

95% Variable Speed Two-Stage Heating Furnace

FLEXIBILITY

- Supports two-stage cooling units
- Dual Certified venting (1 or 2 pipe), Direct Vent Furnace
- 40in (1016mm) high with wider cabinets, for ease of installation
- Factory shipped for natural gas, with Propane Gas conversion kits available
- Four position - upflow/downflow/horizontal installation
- Vent pipe can be run horizontally or vertically
- Internal condensate drain system

SERVICE

- Self diagnostics
- Entire blower assembly removable

COMFORT

- Adjustable timed blower heating Off delay
- Adjustable timed blower cooling On/Off delay
- Thermal lined, one piece steel cabinet for noise reduction
- Insulated blower compartment
- 24 and 115VAC humidifier terminals
- Electronic air cleaner terminal
- Dehumidification option

EFFICIENCY

- 95% AFUE
- Two-stage operation
- ECM Variable speed DC motor
- Two-stage Induced draft blower
- In-shot burners
- California NOx approved

QUALITY

- RPJ III Stainless steel heat exchanger
- Stainless steel secondary heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- Flame roll-out sensors standard
- External filter rack with permanent filters
- Stainless steel solid doors
- 10 year No Hassle Replacement limited warranty
- 7 year parts limited warranty
- Heat exchanger lifetime limited warranty



Illustrations and photographs are only representative.
Some product models may vary.

⚠ WARNING

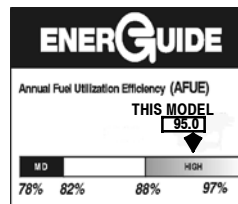
This furnace is not designed for use in mobile homes, trailers, or recreational vehicles. Such use could result in property damage and/or death.

NO HASSLE

WARRANTY

REPLACEMENT

SEE WARRANTY CERTIFICATE FOR DETAILS



As an Energy Star® Partner, International Comfort Products has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. Ask your contractor for details or visit www.energystar.gov

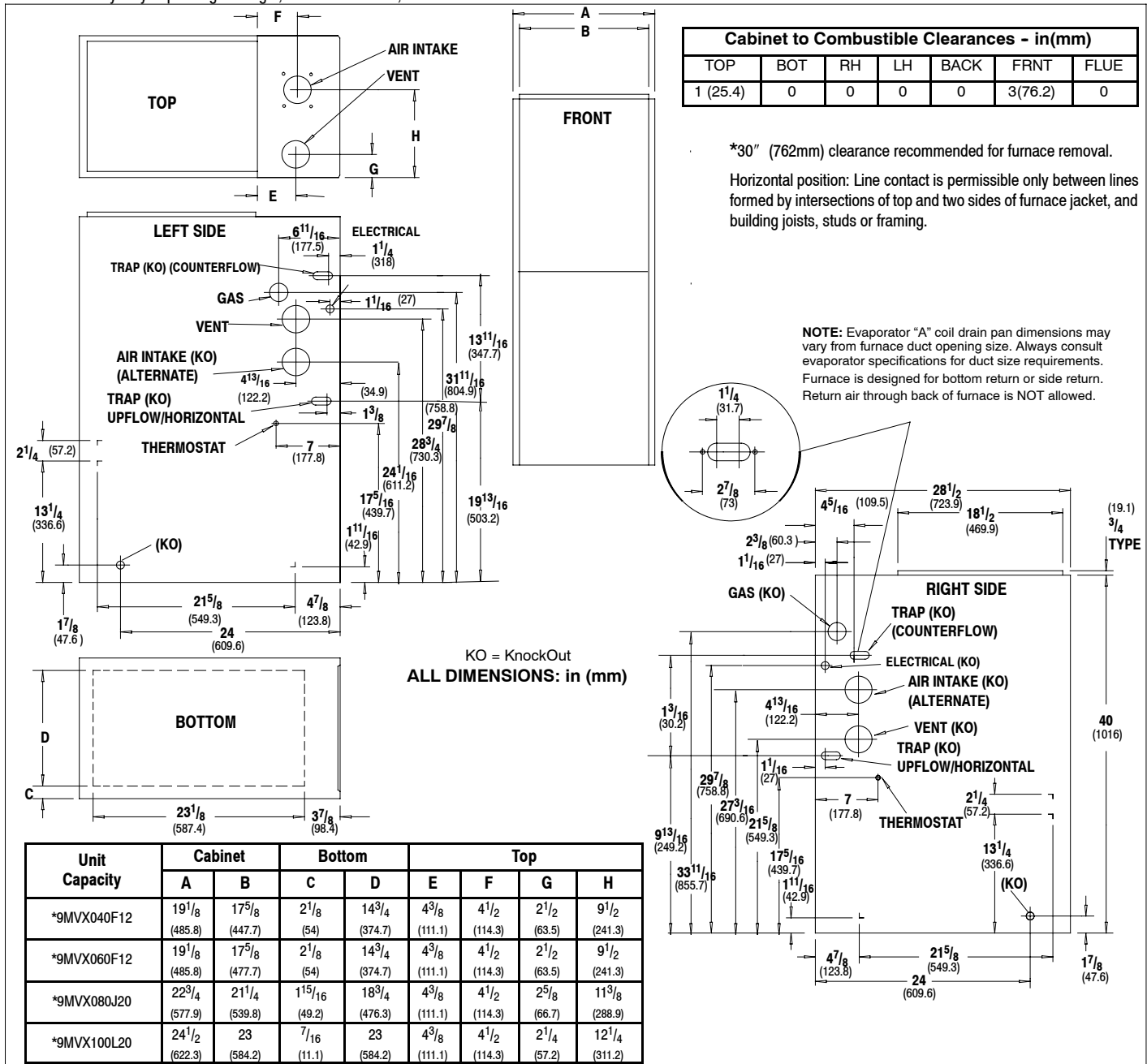


UPFLOW/DOWNFLOW/HORIZONTAL (NATURAL GAS)							
Model Number	Dimensions H x W x D		Input (MBTUH)	Efficiency AFUE			Cooling Capacity @ .5 in wc (125 Pa)
	Inches	Millimeters		Upflow	Downflow	Horizontal	
T9MVX040F12A	40 x 19 ¹ / ₈ x 29	1016 x 486 x 737	40	95	95	95	1.5 - 3.0 TON
T9MVX060F12A	40 x 19 ¹ / ₈ x 29	1016 x 486 x 737	60	95	95	95	1.5 - 3.5 TON
T9MVX080J20A	40 x 22 ³ / ₄ x 29	1016 x 578 x 737	80	95	95	95	3 - 5.0 TON
T9MVX100L20A	40 x 24 ¹ / ₂ x 29	1016 x 522 x 737	100	95	95	95	3 - 5.0 TON

FURNACE SPECIFICATIONS

Model Number (* Denotes Brand (C, H, T))	*9MVX040F12	*9MVX060F12	*9MVX080J20	*9MVX100L20
INPUT HIGH HEAT (BTUH) LOW HEAT (BTUH)	40,000 28,000	60,000 42,000	80,000 56,000	100,000 70,000
HTG. CAPACITY HIGH HEAT (BTUH) LOW HEAT (BTUH)	38,000 27,000	58,000 41,000	77,000 54,000	96,000 67,000
AFUE % (ICS)	95	95	95	95
TEMP. RISE RANGE High Heat (°F/°C) Low Heat (°F/°C)	25-55/14-31 25-55/14-31	30-60/17-33 30-60/17-33	30-60/17-33 30-60/17-33	30-60/17-33 30-60/17-33
VENT SIZE ^A in(mm)	2" (51) OD	2" - 3" (51 - 76) OD	3" (76) OD	3" (76) OD
VOLTS/Hz/PH	115/60/1	115/60/1	115/60/1	115/60/1
RATING PLATE AMPS.	9.5	11.4	14.6	14.6
MIN./MAX. VOLTAGE	104/127	104/127	104/127	104/127
TRANSFORMER (V.A.)	40	40	40	40
GAS PIPE SIZE - inches(mm)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
COOLING CAP. (TONS)	3.0	3.5	5.0	5.0
HIGH ALTITUDE PRESSURE SWITCH	1177766	1177767	1177768	1177769
FILTER SIZE - inches(mm) (qty)	16X25X1 (406x635x25) (1)	16X25X1 (406x635x25) (1)	16X25X1 (406x635x25) (2)	16X25X1 (406x635x25) (2)
DIMENSIONS - WxDxH inches(mm)	19 1/8x29x40 (486x737x1016)	19 1/8x29x40 (486x737x1016)	22 3/4x29x40 (486x737x1016)	24 1/2x29x40 (622x737x1016)
WEIGHT - Lbs(kg)	150 (68)	168 (76)	187 (85)	203 (92)

^A Vent size may vary depending on length, number of elbows, standard vent or direct vent. See Installation Instructions.



* Denotes Brand

Drawing is representative, but some models may vary

MODEL NUMBER IDENTIFICATION GUIDE

Brand Identifier * = Brand	9	M V	X	0 40	F	1 2	A	#	Engineering Rev. Denotes minor changes
Model Efficiency 8 = Non-Condensing, 80+% Gas Furnace 9 = Condensing, 90+% Gas Furnace									Marketing Digit Denotes major change
Installation Configuration UP = Upflow DN = Downflow UH = Upflow/Horizontal DH = Downflow/Horizontal MP = Multiposition, Up/Down/Horizontal MV = Multiposition, Variable Speed, Up/Down/Horizontal									Cooling Airflow 08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM
Major Design Feature 1 = One (Single) Pipe N = Single Stage 2 = Two Pipe P = PVC Vent D = 1 or 2 Pipe T = Two Stage L = Low NOx V = Variable Speed X = High Efficiency									Cabinet Width B = 15.5" Wide F = 19.1" Wide J = 22.8" Wide L = 24.5" Wide
									Input (Nominal MBTUH)

* Denotes Brand (C, H, T)

ACCESSORIES

Model Number	Description	Used With Models
NAHA00601NG 1177457**	Gas Conversion Kits (Two-Stage) - Propane to natural gas conversion kit. Allows field conversion to natural gas.	*9MVX
NAHA00601LP 1177456**	Gas Conversion Kits (Two-Stage) - Natural gas to Propane conversion Kit (includes low pressure switch). Allows field conversion to Propane gas.	*9MVX
NAHA001FF	Filter Kits - External filter frame. 16" x 25" (406mm x 635mm)	Side Return (All Furnaces) Bottom Return (All "F" 19 ¹ / ₈ " Furnaces under 1600 CFM)
NAHA001FP	External filter frame. 16" x 25" (406mm x 635mm) Bulk Pack Kit - Qty 10	
NAHA002FF	Filter Kits - Bottom return filter frame kit 20" x 25"	
NAHA002FP	Bottom return filter frame kit 20" x 25" (508mm x 635mm) Bulk Pack Kit - Qty 10	(All "J" 22 ³ / ₄ " Furnaces)
NAHA001TK	Duct Standoff Filter Kit - To adapt 20" x 25" (508mm x 635mm) filter for single side return.	Side Return (All single return applications with 1600 CFM or greater) Bottom Return (All "F" 19 ¹ / ₈ " Furnaces under 1600 CFM)
NAHA001NK 612833**	Condensate Neutralizer Kit - for condensing gas furnaces	All *9MVX Furnaces if Required
NAHH002SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 19 ¹ / ₄ " wide furnace models	*9MVX040/060
NAHH003SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 22 ³ / ₄ " wide furnace models	*9MVX080
NAHH010SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 24 ¹ / ₂ " wide furnace models	*9MVX100
NAHH005SB	Subbase - Furnace w/ 19 ¹ / ₄ " cased coil	*9MVX040/060 Counterflow furnace w/19 ¹ / ₄ " cased coil
NAHH006SB	Subbase - Furnace w/ 22 ³ / ₄ " cased coil	*9MVX080 Counterflow furnace w/22 ³ / ₄ " cased coil
NAHH009SB	Subbase Furnace w/ 24 ¹ / ₂ " cased coil	*9MVX100 Counterflow furnace w/24 ¹ / ₂ " cased coil
1177766**	High Altitude Pressure Switch Kit	*9MVX040
1177767**	High Altitude Pressure Switch Kit	*9MVX060
1177768**	High Altitude Pressure Switch Kit	*9MVX080
1177769**	High Altitude Pressure Switch Kit	*9MVX100
NAHA001CV 1011129**	3" (76.2mm) Concentric Vent Kit - allows single wall penetration for 2 pipe direct vent applications (90+)	*9MVX080/100
NAHA002CV	2" (50.8mm) Concentric Vent Kit - allows single wall penetration for 2 pipe direct vent applications (90+)	*9MVX040/060
NAHA002WL	To replace Warning Labels, Operating Instructions & Wiring Labels on Blower Door when needed	*9MVX

* Denotes Brand (C, H, T)

** Fast part number

Circulation Air Blower Data - *9MVX040

Cooling Adjustment						Heating Rise Adjustment		
DIP Switch (OFF = 0 ON = 1)	High Cool @ .50 in wc(125 Pa)		Low Cool (80% of High Cool)		** Adjust Jumper Setting	DIP Switch (OFF = 0 and ON = 1)	High Heat Rise Change @ 0.20 in wc (50 Pa)	Low Heat Rise Change at Resultant Static
	5 & 6	CFM	L/s	CFM				
00	1244	587	995	470	+	00	-3	-3
*00	1206	569	965	455	*NOM	*00	0	0
00	1126	531	901	425	-	00	4	4
01	1109	523	887	419	+	01	2	2
01	1032	487	826	390	NOM	01	6	6
01	941	444	753	355	-	01	13	10
10	901	425	721	340	+	10	0	-1
10	828	391	662	313	NOM	10	3	3
10	757	357	606	286	-	10	8	7
11	705	333	564	266	+	11	-12	-13
11	633	299	506	239	NOM	11	-10	-10
11	556	262	445	210	-	11	-8	-8

Airflow performance includes 1" washable filter media.

*Factory Setting

**Adjust Jumper Setting (+, NOM, -) is applied to both Cooling and Heating

Note 1: HP Mode Jumper provides a 10% reduction in airflow when in Comfort position and a call for low or high cooling is present with the "O" line off. This feature is to provide lower airflow for running in HP Heating Mode if desirable.

Note 2: DEHUM mode (24VAC on DEHUM terminal) provides a 20% airflow reduction during cooling calls.

Note 3: Low Heat ESP is a result of High Heat ESP (- is decrease in rise).

Note 4: High and low heat rise values are approximate air temperature change from return air temperature when at factory default settings.

Table 2	Airflow	
DIP Switch (OFF = 0 / ON = 1)	Continuous Fan @ 0.10 in wc (25 Pa) ESP	
1 & 2	CFM	L/s
*00	592	279
01	1021	482
10	1346	635
11	1346	635

Table 3	SW2 DIP Assignments
DIP Switch	Blower Parameter
1 & 2	Cont Fan Adj
3 & 4	Heat Speed Adj
5 & 6	Cool Speed Adj
7 & 8	Cool On/Off Delay

* Factory Setting

Table 4	Cooling Delay Options (SW2 - 7, 8)			
	ON DELAY		OFF DELAY	
DIP SW2 - 7/8 (OFF = 0 / ON = 1)	Timed ON (sec)	Airflow during on delay	Timer OFF (sec)	Airflow during off delay
*00	5	OFF	90	100%
01	5	OFF	0	OFF
10	30	50%	30	100%
11	30	50%	180	50%

Airflow % is of High Cool airflow demand determined from SW2-5/6 Table 1

Airflow resumes to 100% after on delay time is completed

Airflow stops (or switches to continuous fan speed) after off delay time is completed

* Factory Setting

MAX CFM's for Factory Washable Filters		
Filter Size (in/mm)	CFM	L/s
14" X 25" / 356 x 635	1400	661
16" X 25" / 406 x 635	1600	755
20" X 25" / 508 x 635	2000	944
24" X 25" / 610 x 635	2500	1180
Max CFM based on 600 FPM (3.0 M/s)		

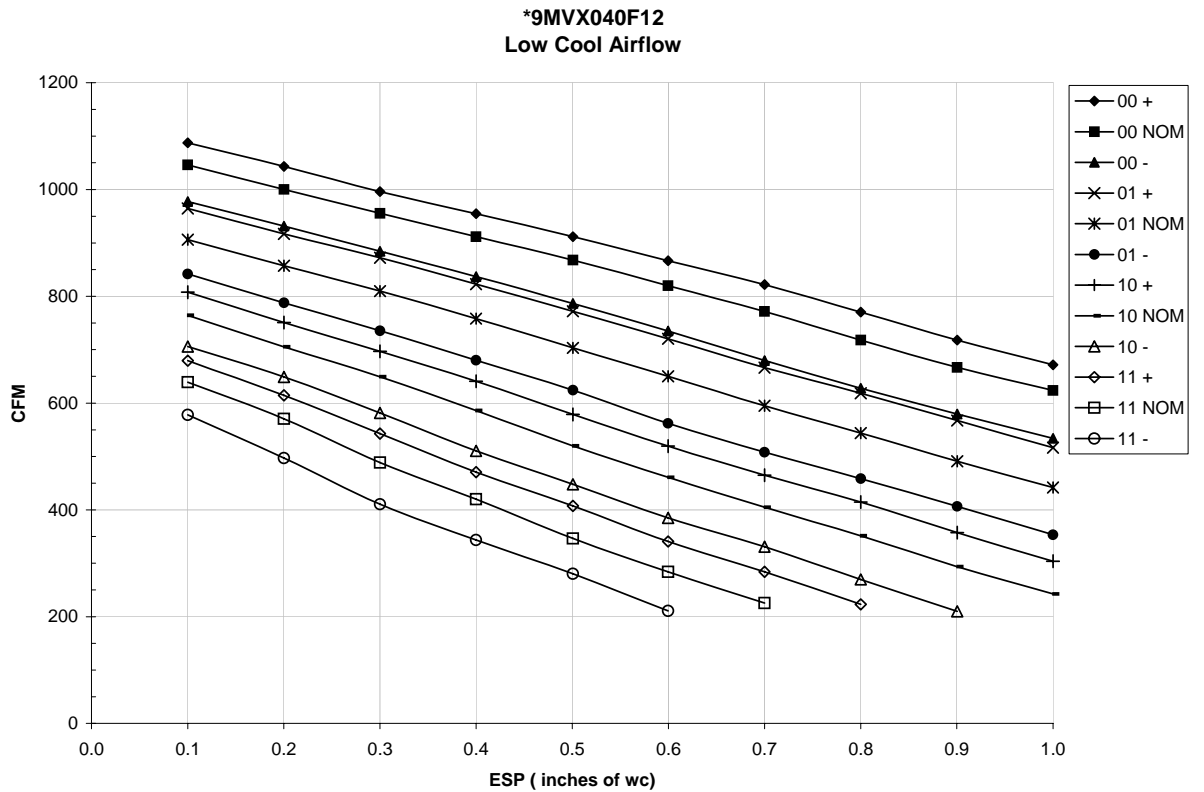
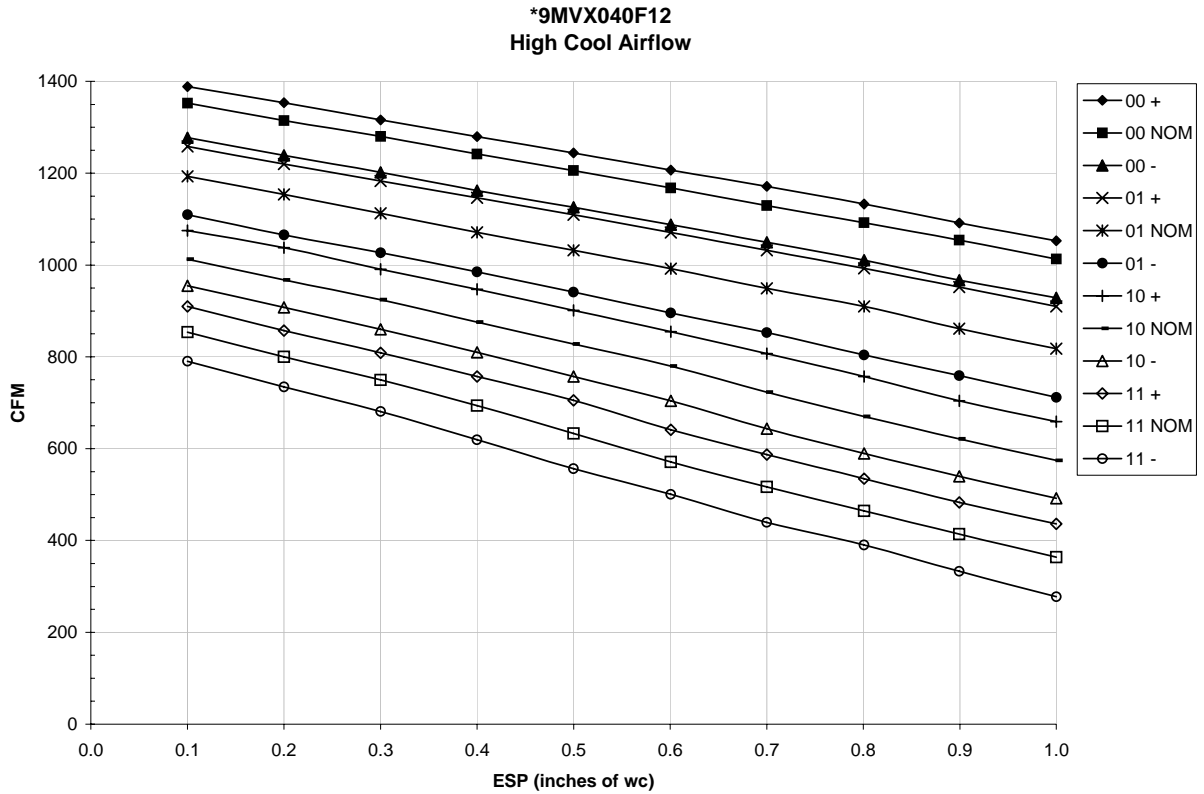
NOTE: Disposable filters are typically rated at 300 FPM (1.5 m/s). These filters only allow half the airflow when compared to 600 FPM (3.0 M/s) filters.

EXAMPLE (approx.):

20in X 25in @ 600 FPM = 2000 CFM, @ 300 FPM = 1000 CFM
508mm x 635mm @ 3.0 M/s = 944 L/s, @ 1.5 M/s = 472 L/s

Circulation Air Blower Data - *9MVX040

Cooling Airflow Settings



NOTE: OFF = 0 and ON = 1

Circulation Air Blower Data - *9MVX060

Cooling Adjustment					** Adjust Jumper Setting	Heating Rise Adjustment		
DIP Switch (OFF = 0 ON = 1)	High Cool @ .50 in wc(125 Pa)		Low Cool (80% of High Cool)			DIP Switch (OFF = 0 and ON = 1)	High Heat Rise Change @ 0.20 in wc (50 Pa)	Low Heat Rise Change at Resultant Static
	5 & 6	CFM	L/s	CFM				
00	1377	650	1102	650	+	00	-3	-3
*00	1239	585	991	585	*NOM	*00	0	0
00	1097	518	878	518	-	00	3	3
01	1165	550	932	550	+	01	1	2
01	1044	493	835	493	NOM	01	4	4
01	889	420	711	420	-	01	8	8
10	966	456	773	456	+	10	-1	0
10	848	400	678	400	NOM	10	2	2
10	715	337	572	337	-	10	7	7
11	74	353	599	353	+	11	-5	-4
11	650	307	520	307	NOM	11	-2	-2
11	523	247	418	247	-	11	1	1

Airflow performance includes 1" washable filter media.

*Factory Setting

**Adjust Jumper Setting (+, NOM, -) is applied to both Cooling and Heating

Note 1: HP Mode Jumper provides a 10% reduction in airflow when in Comfort position and a call for low or high cooling is present with the "O" line off. This feature is to provide lower airflow for running in HP Heating Mode if desirable.

Note 2: DEHUM mode (24VAC on DEHUM terminal) provides a 20% airflow reduction during cooling calls.

Note 3: Low Heat ESP is a result of High Heat ESP (- is decrease in rise).

Note 4: High and low heat rise values are approximate air temperature change from return air temperature when at factory default settings.

Table 2	Airflow	
DIP Switch (OFF = 0 / ON = 1)	Continuous Fan @ 0.10 in wc (25 Pa) ESP	
1 & 2	CFM	L/s
*00	612	475
01	1096	822
10	1403	1040
11	1403	1040

Table 3	SW2 DIP Assignments
DIP Switch	Blower Parameter
1 & 2	Cont Fan Adj
3 & 4	Heat Speed Adj
5 & 6	Cool Speed Adj
7 & 8	Cool On/Off Delay

* Factory Setting

Table 4	Cooling Delay Options (SW2 - 7, 8)			
	ON DELAY		OFF DELAY	
DIP SW2 - 7/8 (OFF = 0 / ON = 1)	Timed ON (sec)	Airflow during on delay	Timer OFF (sec)	Airflow during off delay
*00	5	OFF	90	100%
01	5	OFF	0	OFF
10	30	50%	30	100%
11	30	50%	180	50%

Airflow % is of High Cool airflow demand determined from SW2-5/6 Table 1

Airflow resumes to 100% after on delay time is completed

Airflow stops (or switches to continuous fan speed) after off delay time is completed

* Factory Setting

MAX CFM's for Factory Washable Filters		
Filter Size (in/mm)	CFM	L/s
14" X 25" / 356 x 635	1400	661
16" X 25" / 406 x 635	1600	755
20" X 25" / 508 x 635	2000	944
24" X 25" / 610 x 635	2500	1180
Max CFM based on 600 FPM (3.0 M/s)		

NOTE: Disposable filters are typically rated at 300 FPM (1.5 m/s). These filters only allow half the airflow when compared to 600 FPM (3.0 M/s) filters.

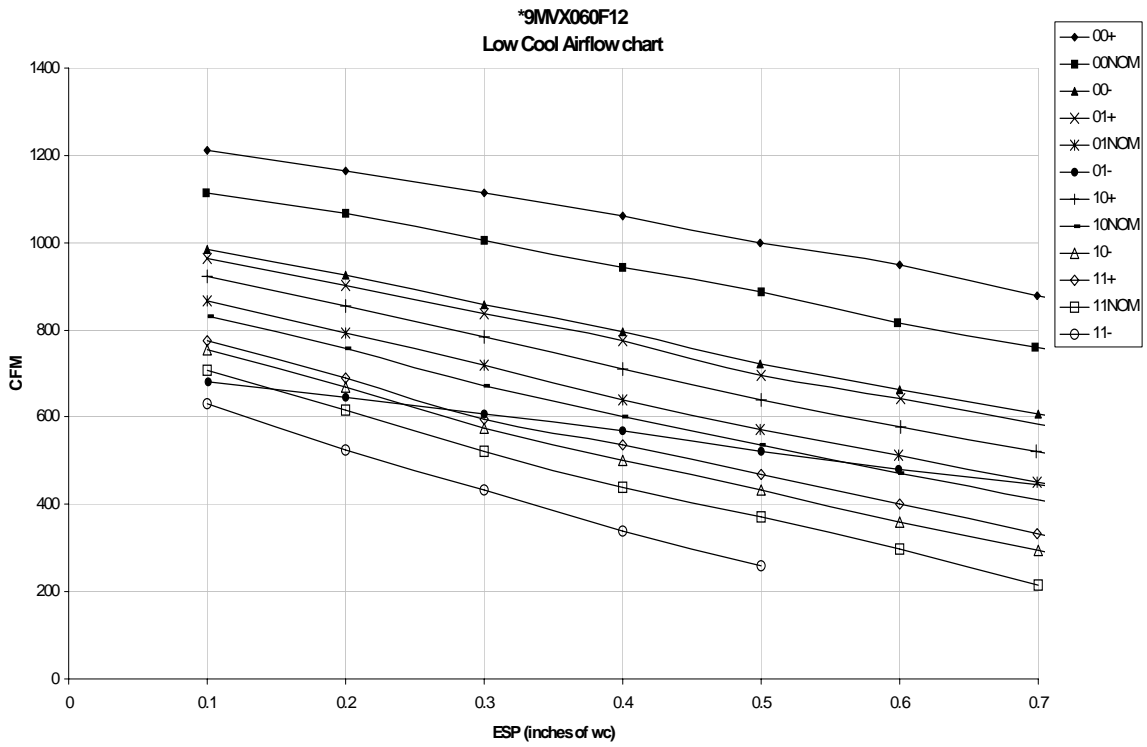
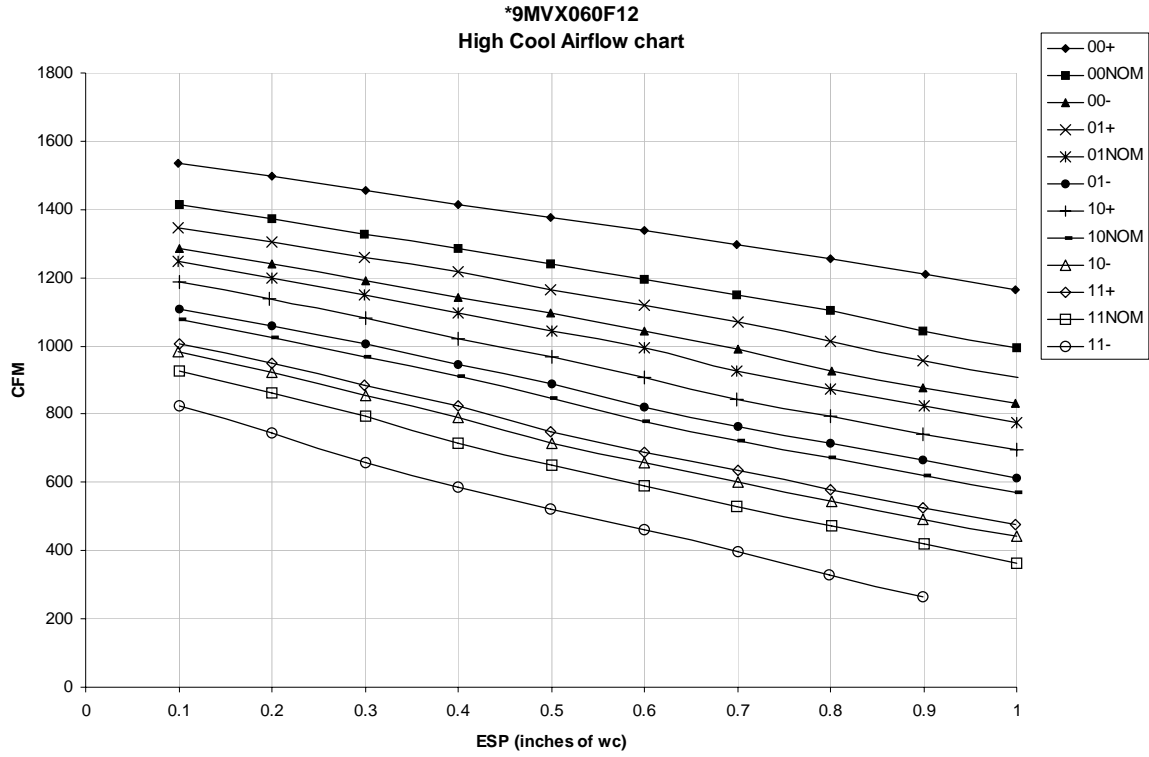
EXAMPLE (approx.):

20in X 25in @ 600 FPM = 2000 CFM, @ 300 FPM = 1000 CFM

508mm x 635mm @ 3.0 M/s = 944 L/s, @ 1.5 M/s = 472 L/s

Circulation Air Blower Data - *9MVX060

Cooling Airflow Settings



NOTE: OFF = 0 and ON = 1

Circulation Air Blower Data - *9MVX080

Cooling Adjustment					** Adjust Jumper Setting	Heating Rise Adjustment		
DIP Switch (OFF = 0 ON = 1)	High Cool @ .50 in wc(125 Pa)		Low Cool (80% of High Cool)			DIP Switch (OFF = 0 and ON = 1)	High Heat Rise Change @ 0.20 in wc (50 Pa)	Low Heat Rise Change at Resultant Static
	5 & 6	CFM	L/s	CFM				
00	2146	1013	1717	1013	+	00	-3	-3
*00	2009	948	1607	948	*NOM	*00	0	0
00	1843	870	1474	870	-	00	5	5
01	1779	840	1423	840	+	01	3	3
01	1645	776	1316	776	NOM	01	6	8
01	1498	707	1198	707	-	01	11	11
10	1409	665	1127	665	+	10	0	0
10	1294	611	1035	611	NOM	10	6	4
10	1147	541	918	541	-	10	10	9
11	1005	474	804	474	+	11	-5	-6
11	887	419	710	419	NOM	11	-2	-2
11	757	357	606	357	-	11	3	2

Airflow performance includes 1" washable filter media.

*Factory Setting

**Adjust Jumper Setting (+, NOM, -) is applied to both Cooling and Heating

Note 1: HP Mode Jumper provides a 10% reduction in airflow when in Comfort position and a call for low or high cooling is present with the "O" line off. This feature is to provide lower airflow for running in HP Heating Mode if desirable.

Note 2: DEHUM mode (24VAC on DEHUM terminal) provides a 20% airflow reduction during cooling calls.

Note 3: Low Heat ESP is a result of High Heat ESP (- is decrease in rise).

Note 4: High and low heat rise values are approximate air temperature change from return air temperature when at factory default settings.

Table 2	Airflow	
DIP Switch (OFF = 0 / ON = 1)	Continuous Fan @ 0.10 in wc (25 Pa) ESP	
1 & 2	CFM	L/s
*00	1007	475
01	1742	822
10	2204	1040
11	2204	1040

Table 3	SW2 DIP Assignments
DIP Switch	Blower Parameter
1 & 2	Cont Fan Adj
3 & 4	Heat Speed Adj
5 & 6	Cool Speed Adj
7 & 8	Cool On/Off Delay

* Factory Setting

Table 4	Cooling Delay Options (SW2 - 7, 8)			
	ON DELAY		OFF DELAY	
DIP SW2 - 7/8 (OFF = 0 / ON = 1)	Timed ON (sec)	Airflow during on delay	Timer OFF (sec)	Airflow during off delay
*00	5	OFF	90	100%
01	5	OFF	0	OFF
10	30	50%	30	100%
11	30	50%	180	50%

Airflow % is of High Cool airflow demand determined from SW2-5/6 Table 1

Airflow resumes to 100% after on delay time is completed

Airflow stops (or switches to continuous fan speed) after off delay time is completed

* Factory Setting

MAX CFM's for Factory Washable Filters		
Filter Size (in/mm)	CFM	L/s
14" X 25" / 356 x 635	1400	661
16" X 25" / 406 x 635	1600	755
20" X 25" / 508 x 635	2000	944
24" X 25" / 610 x 635	2500	1180
Max CFM based on 600 FPM (3.0 M/s)		

NOTE: Disposable filters are typically rated at 300 FPM (1.5 m/s). These filters only allow half the airflow when compared to 600 FPM (3.0 M/s) filters.

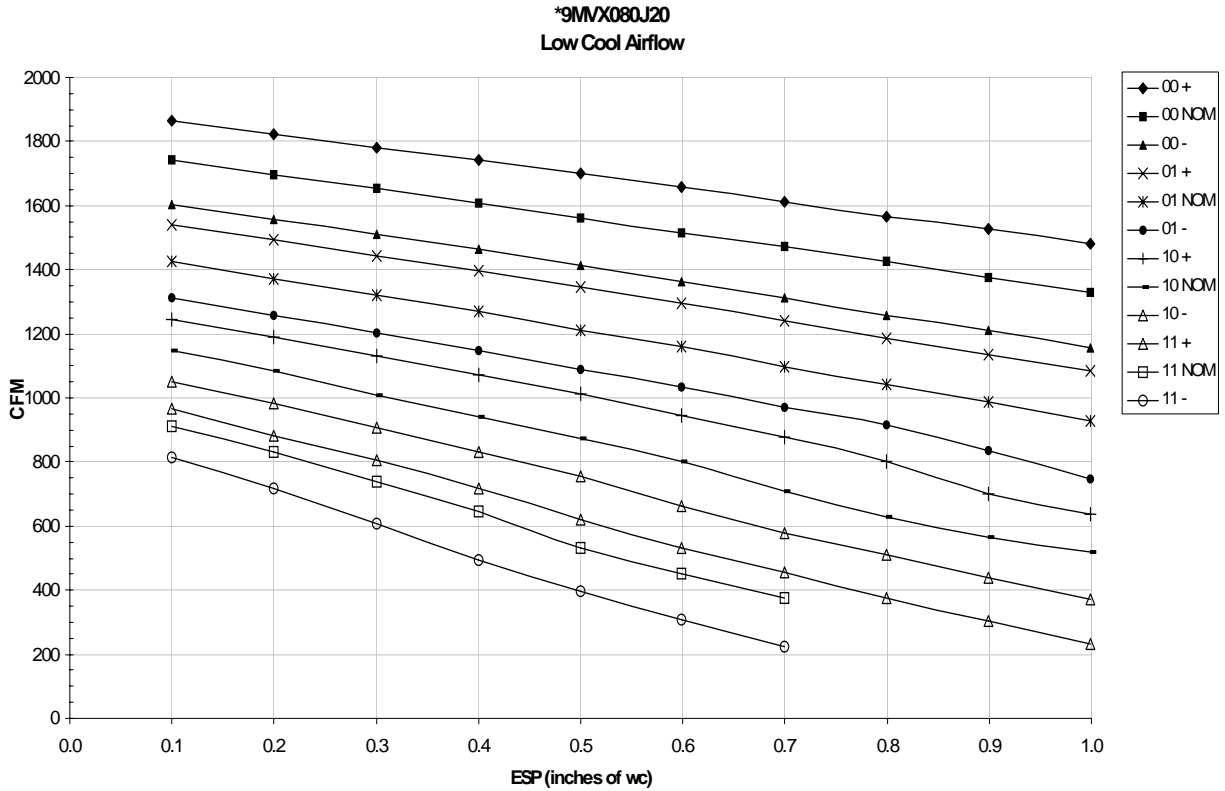
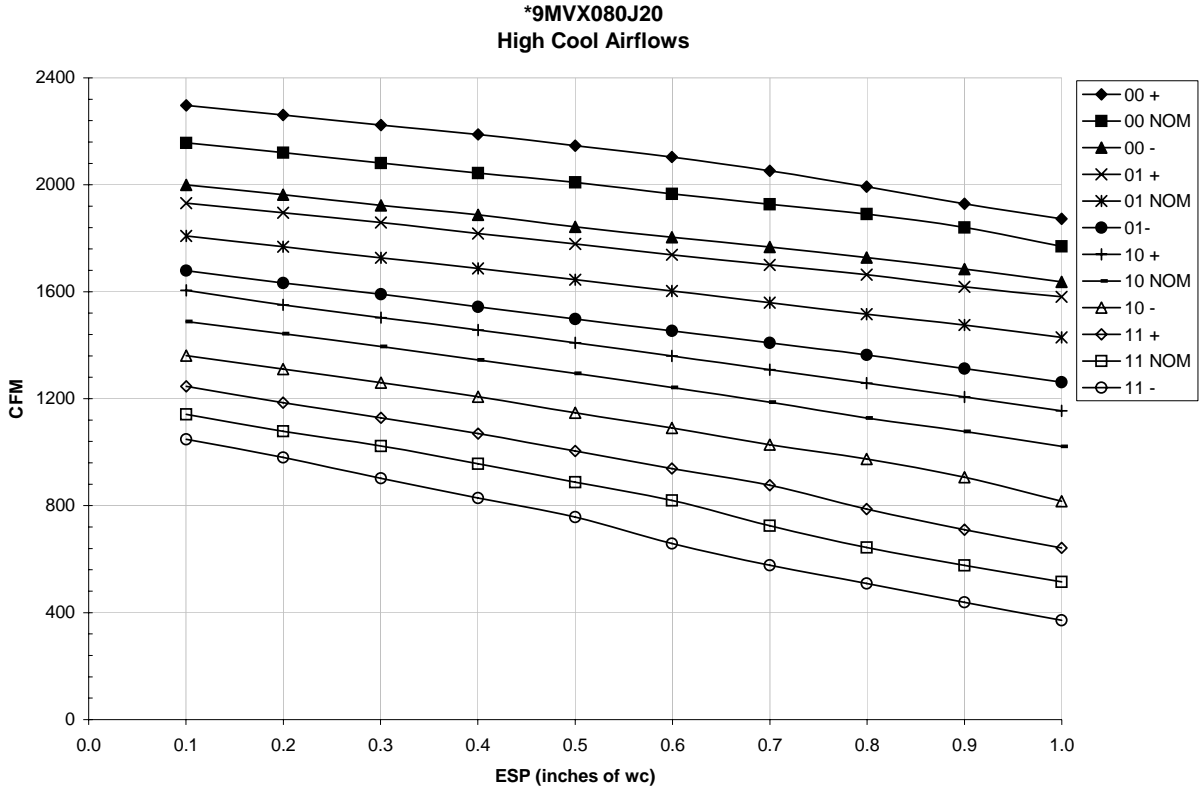
EXAMPLE (approx.):

20in X 25in @ 600 FPM = 2000 CFM, @ 300 FPM = 1000 CFM

508mm x 635mm @ 3.0 M/s = 944 L/s, @ 1.5 M/s = 472 L/s

Circulation Air Blower Data - *9MVX080

Cooling Airflow Settings



NOTE: OFF = 0 and ON = 1

Circulation Air Blower Data - *9MVX100

Cooling Adjustment					** Adjust Jumper Setting	Heating Rise Adjustment		
DIP Switch (OFF = 0 ON = 1)	High Cool @ .50 in wc(125 Pa)		Low Cool (80% of High Cool)			DIP Switch (OFF = 0 and ON = 1)	High Heat Rise Change @ 0.20 in wc (50 Pa)	Low Heat Rise Change at Resultant Static
	5 & 6	CFM	L/s	CFM				
00	2108	995	1686	995	+	00	-3	-3
*00	1974	932	1579	932	*NOM	*00	0	0
00	1812	855	1450	855	-	00	4	5
01	1712	808	1370	808	+	01	1	1
01	1587	749	1270	749	NOM	01	4	5
01	1422	671	1138	671	-	01	9	10
10	1312	619	1050	619	+	10	-2	-1
10	1197	565	958	565	NOM	10	1	2
10	1056	498	845	498	-	10	5	7
11	919	434	735	434	+	11	-5	-6
11	797	376	638	376	NOM	11	-3	-3
11	641	303	513	303	-	11	2	2

Airflow performance includes 1" washable filter media.

*Factory Setting

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Note 3: Low Heat ESP is a result of High Heat ESP (- is decrease in rise).

Note 4: High and low heat rise values are approximate air temperature change from return air temperature when at factory default settings.

Table 2	Airflow	
DIP Switch (OFF = 0 / ON = 1)	Continuous Fan @ 0.10 in wc (25 Pa) ESP	
1 & 2	CFM	L/s
*00	1032	487
01	1778	839
10	2178	1028
11	2178	1028

Table 3	SW2 DIP Assignments
DIP Switch	Blower Parameter
1 & 2	Cont Fan Adj
3 & 4	Heat Speed Adj
5 & 6	Cool Speed Adj
7 & 8	Cool On/Off Delay

* Factory Setting

Table 4	Cooling Delay Options (SW2 - 7, 8)			
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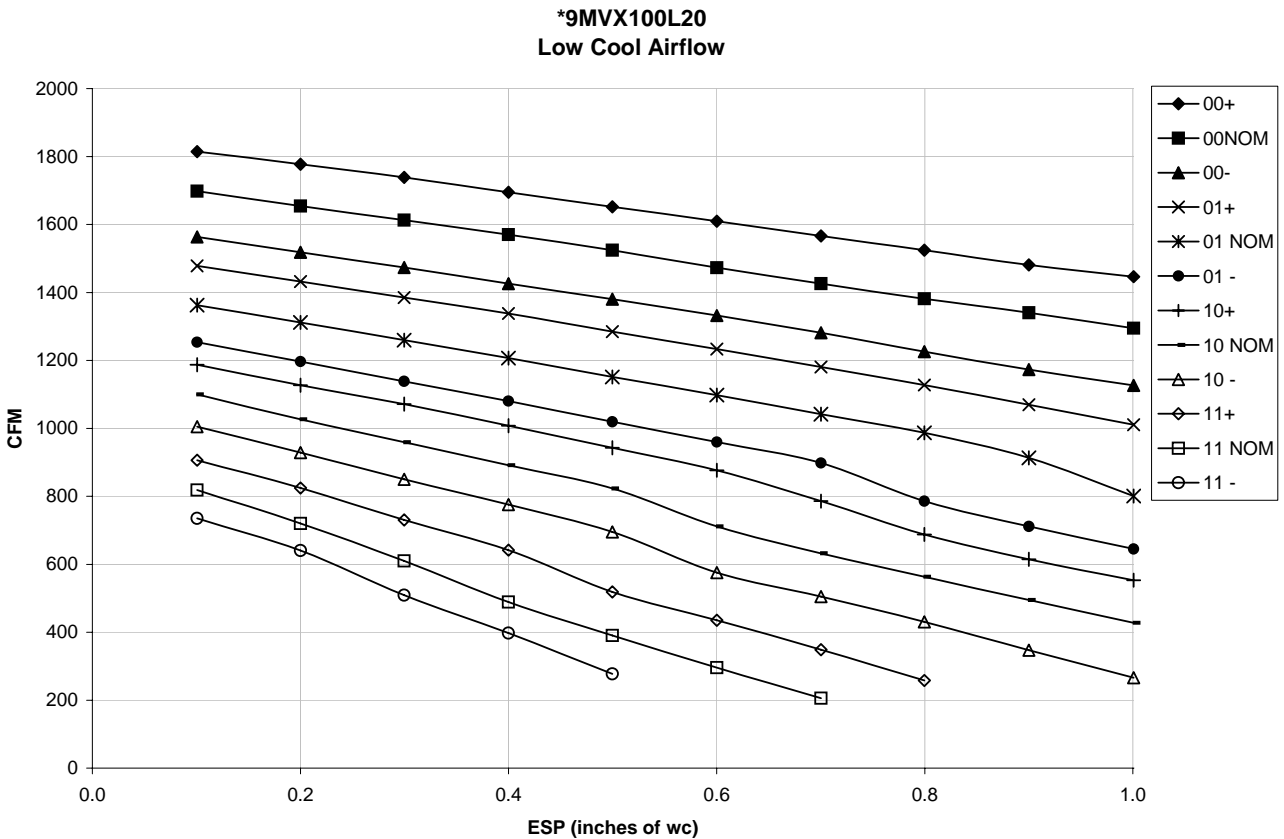
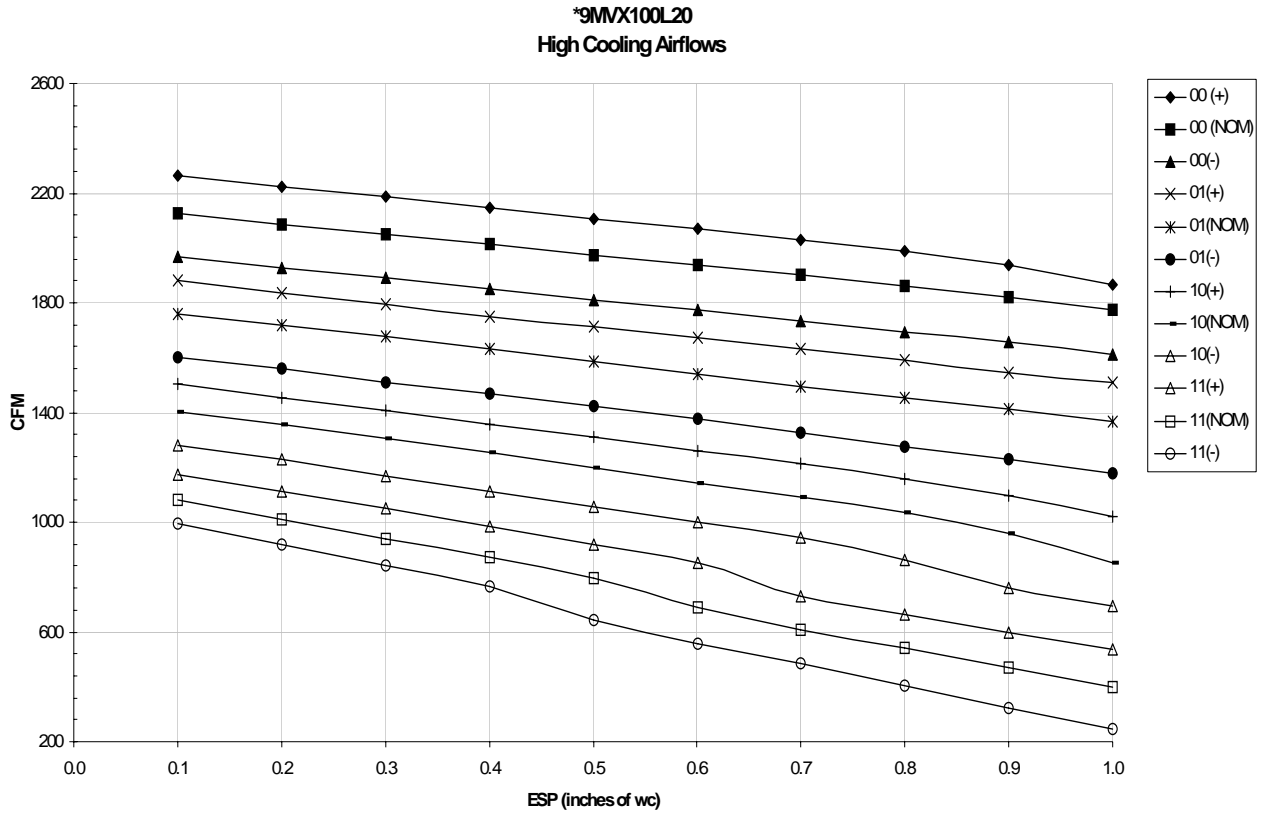
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Circulation Air Blower Data - *9MVX100

Cooling Airflow Settings



NOTE: OFF = 0 and ON = 1

Variable Speed (*9MVX) Tap Select Interface Board (TSIB)

