AB-Bxxxx-21 motors with resolver feedback.

⁽⁵⁾ Refers to F- and Y-Series motors with incremental (optical encoder) feedback.

⁽⁶⁾ Refers to TL-Axxxx-H low inertia motors with incremental feedback.

Environmental Specifications

Specification	Operational Range	Storage Range (non-operating)
Ambient Temperature	0...50 °C (32...122 °F)	-40...70 °C (-40...158 °F)
Relative Humidity	5...95% noncondensing	5...95% noncondensing
Altitude	1000 m (3281 ft)	3000 m (9843 ft) during transport
Vibration	5...55 Hz @ 0.35 mm (0.014 in.) double amplitude, continuous displacement; 55...500 Hz @ 2.0 g peak constant acceleration	
Shock	15 g, 11 ms half-sine pulse (3 pulses in each direction of 3 mutually perpendicular directions)	

Weight Specifications

Kinetix 6000 Module	Catalog Number	Value, 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	Catalog Number	Value, 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)
Power Rails	2094-PR1	1.04 (2.3)
	2094-PR2	1.41 (3.1)
	2094-PR4	2.18 (4.8)
	2094-PR6	2.90 (6.4)
	2094-PR8	3.63 (8.0)
SM (460V)	2094-BSP2	3.10 (6.8)
Slot Filler Module	2094-PRF	0.45 (1.0)

Certifications

Certification ⁽¹⁾ (when product is marked)	Standards
c-UL-us	UL Listed to U.S. and Canadian safety standards (UL 508 C File E59272).
CE	European Union 89/336/EEC EMC Directive compliant with EN 61800-3:2004: Adjustable Speed Electrical Power Drive Systems - Part 3; EMC Product Standard including specific test methods.
	European Union 73/23/EEC Low Voltage Directive compliant with: <ul style="list-style-type: none"> EN 60204-1:1997 - Safety of Machinery - Electrical Equipment of Machines. EN 50178:1997 - Electronic Equipment for use in Power Installations.
Functional Safety	<ul style="list-style-type: none"> EN 60204-1:1997 - Safety of Machinery - Electrical Equipment of Machines. IEC 61508: Part 1-7:2000 - Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related Systems. EN954-1:1996 - Safety of machinery. Safety related parts of control systems. Part 1: General principles for design.

⁽¹⁾ Refer to <http://www.rockwellautomation.com/products/certification> for Declarations of Conformity Certificates.

AC Line Filter Specifications

The tables below contain specifications for ac line filters available for Kinetix 6000 servo drive systems.

AC Line Filter Specifications

AC Line Filter Catalog Number	Specifications								
	Voltage	Phase	Current	Power Loss W	Leakage Current mA	Weight kg (lb)	Humidity	Vibration	Operating Temperature
2090-XXLF-X330B	500V ac 50/60 Hz	Three	30A @ 50° C (122° F)	38	64	2.7 (5.9)	90% RH	10-200 Hz @ 1.8 g	-25 to 85° C (-13 to 185 ° F)
2090-XXLF-375			75A @ 50° C (122° F)	57	50	5.2 (11.4)			
2090-XXLF-375B					108				
2090-XXLF-3100			100A @ 50° C (122° F)	75	73	9.5 (20.9)			

AC Line Filter Selection

Drive Catalog Number	AC Line Filter Catalog Number
2094-AC05-MP5-S	2090-XXLF-X330B
2094-AC05-M01-S	
2094-AC09-M02-S	
2094-AC16-M03-S	2090-XXLF-375
2094-AC32-M05-S	2090-XXLF-3100
2094-BC01-MP5-S	2090-XXLF-X330B
2094-BC01-M01-S	
2094-BC02-M02-S	
2094-BC04-M03-S	2090-XXLF-375B
2094-BC07-M05-S	2090-XXLF-3100

External Shunt Module Specifications

External shunt modules are used with Kinetix 6000 drives when regenerative loads exceed the capacity of the internal (IAM or AM) shunt resistor.

Passive shunt modules wire to the Kinetix 6000 (rail mounted) shunt module, catalog number 2094-BSP2.

External Passive Shunt Module Specifications

External Shunt Catalog Number	Drive Voltage V ac	Specifications					Bussmann Replacement Fuse
		Resistance Ω	Peak Power kW	Peak Current A	Cont. Power W	Shipping Weight kg (lb)	
1394-SR9A	230 ⁽¹⁾	4	41.0	101.25	300	3.63 (8)	FNQ-R-20-R1 ⁽¹⁾
	460		160.0	20.0			FWP50A14F
1394-SR9AF	230 ⁽¹⁾	4	41.0	101.25	900	3.63 (8)	FNQ-R-20-R1 ⁽¹⁾
	460		160.0	20.0			FWP50A14F
1394-SR36A	230 ⁽¹⁾	4	41.0	101.25	1800	8.6 (19)	FNQ-R-20-R1 ⁽¹⁾
	460		160.0	20.0			FWP50A14F
1394-SR36AF	230 ⁽¹⁾	4	41.0	101.25	3600	9.0 (20)	FNQ-R-25-R1 ⁽¹⁾
	460		160.0	20.0			FWP50A14F

⁽¹⁾ Requires the use of an FNQ fuse with an adapter to allow the smaller body fuse to fit the larger FWP fuse holder.

Bulletin 1336 external active shunt modules wire directly to the dc bus.

External Active Shunt Module Specifications

Kinetix 6000 Drives	Shunt Module Catalog Number	Specifications						Fuse Replacement
		Drive Voltage V ac	Resistance Ω	Peak Power kW	Peak Current A	Continuous Power W	Shipping Weight kg (lb)	
2094-ACxx-Mxx	1336-MOD-KA005	230V	28.0	6	15	375	6.8 (15)	A50P10
	1336-MOD-KA010		13.2	12	30	750		A50P20
2094-BCxx-Mxx	1336-MOD-KB005	460V	104.0	6	7.5	375		A60Q
	1336-MOD-KB010		52.0	12	15	750		A60Q
	1336-MOD-KB050		10.0	60	76	3750	33.8 (75)	A700S35

Refer to the Common DC Bus Selection Guide, publication DRIVES-SG001, for dimensions and catalog number information for the Bulletin 1336 active shunt modules.

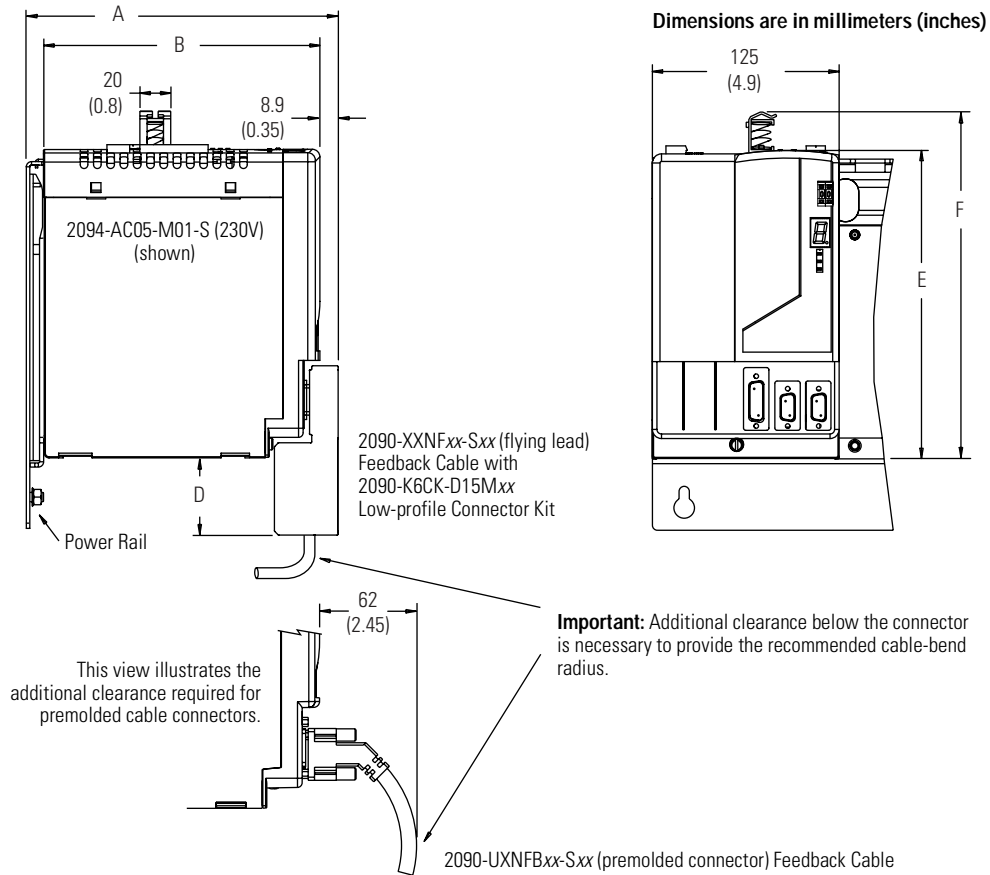
Product Dimensions

This section contains product dimensions for your Kinetix 6000 system components.

Integrated Axis Module Dimensions

2094-AC05-MP5-S, AC05-M01-S, and -AC09-M02-S (230V)

2094-BC01-MP5-S, -BC01-M01-S, and -BC02-M02-S (460V)

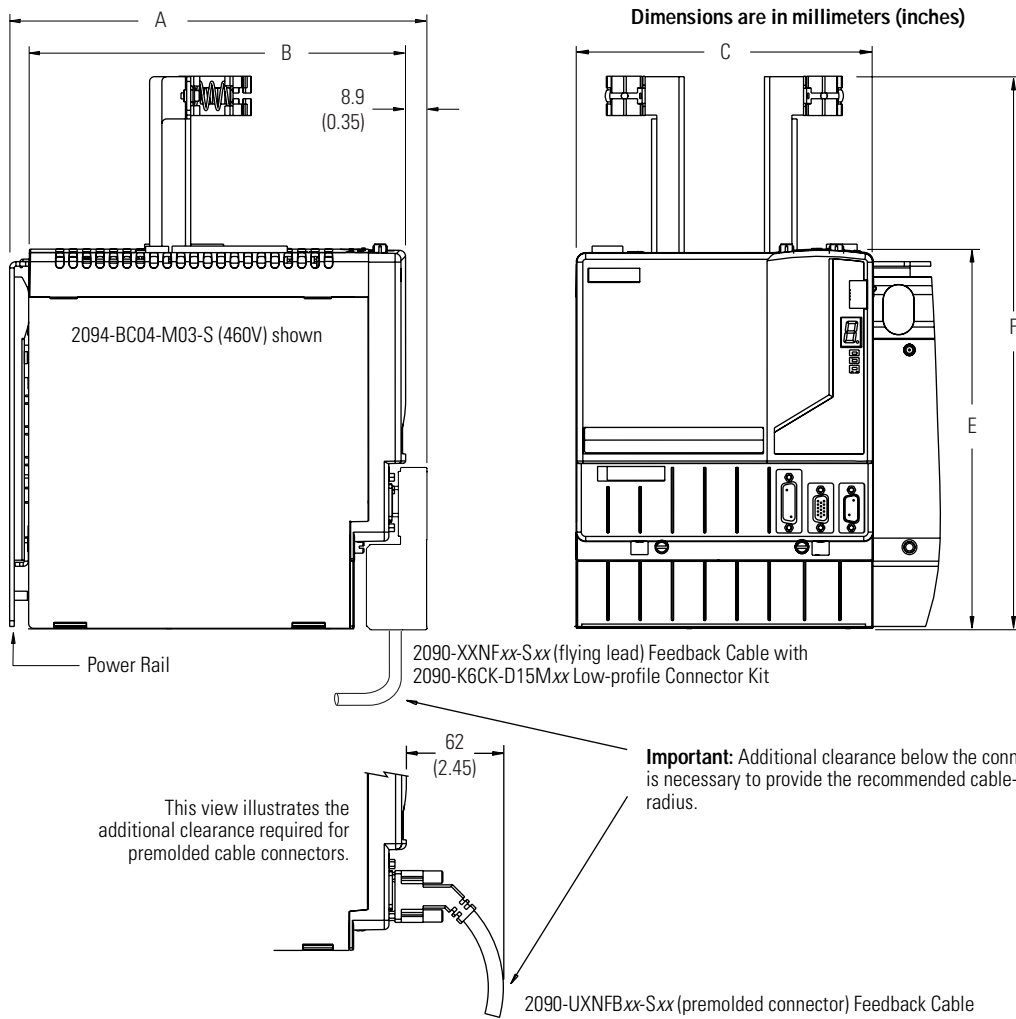


Modules are shown mounted to the power rail and the dimensions reflect that in the depth of the module.

IAM Dimensions

Kinetix 6000 IAM	A mm (in.)	B mm (in.)	D mm (in.)	E mm (in.)	F mm (in.)
2094-AC05-MP5-S	198 (7.8)	176 (7.0)	51 (2.0)	206 (8.2)	231 (9.1)
2094-AC05-M01-S					
2094-AC09-M02-S					
2094-BC01-MP5-S	272 (10.7)	249 (9.8)	0 (0)	256 (10.1)	281 (11.0)
2094-BC01-M01-S					
2094-BC02-M02-S					

Integrated Axis Module Dimensions
2094-AC16-M03-S and -AC32-M05-S (230V)
2094-BC04-M03-S and -BC07-M05-S (460V)



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

IAM Dimensions

Kinetix 6000 IAM	A mm (in.)	B mm (in.)	C mm (in.)	E mm (in.)	F mm (in.)
2094-AC16-M03-S	198 (7.8)	176 (7.0)	125 (4.9)	302 (11.9)	420 (16.5)
2094-AC32-M05-S			196 (7.7)		
2094-BC04-M03-S	272 (10.7)	249 (9.8)	196 (7.7)	256 (10.1)	374 (14.7)
2094-BC07-M05-S				318 (12.5)	436 (17.2)