

90+ Variable Speed Two-Stage Heating Furnace

FLEXIBILITY

- Supports two-stage cooling units
- Dual Certified venting (1 or 2 pipe), Direct Vent Furnace
- 40" 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

- 92.1% AFUE
- Two-stage operation
- BPM Variable speed DC motor
- Two-stage Induced draft blower
- In-shot burners

QUALITY

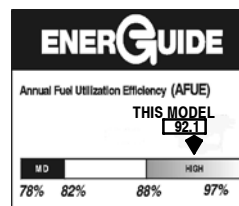
- RPJ III Stainless steel heat exchanger
- Stainless steel secondary heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- Flame roll-out sensors standard
- External filter rack with permanent filters
- Solid doors
- 10 year No Hassle Replacement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



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.



UPFLOW/DOWNFLOW/HORIZONTAL (NATURAL GAS)				
Model Number	Dimensions H x W x D (In.)	Input (MBTUH)	Efficiency AFUE	Cooling Capacity. @ .5 in wc
H9MPV050F12D	40 x 19 ¹ / ₈ x 29	50	92.1	1.5 - 3.0 TON
H9MPV075F12D	40 x 19 ¹ / ₈ x 29	75	92.1	1.5 - 3.5 TON
H9MPV100J20D	40 x 22 ³ / ₄ x 29	100	92.1	3 - 5.0 TON
H9MPV125L20D	40 x 24 ¹ / ₂ x 29	125	92.1	3 - 5.0 TON

FURNACE SPECIFICATIONS

Model Number	*9MPV050F12	*9MPV075F12	*9MPV100J20	*9MPV125L20
INPUT HIGH HEAT (BTUH) LOW HEAT (BTUH)	50,000 35,000	75,000 52,500	100,000 70,000	125,000 87,500
HTG. CAP. HIGH HEAT (BTUH) LOW HEAT (BTUH)	46,000 32,000	70,000 48,000	93,000 65,000	118,000 82,000
AFUE % (ICS)	92.1	92.1	92.1	92.1
TEMP. RISE RANGE High Heat (°F/°C) Low Heat (°F/°C)	35-65/19-36 35-65/19-36	40-70/22-39 40-70/22-39	40-70/22-39 40-70/22-39	40-70/22-39 40-70/22-39
VENT SIZE^	2" OD	2" - 3" OD	3" OD	3" 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	15.4
MIN./MAX. VOLTAGE	104/127	104/127	104/127	104/127
TRANSFORMER (V.A.)	40	40	40	40
GAS PIPE SIZE (IN.)	1/2	1/2	1/2	1/2
COOLING CAP. (TONS)	3.0	3.0	5.0	5.0
HIGH ALTITUDE PRESSURE SWITCH	1013165	1013165	1013165	1013157
FILTER SIZE (IN.)	16X25X1(1)	16X25X1(1)	16X25X1(2)	16X25X1(2)
DIMENSIONS (in.) WIDTH X DEPTH X HEIGHT	19 ¹ / ₈ x 29 x 40	19 ¹ / ₈ x 29 x 40	22 ³ / ₄ x 29 x 40	24 ¹ / ₂ x 29 x 40
WEIGHT (Lbs.)	150	168	187	203

^ Vent size may vary depending on length, number of elbows, standard vent or direct vent. See Installation Instructions.
 * Denotes Brand (C, H, T)

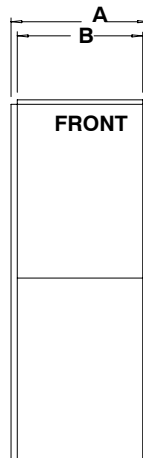
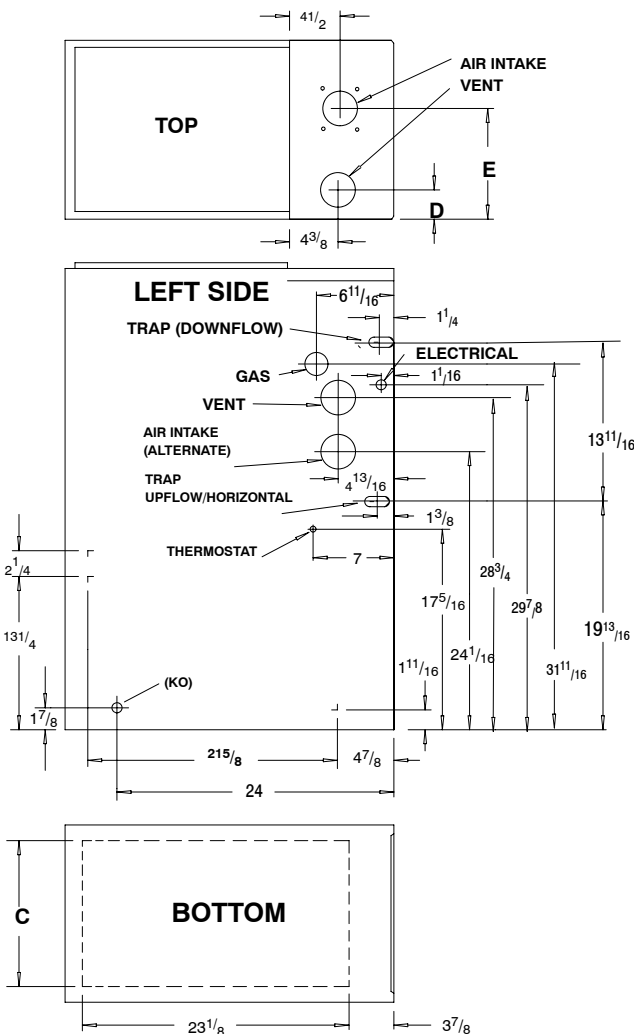
Cabinet to Combustible Clearances

TOP	BOT.	RH	LH	BACK	FRNT	FLUE
1"	0"	0"	0"	0"	3"	0"

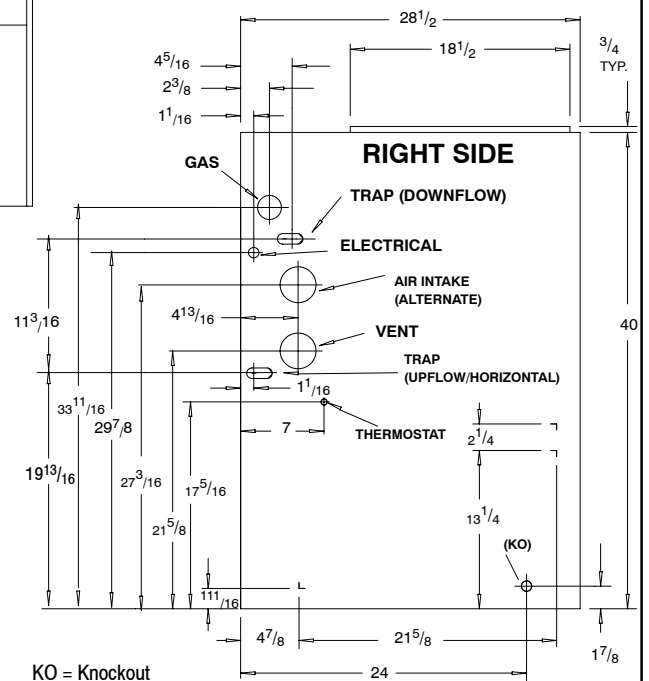
DIMENSIONS

Unit Capacity	Cabinet		Bottom	Top	
	A	B	C	D	E
*9MPV050F12	19 ¹ / ₈	17 ⁵ / ₈	14 ³ / ₄	2 ¹ / ₂	9 ¹ / ₂
*9MPV075F12	19 ¹ / ₈	17 ⁵ / ₈	14 ³ / ₄	2 ¹ / ₂	9 ¹ / ₂
*9MPV100J20	22 ³ / ₄	21 ¹ / ₄	18 ³ / ₄	2 ⁵ / ₈	11 ³ / ₈
*9MPV125L20	24 ¹ / ₂	23	23	2 ¹ / ₄	12 ¹ / ₄

* Denotes Brand



ALL DIMENSIONS IN INCHES
 1 in = 25.4 mm



KO = Knockout

Specifications subject to change without notice.

MODEL NUMBER IDENTIFICATION GUIDE

Brand Identifier * = Brand	9	MP	V	075	F	12	D	#
								Engineering Rev. Denotes minor changes
								Marketing Digit Denotes major change
Model Efficiency 8 = Non-Condensing, 80+% Gas Furnace 9 = Condensing, 90+% Gas Furnace								Cooling Airflow 08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM
Installation Configuration UP = Upflow DN = Downflow UH = Upflow/Horizontal HZ = Horizontal DH = Downflow/Horizontal MP = Multiposition, Up/Down/Horizontal								Cabinet Width B = 15.5" Wide F = 19.1" Wide J = 22.8" Wide L = 24.5" Wide
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								Input (Nominal MBTUH)

* Denotes Brand (C, H, T)

ACCESSORIES

Model Number	Description	Used With Models
NAHA002NG (1172961**)	Gas Conversion Kits (2-Stage) - Propane to natural gas conversion kit. Allows field conversion to natural gas.	*9MPV
NAHA002LP (1172959**)	Gas Conversion Kits (2-Stage) - Natural gas to Propane conversion Kit (includes low pressure switch). Allows field conversion to Propane gas.	*9MPV
NAHA001FF	Filter Kits - External filter frame. 16" x 25"	Side Return (All Furnaces) Bottom Return (All "F" 19 ¹ / ₈ " Furnaces under 1600 CFM)
NAHA001FP	External filter frame. 16" x 25" (Bulk Pack Kit - Qty 10)	
NAHA002FF	Filter Kits - Bottom return filter frame kit 20" x 25"	(All "J" 22 ³ / ₄ " Furnaces)
NAHA002FP	Bottom return filter frame kit 20" x 25" (Bulk Pack Kit - Qty 10)	
NAHA001TK	Duct Standoff Filter Kit - To adapt 20" x 25" 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 *9MPV Furnaces if Required
NAHH002SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 19 ¹ / ₄ " wide furnace models	*9MPV050/075
NAHH003SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 22 ³ / ₄ " wide furnace models	*9MPV100
NAHH010SB	Combustible Floor Subbase - Subbase Furnace ONLY: All 24 ¹ / ₂ " wide furnace models	*9MPV125
NAHH005SB	Subbase - Furnace w/19 ¹ / ₄ " cased coil	*9MPV050/075 Counterflow furnace w/19 ¹ / ₄ " cased coil
NAHH006SB	Subbase - Furnace w/22 ³ / ₄ " cased coil	*9MPV100 Counterflow furnace w/22 ³ / ₄ " cased coil
NAHH009SB	Subbase Furnace w/24 ¹ / ₂ " cased coil	*9MPV125 Counterflow furnace w/24 ¹ / ₂ " cased coil
1013165 **	High Altitude Pressure Switch Kit	*9MPV050, 075 & 100
1013157 **	High Altitude Pressure Switch Kit	*9MPV125
NAHA001CV (1011129 **)	3" Concentric Vent Kit - allows single wall penetration for 2 pipe direct vent applications (90+).	*9MPV100/125
NAHA002CV	2" Concentric Vent Kit - allows single wall penetration for 2 pipe direct vent applications (90+).	*9MPV050/075
NAHA001CA	Coil Adapter for Downflow Furnaces	All Downflow Models
NAHA002WL	To replace Warning Labels, Operating Instructions & Wiring Labels on Blower Door when needed	*9MPV

* Denotes Brand (C, H, T)

** Fast part number

Circulation Air Blower Data - *9MPV050

Cooling CFM Adjustment				Heating Rise Adjustment		
DIP Switch 5 & 6	High Cool @ 0.50 in wc	Low Cool (80% of High Cool)	** Adjust Jumper Setting	DIP Switch 3 & 4	High Heat Rise Change @ 0.20 in wc	Low Heat Rise Change at Resultant Static
00	1246	997	+	00	-4	-3
*00	1211	969	*NOM	*00	0	0
00	1122	898	-	00	5	5
01	1105	884	+	01	3	4
01	1027	822	NOM	01	7	7
01	945	756	-	01	13	14
10	892	714	+	10	-1	0
10	820	656	NOM	10	4	5
10	745	596	-	10	9	9
11	688	550	+	11	-15	-15
11	609	487	NOM	11	-13	-12
11	541	433	-	11	-9	-9

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	Continuous Fan @ 0.10" in wc ESP
DIP Switch 1 & 2	Airflow (CFM)
*00	592
01	1021
10	1346
11	1346

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	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

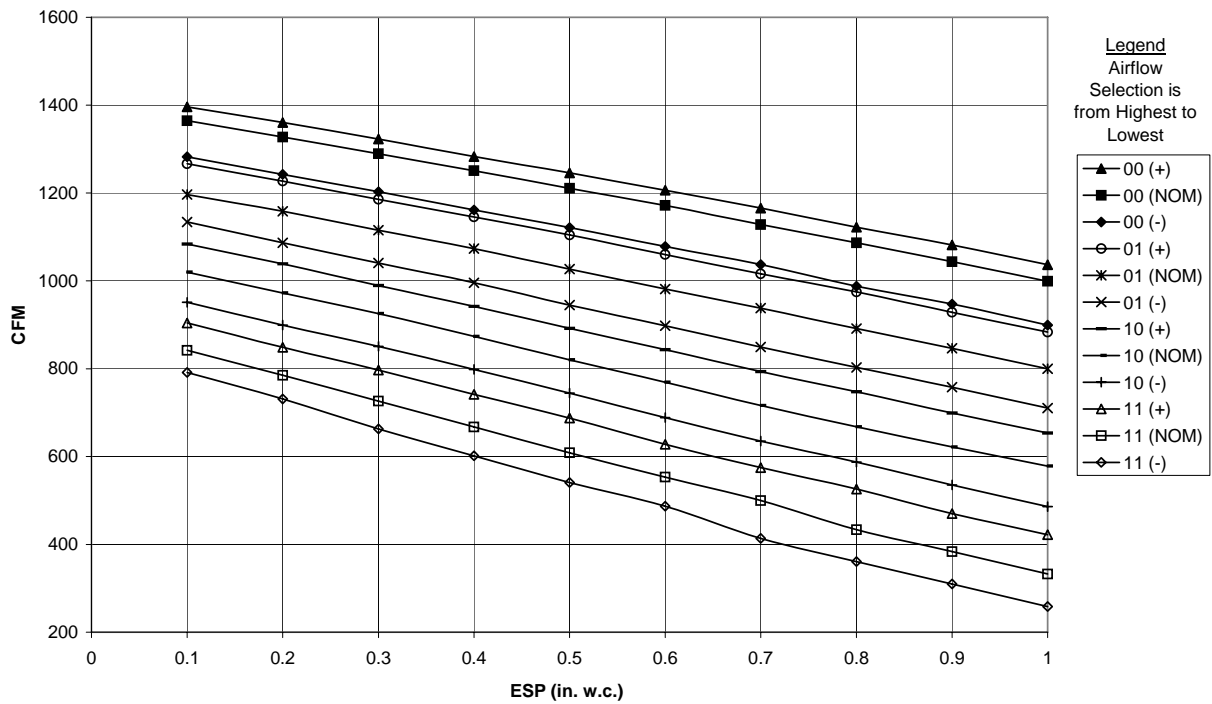
MAX CFM's for Factory Washable Filters	
Dimensions	Airflow (CFM)
14" x 25"	1400
16" x 25"	1600
20" x 25"	2000
24" x 25"	2500
MAX CFM based on 600 FPM	

Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

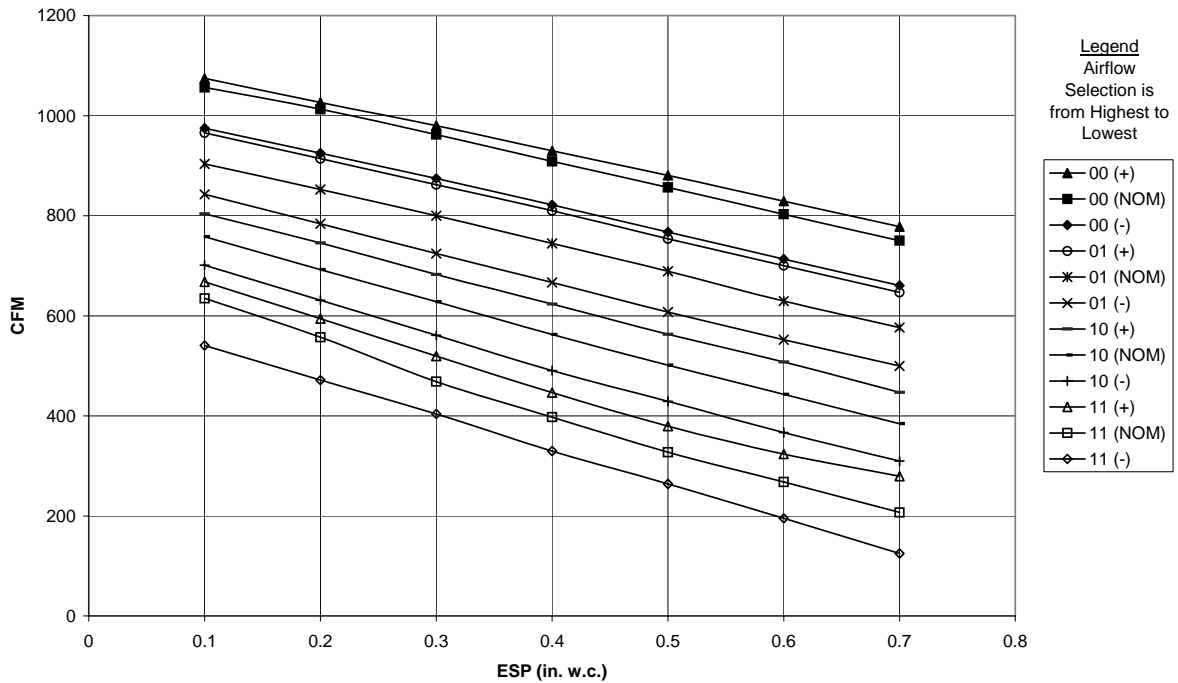
Circulation Air Blower Data - *9MPV050

Cooling Airflow Settings

High Cooling Airflows *9MPV050F12



Low Cooling Airflows *9MPV050F12



Circulation Air Blower Data - *9MPV075

Cooling CFM Adjustment				Heating Rise Adjustment		
DIP Switch 5 & 6	High Cool @ 0.50 in wc	Low Cool (80% of High Cool)	** Adjust Jumper Setting	DIP Switch 3 & 4	High Heat Rise Change @ 0.20 in wc	Low Heat Rise Change at Resultant Static
00	1342	1074	+	00	-4	-4
*00	1210	968	*NOM	*00	0	0
00	1053	842	-	00	5	4
01	1135	908	+	01	1	1
01	1020	816	NOM	01	6	5
01	872	698	-	01	12	10
10	965	772	+	10	-1	-1
10	840	672	NOM	10	3	3
10	680	544	-	10	9	8
11	708	566	+	11	-6	-6
11	590	472	NOM	11	-2	-3
11	488	390	-	11	3	2

Airflow performance includes 1" washable filter media.

*Factory Setting

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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	Continuous Fan @ 0.10" in wc ESP
DIP Switch 1 & 2	Airflow (CFM)
*00	612
01	1096
10	1403
11	1403

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	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

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

* Factory Setting

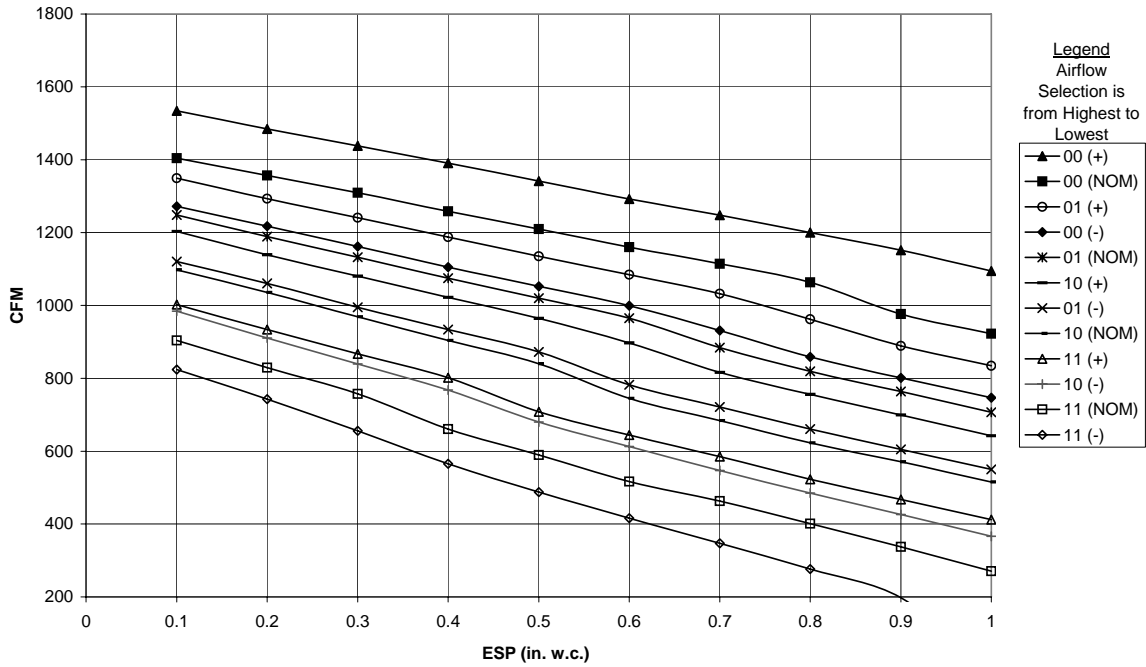
MAX CFM's for Factory Washable Filters	
Dimensions	Airflow (CFM)
14" x 25"	1400
16" x 25"	1600
20" x 25"	2000
24" x 25"	2500
MAX CFM based on 600 FPM	

Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

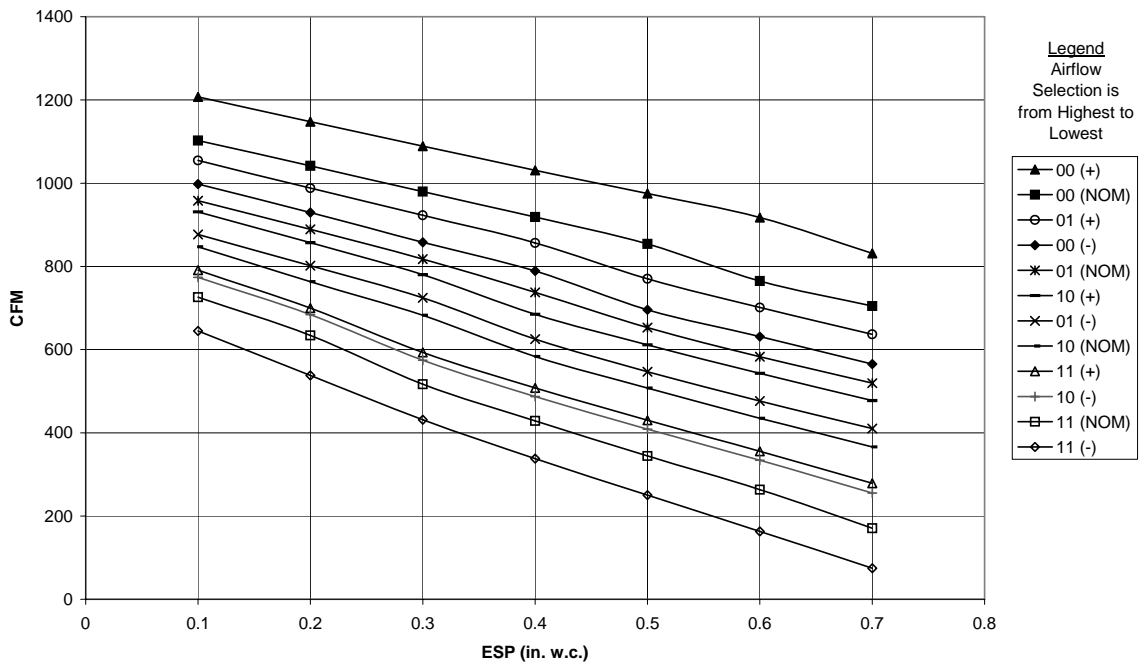
Circulation Air Blower Data - *9MPV075

Cooling Airflow Settings

High Cooling Airflows *9MPV075F12



Low Cooling Airflows *9MPV075F12



Circulation Air Blower Data - *9MPV100

Cooling CFM Adjustment				Heating Rise Adjustment		
DIP Switch 5 & 6	High Cool @ 0.50 in wc	Low Cool (80% of High Cool)	** Adjust Jumper Setting	DIP Switch 3 & 4	High Heat Rise Change @ 0.20 in wc	Low Heat Rise Change at Resultant Static
00	2144	1715	+	00	-4	-4
*00	2013	1610	*NOM	*00	0	0
00	1842	1474	-	00	5	5
01	1772	1418	+	01	2	1
01	1624	1299	NOM	01	8	7
01	1471	1177	-	01	14	14
10	1367	1094	+	10	0	-1
10	1227	982	NOM	10	6	5
10	1077	862	-	10	13	11
11	930	744	+	11	-6	-7
11	808	646	NOM	11	-2	-2
11	634	507	-	11	3	3

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	Continuous Fan @ 0.10" in wc ESP
DIP Switch 1 & 2	Airflow (CFM)
*00	1007
01	1742
10	2204
11	2204

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	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

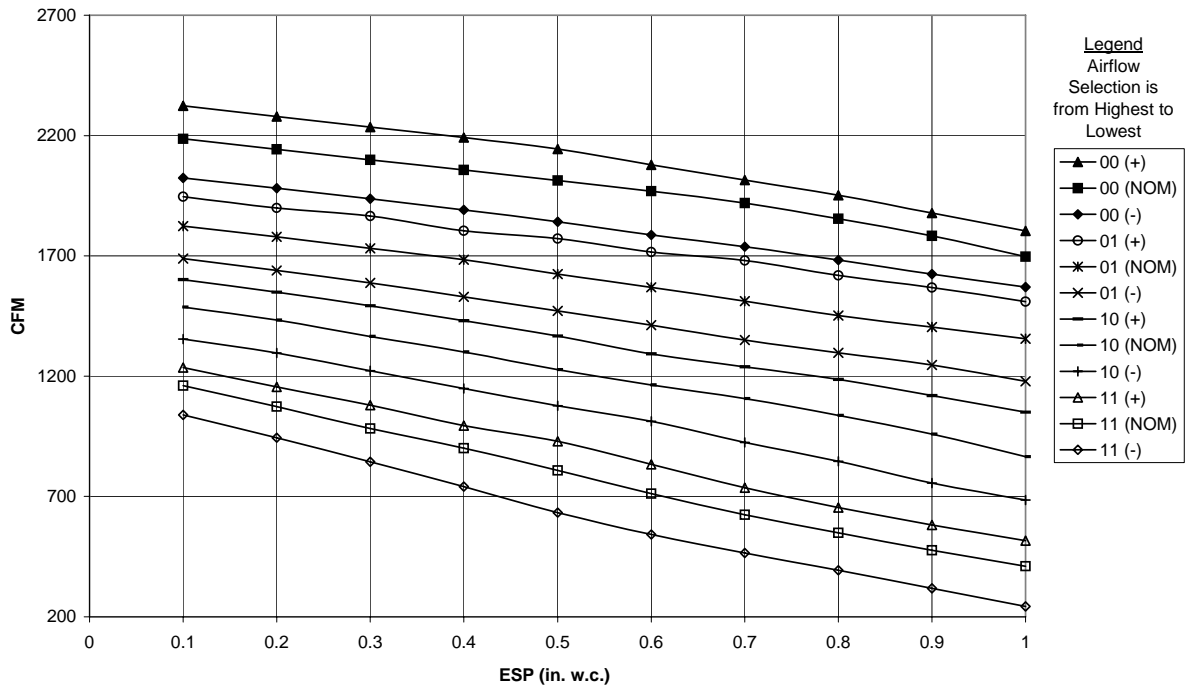
MAX CFM's for Factory Washable Filters	
Dimensions	Airflow (CFM)
14" x 25"	1400
16" x 25"	1600
20" x 25"	2000
24" x 25"	2500
MAX CFM based on 600 FPM	

Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

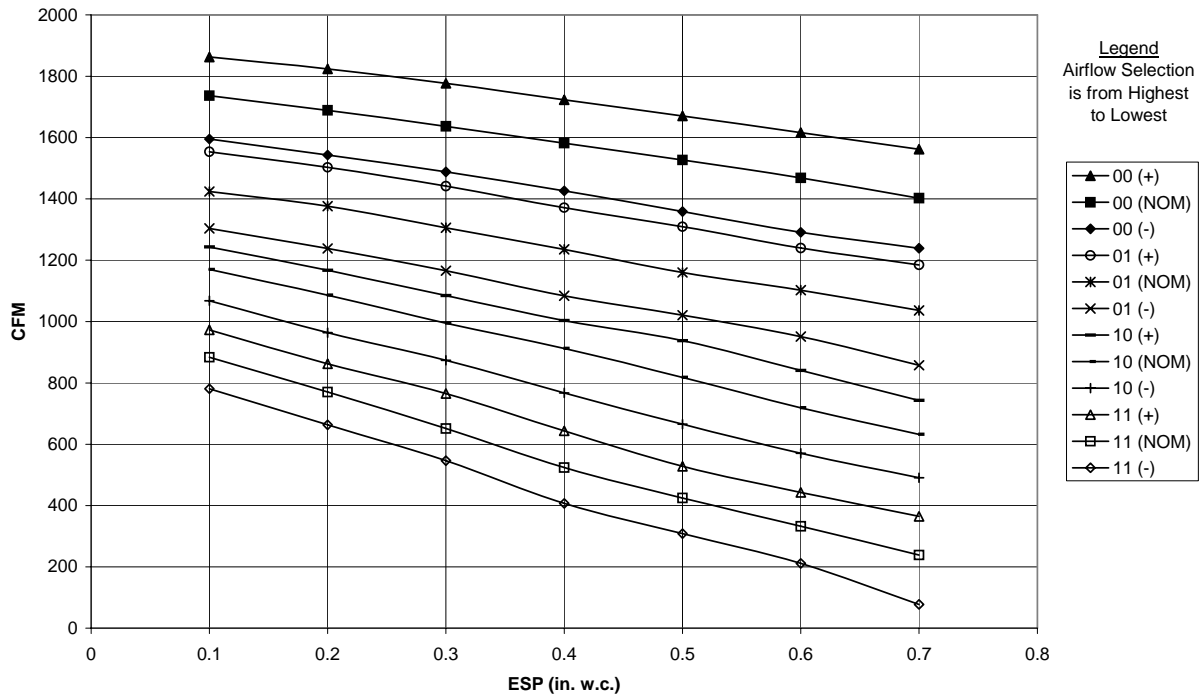
Circulation Air Blower Data - *9MPV100

Cooling Airflow Settings

High Cooling Airflows *9MPV100J20



Low Cooling Airflows *9MPV100J20



Circulation Air Blower Data - *9MPV125

Cooling CFM Adjustment				Heating Rise Adjustment		
DIP Switch 5 & 6	High Cool @ 0.50 in wc	Low Cool (80% of High Cool)	** Adjust Jumper Setting	DIP Switch 3 & 4	High Heat Rise Change @ 0.20 in wc	Low Heat Rise Change at Resultant Static
00	2150	1720	+	00	-4	-4
*00	2025	1620	*NOM	*00	0	0
00	1856	1485	-	00	4	5
01	1755	1404	+	01	1	2
01	1615	1292	NOM	01	6	7
01	1452	1162	-	01	12	13
10	1338	1070	+	10	-1	0
10	1201	961	NOM	10	3	4
10	1069	855	-	10	9	10
11	909	727	+	11	-6	-6
11	800	640	NOM	11	-3	-3
11	627	502	-	11	3	3

Airflow performance includes 1" washable filter media.

*Factory Setting

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

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

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Table 2	Continuous Fan @ 0.10" in wc ESP
DIP Switch 1 & 2	Airflow (CFM)
*00	1032
01	1778
10	2178
11	2178

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	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

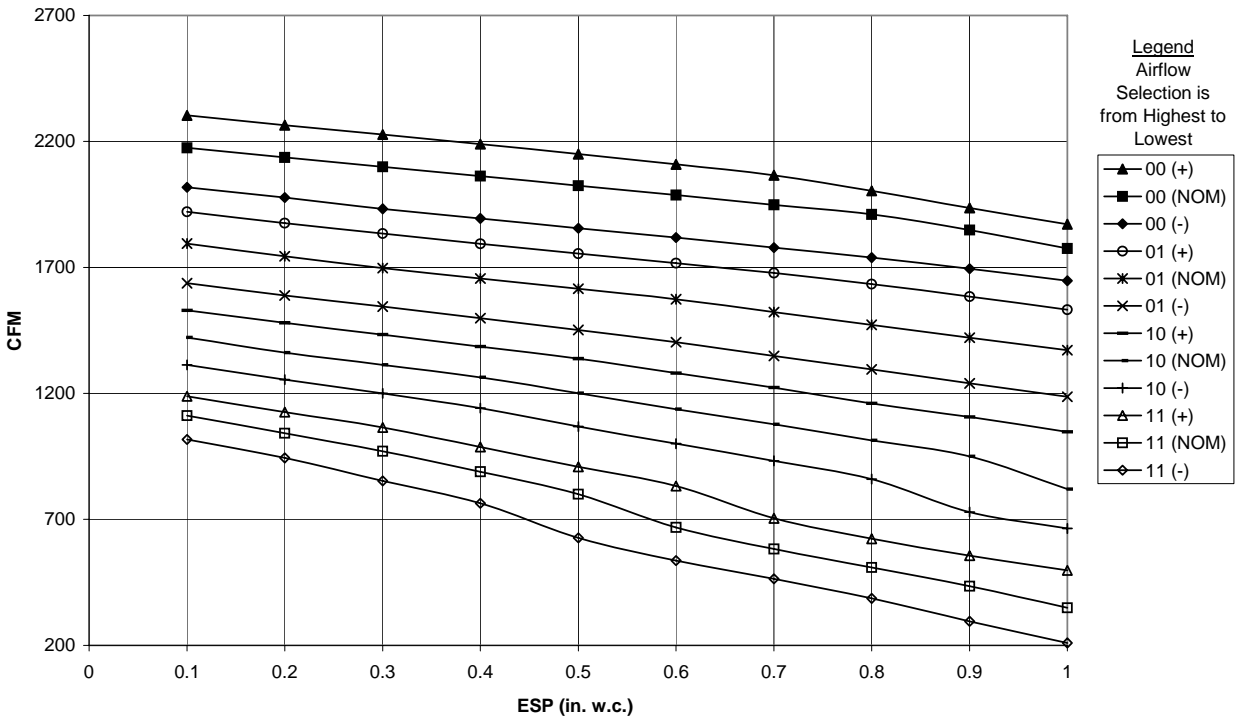
MAX CFM's for Factory Washable Filters	
Dimensions	Airflow (CFM)
14" x 25"	1400
16" x 25"	1600
20" x 25"	2000
24" x 25"	2500
MAX CFM based on 600 FPM	

Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

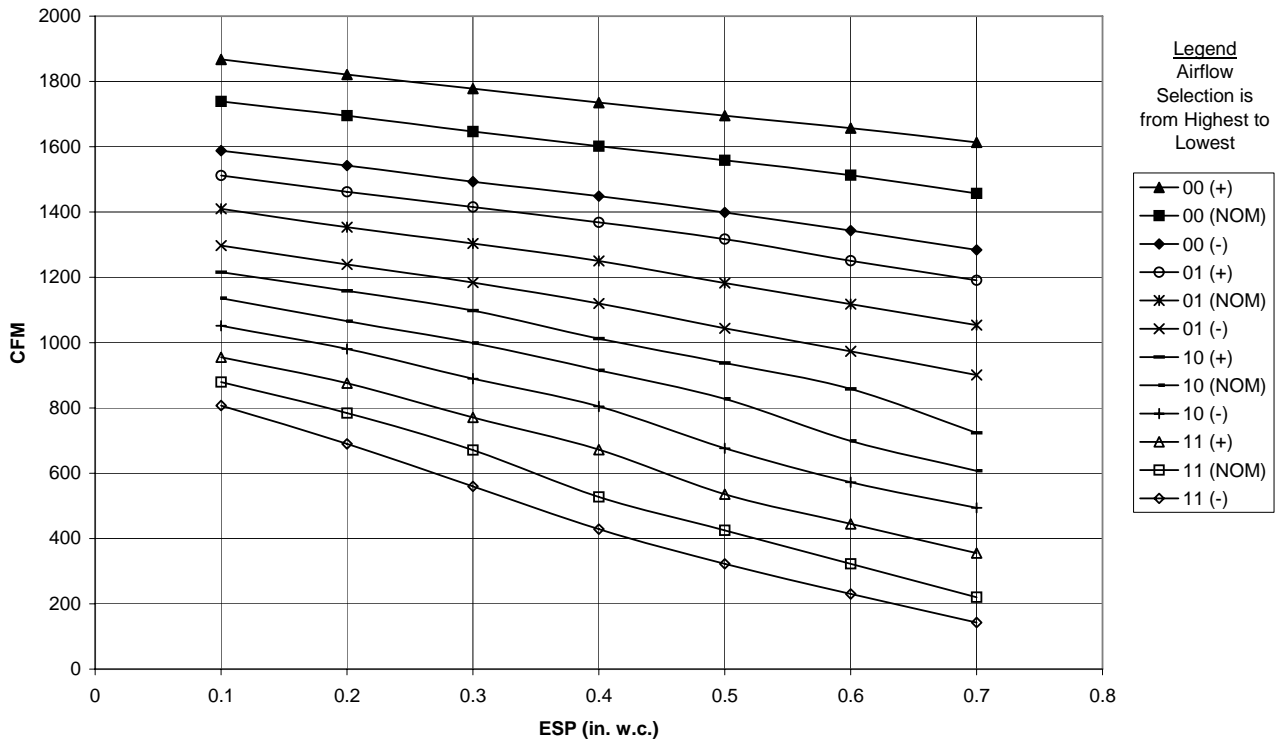
Circulation Air Blower Data - *9MPV125

Cooling Airflow Settings

High Cooling Airflows *9MPV125L20

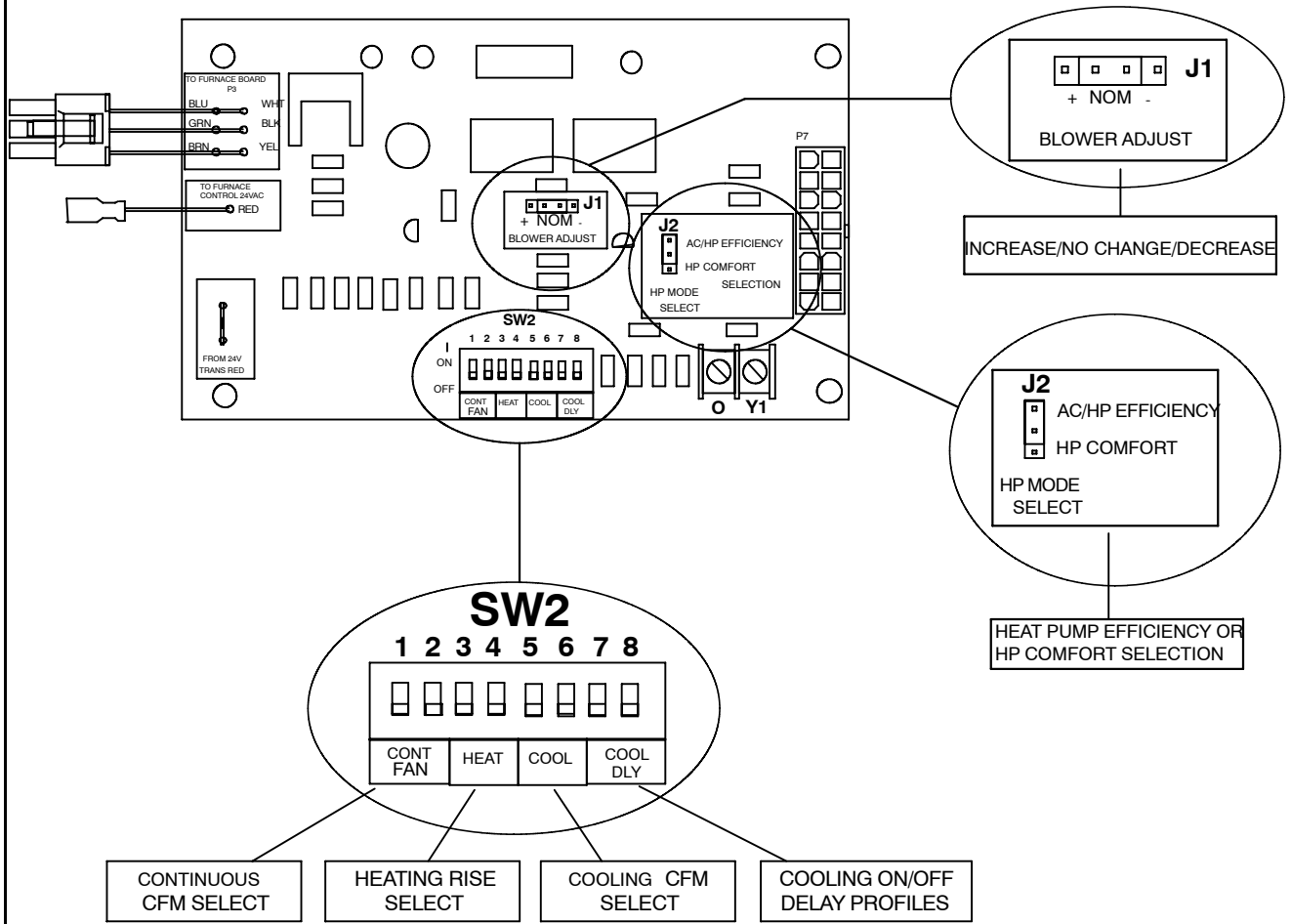


Low Cooling Airflows *9MPV125L20



Specifications subject to change without notice.

Variable Speed (MPV) Tap Select Interface Board (TSIB)



25-25-54

International Comfort Products, LLC
 Lewisburg, TN 37091 U.S.A.
www.GoHeil.com

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