

## Fuses and Circuit Breakers for PowerFlex 520-Series Drives (continued)

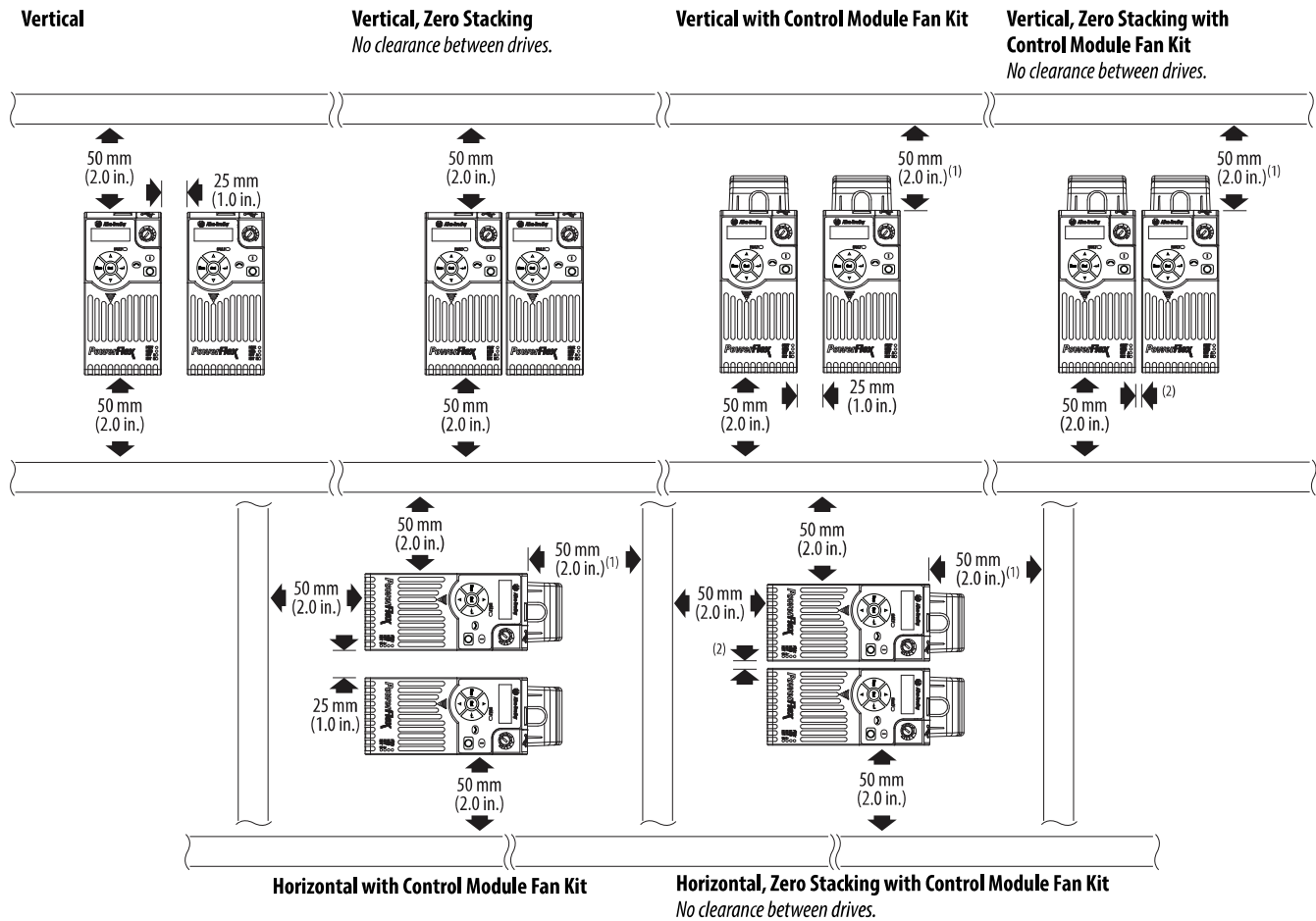
### 525...600V 3-Phase Input Protection Devices – Frames A...E

Catalog No. <sup>(1)</sup>	Output Ratings						Input Ratings	Frame Size	Contactor Catalog No.	IEC Applications (Non-UL)			UL Applications							
	PF 525		ND		HD					kVA	Max Amps <sup>(2)</sup>	Fuses (Rating)	Circuit Breakers		Fuses (Max. Rating) Class / Catalog No.	Circuit Breakers		Min. Enclosure Vol. (in. <sup>3</sup> )		
	HP	kW	HP	kW	HP	kW							Amps	140U/140G		140M	140U/140G		140M <sup>(3)(4)(5)</sup>	
25A-E09N104	25B-E09N104	0.5	0.4	0.5	0.4	0.9	1.4	1.2	A	100-C09	3	6	140U-D6D3-B20	140M-C2E-B25	CLASS RK5, CC, J, or T / DLS-R-6	140U/140G	140M-C2E-B25	140M <sup>(3)(4)(5)</sup>	140M-C2E-B25	656.7 <sup>(7)</sup>
25A-E17N104	25B-E17N104	1.0	0.75	1.0	0.75	1.7	2.6	2.3	A	100-C09	3	6	140U-D6D3-B30	140M-C2E-B25	CLASS RK5, CC, J, or T / DLS-R-6	140U/140G	140M-C2E-B25	140M-C2E-B25	656.7 <sup>(7)</sup>	
25A-E30N104	25B-E30N104	2.0	1.5	2.0	1.5	3.0	4.3	3.8	A	100-C09	6	10	140U-D6D3-B50	140M-C2E-B40	CLASS RK5, CC, J, or T / DLS-R-10	140U/140G	140M-C2E-B40	140M-C2E-B40	1416.0 <sup>(7)</sup>	
25A-E42N104	25B-E42N104	3.0	2.2	3.0	2.2	4.2	6.1	5.3	A	100-C09	10	16	140U-D6D3-B80	140M-C2E-B63	CLASS RK5, CC, J, or T / DLS-R-15	140U/140G	140M-D8E-B63	140M-D8E-B63	1416.0 <sup>(7)</sup>	
25A-E60N104	25B-E60N104	5.0	4.0	5.0	4.0	6.6	9.1	8.0	B	100-C09	10	20	140U-D6D3-C10	140M-C2E-C10	CLASS RK5, CC, J, or T / DLS-R-20	140U/140G	140M-D8E-C10	140M-D8E-C10	656.7 <sup>(7)</sup>	
25A-E90N104	25B-E90N104	7.5	5.5	7.5	5.5	9.9	12.8	11.2	C	100-C16	16	25	140U-D6D3-C15	140M-C2E-C16	CLASS RK5, CC, J, or T / DLS-R-25	140U/140G	140M-D8E-C16	140M-D8E-C16	656.7 <sup>(7)</sup>	
25A-E012N104	25B-E012N104	10.0	7.5	10.0	7.5	12.0	15.4	13.5	C	100-C23	20	32	140U-D6D3-C20	140M-C2E-C16	CLASS RK5, CC, J, or T / DLS-R-30	140U/140G	140M-F8E-C25	140M-F8E-C25	656.7 <sup>(7)</sup>	
25A-E019N104	25B-E019N104	15.0	11.0	15.0	11.0	19.0	27.4	24.0	D	100-C30	32	50	140G-G6C3-C30	140M-F8E-C32	CLASS CC, J, or T / 50	140U/140G	140M-F8E-C32	1416.0 <sup>(7)</sup>		
25A-E022N104	25B-E022N104	20.0	15.0	20.0	15.0	22.0	31.2	27.3	D	100-C30	35	63	140G-G6C3-C35	140M-F8E-C32	CLASS CC, J, or T / 60	140U/140G	140M-F8E-C32	1416.0 <sup>(7)</sup>		
25A-E027N104	25B-E027N104	25.0	18.5	25.0	18.5	27.0	36.0	31.7	E	100-C30	35	50	140G-G6C3-C35	140M-F8E-C32	CLASS CC, J, or T / 50	140U/140G	140M-F8E-C32	1416.0 <sup>(7)</sup>		
25A-E032N104	25B-E032N104	30.0	22.0	30.0	22.0	33.0	43.0	37.0	E	100-C37	40	63	140G-G6C3-C50	140M-F8E-C32	CLASS CC, J, or T / 60	140U/140G	140M-F8E-C32	1416.0 <sup>(7)</sup>		

- (1) Normal and Heavy Duty ratings are available for this drive
- (2) When the drive is controlling motors with lower amp ratings, refer to the drive nameplate for drive input current rating.
- (3) The AIC ratings of the Bulletin 140M Motor Protector Circuit Breakers may vary. See [Bulletin 140M Motor Protection Circuit Breakers Application Ratings](#).
- (4) Bulletin 140M with adjustable current range should have the current trip set to the minimum range that the device will not trip.
- (5) Manual Self-Protected (Type E) Combination Motor Controller, UL listed for 480Y/277 and 600Y/347 AC input. Not UL listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.
- (6) When used with the 140M circuit breaker, the 25A-E90N104 must be installed in a ventilated or non-ventilated enclosure with the minimum size of 457.2 x 457.2 x 269.8 mm (18 x 18 x 10.62 in.).
- (7) When using a Manual Self-Protected (Type E) Combination Motor Controller with this drive power rating, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume specified in this column. Application specific thermal considerations may require a larger enclosure.
- (8) Circuit breaker selection is not available for this drive rating.

## Minimum Mounting Clearances

See [Dimensions and Weights on page 14](#) for mounting dimensions.



- (1) For Frame E with Control Module Fan Kit only, clearance of 95 mm (3.7 in.) is required.
- (2) For Frame E with Control Module Fan Kit only, clearance of 12 mm (0.5 in.) is required.

## Ambient Operating Temperatures

See [Accessories and Dimensions on page 32](#) for option kits.

Mounting	Enclosure Rating <sup>(1)</sup>	Ambient Temperature			
		Minimum	Maximum (No Derate)	Maximum (Derate) <sup>(2)</sup>	Maximum with Control Module Fan Kit (Derate) <sup>(3)(5)</sup>
Vertical	IP 20/Open Type	-20 °C (-4 °F)	50 °C (122 °F)	60 °C (140 °F)	70 °C (158 °F)
	IP 30/NEMA 1/UL Type 1		45 °C (113 °F)	55 °C (131 °F)	–
Vertical, Zero Stacking	IP 20/Open Type		45 °C (113 °F)	55 °C (131 °F)	65 °C (149 °F)
	IP 30/NEMA 1/UL Type 1		40 °C (104 °F)	50 °C (122 °F)	–
Horizontal with Control Module Fan Kit <sup>(4)(5)</sup>	IP 20/Open Type		50 °C (122 °F)	–	70 °C (158 °F)
Horizontal, Zero Stacking with Control Module Fan Kit <sup>(4)(5)</sup>	IP 20/Open Type		45 °C (113 °F)	–	65 °C (149 °F)

- (1) IP 30/NEMA 1/UL Type 1 rating requires installation of the PowerFlex 520-Series IP 30/NEMA 1/UL Type 1 option kit, catalog number 25-JBAX.
- (2) For catalogs 25x-D1P4N104 and 25x-E0P9N104, the temperature listed under the Max. (Derate) column is reduced by 5 °C (9 °F) for all mounting methods.
- (3) For catalogs 25x-D1P4N104 and 25x-E0P9N104, the temperature listed under the Max. with Control Module Fan Kit (Derate) column is reduced by 10 °C (18 °F) for vertical and vertical with zero stacking mounting methods only.
- (4) Catalogs 25x-D1P4N104 and 25x-E0P9N104 cannot be mounted using either of the horizontal mounting methods.
- (5) Requires installation of the PowerFlex 520-Series Control Module Fan Kit, catalog number 25-FANx-70C.

PowerFlex 523 Catalog No.	PowerFlex 525 Catalog No.	Output Ratings				Output Current (A)	Input Voltage Range	Total Watts Loss	Frame Size
		Normal Duty		Heavy Duty					
		HP	kW	HP	kW				
<b>380...480V AC (-15%, +10%) – 3-Phase Input with EMC Filter, 0...460V 3-Phase Output</b>									
25A-D1P4N114	25B-D1P4N114	0.5	0.4	0.5	0.4	1.4	323...528	27.0	A
25A-D2P3N114	25B-D2P3N114	1.0	0.75	1.0	0.75	2.3	323...528	37.0	A
25A-D4P0N114	25B-D4P0N114	2.0	1.5	2.0	1.5	4.0	323...528	63.0	A
25A-D6P0N114	25B-D6P0N114	3.0	2.2	3.0	2.2	6.0	323...528	88.0	A
25A-D010N114	25B-D010N114	5.0	4.0	5.0	4.0	10.5	323...528	133.0	B
25A-D013N114	25B-D013N114	7.5	5.5	7.5	5.5	13.0	323...528	175.0	C
25A-D017N114	25B-D017N114	10.0	7.5	10.0	7.5	17.0	323...528	230.0	C
25A-D024N114	25B-D024N114	15.0	11.0	15.0	11.0	24.0	323...528	313.0	D
25A-D030N114	25B-D030N114	20.0	15.0	15.0	11.0	30.0	323...528	402.0	D
25A-D037N114	25B-D037N114	25.0	18.5	20.0	15.0	37.0	323...528	602.0	E
25A-D043N114	25B-D043N114	30.0	22.0	25.0	18.5	43.0	323...528	697.0	E
<b>525...600V AC (-15%, +10%) – 3-Phase Input, 0...575V 3-Phase Output</b>									
25A-E0P9N104	25B-E0P9N104	0.5	0.4	0.5	0.4	0.9	446...660	22.0	A
25A-E1P7N104	25B-E1P7N104	1.0	0.75	1.0	0.75	1.7	446...660	32.0	A
25A-E3P0N104	25B-E3P0N104	2.0	1.5	2.0	1.5	3.0	446...660	50.0	A
25A-E4P2N104	25B-E4P2N104	3.0	2.2	3.0	2.2	4.2	446...660	65.0	A
25A-E6P6N104	25B-E6P6N104	5.0	4.0	5.0	4.0	6.6	446...660	95.0	B
25A-E9P9N104	25B-E9P9N104	7.5	5.5	7.5	5.5	9.9	446...660	138.0	C
25A-E012N104	25B-E012N104	10.0	7.5	10.0	7.5	12.0	446...660	164.0	C
25A-E019N104	25B-E019N104	15.0	11.0	15.0	11.0	19.0	446...660	290.0	D
25A-E022N104	25B-E022N104	20.0	15.0	15.0	11.0	22.0	446...660	336.0	D
25A-E027N104	25B-E027N104	25.0	18.5	20.0	15.0	27.0	446...660	466.0	E
25A-E032N104	25B-E032N104	30.0	22.0	25.0	18.5	32.0	446...660	562.0	E

(1) A non-filtered drive is not available for 380...480V AC 25 HP (18.5 kW) and 30 HP (22.0 kW) ratings. Filtered drives are available, however you must verify that the application will support a filtered drive.