C8MPV
SoftSound™ VS80
Product Specifications

80+ Variable Speed Two-Stage Heating Furnace

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

FLEXIBILITY

- Supports two-stage cooling units
- 40″ high, for ease of installation
- Factory shipped for natural gas, with Propane gas conversion kits available
- Four position - upflow/downflow/horizontal installation
- Three position inducer capability
- Category I venting
- Common venting with other Category I appliances

SERVICE

- Self diagnostics
- Entire blower assembly removable

COMFORT

- Adjustable timed blower heating Off delay
- Adjustable timed blower cooling On/Off delay
- 24 and 115 VAC humidifier terminals
- Electronic air cleaner terminal

EFFICIENCY

- 80% AFUE
- Two-stage operation
- BPM Variable speed DC motor
- Two-stage Induced draft blower
- In-shot burners
- California NOx approved

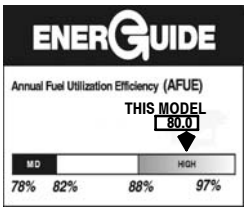
QUALITY

- RPJ3 Aluminized steel heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- Flame roll-out sensors standard
- Louvered doors
- One piece prepainted steel cabinet
- Masonry chimney adapter available (Some models)
- 10 year No Hassle Replacement limited warranty
- 7 year limited parts warranty
- 25 year limited heat exchanger warranty

⚠ 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.

REPLACEMENT No Hassle WARRANTY
SEE WARRANTY CERTIFICATE FOR DETAILS



EFFICIENCY RATING CERTIFIED AHRI

DESIGN CERTIFIED

CERTIFIED

UPFLOW/DOWNFLOW/HORIZONTAL (NATURAL GAS)				
Model Number	**Dimensions H x W x D (In.)**	**Input (MBTUH)**	**Efficiency AFUE**	**Cooling Capacity @ .5 in wc**
C8MPV050B12C	40 x 15 1/2 x 29	50,000	80%	1.5 - 3.0 TON
C8MPV075F14C	40 x 19 1/8 x 29	75,000	80%	1.5 - 3.5 TON
C8MPV100J20C	40 x 22 3/4 x 29	100,000	80%	2.5 - 5.0 TON
C8MPV125J20C	40 x 22 3/4 x 29	125,000	80%	3.0 - 5.0 TON

FURNACE SPECIFICATIONS MULTI-POSITION

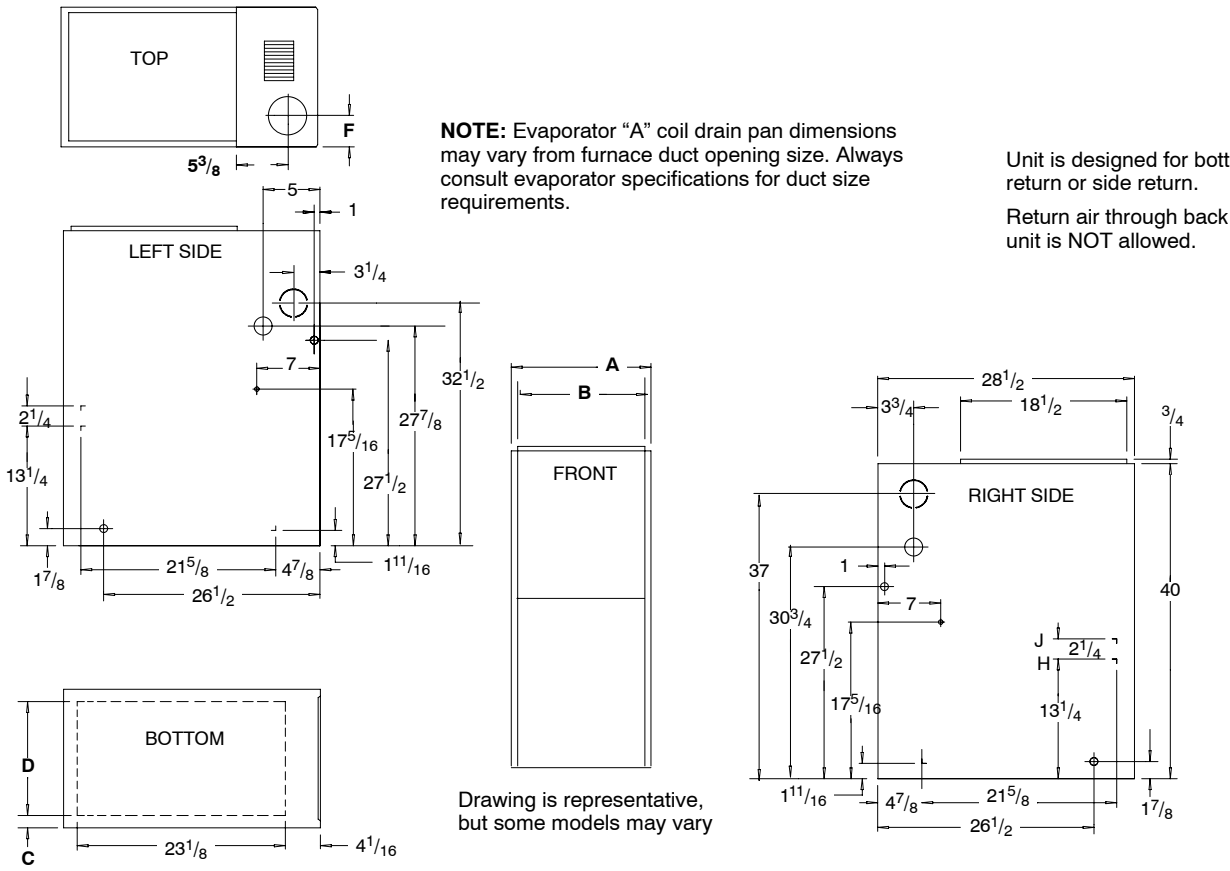
Model Number NATURAL GAS	*8MPV050B12C	*8MPV075F14C	*8MPV100J20C	*8MPV125J20C
INPUT (btuh) HI Heat	50,000	75,000	100,000	125,000
LO Heat	35,000	52,500	70,000	87,500
HTG. CAP. (btuh) HI Heat	40,000	61,000	81,000	101,000
LO Heat	28,000	42,000	61,000	71,000
AFUE % (ICS)	80.0%	80.0%	80.0%	80.0%
NOx (Ng/J)	<40	<40	<40	<40
TEMP. RISE (DEGREES) HI Heat (ºF/ºC)	30-60/17-33	30-60/17-33	35-65/19-36	30-60/17-33
LO Heat (ºF/ºC)	25-55/14-30	25-55/14-30	35-65/19-36	25-55/14-30
VOLTS/PH/HZ	115/60/1	115/60/1	115/60/1	115/60/1
MIN./MAX. VOLTAGE	104/127	104/127	104/127	104/127
RATING PLATE AMPS.	9.8	11.7	14.9	14.9
TRANSFORMER (V.A.)	40	40	40	40
GAS PIPE SIZE (IN.)	1/2	1/2	1/2	1/2
FLUE COLLAR SIZE	4″	4″	4″	4″
COOLING CAP.	3.0 TON	3.5 TON	5.0 TON	5.0 TON
FILTER SIZE (IN.) (required)	14 x 25 x 1	14 x 25 x 1	16 x 25 x 1 (2)	16 x 25 x 1 (2)
SHIPPING WEIGHT (LBS.)	130	154	174	176
DIMENSIONS (in.) HEIGHT	40	40	40	40
WIDTH X DEPTH	$15^1/_2$ x $28^1/_2$	$19^1/_8$ x $28^1/_2$	$22^3/_4$ x $28^1/_2$	$22^3/_4$ x $28^1/_2$

ACCESSORIES

Model Number	Description	Used With Models
GAS CONVERSION KITS		
NAHA002LP (1172959^)	Natural gas to Propane conversion Kit. Allows field conversion to Propane gas.	ALL *8MPV FURNACES
NAHA002NG (1172961^)	Propane to natural gas conversion kit. Allows field conversion to natural gas.	ALL *8MPV FURNACES
VARIABLE SPEED BLOWER UPGRADE KIT		
NAHA050VBE	Blower Upgrade Kit for B Series furnace only - Variable speed blower upgrade convertion to a two stage cooling compatible variable speed motor (consists of blower motor and electronics for two stage furnaces ONLY)	
NAHA075VBE		
NAHA100VBE		
NAHA125VBE		
FILTER KITS		
NAHA001FF NAHA001FP	External filter frame. 16″ x 25″	Side Return (All Furnaces) Bottom Return (All “F” $19^1/_8$″ Furnaces under 1600 CFM)
NAHA002FF NAHA002FP	Bottom return filter frame kit 20″ x 25″.	(All “J” $22^3/_4$″ Furnaces)
NAHA003FF NAHA002FP	Bottom or side return filter frame kit 14″ x 25″.	(All “B” $15^1/_2$″ Furnaces)
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)
COMBUSTIBLE FLOOR SUBBASES		
NAHH001SB	Subbase Furnace ONLY: All $15^1/_2$″ wide furnace models	*8MPV050B
NAHH002SB	Subbase Furnace ONLY: All $19^1/_4$″ wide furnace models	*8MPV075F-100F
NAHH003SB	Subbase Furnace ONLY: All $22^3/_4$″ wide furnace models	
NAHH004SB	Subbase Furnace w/$15^1/_2$″ cased coil	Counterflow furnace *8MPV050B
NAHH005SB	Subbase Furnace w/$19^1/_4$″ cased coil	Counterflow furnace *8MPV075F-100F
NAHH006SB	Subbase Furnace w/$22^3/_4$″ cased coil	Counterflow furnace *8MPV100J-125J
MASONRY CHIMNEY ADAPTER		
NAHA001DH	Chimney adapter (6″)	*8MPV075, 100
NAHA002DH	Chimney adapter (7″)	*8MPV125
VENT GUARD		
NAHA002VC	Downflow vent guard	All Furnaces in the Downflow Application
COIL ADAPTER		
NAHA001CA	Coil Adapter for Downflow Furnaces	All Furnaces in the Downflow Application
WARNING LABEL REPLACEMENT KIT		
NAHA002WL	To replace Warning Labels, Operating Instructions & Wiring Labels on Blower Door when needed	*8MPV

^ Must be ordered from Service Parts
* Denotes Brand (C, H, T)

UNIT DIMENSIONS



NOTE: Evaporator "A" coil drain pan dimensions may vary from furnace duct opening size. Always consult evaporator specifications for duct size requirements.

Drawing is representative, but some models may vary

Unit is designed for bottom return or side return.

Return air through back of unit is NOT allowed.

25-23-44a

Unit Capacity	Cabinet		Top	Bottom		Duct Size
	A	B	F	C	D	
*8MPV050B12	15 1/2	14	6	1 3/8	12 5/8	H
*8MPV075F14	19 1/8	17 1/2	7 3/4	2 1/8	14 3/4	J
*8MPV100J20 *8MPV125J20	22 3/4	21 1/4	9 1/2	1 15/16	18 3/4	J

* Denotes Brand

ALL DIMENSIONS IN INCHES
1 in = 25.4 mm

MODEL NUMBER IDENTIFICATION GUIDE

*	8	M P	V	0 75	B	1 2	C	#

Brand

Brand Efficiency
8 = Non-Condensing, 80+% Gas Furnace
9 = Condensing, 90+% Gas Furnace

Installation Configuration
UP = Upflow DN = Downflow
UH = Upflow/Horizontal HZ = Horizontal
DH = Downflow/Horizontal
MP = Multiposition, Upflow/Downflow/Horizontal

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)

Cabinet Width
B = 15.5″ Wide J = 22.8″ Wide
F = 19.1″ Wide L = 24.5″ Wide

Cooling Airflow
08 = 800 CFM 16 = 1600 CFM
12 = 1200 CFM 20 = 2000 CFM
14 = 1400 CFM

Marketing Digit
Denotes major change

Engineering Rev.
Denotes minor change

* Denotes Brand (C, H, T)

Circulation Air Blower Data - *8MPV050

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	1235	988	+	00	–3	–3
*00	1206	965	*NOM	*00	0	0
00	1114	891	–	00	5	4
01	1092	874	+	01	0	0
01	1021	817	NOM	01	3	4
01	949	759	–	01	8	6
10	884	707	+	10	–2	–1
10	826	661	NOM	10	2	2
10	740	592	–	10	6	5
11	650	520	+	11	–7	–5
11	591	473	NOM	11	–4	–3
11	530	424	–	11	0	0

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	620
01	1060
10	1333
11	1333

* Factory Setting

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

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

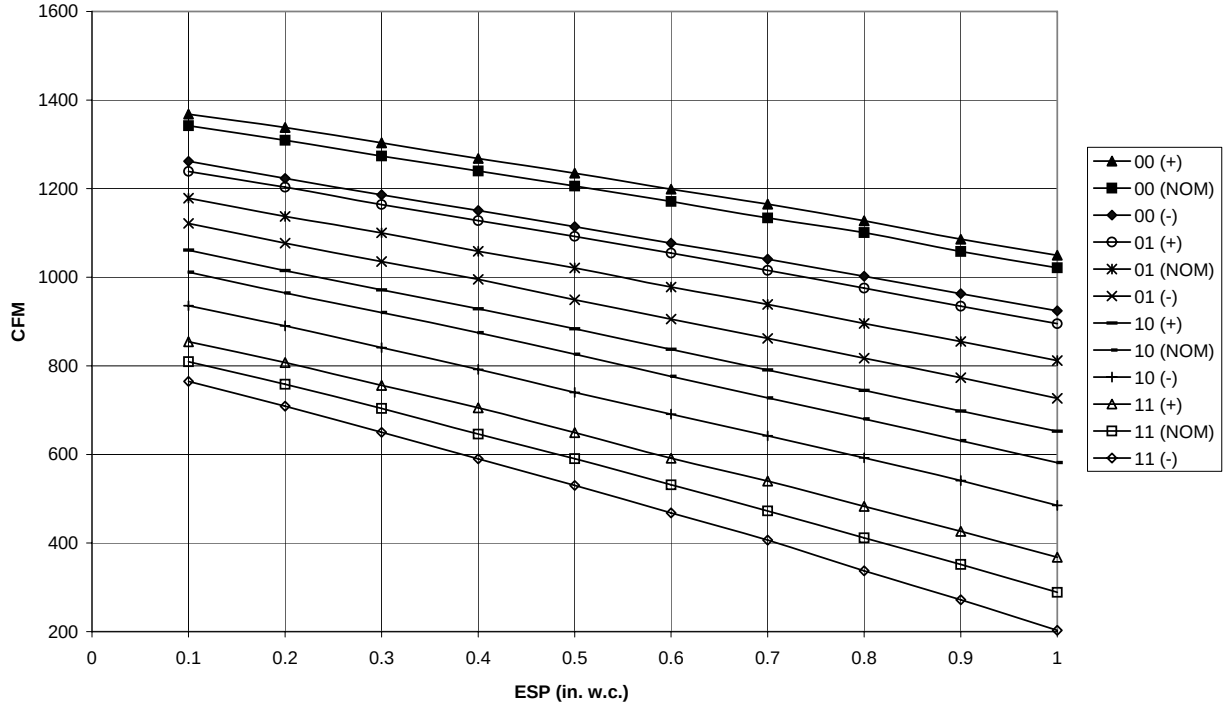
MAX CFM's for Factory Washable Filters	
Dimensions	Airflow (CFM)
14" x 25"	1400
16" x 25"	1600
20" x 25"	2000
24" x 25"	2500
MAX CFM based on 600 FPM	

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)

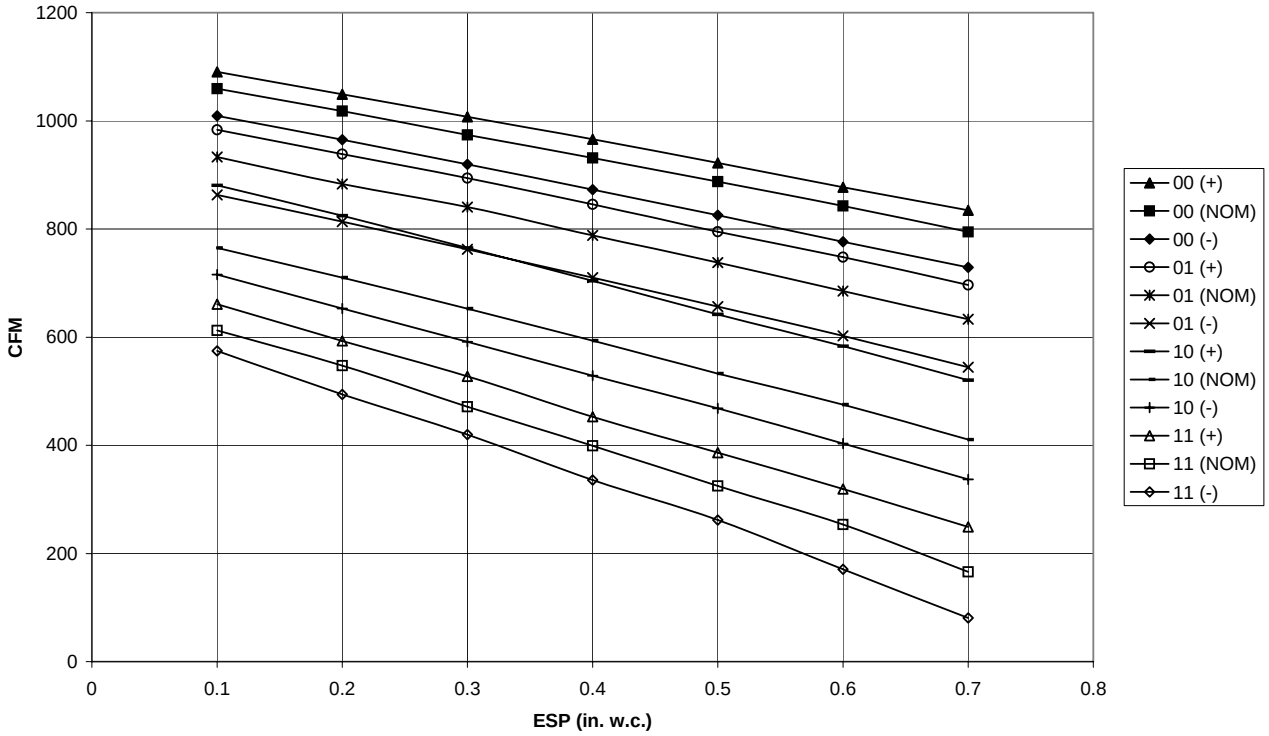
*Circulation Air Blower Data - *8MPV050*

Cooling Airflow Settings

High Cooling Airflows
***8MPV050B12**



Low Cooling Airflows
***8MPV050B12**



*Circulation Air Blower Data - *8MPV075*

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	1550	1240	+	00	–3	–2
*00	1423	1138	*NOM	*00	0	0
00	1240	992	–	00	3	3
01	1524	1219	+	01	0	0
01	1209	967	NOM	01	2	3
01	1038	830	–	01	7	6
10	1131	905	+	10	–3	–3
10	1005	804	NOM	10	0	1
10	851	681	–	10	3	4
11	908	726	+	11	–8	–7
11	777	622	NOM	11	–7	–6
11	651	521	–	11	–4	–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	**Continuous Fan @ 0.10 in wc ESP**
DIP Switch 1 & 2	**Airflow (CFM)**
*00	700
01	1244
10	1597
11	1597

* Factory Setting

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

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%

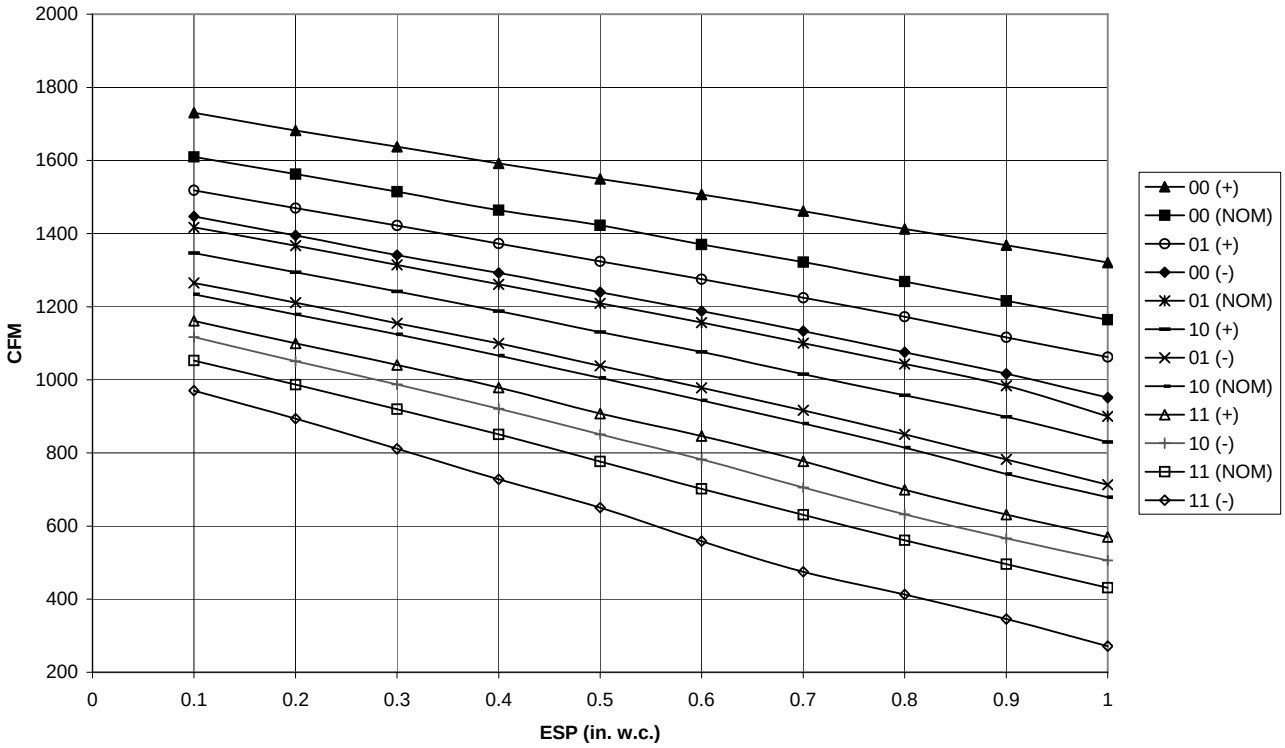
Airflow % is of High Cool airflow demand determined from SW2–5/6 Table 1
Airflow resumes to 100% after on delay time is completed
Airflow stops (or switches to continuous fan speed) after off delay time is completed
* Factory Setting

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	

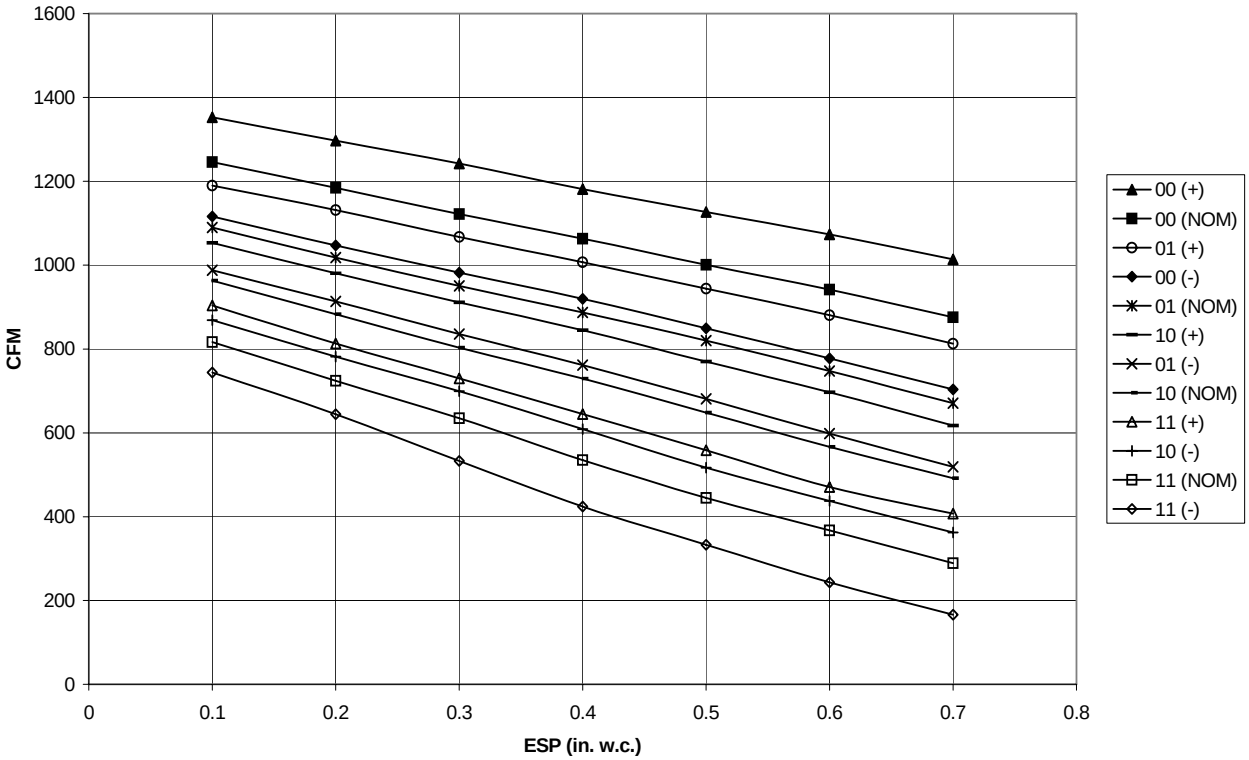
Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

Circulation Air Blower Data - *8MPV075

High Cooling Airflows
***8MPV075F14**



Low Cooling Airflows
***8MPV075F14**



*Circulation Air Blower Data - *8MPV100*

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	2101	1681	+	00	–3	–3
*00	2016	1613	*NOM	*00	0	0
00	1847	1478	–	00	4	4
01	1721	1377	+	01	5	6
01	1600	1280	NOM	01	9	9
01	1470	1176	–	01	15	16
10	1334	1067	+	10	2	2
10	1228	982	NOM	10	7	6
10	1114	891	–	10	11	11
11	920	736	+	11	–9	–9
11	809	647	NOM	11	–7	–6
11	698	558	–	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	1006
01	1764
10	2205
11	2205

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%

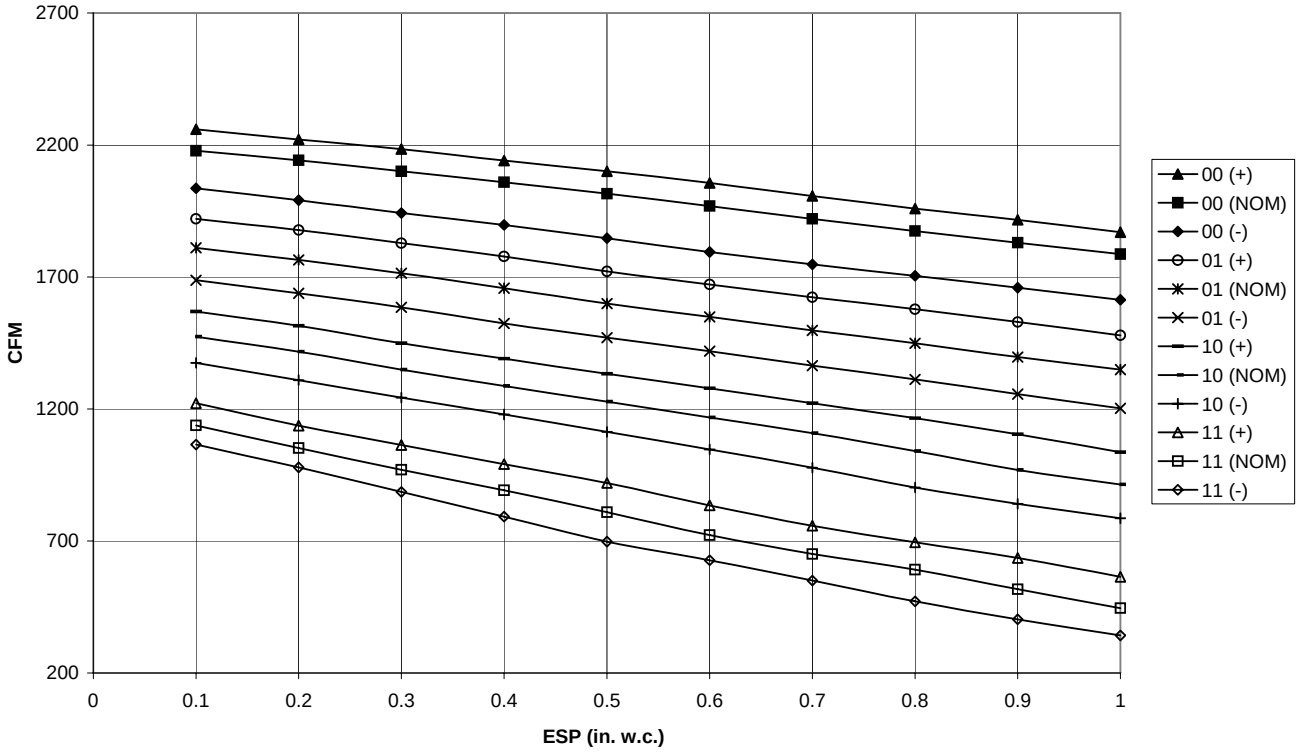
Airflow % is of High Cool airflow demand determined from SW2–5/6 Table 1
Airflow resumes to 100% after on delay time is completed
Airflow stops (or switches to continuous fan speed) after off delay time is completed
* Factory Setting

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	

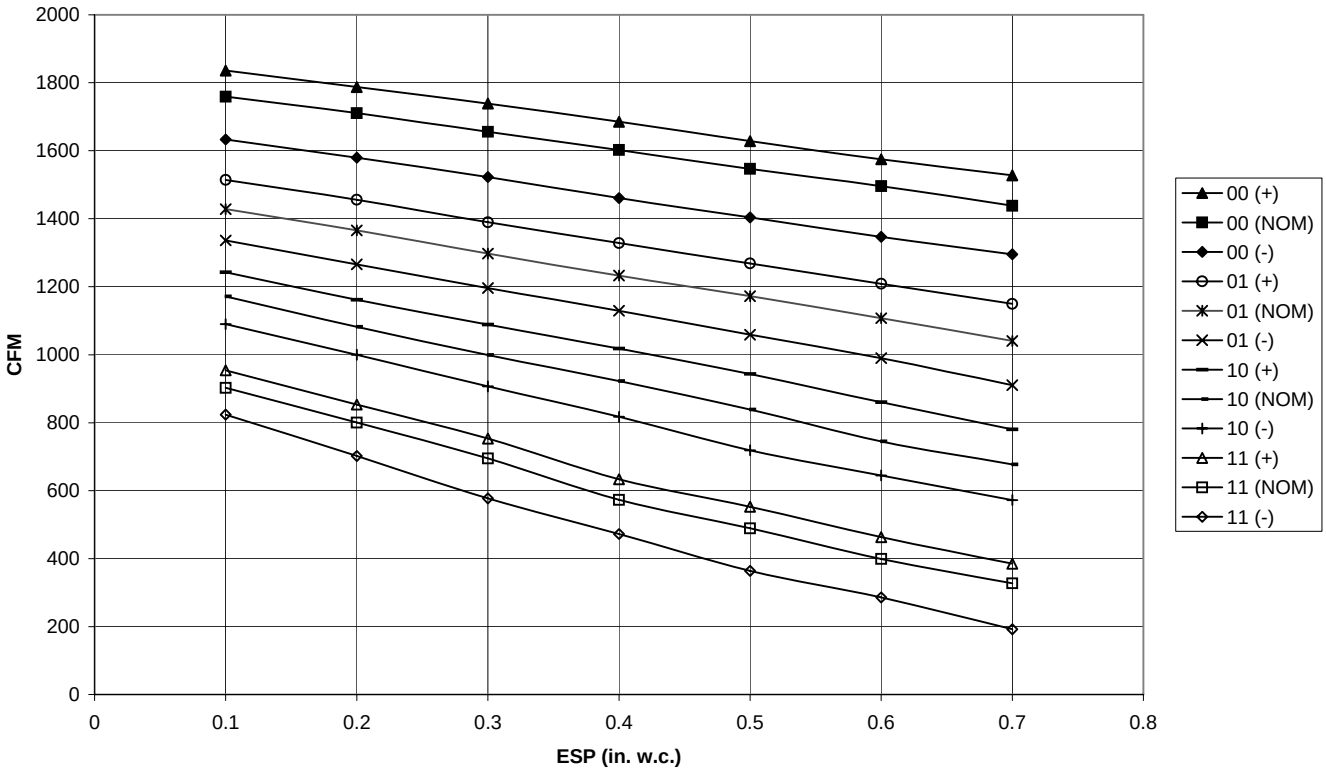
Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

*Circulation Air Blower Data - *8MPV100*

High Cooling Airflows
***8MPV100J20**



Low Cooling Airflows
***8MPV100J20**



*Circulation Air Blower Data - *8MPV125*

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	2153	1722	+	00	–3	–3
*00	2001	1601	*NOM	*00	0	0
00	1808	1446	–	00	4	4
01	1761	1409	+	01	–1	0
01	1621	1297	NOM	01	4	3
01	1458	1166	–	01	8	8
10	1345	1076	+	10	–2	–1
10	1216	973	NOM	10	2	2
10	1074	859	–	10	7	5
11	933	746	+	11	–6	–4
11	802	642	NOM	11	–3	–2
11	692	554	–	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	Continuous Fan @ 0.10" in wc ESP
DIP Switch 1 & 2	**Airflow (CFM)**
*00	1013
01	1674
10	2193
11	2193

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%

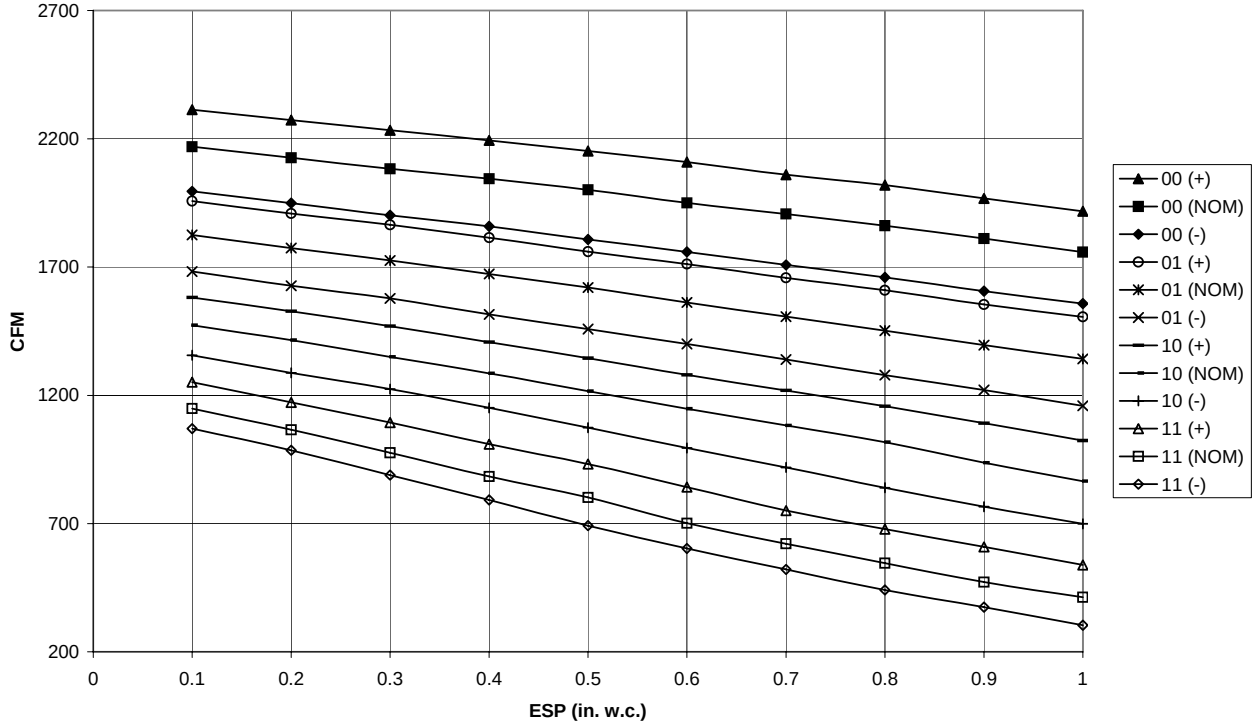
Airflow % is of High Cool airflow demand determined from SW2–5/6 Table 1
Airflow resumes to 100% after on delay time is completed
Airflow stops (or switches to continuous fan speed) after off delay time is completed
* Factory Setting

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	

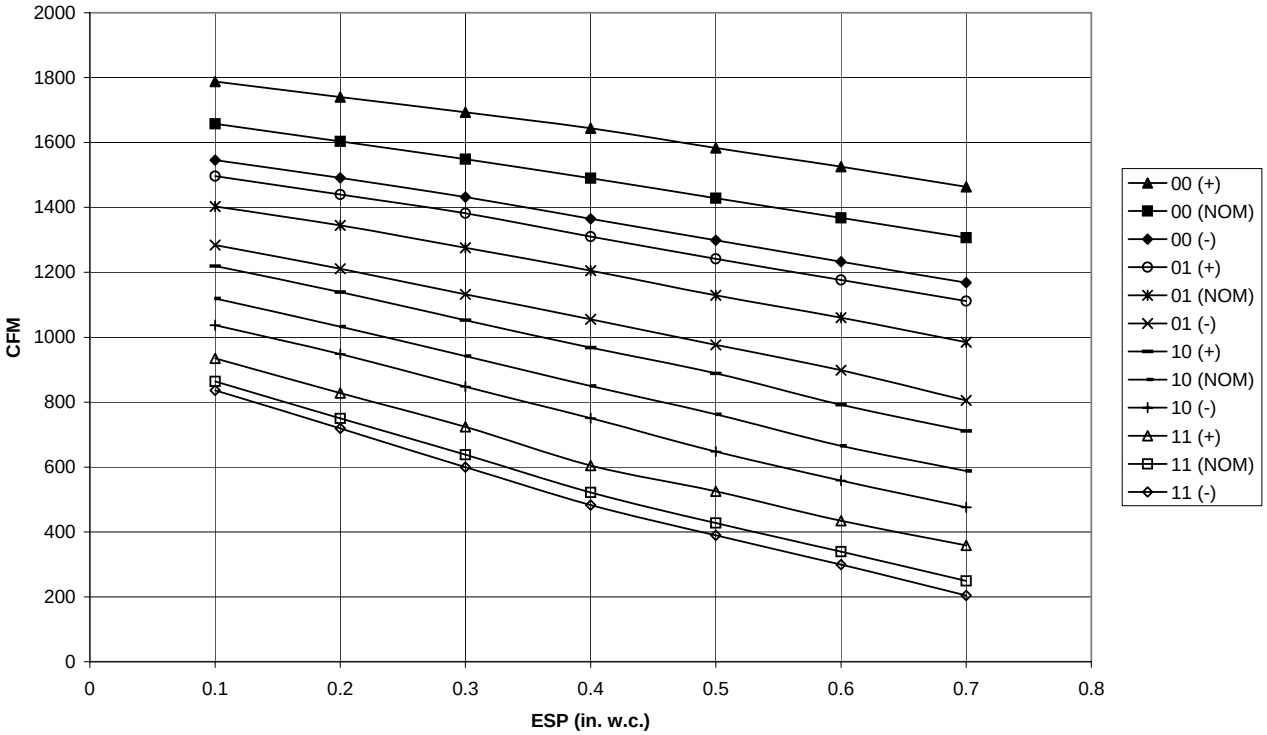
Note 1: Disposable filters are typically rated at 300 FPM. These filters only allow half the airflow when compared to 600 FPM filters. (example, 20 x 25 @ 600 FPM = 2000CFM, @ 300 FPM = 1000 CFM)

Circulation Air Blower Data - *8MPV125

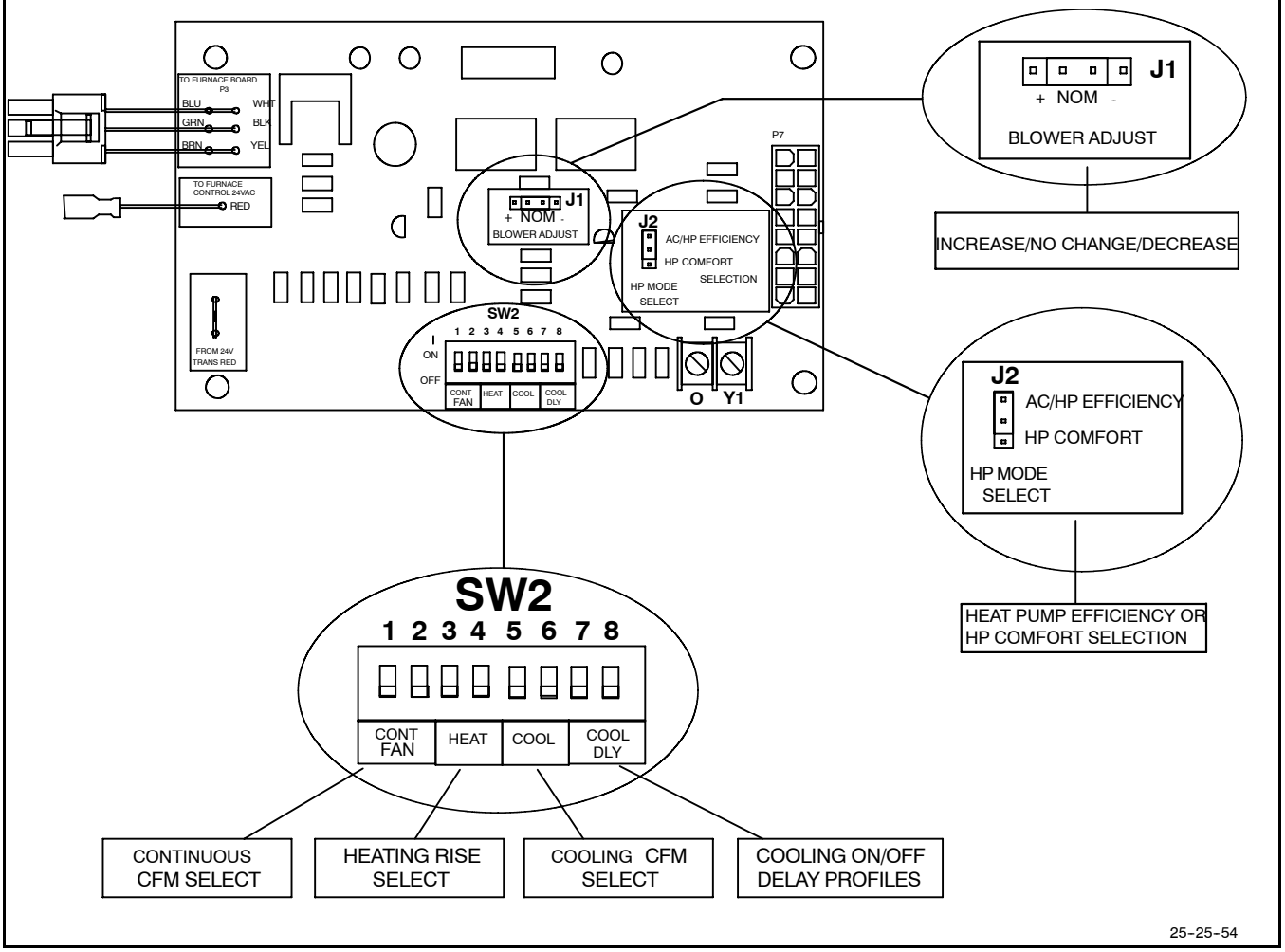
High Cooling Airflows
***8MPV125J20**



Low Cooling Airflows
***8MPV125J20**



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



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