

# **Parts List Tech Labels Wiring Diagrams**

## **Models**

### **Single Phase**

<b>PHAD24N1K6</b>	<b>PYMC24G6</b>
<b>PHAD30N1K5</b>	<b>PYMC30G5</b>
<b>PHAD36N1K5</b>	<b>PYMC36G5</b>
<b>PHAD42N1K5</b>	<b>PYMC42G5</b>
<b>PHAD47N1K5</b>	<b>PYMC48G5</b>
<b>PHAD60N1K5</b>	<b>PYMC60G5</b>

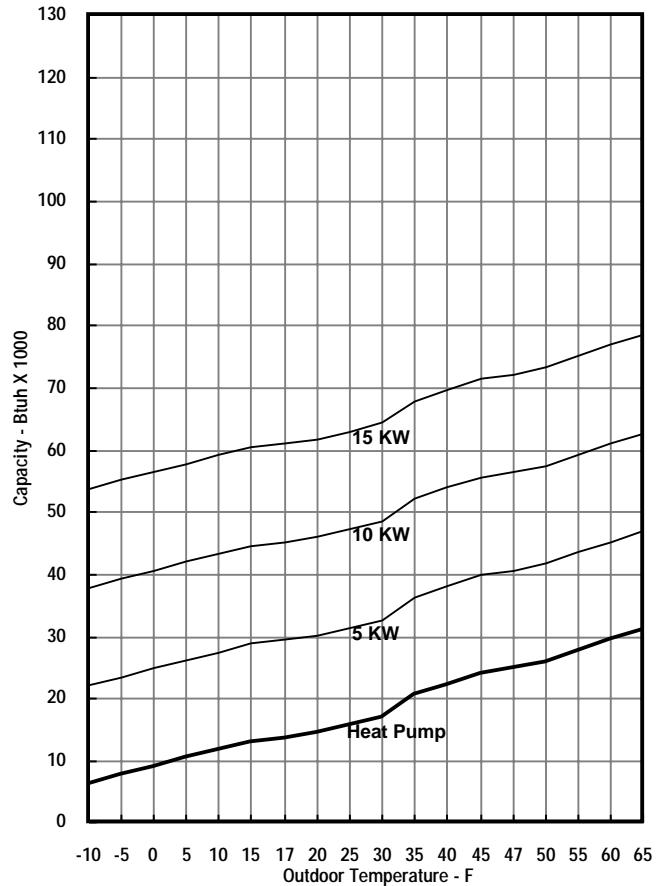
## **Single Package Heat Pumps**

**Save This Manual For Future Reference**

# Balance Chart 2 Ton 12 SEER Package Heat Pump

## Heating Capacity Balance Chart

Balance Chart Performance based on 230V Operation



## Tech Data

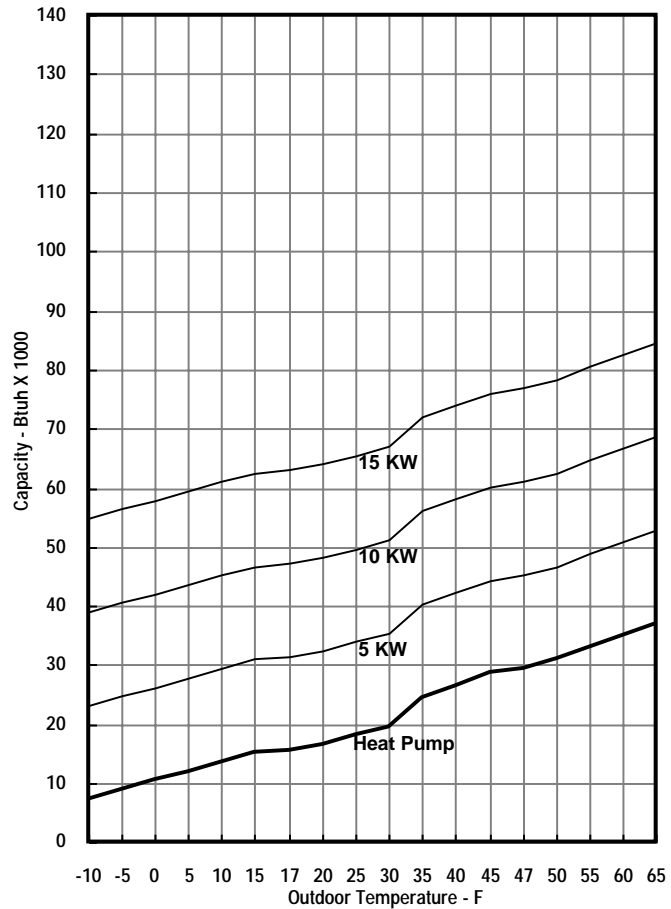
Style No:	2 Ton Pkg. H.P.		Outdoor Ambient Temperature - Degrees F. Dry Bulb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			75				85				95				105				115																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Voltage	208-230																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Phase/Cycles	1 -- 60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Ampacity	20.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Wire Ga/Length	NEC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Delay Fuse	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Max. Fuse/HACR	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Compressor	COPELAND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
RLA	12.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LRA	54																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Cap MFD/V	35 / 370																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
CC Heater	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Start Kit	NAMA001SC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Cond & Evap	Cond	Evap																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Type	Fan	Blower																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Size	20	DD10-8A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Motor-HP	1/5 PSC	1/3 PSC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Type	PSC	PSC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FLA	1	2.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRA	2.36	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
RPM	1075	1100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Cap MFD/V	5 / 370	7.5 / 370																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
PTCR	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Hi Press	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Low Press	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Low Amb	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Low Charge Sw	20 - 50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Defrost	Timed																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Sensor	31/71																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Operating Chg	(R-22 Oz)		Air Delivery in CFM - Dry Coil ( Add .08 static W/Internal Filters - Subtract 25 CFM for Wet Coil)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Service Driers	120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Liquid/Chg	8 Cu In / 7 oz																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Suction	30 Sq In																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Unit Weight	394																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			<table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="8">230 Volt</th> <th colspan="8">208 Volt</th> </tr> <tr> <th colspan="2"></th> <th colspan="8">Ext. Static Pressure (Inch Water Column)</th> <th colspan="8">Ext. Static Pressure (Inch Water Column)</th> </tr> <tr> <th colspan="2"></th> <th>0.10</th><th>0.20</th><th>0.30</th><th>0.40</th><th>0.50</th><th>0.60</th><th>0.70</th> <th>0.10</th><th>0.20</th><th>0.30</th><th>0.40</th><th>0.50</th><th>0.60</th><th>0.70</th> </tr> </thead> <tbody> <tr> <td>Motor Speed</td> <td>HI</td> <td>1314</td><td>1282</td><td>1243</td><td>1196</td><td>1142</td><td>1080</td><td>1010</td> <td>HI</td> <td>1178</td><td>1156</td><td>1127</td><td>1090</td><td>1049</td><td>988</td><td>919</td> </tr> <tr> <td></td> <td>MD HI</td> <td>1077</td><td>1062</td><td>1041</td><td>1012</td><td>971</td><td>916</td><td>844</td> <td>MD HI</td> <td>927</td><td>919</td><td>904</td><td>883</td><td>849</td><td>797</td><td>735</td> </tr> <tr> <td></td> <td>MD LO</td> <td>1020</td><td>1007</td><td>987</td><td>957</td><td>917</td><td>864</td><td>796</td> <td>MD LO</td> <td>870</td><td>864</td><td>853</td><td>832</td><td>799</td><td>757</td><td>692</td> </tr> <tr> <td></td> <td>LO</td> <td>825</td><td>816</td><td>801</td><td>780</td><td>749</td><td>707</td><td>653</td> <td>LO</td> <td>696</td><td>689</td><td>677</td><td>660</td><td>632</td><td>591</td><td>542</td> </tr> </tbody> </table>														230 Volt								208 Volt										Ext. Static Pressure (Inch Water Column)								Ext. Static Pressure (Inch Water Column)										0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.10	0.20	0.30	0.40	0.50	0.60	0.70	Motor Speed	HI	1314	1282	1243	1196	1142	1080	1010	HI	1178	1156	1127	1090	1049	988	919		MD HI	1077	1062	1041	1012	971	916	844	MD HI	927	919	904	883	849	797	735		MD LO	1020	1007	987	957	917	864	796	MD LO	870	864	853	832	799	757	692		LO	825	816	801	780	749	707	653	LO	696	689	677	660	632	591	542																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		230 Volt								208 Volt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		Ext. Static Pressure (Inch Water Column)								Ext. Static Pressure (Inch Water Column)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.10	0.20	0.30	0.40	0.50	0.60	0.70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Motor Speed	HI	1314	1282	1243	1196	1142	1080	1010	HI	1178	1156	1127	1090	1049	988	919																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	MD HI	1077	1062	1041	1012	971	916	844	MD HI	927	919	904	883	849	797	735																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	MD LO	1020	1007	987	957	917	864	796	MD LO	870	864	853	832	799	757	692																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	LO	825	816	801	780	749	707	653	LO	696	689	677	660	632	591	542																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			<table border="1"> <thead> <tr> <th colspan="12">Heating</th> </tr> <tr> <th colspan="12">Outdoor Ambient Temperature - Degrees F. Dry Bulb</th> </tr> <tr> <th colspan="12">IDB</th> </tr> <tr> <th colspan="12">65</th><th colspan="4">60</th><th colspan="4">55</th><th colspan="4">50</th><th colspan="4">47</th><th colspan="4">45</th><th colspan="4">40</th><th colspan="4">35</th><th colspan="4">30</th><th colspan="4">25</th><th colspan="4">20</th><th colspan="4">17</th><th colspan="4">15</th><th colspan="4">10</th><th colspan="4">5</th><th colspan="4">0</th><th colspan="4">-5</th><th colspan="4">-10</th> </tr> </thead> <tbody> <tr> <td colspan="2">MBh</td> <td colspan="4">31.6</td><td colspan="4">29.8</td><td colspan="4">27.8</td><td colspan="4">26.0</td><td colspan="4">24.8</td><td colspan="4">24.0</td><td colspan="4">22.1</td><td colspan="4">20.3</td><td colspan="4">18.8</td><td colspan="4">16.8</td><td colspan="4">14.8</td><td colspan="4">13.6</td><td colspan="4">13.1</td><td colspan="4">11.8</td><td colspan="4">10.4</td><td colspan="4">9.1</td><td colspan="4">7.8</td><td colspan="4">6.4</td> </tr> <tr> <td colspan="2">T/R</td> <td colspan="4">36.6</td><td colspan="4">34.5</td><td colspan="4">32.2</td><td colspan="4">30.1</td><td colspan="4">28.7</td><td colspan="4">27.8</td><td colspan="4">25.6</td><td colspan="4">23.5</td><td colspan="4">21.7</td><td colspan="4">19.4</td><td colspan="4">17.1</td><td colspan="4">15.7</td><td colspan="4">15.2</td><td colspan="4">13.6</td><td colspan="4">12.1</td><td colspan="4">10.5</td><td colspan="4">9.0</td><td colspan="4">7.4</td> </tr> <tr> <td colspan="2">KW</td> <td colspan="4">2.36</td><td colspan="4">2.31</td><td colspan="4">2.27</td><td colspan="4">2.23</td><td colspan="4">2.20</td><td colspan="4">2.18</td><td colspan="4">2.14</td><td colspan="4">2.09</td><td colspan="4">2.11</td><td colspan="4">2.06</td><td colspan="4">2.02</td><td colspan="4">1.99</td><td colspan="4">1.97</td><td colspan="4">1.93</td><td colspan="4">1.88</td><td colspan="4">1.84</td><td colspan="4">1.79</td><td colspan="4">1.75</td> </tr> <tr> <td colspan="2">AMPS</td> <td colspan="4">12.9</td><td colspan="4">11.9</td><td colspan="4">11.1</td><td colspan="4">10.5</td><td colspan="4">10.1</td><td colspan="4">9.9</td><td colspan="4">9.3</td><td colspan="4">8.9</td><td colspan="4">8.5</td><td colspan="4">8.1</td><td colspan="4">7.7</td><td colspan="4">7.5</td><td colspan="4">7.4</td><td colspan="4">7.0</td><td colspan="4">6.6</td><td colspan="4">6.2</td><td colspan="4">5.7</td><td colspan="4">5.1</td> </tr> <tr> <td colspan="2">COP</td> <td colspan="4">3.92</td><td colspan="4">3.77</td><td colspan="4">3.58</td><td colspan="4">3.41</td><td colspan="4">3.30</td><td colspan="4">3.22</td><td colspan="4">3.03</td><td colspan="4">2.83</td><td colspan="4">2.60</td><td colspan="4">2.38</td><td colspan="4">2.15</td><td colspan="4">2.00</td><td colspan="4">1.94</td><td colspan="4">1.79</td><td colspan="4">1.62</td><td colspan="4">1.45</td><td colspan="4">1.27</td><td colspan="4">1.06</td> </tr> <tr> <td colspan="2">EER</td> <td colspan="4">13.4</td><td colspan="4">12.9</td><td colspan="4">12.2</td><td colspan="4">11.7</td><td colspan="4">11.3</td><td colspan="4">11.0</td><td colspan="4">10.3</td><td colspan="4">9.7</td><td colspan="4">8.9</td><td colspan="4">8.1</td><td colspan="4">7.3</td><td colspan="4">6.8</td><td colspan="4">6.6</td><td colspan="4">6.1</td><td colspan="4">5.5</td><td colspan="4">4.9</td><td colspan="4">4.3</td><td colspan="4">3.6</td> </tr> <tr> <td colspan="2">HI PR</td> <td colspan="4">258</td><td colspan="4">247</td><td colspan="4">238</td><td colspan="4">227</td><td colspan="4">222</td><td colspan="4">218</td><td colspan="4">209</td><td colspan="4">201</td><td colspan="4">192</td><td colspan="4">184</td><td colspan="4">176</td><td colspan="4">172</td><td colspan="4">169</td><td colspan="4">163</td><td colspan="4">157</td><td colspan="4">150</td><td colspan="4">145</td><td colspan="4">140</td> </tr> <tr> <td colspan="2">LO PR</td> <td colspan="4">80</td><td colspan="4">74</td><td colspan="4">69</td><td colspan="4">63</td><td colspan="4">60</td><td colspan="4">58</td><td colspan="4">53</td><td colspan="4">47</td><td colspan="4">43</td><td colspan="4">38</td><td colspan="4">33</td><td colspan="4">31</td><td colspan="4">30</td><td colspan="4">25</td><td colspan="4">22</td><td colspan="4">18</td><td colspan="4">16</td><td colspan="4">13</td> </tr> </tbody> </table>												Heating												Outdoor Ambient Temperature - Degrees F. Dry Bulb												IDB												65												60				55				50				47				45				40				35				30				25				20				17				15				10				5				0				-5				-10				MBh		31.6				29.8				27.8				26.0				24.8				24.0				22.1				20.3				18.8				16.8				14.8				13.6				13.1				11.8				10.4				9.1				7.8				6.4				T/R		36.6				34.5				32.2				30.1				28.7				27.8				25.6				23.5				21.7				19.4				17.1				15.7				15.2				13.6				12.1				10.5				9.0				7.4				KW		2.36				2.31				2.27				2.23				2.20				2.18				2.14				2.09				2.11				2.06				2.02				1.99				1.97				1.93				1.88				1.84				1.79				1.75				AMPS		12.9				11.9				11.1				10.5				10.1				9.9				9.3				8.9				8.5				8.1				7.7				7.5				7.4				7.0				6.6				6.2				5.7				5.1				COP		3.92				3.77				3.58				3.41				3.30				3.22				3.03				2.83				2.60				2.38				2.15				2.00				1.94				1.79				1.62				1.45				1.27				1.06				EER		13.4				12.9				12.2				11.7				11.3				11.0				10.3				9.7				8.9				8.1				7.3				6.8				6.6				6.1				5.5				4.9				4.3				3.6				HI PR		258				247				238				227				222				218				209				201				192				184				176				172				169				163				157				150				145				140				LO PR		80				74				69				63				60				58				53				47				43				38				33				31				30				25				22				18				16				13			
Heating																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Outdoor Ambient Temperature - Degrees F. Dry Bulb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
IDB																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
65												60				55				50				47				45				40				35				30				25				20				17				15				10				5				0				-5				-10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
MBh		31.6				29.8				27.8				26.0				24.8				24.0				22.1				20.3				18.8				16.8				14.8				13.6				13.1				11.8				10.4				9.1				7.8				6.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T/R		36.6				34.5				32.2				30.1				28.7				27.8				25.6				23.5				21.7				19.4				17.1				15.7				15.2				13.6				12.1				10.5				9.0				7.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
KW		2.36				2.31				2.27				2.23				2.20				2.18				2.14				2.09				2.11				2.06				2.02				1.99				1.97				1.93				1.88				1.84				1.79				1.75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
AMPS		12.9				11.9				11.1				10.5				10.1				9.9				9.3				8.9				8.5				8.1				7.7				7.5				7.4				7.0				6.6				6.2				5.7				5.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
COP		3.92				3.77				3.58				3.41				3.30				3.22				3.03				2.83				2.60				2.38				2.15				2.00				1.94				1.79				1.62				1.45				1.27				1.06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
EER		13.4				12.9				12.2				11.7				11.3				11.0				10.3				9.7				8.9				8.1				7.3				6.8				6.6				6.1				5.5				4.9				4.3				3.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
HI PR		258				247				238				227				222				218				209				201				192				184				176				172				169				163				157				150				145				140																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
LO PR		80				74				69				63				60				58				53				47				43				38				33				31				30				25				22				18				16				13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			Part No: 1110712																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

# Balance Chart

## 2 1/2 Ton 12 SEER Package Heat Pump

### Heating Capacity Balance Chart

Balance Chart Performance based on 230V Operation



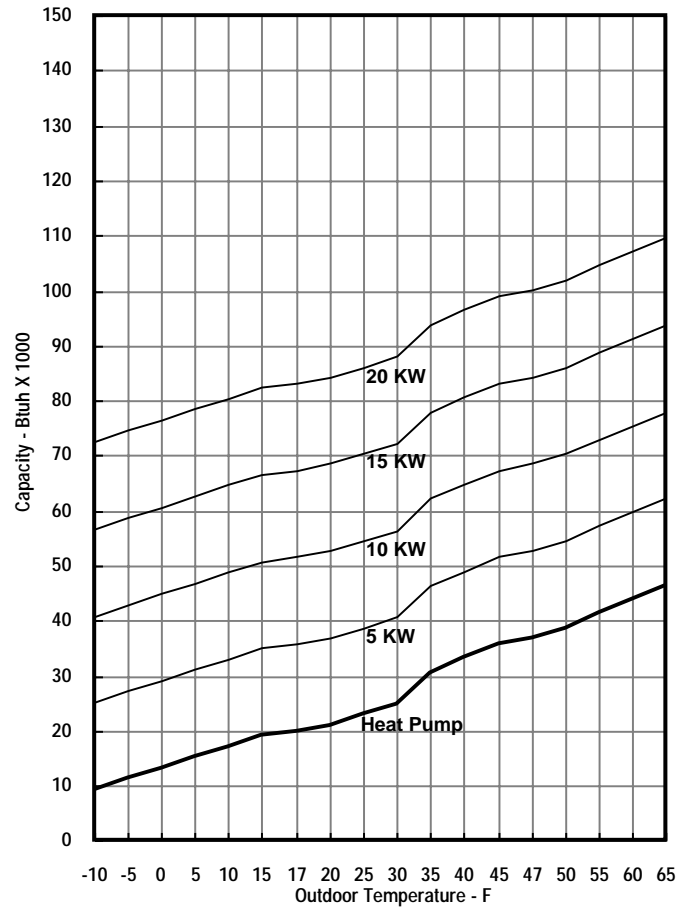
## Tech Data

Style No:		2-1/2 Ton Pkg. H.P.		Outdoor Ambient Temperature - Degrees F. Dry Bulb																																																																							
Voltage		208-230		75				85				95				105				115																																																							
Phase/Cycles		1 -- 60		Entering Indoor Temperature - Degrees F. Wet Bulb																																																																							
Ampacity		23		59				63				67				71				59				63				67				71																																											
Wire Ga/Length		NEC		MBh		28.2		29.0		31.4		33.7		27.5		28.3		30.6		32.9		26.8		27.6		29.9		32.1		25.5		26.2		28.4		30.5		23.6		24.3		26.3		28.2																															
Delay Fuse		30		S/T		0.85		0.76		0.57		0.37		0.87		0.78		0.59		0.38		0.90		0.80		0.61		0.39		0.93		0.83		0.63		0.40		0.94		0.84		0.63		0.41																															
Max. Fuse/HACR		35		AMPS		9.5		9.7		10.0		10.4		10.3		10.5		10.9		11.3		11.0		11.3		11.6		12.1		11.7		12.0		12.4		12.9		12.4		12.7		13.1		13.6																															
Compressor		COPELAND		HI PR		169		182		193		201		193		207		219		228		220		236		249		260		247		266		281		293		273		294		310		323																															
RLA		15.2		LO PR		66		70		76		81		68		73		79		84		72		76		83		89		75		80		87		93		78		83		90		96																															
LRA		76		MBh		28.7		29.3		31.3		33.4		28.0		28.6		30.5		32.7		27.3		27.9		29.8		31.9		25.9		26.5		28.3		30.3		24.0		24.5		26.2		28.0																															
Cap MFD/V		45 / 370		S/T		0.93		0.87		0.71		0.53		0.95		0.89		0.73		0.54		0.98		0.92		0.75		0.56		1.00		0.96		0.78		0.58		1.00		0.96		0.78		0.59																															
CC Heater		N/A		AMPS		9.5		9.8		10.1		10.5		10.4		10.6		11.0		11.4		11.1		11.4		11.8		12.2		11.8		12.1		12.5		13.0		12.5		12.8		13.3		13.8																															
Start Kit		NAMA001SC		HI PR		171		184		195		203		195		210		221		231		222		239		252		263		249		268		284		296		276		297		313		327																															
Cond & Evap		Cond		LO PR		66		70		77		82		69		73		80		85		72		77		84		89		76		81		88		94		78		83		91		97																															
Type		Fan		MBh		29.2		29.7		31.1		33.2		28.5		29.0		30.4		32.4		27.8		28.3		29.7		31.6		26.4		26.9		28.2		30.1		24.4		24.9		26.1		27.8																															
Size		20		S/T		0.97		0.94		0.85		0.69		1.00		0.96		0.87		0.71		1.00		0.99		0.90		0.73		1.00		1.00		0.93		0.76		1.00		1.00		0.94		0.76																															
Motor-HP		1/3 PSC		AMPS		9.6		9.9		10.2		10.6		10.5		10.7		11.1		11.5		11.2		11.5		11.9		12.3		11.9		12.2		12.6		13.1		12.6		13.0		13.4		13.9																															
Type		PSC		HI PR		173		186		196		205		197		212		223		233		224		241		255		265		252		271		286		299		278		300		316		330																															
FLA		1.4		LO PR		67		71		78		83		70		74		81		86		73		78		85		90		77		81		89		95		79		84		92		98																															
LRA		3.7		Heating																																																																							
RPM		1075		Outdoor Ambient Temperature - Degrees F. Dry Bulb																																																																							
Cap MFD/V		5 / 370		65				60				55				50				47				45				40				35				30				25				20				17				15				10				5				0				-5				-10			
PTCR		N/A		MBh		37.7		35.6		33.2		31.0		29.6		28.7		26.4		24.2		21.8		19.5		17.2		15.8		15.2		13.7		12.1		10.6		9.0		7.4		6.1		5.1		4.3		3.6																											
Hi Press		N/A		T/R		34.9		32.9		30.7		28.7		27.4		26.6		24.4		22.4		20.2		18.1		15.9		14.6		14.1		12.6		11.2		9.8		8.3		6.8		5.8		5.1		4.5																													
Low Press		N/A		KW		2.73		2.68		2.63		2.58		2.55		2.53		2.48		2.43		2.45		2.40		2.35		2.32		2.29		2.24		2.19		2.14		2.08		2.03		1.98		1.93																															
Low Amb		N/A		AMPS		15.6		14.4		13.5		12.7		12.2		12.0		11.3		10.7		10.2		9.7		9.3		9.0		8.9		8.5		7.9		7.4		6.8		6.1		5.5		4.9																															
Low Charge Sw		20 - 50		COP		4.04		3.88		3.69		3.52		3.40		3.32		3.12		2.92		2.60		2.38		2.14		2.00		1.94		1.78		1.62		1.45		1.27		1.06		0.91		0.78																															
Defrost		Timed		EER		13.8		13.3		12.6		12.0		11.6		11.3		10.7		10.0		9.9		8.9		8.1		7.3		6.8		6.6		6.1		5.5		4.9		4.3		3.6																																	
Sensor		31 / 71		HI PR		237		227		218		209		204		200		192		185		177		169		162		158		155		150		144		138		133		128																																			
Operating Chg		(R-22 Oz)		LO PR		77		71		67		61		58		56		51		46		41		37		32		30		29		25		21		18		16		12																																			
Service Driers		8 Cu In / 7 oz		Air Delivery in CFM - Dry Coil ( Add .08 static W/Internal Filters - Subtract 25 CFM for Wet Coil)																																																																							
Liquid/Chg Suction		30 Sq In		230 Volt								208 Volt								*** Do Not Operate on Low Speed																																																							
Unit Weight		401		Motot Speed				Ext. Static Pressure (Inch Water Column)				Motot Speed				Ext. Static Pressure (Inch Water Column)				Part No:																																																							
				0.10				0.20				0.30				0.40				0.50				0.60				0.70																																															
				HI				1314				1282				1243				1196				1142				1080				1010				HI				1178				1156				1127				1090				1049				988				919											
				MD HI				1077				1062				1041				1012				971				916				844				MD HI				927				919				904				883				849				797				735											
				MD LO				1020				1007				987				957				917				864				796				MD LO				870				864				853				832				799				757				692											
				LO				***				***				***				***				***				***				LO				***				***				***				***				***																							

# Balance Chart 3 Ton 12 SEER Package Heat Pump

## Heating Capacity Balance Chart

Balance Chart Performance based on 230V Operation



## Tech Data

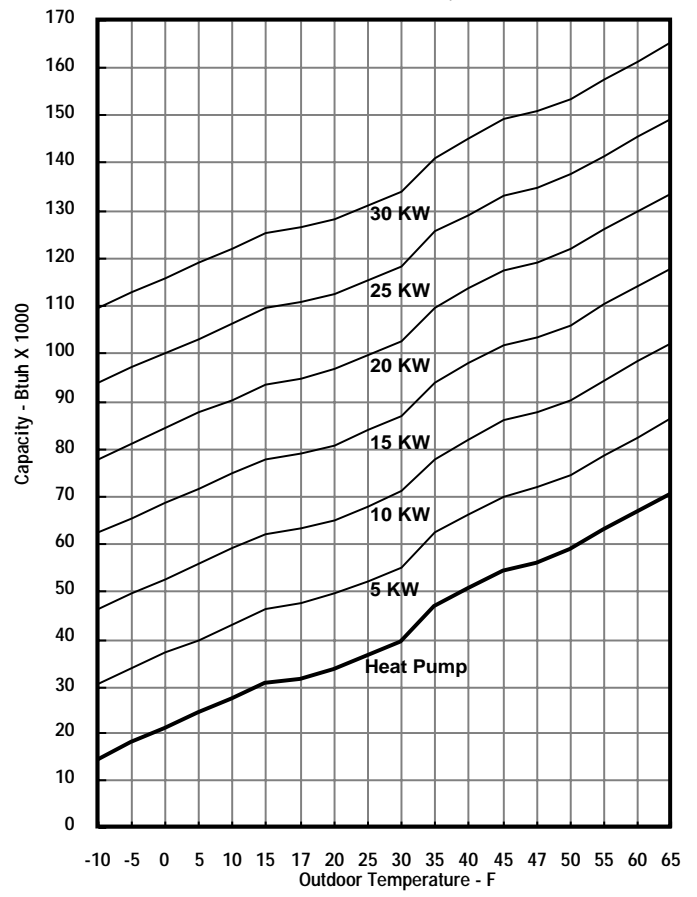
Style No:		3 Ton Pkg. H.P.		Outdoor Ambient Temperature - Degrees F. Dry Bulb																						
Voltage		208-230		75				85				95				105				115						
Phase/Cycles		1 -- 60		Entering Indoor Temperature - Degrees F. Wet Bulb																						
Ampacity		27.4		59				63				67				71				75						
Wire Ga/Length		NEC		MBh		S/T		AMPS		HI PR		LO PR		MBh		S/T		AMPS		HI PR		LO PR				
Delay Fuse	35	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
Max. Fuse/HACR	45	33.3	34.2	37.1	39.8	0.86	0.77	0.58	0.37	0.88	0.79	0.60	0.38	0.91	0.81	0.61	0.40	0.94	0.84	0.64	0.41	0.95	0.85	0.64	0.41	
Compressor	COPELAND	11.1	11.4	11.7	12.2	12.1	12.3	12.7	13.2	12.9	13.2	13.6	14.1	13.7	14.0	14.5	15.0	13.7	14.0	14.5	15.0	14.5	14.8	15.3	15.9	
RLA	17.9	172	185	195	203	195	210	222	231	222	239	252	263	250	269	284	296	276	297	314	327	276	297	314	327	
LRA	90.5	65	69	75	80	67	72	78	83	71	75	82	88	74	79	86	92	77	82	89	95	77	82	89	95	
Cap MFD/V	50 / 370	33.9	34.6	37.0	39.5	0.94	0.88	0.72	0.54	0.96	0.90	0.74	0.55	1.00	0.93	0.76	0.57	1.00	0.97	0.79	0.59	1.00	0.98	0.80	0.59	
CC Heater	N/A	11.2	11.5	11.8	12.3	12.2	12.5	12.9	13.3	13.0	13.3	13.7	14.2	13.8	14.1	14.6	15.1	14.6	15.0	15.5	16.0	14.6	15.0	15.5	16.0	
Start Kit	NAMA001SC	173	186	197	205	197	212	224	234	224	241	255	266	252	272	287	299	279	300	317	331	279	300	317	331	
Cond & Evap	Cond	Evap	65	70	76	81	68	72	79	84	71	76	83	88	75	80	87	93	77	82	90	96	77	82	90	96
Type	Fan	Blower	34.4	35.1	36.8	39.2	33.6	34.3	35.9	38.3	32.8	33.4	35.0	37.4	31.2	31.8	33.3	35.5	28.9	29.4	30.8	32.9	28.9	29.4	30.8	32.9
Size	20	DD11-9A	0.99	0.95	0.86	0.70	1.00	0.98	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.94	0.77	1.00	1.00	0.95	0.77	1.00	1.00	0.95	0.77
Motor-HP	1/3 PSC	1/2 PSC	11.3	11.6	12.0	12.4	12.3	12.6	13.0	13.5	13.1	13.4	13.9	14.4	13.9	14.3	14.7	15.3	14.7	15.1	15.6	16.2	14.7	15.1	15.6	16.2
Type	PSC	PSC	175	188	199	207	199	214	226	236	227	244	258	269	255	274	290	302	282	303	320	334	282	303	320	334
FLA	1.4	3.6	66	70	77	82	69	73	80	85	72	77	84	89	76	80	88	94	78	83	91	97	78	83	91	97
LRA	3.7	7.8	Heating																							
RPM	1075	1125	Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
Cap MFD/V	5 / 370	15 / 370	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10						
PTCR	N/A		MBh	47.1	44.5	41.5	38.7	37.0	35.9	33.0	30.3	27.6	24.7	21.8	20.0	19.3	17.3	15.3	13.4	11.4	9.3					
Hi Press	N/A		T/R	36.4	34.3	32.0	29.9	28.5	27.7	25.5	23.4	21.3	19.0	16.8	15.4	14.9	13.3	11.8	10.3	8.8	7.2					
Low Press	N/A		KW	3.40	3.34	3.28	3.22	3.19	3.16	3.10	3.04	3.09	3.02	2.96	2.93	2.90	2.84	2.77	2.71	2.65	2.59					
Low Amb	N/A		AMPS	19.0	17.6	16.4	15.5	14.9	14.6	13.8	13.1	12.5	12.0	11.4	11.1	11.0	10.4	9.7	9.1	8.4	7.6					
Low Charge Sw	20 - 50		COP	4.06	3.90	3.70	3.52	3.40	3.32	3.11	2.91	2.61	2.39	2.15	2.00	1.94	1.78	1.62	1.44	1.26	1.06					
Defrost	Timed		EER	13.9	13.3	12.6	12.0	11.6	11.3	10.6	10.0	8.9	8.2	7.3	6.8	6.6	6.1	5.5	4.9	4.3	3.6					
Sensor	31 / 71		HI PR	252	242	232	222	217	213	205	196	188	180	173	168	165	159	153	147	141	136					
Operating Chg	(R-22 Oz)		LO PR	76	70	66	60	57	55	50	45	41	36	32	30	29	24	21	18	15	12					
Each Circuit	135		Air Delivery in CFM - Dry Coil ( Add .08 static W/Internal Filters - Subtract 25 CFM for Wet Coil)																							
Service Driers			230 Volt								208 Volt								Part No: 1113282							
Liquid/Chg	16 Cu In / 11 oz		Ext. Static Pressure (Inch Water Column)								Ext. Static Pressure (Inch Water Column)															
Suction	30 Sq In		Motot Speed								Motot Speed															
Unit Weight	410		0.10 0.20 0.30 0.40 0.50 0.60 0.70								0.10 0.20 0.30 0.40 0.50 0.60 0.70															
			HI	1602	1547	1489	1428	1363	1291	1211	1141	1071	1001	931	861	791	721	651	581	511	441	371	301	231	161	91
			MD HI	1518	1468	1416	1358	1295	1226	1148	1078	1008	938	868	798	728	658	588	518	448	378	308	238	168	98	
			MD LO	1459	1413	1364	1311	1252	1185	1109	1039	969	899	829	759	689	619	549	479	409	339	269	199	129	59	
			LO	1339	1299	1255	1204	1147	1084	1015	945	875	805	735	665	595	525	455	385	315	245	175	105	35		





# Heating Capacity Balance Chart

Balance Chart Performance based on 230V Operation



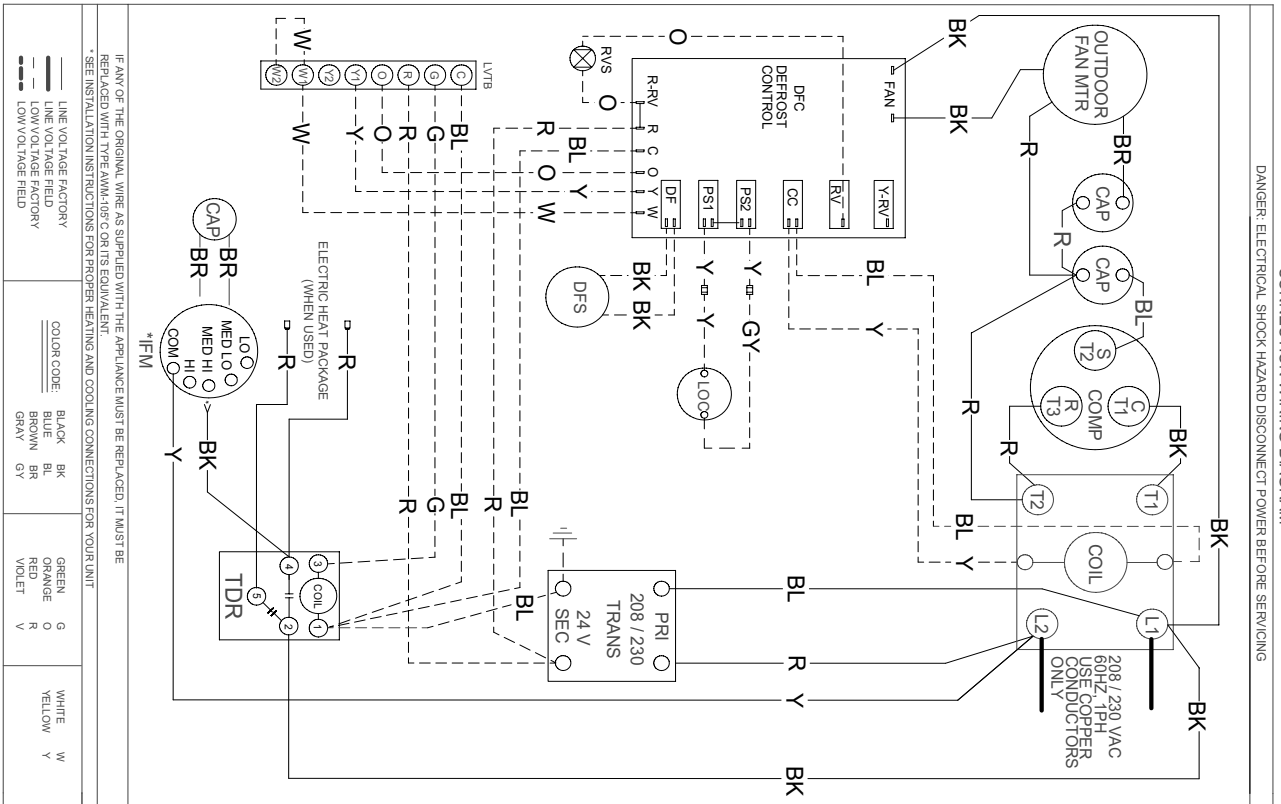




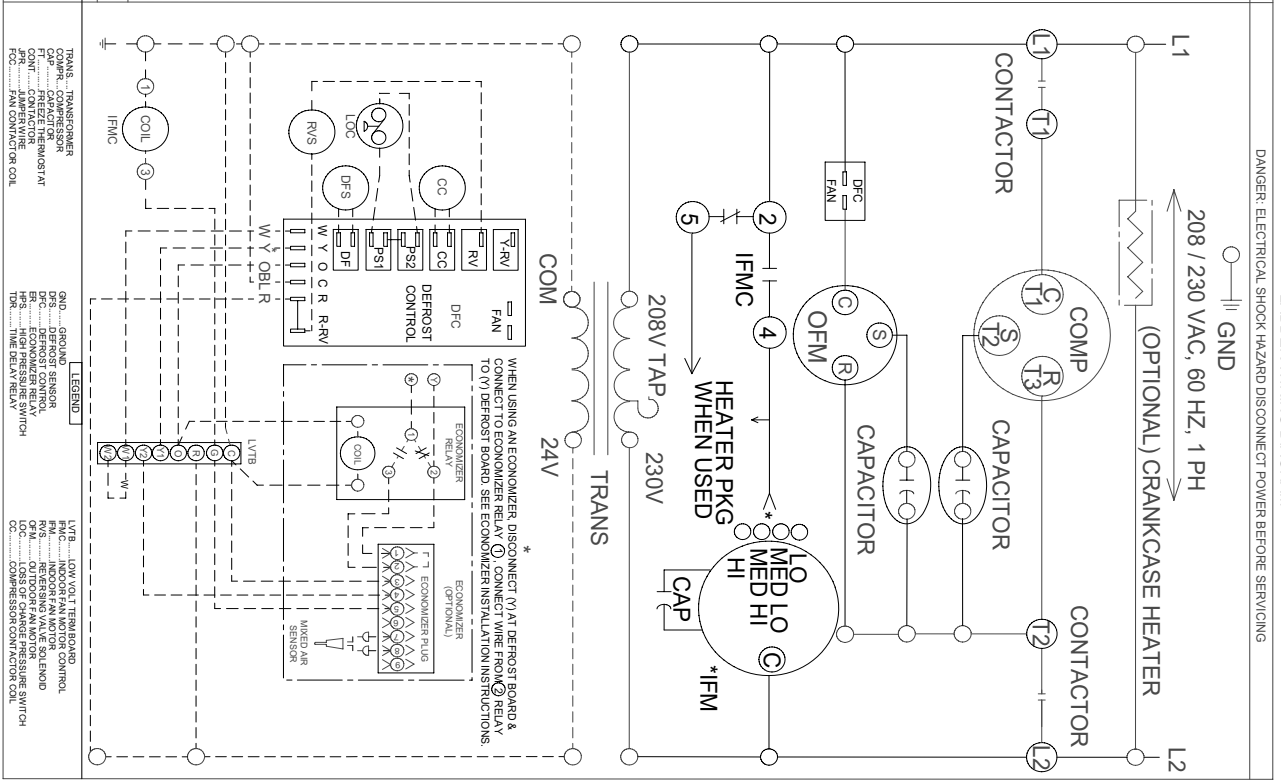


# 5 TON MODEL

CONNECTION WIRING DIAGRAM



LADDER WIRING DIAGRAM



1114027-A

KEY NO.	DESCRIPTION	PART NUMBER	PHAD24N1K6	PHAD30N1K5	PHAD36N1K5	PHAD42N1K5	PHAD47N1K5	PHAD60N1K5
			PYMC24G6	PYMC30G5	PYMC36G5	PYMC42G5	PYMC48G5	PYMC60G5
1	Compressor With Plug Connections	ZR22K4PFV130	1					
1	Compressor With Plug Connections	ZR28K3PFV130	*	1				
1	Compressor With Plug Connections	ZR34K3PFV130	*	*	1			
1	Compressor With Plug Connections	ZR40K3PFV130	*	*	*	1		
1	Compressor With Plug Connections	ZR46K3PFV130	*	*	*	*	1	
1	Compressor With Plug Connections	ZR57K3PFV130	*	*	*	*	*	1
2	Motor, Condenser Fan 230 Volt, 1/5 HP	1086598	1					
2	230 Volt, 1/3 HP	1065926	*	1	1			
2	230 Volt, 1/3 HP	1098505	*	*	*	1	1	
2	230 Volt, 3/4 HP	1098501	*	*	*	*	*	1
3	Fan, Condenser	1099654	1					
3		1099656	*	1	1			
3		1080795	*	*	*	1	1	
3		1080792	*	*	*	*	*	1
5	Coil, Condenser	1066050	1					
5		1066560	*	1	1			
5		1066598	*	*	*	1		
5		1066847	*	*	*	*	1	
5		1067435	*	*	*	*	*	1
6	Capacitor, 7.5Mfd.,370 Volt	1094239	1	1		1		
6	15Mfd.,370 Volt	1094959	*	*	1			
6	20Mfd.,440 Volt	1094968	*	*	*	*	1	1
7	Mount, Blower Motor Kit	1004905	1	1		1		
7		1002804	*	*	1		1	1
8	Motor, Blower 230 Volt, 1/3 HP	1066420	1	1				
8	230 Volt, 1/2 HP	1066421	*	*	1			
8	230 Volt, 1/2 HP	1054583	*	*	*	1		
8	230 Volt, 1 HP	1065129	*	*	*	*	1	1
9	Wheel, Blower 10-8DD 1/2" Bore	600587	1	1		1		
9	11-9DD 5/8" Bore	1065361	*	*	1			
9	11-11DD 5/8" Bore	1054593	*	*	*	*	1	1
11	Coil, Evaporator	1066069	1					
11		1066070	*	1	1			
11		1067472	*	*	*	1		
11		1067471	*	*	*	*	1	
11		1067473	*	*	*	*	*	1
15	Transformer, 230 Volt, 40 VA	1082611	1	1	1	1	1	1
16	Sequencer, SPDT	1054372	1	1	1	1	1	1
19	Lug, Ground	91590	1	1	1	1	1	1
20	Board, Terminal	1066159	1	1	1	1	1	1
22	Control, Defrost	1087562	1	1	1	1	1	1
24	Contact, 25 Amp	1050699	1	1	1			
24	35 Amp	1050839	*	*	*	1		
24	40 Amp	1053980	*	*	*	*	1	1

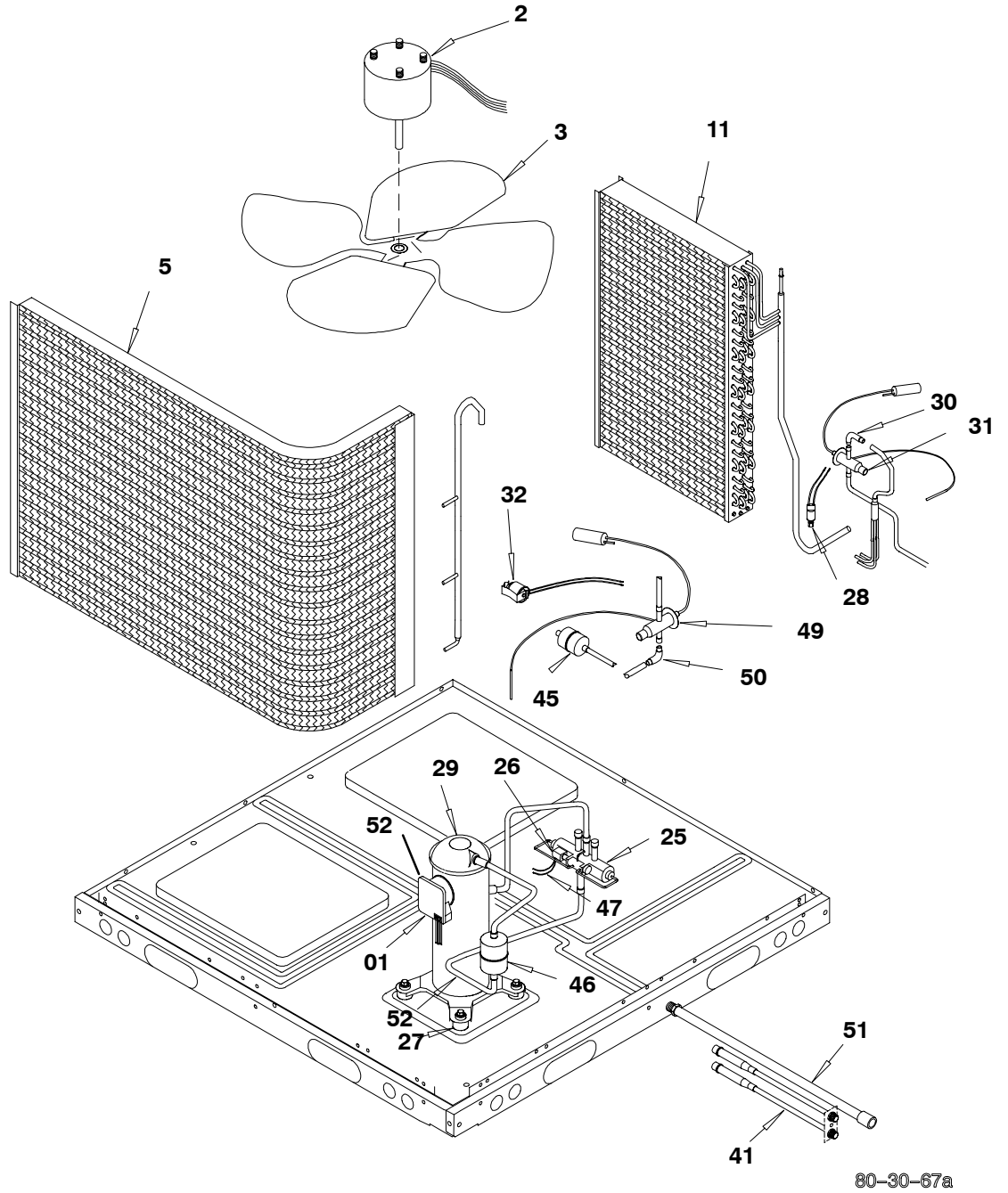
KEY NO.	DESCRIPTION	PART NUMBER	PHAD24N1K6	PHAD30N1K5	PHAD36N1K5	PHAD42N1K5	PHAD47N1K5	PHAD60N1K5
			PYMC24G6	PYMC30G5	PYMC36G5	PYMC42G5	PYMC48G5	PYMC60G5
25	Valve, Reversing	34329020	1					
25		34329000	*	1	1			
25		1097787	*	*	*	1		
25		34329030	*	*	*	*	1	1
26	Coil, Reversing Valve 24V	34329055	1	1	1		1	1
26		1063443	*	*	*	1		
27	Grommet, Compressor Mounting	1052060	4	4	4	4	4	4
28	Switch, Low Pressure	1085492	1	1	1	1	1	1
30	Tube, Strainer	1066347	1	1	1			
30		1066804	*	*	*	1	1	1
31	Valve, Expansion (Evaporator)	1066042	1					
31		1066043	*	1				
31		1066044	*	*	1			
31		1066008	*	*	*	1		
31		1066490	*	*	*	*	1	
31		1066819	*	*	*	*	*	1
32	Sensor, Defrost	1066430	1	1	1			
32		1066934	*	*	*	1	1	1
35	Valve, Check	1066803	*	*	*	1	1	1
36	Capacitor, 35 + 3 Mfd., 370 Volt	1082632	1					
36	45 + 5 Mfd., 370 Volt	1084424	*	1				
36	50 + 5 Mfd., 370 Volt	1094993	*	*	1			
36	55 + 7.5 Mfd., 370 Volt	1084310	*	*	*	1		
36	60 + 7.5 Mfd., 370 Volt	1149997	*	*	*	*	1	
36	80 Mfd., 370 Volt, Compressor Only	1149998	*	*	*	*	*	1
39	Accumulator, Suction Line	1053431	*	*	*	1		
39		1053432	*	*	*	*	1	1
41	Port Asy, Valve	1083939	1	1	1			
41		1083619	*	*	*	1	1	1
43	Manifold, Included with Condenser Coil							
45	Drier, Filter	1083858	1	1	1	1	1	1
46	Muffler	1059730	1	1	1	1	1	1
48	Manifold Asy, Evap. Included with Evap Coil							
49	Valve, Expansion (Condenser)	1065871	1					
49		1066006	*	1				
49		1066007	*	*	1			
49		1066484	*	*	*	1	1	
49		1067420	*	*	*	*	*	1
50	Tube, Strainer	1066347	1	1	1			
50		1066804	*	*	*	1	1	1
51	Tube, Drain	1069172	1	1	1			
52	Plug, Compressor Harness	1083811	1	1	1			
52		1083935	*	*	*	1	1	
52		1113806	*	*	*	*	*	1

KEY NO.	DESCRIPTION	PART NUMBER	PHAD24N1K5 PYMC24G5	PHAD30N1K5 PYMC30G5	PHAD36N1K5 PYMC36G5	PHAD42N1K5 PYMC42G5	PHAD47N1K5 PYMC48G5	PHAD60N1K5 PYMC60G5
A	Grille, Condenser Fan	1084490	1	1	1			
A		1064542	*	*	*	1	1	1
AA	Cover, Duct	1068159	2	2	2			
AA		1068158	*	*	*	2	2	2
B	Panel, Top	1068191	1	1	1			
B		1068157	*	*	*	1	1	1
BB	Partition, Heat/Cool	1066331	1	1	1			
C	Orifice, Condenser Fan	1065724	1	1	1			
C		1065725	*	*	*	1	1	1
CC	Bracket, Supply Air	1054524	1	1	1			
CC		1054525	*	*	*	1	1	1
D	Housing, Blower	1099402	1	1		1		
D		1099239	*	*	1			
D		1099238	*	*	*	*	1	1
DD	Cover, Evaporator Top	1066332	1	1	1			
E	Deck, Blower	1065949	1	1	1			
E		1065948	*	*	*	1	1	1
EE	Cover, Evaporator Bottom	1066333	1	1	1			
F	Panel, Blower Access	1068180	1	1	1			
F		1068181	*	*	*	1	1	1
FF	Baffle, Evaporator Blower	1066409	1	1	1			
FF		1054522	*	*	*	1	1	1
G	Plate, Block Off	1066107	1	1	1	1	1	1
H	Panel, Divison	1065942	1	1	1			
H		1065943	*	*	*	1	1	1
HA	Grille, Inlet Side (Front)	1082186	1	1	1			
HA		1082279	*	*	*	1	1	1
HB	Grille, Inlet Side (Rear)	1082280	*	*	*	1	1	1
HH	Grille, Inlet End	1082053	1	1	1			
HH		1082281	*	*	*	1	1	1
J	Post, Electrical Corner	1068192	1	1	1			
J		1068193	*	*	*	1	1	1
JJ	Nut, Cap	1067902	4	4	4	4	4	4
K	Bracket, Low Voltage Terminal Board Mo	1066106	1	1	1	1	1	1
KK	Baffle, Air	1066621	*	*	1			
KK		1066364	*	*	*	*	1	1
L	Plate, Conduit	1068179	1	1	1	1	1	1
LL	Plate, Control Mounting	1066168	1	1	1	1	1	1
M	Panel, Electrical Access	1068185	1	1	1			
M		1068186	*	*	*	1	1	1

KEY NO.	DESCRIPTION	PART NUMBER	PHAD24N1K5	PHAD30N1K5	PHAD36N1K5	PHAD42N1K5	PHAD47N1K5	PHAD60N1K5
			PYMC24G5	PYMC30G5	PYMC36G5	PYMC42G5	PYMC48G5	PYMC60G5
MM	Bracket, Filter Top	1065618	*	*	*	1	1	1
N	Panel, Pressure Port	1068182	1	1	1			
N		1068164	*	*	*	1	1	1
NN	Support, Filter Top	1054502	*	*	*	1	1	1
O	Plate, Pressure Port	1068189	1	1	1	1	1	1
OO	Panel, Coil Support	1098509	*	*	*	1	1	1
PP	Panel, Heating Area	1098508	*	*	*	1	1	1
QQ	Baffle, Coil	1082435	*	*	*	1	1	1
R	Post, Return Air Corner	1068167	2	2	2			
R		1068168	*	*	*	1	1	1
RR	Panel, Drain Outlet	1068162	*	*	*	1	1	1
S	Rail, Base	1113559	1	1	1			
S		1065001	*	*	*	1	1	1
S1		1065001	1	1	1			
S1		1084078	*	*	*	1	1	1
S2		1065001	1	1	1			
S2		1054464	*	*	*	1	1	1
S3		1113559	1	1	1	1	1	1
SS	Panel, Filter Access	1068175	*	*	*	1	1	1
U	Panel, Return Air	1068166	1	1	1			
U		1068160	*	*	*	1	1	1
UU	Post, Return Air	1068172	*	*	*	1	1	1
V	Partition, Return Air	1065033	1	1	1			
V		1054471	*	*	*	1	1	1
W	Clamp, Capacitor	1095020	1	1	1	1	1	1
VV	Post, Center	1068163	*	*	*	1	1	1
X	Pan, Drain	1065795	1	1	1			
X		1113589	*	*	*	1	1	1
XX	Panel, Cutoff	95143	1	1		1		
XX		1066448	*	*	1			
XX		1065073	*	*	*	*	1	1
Y	Bracket, Evaporator	1099106	1	1	1			
Y		1098999	*	*	*	1	1	1
Z	Panel, Supply Air	1068165	1	1	1			
Z		1068161	*	*	*	1	1	1
)	Capacitor, Cond. Fan Mtr. 10 Mfd 440 Vo	1094965	*	*	*	*	*	1
)	Coupling Male	1054625	*	*	*	1	1	1
)	Pan, Drip	1096604	*	*	*	1	1	1
)	Plate, Drip	1113541	*	*	*	1	1	1
)	Manual, Parts List	51804100200	1	1	1	1	1	1
)	Manual, Users	42802110100	1	1	1	1	1	1
)	Manual, Installation	51801100100	1	1	1	1	1	1

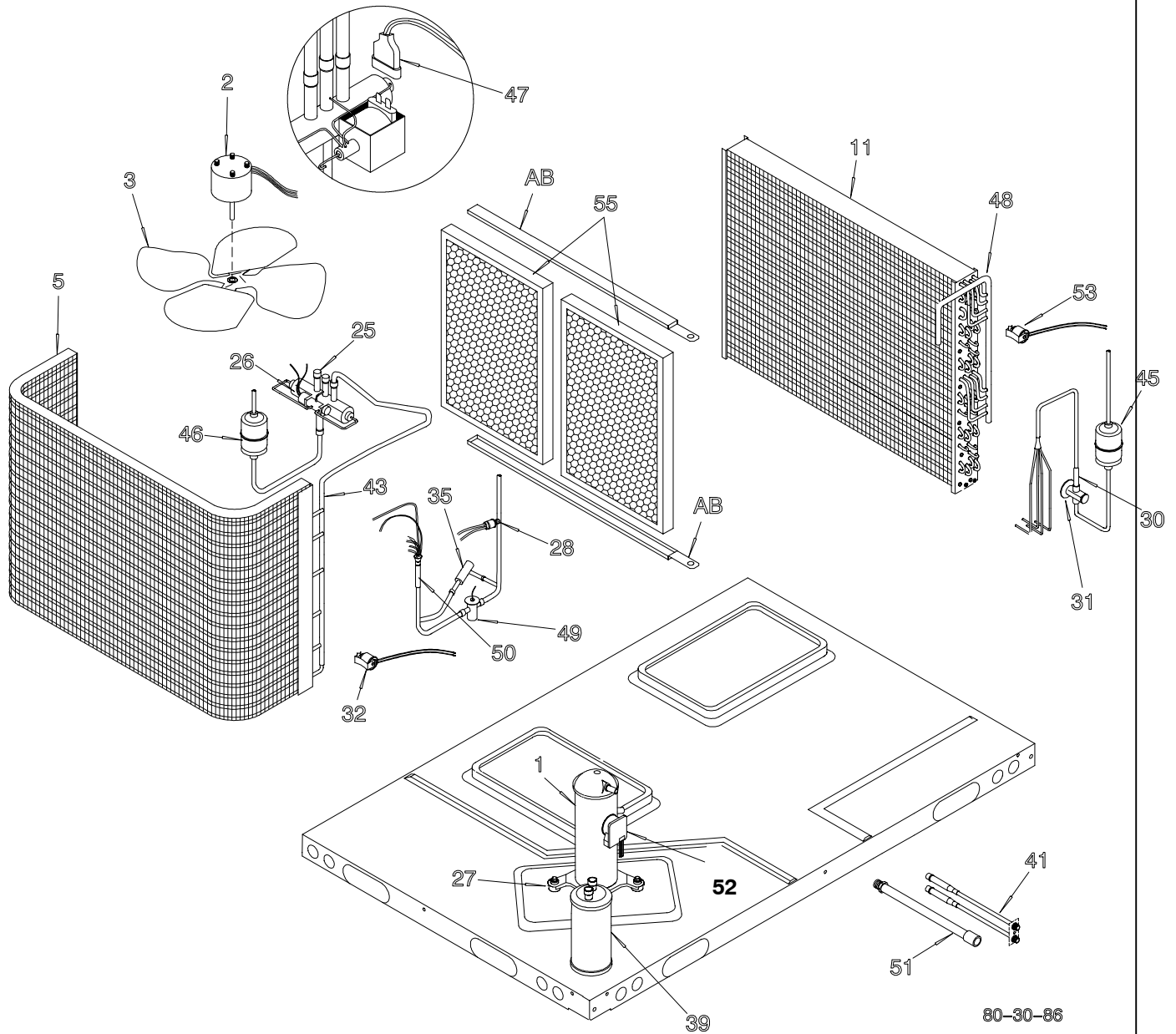
# Functional Parts - 2 to 3 Ton

This illustration is for reference only,  
your unit may differ from the illustration.



# Functional Parts - 3-1/2 to 5 Ton

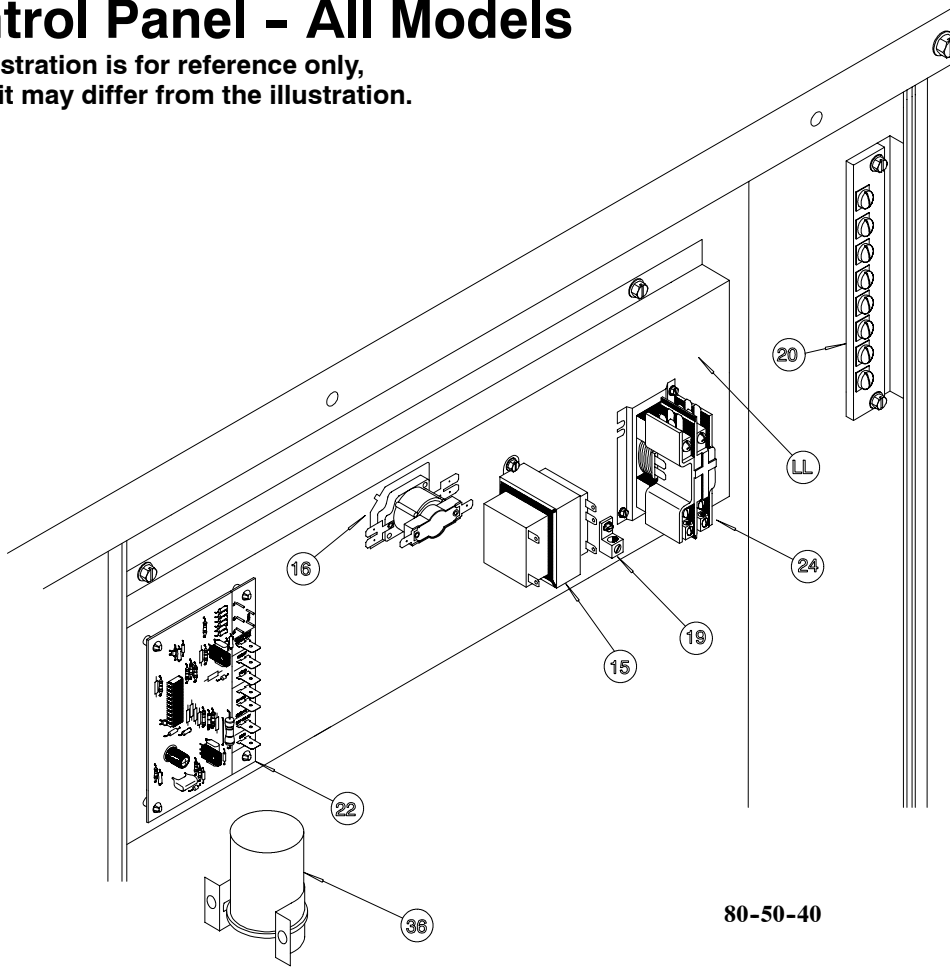
This illustration is for reference only,  
your unit may differ from the illustration.





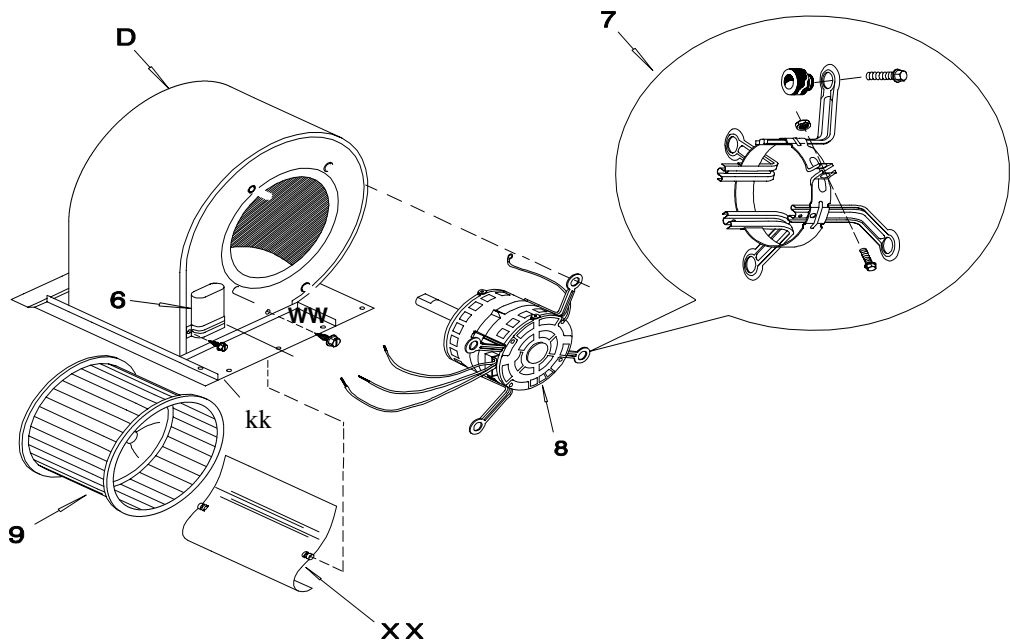
# Control Panel - All Models

This illustration is for reference only,  
your unit may differ from the illustration.



80-50-40

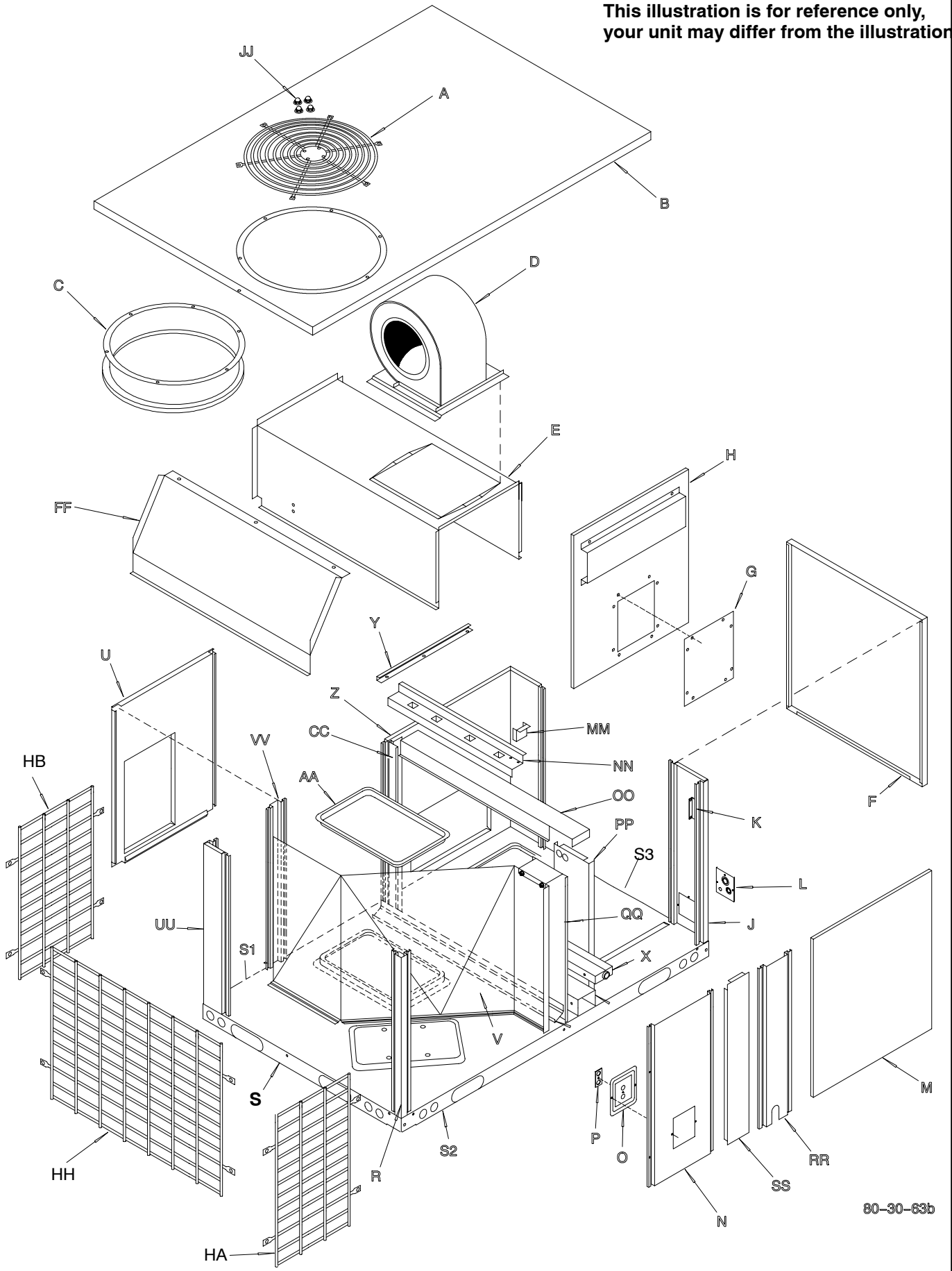
# BLOWER ASSEMBLY All Models





# Non-Functional Parts - 3-1/2 to 5 Ton

This illustration is for reference only,  
your unit may differ from the illustration.



80-30-63b