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ENGINEERING SUPPLEMENT
ES-221
June 2007

ARRANGEMENT 3-P and 3-V PLENUM FANS V-BELT DRIVE
Minimum-Maximum Center-to-Center Distances (in inches)

- All belt center distances shown are in inches.
- For belt center distances or specific drive information for motor frame sizes not shown below, consult nyb.
- Consult the Plenum Fan bulletin to determine minimum/maximum motor size capability, especially for motor frame sizes larger than listed in the bulletin. In all cases, maximum motor frame size is limited to maximum C-NW dimension. For small motors, be sure to check starting torque (WR²) requirements.
- When selecting belt centers, avoid minimum and maximum extremes to assure ease of mounting and tension. Also minimum and maximum are total adjustment. Some allowance for installation and stretch must be included when selecting drive.
- Consult nyb for assistance in calculating minimum Arrangement 1 and standard Arrangement 3 belt center distances.

ARRANGEMENT 3-P, CLASS I/II

Size	48		56-145T		182T-184T		213T-215T		254T-256T		284T-286T		324T-326T	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	17.1	21.3	17.6	21.8	18.6	22.8	19.3	23.6						
18	17.9	22.1	17.9	22.1	19.4	23.6	20.1	24.4						
20	18.9	23.2	18.9	23.2	20.4	24.7	21.2	25.4						
22	20.1	24.3	20.1	24.3	21.6	25.8	22.3	26.6	23.3	27.6				
24	21.8	26.0	21.8	26.0	23.3	27.5	24.0	28.3	25.0	29.3	25.8	30.0		
27	24.0	28.1	24.5	28.6	25.4	29.6	26.2	30.3	27.1	31.3	27.9	32.0	28.8	33.0
30			26.7	30.7	27.6	31.7	28.3	32.4	29.3	33.4	30.0	34.1	31.0	35.1
33					29.8	33.8	30.5	34.5	31.5	35.5	32.2	36.2	33.1	37.2
36					32.6	36.6	33.3	37.3	34.2	38.2	34.9	38.9	35.9	39.9
40							35.6	39.5	36.5	40.5	37.2	41.2	38.2	42.1
44							39.4	43.1	40.3	44.0	41.0	44.70	41.9	45.6
49							42.5	46.2	43.4	47.1	44.1	47.8	45	48.7

ARRANGEMENT 3-P, CLASS III

Size	56-145T		182T-184T		213T-215T		254T-256T		284T-286T		324T-326T	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	18.3	22.5	19.3	23.5	20.0	24.3						
18	17.9	22.1	19.4	23.6	20.1	24.4	21.1	25.4				
20	18.9	23.2	20.4	24.7	21.2	25.4	22.2	26.4				
22	20.1	24.3	21.6	25.8	22.3	26.6	23.3	27.6	24.1	28.4		
24			23.6	27.8	24.3	28.6	25.3	29.6	26.1	30.3	27.1	31.3
27					26.5	30.6	27.4	31.6	28.2	32.3	29.1	33.3
30					28.7	32.8	29.7	33.8	30.4	34.5	31.4	35.5

ARRANGEMENT 3-V *

Size	48		56-145T		182T-184T		213T-215T		254T-256T		284T-286T		324T-326T		364T-365T		404T-405T	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	19.3	23.5	19.8	24.0	20.8	25.0	21.5	25.8										
18	20.1	24.4	20.6	24.9	21.6	25.9	22.4	26.6										
20	21.5	25.8	22.0	26.3	23.0	27.3	23.8	28.0										
22	23.3	27.5	23.8	28.0	24.8	29.0	25.5	29.8	26.5	30.8								
24	25.0	29.3	25.5	29.8	26.5	30.8	27.3	31.5	28.3	32.5	29.0	33.3						
27	24.9	29.2	25.4	29.7	26.4	30.7	27.2	31.4	28.2	32.4	28.9	33.2	29.9	34.2				
30			27.8	32.0	28.8	33.0	29.5	33.8	30.5	34.8	31.3	35.5	32.3	36.5				
33					30.6	34.9	31.4	35.6	32.4	36.6	33.1	37.4	34.1	38.4				
36					32.9	37.2	33.7	37.9	34.7	38.9	35.4	39.7	36.4	40.7				
40							36.0	40.3	37.0	41.3	37.8	42.0	38.8	43.0				
44							38.8	43.1	39.8	44.1	40.6	44.8	41.6	45.8	42.6	46.8	43.6	47.8
49							42.3	46.5	43.3	47.5	44.0	48.3	45.0	49.3	46.0	50.3	47.0	51.3
54							45.6	49.9	46.6	50.9	47.4	51.6	48.4	52.6	49.4	53.6	50.4	54.6
60							49.5	53.8	50.5	54.8	51.3	55.5	52.3	56.5	53.3	57.5	54.3	58.5
66							53.6	57.9	54.6	58.9	55.4	59.6	56.4	60.6	57.4	61.6	58.4	62.6
73							58.5	62.8	59.5	63.8	60.3	64.5	61.3	65.5	62.3	66.5	63.3	67.5

* Using nyb's integral motor mounting structure.