



The 1336 PLUS II AC drive provides a PWM adjustable frequency and voltage output for exceptional control of motor speed and torque. The output can be tuned to provide optimum performance under a wide variety of load conditions.

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Conformity to Standards

The 1336 PLUS II conforms to the following:

	Standard Product
UL Listed	✓
CSA Certified (C-UL)	✓
CE Conformity	✓
IEC (Designed to Meet)	✓
C-tick	✓

Standard Products Program

This program includes standard 1336 PLUS II drives rated from 0.37-448 kW (0.5-600 Hp). Drive mounting is available as Open, IP20 (NEMA Type 1), or IP54 (NEMA Type 12). There is a limited offering of factory mounted options along with a larger offering of option kits for user installation. The 1336 PLUS II can also be used with DriveTools32™ Suite, a family of software products that let you program, monitor and troubleshoot the drive. All products in this program are pre-defined and not generally subject to modification.

1336 PLUS II Adjustable Frequency AC Drive

Product Selection

1336 PLUS II Drive Catalog Number Explanation

1336F	-	BR	F30	-	AA	-	EN	-	MODS
Bulletin Number		Voltage (must be specified)	Nominal Hp Rating (must be specified)		Enclosure Type (must be specified)		Language Group ① (must be specified)		Options (specify as needed)

Letter	Voltagess
AQ	200-240V AC or 310V DC
BR	380-480VAC or 513-620V DC
CW	500-600V AC or 775V DC
A	200-240V AC
B	380-480V AC
BP	380-480V AC (F Frame)
BPR	380-480V AC (F Frame) Roll-In Style
C	500-600V AC
CP	500-600V AC (F Frame)
CPR	500-600V AC (F Frame) Roll-In Style
R	513-620V DC

Refer to table below for ratings and possible voltage combinations.

Code	Enclosure	Code	Language
AA	IP 20 (NEMA 1)	EN	English
AE	IP 20 (NEMA 1)/EMC	FR	French
AJ	IP 54 (NEMA 12)	DE	German
AN	IP 00 (Open)	IT	Italian
		ES	Spanish

Voltage and Nominal Hp Rating Combinations

Code	Rating	AQ	BR	CW	A	B	BP/ BPR	C	CP/ CPR	R
F05	0.37 (0.5)	●	●							
F07	0.56 (0.75)	●	●							
F10	0.75 (1)	●	●	●						
F15	1.2 (1.5)	●	●							
F20	1.5 (2)	●	●	●						
F30	2.2 (3)	●	●	●						
F50	3.7 (5)	●	●	●						
F75	5.5 (7.5)	●	●	●						
F100	7.5 (10)		●	●						
F150	11 (15)		●	●						
F200	15 (20)		●	●						
007	5.5 (7.5)				●					●
010	7.5 (10)				●					●
015	11 (15)				●	●				●
020	15 (20)				●	●				●
025	18.5 (25)				●	●		●		●
030	22 (30)				●	●		●		●
040	30 (40)				●	●		●		●
050	37 (50)				●	●		●		●
060	45 (60)				●	●		●		●
075	56 (75)				●	●		●		●
100	75 (100)				●	●		●		●
125	93 (125)				●	●		●		●
150	112 (150)				●	●		●		●
200	149 (200)				●	●		●		●
250	187 (250)				●	●		●		●
300	224 (300)				●	●	●	●		●
350	261 (350)				●	●	●	●	●	●
400	298 (400)				●	●	●	●	●	●
450	336 (450)				●	●	●	●	●	●
500	373 (500)				●	●	●	●	●	●
600	448 (600)				●	●	●	●	●	●

Code Description

Human Interface Module, Snap-In, IP20 (NEMA Type 1)

HASB	Snap-In Cradle/Blank Plate
HASP	Programmer Only
HCSP	Programmer Only & Upload/Download Capability
HAS1	Programmer/Controller w/Analog Pot
HCS1	Programmer/Controller w/Analog Pot & Upload/Download Capability
HAS2	Programmer/Controller w/Digital Pot
HCS2	Programmer/Controller w/Digital Pot & Upload/Download Capability

Human Interface Module, IP65/54 (NEMA Type 4/12)

HJP	Programmer Only
HJ2	Programmer/Controller w/Digital Pot

Communication Options -- B Frame & Up (Adapter 6)

GM1	Single Point Remote I/O B Frame
GM2	RS-232/422/485, DF1 & DH485 B Frame
GM5	DeviceNet™
GM6	Enhanced DeviceNet™

Communication Options -- All Frames (Adapter 1)

GMS1	GM1 with Snap-In Cradle
GMS2	GM2 with Snap-In Cradle
GMS5	GM5 with Snap-In Cradle
GMS6	GM6 with Snap-In Cradle

Control Interface Options

L4	TTL Contact
L4E	TTL Contact & Encoder Feedback
L7E	TTL Contact & Encoder Fdbck. for use with Encoder Loss Detection
L5	24V AC/DC
L5E	24V AC/DC & Encoder Feedback
L8E	24V AC/DC & Encoder Feedback for use with Encoder Loss Detection
L6	115V AC
L6E	115V AC & Encoder Feedback
L9E	115V AC & Encoder Feedback for use with Encoder Loss Detection

Analog Interface Options -- Slot A

- Choose No More than One
 - Configurable Inputs/Outputs are 10V or 20mA
- | | |
|-----|---|
| LA2 | Two Isolated Configurable Inputs |
| LA6 | One Isolated Bi-polar Input (±10V or ±20mA) and One Isolated Thermistor Input |
| LA7 | One Isolated Bi-polar Input (±10V or ±20mA) and One Isolated Configurable Input |

Analog Interface Options -- Slot B

- Choose No More than One
 - Configurable Inputs/Outputs are 10V or 20mA
- | | |
|-----|---|
| LA1 | Single-ended, Non-isolated Configurable (including Pot) Input & 2 Single-ended, Non-isolated Outputs (1 - Configurable, 1 - 20mA) |
| LA3 | Two Isolated Configurable Outputs |
| LA4 | One Isolated Configurable Input & Output |
| LA5 | Isolated Pulse Input, Non-isolated Pulse Output & Single-ended, Non-isolated Configurable Output |

① Language must be specified to ensure shipment of appropriate User Manual.

200-240VAC Input, Constant/Variable Torque Drives & Enclosures

1336F	-	A007	-	AA	-	EN	-	L6	-	HAS1	-	GM1
Bulletin Number		Drive Rating <i>(must be specified)</i>		Enclosure Type <i>(must be specified)</i>		Language <i>(must be specified)</i>		Control Interface <i>(optional)</i> ❶		Human Interface <i>(optional)</i> ❶		Communication Option <i>(optional)</i> ❶

Frame	Nominal Drive Rating❷			IP 00 (Open) No Enclosure	IP 20 (NEMA Type 1) General Purpose	IP 65 (NEMA Type 4) Resist Water, Dust	IP 54 (NEMA Type 12) Industrial Use
	Output Amps	CT kW (Hp)	VT kW (Hp)	Code	Code❸	Code❹	Code
A1	2.3	0.37 (0.5)	0.37 (0.5)	AQF05-AN	AQF05-AA/AE	Not Available	AQF05-AJ
	3.0	0.56 (0.75)	0.56 (0.75)	AQF07-AN	AQF07-AA/AE		AQF07-AJ
	4.5	0.75 (1)	0.75 (1)	AQF10-AN	AQF10-AA/AE		AQF10-AJ
A2	6.0	1.2 (1.5)	1.2 (1.5)	AQF15-AN	AQF15-AA/AE		AQF15-AJ
	8.0	1.5 (2)	1.5 (2)	AQF20-AN	AQF20-AA/AE		AQF20-AJ
A3	12.0	2.2 (3)	2.2 (3)	AQF30-AN	AQF30-AA/AE		AQF30-AJ
	18.0	3.7 (5)	3.7 (5)	AQF50-AN	AQF50-AA/AE		AQF50-AJ
A4	22.0	5.5 (7.5)	5.5 (7.5)	AQF75-AN	AQF75-AA/AE		AQF75-AJ
B1	22.0	5.5 (7.5)	5.5 (7.5)	A007-AN	A007-AA/AE		A007-AJ
B2	34.0	7.5 (10)	7.5 (10)	A010-AN	A010-AA/AE		A010-AJ
	48.0	11 (15)	11 (15)	A015-AN	A015-AA/AE		A015-AJ
C	65.0	15 (20)	15 (20)	A020-AN	A020-AA/AE		A020-AJ
	77.0	18.5 (25)	18.5 (25)	A025-AN	A025-AA/AE		A025-AJ
	80.0	22 (30)	22 (30)	A030-AN	A030-AA/AE		A030-AJ
D	120.0	30 (40)	30 (40)	A040-AN	A040-AA/AE		Not Available
	150.0	37 (50)	37 (50)	A050-AN	A050-AA/AE		
	180.0	45 (60)	45 (60)	A060-AN	A060-AA/AE		
E	240.0	56 (75)	56 (75)	A075-AN	A075-AA/AE❺	Not Available	
	291.0	75 (100)	75 (100)	A100-AN	A100-AA/AE❺		
	325.0	93 (125)	93 (125)	A125-AN	A125-AA/AE❺		

- ❶ At least one of either a Control Interface, Human Interface or Communication Board Option will be required to make the drive functional. The chosen option(s) may be ordered factory installed (if available) or as a User Installed Option.
- ❷ Drive Rating is based on nominal voltage of 240 volts and carrier frequency of 4 khz at altitudes of 1000 meters or less. Refer to Publication 1336F-TD001B-EN-P for derating information.
- ❸ For Drives requiring CE/C-tick Conformance, use the -AE Enclosure Catalog Number and follow all the additional guidelines found on page 12 (CE/C-tick Conformance).
- ❹ If a door mounted Human Interface Module is supplied, the Enclosure Rating is limited to IP 65 (NEMA and UL do not apply).
- ❺ This drive will not accept a "Snap-In" HIM (HASP, HAS1, HAS2, HCSP, HCS1, HCS2).

Adjustable Frequency AC Drive

380-480VAC Input, Constant/Variable Torque Drives & Enclosures

1336F	B015	AA	EN	CM	L6	HAS2	GM1
Bulletin Number	Drive Rating <i>(must be specified)</i>	Enclosure Type <i>(must be specified)</i>	Language <i>(must be specified)</i>	Common Mode Choke <i>(must be specified with any F Frame drive)</i> ⑦	Control Interface <i>(optional)</i> ①	Human Interface <i>(optional)</i> ①	Communication Option <i>(optional)</i> ①

Frame	Drive Rating ②				IP00 (Open) No Enclosure	IP 20 (NEMA Type 1) General Purpose	IP 20 (NEMA Type 1) CE/C-tick Conformance	IP 65 (NEMA Type 4) Resist Water, Dust	IP 54 (NEMA Type 12) Industrial Use
	Constant Torque		Variable Torque ③						
	Out Amps	kW (Hp)	Out Amps	kW (Hp)					
A1	1.1	0.37 (0.5)	1.2	0.37 (0.5)	BRF05-AN	BRF05-AA	BRF05-AE	Not Available	BRF05-AJ
	1.6	0.56 (0.75)	1.7	0.56 (0.75)	BRF07-AN	BRF07-AA	BRF07-AE		BRF07-AJ
	2.1	0.75 (1)	2.3	0.75 (1)	BRF10-AN	BRF10-AA	BRF10-AE		BRF10-AJ
	2.8	1.2 (1.5)	3.0	1.2 (1.5)	BRF15-AN	BRF15-AA	BRF15-AE		BRF15-AJ
A2	3.8	1.5 (2)	4.0	1.5 (2)	BRF20-AN	BRF20-AA	BRF20-AE	Not Available	BRF20-AJ
	5.3	2.2 (3)	6.0	2.2 (3)	BRF30-AN	BRF30-AA	BRF30-AE		BRF30-AJ
A3	8.4	3.7 (5)	9.0	3.7 (5)	BRF50-AN	BRF50-AA	BRF50-AE	Not Available	BRF50-AJ
A4	13.3	5.5 (7.5)	15.4	7.5 (10)	BRF75-AN	BRF75-AA	BRF75-AE	Not Available	BRF75-AJ
	16.1	7.5 (10)	22.0	11 (15)	BRF100-AN	BRF100-AA	BRF100-AE		BRF100-AJ
	24.0	11 (15)	24.0	11 (15)	BRF150-AN	BRF150-AA	BRF150-AE		BRF150-AJ
	27.0	15 (20)	27.0	15 (20)	BRF200-AN	BRF200-AA	BRF200-AE		BRF200-AJ
B1	24.2	11 (15)	27.0	15 (20)	B015-AN	B015-AA	B015-AE	Not Available	B015-AJ
B2	31.0	15 (20)	34.0	18.5 (25)	B020-AN	B020-AA	B020-AE	Not Available	B020-AJ
	39.0	18.5 (25)	42.0	22 (30)	B025-AN	B025-AA	B025-AE		B025-AJ
	45.0	22 (30)	48.0	22 (30)	B030-AN	B030-AA	B030-AE		B030-AJ
C	59.0	30 (40)	59.0	30 (40)	BX040-AN	BX040-AA	BX040-AE	Not Available	BX040-AJ
	60.0	30 (40)	65.0	37 (50)	B040-AN	B040-AA	B040-AE		B040-AJ
	75.0	37 (50)	75.0	45 (60)	B050-AN	B050-AA	B050-AE		B050-AJ
	77.0	45 (60)	77.0	45 (60)	BX060-AN	BX060-AA	BX060-AE		BX060-AJ
D	85.0	45 (60)	96.0	56 (75)	B060-AN	B060-AA	B060-AE	Not Available	Not Available
	106.0	56 (75)	120.0	75 (100)	B075-AN	B075-AA	B075-AE		
	138.0	75 (100)	150.0	93 (125)	B100-AN	B100-AA	B100-AE		
	173.0	93 (125)	180.0	112 (150)	B125-AN	B125-AA	B125-AE		
	180.0	112 (150)	180.0	112 (150)	BX150-AN	BX150-AA	BX150-AE		
E	199.0	112 (150)	240.0	149 (200)	B150-AN	B150-AA ⑧	B150-AE ⑧	Not Available	Not Available
	263.0	149 (200)	292.0	187 (250)	B200-AN	B200-AA ⑧	B200-AE ⑧		
	325.0	187 (250)	325.0	187 (250)	B250-AN	B250-AA ⑧	B250-AE ⑧		
F	325.0	187 (250)	360.0	224 (300)	BP250-AN ⑦	BP250-AA ⑦⑧	Not Available	Not Available	Not Available
	360.0	224 (300)	425.0	261 (350)	BPR250-AN ⑦	-			
					BP300-AN ⑦	BP300-AA ⑦⑧			
					BPR300-AN ⑦	-			
	425.0	261 (350)	475.0	298 (400)	BP350-AN ⑦	BP350-AA ⑦⑧			
					BPR350-AN ⑦	-			
475.0	298 (400)	532.0	336 (450)	BP400-AN ⑦	BP400-AA ⑦⑧				
				BPR400-AN ⑦	-				
532.0	336 (450)	532.0	336 (450)	BP450-AN ⑦	BP450-AA ⑦⑧	Not Available	Not Available	Not Available	
G	325.0	187 (250)	360.0	224 (300)	BX250-AN	Not Available	Not Available	Not Available	Not Available
	360.0	224 (300)	425.0	261 (350)	B300-AN				
	425.0	261 (350)	475.0	298 (400)	B350-AN				
	475.0	298 (400)	525.0	336 (450)	B400-AN				
	525.0	336 (450)	590.0	373 (500)	B450-AN				
	590.0	373 (500)	670.0	448 (600)	B500-AN				
670.0	448 (600)	670.0	448 (600)	B600-AN					

See page 5 for Notes.

500-600VAC Input, Constant/Variable Torque Drives & Enclosures

1336F	-	C025	-	AA	-	EN	-	CM	-	L6	-	HASP	-	GM1
Bulletin Number		Drive Rating (must be specified)		Enclosure Type (must be specified)		Language (must be specified)		Common Mode Choke (must be specified with any F Frame drive)⑦		Control Interface (optional)①		Human Interface (optional)①		Communication Option (optional)①

Frame	Drive Rating⑩				IP00 (Open) No Enclosure	IP 20 (NEMA Type 1) General Purpose	IP65 (NEMA Type 4) Resist Water, Dust	IP 54 (NEMA Type 12) Industrial Use
	Constant Torque		Variable Torque					
	Output Amps	kW (Hp)	Output Amps	kW (Hp)	Code	Code	Code⑨	Code
A4	2.0	0.75 (1)	2.0	0.75 (1)	CWF10-AN	CWF10-AA	Not Available	CWF10-AJ
	4.0	1.5 (2)	4.0	1.5 (2)	CWF20-AN	CWF20-AA		CWF20-AJ
	6.0	2.2 (3)	6.0	2.2 (3)	CWF30-AN	CWF30-AA		CWF30-AJ
	8.0	3.7 (5)	8.0	3.7 (5)	CWF50-AN	CWF50-AA		CWF50-AJ
	10.0	5.5 (7.5)	10.0	5.5 (7.5)	CWF75-AN	CWF75-AA		CWF75-AJ
	12.0	7.5 (10)	12.0	7.5 (10)	CWF100-AN	CWF100-AA		CWF100-AJ
	19.0	11 (15)	19.0	11 (15)	CWF150-AN	CWF150-AA		CWF150-AJ
	24.0	15 (20)	24.0	15 (20)	CWF200-AN	CWF200-AA		CWF200-AJ
C	30.0	18.5 (25)	30.0	18.5 (25)	C025-AN	C025-AA	Not Available	C025-AJ
	35.0	22 (30)	35.0	22 (30)	C030-AN	C030-AA		C030-AJ
	45.0	30 (40)	45.0	30 (40)	C040-AN	C040-AA		C040-AJ
	57.0	37 (50)	57.0	37 (50)	C050-AN	C050-AA		C050-AJ
	62.0	45 (60)	62.0	45 (60)	C060-AN	C060-AA		C060-AJ
D	85.0	56 (75)	85.0	56 (75)	C075-AN	C075-AA	Not Available	Not Available
	109.0	75 (100)	109.0	75 (100)	C100-AN	C100-AA		
	138.0	93 (125)	138.0	93 (125)	C125-AN	C125-AA		
E	158.0	112 (150)	168.0	112 (150)	C150-AN	C150-AA⑨	Not Available	Not Available
	252.0	149 (200)	252.0	149 (200)	C200-AN	C200-AA⑨		
	284.0	187 (250)	284.0	187 (250)	C250-AN	C250-AA⑨		
	300.0	224 (300)	300.0	224 (300)	CX300-AN	CX300-AA⑨		
F	350.0	261 (350)	350.0	261 (350)	CP350-AN⑦	CP350-AA⑦⑨	Not Available	Not Available
	400.0	298 (400)	400.0	298 (400)	CPR350-AN⑦	-		
					CP400-AN⑦	CP400-AA⑦⑨		
G	300.0	224 (300)	300.0	224 (300)	C300-AN	Not Available	Not Available	Not Available
	350.0	261 (350)	350.0	261 (350)	C350-AN			
	400.0	298 (400)	400.0	298 (400)	C400-AN			
	450.0	336 (450)	450.0	336 (450)	C450-AN	Not Available	Not Available	Not Available
	500.0	373 (500)	500.0	373 (500)	C500-AN			
	600.0	448 (600)	600.0	448 (600)	C600-AN			

- ① At least one of either a Control Interface, Human Interface or Communication Board Option will be required to make the drive functional. The chosen option(s) may be ordered factory installed (if available) or as a User Installed Option.
- ② Drive Rating is based on nominal voltage of 480V & carrier frequency of 4 kHz (D Frame & smaller) or 2 kHz (E Frame & larger) at altitudes of 1000m or less. See 1336F-TD001B-EN-P for derating info.
- ③ For Drives requiring CE/C-tick Conformance, use the -AE Enclosure Catalog Number and follow all the additional guidelines found on page 12 (CE/C-tick Conformance).
- ④ If a Door Mounted Human Interface Module is supplied, the Enclosure Rating is limited to IP65 (NEMA and UL do not apply).
- ⑤ Not available.
- ⑥ VT Ratings apply to 460V input only. Refer to page 17 for complete rating information.
- ⑦ A "Common Mode Choke" option (-CM) or "No Common Mode Choke" option (-NCM) must be specified with each F Frame Drive.
- ⑧ These units include as standard an integral EMC filter.
- ⑨ This drive will not accept a "Snap-In" HIM (HASP, HAS1, HAS2, HCSP, HCS1, HCS2).
- ⑩ Drive Rating is based on nominal voltage of 600V and carrier frequency of 4 kHz (45 kW/60 Hp and below) or 2 kHz (56 kW/75 Hp and above) at altitudes of 1000 meters or less. Refer to Publication 1336F-TD001B-EN-P for derating information.

Required Factory Installed Option

Common Mode Choke for F Frame Drives - Factory Installed (Select One)

Description①	Used With . . .	Option Code
No Common Mode Choke	All F Frame	-NCM
Internal Common Mode Choke - Installed	Drives②	-CM

①② See page 6 for Notes.

Factory Installed Options

Common Mode Choke for G Frame Drives - Factory Installed

Description ❶	Used With . . .	Option Code
Internal Common Mode Choke - Installed	G Frame Drives	-CM

Interface Options

Description ❶	Used With . . .	Option Code
Communication Options – Drive Main Control Board Mounted Single Point RIO RS232/422/485, DF1 & DH485 Protocol DeviceNet™ Enhanced DeviceNet™	Frames B & Up (Adapter 6 Only)	-GM1 ❷ -GM2 ❷ -GM5 ❷ -GM6 ❷
Communication Options – Snap-in Cradle Mounted Single Point RIO RS232/422/485, DF1 and DH485 Protocol DeviceNet Enhanced DeviceNet Snap-In Cradle/Blank Plate	All Frames (Adapter 1 Only)	-GMS1 ❷ -GMS2 ❷ -GMS5 ❷ -GMS6 ❷ -HASB ❷
Control Interface <u>without</u> Encoder Feedback Contact Closure +24VAC/DC 115VAC	All Drives	-L4 -L5 -L6
Control Interface <u>with</u> Encoder Feedback Contact Closure Contact Closure for use with Encoder Loss Detection +24VAC/DC +24VAC/DC for use with Encoder Loss Detection 115VAC 115VAC for use with Encoder Loss Detection	All Drives	-L4E -L7E -L5E -L8E -L6E -L9E
Analog Interface – Slot A (Choose One) ❸ Two Isolated Configurable Inputs One Isolated Bi-polar Input ($\pm 10V$ or $\pm 20mA$) and One Isolated Thermistor Input One Isolated Bi-polar Input ($\pm 10V$ or $\pm 20mA$) and One Isolated Configurable Input	All Drives	-LA2 -LA6 -LA7
Analog Interface – Slot B (Choose One) ❸ Single-ended, Non-isolated Configurable (including Pot) Input & 2 Single-ended, Non-isolated Outputs (1-Config., 1-20mA) Two Isolated Configurable Outputs One Isolated Configurable Input & Output One Isolated Pulse Input, One Non-isolated Pulse Output and One Single-ended, Non-isolated Configurable Output	All Drives	-LA1 -LA3 -LA4 -LA5
Human Interface Module, Snap-In, IP 20 (NEMA Type 1) Snap-In Cradle/Blank Plate Programmer Only Programmer Only & Upload/Download Capability Programmer/Controller with Analog Pot Programmer/Controller with Analog Pot & Upload/Download Cap. Programmer/Controller with Digital Pot Programmer/Controller with Digital Pot & Upload/Download Cap.	IP 00 (Open) A-G Frame and IP 20 (NEMA 1) A-D Frame Drives	-HASB -HASP -HCSP -HAS1 -HCS1 -HAS2 -HCS2
IP 20 (NEMA Type 1) HIM, Door Mounted in Bezel Kit Bezel with Blank Plate Programmer Only Programmer/Controller with Analog Speed Pot. Programmer/Controller with Digital Speed Pot.	IP 20 (NEMA 1) E-G Frame Drive Enclosures	-HAB -HAP -HA1 -HA2
Human Interface Module, IP 65 Programmer Only Programmer/Controller with Digital Pot	IP 65 or IP 54 (NEMA Type 12) Drives	-HJP ❹ -HJ2 ❺

- ❶ For a more functionally complete description of each option, refer to Pub. 1336F-TD001B-EN-P.
- ❷ A maximum of 1 communication option may be ordered factory installed on A Frame Drives (2 for B Frame Drives & up, limited to 1-Snap-in & 1-Main Control Board Mount).
- ❸ This option may be used on an IP65 or IP66 rated enclosure to meet watertight indoor applications.
- ❹ All F Frame Drives require that either option -NCM or -CM be specified.
- ❺ Configurable Inputs and Outputs are 10V or 20mA.

Factory Installed Options

(continued)

Custom Drive Firmware

Description	Used With . . .	Option Code
2 Second Power Loss Fault Delay	All Drives	EN910
MOP Reset on Stop		EN935
60 Hz. Maximum Frequency		EN945

User Installed Options

Control Interface Kits

Description ❶	Used with . . .	Catalog Number (Loose Kit)
Contact Closure	All Drives	1336-L4
24VAC/DC		1336-L5
115VAC		1336-L6
Contact Closure & Encoder Feedback		1336-L4E
For use with Encoder Loss Detection		1336-L7E
24VAC/DC and Encoder Feedback		1336-L5E
For use with Encoder Loss Detection		1336-L8E
115VAC and Encoder Feedback		1336-L6E
For use with Encoder Loss Detection		1336-L9E

Analog Interface Kits

Description ❶❷	Used with . . .	Catalog Number (Loose Kit)
Single-ended, Non-isolated Configurable (including Pot) Input & 2 Single-ended, Non-isolated Outputs (1 - Configurable, 1 - 20mA)	Slot B on All Drives (Choose One)	1336F-LA1
Two Isolated Configurable Outputs		1336F-LA3
One Isolated Configurable Input & Output		1336F-LA4
One Isolated Pulse Input, One Non-isolated Pulse Output and One Single-ended, Non-isolated Configurable Output		1336F-LA5
Two Isolated Configurable Inputs	Slot A on All Drives (Choose One)	1336F-LA2
One Isolated Bi-polar Input ($\pm 10V$ or $\pm 20mA$) and One Isolated Thermistor Input		1336F-LA6
One Isolated Bi-polar Input ($\pm 10V$ or $\pm 20mA$) and One Isolated Configurable Input		1336F-LA7

❶ For a more functionally complete description of each option refer to Publication 1336F-TD001B-EN-P.

❷ Configurable Inputs and Outputs are 10V or 20mA.

Dynamic Brake, Complete Kits

Description ❶	Brake Rating ❷	Catalog Number (Loose Kit)
For 200-240VAC Drives	3.7 kW (5 Hp) Max.	1336-MOD-KA005
	7.5 kW (10 Hp) Max.	1336-MOD-KA010
For 380-480VAC Drives	3.7 kW (5 Hp) Max.	1336-MOD-KB005
	7.5 kW (10 Hp) Max.	1336-MOD-KB010
	37 kW (50 Hp) Max.	1336-MOD-KB050
For 500-600VAC Drives	3.7 kW (5 Hp) Max.	1336-MOD-KC005
	7.5 kW (10 Hp) Max.	1336-MOD-KC010
	37 kW (50 Hp) Max.	1336-MOD-KC050

Dynamic Brake, Chopper Only Kits

Description ❶	Chopper Rating ❸	Catalog Number (Loose Kit)
200-240VAC	18A	1336-WA018
	70A	1336-WA070
	115A	1336-WA115
380-480VAC	9A	1336-WB009
	35A	1336-WB035
	110A	1336-WB110
500-600VAC	9A	1336-WC009
	35A	1336-WC035
	85A	1336-WC085

Junction Box, Complete Kit

Description	Used with Enclosure Designation . . .	Catalog Number (Loose Kit)
For all B Frame Drives	-AA	1336-JBBA
IP 20 (NEMA Type 1)	-AE	1336-JBBE
For all C Frame Drives	-AA	1336-JBCA
IP 20 (NEMA Type 1)	-AE	1336-JBCE

Drive Software

Description	
DriveTools™ SP Software ❹	See publication 9303-PL002... for Ordering/Pricing Information
DriveExplorer™ Software (Lite/Full) ❺❻	
Pocket DriveExplorer™ Software	

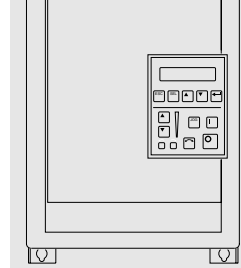
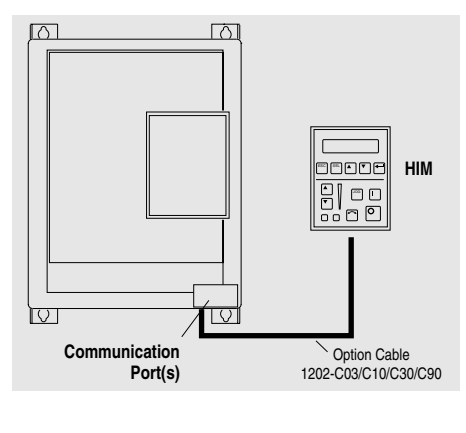
- ❶ For a more functionally complete description of each option, refer to Publication 1336 FORCE-1.0.
- ❷ Multiple chopper kits may be utilized together to obtain higher ratings. Refer to Publication 1336-5.65 for guidance.
- ❸ Note the Discount Schedule difference from the standard 1336 products.
- ❹ Limited to motor cable length of 61 meters (200 feet).
- ❺ Set-up wizards are available for use with DriveTools SP and DriveExplorer (Lite/Full) only.
- ❻ DriveExplorer Lite is available for free download at:
http://www.ab.com/drives/driveexplorer/free_download.html

Gasket and Enclosure Kits

Description	Used with Frame . . .	Catalog Number <i>(Loose Kit)</i>		
		200-240V	380-480V	500-600V
Gasket Kits for mounting 1336F Drives in User Supplied IP 54 or 65 (NEMA Type 12 or 4) Encl.	A1, A2, A3	1336-RF3	1336-RF3	–
	A4	1336-RF2	1336-RF2	1336-RF2
	B	1336-RF4	1336-RF4	1336-RF4
	C	1336-RF5	1336-RF5	1336-RF5
Gasket Kits for mounting 1336F Drives in User Supplied IP 54 (NEMA Type 12) Enclosures	D	1336-RF6	1336-RF6	1336-RF6
	E	1336-RF7	1336-RF7	1336-RF7
Enclosure Kits IP 20 (NEMA Type 1)	A1, A2, A3	1336F-AA3	1336F-AA3	–
	A4	1336F-AA2	1336F-AA2	1336F-AA2
	B	1336F-AA4	1336F-AA4	1336F-AA4
	C	1336F-AA5	1336F-AA5	1336F-AA5
	D	1336F-AA6	1336F-AA6	1336F-AA6
Enclosure Kits IP 20 (NEMA Type 1) for CE/C-tick Conformance	E	1336F-AA7	1336F-AA7	1336F-AA7
	A1, A2, A3	1336F-AE3	1336F-AE3	–
	A4	1336F-AE2	1336F-AE2	–
	B	1336F-AE4	1336F-AE4	1336F-AE4 ❶
	C	1336F-AE5	1336F-AE5	1336F-AE5 ❷
Enclosure Kits IP 54 (NEMA Type 12)	D	1336F-AE6	1336F-AE6	1336F-AE6 ❷
	E	1336F-AE7	1336F-AE7	1336F-AE7 ❷
	A1, A2, A3	1336F-AJA3	1336F-AJA3	–
	A4	–	1336F-AJA4B	1336F-AJA4C
	B1	1336F-AJB1A	1336F-AJB1B	1336F-AJB1C
Enclosure Kits IP 65 (NEMA Type 4) ❶	B2	1336F-AJB2A	1336F-AJB2B	1336F-AJB2C
	C	1336F-AJCA	1336F-AJCB	1336F-AJCC
	A1, A2, A3	1336F-AFA3	1336F-AFA3	–
Enclosure Kits IP 65 (NEMA Type 4) ❶	A4	–	1336F-AFA4B	1336F-AFA4C
	B1	1336F-AFB1A	1336F-AFB1B	1336F-AFB1C
	B2	1336F-AFB2A	1336F-AFB2B	1336F-AFB2C
	C	1336F-AFCA	1336F-AFCB	1336F-AFCC

- ❶ Use of a Door Mounted Human Interface Module on these Enclosures will void the NEMA Type 4 Rating.
- ❷ Using this kit with a 500-600V drive will not make the drive CE compliant. While these kits can offer EMC improvements, CE tests do not currently exist for equipment above 480V.

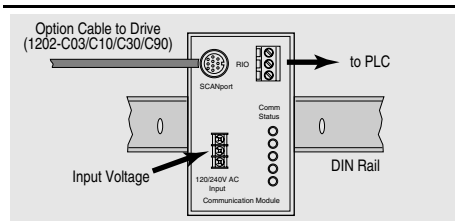
Human Interface Module (HIM) Kits - User Installed

	Description ❶	Used with . . .	Catalog Number (Loose Kit)
 <p style="text-align: right;">Snap-In HIM</p>	IP 20 (NEMA Type 1) HIM, Snap-In Snap-In Cradle/Blank Plate Programmer Only Programmer Only & Upload/Download Capability Programmer/Controller with Analog Pot Programmer/Controller with Analog Pot & Upload/Download Capability Programmer/Controller with Digital Pot Programmer/Controller with Digital Pot & Upload/Download Capability	IP 00 (Open) A-G Frame and IP 20 (NEMA 1) A-D Frame Drives	1201-HASB 1201-HASP 1201-HCSP 1201-HAS1 1201-HCS1 1201-HAS2 1201-HCS2
	IP 20 (NEMA Type 1) HIM, Hand-Held <i>Requires Cable Below</i> Programmer Only Programmer/Controller w/Analog Speed Pot. Programmer/Controller w/Digital Speed Pot.	IP 20 (NEMA 1) E-G Frame Drive Enclosures	1201-HAP 1201-HA1 1201-HA2
	IP 65 (NEMA Type 12/UL Type 4X-Indoor) HIM Programmer Only Programmer/Controller w/Digital Speed Pot.	IP 66 (NEMA Type 12/UL Type 4X Indoor) Enclosures	1201-HJP ❷ 1201-HJ2 ❷
	Option Cable Kit - Connect to Comm. Port 0.33 Meters (1.1 Feet) 1 Meter (3.3 Feet) 3 Meter (9.8 Feet) 9 Meter (29.5 Feet)	All HIMs not mounted on the drive chassis	1202-C03 1202-C10 1202-C30 1202-C90
	IP 20 (NEMA Type 1) Door Mount Bezel Kit	User Supplied IP 20 (NEMA Type 1) Enclosures and HIM	1201-DMA

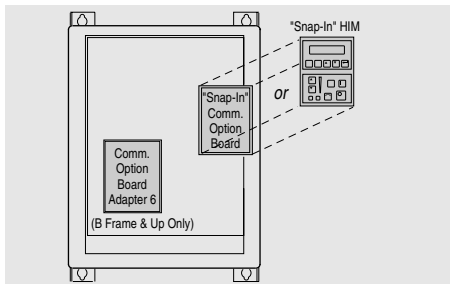
❶ For a more functionally complete description of each option refer to Publication 1336F-TD001B-EN-P.

❷ Requires an Option Cable to be functional. These units are not acceptable for NEMA Type 4 door mounting or UL Type 4X outdoor duty.

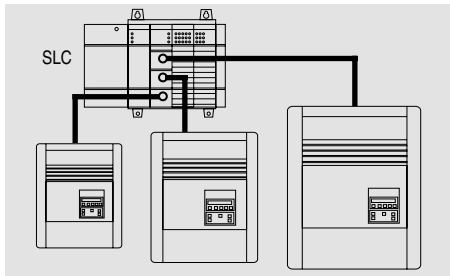
Communication Option Kits



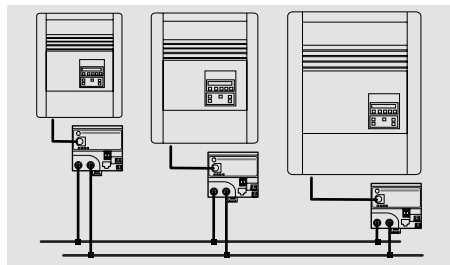
GD1/GD2 – Typical Configuration



GM1/GM2, GM5/GM6 – Typical Configuration



SM1 – Typical Configuration



CN1 – Typical Configuration

Description ❶	Used with . . .	Catalog Number (Loose Kit)
Remote Mounted (DIN Rail) – 115VAC Requires 115VAC power supply Single Point RIO RS232/422/485, DF1 and DH485 Protocol	All Drive Ratings	1203-GD1 ❷ 1203-GD2 ❷
Remote Mounted (DIN Rail) – 24V DC Requires 24V DC power supply Single Point RIO RS232/422/485, DF1 and DH485 Protocol DeviceNet Enhanced DeviceNet	All Drive Ratings	1203-GK1 ❷ 1203-GK2 ❷ 1203-GK5 ❷ 1203-GU6 ❷❸
Drive Mounted and Drive Powered (with loose snap-in cradle/blank plate) Single Point RIO RS232/422/485, DF1 and DH485 Protocol DeviceNet Enhanced DeviceNet	A Frame Drives – Adapter 1 w/Snap-in Cradle/Blank Plate B Frame & Up – Adapter 6 (or Adapter 1 w/ Snap-in Cradle/Blank Plate)	1336-GM1 1336-GM2 1336-GM5 1336-GM6
Firmware Download Module Module allows firmware upgrade.	All Drive Ratings	1336F-FDM
ControlNet™ to SCANport Adapter Remote Mounted (DIN Rail) – 24V DC Requires 24V DC power supply	All Drive Ratings	1203-CN1 ❷❸
EtherNet/IP™ to SCANport Adapter Remote Mounted (DIN Rail), 24V DC Requires 24V DC Power Receptacle	All Drive Ratings	1203-EN1 ❷❸ 20-XCOMM-AC-PS1
Serial Flash Cable Connects CN1, GU6 and SSS to a computer RS-232 port for adapter programming and for DriveTools32 & DriveExplorer™ serial interface.	All Drive Ratings	1203-SFC
SLC™ Communication Module (SLC 500 to SCANport Module) Provides a connection for up to 3 drive products.	All Drive Ratings	1203-SM1 ❷
Smart Serial to SCANport Adapter Includes 1203-SFC and 1202-C10 Cables	All Drive Ratings	1203-SSS
Serial Null Modem Adapter	All Drive Ratings	1203-SNM
Universal Serial Bus™ (USB) Converter Includes 2m USB, 20-HIM-H10 & 22-HIM-H10 Cables	All Drives	1203-USB
Communication Option Cable Kit 0.33 Meters (1.1 Feet) 1 Meter (3.3 Feet) 3 Meter (9.8 Feet) 9 Meter (29.5 Feet)	All External Communication Options Listed Above	1202-C03 1202-C10 1202-C30 1202-C90
SCANport™ Expander Option One to Two Port Expander Module One to Four Port Expander Module One to Two Port Splitter Cable	All Drive Ratings	1203-SG2 1203-SG4 1203-S03

❶ For a more functionally complete description of each option refer to Publication 1336F-TD001B-EN-P.

❷ Requires a 1202-C03/C10/C30/C90 cable to be functional. These units are not acceptable for NEMA Type 4 door mounting or UL Type 4X outdoor duty.

❸ Adapter is programmed/configured via RS-232 using the 1203-SFC cable, (purchased separately) and using a compatible network specific software tool.

CE/C-tick Conformance

Conformance to CE requires all of the following:

- A Standard 1336 PLUS II Drive with the “CE” mark on the data nameplate.
- A factory installed IP 20 (NEMA Type 1) Enclosure Option -AE or field installed Enclosure Option AE2, AE3, AE4 or AE5 (see page 9).
- Installation per the 1336 PLUS II User Manual, pub. 1336 PLUS-5.3.
- An EMC Filter from the table below.

Filter Catalog Number❶	Used with . . .
1336-RFB-7-A	1336F-AQF05 - AQF10 & 1336F-BRF05 - BRF20
1336-RFB-16-A	1336F-AQF15 - AQF20 & 1336F-BRF30 - BRF50
1336-RFB-30-A	1336F-AQF30 - AQF50
1336-RFB-30-A4	1336-BRF75- BRF200
1336-RFB-27-B	1336F-A007 & 1336F-B007 - B015
1336-RFB-48-B	1336F-A010 - A015 & 1336F-B020 - B030
1336-RFB-80-C	1336F-A020 - A030 & 1336F-BX040 - BX060
1336-RFB-150-D	1336F-A040 - A050 & 1336F-B060 - B100
1336-RFB-180-D	1336F-A060 & 1336F-B125 - BX150
1336-RFB-340-E	1336F-A075 - A125 & 1336F-B150 - B250
1336-RFB-475-G❷	1336F-BX250 - B350, 1336F-BP250 - BP350
1336-RFB-590-G❷	1336F-B400 - B450, 1336F-BP400 - BP450
1336-RFB-670-G❷	1336F-B500 - B600

❶ This is not a UL Listed or recognized component.

❷ If the “AE” style enclosure is specified on an F or G Frame Drive, the EMC filter is already included in the package.

Line Reactors, Isolation Transformers & Common Mode Chokes (For Remote User Mounting)

Specifications

Line Reactors

Iron core, 3% or 5% impedance, 600V, Class H insulation, 115 degree C rise, copper wound, 50/60 Hz., terminal blocks (80A and below), copper box lugs (160A and above), UL, CSA.

Isolation Transformers

230V/230V, 460V/460V or 575V/575V Delta primary/Wye secondary, Class H insulation, 150 degree C rise, aluminum wound, 60 Hz., ±5% taps, (1) N.C. thermostat per coil, UL, CSA.

Line Reactors – 200-240VAC Input

Drive Ratings kW (Hp)	Input or Output Line Reactor – 3% Impedance		Input or Output Line Reactor – 5% Impedance	
	IP 00 (Open Style)	IP 11 (NEMA Type 1)	IP 00 (Open Style)	IP 11 (NEMA Type 1)
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0.37 (0.50)	1321-3R2-D	1321-3RA2-D	1321-3R2-A	1321-3RA2-A
0.56 (0.75)	1321-3R4-A	1321-3RA4-A	1321-3R4-B	1321-3RA4-B
0.75 (1)	1321-3R4-A	1321-3RA4-A	1321-3R4-B	1321-3RA4-B
1.2 (1.5)	1321-3R8-A	1321-3RA8-A	1321-3R8-B	1321-3RA8-B
1.5 (2)	1321-3R8-A	1321-3RA8-A	1321-3R8-B	1321-3RA8-B
2.2 (3)	1321-3R12-A	1321-3RA12-A	1321-3R12-B	1321-3RA12-B
3.7 (5)	1321-3R18-A	1321-3RA18-A	1321-3R18-B	1321-3RA18-B
5.5 (7.5)	1321-3R25-A	1321-3RA25-A	1321-3R25-B	1321-3RA25-B
7.5 (10)	1321-3R35-A	1321-3RA35-A	1321-3R35-B	1321-3RA35-B
11 (15)	1321-3R45-A	1321-3RA45-A	1321-3R45-B	1321-3RA45-B
15 (20) Ⓜ	1321-3R55-A Ⓜ	1321-3RA55-A Ⓜ	1321-3R55-B Ⓜ	1321-3RA55-B Ⓜ
15 (20)	1321-3R80-A	1321-3RA80-A	1321-3R80-B	1321-3RA80-B
18.5 (25)	1321-3R80-A	1321-3RA80-A	1321-3R80-B	1321-3RA80-B
22 (30)	1321-3R80-A	1321-3RA80-A	1321-3R80-B	1321-3RA80-B
30 (40)	1321-3R130-A	1321-3RA130-A	1321-3R130-B	1321-3RA130-B
37 (50)	1321-3R160-A	1321-3RA160-A	1321-3R160-B	1321-3RA160-B
45 (60)	1321-3R200-A	1321-3RA200-A	1321-3R200-B	1321-3RA200-B
56 (75)	1321-3RB250-A	1321-3RAB250-A	1321-3RB250-B	1321-3RAB250-B
75 (100)	1321-3RB320-A	1321-3RAB320-A	1321-3RB320-B	1321-3RAB320-B
93 (125)	1321-3RB320-A	1321-3RAB320-A	1321-3RB320-B	1321-3RAB320-B

Line Reactors – 380-480VAC Input

Drive Ratings kW (Hp)	Input or Output Line Reactor – 3% Impedance		Input or Output Line Reactor – 5% Impedance	
	IP 00 (Open Style)	IP 11 (NEMA Type 1)	IP 00 (Open Style)	IP 11 (NEMA Type 1)
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0.37 (0.50)	1321-3R2-B	1321-3RA2-B	1321-3R2-C	1321-3RA2-C
0.56 (0.75)	1321-3R2-A	1321-3RA2-A	1321-3R2-B	1321-3RA2-B
0.75 (1)	1321-3R2-A	1321-3RA2-A	1321-3R2-B	1321-3RA2-B
1.2 (1.5)	1321-3R4-B	1321-3RA4-B	1321-3R4-C	1321-3RA4-C
1.5 (2)	1321-3R4-B	1321-3RA4-B	1321-3R4-C	1321-3RA4-C
2.2 (3)	1321-3R8-B	1321-3RA8-B	1321-3R8-C	1321-3RA8-C
3.7 (5)	1321-3R8-B	1321-3RA8-B	1321-3R8-C	1321-3RA8-C
5.5 (7.5)	1321-3R12-B	1321-3RA12-B	1321-3R12-C	1321-3RA12-C
7.5 (10)	1321-3R18-B	1321-3RA18-B	1321-3R18-C	1321-3RA18-C
11 (15)	1321-3R25-B	1321-3RA25-B	1321-3R25-C	1321-3RA25-C
15 (20)	1321-3R35-B	1321-3RA35-B	1321-3R35-C	1321-3RA35-C
18.5 (25)	1321-3R35-B	1321-3RA35-B	1321-3R35-C	1321-3RA35-C
22 (30)	1321-3R45-B	1321-3RA45-B	1321-3R45-C	1321-3RA45-C
30 (40)	1321-3R55-B	1321-3RA55-B	1321-3R55-C	1321-3RA55-C
37 (50)	1321-3R80-B	1321-3RA80-B	1321-3R80-C	1321-3RA80-C
45 (60)	1321-3R80-B	1321-3RA80-B	1321-3R80-C	1321-3RA80-C
56 (75)	1321-3R100-B	1321-3RA100-B	1321-3R100-C	1321-3RA100-C
75 (100)	1321-3R130-B	1321-3RA130-B	1321-3R130-C	1321-3RA130-C
93 (125)	1321-3R160-B	1321-3RA160-B	1321-3R160-C	1321-3RA160-C
112 (150)	1321-3R200-B	1321-3RA200-B	1321-3R200-C	1321-3RA200-C
149 (200)	1321-3RB250-B	1321-3RAB250-B	1321-3RB250-C	1321-3RAB250-C
187 (250)	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-C	1321-3RAB320-C
224 (300)	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-C	1321-3RAB400-C
261 (350) Ⓜ	1321-3RB400-B Ⓜ	1321-3RAB400-B Ⓜ	1321-3RB400-C Ⓜ	1321-3RAB400-C Ⓜ
261 (350)	1321-3R500-B	1321-3RA500-B	1321-3R500-C	1321-3RA500-C
298 (400)	1321-3R500-B	1321-3RA500-B	1321-3R500-C	1321-3RA500-C
336 (450) Ⓜ	1321-3R500-B Ⓜ	1321-3RA500-B Ⓜ	1321-3R500-C Ⓜ	1321-3RA500-C Ⓜ
336 (450)	1321-3R600-B	1321-3RA600-B	1321-3R600-C	1321-3RA600-C
373 (500)	1321-3R600-B	1321-3RA600-B	1321-3R600-C	1321-3RA600-C
448 (600)	1321-3R750-B	1321-3RA750-B	1321-3R750-C	1321-3RA750-C

ⓂⓂⓂ See page 14 for Notes.

Line Reactors – 500-600VAC Input

Drive Ratings kW (Hp)	Input or Output Line Reactor – 3% Impedance		Input or Output Line Reactor – 5% Impedance	
	IP 00 (Open Style)	IP 11 (NEMA Type 1)	IP 00 (Open Style)	IP 11 (NEMA Type 1)
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0.75 (1)	1321-3R2-B	1321-3RA2-B	1321-3R2-C	1321-3RA2-C
1.5 (2)	1321-3R4-C	1321-3RA4-C	1321-3R4-D	1321-3RA4-D
2.2 (3)	1321-3R8-B	1321-3RA8-B	1321-3R8-C	1321-3RA8-C
3.7 (5)	1321-3R8-B	1321-3RA8-B	1321-3R8-C	1321-3RA8-C
5.5 (7.5)	1321-3R8-B	1321-3RA8-B	1321-3R8-C	1321-3RA8-C
7.5 (10)	1321-3R12-B	1321-3RA12-B	1321-3R12-C	1321-3RA12-C
11 (15)	1321-3R18-B	1321-3RA18-B	1321-3R18-C	1321-3RA18-C
15 (20)	1321-3R25-B	1321-3RA25-B	1321-3R25-C	1321-3RA25-C
18.5 (25)	1321-3R25-B	1321-3RA25-B	1321-3R25-C	1321-3RA25-C
22 (30)	1321-3R35-B	1321-3RA35-B	1321-3R35-C	1321-3RA35-C
30 (40)	1321-3R45-B	1321-3RA45-B	1321-3R45-C	1321-3RA45-C
37 (50)	1321-3R55-B	1321-3RA55-B	1321-3R55-C	1321-3RA55-C
45 (60)	1321-3R80-B	1321-3RA80-B	1321-3R80-C	1321-3RA80-C
56 (75)	1321-3R80-B	1321-3RA80-B	1321-3R80-C	1321-3RA80-C
75 (100)	1321-3R100-B	1321-3RA100-B	1321-3R100-C	1321-3RA100-C
93 (125)	1321-3R130-B	1321-3RA130-B	1321-3R130-C	1321-3RA130-C
112 (150)	1321-3R160-B	1321-3RA160-B	1321-3R160-C	1321-3RA160-C
149 (200) ②	1321-3R200-B ②	1321-3RA200-B ②	1321-3R200-C ②	1321-3RA200-C ②
149 (200)	1321-3RB250-B	1321-3RAB250-B	1321-3RB250-C	1321-3RAB250-C
187 (250)	1321-3RB250-B	1321-3RAB250-B	1321-3RB250-C	1321-3RAB250-C
224 (300)	1321-3RB320-B	1321-3RAB320-B	1321-3RB320-C	1321-3RAB320-C
261 (350)	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-C	1321-3RAB400-C
298 (400)	1321-3RB400-B	1321-3RAB400-B	1321-3RB400-C	1321-3RAB400-C
336 (450)	1321-3R500-B	1321-3RA500-B	1321-3R500-C	1321-3RA500-C
373 (500)	1321-3R500-B	1321-3RA500-B	1321-3R500-C	1321-3RA500-C
448 (600)	1321-3R600-B	1321-3RA600-B	1321-3R600-C	1321-3RA600-C

Common Mode Chokes (External to Drive)

Description ①	Used with . . .	Catalog Number
Open Style, 1A	Communication and Signal Type Cables	1321-M001
Open Style, 9A (with Terminal Block)	All 1336 PLUS II Drives Rated: 230V, 0.37-1.5 kW (0.5-2 Hp) 480V, 0.37-3.7 kW (0.5-5 Hp)	1321-M009
Open Style, 48A	All 1336 PLUS II Drives Rated: 230V, 2.2-11 kW (3-15 Hp) 480V, 5.5-22 kW (7.5-30 Hp) 600V, 0.75-30 kW (1-40 Hp)	1321-M048
Open Style, 180A	All 1336 PLUS II Drives Rated: 230V, 15-45 kW (20-60 Hp) 480V, 30-112 kW (40-X150 Hp) 600V, 37-112 kW (50-150 Hp)	1321-M180
Open Style, 670A	All 1336 PLUS II Drives Rated: 230V, 56-93 kW (75-125 Hp) 480V, 112-448 kW (150-600 Hp) 600V, 149-448 kW (200-600 Hp)	1321-M670

- ① Note the Discount Schedule difference between Bulletin 1321 and 1336 PLUS II products.
- ② Input Reactor Only.
- ③ Input Reactor on G Frame Drives Only.
- ④ For a more functionally complete description of each option refer to Publication 1336F-TD001B-EN-P.

Isolation Transformers

Drive Ratings kW (Hp)	230V Primary & 230V Secondary	460V Primary & 460V Secondary	575V Primary & 575V Secondary
	IP 32 (NEMA Type 3R)	IP 32 (NEMA Type 3R)	IP 32 (NEMA Type 3R)
	Catalog Number	Catalog Number	Catalog Number
0.37 (0.50)	1321-3TW005-AA	1321-3TW005-BB	—
0.56 (0.75)	1321-3TW005-AA	1321-3TW005-BB	—
0.75 (1)	1321-3TW005-AA	1321-3TW005-BB	1321-3TW005-CC
1.2 (1.5)	1321-3TW005-AA	1321-3TW005-BB	—
1.5 (2)	1321-3TW005-AA	1321-3TW005-BB	1321-3TW005-CC
2.2 (3)	1321-3TW005-AA	1321-3TW005-BB	1321-3TW005-CC
3.7 (5)	1321-3TW007-AA	1321-3TW007-BB	1321-3TW007-CC
5.5 (7.5)	1321-3TW011-AA	1321-3TW011-BB	1321-3TW011-CC
7.5 (10)	1321-3TW014-AA	1321-3TW014-BB	1321-3TW014-CC
11 (15)	1321-3TW020-AA	1321-3TW020-BB	1321-3TW020-CC
15 (20)	1321-3TW027-AA	1321-3TW027-BB	1321-3TW027-CC
18.5 (25)	1321-3TW034-AA	1321-3TW034-BB	1321-3TW034-CC
22 (30)	1321-3TW040-AA	1321-3TW040-BB	1321-3TW040-CC
30 (40)	1321-3TW051-AA	1321-3TW051-BB	1321-3TW051-CC
37 (50)	1321-3TH063-AA	1321-3TH063-BB	1321-3TH063-CC
45 (60)	1321-3TH075-AA	1321-3TH075-BB	1321-3TH075-CC
56 (75)	1321-3TH093-AA	1321-3TH093-BB	1321-3TH093-CC
75 (100)	1321-3TH118-AA	1321-3TH118-BB	1321-3TH118-CC
93 (125)	1321-3TH145-AA	1321-3TH145-BB	1321-3TH145-CC
112 (150)	—	1321-3TH175-BB	1321-3TH175-CC
149 (200)	—	1321-3TH220-BB	1321-3TH220-CC
187 (250)	—	1321-3TH275-BB	1321-3TH275-CC
224 (300)	—	1321-3TH330-BB	1321-3TH330-CC
261 (350)	—	1321-3TH440-BB	1321-3TH440-CC
298 (400)	—	1321-3TH440-BB	1321-3TH440-CC
336 (450)	—	1321-3TH550-BB	1321-3TH550-CC
373 (500)	—	1321-3TH550-BB	1321-3TH550-CC
448 (600)	—	1321-3TH660-BB	1321-3TH660-CC

Reflected Wave Reduction Device with Common Mode Choke

Description	Used with . . .	Catalog Number (Loose Kit)
380-600V AC, 17.5A IP 20 (NEMA Type 1)	3.7-7.5 kW (5-10 Hp) 380-600V	1204-RWC-17-A

Reflected Wave Reduction Device

Description	Used with . . .	Catalog Number (Loose Kit)
380-575VAC, 9A IP 20 (NEMA Type 1)	0.37-3.7 kW (0.5-5 Hp) 380-460V & 500-600V A Frame Drives	1204-RWR2-09-B

Terminator

Description ②	Used with . . .	Catalog Number
IP 65 (NEMA Type 4x) Connection Cable Included	0.37-1.5 kW (0.5-2 Hp) 460V Drives, 0.75-597 kW (1-800 Hp) 575V Drives	1204-TFA1
	1.5-597 kW (2-800 Hp) 460V Drives 0.75-597 kW (1-800 Hp) 575V Drives	1204-TFB2

- ① Note the Discount Schedule difference between Bulletin 1321 and 1336 PLUS II products.
- ② Correct terminator selection is dependent on motor characteristics, cable type and cable length. Refer to publication 1204-1.0 for application details before ordering.

Option Selection Reference Chart

Selected Option	Must Be Used With...	Can Not Be Used With...
AA	–	AE, AF, AN, AJ, HJ2, HJP
AE	CE Filter Kit	575V Drives, AA, AN, AF, AJ, HJ2, HJP
AN	–	AE, AF, AA, AJ, HJ2, HJP
AF	–	AA, AE, AJ, AN, HAB, HAP, HA1, HA2
AJ	–	AA, AE, AF, AN, HAB, HAP, HA1, HA2
C03, C10, C30, C90	HIM or Communication Option	–
CM	F & G Frame Drives Only	NCM, A-E Frame Drives
DMA	IP 20 (NEMA Type 1) HIM or Blank Insert	Drive packaging other than IP 20 (NEMA Type 1)
GD1, GD2	One of a C03, C10, C30 or C90	H03, H10, H30, H90
GK1, GK2, GK5, GU6	–	–
GM1	B Frame or Larger	GM2, GM5, GM6
GM2		GM1, GM5, GM6
GM5		GM1, GM2, GM6
GM6		GM1, GM2, GM5
GMS1		All Frames
GMS2	GMS1, GMS5, GMS6, HASB, HASP, HAS1, HAS2, HCSP, HCS1, HCS2	
GMS5	GMS1, GMS2, GMS6, HASB, HASP, HAS1, HAS2, HCSP, HCS1, HCS2	
GMS6	GMS1, GMS2, GMS5, HASB, HASP, HAS1, HAS2, HCSP, HCS1, HCS2	
HAB, HAP, HA1, HA2	AA, AE, AN	
HASB, HASP, HAS1, HAS2	AA, AE, AN	AJ, AF
HCSP, HCS1, HCS2	AA, AE, AN	AJ, AF
HJP, HJ2	AF, AJ	AA, AE, AN
KA005, KA010	200-240V Drive	380-480 or 500-600V Drives
KB005, KB010, KB050	380-460V Drive	200-240 or 500-600V Drives
KC005, KC010, KC050	500-600V Drive	200-240 or 380-480V Drives
LA1	–	LA3, LA4, LA5
LA2	–	LA6, LA7
LA3	–	LA1, LA4, LA5
LA4	–	LA1, LA3, LA5
LA5	–	LA1, LA3, LA4
LA6	–	LA2, LA7
LA7	–	LA2, LA6
L4	–	L4E, L5, L5E, L6, L6E, L7E, L8E, L9E
L4E	–	L4, L5, L5E, L6, L6E, L7E, L8E, L9E
L7E	–	L4, L4E, L5, L5E, L6, L6E, L8E, L9E
L5	–	L4, L4E, L5E, L6, L6E, L7E, L8E, L9E
L5E	–	L4, L4E, L5, L6, L6E, L7E, L8E, L9E
L8E	–	L4, L4E, L5, L5E, L6, L6E, L7E, L9E
L6	–	L4, L4E, L5, L5E, L6E, L7E, L8E, L9E
L6E	–	L4, L4E, L5, L5E, L6, L7E, L8E, L9E
L9E	–	L4, L4E, L5, L5E, L6, L6E, L7E, L8E
MX3	–	–
NCM	F Frame Drives Only	CM, A-E & G Frame Drives
SG2	–	–
SG4	–	–
S03	–	–
SM1	–	–

Ratings – 380-480V, 400V & 480V Drives

Cat. No.	Constant Torque				Variable Torque				Variable Torque			
	Input kVA	Input Amps	Output kVA	Output Amps	Input kVA	Input Amps	Output kVA	Output Amps	Input kVA	Input Amps	Output kVA	Output Amps
380-480V DRIVES					480V DRIVES				400V DRIVES			
BRF05	0.9-1.0	1.3	0.9	1.1	1.1	1.4	1.0	1.2	0.9	1.4	1.0	1.33
BRF07	1.3-1.6	2.0	1.3	1.6	1.7	2.1	1.4	1.7	1.4	2.1	1.4	1.89
BRF10	1.7-2.1	2.6	1.7	2.1	2.2	2.8	1.8	2.3	1.8	2.8	1.8	2.55
BRF15	2.2-2.6	3.3	2.2	2.8	2.8	3.5	2.4	3.0	2.3	3.5	2.4	3.33
BRF20	3.0-3.7	4.6	3.0	3.8	3.8	4.8	3.2	4.0	3.2	4.8	3.2	4.44
BRF30	4.2-5.1	6.4	4.2	5.3	5.7	7.2	4.8	6.0	4.7	7.2	4.8	6.66
BRF50	6.6-8.0	10.0	6.7	8.4	8.5	10.7	7.2	9.0	7.0	10.7	7.2	9.99
BRF75	8.9-11.3	13.6	10.6	13.3	13.0	15.7	12.3	15.4	10.3	15.7	12.3	19.43
BRF100	10.8-13.6	16.4	12.8	16.1	18.6	22.4	17.5	22	14.7	22.4	17.5	22.00
BRF150	16.1-20.4	24.5	19.1	24	20.4	24.5	19.1	24	16.1	24.5	19.1	24.00
BRF200	18.0-23.0	28	22	27	23	28	22	27	18	28	22	27.75
B015	16-21	25	19	24.2	23	28	22	27	18	28	22	29.97
B020	21-26	32	25	31	29	35	27	34	23	35	27	37.74
B025	26-33	40	31	39	36	43	33	42	28	43	33	46.62
B030	30-38	46	36	45	41	49	38	48	32	49	38	53.28
BX040	40-50	61	47	59	50	61	47	59	40	61	47	66.60
B040	38-48	58	48	60	52	63	52	65	41	63	52	72.15
B050	48-60	73	60	75	62	75	61	77	49	75	61	83.25
BX060	62	75	61	77	62	75	61	77	62	75	61	85.47
B060	54-68	82	68	85	77	93	76	96	61	93	76	106.56
B075	69-87	105	84	106	99	119	96	120	78	119	96	133.20
B100	90-114	137	110	138	124	149	120	150	98	149	120	166.50
B125	113-143	172	138	173	148	178	143	180	117	178	143	199.80
BX150	148	178	143	180	148	178	143	180	148	178	143	199.80
B150	130-164	197	159	199	198	238	191	240	157	238	191	266.40
B200	172-217	261	210	263	241	290	233	292	191	290	233	324.12
B250	212-268	322	259	325	268	322	259	325	212	322	259	360.75
BP/BPR250	212-268	322	259	325	297	357	287	360	235	357	287	399.60
BX250	212-268	322	259	325	288	347	279	360	228	347	279	399.60
B300	228-288	347	279	360	330	397	319	425	261	397	319	471.75
BP/BPR300	235-297	357	287	360	350	421	339	425	277	421	339	471.75
B350	261-330	397	319	425	371	446	359	475	294	446	359	527.25
BP/BPR350	277-350	421	339	425	392	471	378	475	310	471	378	527.25
B400	294-371	446	359	475	412	496	398	525	326	496	398	582.75
BP/BPR400	310-392	471	378	475	438	527	424	532	347	527	424	532.05
B450	326-412	496	398	525	470	565	454	590	372	565	454	654.90
BP/BPR450	347-438	527	424	532	438	527	424	532	347	527	424	532.00
B500	372-470	565	454	590	552	664	534	670	437	664	534	743.70
B600	437-552	664	534	670	552	664	534	670	437	664	534	743.70