PowerFlex 700S AC Drive

The PowerFlex 700S offers optimized integration for the most demanding stand-alone and coordinated drive control and drive system applications. The PowerFlex 700S offers a DriveLogix option which combines the powerful performance and flexible control of PowerFlex AC drives with a high-performance Logix engine to produce a highly functional, cost-effective drive and control solution.

Ratings	200…240V: 0.75…66 kW / 1…100 Hp / 4.2…260 A 380…480V: 0.75…800 kW / 1…1250 Hp / 2.1…1450 A 500…600V: 0.75…1500 kW / 1…1600 Hp / 1.7…1500 A 690V: 45…1500 kW / 50…1600 Hp / 77…1500 A
Motor Control	• V/Hz control • Vector Control with FORCE Technology (with and without encoder) • Permanent Magnet Motor Control
Communications	Common Industrial Protocol
User Interface	HIM (option)
Enclosures	IP20, IP21
Safety	DriveGuard Safe Torque-Off / EN 954-1 Cat. 3
Additional Features	• Integrated position loop for simple indexing to electronic line shaft applications • SynchLink for high speed data transfer and synchronization • Multiple motor feedback options • DriveLogix
Certifications	• UL • IEC (Designed to Meet) • cUL • TÜV FS ISO/EN13849-1 (EN954-1) with Safe Torque-Off option • CE • RINA, Frames 1…10 • C-Tick
Options	See pages 64… 86
Additional Information	PowerFlex 700S Technical Data, publication 20D-TD002 PowerFlex 700S Installation Manual, publication PFLEX-IN006 PowerFlex 700S User Manual, publication 20D-UM006

IP20, NEMA/UL Type 1

200…240V AC, Three-Phase Drives

240V AC Input						208V AC Input ✶						Frame Size
Output Amps			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps			Normal Duty kW	Heavy Duty kW	Cat. No.	
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
4.2	4.8	6.4	1	0.75	**20DB4P2A0EYNANANE**	4.8	5.6	7	0.75	0.37	**20DB4P2A0EYNANANE**	1
6.8	9	12	2	1.5	**20DB6P8A0EYNANANE**	7.8	10.4	13.8	1.5	0.75	**20DB6P8A0EYNANANE**	1
9.6	10.6	14.4	3	2	**20DB9P6A0EYNANANE**	11	12.1	17	2.2	1.5	**20DB9P6A0EYNANANE**	1
15.3	16.8	23	5	3	**20DB015A0EYNANANE**	17.5	19.3	26.3	4	2.2	**20DB015A0EYNANANE**	1
22	24.2	33	7.5	5	**20DB022A0EYNANANE**	25.3	27.8	38	5.5	4	**20DB022A0EYNANANE**	1
28	33	44	10	7.5	**20DB028A0EYNANANE**	32.2	38	50.6	7.5	5.5	**20DB028A0EYNANANE**	2
42	46.2	63	15	10	**20DB042A0EYNANANE**	48.3	53.1	72.5	11	7.5	**20DB042A0EYNANANE**	3
52	63	80	20	15	**20DB052A0EYNANANE**	56	64	86	15	11	**20DB052A0EYNANANE**	3
70	78	105	25	20	**20DB070A0ENNANANE**	78.2	86	117.3	18.5	15	**20DB070A0ENNANANE**	4 §
80	105	136	30	25	**20DB080A0ENNANANE**	92	117.3	156.4	22	18.5	**20DB080A0ENNANANE**	4 §
104 (80) ❄	115 (120)	175 (160)	40	30	**20DB104A0ENNANANE**	120 (92)	132 (138)	175 (175)	30	22	**20DB104A0ENNANANE**	5 §
130 (104) ❄	143 (156)	175 (175)	50	40	**20DB130A0ENNANANE**	130 (104)	143 (156)	175 (175)	30	30	**20DB130A0ENNANANE**	5 §
154 (130) ❄	169 (195)	231 (260)	60	50	**20DB154A0ENNANANE**	177 (150)	195 (225)	266 (300)	45	37	**20DB154A0ENNANANE**	6 §
192 (154) ❄	211 (231)	288 (308)	75	60	**20DB192A0ENNANANE**	221 (177)	243 (266)	308 (308)	55	45	**20DB192A0ENNANANE**	6 §
260 (205) ❄	286 (305)	390 (410)	100	75	**20DB260A0ENNANANE**	260 (205)	286 (305)	390 (410)	66	55	**20DB260A0ENNANANE**	6 §

✶ Drive must be programmed to lower voltage to obtain higher currents shown.

❄ These drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive may be operated at either rating.

§ Also available with internal Brake IGBT (20DxxxxA0E **Y** NANANE).

380…480V AC, Three-Phase Drives

480V AC Input						400V AC Input						Frame Size
Output Amps			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps			Normal Duty kW	Heavy Duty kW	Cat. No.	
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
2.1	2.4	3.2	1	0.75	**20DD2P1A0EYNANANE**	2.1	2.4	3.2	0.75	0.55	**20DC2P1A0EYNANANE**	1
3.4	4.5	6	2	1.5	**20DD3P4A0EYNANANE**	3.5	4.5	6	1.5	0.75	**20DC3P5A0EYNANANE**	1
5	5.5	7.5	3	2	**20DD5P0A0EYNANANE**	5	5.5	7.5	2.2	1.5	**20DC5P0A0EYNANANE**	1
8	8.8	12	5	3	**20DD8P0A0EYNANANE**	8.7	9.9	13.2	4	2.2	**20DC8P7A0EYNANANE**	1
11	12.1	16.5	7.5	5	**20DD011A0EYNANANE**	11.5	13	17.4	5.5	4	**20DC011A0EYNANANE**	1
14	16.5	22	10	7.5	**20DD014A0EYNANANE**	15.4	17.2	23.1	7.5	5.5	**20DC015A0EYNANANE**	1
22	24.2	33	15	10	**20DD022A0EYNANANE**	22	24.2	33	11	7.5	**20DC022A0EYNANANE**	1
27	33	44	20	15	**20DD027A0EYNANANE**	30	33	45	15	11	**20DC030A0EYNANANE**	2
34	40.5	54	25	20	**20DD034A0EYNANANE**	37	45	60	18.5	15	**20DC037A0EYNANANE**	2
40	51	68	30	25	**20DD040A0EYNANANE**	43	56	74	22	18.5	**20DC043A0EYNANANE**	3
52	60	80	40	30	**20DD052A0EYNANANE**	56	64	86	30	22	**20DC056A0EYNANANE**	3
65	78	104	50	40	**20DD065A0EYNANANE**	72	84	112	37	30	**20DC072A0EYNANANE**	3
77 (65) ❄	85 (98)	116 (130)	60	50	**20DD077A0ENNANANE**	85 (72)	94 (108)	128 (144)	45	37	**20DC085A0ENNANANE**	4 §
96 (77) ❄	106 (116)	144 (154)	75	60	**20DD096A0ENNANANE**	105 (85)	116 (128)	158 (170)	55	45	**20DC105A0ENNANANE**	5 §
125 (96) ❄	138 (144)	163 (168)	100	75	**20DD125A0ENNANANE**	125 (96)	138 (144)	163 (168)	55	45	**20DC125A0ENNANANE**	5 §
–	–	–	–	–	**–**	140 (105)	154 (158)	210 (210)	75	55	**20DC140A0ENNANANE**	5 §
156 (125) ❄	172 (188)	233 (250)	125	100	**20DD156A0ENNANANE**	170 (140)	187 (210)	255 (280)	90	75	**20DC170A0ENNANANE**	6 §
180 (156) ❄	198 (234)	270 (312)	150	125	**20DD180A0ENNANANE**	205 (170)	220 (255)	289 (313)	110	90	**20DC205A0ENNANANE**	6 §
248 (180) ❄	273 (270)	372 (360)	200	150	**20DD248A0ENNANANE**	260 (205)	286 (308)	390 (410)	132	110	**20DC260A0ENNANANE**	6 §
261 (205) ❄	287 (308)	410 (410)	200	150	**20DD261A0ENNBNANE**	261 (205)	287 (308)	410 (410)	132	110	**20DC261A0ENNBNANE**	9
300 (245) ❄	330 (368)	450 (490)	250	200	**20DD300A0ENNBNANE**	300 (245)	330 (368)	450 (490)	160	130	**20DC300A0ENNBNANE**	9
385 (300) ❄	424 (450)	600 (600)	300	250	**20DD385A0ENNBNANE**	385 (300)	424 (450)	600 (600)	200	160	**20DC385A0ENNBNANE**	10
460 (385) ❄	506 (578)	770 (770)	350	300	**20DD460A0ENNBNANE**	460 (385)	506 (578)	770 (770)	250	200	**20DC460A0ENNBNANE**	10
500 (420) ❄	550 (630)	750 (840)	450	350	**20DD500A0ENNBNANE**	500 (420)	550 (630)	750 (840)	250	250	**20DC500A0ENNBNANE**	10
590 (520) ❄	649 (780)	956 (956)	500	450	**20DD590A0ENNBNANE**	590 (520)	649 (780)	956 (956)	315	250	**20DC590A0ENNBNANE**	11
650 (590) ❄	715 (885)	1062 (1062)	500	500	**20DD650A0ENNBNANE**	650 (590)	715 (885)	1062 (1062)	355	315	**20DC650A0ENNBNANE**	11
730 (650) ❄	803 (975)	1095 (1170)	600	500	**20DD730A0ENNBNANE**	730 (650)	803 (975)	1095 (1170)	400	355	**20DC730A0ENNBNANE**	11
820 (730) ❄	902 (1095)	1230 (1314)	700	600	**20DD820A0ENNBNANE**	820 (730)	902 (1095)	1230 (1314)	450	400	**20DC820A0ENNBNANE**	12
920 (820) ❄	1012 (1230)	1380 (1476)	800	700	**20DD920A0ENNBNANE**	920 (820)	1012 (1230)	1380 (1476)	500	450	**20DC920A0ENNBNANE**	12
1030 (920) ❄	1133 (1370)	1555 (1600)	900	800	**20DD1K0A0ENNBNANE**	1030 (920)	1133 (1370)	1555 (1600)	560	500	**20DC1K0A0ENNBNANE**	12
1150 (1030) ❄	1265 (1545)	1620 (1620)	1000	900	**20DD1K1A0ENNBNANE**	1150 (1030)	1265 (1545)	1620 (1620)	630	560	**20DC1K1A0ENNBNANE**	13
1300 (1150) ❄	1430 (1725)	2079 (2079)	1200	1000	**20DD1K3A0ENNBNANE**	1300 (1150)	1430 (1725)	2079 (2079)	710	630	**20DC1K3A0ENNBNANE**	13
1450 (1200) ❄	1595 (1800)	2175 (2400)	1250	1000	**20DD1K4A0ENNBNANE**	1450 (1200)	1595 (1800)	2175 (2400)	800	710	**20DC1K4A0ENNBNANE**	13

❄ These drives have dual current ratings; one for normal duty applications, and one for heavy duty (in parenthesis). The drive may be operated at either rating.

§ Also available with internal Brake IGBT (20DxxxxA0E **Y** NANANE).

500…690V AC, Three-Phase Drives

500…600V AC Input ♣						690V AC Input ♣						
Output Amps			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps			Normal Duty kW	Heavy Duty kW	Cat. No.	Frame Size
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
1.7	2	2.6	1	0.5	**20DE1P7A0EYNANANE**	–	–	–	–	–	**–**	1
2.7	3.6	4.8	2	1	**20DE2P7A0EYNANANE**	–	–	–	–	–	**–**	1
3.9	4.3	5.9	3	2	**20DE3P9A0EYNANANE**	–	–	–	–	–	**–**	1
6.1	6.7	9.2	5	3	**20DE6P1A0EYNANANE**	–	–	–	–	–	**–**	1
9	9.9	13.5	7.5	5	**20DE9P0A0EYNANANE**	–	–	–	–	–	**–**	1
11	13.5	18	10	7.5	**20DE011A0EYNANANE**	–	–	–	–	–	**–**	1
17	18.7	25.5	15	10	**20DE017A0EYNANANE**	–	–	–	–	–	**–**	1
22	25.5	34	20	15	**20DE022A0EYNANANE**	–	–	–	–	–	**–**	2
27	33	44	25	20	**20DE027A0EYNANANE**	–	–	–	–	–	**–**	2
32	40.5	54	30	25	**20DE032A0EYNANANE**	–	–	–	–	–	**–**	3
41	48	64	40	30	**20DE041A0EYNANANE**	–	–	–	–	–	**–**	3
52	61.5	82	50	40	**20DE052A0EYNANANE**	52	57	78	50	40	**20DF052A0ENNANANE**	3 ➢
62	78	104	60	50	**20DE062A0EYNANANE**	60	66	90	55	45	**20DF062A0ENNANANE**	4 ➢§
77 (63) ❄	85 (94)	116 (126)	75	60	**20DE077A0ENNANANE**	82 (60)	90 (90)	120 (123)	75	55	**20DF082A0ENNANANE**	5 §
99 (77) ❄	109 (116)	126 (138)	100	75	**20DE099A0ENNANANE**	98 (82)	108 (123)	127 (140)	90	75	**20DF098A0ENNANANE**	5 §
125 (99) ❄	138 (149)	188 (198)	125	100	**20DE125A0ENNANANE**	119 (98)	131 (147)	179 (196)	110	90	**20DF119A0ENNANANE**	6 §
144 (125) ❄	158 (188)	216 (250)	150	125	**20DE144A0ENNANANE**	142 (119)	156 (179)	213 (238)	132	110	**20DF142A0ENNANANE**	6 §
170 (144) ❄	187 (216)	245 (245)	150	150	**20DE170A0ENNBNANE**	170 (144)	187 (216)	245 (245)	160	132	**20DF170A0ENNBNANE**	9
208 (170) ❄	230 (250)	289 (289)	200	150	**20DE208A0ENNBNANE**	208 (170)	230 (250)	289 (289)	200	160	**20DF208A0ENNBNANE**	9
261 (208) ❄	287 (312)	375 (375)	250	200	**20DE261A0ENNBNANE**	261 (208)	287 (312)	375 (375)	250	200	**20DF261A0ENNBNANE**	10
325 (261) ❄	358 (392)	470 (470)	350	250	**20DE325A0ENNBNANE**	325 (261)	358 (392)	470 (470)	315	250	**20DF325A0ENNBNANE**	10
385 (325) ❄	424 (488)	585 (585)	400	350	**20DE385A0ENNBNANE**	385 (325)	424 (488)	585 (585)	355	315	**20DF385A0ENNBNANE**	10
416 (325) ❄	458 (488)	585 (585)	450	350	**20DE416A0ENNBNANE**	416 (325)	458 (488)	585 (585)	400	315	**20DF416A0ENNBNANE**	10
460 (385) ❄	506 (578)	693 (693)	450	400	**20DE460A0ENNBNANE**	460 (385)	506 (578)	693 (693)	450	355	**20DF460A0ENNBNANE**	11
502 (460) ❄	552 (690)	828 (828)	500	450	**20DE502A0ENNBNANE**	502 (460)	552 (690)	828 (828)	500	450	**20DF502A0ENNBNANE**	11
590 (502) ❄	649 (753)	904 (904)	600	500	**20DE590A0ENNBNANE**	590 (502)	649 (753)	904 (904)	560	500	**20DF590A0ENNBNANE**	11
650 (590) ❄	715 (885)	1062 (1062)	700	650	**20DE650A0ENNBNANE**	650 (590)	715 (885)	1062 (1062)	630	560	**20DF650A0ENNBNANE**	12
750 (650) ❄	825 (975)	1170 (1170)	800	700	**20DE750A0ENNBNANE**	750 (650)	825 (975)	1170 (1170)	710	630	**20DF750A0ENNBNANE**	12
820 (750) ❄‡	902 (975)	1170 (1170)	900	700	**20DE820A0ENNBNANE**	820 (750)	902 (975)	1170 (1170)	800	630	**20DF820A0ENNBNANE**	12
920 (820) ❄	1012 (1230)	1380 (1410)	1000	900	**20DE920A0ENNBNANE**	920 (820)	1012 (1230)	1380 (1410)	900	800	**20DF920A0ENNBNANE**	13
1030 (920) ❄	1133 (1380)	1545 (1755)	1100	1000	**20DE1K0A0ENNBNANE**	1030 (920)	1133 (1380)	1545 (1755)	1000	900	**20DF1K0A0ENNBNANE**	13
1180 (1030) ❄	1298 (1463)	1755 (1755)	1300	1100	**20DE1K1A0ENNBNANE**	1180 (1030)	1298 (1463)	1755 (1755)	1100	1000	**20DF1K1A0ENNBNANE**	13
1500 (1300) ❄	1650 (1950)	2250 (2340)	1600	1400	**20DE1K5A0ENNBNANE**	1500 (1300)	1650 (1950)	2250 (2340)	1500	1300	**20DF1K5A0ENNBNANE**	14

❄ These drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive may be operated at either rating.

‡ 600V class drives at 820 amps (ND) such as 20DF820 & 20DE820 are only capable of producing 95% of starting torque under 10 Hz.

§ Also available with internal Brake IGBT (20DxxxxA0E **Y** NANANE).

♣ CE Certification testing has not been performed on 600V class drives Frames 1…4.

➢ 690V drives are Frame 5.

IP21, NEMA/UL Type 1, MCC

380…480V AC, Three-Phase Drives

480V AC Input						400V AC Input						Frame Size
Output Amps ❄			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps ❄			Normal Duty kW	Heavy Duty kW	Cat. No.	
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
385 (300)	424 (450)	600 (600)	300	250	**20DD385B0ENNBNANE**	385 (300)	424 (450)	600 (600)	200	160	**20DC385B0ENNBNANE**	10
460 (385)	506 (578)	770 (770)	350	300	**20DD460B0ENNBNANE**	460 (385)	506 (578)	770 (770)	250	200	**20DC460B0ENNBNANE**	10
500 (420)	550 (630)	750 (840)	450	350	**20DD500B0ENNBNANE**	500 (420)	550 (630)	750 (840)	250	250	**20DC500B0ENNBNANE**	10
590 (520)	649 (780)	956 (956)	500	450	**20DD590B0ENNBNANE**	590 (520)	649 (780)	956 (956)	315	250	**20DC590B0ENNBNANE**	11
650 (590)	715 (885)	1062 (1062)	500	500	**20DD650B0ENNBNANE**	650 (590)	715 (885)	1062 (1062)	355	315	**20DC650B0ENNBNANE**	11
730 (650)	803 (975)	1095 (1170)	600	500	**20DD730B0ENNBNANE**	730 (650)	803 (975)	1095 (1170)	400	355	**20DC730B0ENNBNANE**	11
820 (730)	902 (1095)	1230 (1314)	700	600	**20DD820B0ENNBNANE**	820 (730)	902 (1095)	1230 (1314)	450	400	**20DC820B0ENNBNANE**	12
920 (820)	1012 (1230)	1380 (1476)	800	700	**20DD920B0ENNBNANE**	920 (820)	1012 (1230)	1380 (1476)	500	450	**20DC920B0ENNBNANE**	12
1030 (920)	1133 (1370)	1555 (1600)	900	800	**20DD1K0B0ENNBNANE**	1030 (920)	1133 (1370)	1555 (1600)	560	500	**20DC1K0B0ENNBNANE**	12

❄ These drives have dual current ratings; one for normal duty applications, and one for heavy duty (in parenthesis). The drive may be operated at either rating.

500…690V AC, Three-Phase Drives

600V AC Input						Frame Size
Output Amps ❄			Normal Duty Hp	Heavy Duty Hp	Cat. No.	
Cont.	1 Min.	3 Sec.				
261 (208)	287 (312)	375 (375)	250	200	**20DE261B0ENNBNANE**	10
325 (261)	358 (392)	470 (470)	350	250	**20DE325B0ENNBNANE**	10
385 (325)	424 (488)	585 (585)	400	350	**20DE385B0ENNBNANE**	10
416 (325)	458 (488)	585 (585)	450	350	**20DE416B0ENNBNANE**	10
460 (385)	506 (578)	693 (693)	450	400	**20DE460B0ENNBNANE**	11
502 (460)	552 (690)	828 (828)	500	450	**20DE502B0ENNBNANE**	11
590 (502)	649 (753)	904 (904)	600	500	**20DE590B0ENNBNANE**	11
650 (590)	715 (885)	1062 (1062)	700	650	**20DE650B0ENNBNANE**	12
750 (650)	825 (975)	1170 (1170)	800	700	**20DE750B0ENNBNANE**	12
820 (750) ‡	902 (975)	1170 (1170)	900	700	**20DE820B0ENNBNANE**	12

❄ These drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive may be operated at either rating.

‡ 600V class drives at 820 amps (ND) such as 20DF820 & 20DE820 are only capable of producing 95% of starting torque under 10 Hz.

PowerFlex 700L AC Drive

The PowerFlex 700L is available with the PowerFlex 700 or PowerFlex 700S control in a fully regenerative, liquid-cooled power structure. This powerful combination offers great performance and high power capabilities in a small package along with low harmonics.

Available as a panel mount unit or in a cabinet, this liquid cooled drive features regenerative braking which is ideal for precise, high-response speed and position control, continuous holdback, rapid deceleration and stopping of high inertia loads. Instead of wasting energy with resistor braking technology, regenerative braking actually puts the energy back into the system to be used by other equipment.

Ratings	380…480V: 200…860 kW / 300…1150 Hp / 360...1250 A
	500…600V: 345…650 kW / 465…870 Hp / 425…800 A
	690V: 355…657 kW / 475…881 Hp / 380…705 A
Motor Control	Select PowerFlex 700 or PowerFlex 700S Control
Communications	Common Industrial Protocol
User Interface	HIM (option)
Enclosures	IP00, IP20
Safety	DriveGuard Safe Torque-Off / EN 954-1 Cat. 3 with PowerFlex 700S control
Additional Features	SynchLink and DriveLogix functionality with PowerFlex 700S control
Certifications	• UL • cUL • IEC (Designed to Meet) • CE • TÜV FS ISO/EN13849-1 (EN954-1) with PowerFlex 700S control
Options	See pages 64… 86
Additional Information	PowerFlex 700L Technical Data, publication 20L-TD001 PowerFlex 700L User Manual, publication 20L-UM001

400V AC, Three-Phase Drives

Output Amps			Nominal Power Ratings				IP20, NEMA/UL Type 1 ✶	
400V AC Input			Normal Duty		Heavy Duty			
Cont.	1 Min.	3 Sec.	kW	Hp	kW	Hp	Cat. No.	Frame Size
360	396	540	200	268	150	200	**20LC360N0ENNAN10WA**	2
650	715	975	370	500	270	365	**20LC650A0ENNAN10WA**	3A
1250	1375	1875	715	960	525	700	**20LC1K2A0ENNAN10WA**	3B

✶ Frames 3A and 3B Only. Frame 2 drives are IP00, NEMA/UL Type Open.

480V AC, Three-Phase Drives

Output Amps			Nominal Power Ratings				IP20, NEMA/UL Type 1 ✶	
480V AC Input			Normal Duty		Heavy Duty			
Cont.	1 Min.	3 Sec.	kW	Hp	kW	Hp	Cat. No.	Frame Size
360	396	540	224	300	175	235	**20LD360N0ENNAN10WA**	2
650	715	975	445	600	325	440	**20LD650A0ENNAN10WA**	3A
1250	1375	1875	860	1150	630	845	**20LD1K2A0ENNAN10WA**	3B

✶ Frames 3A and 3B Only. Frame 2 drives are IP00, NEMA/UL Type Open.

600V AC, Three-Phase Drives

Output Amps			Nominal Power Ratings				IP20, NEMA/UL Type 1	Frame Size
600V AC Input			Normal Duty		Heavy Duty			
Cont.	1 Min.	3 Sec.	kW	Hp	kW	Hp	Cat. No.	
425	470	640	345	465	255	345	**20LE425A0ENNAN10WA**	3A
800	885	1200	650	870	480	640	**20LE800A0ENNAN10WA**	3B

690V AC, Three-Phase Drives

Output Amps			Nominal Power Ratings				IP20, NEMA/UL Type 1	Frame Size
690V AC Input			Normal Duty		Heavy Duty			
Cont.	1 Min.	3 Sec.	kW	Hp	kW	Hp	Cat. No.	
380	420	570	355	475	260	350	**20LF380A0ENNAN10WA**	3A
705	780	1060	657	881	485	650	**20LF705A0ENNAN10WA**	3B

Cooling Loops

Drive Requirements		Supply Loop Requirements			Liquid to Liquid Heat Exchanger ❄
Frame Size	Heat Dissipation into Liquid	Minimum Flow @ Pressure ✶	Maximum Pressure	Temperature Range	Cat. No.
2	7,900 W	15.1 LPM @ 0.83 bar (4 GPM @ 12 PSI)	8.62 bar (125 PSI)	0…40 °C (32…104 °F)	**20L-LL13K-P75A**
3A	12,000 W	22.7 LPM @ 0.83 bar (6 GPM @ 12 PSI)	8.62 bar (125 PSI)	0…35 °C (32…95 °F)	**20L-LL13K-P75A**
3B	24,000 W	56.8 LPM @ 0.83 bar (15 GPM @ 12 PSI)	8.62 bar (125 PSI)	0…35 °C (32…95 °F)	**20L-LL24K-1P0A**

✶ The minimum pressure applies to the pressure drop across the drive and does not take into account additional pressure drop in the system such as piping or hosing.

❄ Recommended cooling loops shown are based on a single drive per cooling loop. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for use of multiple drives on one cooling loop.

Hose Kits

Hose Length [m (ft.)]	Hoses per Kit	Drive Side Coupling Size	Heat Exchanger Side Coupling Size	Used with …	Hose Kit Cat. No. ‡
3 (10)	2	0.75 in.	0.75 in.	Frame 2 and 13 kW HEX	**20L-GH10-B1**
9.1 (30)	2	0.75 in.	0.75 in.	Frame 2 and 13 kW HEX	**20L-GH30-B1**
3 (10)	2	1 in.	1 in. with 90° Elbow	Frame 3A and 13 kW HEX	**20L-GH10-A2**
9.1 (30)	2	1 in.	1 in. with 90° Elbow	Frame 3A and 13 kW HEX	**20L-GH30-A2**
3 (10)	2	1 in.	1 in.	Frame 3B and 24 kW HEX	**20L-GH10-A1**
9.1 (30)	2	1 in.	1 in.	Frame 3B and 24 kW HEX	**20L-GH30-A1**

‡ Each hose kit contains (2) hoses and the appropriate connectors.

PowerFlex 753 AC Drive

Designed for general purpose applications, the PowerFlex 753 AC drive offers multiple options and features along with the added benefit of simple integration. The PowerFlex 753 comes standard with built-in I/O making it a cost effective solution ideal for OEMs and system integrators looking to reduce engineering costs, deliver machines to market faster and meet end-user demand for more productive and safer machines.

Ratings	380…480V: 0.75…250 kW / 1…350 Hp / 2.1…456 A
Motor Control	• V/Hz Control • Adjustable Voltage Control • Vector Control with FORCE Technology • Sensorless Vector Control
Communications	Common Industrial Protocol
User Interface	HIM (option)
Enclosures	IP00/IP20, Flange Mount, IP54/NEMA/UL Type 12
Safety	• Safe Torque-Off / EN 954-1 Cat. 3 • Safe Speed Monitor PLe/SIL3 Cat. 4
Additional Features	• DeviceLogix • Preventative Diagnostics • Standard I/O with 3 Digital In, 1 Analog In, 1 Analog Out, 1 Relay & 1 Transistor Out • Three option slots for I/O, feedback, safety, auxiliary control power, communications • Indexing • Pump Jack and Pump Off for oil well applications • Pjump and Traverse for Fibers application • Conformal Coating • Internal Brake IGBT standard on Frames 2…5 and optional on Frames 6…7 • DC Link Choke
Certifications	• UL • cUL • CE • C-Tick • SEMI F47 • GOST-R • TÜV FS ISO/EN13849-1 (EN954-1) with Safe Torque-Off option • Meets material restrictions specified in the RoHS directive
Options	See pages 64… 86
Additional Information	PowerFlex 750-Series Product Profile, publication 750-PP001 PowerFlex 750-Series User Manual, publication 750-UM001

IP00/IP20, NEMA/UL Type Open ❖

380…480V AC, Three-Phase Drives

480V AC Input						400V AC Input						
Output Amps ‡			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps ‡			Normal Duty kW	Heavy Duty kW	Cat. No. ✶	Frame Size
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
2.1	3.1	3.7	1	1	**20F11ND2P1AA0NNNNN**	2.1	3.1	3.7	0.75	0.75	**20F11NC2P1JA0NNNNN**	2
3.4	5.1	6.1	2	2	**20F11ND3P4AA0NNNNN**	3.5	5.2	6.3	1.5	1.5	**20F11NC3P5JA0NNNNN**	2
5	7.5	9	3	3	**20F11ND5P0AA0NNNNN**	5	7.5	9.0	2.2	2.2	**20F11NC5P0JA0NNNNN**	2
8	12	14.4	5	5	**20F11ND8P0AA0NNNNN**	8.7	13	15.6	4	4	**20F11NC8P7JA0NNNNN**	2
11	16.5	19.8	7.5	7.5	**20F11ND011AA0NNNNN**	11.5	17.2	20.7	5.5	5.5	**20F11NC011JA0NNNNN**	2
14 (11)	15.4 (16.5)	21 (21)	10	7.5	**20F11ND014AA0NNNNN**	15.4 (11.5)	16.9 (17.3)	23.1 (23.1)	7.5	5.5	**20F11NC015JA0NNNNN**	2
22 (14)	24.2 (21)	33 (33)	15	10	**20F11ND022AA0NNNNN**	22 (15.4)	24.2 (23.1)	33 (33)	11	7.5	**20F11NC022JA0NNNNN**	2
27 (22)	29.7 (33)	40.5 (40.5)	20	15	**20F11ND027AA0NNNNN**	30 (22)	33 (33)	45 (45)	15	11	**20F11NC030JA0NNNNN**	3
34 (27)	37.4 (40.5)	51 (51)	25	20	**20F11ND034AA0NNNNN**	37 (30)	40.7 (45)	55.5 (55.5)	18.5	15	**20F11NC037JA0NNNNN**	3
40 (34)	44 (51)	60 (61.2)	30	25	**20F11ND040AA0NNNNN**	43 (37)	47.3 (55.5)	64.5 (66.6)	22	18.5	**20F11NC043JA0NNNNN**	3
52 (40)	57.2 (60)	78 (78)	40	30	**20F11ND052AA0NNNNN**	60 (43)	66 (66)	90 (90)	30	22	**20F11NC060JA0NNNNN**	4
65 (52)	71.5 (78)	97.5 (97.5)	50	40	**20F11ND065AA0NNNNN**	72 (60)	79.2 (90)	108 (108)	37	30	**20F11NC072JA0NNNNN**	4
77 (65)	84.7 (97.5)	115.5 (117)	60	50	**20F11ND077AA0NNNNN**	85 (72)	93.5 (108)	127.5 (129.6)	45	37	**20F11NC085JA0NNNNN**	5
96 (77)	105.6 (115.5)	144 (144)	75	60	**20F11ND096AA0NNNNN**	104 (85)	114.4 (127.5)	156 (156)	55	45	**20F11NC104JA0NNNNN**	5
125 (96)	137.5 (144)	187.5 (187.5)	100	75	**20F1AND125AN0NNNNN**	140 (104)	154 (156)	210 (210)	75	55	**20F1ANC140JN0NNNNN**	6 ⌘
156 (125)	171.6 (187.5)	234 (234)	125	100	**20F1AND156AN0NNNNN**	170 (140)	187 (210)	255 (255)	90	75	**20F1ANC170JN0NNNNN**	6 ⌘
186 (156)	204.6 (234)	279 (280.8)	150	125	**20F1AND186AN0NNNNN**	205 (170)	225.5 (255)	307.5 (307.5)	110	90	**20F1ANC205JN0NNNNN**	6 ⌘
248 (186)	272.8 (279)	372 (372)	200	150	**20F1AND248AN0NNNNN**	260 (205)	286 (307.5)	390 (390)	132	110	**20F1ANC260JN0NNNNN**	6 ⌘
302 (248)	332.2 (372)	453 (453)	250	200	**20F1AND302AN0NNNNN**	302 (260)	332.2 (390)	453 (468)	160	132	**20F1ANC302JN0NNNNN**	7 ⌘
361 (302)	397.1 (453)	541.5 (543.6)	300	250	**20F1AND361AN0NNNNN**	367 (302)	403.7 (453)	550.5 (550.5)	200	160	**20F1ANC367JN0NNNNN**	7 ⌘
415 (361)	456.5 (541.5)	622.5 (649.8)	350	300	**20F1AND415AN0NNNNN**	456 (367)	501.6 (550.5)	684 (684)	250	200	**20F1ANC456JN0NNNNN**	7 ⌘

❖ Frames 2…5 are IP20, Frames 6…7 are IP00.

✶ The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

⌘ Also available with internal Brake IGBT (20F1xxxxxxx **A** xxxxxx).

‡ Some drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive may be operated at either rating.

IP54, NEMA/UL Type 12

380…480V AC, Three-Phase Drives

480V AC Input						400V AC Input						
Output Amps ‡			Normal Duty Hp	Heavy Duty Hp	Cat. No.	Output Amps ‡			Normal Duty kW	Heavy Duty kW	Cat. No. ✶	Frame Size
Cont.	1 Min.	3 Sec.				Cont.	1 Min.	3 Sec.				
2.1	3.1	3.7	1	1	**20F11GD2P1AA0NNNNN**	2.1	3.1	3.7	0.75	0.75	**20F11GC2P1JA0NNNNN**	2
3.4	5.1	6.1	2	2	**20F11GD3P4AA0NNNNN**	3.5	5.2	6.3	1.5	1.5	**20F11GC3P5JA0NNNNN**	2
5	7.5	9	3	3	**20F11GD5P0AA0NNNNN**	5	7.5	9.0	2.2	2.2	**20F11GC5P0JA0NNNNN**	2
8	12	14.4	5	5	**20F11GD8P0AA0NNNNN**	8.7	13	15.6	4	4	**20F11GC8P7JA0NNNNN**	2
11	16.5	19.8	7.5	7.5	**20F11GD011AA0NNNNN**	11.5	17.2	20.7	5.5	5.5	**20F11GC011JA0NNNNN**	2
14 (11)	15.4 (16.5)	21 (21)	10	7.5	**20F11GD014AA0NNNNN**	15.4 (11.5)	16.9 (17.3)	23.1 (23.1)	7.5	5.5	**20F11GC015JA0NNNNN**	2
22 (14)	24.2 (21)	33 (33)	15	10	**20F11GD022AA0NNNNN**	22 (15.4)	24.2 (23.1)	33 (33)	11	7.5	**20F11GC022JA0NNNNN**	2
27 (22)	29.7 (33)	40.5 (40.5)	20	15	**20F11GD027AA0NNNNN**	30 (22)	33 (33)	45 (45)	15	11	**20F11GC030JA0NNNNN**	3
34 (27)	37.4 (40.5)	51 (51)	25	20	**20F11GD034AA0NNNNN**	37 (30)	40.7 (45)	55.5 (55.5)	18.5	15	**20F11GC037JA0NNNNN**	3
40 (34)	44 (51)	60 (61.2)	30	25	**20F11GD040AA0NNNNN**	43 (37)	47.3 (55.5)	64.5 (66.6)	22	18.5	**20F11GC043JA0NNNNN**	3
52 (40)	57.2 (60)	78 (78)	40	30	**20F11GD052AA0NNNNN**	60 (43)	66 (66)	90 (90)	30	22	**20F11GC060JA0NNNNN**	4
65 (52)	71.5 (78)	97.5 (97.5)	50	40	**20F11GD065AA0NNNNN**	72 (60)	79.2 (90)	108 (108)	37	30	**20F11GC072JA0NNNNN**	5
77 (65)	84.7 (97.5)	115.5 (117)	60	50	**20F11GD077AA0NNNNN**	85 (72)	93.5 (108)	127.5 (129.6)	45	37	**20F11GC085JA0NNNNN**	5
96 (77)	105.6 (115.5)	144 (144)	75	60	**20F1AGD096AN0NNNNN**	104 (85)	114.4 (127.5)	156 (156)	55	45	**20F1AGC104JN0NNNNN**	6 ⌘
125 (96)	137.5 (144)	187.5 (187.5)	100	75	**20F1AGD125AN0NNNNN**	140 (104)	154 (156)	210 (210)	75	55	**20F1AGC140JN0NNNNN**	6 ⌘
156 (125)	171.6 (187.5)	234 (234)	125	100	**20F1AGD156AN0NNNNN**	170 (140)	187 (210)	255 (255)	90	75	**20F1AGC170JN0NNNNN**	6 ⌘
186 (156)	204.6 (234)	279 (280.8)	150	125	**20F1AGD186AN0NNNNN**	205 (170)	225.5 (255)	307.5 (307.5)	110	90	**20F1AGC205JN0NNNNN**	6 ⌘
248 (186)	272.8 (279)	372 (372)	200	150	**20F1AGD248AN0NNNNN**	260 (205)	286 (307.5)	390 (390)	132	110	**20F1AGC260JN0NNNNN**	7 ⌘
302 (248)	332.2 (372)	453 (453)	250	200	**20F1AGD302AN0NNNNN**	302 (260)	332.2 (390)	453 (468)	160	132	**20F1AGC302JN0NNNNN**	7 ⌘
361 (302)	397.1 (453)	541.5 (543.6)	300	250	**20F1AGD361AN0NNNNN**	367 (302)	403.7 (453)	550.5 (550.5)	200	160	**20F1AGC367JN0NNNNN**	7 ⌘
415 (361)	456.5 (541.5)	622.5 (649.8)	350	300	**20F1AGD415AN0NNNNN**	456 (367)	501.6 (550.5)	684 (684)	250	200	**20F1AGC456JN0NNNNN**	7 ⌘

✶ The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

⌘ Also available with internal Brake IGBT (20F1xxxxxxx **A** xxxxxx).

‡ Some drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive may be operated at either rating.