MANUAL 2100-028D

MODELS
RPMH30A & RPMH36A
ROOF MOUNT
PACKAGED HEAT PUMP

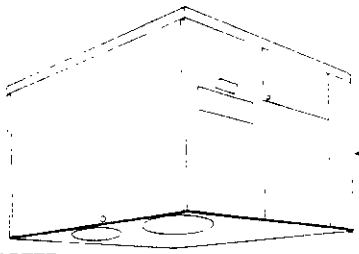
INSTALLATION INSTRUCTIONS

SPECIALLY DESIGNED FOR ROOFTOP HEATING / COOLING APPLICATIONS

PRE-FABRICATED METAL ROOF CURB

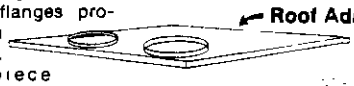
Easy 3-step installation for roof top applications. Saves installation labor, time, cost and provides leakproof installation. No special roof hood plenum assembly required.

RPM SERIES.
Packaged Roof Mount Heat Pump Unit.

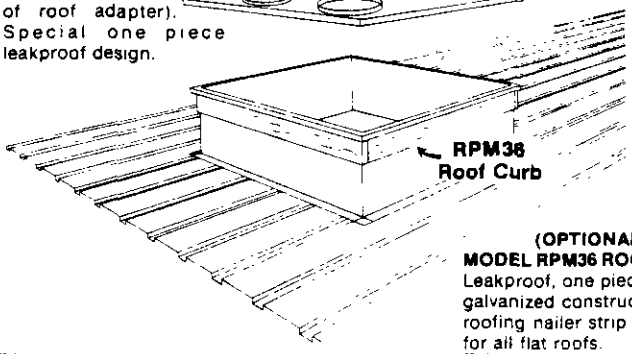


RPMH30A
or
RPMH36A

RA3036 ROOF ADAPTER.
Painted galvannealed steel adapter permits installer to rough-in the duct work at the job sight and install RPM unit later. (Duct flanges provided on bottom of roof adapter). Special one piece leakproof design.

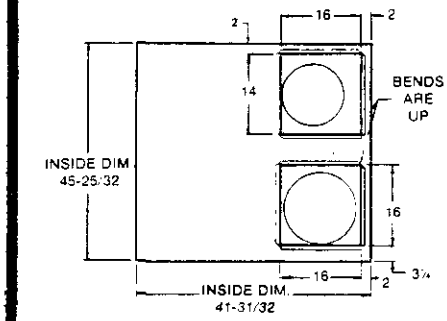


RA3036
Roof Adapter

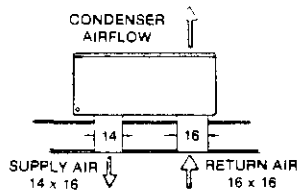


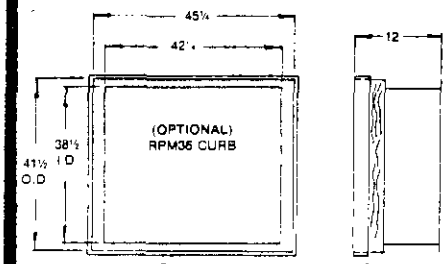
RPM36
Roof Curb

(OPTIONAL)
MODEL RPM36 ROOF CURB
Leakproof, one piece welded galvanized construction with roofing nailer strip - suitable for all flat roofs.



Bottom view
RA3036 ROOF ADAPTER





Top view
Side view

IMPORTANT

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians. Any heat pump is more critical of proper operating, charge and an adequate duct system than a straight air conditioning unit. All ductwork, supply and return, must be properly sized for the design air flow requirement of the equipment. ACCA is an excellent guide to proper sizing. All duct work or portions thereof not in the conditioned space should be properly insulated in order to both conserve energy and prevent condensation or moisture damage.

SHIPPING DAMAGE

Upon receipt of equipment, the carton should be checked for external signs of shipping damage. If damage is found, the receiving party must contact the last carrier immediately, preferably in writing, requesting inspection by the carrier's agent.

GENERAL

The refrigerant system is completely assembled and charged. All internal wiring is complete.

These instructions and any instructions packaged with any separate equipment required to make up the entire air conditioning system should be carefully read before beginning the installation. Note particularly "Starting Procedure" and any tags and/or labels attached to the equipment.

While these instructions are intended as a general recommended guide, they do not supersede any national and/or local codes in any way. Authorities having jurisdiction should be consulted before the installation is made.

INSTALLATION

Size of unit for a proposed installation should be based on heat loss calculation made according to methods of National Warm Air Heating and Air Conditioning Association. The air duct should be installed in accordance with the Standards of the National Fire Protection Association for the Installation of Air Conditioning and Ventilating Systems of Other Than Residence Type, NFPA No. 90A, and Residence Type Warm Air Heating and Air Conditioning Systems, NFPA No. 90B. Where local regulations are at a variance with instructions, installer should adhere to local codes.

DUCTWORK

Design the ductwork according to methods given by the National Warm Air Heating and Air Conditioning Association. When duct runs through unheated spaces, it should be insulated with a minimum of one inch of insulation. Use insulation with a vapor barrier on the outside of the insulation. Flexible joints should be used to connect the duct work to the equipment in order to keep the noise transmission to a minimum.

LOCATING THE UNIT

A location on the roof must be chosen that will provide adequate support to the unit, while at the same time allowing clearance for the supply air and return air duct connections to the RA3036 roof adapter--see layout and dimensions. NOTE: The RA3036 Roof Adapter MUST BE USED to assure a leak-free installation, and the UL approval is contingent upon the use of this mating adapter.

ROOF CURB FABRICATION

The roof curb (extension section between actual roof and RA3036 roof adapter) could be fabricated from either sheet steel or nominal dimensional lumber. In either case, the O.D. dimension of the extension section must be sized to fit the RA3036 adapter dimensions as shown.

All corners, seams or joints must be sealed to assure a leak-free installation. The height of the curb section is determined by installation requirements such as degree slope of roof, direction that the outdoor (exposed) coil faces, and geographic location. The unit MUST SET LEVEL when installed, and should be high enough to provide proper defrost drainage from outdoor coil during heating cycle.

A suggested design for a wood frame type construction is shown below.

CONDENSATE AND DEFROST DRAINAGE

A 3/4" FPT coupling is provided to connect a condensate drain line to, and is located on side opposite outdoor coil. See illustration.

An optional accessory outdoor coil drain pan, DP3036, is available to collect normal condensate run-off and defrost cycle condensate in applications where it may not be desirable to drain on to mounting surface, or may not be permitted by local codes.

There is a space beneath the outdoor coil for the DP3036 to slide in without unit modification, and the DP3036 is also supplied with a 3/4" FPT coupling for drain line connection.

AIR FILTER

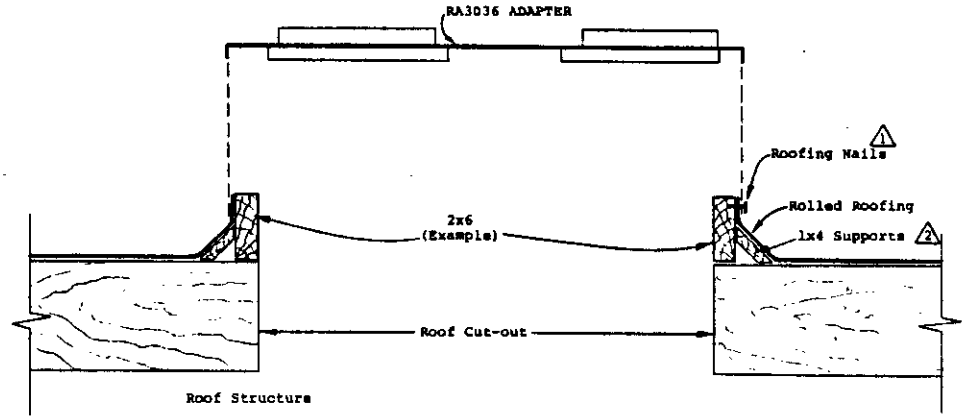
A 24" x 24" x 1" disposable fiberglass type filter is located inside the unit for air filtration of both return air from structure and for optional fresh air intake (see below).

Access to the filter is by removing the corner panel where either the fresh air blank off panel or fresh air intake hood is located.

FRESH AIR INTAKE

The fresh air intake cover is a manual damper operated device to allow intake of fresh air whenever indoor blower is operating. The damper position can be manually set and locked in position with a wing nut. It is held in place by two screws and has a hardware cloth screen to prevent entry of birds or rodents. An optional cover plate is available if fresh air intake is not used.

TYPICAL CONSTRUCTION FOR DIMENSIONAL LUMBER EXTENSION CONSTRUCTION



1. Nail 3/4" from top.
2. Provides support to roofing material, prevents sharp bends and cracking.

WIRING - MAIN POWER

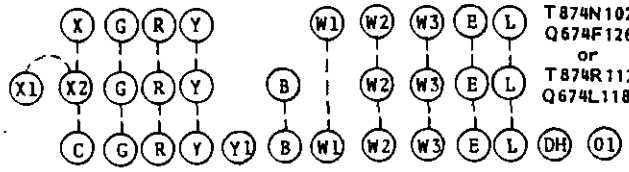
Refer to the unit rating plate for wire sizing information and maximum fuse or "HACR Type" circuit breaker size. Each outdoor unit is marked with a "Minimum Circuit Ampacity." This means that the field wiring used must be sized to carry that amount of current. Depending on the installed Kw of electric heat, there may be two field power circuits required. If this is the case, the unit serial plate will so indicate. Some models are suitable only for connection with copper wire, while others can be wired with either copper or aluminum wire. Each unit and/or wiring diagram will be marked "Use Copper Conductors Only" or "Use Copper or Aluminum Conductors." These instructions MUST BE adhered to. Refer to the National Electrical Code for complete current carrying capacity data on the various insulation grades of wiring material.

The electrical data lists fuse and wire sizes (60°C copper) for all models, including the most commonly used heater sizes. Also shown are the number of field power circuits required for the various models with heaters.

The unit rating plate lists a "Maximum Time Delay Fuse" or "HACR Type" circuit breaker that is to be used with the equipment. The correct size must be used for proper circuit protection and also to assure that there will be no nuisance tripping due to the momentary high starting current of the compressor motor.

WIRING - 24V CONTROL CIRCUIT

Nine (9) wires should be run from thermostat subbase to the 24V terminal board in the unit. A nine conductor, 18 gauge copper, color-coded thermostat cable is recommended. The connection points are shown on most of the wiring diagrams and are also shown below.



Unit 24V Terminal Board

IMPORTANT NOTE: Only the thermostat and subbase combinations as shown above will work with this equipment. The stat and subbase MUST be matched, and correct operation can be assured only by proper selection and application of these parts.

COMPRESSOR MALFUNCTION RELAY (1-Phase Models Only)

Actuation of the green "check" lamp is accomplished by a voltage type relay which is factory installed. Any condition such as loss of charge, defective capacitor, defective contactor, etc., that will prevent compressor from operating will cause green lamp to activate. This is a signal to the operator of the equipment to place system in emergency heat position.

PRESSURE SERVICE PORTS

High and low pressure service ports are installed on all units so that the system operating pressures can be observed. Pressure curves can be found later in the manual covering all models on both cooling and heating cycles. It is imperative to match the correct pressure curve to the unit by model number.

THERMOSTAT INDICATOR LAMPS

The red lamp marked "EM.HT." comes on and stays on whenever the system switch is placed in the Em. Ht. position. The green lamp marked "check" will come on if there is any problem that prevents the compressor from running when it is supposed to be.

EMERGENCY HEAT POSITION

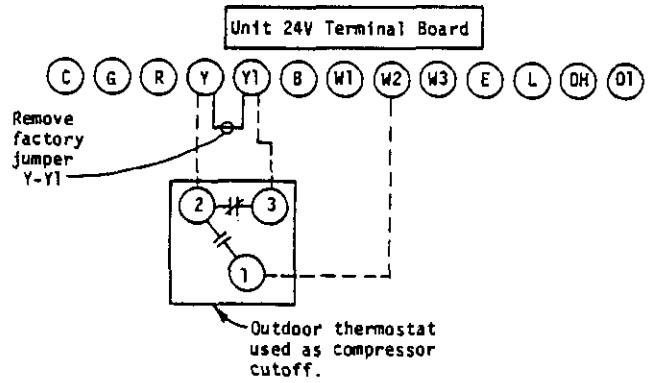
The operator of the equipment must manually place the system switch in this position. This is done when there is a known problem with the outdoor section, or when the green "check" lamp comes on indicating a problem.

COMPRESSOR CUT-OFF THERMOSTAT AND OUTDOOR THERMOSTAT

Heat pump compressor operation at outdoor temperatures below 0°F are neither desirable nor advantageous in terms of efficiency. Since most equipment at time of manufacture is not designated for any specific destination of the country, and most of the equipment is installed in areas not approaching the lower outdoor temperature range, the compressor cut-offs are not factory installed.

NOTE: Maximum amount of electric heat which can be operated in conjunction with the compressor during heating mode is 10Kw on 1 phase and 12Kw on 3 phase. The balance of the electric heat can be operated only during compressor cut off or emergency heat mode.

COMPRESSOR CUT-OFF & OUTDOOR THERMOSTAT WIRING



HEAT ANTICIPATION

Both of the thermostats shown below have a fixed heat anticipator for stage 1 with no adjustment required. Stage 1 has an adjustable anticipator for the W2 connection and fixed for the W3 connection. Both the W2 and W3 circuits are controlled by the stage 2 bulb. The only heat anticipator that needs to be checked is stage 2 and it should be set to match the load carried by the W2 circuit. The normal factory wiring provides for only one electric heat contactor to be controlled by W2, and the anticipator should be set at .40A. If special field wiring is done, it is best to actually measure the load but a good rule is .40A for each heat contactor controlled by W2.

WALL THERMOSTAT AND SUBBASE COMBINATIONS

Group	Thermostat	Subbase	Predominant Feature
A	8403-017 (T874R1129)	8404-009 (Q674L1181)	Heat or Cool No Auto (1)
B	8403-018 (T874N1024)	8404-010 (Q674F1261)	Automatic Heat-Cool Changeover Position (2)

(1) No automatic changeover position--must manually place in heat or cool. Reversing valve remains energized at all times system switch is in heat position (except during defrost cycle). No pressure equalization noise when thermostat is satisfied on either heating or cooling.

(2) Allows thermostat to control both heating and cooling operation when set in "AUTO" position. Reversing valve de-energizes at end of each "ON" heating cycle.

IMPORTANT NOTE: Both thermostat and subbase combinations shown above incorporate the following features: Man-Auto fan switch, Off-Heat-Cool-Em.Heat Switch, and two (2) indicator lamps--one for emergency heat and one for compressor malfunction.

SEQUENCE OF OPERATION

Cooling - Circuit R-Y makes at thermostat pulling in compressor contactor starting the compressor and outdoor motor. The G (indoor motor) circuit is automatically completed on any call for cooling operation, or can be energized by manual fan switch on subbase for constant air circulation.

Heating - A 24V solenoid coil on reversing valve controls heating cycle operation. Two thermostat options, one allowing "Auto" changeover from cycle to cycle and the other constantly energizing solenoid coil during heating season and thus eliminating pressure equalization noise except during defrost, are to be used. On "Auto" option, a circuit is completed from R-W1 and R-Y on each heating "on" cycle, energizing reversing valve solenoid and pulling in compressor contactor starting compressor and outdoor motor. R-G also make starting indoor blower motor. Heat pump heating cycle now in operation. The second option has no "Auto" changeover position, but instead energizes the reversing valve solenoid constantly whenever the system switch on subbase is placed in "Heat" position, the "B" terminal being constantly energized from R. A thermostat demand for heat completes R-Y circuit, pulling in compressor contactor starting compressor and outdoor motor. R-G also make starting indoor blower motor.

CRANKCASE HEATERS

All units are provided with some form of compressor crankcase heat. Some single phase units utilize the compressor motor start winding in series with a portion of the run capacitor to generate heat within the compressor shell to prevent liquid refrigerant migration.

Some three phase units utilize a wraparound type of crankcase heater that warms the compressor oil from the outside.

Some single and three phase models have an insertion well-type heater located in the lower section of the compressor housing. This is a self-regulating type heater that draws only enough power to maintain the compressor at a safe temperature.

Some form of crankcase heat is essential to prevent liquid refrigerant from migrating to the compressor, causing oil pump out on compressor start-up and possible valve failure due to compressing a liquid.

Refer to unit wiring diagram to find exact type of crankcase heater used.

The following decal is affixed to all outdoor units detailing start-up procedure. This is very important. Please read carefully.

IMPORTANT

THESE PROCEDURES MUST BE FOLLOWED AT INITIAL START-UP AND AT ANY TIME POWER HAS BEEN REMOVED FOR 12 HOURS OR LONGER.

TO PREVENT COMPRESSOR DAMAGE WHICH MAY RESULT FROM THE PRESENCE OF LIQUID REFRIGERANT IN THE COMPRESSOR CRANKCASE

1. MAKE CERTAIN THE ROOM THERMOSTAT IS IN THE "OFF" POSITION (THE COMPRESSOR IS NOT TO OPERATE).
2. APPLY POWER BY CLOSING THE SYSTEM DISCONNECT SWITCH. THIS ENERGIZES THE COMPRESSOR HEATER WHICH EVAPORATES THE LIQUID REFRIGERANT IN THE CRANKCASE.
3. ALLOW 4 HOURS OR 60 MINUTES PER POUND OF REFRIGERANT IN THE SYSTEM AS NOTED ON THE UNIT RATING PLATE, WHICHEVER IS GREATER.
4. AFTER PROPERLY ELAPSED TIME THE THERMOSTAT MAY BE SET TO OPERATE THE COMPRESSOR.
5. EXCEPT AS REQUIRED FOR SAFETY WHILE SERVICING — DO NOT OPEN SYSTEM DISCONNECT SWITCH.

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DEFROST CYCLE

The defrost cycle is controlled by time and temperature. The 24 volt timer motor runs all the time the compressor is in operation. When the outdoor temperature is in the lower 40°F temperature range or colder, the outdoor coil temperature is 32°F or below. This temperature is sensed by the defrost thermostat mounted near the bottom of the outdoor coil on a return bend. The defrost thermostat closes at approximately 32°F. Every 60 (or 30) minutes that the compressor is running, contacts 3-5 close for 7 minutes, with contacts 3-4 closed for the first 40 seconds of that 7 minutes. If the defrost thermostat is closed, the defrost relay energizes and places the system in defrost mode. An interlocking circuit is created with timer contact 3-5 and defrost relay contact 7-9 in series.

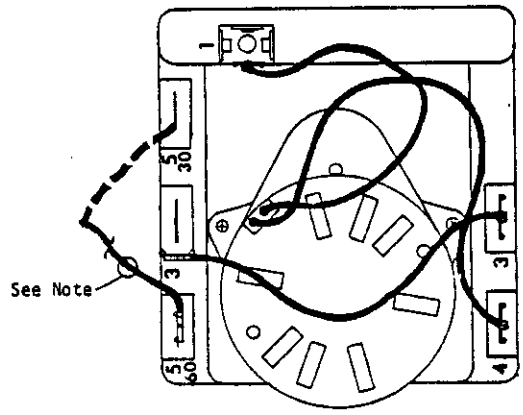
During the defrost mode, the refrigerant cycle switches back to the cooling cycle, the outdoor motor stops, electric heaters are energized, and hot gas passing through the outdoor coil melts any accumulated frost. When the temperature rises to approximately 57°F, the defrost thermostat opens, de-energizing the defrost relay and returning the system to heating operation.

If some abnormal or temporary condition such as a high wind causes the heat pump to have a prolonged defrost cycle, contacts 3-5 of the defrost timer will open after 7 minutes and restore the system to heating operations automatically.

There are two time settings on the defrost timer--30 minutes and 60 minutes. Most models are shipped wired on the 60 minute setting for greatest operating economy. If special circumstances require a change to the shorter time, remove wire connected to terminal 5/60 and reconnect to terminal 5/30.

There is a manual advance knob located on the timer. This can be used to advance timer to contact closure point if it is desired to check out defrost cycle operation, without waiting for time to elapse.

DEFROST TIMER WIRING



NOTE: All models are connected to 5/60 terminal (60 minute). Any model can be changed from 60 minutes to 30 minutes by unplugging from 5/60 terminal and reconnecting to 5/30 terminal as shown by dotted line.

REFRIGERANT CHARGE

The correct system R-22 charge is shown on the unit rating plate. Optimum unit performance will occur with a refrigerant charge resulting in a suction line temperature (6" from compressor) as shown in the following table:

Model	Rated Airflow	95°F O.D. Temp.	82°F O.D. Temp.
RPMH30A	1100	59 - 61	69 - 71
RPMH36A	1275	58 - 60	70 - 72

The above suction line temperatures are based upon 80°F dry bulb/67°F wet bulb (50% R.H.) temperature and rated airflow across the evaporator during cooling cycle.

SERVICE HINTS

1. Caution homeowner to maintain clean air filters at all times. Also, not to needlessly close off supply and return air registers. This reduces air flow through the system, which shortens equipment service life as well as increasing operating costs.
2. Switching to heating cycle at 75°F or higher outside temperature may cause a nuisance trip of the manual reset high pressure switch.
3. The heat pump wall thermostats perform multiple functions. Be sure that all function switches are correctly set for the desired operating mode before trying to diagnose any reported service problems.
4. Check all power fuses or circuit breakers to be sure that they are the correct rating.
5. Periodic cleaning of the outdoor coil to permit full and unrestricted airflow circulation is essential.

INDOOR BLOWER PERFORMANCE CFM - Dry Coil With Filter			
E.S.P. In H_2O	RPMH30A and RPMH36A		
	High Speed	Medium Speed	Low Speed
.0	1425	1225	1130
.10	1385	1190	1115
.20	1330	1150	1085
.30	1275	1100	1050
.40	1205	1050	1005
.50	1130	995	950
.60	1060	935	890

IMPORTANT INSTALLER NOTES

1. For improved start-up performance, wash the indoor coil with a dishwasher detergent.

†*Time Delay Fuses or "HACR Type" circuit breakers must be used for 60A and smaller sizes. Standard fuses or circuit breakers suitable for sizes 70A and larger.
**Max amount of electric heat which can be operated in conjunction with the compressor during heating mode is 10Kw on 1 phase and 12Kw on 3 phase. The balance of the electric heat can be operated only during compressor cut off or emergency heat mode.
***Based on 60°C copper wire.

ELECTRICAL DATA									
Model	Rated Volts & Ph	Heater Kw @ 240V	Max. Unit Amps	No. Field Power Circuits	Internal Fuses Ckt.A/B	Maximum Fuse or Circuit Breaker* Ckt.A	Minimum Circuit Ampacity Ckt.A	Field*** Power Wiring Ckt.A	Ground*** Wire Size Ckt.A
RPMH30A	230/208-1	0	22.3	1		40	27	10	10
		5	43.1	1		60	53	6	10
		10	63.9	1	60/30	80	79	2	8
		**15	65.3	1	60/60	90	82	2	8
		**20	86	1	60/60	110	108	1	6
RPMH30A-3	230/208-3	0	16.3	1		30	19	12	12
		6	30.7	1		45	37	8	10
		9	38	1		50	46	6	10
		12	45.2	1		60	55	6	10
		**18	46.2	1		60	58	4	10
RPMH30A-3	460-3	0	8.2	1		15	15	14	14
		6	15.4	1		20	19	12	12
		9	19	1		25	23	10	10
		12	22.6	1		30	28	10	10
		**18	23.1	1		30	29	10	10
RPMH36A	230/208-1	0	24.3	1		45	29	10	10
		5	45.1	1		60	55	6	10
		10	65.9	1	60/30	90	82	2	8
		**15	65.9	1	60/60	90	82	2	8
		**20	86	1	60/60	110	108	1	6
RPMH36A-3	230/208-3	0	17.3	1		30	21	12	14
		6	31.7	1		45	39	8	10
		9	39	1		50	48	6	10
		12	46.2	1		60	57	4	10
		**18	46.2	1		60	58	4	10
RPMH36A-3	460-3	0	9.2	1		15	15	14	14
		6	16.4	1		25	20	10	10
		9	20	1		25	25	10	10
		12	23.6	1		30	29	10	10
		**18	23.6	1		30	29	10	10

†See footnotes above.

PARTS LIST
SINGLE PACKAGE HEAT PUMPS

8/84

PART NO.	DESCRIPTION	RPMH30A	RPMH30A-3	RPMH36A	RPMH36A-3	RPMH30A-3 460V	RPMH36A-3 460V
5202-003	Accumulator	x	x	x			
5202-004	Accumulator				x	x	x
*	Blower Housing 10-8	x	x	x	x	x	x
5152-010	Blower Wheel DD10-7A	x	x	x	x	x	x
8552-035	Capacitor 40/370V	x		x			
8552-019	Capacitor 5/440V	x	x	x	x	x	x
8552-002	Capacitor 5/370V	x	x	x	x	x	x
5811-033	Capillary Tube - Cool	(2)	(2)	(2)	(2)	(2)	(2)
5811-020	Capillary Tube - Heat	x	x	x	x	x	x
8000-052	Compressor - CRG1-0250-PFV-270	x					
8000-053	Compressor - CRG1-0250-TF5-270		x				
8000-054	Compressor - CRG1-0250-TFD-270					x	
8000-055	Compressor - CRH1-0275-PFV-270			x			
8000-056	Compressor - CRH1-0275-TF5-270				x		
8000-057	Compressor - CRH1-0275-TFD-270						x
5051-003	Condenser Coil	x	x	x	x	x	x
8401-007	Contactor 1P25A	x		x			
8401-002	Contactor 3P25A		x		x	x	x
101-006	Contactor 2P20	x	x	x	x		
408-004	Defrost Mounting Plate	x	x	x	x	x	x
8408-012	Defrost Thermostat	x	x	x	x	x	x
5060-022	Evaporator Coil	x	x	x	x	x	x
5151-024	Fan Blade A-1831-5	x	x	x	x	x	x
7051-014	Fan Guard	x	x	x	x	x	x
8614-006	Fuse OT30	x		x			
8614-007	Fuse OT60	x		x			
8614-022	Fuse TR60	x		x			
8614-017	Fuse Block	x		x			
8614-018	Fuse Block	x		x			
8604-023	Heat Strip 5Kw	x		x			
8604-024	Heat Strip 10Kw	x		x			
8604-025	Heat Strip 15Kw	x		x			
8604-064	Heat Strip 6Kw		x		x		
8604-035	Heat Strip 9Kw		x		x		
8604-036	Heat Strip 12Kw		x		x		
8604-065	Heat Strip 6Kw					x	x
8604-032	Heat Strip 9Kw					x	x
8604-033	Heat Strip 12Kw					x	x
8406-011	High Pressure Switch	x	x	x	x	x	x
8402-020	Limit Switch 135° - 120°	x	x	x	x	x	x
8105-010	Motor - Blower 1/3 hp	x	x	x	x	x	x
8103-007	Motor - Fan 1/5 hp	x	x	x	x	x	x

*Please order by model number.

PARTS LIST
SINGLE PACKAGE HEAT PUMPS

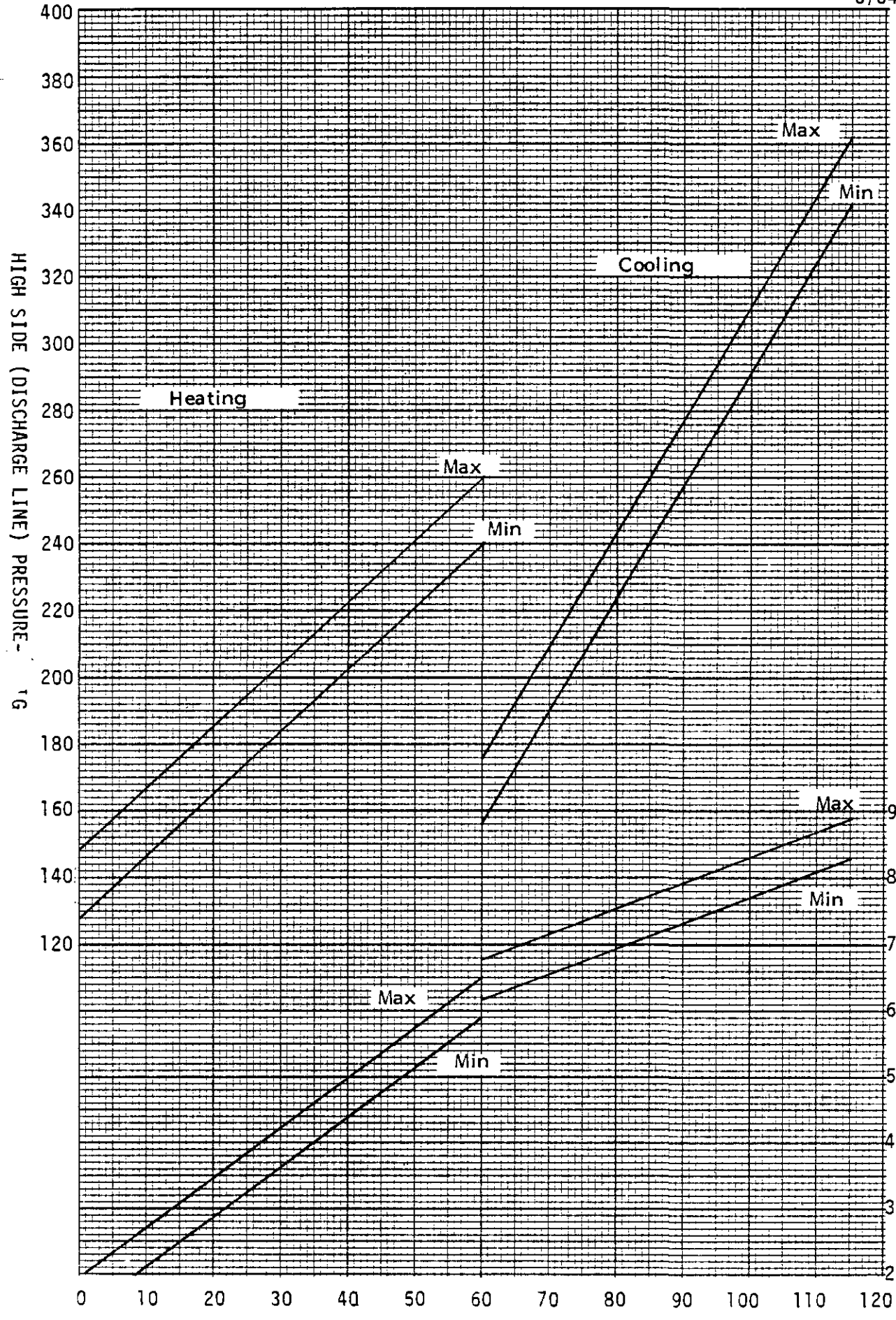
8/84

PART NO.	DESCRIPTION	RPMH30A	RPMH30A-3	RPMH36A	RPMH36A-3	RPMH30A-3 460V	RPMH36A-3 460V
5651-036	Check Valve	x	x	x	x	x	x
8200-003	Motor Mount - Blower	x	x	x	x	x	x
8200-022	Motor Mount - Fan	x	x	x	x	x	x
5451-011	Motor Mounting Parts	x	x	x	x	x	x
5451-009	Motor Mounting Parts - Fan	x	x	x	x	x	x
5153-022	Rain Shield	x	x	x	x	x	x
8201-009	Relay - Blower	x	x	x	x	x	x
8201-013	Relay - Emergency Heat	x	x	x	x	x	x
8201-047	Relay - Defrost	x	x	x	x	x	x
8201-031	Relay - Compressor Fault	x		x			
5650-005	Reversing Valve	x	x			x	
5650-006	Reversing Valve			x	x		x
5650-008	Solenoid Coil	x	x	x	x	x	x
5210-004	Strainer	x	x	x	x	x	x
5210-002	Strainer	x	x	x	x	x	x
8607-010	Terminal Board	x	x	x	x	x	x
8607-013	Terminal Block	x		x			
8607-014	Terminal Block		x		x	x	x
8402-030	Thermal Cutoff	x	x	x	x	x	x
8612-012	Timer w/7 Min. Time Safe	x	x	x	x	x	x
8407-035	Transformer	x	x	x	x	x	x
8407-003	Transformer - Stepdown 1.5 KVA					x	x
8607-015	Phenolic Insulator					x	x

Minimum Net Billing $15.00. Supersedes all previous lists. Subject to change without notice.

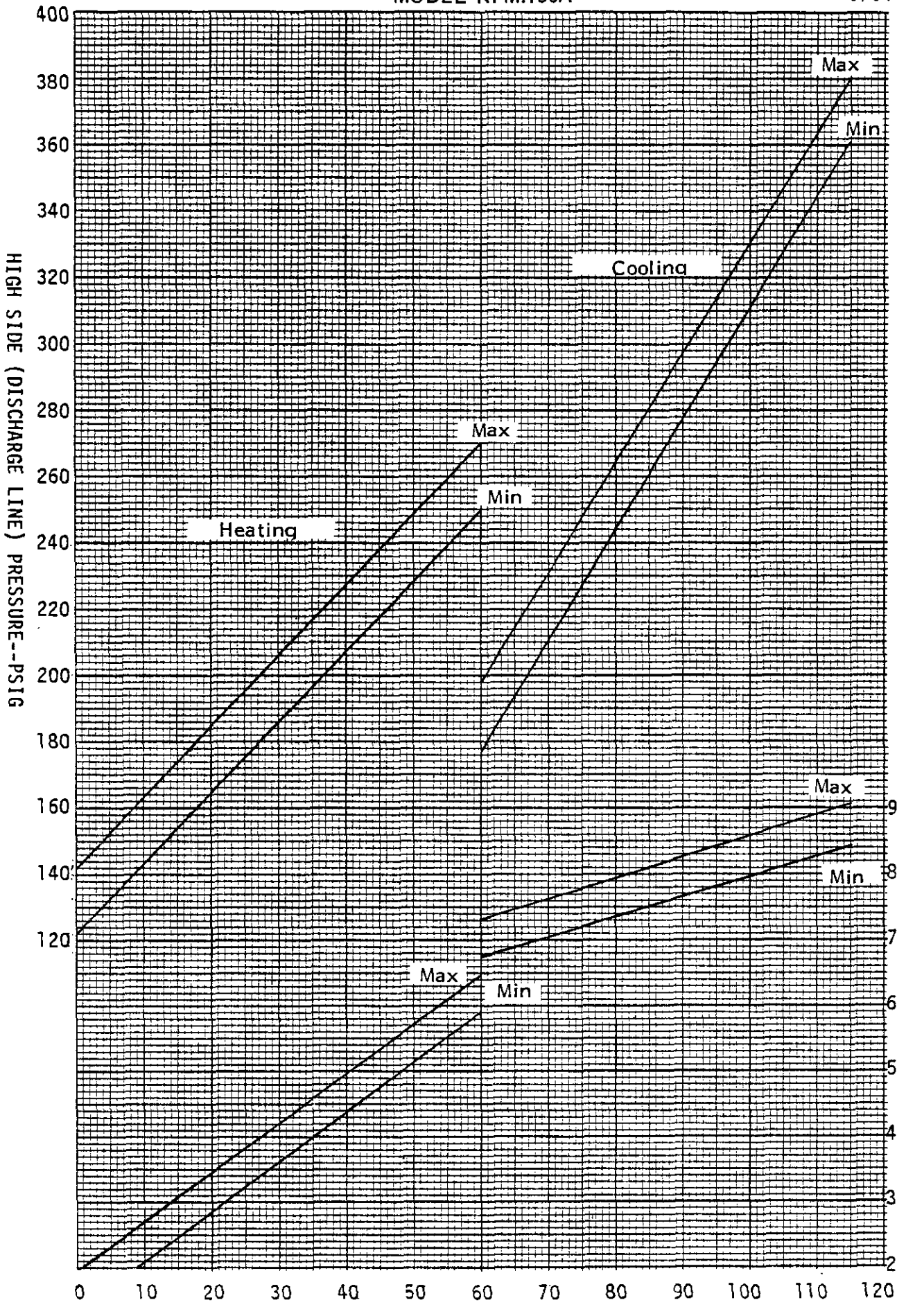
MODEL RPMH30A

8/84

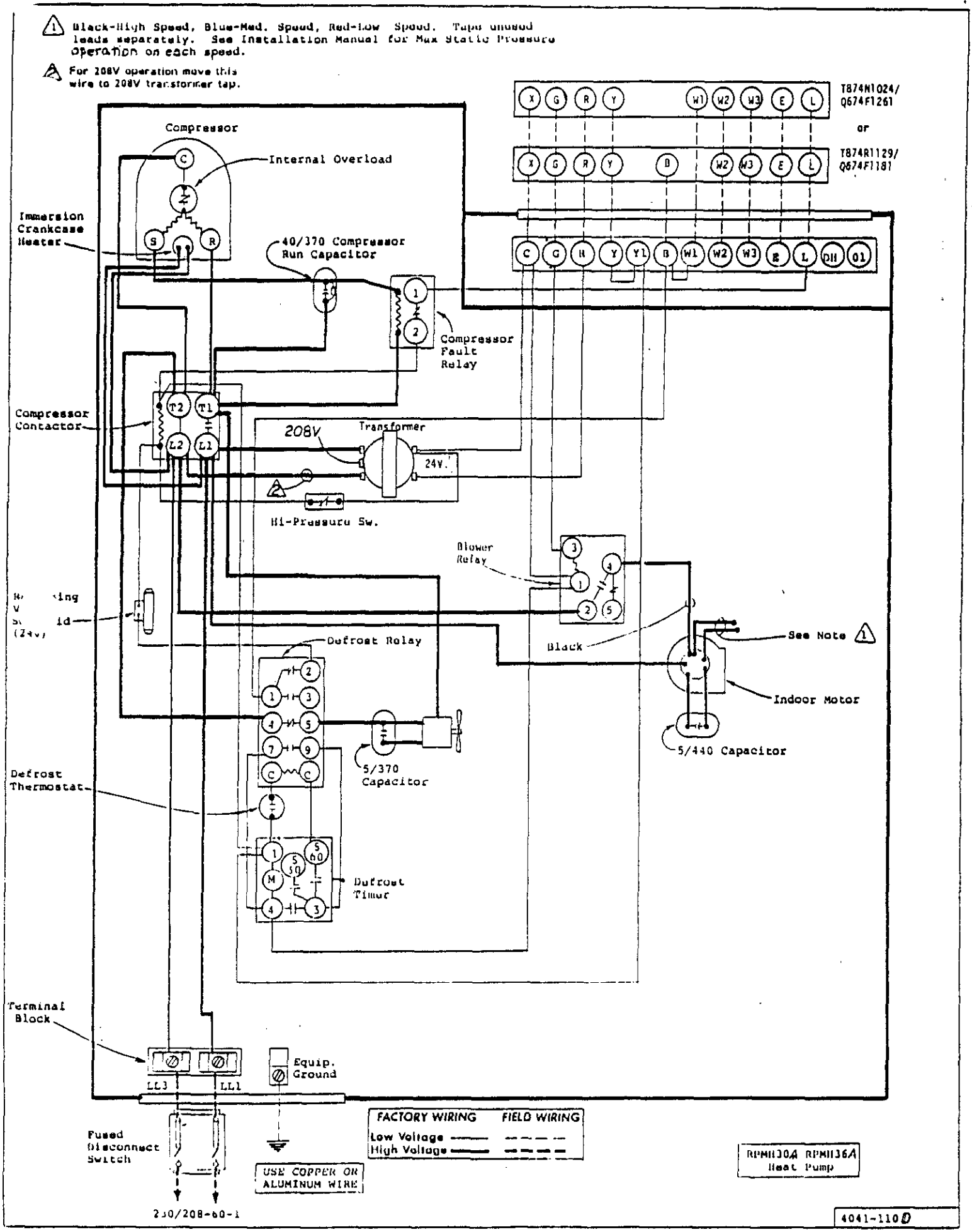


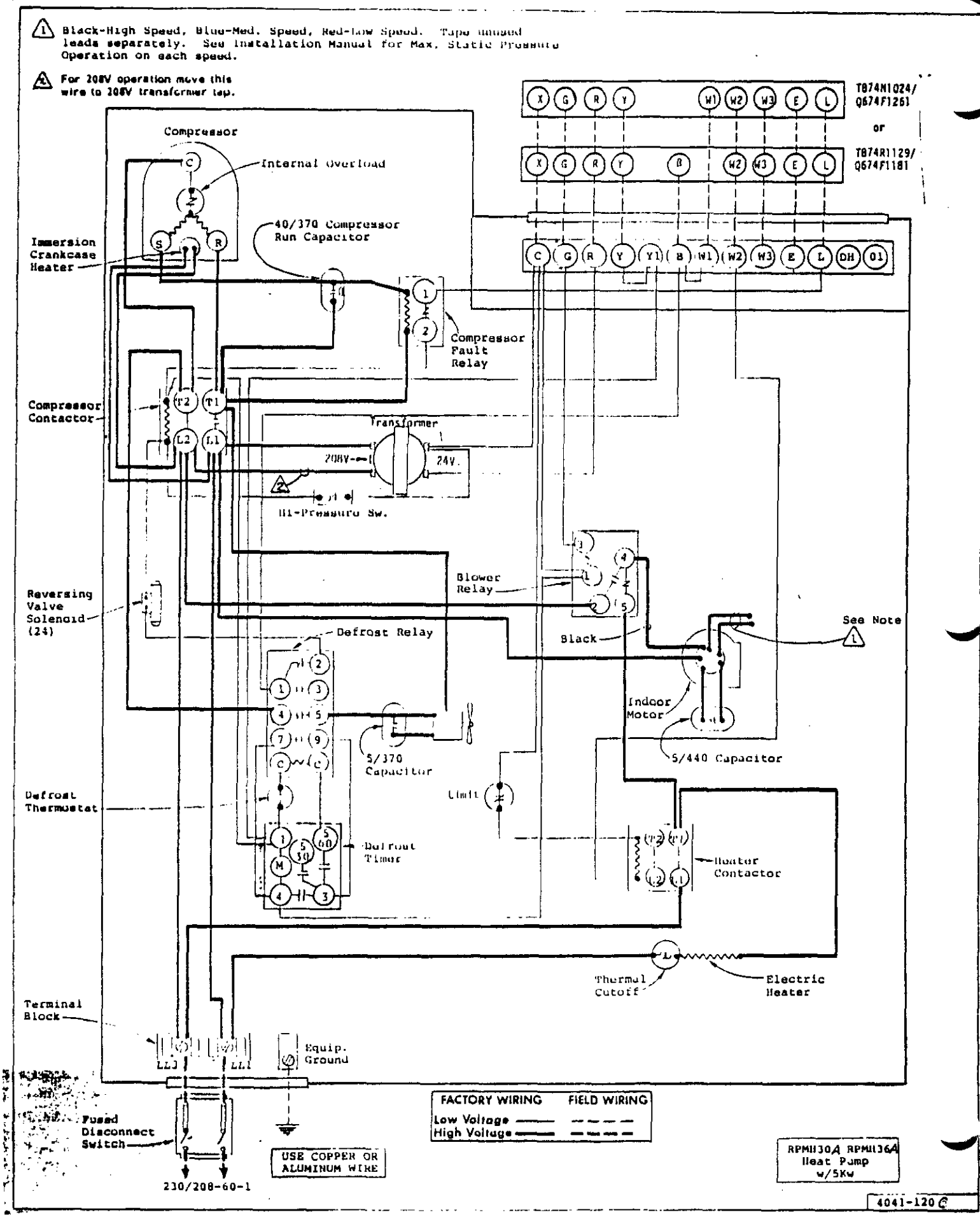
These curves are based upon 80°DB, 67°WB R.A. Temp. and Rated CFM (airflow) across the evaporator coil and should be used for reference purposes only. Special information can be found under section titled "Refrigerant Charge" elsewhere in manual. If there is any doubt as to correct operating charge being in the system, the charge should be removed, system evacuated, and recharged according to serial plate instructions.

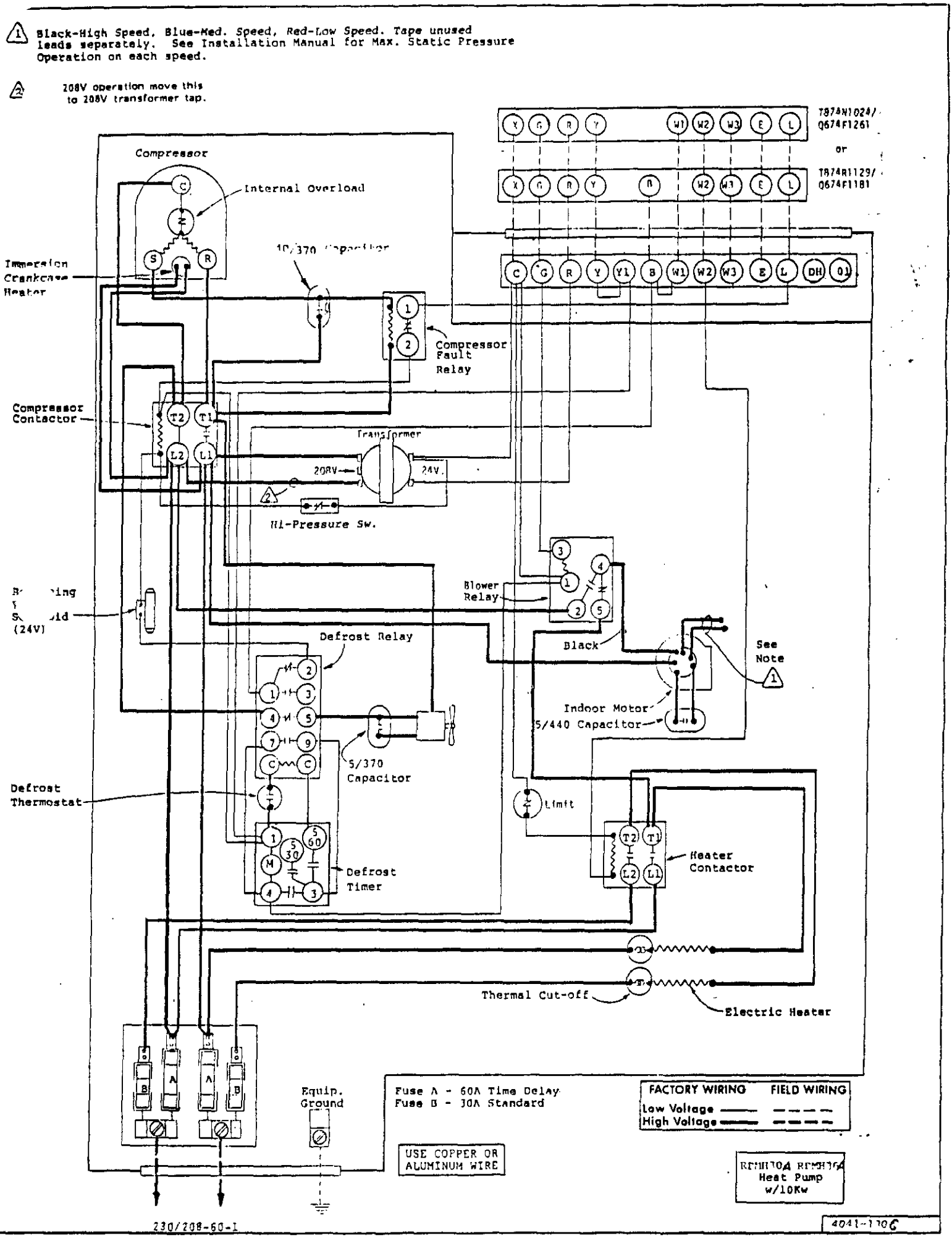
MODEL RPMH36A 8/84

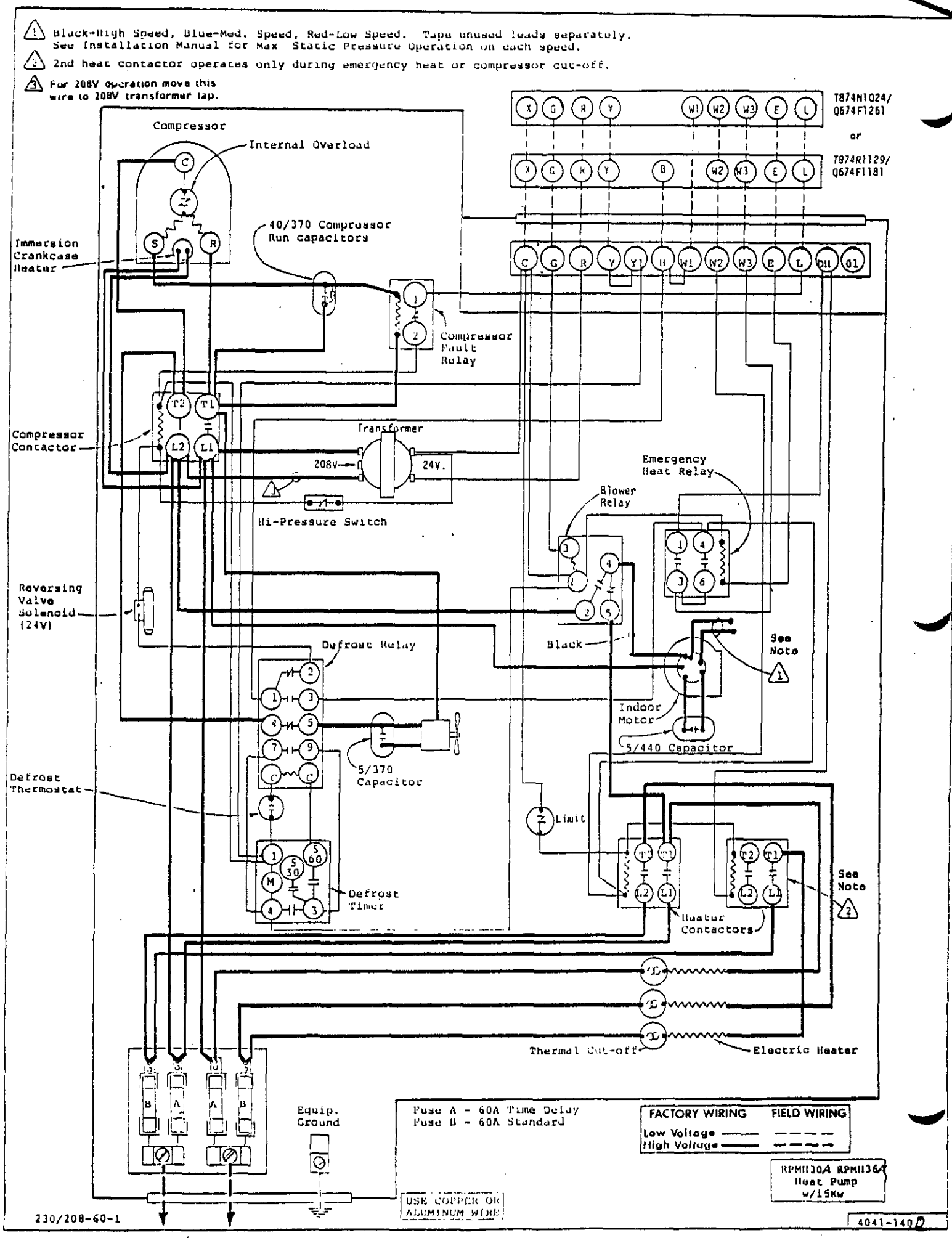


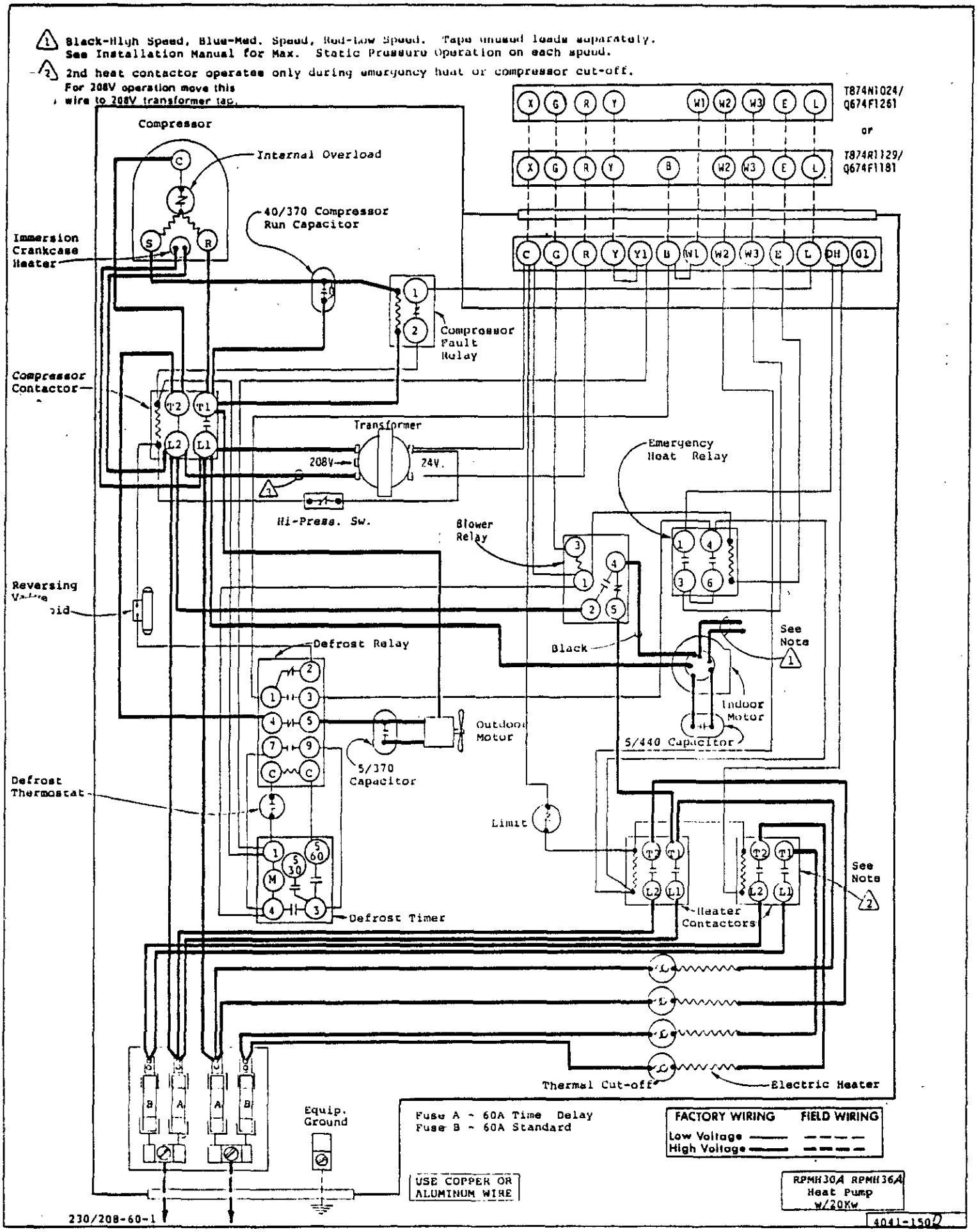
These curves are based upon 80°DB, 67°WB R.A. Temp. and rated CFM flow across the evaporator coil and should be for reference purposes only. Special information can be found under section titled "Refrigerant Charge" elsewhere in manual. If there is any doubt as to correct operating charge being in the system, the charge should be removed, system evacuated, and recharged according to serial plate instructions.

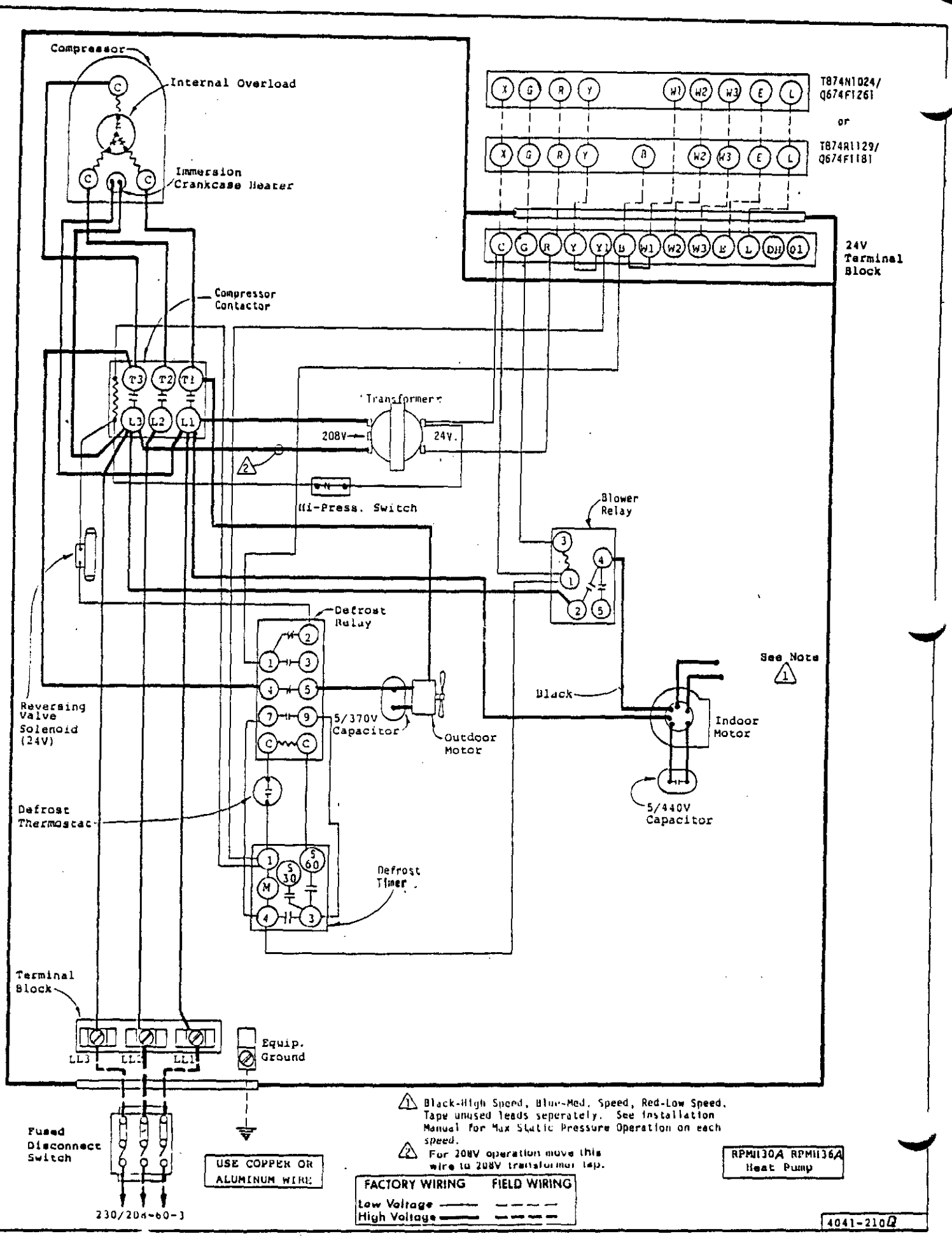

1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max Static Pressure operation on each speed.
2 For 208V operation move this wire to 208V transformer tap.
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
X G R Y B W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
Compressor
Internal Overload
C
S
R
Immersion Crankcase Heater
40/370 Compressor Run Capacitor
Compressor Fault Relay
Compressor Contactor
T2
T1
L2
L1
208V
Transformer
24V.
Hi-Pressure Sw.
Blower Relay
Defrost Relay
Black
See Note 1
Indoor Motor
5/440 Capacitor
5/370 Capacitor
Defrost Thermostat
Defrost Timer
Terminal Block
LL3
LL1
Equip. Ground
Fused Disconnect Switch
230/208-60-1
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
USE COPPER OR ALUMINUM WIRE
RPM130A RPM136A Heat Pump
4041-110D

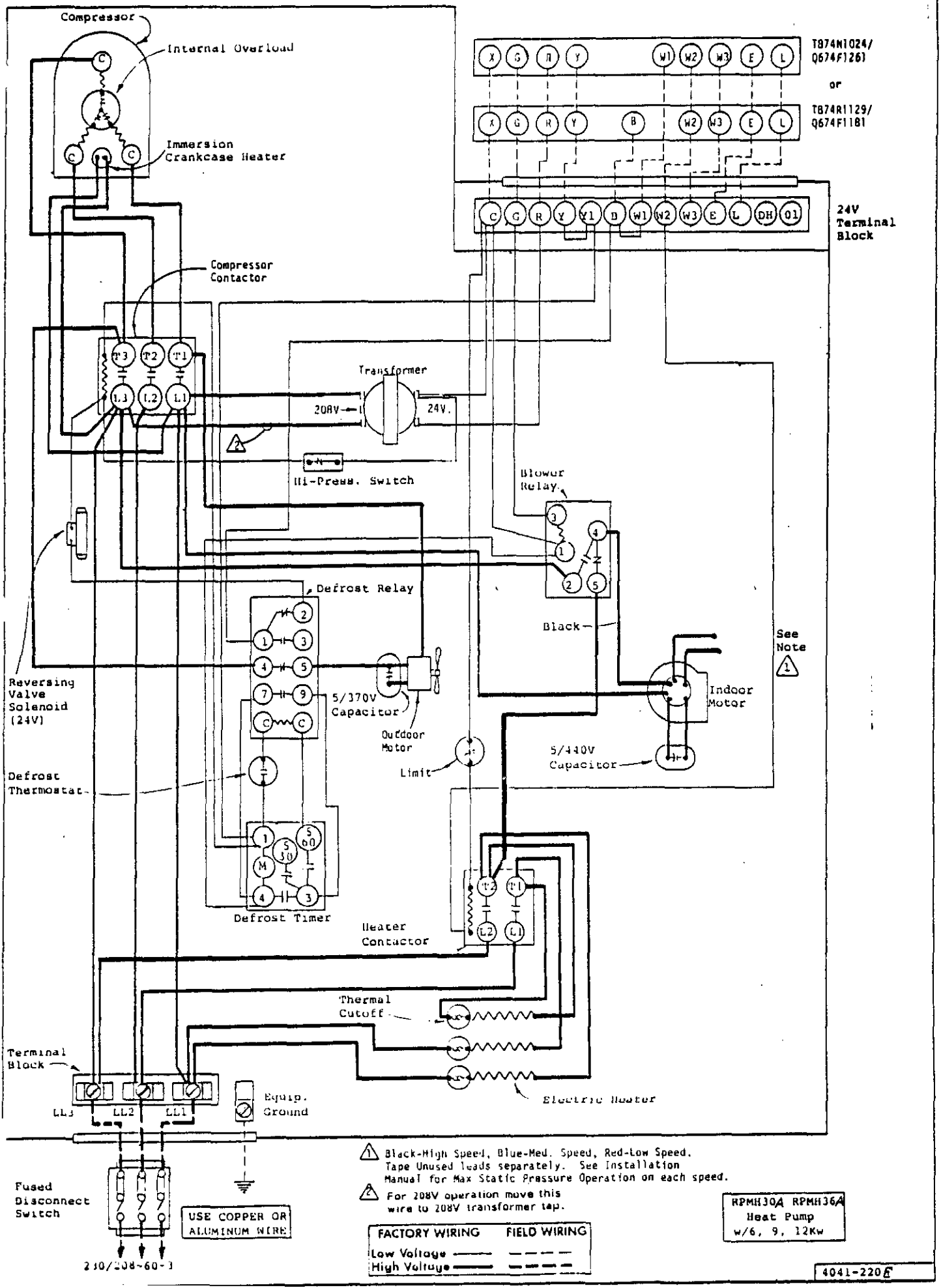

1 Black-High Speed, Blue-Med. Speed, Red-low Speed. Tape unused leads separately. See Installation Manual for Max. Static Pressure Operation on each speed.
2 For 208V operation move this wire to 208V transformer tap.
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
Compressor
Internal Overload
C S R
Immersion Crankcase Heater
40/370 Compressor Run Capacitor
Compressor Fault Relay
Compressor Contactor
T2 T1 L2 L1
Transformer
208V
24V.
Hi-Pressure Sw.
Blower Relay
Reversing Valve Solenoid (24)
Defrost Relay
Black
See Note 1
Indoor Motor
5/370 Capacitor
5/440 Capacitor
Limit
Defrost Thermostat
Defrost Timer
Heater Contactor
Thermal Cutoff
Electric Heater
Terminal Block
L2 L1
Equip. Ground
Fused Disconnect Switch
230/208-60-1
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
USE COPPER OR ALUMINUM WIRE
RPM1130A RPM1136A Heat Pump w/5Kw
4041-120 C

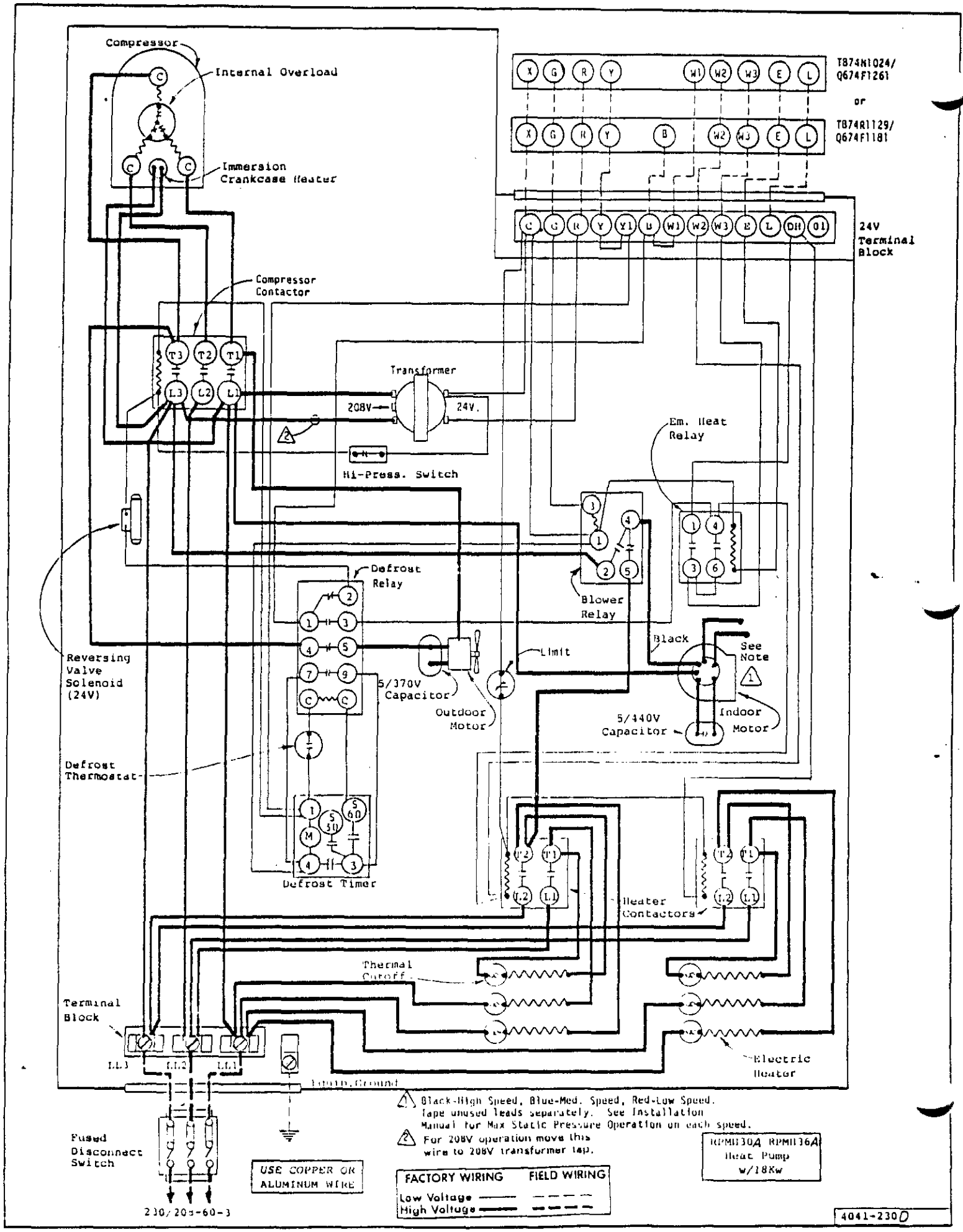

1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max. Static Pressure Operation on each speed.
2 208V operation move this to 208V transformer tap.
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
Compressor
Internal Overload
Immersion Crankcase Heater
Compressor Fault Relay
Compressor Contactor
T2 T1 L2 L1
Transformer
208V
24V.
Hi-Pressure Sw.
Blower Relay
Defrost Relay
Black
See Note 1
Indoor Motor 5/440 Capacitor
5/370 Capacitor
Defrost Thermostat
Defrost Timer
Limit
Heater Contactor
Thermal Cut-off
Electric Heater
A A B B
Equip. Ground
Fuse A - 60A Time Delay
Fuse B - 30A Standard
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
USE COPPER OR ALUMINUM WIRE
Heat Pump w/10Kw
230/208-60-1
4041-1706

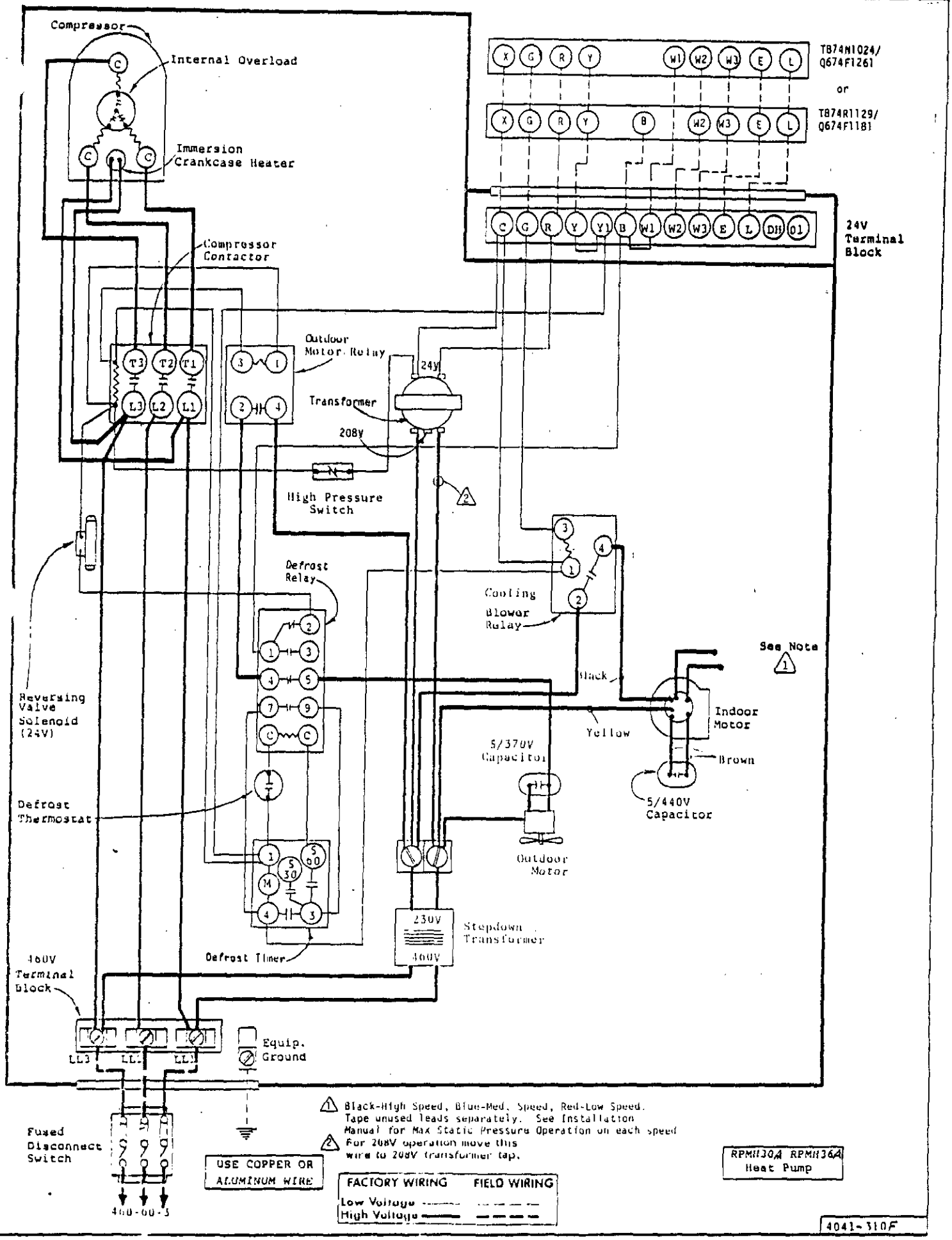

1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max Static Pressure Operation on each speed.
2 2nd heat contactor operates only during emergency heat or compressor cut-off.
3 For 208V operation move this wire to 208V transformer tap.
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
X G R Y B W2 W3 E L
C G R Y Y1 H W1 W2 W3 E L DH O1
Compressor
Internal Overload
C S R
Immersion Crankcase Heater
40/370 Compressor Run capacitors
Compressor Fault Relay
T2 T1
L2 L1
Compressor Contactor
Transformer
208V
24V.
Hi-Pressure Switch
Emergency Heat Relay
Blower Relay
Reversing Valve Solenoid (24V)
Defrost Relay
Black
See Note 1
Indoor Motor
5/440 Capacitor
5/370 Capacitor
Defrost Thermostat
Limit
Defrost Timer
Heater Contactors
See Note 2
Thermal Cut-off
Electric Heater
B A A B
Equip. Ground
Fuse A - 60A Time Delay
Fuse B - 60A Standard
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMH130A RPMH136A Heat Pump w/15Kw
USE COPPER OR ALUMINUM WIRE
230/208-60-1
4041-140D

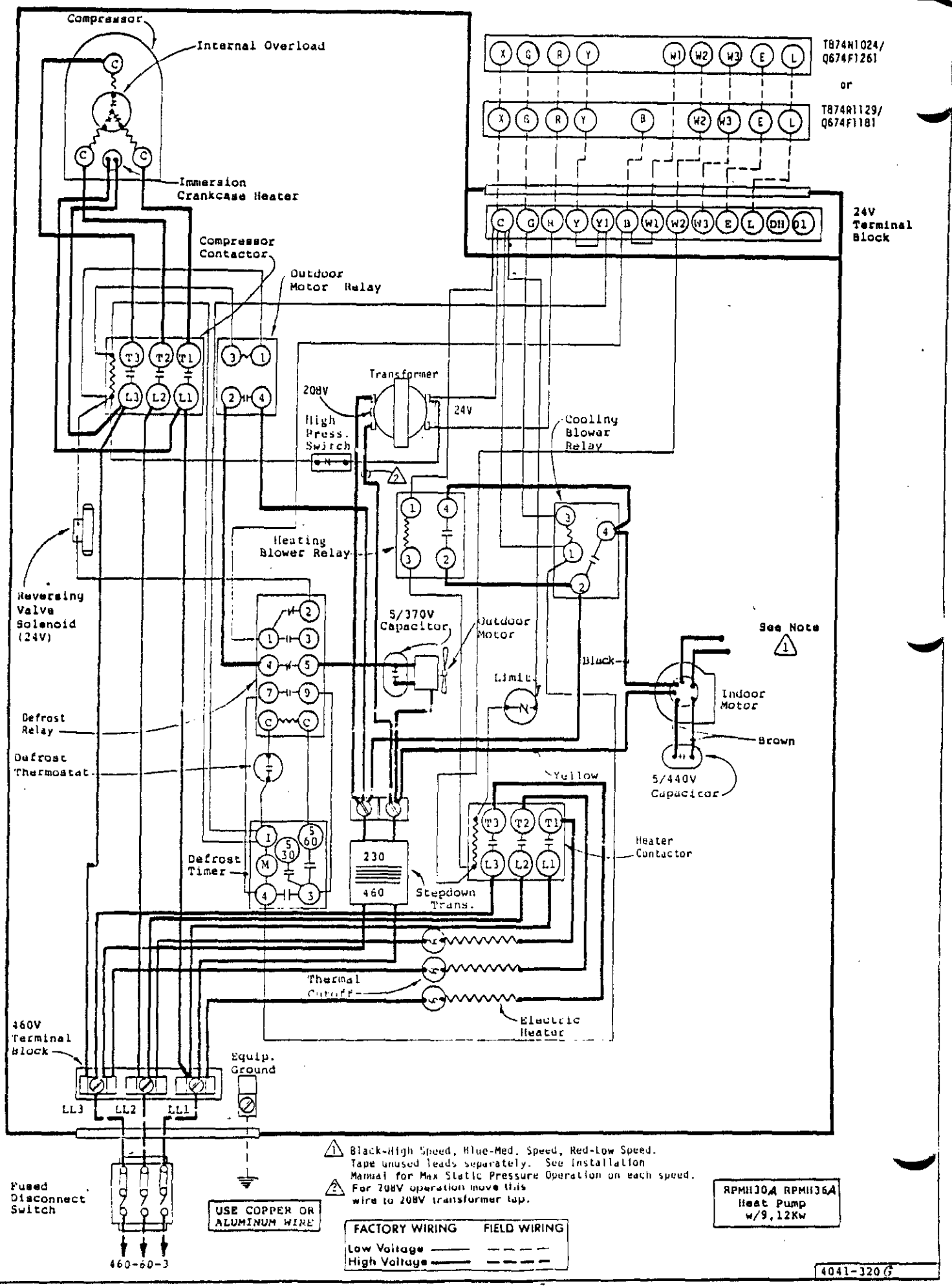

1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max. Static Pressure Operation on each speed.
2 2nd heat contactor operates only during emergency heat or compressor cut-off.
For 208V operation move this wire to 208V transformer tap.
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
X G R Y B W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
Compressor
Internal Overload
C S R
Immersion Crankcase Heater
40/370 Compressor Run Capacitor
Compressor Fault Relay
Compressor Contactor
T2 T1 L2 L1
Transformer
208V
24V.
Hi-Press. Sw.
Emergency Heat Relay
Blower Relay
Reversing Valve
Solenoid
Defrost Relay
Black
See Note 1
Indoor Motor
5/440 Capacitor
Outdoor Motor
5/370 Capacitor
Defrost Thermostat
Limit
See Note 2
Heater Contactors
Defrost Timer
Thermal Cut-off
Electric Heater
Equip. Ground
B A A B
Fuse A - 60A Time Delay
Fuse B - 60A Standard
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
USE COPPER OR ALUMINUM WIRE
RPMH30A RPMH36A Heat Pump w/20Kw
230/208-60-1
4041-150D


Compressor
Internal Overload
Immersion Crankcase Heater
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
24V Terminal Block
Compressor Contactor
Transformer
208V
24V.
Hi-Press. Switch
Blower Relay
Defrost Relay
See Note 1
Reversing Valve Solenoid (24V)
5/370V Capacitor
Outdoor Motor
Black
Indoor Motor
5/440V Capacitor
Defrost Thermostat
Defrost Timer
Terminal Block
Equip. Ground
Fused Disconnect Switch
USE COPPER OR ALUMINUM WIRE
230/208-60-3
1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads seperately. See Installation Manual for Max Static Pressure Operation on each speed.
2 For 208V operation move this wire to 208V transformer tap.
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMI30A RPMI36A Heat Pump
4041-210Q


Compressor
Internal Overload
Immersion Crankcase Heater
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
X G R Y W1 W2 W3 E L
X G R Y B W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
24V Terminal Block
Compressor Contactor
T3 T2 T1
L3 L2 L1
Transformer
208V
24V.
Hi-Press. Switch
Blower Relay
Defrost Relay
Reversing Valve Solenoid (24V)
5/370V Capacitor
Outdoor Motor
Black
See Note 1
Indoor Motor
5/440V Capacitor
Limit
Defrost Thermostat
Defrost Timer
Heater Contactor
Thermal Cutoff
Terminal Block
L3 L2 L1
Equip. Ground
Electric Heater
Fused Disconnect Switch
USE COPPER OR ALUMINUM WIRE
230/208-60-3
1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape Unused leads separately. See Installation Manual for Max Static Pressure Operation on each speed.
2 For 208V operation move this wire to 208V transformer tap.
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMH30A RPMH36A Heat Pump w/6, 9, 12Kw
4041-220E


Compressor
Internal Overload
Immersion Crankcase Heater
TB74N1024/ Q674F1261
or
TB74R1129/ Q674F1181
24V Terminal Block
Compressor Contactor
Transformer
208V
24V.
Hi-Press. Switch
Em. Heat Relay
Blower Relay
Defrost Relay
Reversing Valve Solenoid (24V)
5/370V Capacitor
Outdoor Motor
Limit
Black
See Note
5/440V Capacitor
Indoor Motor
Defrost Thermostat
Defrost Timer
Heater Contactors
Thermal Cutoff
Terminal Block
Electric Heater
Fused Disconnect Switch
230/208-60-3
USE COPPER OR ALUMINUM WIRE
Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max Static Pressure Operation on each speed.
For 208V operation move this wire to 208V transformer tap.
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMH30A RPMH36A Heat Pump w/18Kw
4041-230D


Compressor
Internal Overload
Immersion Crankcase Heater
Compressor Contactor
Outdoor Motor Relay
Transformer
208V
24V
High Pressure Switch
Defrost Relay
Cooling Blower Relay
Reversing Valve Solenoid (24V)
Defrost Thermostat
Defrost Timer
460V Terminal Block
Stepdown Transformer
230V
460V
5/370V Capacitor
5/440V Capacitor
Indoor Motor
Outdoor Motor
Black
Yellow
Brown
See Note 1
TB74N1024/ Q674F1261
or
TB74R1129/ Q674F1181
24V Terminal Block
X G R Y W1 W2 W3 E L
X G R Y B W2 W3 E L
C G R Y Y1 B W1 W2 W3 E L DH O1
T3 T2 T1
L3 L2 L1
LL3 LL2 LL1
Equip. Ground
Fused Disconnect Switch
460-60-3
USE COPPER OR ALUMINUM WIRE
1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max Static Pressure Operation on each speed
2 For 208V operation move this wire to 208V transformer tap.
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMH30A RPMH36A Heat Pump
4041-310F


Compressor
Internal Overload
Immersion Crankcase Heater
Compressor Contactor
Outdoor Motor Relay
T874N1024/ Q674F1261
or
T874R1129/ Q674F1181
24V Terminal Block
Transformer
208V
24V
High Press. Switch
Cooling Blower Relay
Heating Blower Relay
Reversing Valve Solenoid (24V)
5/370V Capacitor
Outdoor Motor
See Note 1
Black
Limit
Indoor Motor
Brown
5/440V Capacitor
Yellow
Defrost Relay
Defrost Thermostat
Defrost Timer
230
460
Stepdown Trans.
Heater Contactor
Thermal Cutoff
Electric Heater
460V Terminal Block
Equip. Ground
LL3
LL2
LL1
Fused Disconnect Switch
460-60-3
USE COPPER OR ALUMINUM WIRE
1 Black-High Speed, Blue-Med. Speed, Red-Low Speed. Tape unused leads separately. See Installation Manual for Max Static Pressure Operation on each speed.
2 For 208V operation move this wire to 208V transformer tap.
FACTORY WIRING
FIELD WIRING
Low Voltage
High Voltage
RPMH30A RPMH36A Heat Pump w/9,12Kw
4041-320 G