



PowerFlex 400 AC Drive

Providing users with easy installation and ideal for mechanical fan and pump systems, the PowerFlex 400 AC drive offers a wide range of built-in features allowing for seamless HVAC building system integration. The PowerFlex 400 is designed to meet global OEM, contractor and end-user demands for flexibility, space savings and ease-of-use.

Ratings	200...240V: 2.2...37 kW / 3...50 Hp / 12...145 A 380...480V: 2.2...250 kW / 3...350 Hp / 6...460 A
Motor Control	V/Hz control
Communications	Integral RS 485, Common Industrial Protocol
User Interface	Integral programming keypad and local LED
Enclosures	IP20, IP30
Additional Features	PID/ PIP for fan and pump applications
Certifications	• UL • IEC (Designed to Meet) • cUL • CE • C-Tick • UL508C Plenum Rating
Options	See pages 24... 31
Additional Information	PowerFlex 400 Technical Data, publication 22C-TD001 PowerFlex 400 User Manual, publication 22C-UM001

200...240V AC, Three-Phase Drives

Drive Ratings				Rating	Panel Mount	Flange Mount
kW	Hp	Output Current *	Frame Size		Cat. No.	Cat. No.
2.2	3	12	C	IP20, NEMA/UL Open Type ⌘	22C-B012N103	22C-B012F103
3.7	5	17.5	C	IP20, NEMA/UL Open Type ⌘	22C-B017N103	22C-B017F103
5.5	7.5	24	C	IP20, NEMA/UL Open Type ⌘	22C-B024N103	22C-B024F103
7.5	10	33	C	IP20, NEMA/UL Open Type ⌘	22C-B033N103	22C-B033F103
11	15	49	D	IP30, NEMA/UL Type 1	22C-B049A103	–
15	20	65	D	IP30, NEMA/UL Type 1	22C-B065A103	–
18.5	25	75	D	IP30, NEMA/UL Type 1	22C-B075A103	–
22	30	90	D	IP30, NEMA/UL Type 1	22C-B090A103	–
30	40	120	E	IP30, NEMA/UL Type 1	22C-B120A103	–
37	50	145	E	IP30, NEMA/UL Type 1	22C-B145A103	–

* Drive terminals are sized according to UL. Depending on operating ambient and wire used, some local or national codes may require a larger wire size than what the power terminals can accept. Multiple conductors, 90°C wire, and/or lugs may be required. Refer to the PowerFlex 400 *User Manual* for details on terminal block wire ranges.

⌘ IP30, NEMA/UL Type 1 can be achieved for panel mount drives with top cover and optional conduit box kit installed. Field installed conversion kit specified under User Installed Options.

380...480V AC, Three-Phase Drives

Drive Ratings				Rating	Panel Mount	Flange Mount
kW	Hp	Output Current *	Frame Size		Cat. No.	Cat. No.
		A				
2.2	3	6	C	IP20, NEMA/UL Open Type ⌘	22C-D6P0N103	22C-D6P0F103
4	5	10.5	C	IP20, NEMA/UL Open Type ⌘	22C-D010N103	22C-D010F103
5.5	7.5	12	C	IP20, NEMA/UL Open Type ⌘	22C-D012N103	22C-D012F103
7.5	10	17	C	IP20, NEMA/UL Open Type ⌘	22C-D017N103	22C-D017F103
11	15	22	C	IP20, NEMA/UL Open Type ⌘	22C-D022N103	22C-D022F103 ‡
15	20	30	C	IP20, NEMA/UL Open Type ⌘	22C-D030N103	22C-D030F103 ‡
18.5	25	38	D	IP30, NEMA/UL Type 1	22C-D038A103	–
22	30	45.5	D	IP30, NEMA/UL Type 1	22C-D045A103	–
30	40	60	D	IP30, NEMA/UL Type 1	22C-D060A103	–
37	50	72	E	IP30, NEMA/UL Type 1	22C-D072A103	–
45	60	88	E	IP30, NEMA/UL Type 1	22C-D088A103	–
55	75	105	E	IP30, NEMA/UL Type 1	22C-D105A103	–
75	100	142	E	IP30, NEMA/UL Type 1	22C-D142A103	–
90	125	170	F	IP30, NEMA/UL Type 1	22C-D170A103	–
110	150	208	F	IP30, NEMA/UL Type 1	22C-D208A103	–
132	200	260	G	IP30, NEMA/UL Type 1	22C-D260A103 §	–
160	250	310	G	IP30, NEMA/UL Type 1	22C-D310A103 §	–
200	300	370	H	IP30, NEMA/UL Type 1	22C-D370A103 §	–
250	350	460	H	IP30, NEMA/UL Type 1	22C-D460A103 §	–

* Drive terminals are sized according to UL. Depending on operating ambient and wire used, some local or national codes may require a larger wire size than what the power terminals can accept. Multiple conductors, 90°C wire, and/or lugs may be required. Refer to the PowerFlex 400 *User Manual* for details on terminal block wire ranges.

⌘ IP30, NEMA/UL Type 1 can be achieved for panel mount drives with top cover and optional conduit box kit installed. Field installed conversion kit specified under User Installed Options.

‡ 11 and 15 kW (15 and 20 Hp) Frame C flange mount drives require external DC series bus inductor.

§ 132...250 kW (200...350 Hp) have an integral AC bus choke.

PowerFlex 4-Class Options

Human Interface Modules and Accessories

Description	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
Remote (Panel Mount) LCD Display, Digital Speed Control, CopyCat Capable. IP66 (NEMA/UL Type 4X/12) Indoor Use Only. Includes 2.0 meter cable.	22-HIM-C2S §	✓	✓	✓	✓	✓
Remote Handheld, LCD Display, Full Numeric Keypad, Digital Speed Control, CopyCat Capable. IP30 (NEMA/UL Type 1). Includes 1.0 meter cable. Panel mount with optional Bezel Kit.	22-HIM-A3	✓	✓	✓	✓	✓
Remote Handheld, Wireless Interface Module with Bluetooth* Technology. IP30 (NEMA/UL Type 1). Panel Mount with optional Bezel Kit.	22-WIM-N1	✓	✓	✓	✓	✓
Remote (Panel Mount), Wireless Interface Module with Bluetooth Technology. IP66 (NEMA/UL Type 4X/12) Indoor Use Only.	22-WIM-N4S	✓	✓	✓	✓	✓
Bezel Kit. Panel Mount for LCD Display, Remote Handheld Unit. IP30 (NEMA/UL Type 1). Includes a 22-RJ45CBL-C20 cable.	22-HIM-B1	✓	✓	✓	✓	✓
DSI HIM Cable (DSI HIM to RJ45 cable)						
1.0 Meter (3.3 Feet) DSI HIM Cable (DSI HIM to RJ45 cable)	22-HIM-H10	✓	✓	✓	✓	✓
2.9 Meter (9.51 Feet) DSI HIM Cable (DSI HIM to RJ45 cable)	22-HIM-H30	✓	✓	✓	✓	✓

§ The 22-HIM-C2S is smaller than the 22-HIM-C2 and cannot be used as a direct replacement.

Safety Options

Description	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
DriveGuard Safe Torque-Off	20A-DG01				✓	

Other Options

Description	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
Auxiliary Relay Board - Expands drive output capabilities - Frames D-H only.	AK-U9-RLB1					✓

Terminators

Description *	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
for use with 3.7 kW (5 Hp) & below drives	1204-TFA1	✓	✓	✓	✓	✓
for use with 1.5 kW (2 Hp) & up drives	1204-TFB2	✓	✓	✓	✓	✓

* Refer to Appendix A of publication *DRIVES-IN001* for selection information.

Reflected Wave Reduction Modules w/Common Mode Choke

Description *	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
17A with Common Mode Choke	1204-RWC-17-A	✓	✓	✓	✓	✓

* Refer to Appendix A of publication *DRIVES-IN001* for selection information.

Reflected Wave Reduction Modules

Voltage	ND kW	ND Hp	Cat. No.	Used with PowerFlex Drive				
				4M	4	40	40P	400
380... 480V AC	2.2...4	3...5	1321-RWR8-DP	✓	✓	✓	✓	✓
	4	5	1321-RWR12-DP	✓		✓	✓	✓
	5.5	7.5	1321-RWR18-DP	✓		✓	✓	✓
	7.5	10	1321-RWR25-DP	✓		✓	✓	✓
	11	15	1321-RWR25-DP	✓		✓	✓	✓
	15	20	1321-RWR35-DP					✓
	18.5	25	1321-RWR45-DP					✓
	22	30	1321-RWR55-DP					✓
	30	40	1321-RWR80-DP					✓
	37	50	1321-RWR80-DP					✓
	45	60	1321-RWR100-DP					✓
	55	75	1321-RWR130-DP					✓
	75	100	1321-RWR160-DP					✓
	90	125	1321-RWR200-DP					✓
	110	150	1321-RWR250-DP					✓
500... 600V AC	149	200	1321-RWR320-DP					✓
	187	250	1321-RWR320-DP					✓
	4	5	1321-RWR8-EP			✓	✓	
	5.5	7.5	1321-RWR12-EP			✓	✓	
	7.5	10	1321-RWR18-EP			✓	✓	
	11	15	1321-RWR25-EP			✓	✓	

Communication Option Kits

Description	Cat. No.	Used with PowerFlex Drive				
		4M	4	40	40P	400
BACnet [®] MS/TP RS485 Communication Adapter	22-COMM-B		✓ ‡	✓ ♣		✓
ControlNet [™] Communication Adapter	22-COMM-C	✓ ‡	✓ ‡	✓ ♣	✓ ♣	✓
DeviceNet [™] Communication Adapter	22-COMM-D	✓ ‡	✓ ‡	✓ ♣	✓ ♣	✓
EtherNet/IP [™] Communication Adapter	22-COMM-E	✓ ‡	✓ ‡	✓ ♣	✓ ♣	✓
LonWorks [®] Communication Adapter	22-COMM-L		✓ ‡	✓ ♣	✓ ♣	✓
PROFIBUS [™] DP Communication Adapter	22-COMM-P	✓ ‡	✓ ‡	✓ ♣	✓ ♣	✓
Serial Converter Module (RS485 to RS232). Provides serial communication via DF1 protocol for use with DriveExplorer and DriveExecutive [™] software. Includes DSI to RS232 serial converter, 1203-SFC serial cable, 22-RJ45CBL-C20 cable, and DriveExplorer Lite CD.	22-SCM-232	✓	✓	✓	✓	✓
Serial Cable. 2.0 meter with a locking low profile connector. Connects the serial converter to a 9-pin sub-miniature D female computer connector.	1203-SFC	✓	✓	✓	✓	✓
Serial Null Modem Adapter. Use when connecting the serial converter to DriveExplorer on a handheld PC.	1203-SNM	✓	✓	✓	✓	✓
Universal Serial Bus [™] (USB) Converter includes 2m USB, 20-HIM-H10 & 22-HIM-H10 Cables	1203-USB	✓	✓	✓	✓	✓
DSI Cable. 2.0 meter RJ45 to RJ45 cable, male to male connectors.	22-RJ45CBL-C20	✓	✓	✓	✓	✓
Splitter Cable. RJ45 one to two port splitter cable.	AK-U0-RJ45-SC1	✓	✓	✓	✓	✓
Terminal Block. RJ45 two position terminal block (6 pieces) with two 120 Ohm terminating resistors (loose).	AK-U0-RJ45-TB2P	✓	✓	✓	✓	✓
Terminating Resistors. 120 Ohm resistor embedded in an RJ45 connector (2 pieces).	AK-U0-RJ45-TR1	✓	✓	✓	✓	✓
DSI External Communications Kit. External mounting kit for 22-COMM Communication Adapters.	22-XCOMM-DC-BASE	✓	✓	✓	✓	✓
External Communications Kit Power Supply Optional 100...240V AC Power Supply for External DSI Communications Kit.	20-XCOMM-AC-PS1	✓	✓	✓	✓	✓
Compact I/O Module (3 Channel)	1769-SM2	✓	✓	✓	✓	✓
Serial Flash Firmware Kit Updates drive firmware via computer.	AK-U9-FLSH1					✓
Communication Adapter Cover Houses the Communication Adapter for B & C Frame drives. Note: Cover adds 25 mm (0.98 in.) to the overall depth of the drive.						
Frame B Drive	22B-CCB			✓ ➤		
Frame C Drive	22B-CCC			✓ ➤		
Frame C Drive	22C-CCC					✓ ➤
Frame B Drive	22D-CCB				✓ ➤	
Frame C Drive	22D-CCC				✓ ➤	

‡ PowerFlex 4 & 4M drives require External DSI Communication Kits. Communication Adapters cannot be drive mounted.

♣ Requires a Communication Adapter Cover when used with Frame B & C PowerFlex 40/40P drives or Frame C PowerFlex 400 drives.

➤ If IP30, NEMA/UL Type 1 is required, a 22-JBCB (Frame B drives) or 22-JBCC (Frame C drives) must also be ordered.

IP30, NEMA/UL Type 1 Conversion Kit

Description	Frame	Cat. No.	Used with PowerFlex Drive				
			4M	4	40	40P	400
Converts IP20 drive to IP30, NEMA/UL Type 1 enclosure. Includes conduit box, mounting screws and plastic top panel.	A	22-JBAA		✓			
	B	22-JBAB		✓	✓	✓	
	C	22-JBAC			✓	✓	✓
Converts IP20 drive to IP30, NEMA/UL Type 1 enclosure. Includes communication option conduit box, mounting screws and plastic top panel.	B	22-JBCB			✓	✓	
	C	22-JBCC			✓	✓	✓

Dynamic Brakes Resistors

Drive Rating			Minimum Resistance	Resistance %	Cat. No. †	Used with PowerFlex Drive				
Voltage	kW	Hp	Ohms $\pm 10\%$	Ohms $\pm 5\%$		4M	4	40	40P	400
100...120V, 50/60 Hz, Single-Phase	0.2	0.25	48	91	AK-R2-091P500		✓			
	0.4	0.5	48	91	AK-R2-091P500		✓	✓		
	0.75	1	48	91	AK-R2-091P500		✓	✓		
	1.1	1.5	48	91	AK-R2-091P500			✓		
200...240V, 50/60 Hz, Single-Phase	0.2	0.25	48	91	AK-R2-091P500		✓			
	0.4	0.5	48	91	AK-R2-091P500		✓	✓		
	0.75	1	48	91	AK-R2-091P500		✓	✓		
	1.5	2	48	91	AK-R2-091P500		✓	✓		
	2.2	3	32	47	AK-R2-047P500			✓		
200...240V, 50/60 Hz, Three-Phase	0.2	0.25	48	91	AK-R2-091P500		✓			
	0.4	0.5	48	91	AK-R2-091P500		✓	✓	✓	
	0.75	1	48	91	AK-R2-091P500		✓	✓	✓	
	1.5	2	48	91	AK-R2-091P500		✓	✓	✓	
	2.2	3	32	47	AK-R2-047P500		✓	✓	✓	
	3.7	5	19	47	AK-R2-047P500		✓	✓	✓	
	5.5	7.5	13	30	AK-R2-030P1K2	✓		✓	✓	
	7.5	10	10	30	AK-R2-030P1K2	✓		✓	✓	
380...480V, 50/60 Hz, Three-Phase	0.4	0.5	97	360	AK-R2-360P500		✓	✓	✓	
	0.75	1	97	360	AK-R2-360P500		✓	✓	✓	
	1.5	2	97	360	AK-R2-360P500		✓	✓	✓	
	2.2	3	97	120	AK-R2-120P1K2		✓	✓	✓	
	4.0	5	77	120	AK-R2-120P1K2		✓	✓	✓	
	5.5	7.5	55	120	AK-R2-120P1K2	✓		✓	✓	
	7.5	10	39	120	AK-R2-120P1K2	✓		✓	✓	
500...600V, 50/60 Hz, Three-Phase	11	15	24	120	AK-R2-120P1K2 ❖	✓		✓	✓	
	0.75	1	120	360	AK-R2-360P500			✓	✓	
	1.5	2	120	360	AK-R2-360P500			✓	✓	
	2.2	3	82	120	AK-R2-120P1K2			✓	✓	
	4.0	5	82	120	AK-R2-120P1K2			✓	✓	
	5.5	7.5	51	120	AK-R2-120P1K2			✓	✓	
	7.5	10	51	120	AK-R2-120P1K2			✓	✓	
	11	15	51	120	AK-R2-120P1K2 ❖			✓	✓	

⌘ Verify resistor Ohms against minimum resistance for drive being used.

† Resistors listed are rated 5% duty cycle.

❖ Requires two resistors wired in parallel.

Spare Parts

	Description	Cat. No.	Used with PowerFlex Drive				
			4M	4	40	40P	400
Fan Replacement Kits	Fan Replacement Kit - Frame A	SK-U1-FAN1-A1		✓			
	Fan Replacement Kit - Frame B, 1 Fan	SK-U1-FAN1-B1		✓	✓	✓	
	Fan Replacement Kit - Frame B, 2 Fans	SK-U1-FAN2-B1		✓	✓	✓	
	Fan Replacement Kit - Frame A	SK-U1-FFAN1-A1	✓				
	Fan Replacement Kit - Frame B	SK-U1-FFAN1-B1	✓				
	Fan Replacement Kit - Frame C	SK-U1-FFAN1-C1	✓				
	Fan Replacement Kit - Frame C, 1 Fan	SK-U1-FAN1-C1			✓	✓	✓ *
	Fan Replacement Kit - Frame C, 1 Fan, 15 Hp	SK-U1-FAN1-C2			✓	✓	✓ ⚙
	Fan Replacement Kit, NEMA 4X	SK-U1-FAN1-B4			✓		
	Fan Replacement Kit - Frame D, 2 Fans, B049...B090 & D038...D060 Ratings	SK-U1-FAN2-D1					✓
	Fan Replacement Kit - Frame E, 2 Fans, B120...B145 & D072...D142 Ratings	SK-U1-FAN2-E2					✓
	Fan Replacement Kit - Frame F, 2 Fans, IGBT, D170 & D208 Ratings	SK-U1-FAN2-F1					✓
	Fan Replacement Kit - Frame F, 1 Fan, Rectifier, D170 & D208 Ratings	SK-U1-FAN1-F2					✓
	Fan Replacement Kit - Frame F, 1 Fan, Choke, D170 & D208 Ratings	SK-U1-FAN1-F3					✓
	Fan Replacement Kit - Frame G, 1 Fan (Side), D260 & D310 Ratings	SK-U1-FAN1-G1					✓
	Fan Replacement Kit - Frame G, 2 Fans (Top), D260 & D310 Ratings	SK-U1-FAN1-G2					✓
	Fan Replacement Kit - Frame G, 4 Fans (Bottom), D260 & D310 Ratings	SK-U1-FAN4-G3					✓
	Fan Replacement Kit - Frame H, 1 Fan (Upper Side), D370 & D460 Ratings	SK-U1-FAN1-H1					✓
	Fan Replacement Kit - Frame H, 1 Fan (Middle Side), D370 & D460 Ratings	SK-U1-FAN1-H2					✓
	Fan Replacement Kit - Frame H, 4 Fans (Bottom), D370 & D460 Ratings	SK-U1-FAN4-H3					✓
Covers	Encoder Terminal Cover (All Frames)	SK-U1-DCVR4-EN				✓	
	Frame A Cover with Power Terminal Guard	SK-U1-ACVR1-A1		✓			
	Frame B Cover with Power Terminal Guard	SK-U1-ACVR1-B1		✓			
	Frame A Cover	SK-U1-FCVR1-A1	✓				
	Frame B Cover	SK-U1-FCVR1-B1	✓				
	Frame C Cover	SK-U1-FCVR1-C1	✓				
	Frame B Cover with Power Terminal Guard	SK-U1-BCVR1-B1			✓		
	Frame C Cover with Power Terminal Guard	SK-U1-BCVR1-C1			✓		
	Frame B Cover, NEMA 4X	SK-U1-BCVR1-B4			✓		
	Frame B Cover with Power Terminal Guard	SK-U1-DCVR3-B1				✓	
	Frame C Cover with Power Terminal Guard	SK-U1-DCVR3-C1				✓	
	Frame C Cover with Power Terminal Guard	SK-U1-CCVR1-C1					✓
	Frame D Cover	SK-U1-CCVR1-D1					✓
	Frame E Cover	SK-U1-CCVR1-E1					✓
	Frame F Cover	SK-U1-CCVR1-F1					✓
	Frame G Cover	SK-U1-CCVR1-G1					✓
	Frame H Cover	SK-U1-CCVR1-H1					✓
	NEMA 4X Replacement Conduit Plugs	SK-U1-PLUGS-B4			✓		

* 3...10 HP @ 200...240V AC and 3...10 HP @ 380...480V AC

⚙ 15...20 HP @ 380...480V AC

EMC Filters (Required to Meet CE Certification)

Drive Ratings			PowerFlex 4M		PowerFlex 4		PowerFlex 40/40P		PowerFlex 400
Input Voltage	kW	Hp	S Type Filter	L Type Filter	S Type Filter	L Type Filter	S Type Filter	L Type Filter	IP00 (NEMA/UL Type Open)
			Cat. No. *	Cat. No. ‡	Cat. No. *	Cat. No. ‡	Cat. No. *	Cat. No. ‡	Cat. No. *
100...120V, 50/60 Hz, Single-Phase	0.2	0.25	–	22F-RF010-AL	–	22-RF010-AL	–	–	–
	0.4	0.5	–	22F-RF010-AL	–	22-RF010-AL	–	22-RF018-BL ♣	–
	0.75	1	–	22F-RF025-BL	–	22-RF018-BL	–	22-RF018-BL ♣	–
	1.1	1.5	–	22F-RF025-BL	–	22-RF025-CL §	–	22-RF018-BL ♣	–
200...240V, 50/60 Hz, Single-Phase	0.2	0.25	⊗	22F-RF010-AL	⊗	22-RF010-AL	–	–	–
	0.4	0.5	⊗	22F-RF010-AL	⊗	22-RF010-AL	⊗	22-RF018-BL ♣	–
	0.75	1	⊗	22F-RF010-AL	⊗	22-RF010-AL	⊗	22-RF018-BL ♣	–
	1.5	2	⊗	22F-RF025-BL	⊗	22-RF018-BL	⊗	22-RF018-BL ♣	–
	2.2	3	⊗	22F-RF025-BL	–	–	⊗	22-RF025-CL ♣	–
200...240V, 50/60 Hz, Single-Phase, NO BRAKE	0.2	0.25	–	–	⊗	22-RF010-AL	–	–	–
	0.4	0.5	–	–	⊗	22-RF010-AL	–	–	–
	0.75	1	–	–	⊗	22-RF010-AL	–	–	–
	1.5	2	–	–	⊗	22-RF018-BL	–	–	–
	2.2	3	–	–	⊗	22-RF025-CL §	–	–	–
200...240V, 50/60 Hz, Three-Phase	0.2	0.25	22F-RF9P5-AS	22F-RF9P5-AL	22-RF9P5-AS	22-RF9P5-AL	–	–	–
	0.4	0.5	22F-RF9P5-AS	22F-RF9P5-AL	22-RF9P5-AS	22-RF9P5-AL	22-RF021-BS ➤	22-RF021-BL	–
	0.75	1	22F-RF9P5-AS	22F-RF9P5-AL	22-RF9P5-AS	22-RF9P5-AL	22-RF021-BS ➤	22-RF021-BL	–
	1.5	2	22F-RF9P5-AS	22F-RF9P5-AL	22-RF9P5-AS	22-RF9P5-AL	22-RF021-BS ➤	22-RF021-BL	–
	2.2	3	22F-RF021-BS	22F-RF021-BL	22-RF021-BS	22-RF021-BL	22-RF021-BS ➤	22-RF021-BL	22-RF034-CS
	3.7	5	22F-RF021-BS	22F-RF021-BL	22-RF021-BS	22-RF021-BL	22-RF021-BS ➤	22-RF021-BL	22-RF034-CS
	5.5	7.5	22F-RF039-CS	22F-RF039-CL	–	–	22-RF034-CS	22-RF034-CL	22-RF034-CS
	7.5	10	22F-RF039-CS	22F-RF039-CL	–	–	22-RF034-CS	22-RF034-CL	22-RF034-CS
	11	15	–	–	–	–	–	–	22-RFD070
	15	20	–	–	–	–	–	–	22-RFD100
	18.5	25	–	–	–	–	–	–	22-RFD100
	22	30	–	–	–	–	–	–	22-RFD150
	30	40	–	–	–	–	–	–	22-RFD150
	37	50	–	–	–	–	–	–	22-RFD180
380...480V, 50/60 Hz, Three-Phase	0.4	0.5	22F-RF6P0-AS	22F-RF6P0-AL	22-RF5P7-AS	22-RF5P7-AL	22-RF012-BS	22-RF012-BL	–
	0.75	1	22F-RF6P0-AS	22F-RF6P0-AL	22-RF5P7-AS	22-RF5P7-AL	22-RF012-BS	22-RF012-BL	–
	1.5	2	22F-RF6P0-AS	22F-RF6P0-AL	22-RF5P7-AS	22-RF5P7-AL	22-RF012-BS	22-RF012-BL	–
	2.2	3	22F-RF012-BS	22F-RF012-BL	22-RF012-BS	22-RF012-BL	22-RF012-BS	22-RF012-BL	22-RF018-CS
	3.7	5	22F-RF012-BS	22F-RF012-BL	22-RF012-BS	22-RF012-BL	22-RF012-BS	22-RF012-BL	22-RF018-CS
	5.5	7.5	22F-RF026-CS	22F-RF026-CL	–	–	22-RF018-CS	22-RF018-CL	22-RF018-CS
	7.5	10	22F-RF026-CS	22F-RF026-CL	–	–	22-RF018-CS	22-RF018-CL	22-RF018-CS
	11	15	22F-RF026-CS	22F-RF026-CL	–	–	22-RF026-CS	22-RF026-CL	22-RF026-CS
	15	20	–	–	–	–	–	–	22-RFD036
	18.5	25	–	–	–	–	–	–	22-RFD050
	22	30	–	–	–	–	–	–	22-RFD050
	30	40	–	–	–	–	–	–	22-RFD070
	37	50	–	–	–	–	–	–	22-RFD100
	45	60	–	–	–	–	–	–	22-RFD100
	55	75	–	–	–	–	–	–	22-RFD150
	75	100	–	–	–	–	–	–	22-RFD180
	90	125	–	–	–	–	–	–	22-RFD208
	110	150	–	–	–	–	–	–	22-RFD208
	132	200	–	–	–	–	–	–	22-RFD323
	160	250	–	–	–	–	–	–	22-RFD480
	200	300	–	–	–	–	–	–	22-RFD480
	250	350	–	–	–	–	–	–	22-RFD480

Continued on next page

EMC Filters (continued)

Drive Ratings			PowerFlex 4M		PowerFlex 4		PowerFlex 40/40P		PowerFlex 400
Input Voltage	kW	Hp	S Type Filter	L Type Filter	S Type Filter	L Type Filter	S Type Filter	L Type Filter	IP00 (NEMA/UL Type Open)
			Cat. No. *	Cat. No. ‡	Cat. No. *	Cat. No. ‡	Cat. No. *	Cat. No. ‡	Cat. No. *
500...600V, 50/60 Hz, Three-Phase	0.75	1	–	–	–	–	–	22-RF8P0-BL	–
	1.5	2	–	–	–	–	–	22-RF8P0-BL	–
	2.2	3	–	–	–	–	–	22-RF8P0-BL	–
	4.0	5	–	–	–	–	–	22-RF8P0-BL	–
	5.5	7.5	–	–	–	–	–	22-RF015-CL	–
	7.5	10	–	–	–	–	–	22-RF015-CL	–
	11	15	–	–	–	–	–	22-RF024-CL	–

* This filter is suitable for use with a cable length of up to 10 meters for Class A and 1 meter for Class B environments.

⊗ Drives are available in these ratings with internal "S Type" filters.

‡ This filter is suitable for use with a cable length of up to 100 meters for Class A and 5 meters for Class B environments.

§ The piggyback mounting option cannot be used with Frame B PowerFlex 4 drives and Frame C EMC Line Filters.

♣ PowerFlex 40 Only.

➤ Filter must be Series B or later.

DC Series Bus Inductors

Drive Rating				Inductance	Cat. No.	Used with PowerFlex Drive				
Voltage	kW	Hp	Amps	mH		4M	4	40	40P	400
200...240V, 50/60 Hz, Three-Phase	2.2	3	12	1.00	1321-DC12-1					✓
	3.7	5	17.5	0.65	1321-DC18-1					✓
	5.5	7.5	32	0.85	1321-DC32-1			✓		✓
	7.5	10	40	0.75	1321-DC40-2			✓		✓
400...480V, 50/60 Hz, Three-Phase	2.2	3	6	2	1321-DC9-2					✓
	4.0	5	10.5	2.1	1321-DC12-2					✓
	5.5	7.5	18	3.75	1321-DC18-4			✓		✓
	7.5	10	25	1.28	1321-DC25-4			✓		✓
	11	15	32	2.68	1321-DC32-3			✓		✓
	15	20	30	2.5	1321-DC40-4					✓
500...600V, 50/60 Hz, Three-Phase	5.5	7.5	12	2.1	1321-DC12-2_600			✓		
	7.5	10	18	3.75	1321-DC18-4			✓		
	11	15	25	1.28	1321-DC25-4			✓		

Isolation Transformers for PowerFlex 400 - IP32, NEMA/UL Type 3R Standalone, 4...6% Nominal Impedance

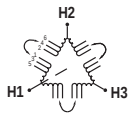


Diagram 1

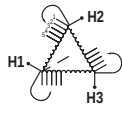
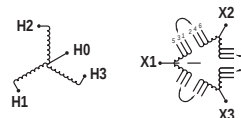
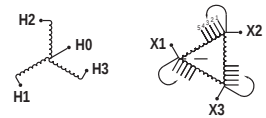


Diagram 2

Diagram 3
230V Primary, 460V Secondary OnlyDiagram 4
230V Primary, 460V Secondary Only

Rating		Wiring Diagram	208V, 60 Hz, Three-Phase Secondary	230V, 60 Hz, Three-Phase Secondary				460V, 60 Hz, Three-Phase Secondary		
			208V Primary	230V Primary	460V Primary	575V Primary	230V Primary	460V Primary	575V Primary	
Cat. No.	Cat. No.		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.			
kW	Hp		1321-3TW005-XX	1321-3TW005-AA	1321-3TW005-BA	1321-3TW005-CA	1321-3TW005-AB	1321-3TW005-BB	1321-3TW005-CB	
			1321-3TW007-XX	1321-3TW007-AA	1321-3TW007-BA	1321-3TW007-CA	1321-3TW007-AB	1321-3TW007-BB	1321-3TW007-CB	
2.2	3.0	1/3	1321-3TW011-XX	1321-3TW011-AA	1321-3TW011-BA	1321-3TW011-CA	1321-3TW011-AB	1321-3TW011-BB	1321-3TW011-CB	
4.0	5.0	1/3	1321-3TW014-XX	1321-3TW014-AA	1321-3TW014-BA	1321-3TW014-CA	1321-3TW014-AB	1321-3TW014-BB	1321-3TW014-CB	
5.5	7.5	1/3	1321-3TW020-XX	1321-3TW020-AA	1321-3TW020-BA	1321-3TW020-CA	1321-3TW020-AB	1321-3TW020-BB	1321-3TW020-CB	
7.5	10	1/3	1321-3TW027-XX	1321-3TW027-AA	1321-3TW027-BA	1321-3TW027-CA	1321-3TW027-AB	1321-3TW027-BB	1321-3TW027-CB	
11	15	2/4	1321-3TW034-XX	1321-3TW034-AA	1321-3TW034-BA	1321-3TW034-CA	1321-3TW034-AB	1321-3TW034-BB	1321-3TW034-CB	
15	20	2/4	–	1321-3TW040-AA	1321-3TW040-BA	1321-3TW040-CA	1321-3TW040-AB	1321-3TW040-BB	1321-3TW040-CB	
18.5	25	2/4	–	1321-3TW051-AA	1321-3TW051-BA	1321-3TW051-CA	1321-3TW051-AB	1321-3TW051-BB	1321-3TW051-CB	
22	30	2/4	–	1321-3TH063-AA	1321-3TH063-BA	–	1321-3TH063-AB	1321-3TH063-BB	–	
30	40	2/4	–	–	–	–	1321-3TH075-AB	1321-3TH075-BB	–	
37	50	2/4	–	–	–	–	1321-3TH093-AB	1321-3TH093-BB	–	
45	60	2/4	–	–	–	–	1321-3TH118-AB	1321-3TH118-BB	–	
55	75	2/4	–	–	–	–	1321-3TH145-AB	1321-3TH145-BB	–	
75	100	2/4	–	–	–	–	1321-3TH175-AB	1321-3TH175-BB	–	
90	125	2/4	–	–	–	–	1321-3TH220-AB	1321-3TH220-BB	–	
110	150	2/4	–	–	–	–	1321-3TH275-AB	1321-3TH275-BB	–	
132	200	2/4	–	–	–	–	1321-3TH330-AB	1321-3TH330-BB	–	
160	250	2/4	–	–	–	–	1321-3TH440-AB	1321-3TH440-BB	–	
200	300	2/4	–	–	–	–	–	–	–	
250	350	2/4	–	–	–	–	–	–	–	

Input & Output Line Reactors - 3% Impedance

Voltage	Drive Ratings			IP00 * (NEMA/UL Open Type)	IP11 * (NEMA/UL Type 1)	Used with PowerFlex Drive				
	kW	Hp	Amps	Cat. No.	Cat. No.	4M	4	40	40P	400
200...240V, 60 Hz, Three-Phase	0.2	0.25	2.0	1321-3R2-A	–	✓	✓			
	0.4	0.5	4.0	1321-3R4-B	–	✓	✓	✓	✓	
	0.75	1	8.0	1321-3R8-B	–	✓	✓	✓	✓	
	1.5	2	8.0	1321-3R8-A	–	✓	✓	✓	✓	
	2.2	3	12	1321-3R12-A	1321-3RA12-A	✓	✓	✓	✓	✓
	3.7	5	17.5	1321-3R18-A	1321-3RA18-A	✓	✓	✓	✓	✓
	5.5	7.5	24	1321-3R25-A	1321-3RA25-A	✓		✓	✓	✓
	7.5	10	33	1321-3R35-A	1321-3RA35-A	✓		✓	✓	✓
	11	15	49	1321-3R45-A	1321-3RA45-A					✓
	15	20	65	1321-3R55-A	1321-3RA55-A					✓
	18.5	25	75	1321-3R80-A	1321-3RA80-A					✓
	22	30	90	1321-3R80-A	1321-3RA80-A					✓
	30	40	120	1321-3R100-A	1321-3RA100-A					✓
	37	50	145	1321-3R130-A	1321-3RA130-A					✓
380...480V, 60 Hz, Three-Phase	0.4	0.5	2.0	1321-3R2-B	–	✓	✓	✓	✓	
	0.75	1	4.0	1321-3R4-C	–	✓	✓	✓	✓	
	1.5	2	4.0	1321-3R4-B	–	✓	✓	✓	✓	
	2.2	3	6.0	1321-3R8-C	1321-3RA8-C	✓	✓	✓	✓	✓
	4.0	5	10.5	1321-3R8-B	1321-3RA8-B	✓	✓	✓	✓	✓
	5.5	7.5	12	1321-3R12-B	1321-3RA12-B	✓		✓	✓	✓
	7.5	10	17	1321-3R18-B	1321-3RA18-B	✓		✓	✓	✓
	11	15	22	1321-3R25-B	1321-3RA25-B	✓		✓	✓	✓
	15	20	30	1321-3R35-B	1321-3RA35-B					✓
	18.5	25	38	1321-3R35-B	1321-3RA35-B					✓
	22	30	45.5	1321-3R45-B	1321-3RA45-B					✓
	30	40	60	1321-3R55-B	1321-3RA55-B					✓
	37	50	72	1321-3R80-B	1321-3RA80-B					✓
	45	60	88	1321-3R80-B	1321-3RA80-B					✓
	55	75	105	1321-3R100-B	1321-3RA100-B					✓
	75	100	142	1321-3R130-B	1321-3RA130-B					✓
	90	125	170	1321-3R160-B	1321-3RA160-B					✓
	110	150	208	1321-3R200-B	1321-3RA200-B					✓
500...600V, 60 Hz, Three-Phase	0.75	1	2.0	1321-3R2-B	–			✓	✓	
	1.5	2	4.0	1321-3R4-C	–			✓	✓	
	2.2	3	4.0	1321-3R4-B	–			✓	✓	
	4.0	5	8.0	1321-3R8-C	–			✓	✓	
	5.5	7.5	12	1321-3R12-B	–			✓	✓	
	7.5	10	12	1321-3R12-B	–			✓	✓	
	11	15	18	1321-3R18-B	–			✓	✓	

* Catalog numbers listed are for 3% impedance. 5% impedance reactor types are also available. Refer to publication 1321-TD001....