



Air Conditioning & Heating

## PRODUCT SPECIFICATIONS



1½ TO 5 TONS

# ASPF

## MULTI-POSITION AIR HANDLER WITH ENERGY-SAVING MOTOR

The Goodman® brand ASPF Multi-Position Air Handler is suitable for use with refrigerants R-410A and R-22. This unit's blower design includes an EEM (energy-saving), fixed-speed motor that can enhance the efficiency of air conditioners and heat pumps.

### Standard Features

- Suitable for use with refrigerants R-410A and R-22
- Check flowrate expansion device for cooling and heat pump applications
- Energy-saving, fixed-speed motor
- Enhances the performance of your Goodman air conditioner or heat pump
- Multi-position — upflow, downflow or horizontal
- Built-in coil has horizontal, vertical, and downflow drain pans with secondary drain connections
- Complies with the Factory-sealed Air Handling Credit as listed in the 2001 Florida Building Code, Chapter 13, Section 610.2.A.2.1
- AHRI Certified
- ETL Listed



### Cabinet Features

- Fully insulated, painted steel cabinet with attractive Architectural Gray finish
- Built-in filter rack for 1" filter (filter not included)
- Low-voltage cabinet connections
- Power supply on top
- Low-voltage entry on top or side
- Factory-sealed to achieve 2% or less leakage rate at 1.0" water gauge external duct static pressure



\* To receive the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Registration not required in all states. Full warranty details available at [www.goodmanmfg.com](http://www.goodmanmfg.com).



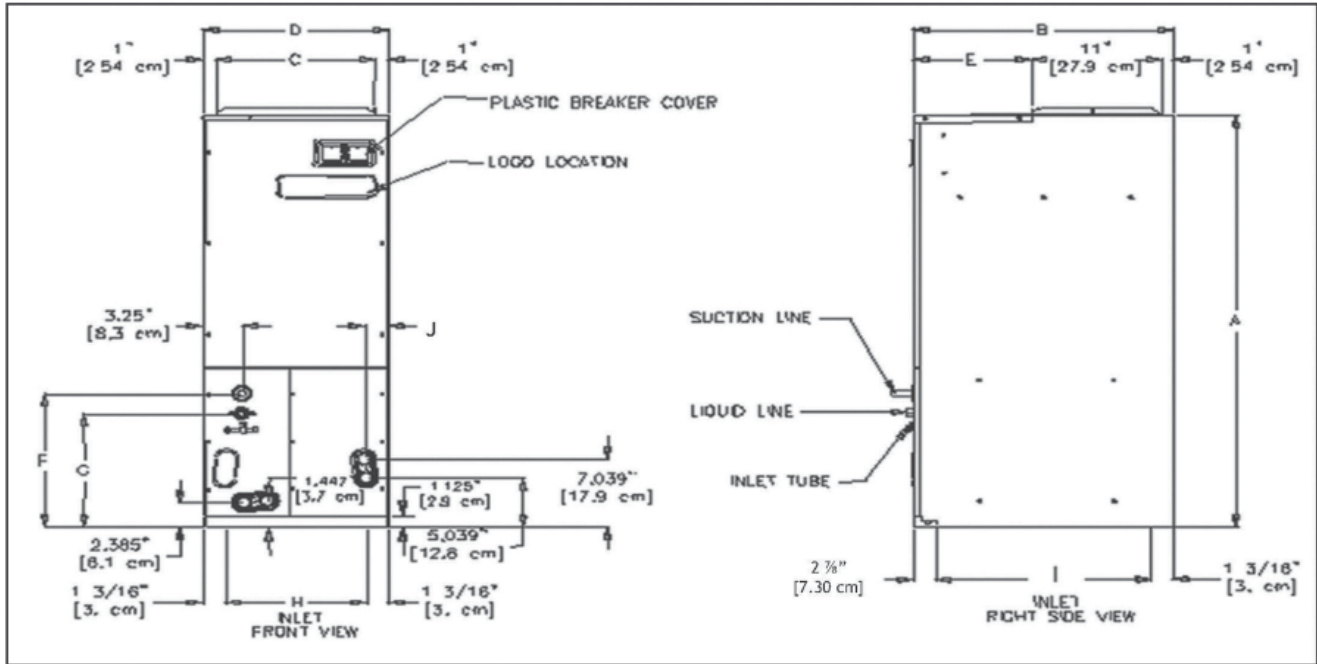
**NOMENCLATURE**

	A	S	P	F	2405	1	6	AA	
	1	2	3	4	5,6,7,8	9	10	11,12	
<b>Brand</b>									<b>Engineering *</b>
A Single-piece Air Handler									Major/ Minor Revisions * Not used for inventory management
<b>Unit Application</b>									<b>Refrigerant Charge</b>
C Ceiling Mount PSC Motor									No Digit = R-22 only 6 = R-410A or R-22
D Downflow PSC Motor									
E Multi-Position Variable-Speed Motor									
R Multi-Position PSC Motor									
S Multi-Position EEM Motor									
W Wall Mount PSC Motor									
<b>Cabinet Finish</b>									<b>Electrical</b>
U Unpainted									1 208/240 V, 1 Phase, 60 Hz
P Painted									
N Uncased									
<b>Expansion Device</b>									<b>Nominal Capacity Range @ 13 SEER</b>
F Flowrater									
T Expansion Valve									
									<b>Multi-Position &amp; Downflow Applications</b>
									1729 1½ to 2½ Tons (for Export Systems)
									1830 1½-3½ Tons
									3642 3-3½ Tons
									<b>Ceiling Mount &amp; Wall Mount Applications</b>
									(Nominal Cooling Capacity/ Electric Heat kW)
									1805 1½ Tons Cooling/ 5 kW Electric Heat
									2405 2 Tons Cooling/ 5 kW Electric Heat
									3608 3 Tons Cooling/ 8 kW Electric Heat

**SPECIFICATIONS**

	<b>ASPF 183016</b>	<b>ASPF 303616</b>	<b>ASPF 313716</b>	<b>ASPF 426016</b>
<b>Nominal Ratings</b>				
Cooling (BTU/h)	18,000 - 30,000	30,000 - 36,000	30,000 - 36,000	42,000 - 60,000
CFM (High/ Low)	1,085 / 650	1,350 / 600	1,350 / 600	2,000 / 1,040
<b>Blower</b>				
Diameter	9½"	10⅝"	10⅝"	1015/16"
Width	8"	10⅝"	10⅝"	1011/16"
Coil Drain Connection FPT	¾"	¾"	¾"	¾"
<b>Service Valve</b>				
Liquid	⅜"	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"	⅞"
<b>Electrical Data</b>				
Voltage	208 / 230	208 / 230	208 / 230	208 / 230
Electric Heat Capacity (kW)	5, 8, 10	3, 5, 6, 8, 10, 15, 20, 21	3, 5, 6, 8, 10, 15, 20, 21	10, 15, 20, 21
Min Circuit Ampacity	3.1 / 3.1	3.8 / 3.8	3.8 / 3.8	5.3 / 7.8
Max. Overcurrent Device	15 / 15 amps	15 / 15 amps	15 / 15 amps	15 / 15 amps
Min. / Max VAC	197 / 253	197 / 253	197 / 253	197 / 253
Blower Motor FLA/ HP	2.5 / ½	3.0 / ¾	3.0 / ¾	4.2 / ¾
<b>Ship Weight (lbs)</b>	125	176	176	195

DIMENSIONS



Model	A	B	C	D	E	F	G	H	I	J
ASPF183016	46 <sup>3</sup> / <sub>4</sub> "	22"	17 <sup>1</sup> / <sub>2</sub> "	19 <sup>1</sup> / <sub>2</sub> "	10"	14 <sup>1</sup> / <sub>2</sub> "	11 <sup>15</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> "	17 <sup>15</sup> / <sub>16</sub> "	2"
ASPF303616	53 <sup>1</sup> / <sub>4</sub> "	24"	20"	22"	12"	19 <sup>5</sup> / <sub>8</sub> "	11 <sup>15</sup> / <sub>16</sub> "	19 <sup>5</sup> / <sub>8</sub> "	19 <sup>15</sup> / <sub>16</sub> "	1 <sup>13</sup> / <sub>16</sub> "
ASPF313716	53 <sup>1</sup> / <sub>4</sub> "	24"	20"	22"	12"	19 <sup>5</sup> / <sub>8</sub> "	11 <sup>15</sup> / <sub>16</sub> "	19 <sup>5</sup> / <sub>8</sub> "	19 <sup>15</sup> / <sub>16</sub> "	1 <sup>13</sup> / <sub>16</sub> "
ASPF426016	53 <sup>1</sup> / <sub>4</sub> "	24"	20"	22"	12"	19 <sup>5</sup> / <sub>8</sub> "	11 <sup>15</sup> / <sub>16</sub> "	19 <sup>5</sup> / <sub>8</sub> "	19 <sup>15</sup> / <sub>16</sub> "	1 <sup>13</sup> / <sub>16</sub> "

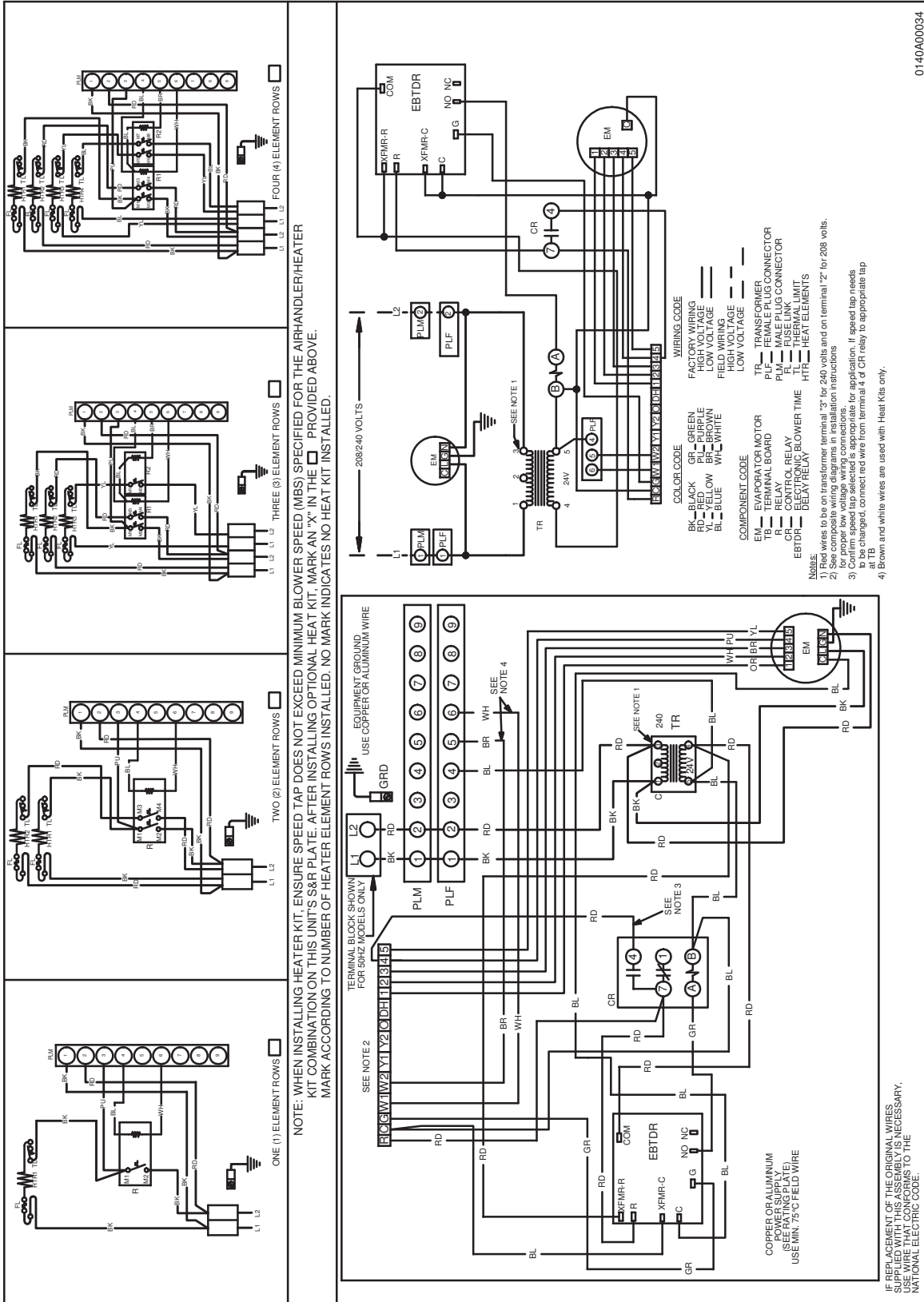
## BLOWER PERFORMANCE

Model	Motor Speed Tap	CFM deliverd against External Static Pressure				
		0.1"	0.2"	0.3"	0.4"	0.5"
ASPF183016	Low (T1)	700	670	650	595	510
	Med-Low (T2)	820	785	765	745	705
	Medium (T3)	920	900	850	840	815
	Med-High (T4)	1,075	1,055	1,015	975	960
	High (T5)	1,130	1,115	1,085	1,040	1,000
ASPF303616	Low (T1)	1,060	865	600	515	420
	Med-Low (T2)	1,105	910	795	745	690
	Medium (T3)	1,165	1,070	1,020	960	915
	Med-High (T4)	1,285	1,240	1,195	1,140	1,100
	High (T5)	1,435	1,395	1,350	1,315	1,265
ASPF313716	Low (T1)	1,060	865	600	515	420
	Med-Low (T2)	1,105	910	795	745	690
	Medium (T3)	1,165	1,070	1,020	960	915
	Med-High (T4)	1,285	1,240	1,195	1,140	1,100
	High (T5)	1,435	1,395	1,350	1,315	1,265
ASPF426016	Low (T1)	1,445	1,275	1,040	940	855
	Med-Low (T2)	1,545	1,405	1,325	1,260	1,145
	Medium (T3)	1,660	1,610	1,555	1,490	1,415
	Med-High (T4)	1,905	1,870	1,810	1,750	1,695
	High (T5)	2,115	2,070	2,000	1,965	1,915

**Notes:**

Assumes dry coil with filter in place; SCFM correction for wet coil = 4%  
 All ASPF models are shipped from the factory with the speed tap set on T4.

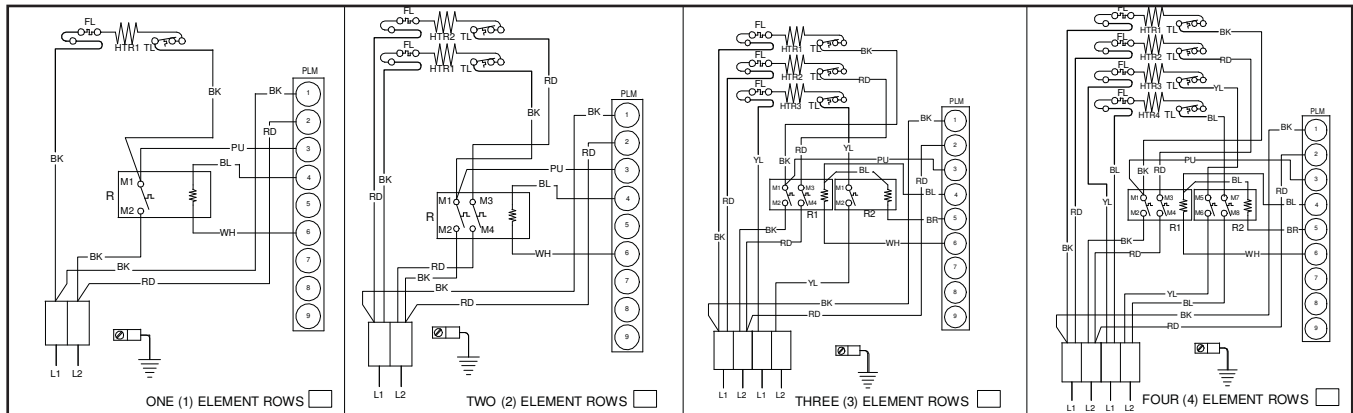
# ASPF\*\*\*AA WIRING DIAGRAMS



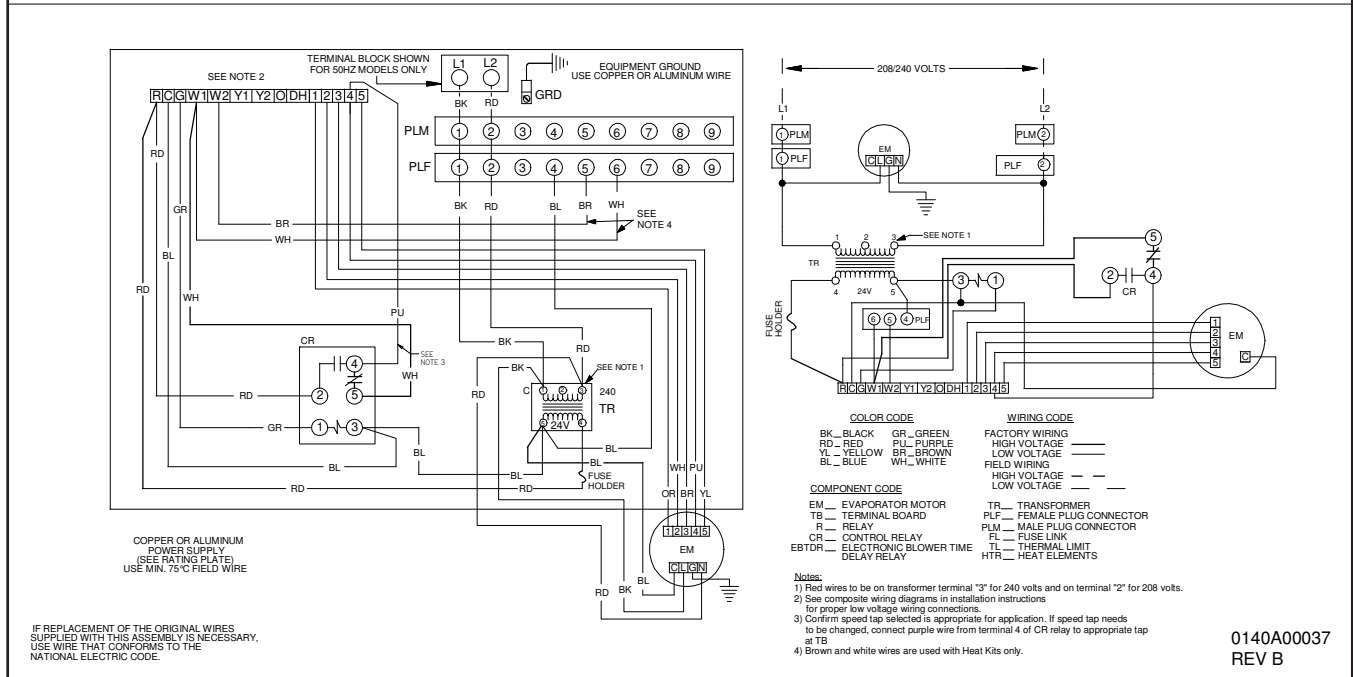
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Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring schematic.

# ASPF\*\*\*BA WIRING DIAGRAMS



NOTE: WHEN INSTALLING HEATER KIT, ENSURE SPEED TAP DOES NOT EXCEED MINIMUM BLOWER SPEED (MBS) SPECIFIED FOR THE AIRHANDLER/HEATER KIT COMBINATION ON THIS UNIT'S S&R PLATE. AFTER INSTALLING OPTIONAL HEAT KIT, MARK AN "X" IN THE  PROVIDED ABOVE. MARK ACCORDING TO NUMBER OF HEATER ELEMENT ROWS INSTALLED. NO MARK INDICATES NO HEAT KIT INSTALLED.



0140A00037  
REV B

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring schematic.

<p><b>WARNING</b></p>	<p><b>High Voltage:</b>                  Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.</p>	
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**ACCESSORIES**

**HEAT KIT SELECTION**

	ASPF 183016	ASPF 303616	ASPF 426016
HKR-03*	X	X	X
HKR-05*, HKR-05C*	X	X	X
HKR-06*	X	X	X
HKR-08*, HKR-08C*	X <sup>1</sup>	X <sup>1</sup>	X
HKR-10*, HKR-10C*	X <sup>1</sup>	X <sup>1</sup>	X
HKR-15C*	X <sup>2</sup>	X <sup>2</sup>	X <sup>1</sup>
HKR-20C*		X <sup>2</sup>	X <sup>1</sup>
HKR-21C*		X <sup>2</sup>	X <sup>1</sup>
^ HKR3-15*	X <sup>2</sup>	X <sup>2</sup>	X <sup>1</sup>
^ HKR3-20*		X <sup>2</sup>	X <sup>1</sup>

- \* Revision level that may or may not be designated
- C Circuit breaker option
- ^ Heat kit requires three-phase power supply
- <sup>1</sup> Air handler must be on speed tap 2, 3, 4, or 5.
- <sup>2</sup> Air handler must be on speed tap 4 or 5.

**SINGLE POINT KIT \*\***

Model	HKR-15C	HKR-20C	HKR-21C
SPW-01	X	X	X

\*\* Must be installed along with any of the above compatible heat kits. This kit will fit any ASPF air handler as long as a compatible heat kit is installed in the unit.

**FILTERS**

ASPF	Filter #	Qty Re-quired
1830	FIL-36-42	1
3036	FIL 48-61	1
4260	FIL 48-61	1

**EXPANSION VALVE KITS FOR AIR CONDITIONING AND HEAT PUMP APPLICATIONS**

Kit Number	Description	Application	Refrigerant	Tonnage: Outdoor Unit
XVB18-36C	20% Bleed Valve	AC Only	R-22	1½ - 3 Ton
XVB42-60C	20% Bleed Valve	AC Only	R-22	3½ - 5 Ton
XV18-36C	Non-bleed Valve	AC Only	R-22	1½ - 3 Ton
XV42-60C	Non-bleed Valve	AC Only	R-22	3½ - 5 Ton
TX2N2	Non-bleed Valve	AC or HP	R-22	1½ - 2 Ton
TX3N2	Non-bleed Valve	AC or HP	R-22	2½ - 3 Ton
TX5N2	Non-bleed Valve	AC or HP	R-22	3½ - 5 Ton
TX2N4	Non-bleed Valve	AC or HP	R-410A	1½ - 2 Ton
TX3N4	Non-bleed Valve	AC or HP	R-410A	2½ - 3 Ton
TX5N4	Non-bleed Valve	AC or HP	R-410A	3½ - 5 Ton

**DRAIN PAN INSULATION KITS**

**DOWNFLOW APPLICATIONS**

Chassis Size	Insulation Kit
Small (15½")	DPI18-30/20
Medium (19½")	DPI36-42/20
Large (22")	DPI48-60/20

Note: Each kit contains enough material to modify 20 coils

**HORIZONTAL APPLICATIONS**

Chassis Size	Insulation Kit
Small (15½")	DPIH18-32
Medium (19½")	DPIH36-42
Large (22")	DPIH48-61

Note: Each kit contains enough material to modify 20 coils

