PS Refrigerated Air Dryer

OPERATOR'S MANUAL

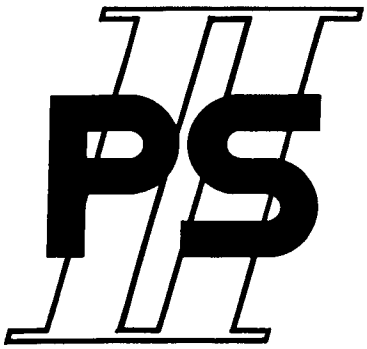
Models 100-1500

SULLAIR

SULLAIR CORPORATION
Subsidiary of Sundstrand Corporation
3700 E. MICHIGAN BOULEVARD
MICHIGAN CITY, INDIANA 46360
PHONE: 1-800-348-2722

P/N 250041-220

Effective 11-1-86
Supersedes 7-31-84



Refrigerated Air Dryer

KEEP YOUR MACHINE IN TOP

OPERATING CONDITION

USE

GENUINE

SULLAIR®

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CONTACT YOUR NEAREST SULLAIR

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SULLAIR REFRIGERATED AIR DRYER OPERATOR'S MANUAL

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FOREWORD

A. This manual contains parts list, information and recommendations for installing, operating, and servicing the Pure-Aire Refrigerated Air Dryers. The unit is designed and manufactured to the highest quality standards. All totally self-contained units have been fully tested and inspected by the manufacturer before shipment from the factory.

B. The information, specifications and illustrations in this manual are in accord with the information in effect at the time of printing. The manufacturer reserves the right to change design and specifications without notice and without incurring obligations.

C. The refrigerant (R-12 or R-22) and air system can be easily followed by referring to the schematic diagram (dwg. no. 8268).

D. A complete set of gauges and indicating lights are provided as standard equipment for analyzing the system's operation and performance.

E. Direct any questions or problems not covered herein to the Sullair subsidiary from whom the unit was purchased, or Pure-Aire, Inc. Always specify the model and serial number of the machine in all correspondence regarding service and parts.

F. Authorization and shipping instructions must be obtained from the factory before returning the parts to the factory (Pure-Aire, Inc.). The manufacturer will not be responsible for parts returned without proper authorization or identification.

G. CSA stamped refrigerated air dryers have the following standard features:

1. Inlet Air Pressure Gauge
2. Inlet Air Temperature Gauge
3. Outlet Air Pressure Gauge
4. Refrigerant Suction Pressure Gauge and Warning Light.
5. Refrigerant Head (Discharge) Pressure Gauge and Warning Light.
6. Full Voltage Starter
   (a) Pushbutton operation (start-stop-reset)
   (b) A 110V. holding coil which provides refrigerant system protection by being connected to the low and high pressure switches. This coil also prevents automatic re-start after loss of power.
   (c) Power indication light
   (d) Adjustable thermal overload protection
   (e) Fixed instantaneous overcurrent protection.
7. Automatic drain traps (ball float type)
8. Cabinet
9. Options:
   (a) High Inlet Air Temperature Light
   (b) High Evaporator Temperature Light
   (c) Air Outlet Temperature Gauge

GENERAL INFORMATION

The Pure-Aire Refrigerated Air Dryer is designed for the purpose of removing moisture from compressed air by cooling to a temperature of 35°F/39°F or 50°F.

PRINCIPLE OF OPERATION
(Refer to Schematic Diagram — Drawing No. 8268)

AIR-COOLED CONDENSING UNIT

(A) REFRIGERANT CIRCUIT:

Refrigerant (R-12 or R-22) is pumped through a closed-loop system with two basic sections commonly referred to as high and low pressure sections. The circuit leaving the evaporator (Refrigerant- To- Air Heat Exchanger) to the accumulator then to the compressor inlet is known as the low pressure or suction side. The circuit leaving the refrigerant compressor to the condenser, to the expansion valves and the hot gas bypass valve is known as the high pressure or discharge side.

The compressor increases the pressure and temperature of the low pressure refrigerant gas drawn from the evaporator through the accumulator (an isentropic process), and discharging it into an air-cooled condenser. In the condenser, heat is removed from the high pressure and temperature refrigerant gas which condenses and becomes a saturated liquid at constant pressure. A condenser fan(s) automatically cycled by a pressure switch, controls the refrigerant pressure in the condenser. The refrigerant then flows into a liquid receiver tank (to insure that only liquid refrigerant will flow out to the system), liquid line filter drier (which prevents plugging of the expansion valves due to retention scale, dirt, moisture, etc.), and into the sight glass/moisture indicator (which determines the condition of the refrigerant in the system).

The high pressure liquid refrigerant then passes through a thermostatic expansion valve, which reduces the pressure and temperature of the refrigerant (through adiabatic expansion process) causing it to boil or vaporize until it is at the saturation temperature corresponding to its reduced pressure. It also regulates the flow of the liquid refrigerant to the evaporator by the modulating action of the pressures (bulb, evaporator and spring) acting on the valve to maintain a minimum of 5°F. superheat between liquid refrigerant entering and refrigerant gas leaving the evaporator.

As the low pressure and temperature liquid refrigerant enters the evaporator, it absorbs the heat (at constant pressure) from the compressed air causing the boiling action to continue until it is completely vaporized. The compressor takes in the low pressure and temperature vapor through the accumulator for another cycle.

It is desired to limit the minimum evaporating pressure during periods of low loads, either to prevent coil icing or to avoid operating the compressor at a low suction pressure and temperature than it was designed for. Therefore, a portion of the high pressure and temperature refrigerant gas taken between the compressor discharge and the condenser inlet, is bypassed into the suction (low) side through a hot gas bypass valve set to automatically maintain the desired minimum evaporating pressure regardless of the decrease in evaporator load.

This bypassed hot gas is cooled to the required compressor suction temperature of 65°F. maximum (to prevent compressor motor winding overheating) by injecting enough liquid refrigerant into the suction (low) side through a desuperheating thermostatic expansion valve connected by a tee to the hot gas bypass valve and the suction line.

(B) COMPRESSED AIR CIRCUIT:

The compressed air drying circuit uses an air-to air heat exchanger, which acts as a precooler/reheater, and an air-to-refrigerant heat exchanger. The tubing in both heat exchangers is copper to increase heat transfer, increase service life and reduce corrosion.

Warm saturated air first enters the air-to-air heat exchanger, where it is precooled. By precooling the incoming air, energy is saved through reduction of the heat load imposed on the refrigerant compressor and condenser. Moisture is partially removed in the first stage cyclone separator where it is discharged from the dryer through an automatic drain trap. From the separator, the saturated air enters the air-to-refrigerant heat exchanger (evaporator) further reducing the air temperature to the specified dewpoint of 35°F/39°F or 50°F. Water is condensed as the air is cooled to the required pressure dewpoint.

The cold air then flows through a second stage cyclone separator where all the remaining condensed water is removed and discharged through another automatic drain trap.

This chilled air then re-enters the air-to-air heat exchanger where it is reheated. Reheating of the air does not affect the air's dewpoint. It prevents condensation of moisture on the outside of the air-distribution piping. The cold air flows through the air-to-air heat exchanger in a direction opposite to the flow of the warm, moist incoming air. This counterflow action assures high temperature differentials throughout the heat exchanger, resulting in more effective heat transfer.

WATER-COOLED CONDENSING UNIT:

The principle of operation of a water-cooled system is basically the same as the air-cooled unit. The main difference is that, in the water-cooled system, the cooling medium used to change hot refrigerant gas into its liquid form is water, either in a tube-in-tube or tube-and-shell type condenser.

A modulating water-flow regulating valve, controlled by the high side pressure, regulates the amount of water flowing through the condenser. This maintains the refrigerant condensing temperature at 105°F. which is pre-set at the factory. However, this setting can be manually adjusted to most varying conditions in the field. These features give the water-cooled units the flexibility to perform efficiently under various loads and conditions.

PURE-AIRE WARRANTY

All Pure-Aire products (with the exception of PDC's and POV's) are warranted to be free from defective materials and workmanship for a period of twelve months from date of installation, not to exceed fifteen months from date of shipment from our factory. Any equipment, material or part proving so defective will be replaced free of charge, (F.O.B. our plant) provided that within the above stated time limits Pure-Aire is notified of the alleged defect and that should Pure-Aire authorize return of such parts they be returned to Pure-Aire, Charlotte, NC; freight prepaid within 30 days after such authorization.

Dryer components furnished to Pure-Aire by third parties, such as electric motors, refrigerant compressors, heat exchangers and controls are warranted only to the extent of the original manufacturer's warranty to Pure-Aire.

THIS STATEMENT OF WARRANTY IS EXPRESSLY IN LIEU OF AND DISCLAIMS ALL OTHER EXPRESS WARRANTIES, IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL OTHER IMPLIED WARRANTIES. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THIS WARRANTY DOES NOT INCLUDE LIABILITY FOR CONSEQUENTIAL DAMAGES. THIS WARRANTY DOES NOT APPLY TO ANY UNIT DAMAGED BY ACCIDENT, MISUSE OR NEGLIGENCE. DAMAGE TO FREON EVAPORATOR BY AMMONIA OR OTHER CORROSIVES WILL DEFINITELY BE CONSIDERED MISUSE.

All claims under this warranty should be made by contacting the Sullair distributor who sold the machine (or the factory) describing the malfunction. A service technician will then be provided by Pure-Aire or our distributor or Pure-Aire may authorize procurement of the services of a competent local refrigeration service company. Unauthorized claims will be disallowed.

PDC's are warranted as above, except that a service technician will only be provided by Pure-Aire within a 60 day period from date of shipment. Defective materials will be warranted for twelve months from date of shipment. POV drain valves are warranted to be free from defects in materials or workmanship for a period of 6 months from date of shipment. No Service technician will be provided.

OUTSIDE THE CONTINENTAL UNITED STATES, PUERTO RICO, OR CANADA, PURE-AIRE PRODUCTS ARE WARRANTED AS ABOVE EXCEPT THAT A SERVICE TECHNICIAN WILL NOT BE PROVIDED AT OUR EXPENSE.

EFFECTIVE 1 SEPTEMBER 81

RECEIVING AND INSPECTION

Each dryer is test run at the factory before shipment. **Immediately** upon receipt of the equipment remove the cabinet and check the unit carefully for any physical damage that may have occurred in transit.

If there is any physical damage or a refrigerant leak, please file a claim with the shipper immediately and notify the Sullair subsidiary or the factory of the nature of the damage. The **carrier** is legally responsible for any damages, since the unit is shipped F.O.B. Charlotte, N.C. Sullair subsidiary or Pure-Aire will assist in every way possible to rectify any problems.

After you are assured that the unit has sustained no shipping damage, the dryer is ready for installation.

INSTALLATION

LOCATION:

The dryer should be installed in a protected area where the ambient temperature will be above 35°F and below 100°F. Dryer efficiency could be affected at other temperatures. Under no circumstance should the unit be placed in an area where the ambient temperature will be below freezing, it should be ordered for sub-freezing installation, and be protected with heat tracing elements in critical areas. If higher ambient temperatures cannot be avoided, order your dryer with water-cooled condenser.

Allow approximately three (3) feet on all sides for service and connections. This will allow adequate space for walking around the unit for inspection and servicing, if required.

For air-cooled units, sufficient room ventilation is required to maintain an acceptable ambient temperature for efficient operation.

FOUNDATION

The dryer is complete with a mounting base. Foundation may be any reasonably level and vibration-free floor sufficiently strong for supporting the total weight of the unit.

a) Compressor mounting bolts:
A semi-hermetic compressor has clips around the mounting bolts. These clips are to be removed before operation.

PIPING:

Compressed air piping should be at least of equal size to that furnished on the inlet and outlet of the dryer. Larger pipe reduced to the inlet/outlet pipe size may be used. It is recommended that shut-off valves be placed at each port, with a valved by-pass to permit isolation of the unit for servicing and eliminate the need of shutting down the plant air system (see suggested piping arrangement — Drawing 8165).

In water-cooled units, the maximum amount of water required and the required water line size are shown on drawing 8162, and is dependent on the temperature and pressure of the water. Connect the water supply line to the piping port marked "water in". Use the same pipe size as the fitting on the unit. Do not throttle the volume of water to the unit. The flow is automatically controlled by the water-regulating valve supplied with the unit, and in general this valve will compensate for the varying water conditions. Pipe the port marked "water out" to a drain or to a water recovery

system. The factory ships water-cooled units for city water supply application, unless otherwise specified. The 7½ HP and larger condenser has an oversized secondary water outlet connection for use with cooling tower water supply. Changeover may be accomplished at the installation site, if required.

Each cyclone separator is provided with an automatic drain trap to eliminate blow back. Drain lines should be sloped adequately to drain by gravity any water accumulated after separation. It must be connected directly to the sewer system. If the dryer is purchased without drain traps, it is the responsibility of the customer to supply adequate traps.

Make sure when piping is connected that undue stress is not applied on the dryer fittings.

ELECTRICAL:

The nameplate on the instrument panel of each unit identifies the power supply requirements. A suitable disconnect switch in accordance with the National and Local Electrical Code requirements is recommended.

Connect the power supply lines to the full voltage starter (it provides motor overload and system failure protection). The compressor may rotate in any direction. The fans on air-cooled units rotate only in correct direction if they are single phase; if they are three phase fans, check for proper rotation. The wiring of the transformers, relays, controls and functional components has been completed at the factory in accordance with the electrical schematic supplied with this manual (except for special designed units). The dryers are constructed to NEMA 1 standards unless otherwise specified.

OPERATION

A. BEFORE START-UP:

1. After the installation has been completed, the following items should be checked:
   a) Check main electrical supply to insure that correct voltage and fuses are provided.
   b) Check proper connection and support of compressed air lines to the dryer (complete with bypass valving system).
   c) In water-cooled units, check water supply connections to the condenser. All manual valves in the system should be open. Check that water supply meets the specification requirements for volume, pressure and temperature.
   d) Check that inlet air temperature and pressure to the dryer meets the specification requirements.
   e) Check that all manual control valves (shut-off valve, receiver and suction hand valve) in the refrigerant circuit should be open.

2. The gauge readings are as follows:
   a) AIR INLET PRESSURE: Indicates the pressure of the air as it enters the dryer. (gauge reading — 0 PSIG).
   b) AIR OUTLET PRESSURE: Indicates the pressure of the air as it leaves the dryer. (gauge reading — 0 PSIG).
   c) AIR INLET TEMPERATURE: Indicates the temperature of the air as it enters the dryer. (gauge reading — ambient temperature).

d) REFRIGERANT SUCTION PRESSURE: Indicates the refrigerant pressure as it enters the compressor. It is equivalent to the ambient temperature converted to pressure. (see temperature-pressure chart for R-12 or R-22).

e) REFRIGERANT HEAD PRESSURE: Indicates the refrigerant pressure as it leaves the compressor. Same pressure reading as the suction pressure.

f) SIGHT GLASS AND MOISTURE INDICATOR: Indicates the condition of the refrigerant in the system (full and dry).

B. START-UP:

1. Turn on main electrical power to the dryer, making sure the power indicating light in the dryer is not on. **The dryer must be in this mode for at least twelve (12) hours to allow the compressor crankcase heater to energize.**
2. Check that the bypass valve in the main air line is open and the valves to the dryer are closed.
3. Open the valve on the dryer inlet line sufficiently to pressurize the unit. When the dryer is up to pressure, check all pipework connections for leaks.
4. When checks are complete and the twelve (12) hours have expired, push the start button. The power indicating light will be on.
5. Let the dryer run for approximately five (5) minutes before slowly opening the outlet valve and closing the bypass valve. The dryer is designed to run continuously and **should not be cycled** with the compressor.

C. RUNNING OPERATION:

1. After the dryer has been started under rated load, let the dryer run for another thirty (30) minutes to allow stabilization of the system.
2. THE GAUGE READINGS ARE AS FOLLOWS:

a) AIR INLET PRESSURE: Air pressure at the inlet of the dryer.

b) AIR OUTLET PRESSURE: Air inlet pressure minus the pressure drop through the dryer.

c) AIR INLET TEMPERATURE: Compressed air temperature leaving the after-cooler and entering the dryer.

d) AIR OUTLET TEMPERATURE (OPTIONAL): Indicates the temperature of the air as it leaves the dryer.

e) REFRIGERANT SUCTION PRESSURE: R-12 (25-30 PSIG).
R-22 (50-55 PSIG).

f) REFRIGERANT HEAD PRESSURE: For air-cooled units, take the ambient temperature and add 25°F. - 30°F.; then convert to PSIG using temp. - press. chart.

For water-cooled units, take water inlet temperature and add 15°F. - 20°F.; then convert to PSIG reading. (check for R-12 or R-22).

g) SIGHT GLASS AND MOISTURE INDICATOR: It may take up to 12 hours of running before the indicator becomes the proper color indicating a dry system. Green color indicates a dry system. Yellow indicates a wet system. There should be no bubbles showing.

3. The non-cycling operation of the dryer is controlled by three (3) modulating valves (the hot bas bypass valve in conjunction with the desuperheating expansion valve and the thermostatic expansion valve). These valves will open and close automatically depending on the amount of cooling required, thus maintaining the designed pressure dewpoint of 35°F/39°F, or 50°F.
4. The hot gas bypass valve, desuperheating expansion valve and thermostatic expansion valve are pre-set and should need no adjustment.
5. The automatic traps will indicate the amount of emulsion being condensed from the compressed air.

TEMPERATURE PRESSURE CHART

Temperature	Pressure		Temperature	Pressure	
F.	R-12	R-22	F.	R-12	R-22
20	21.0	43.0	70	70.2	121.4
22	22.4	45.3	75	77.0	132.2
24	23.9	47.6	80	84.2	143.6
26	25.4	49.9	85	91.8	155.7
28	26.9	52.4	90	99.8	168.4
30	28.5	54.9	95	108.3	181.8
32	30.1	57.5	100	117.2	195.9
34	31.7	60.1	105	126.6	210.8
36	33.4	62.8	110	136.4	226.4
38	35.2	65.6	115	146.8	242.7
40	37.0	68.5	120	157.7	259.9
45	41.7	76.0	125	169.1	277.9
50	46.7	84.0	130	181.0	296.8
55	52.0	92.6	140	206.6	337.3
60	57.7	101.6	150	234.6	381.5
65	63.8	111.2	160	265.1	429.8

MAINTENANCE

1. Check automatic condensate traps on a regular basis to insure that they are operating properly, or the emulsion will be back up into the compressed air system. **Proper drain trap maintenance is owner's responsibility and not covered by warranty.**
2. On air-cooled units, the condenser fins may need to be periodically cleaned to remove dust, lint, etc., to assure efficient heat transfer. High head pressure or a visual check will confirm this condition.
3. Check the gauge readings periodically for good system operation.
4. The optional 0.3 micron coalescing separator filter element should be changed when the pressure drop through the dryer reaches a differential pressure of 10 PSIG above the pressure drop of a new filter element. Check air inlet and outlet gauges for these readings. Inlet pressure minus outlet pressure = pressure differential. The filter element has a longer life when used with a rotary screw air compressor.
5. Inspect sight glass and moisture indicator for a continuous stream of bubbles which indicates loss of refrigerant or color change from green to yellow indicating contamination.

TROUBLE-SHOOTING

The dryer consists of three basic systems: AIR, REFRIGERANT AND ELECTRICAL. An air leak at 100 PSIG will provide an audible signal indicating where there is a problem. R-12 or R-22 has no color or odor therefore a small refrigerant leak is difficult to find. However, it can be detected by a bubble test, halide torch (with a flame which changes from red-orange to blue on contact with refrigerant), or an electronic detector.

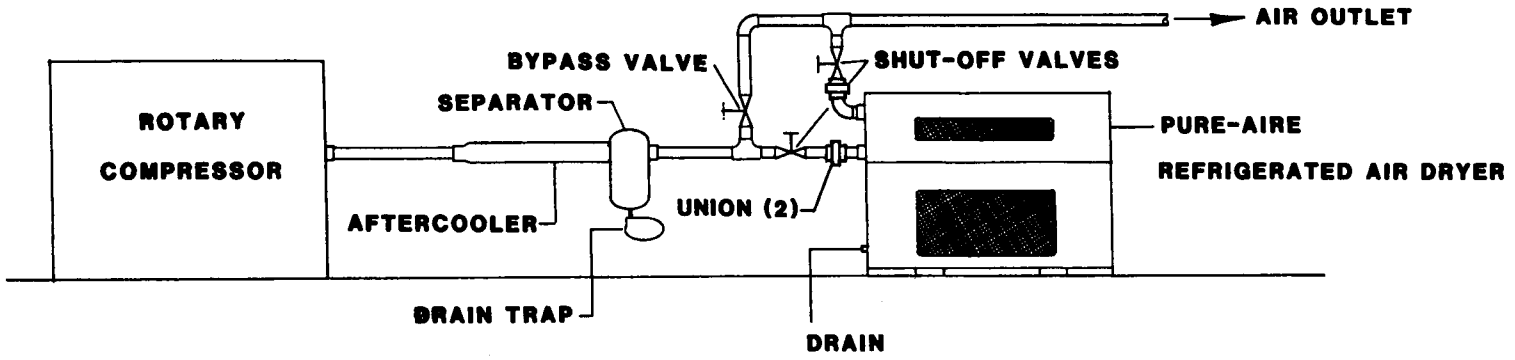
The electrical system consists of transformers, starter, switches, relays, etc. The use of the volt-ohm meter or similar equipment is required for checking continuity, amperage and voltage.

PROBLEM	CAUSE	REMEDY	COMMENT
Unit does not run	No Line Voltage	Follow wiring diagram and check voltage from compressor terminal to the power source to find where the circuit was interrupted. Inspect electrical components such as switches, controls, motors, transformers, fuse and etc.	The supply power voltage, frequency and phase must coincide with the unit's nameplate.
	Improperly wired	Check wiring against wiring diagram and tighten any loose connection.	
	Blown fuse	Check for reason and replace.	
	Tripped overload	Turn unit off, wait for 15 mins. and check for overload condition.	Be sure that the suction temperature and pressure are within the limitations of the compressor.
	Safety controls open	Inspect the controls such as low and high pressure switches, oil failure switch (if unit is equipped with one), and etc. to see if the contact points are closed.	The low pressure switch can shut down the unit due to loss of refrigerant or hot gas bypass valve being out of adjustment. The high pressure switch can shut down the unit due to high ambient air temp., condenser not receiving proper cooling, hot gas bypass valve out of adjustment, or overcharge of refrigerant.

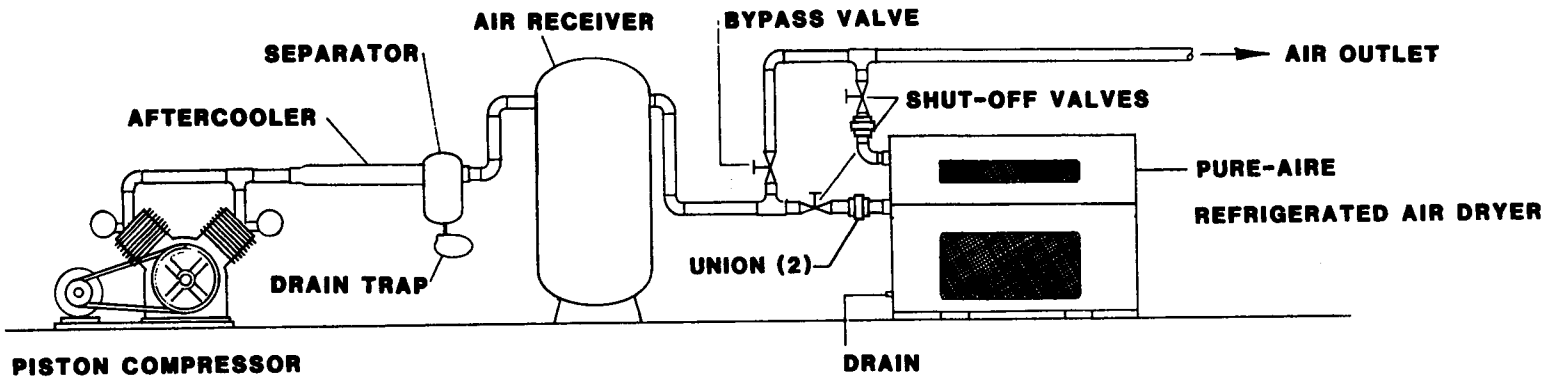
PROBLEM	CAUSE	REMEDY	COMMENT
Head pressure too high	Refrigerant overcharge	Discharge excess refrigerant. Check unit's nameplate for total system refrigerant charge.	Refrigerant overcharge may cause system not to perform properly and efficiently.
	Condenser fouled and dirty	Dismantle and clean condenser.	Clogged fins in air-cooled condenser will reduce heat transfer efficiency. Fins should be periodically checked and cleaned.
	Water flow restricted in a water-cooled condenser	Inspect water line to restore free flow, and check for water flow requirement.	Refer to dwg. no. 8269-A for required flow and Dwg. 8162 for required line size.
	Water regulating valve out of adjustment or defective	Adjust or replace.	
	Defective fan control	Repair or replace.	
	Defective Fan motor	Replace	
	Dryer location too hot (High Ambient)	Cool ambient or relocate the unit.	
	Compressed air leaks to refr. system	Evacuate and recharge with refrigerant. Repair or replace evaporator.	Can be detected by checking the color indicator or bubbles in the glass.
	Fan operating in wrong direction	Reverse any two wires at disconnect.	Single phase fans will rotate only in correct direction. Three phase fans check for proper rotation (wiring diagram). Fans must pull air thru condenser.
Head pressure too low	Low ambient temperature (air-cooled)	Increase ambient temperature.	If ambient temp. is too low, excessive cooling will take place.
	Refrigerant shortage	Check for leaks in system, repair and recharge until bubbles disappear.	Turn off the unit for 5 mins. restart, watching sight glass. Bubbles should appear at first due to the modulating action of the three valve system, then clear if system is full. If no bubbles appear, system has lost charge. See unit's nameplate for total system charge.
	Faulty compressor	Check for reason. Repair or replace.	If compressor valve, rings, etc. are defective, the unit will not compress and pump adequate refrigerant.
	Defective fan control	Repair, adjust or replace.	

PROBLEM	CAUSE	REMEDY	COMMENT
Suction pressure too low	Hot gas bypass valve out of adjustment, or defective	Check the power element, adjust or replace.	Turn clockwise to increase suction pressure (R-12, 25 - 30 PSIG; for R-22 50-55 PSIG).
	Refrigerant shortage	Add enough refrigerant to maintain desired suction pressure.	Can be detected in the sight glass. Also check amperage draw.
	Thermostatic expansion valve does not feed enough refrigerant to evaporator	Adjust TXV by turning stem counter-clockwise.	When adjusting the valve, make no more than one turn at a time, as much as 30 minutes may be required for the new balance to take place after adjustment is made.
	Incorrect hot gas bulb installation	Relocate and install bulb correctly.	It is generally recommended that bulb be installed at the 4 or 8 o'clock position on the side of the horizontal line, parallel with respect to the direction of flow. Good thermal contact between the bulb and suction line is essential for satisfactory valve control and performance.
	Excessive pressure drop in high side	Check for any restriction (plugged filter drier or receiver hand valve partially closed).	Suction pressure should be steady and vary only 1-3 PSIG from high to low at this condition.
Suction pressure too high	Hot gas bypass valve out of adjustment or defective	Turn counterclockwise to lower suction pressure to desired reading.	Compressed air dewpoint will rise as the suction pressure increases.
	Superheat too low or TXV is out of adjustment	Turn TXV clockwise.	Make sure that adjustment is made one full turn at a time and wait for about 30 mins. to stabilize.
	TXV bulb location	Relocate bulb making sure it is parallel to the direction of flow and of good thermal contact.	
Suction temperature too high (continuously above 65°F.)	Desuperheating expansion valve out of adjustment or defective	Turn stem counter clockwise one full turn at a time and wait for 30 min. to stabilize. Replace if no change.	Recommended compressor suction temperature should not be more than 65°F.

PROBLEM	CAUSE	REMEDY	COMMENT
Water in the compressed air system.	Drain traps clogged	Disassemble and clean traps to restore free flow of drainage. Check drain lines.	Automatic drain traps are ballfloat type and do not need priming. It should be disassembled and cleaned after two weeks of operation. Open manual pet cock weekly, should more than one pint of fluid be discharged, clean traps thoroughly.
	Air by-pass system open	Close air bypass valve.	SEE START-UP
	Air flow rate exceeds the actual capacity of the dryer.	Check dryer capacity.	Air flowrate should meet dryer specification requirement. (see specification sheet, Dwg. 8269A.)
	High inlet air temperature.	Check actual air temperature entering the dryer. It should meet specification requirement.	20°F increase in inlet air temperature will double the capacity of the air to hold water vapor.
High air pressure drop	Excessive air flow	Check SCFM through dryer.	See Specification Sheet Dwg. 8269-A.
	Restricted air flow or leaks	Check and repair. Check optional filter.	Filter element may require changing.
Bubbles in sight glass	Refrigerant shortage	Check for leaks in system, repair and recharge with refrigerant until bubbles disappear.	The sight glass should be clear. The modulating action of the 3 valves may cause a few bubbles during start-up but should clear up in 2-3 minutes.
Sight glass indicator changes to yellow.	Moisture in the system	Evacuate the charge, replace filter drier and recharge with refrigerant.	
High evaporator temperature.	Excessive air flowrate	Check dryer capacity.	See Specification sheet.
	Low superheat	Adjust TXV clockwise until correct superheat is indicated.	A minimum of 5°F. superheat is acceptable.
	Hot gas bypass valve out of adjustment	Turn clockwise to increase and turn counterclockwise to decrease evaporating temperature and pressure.	Evaporating temperature should be within 29-33°F.



TYPICAL ROTARY COMPRESSOR AIR SYSTEM



TYPICAL PISTON COMPRESSOR AIR SYSTEM

REV:	DATE:	DESRIPTION:	BY:

DATE: 7-12-84 | SCALE: — | DRAWN BY: PTL

TITLE:

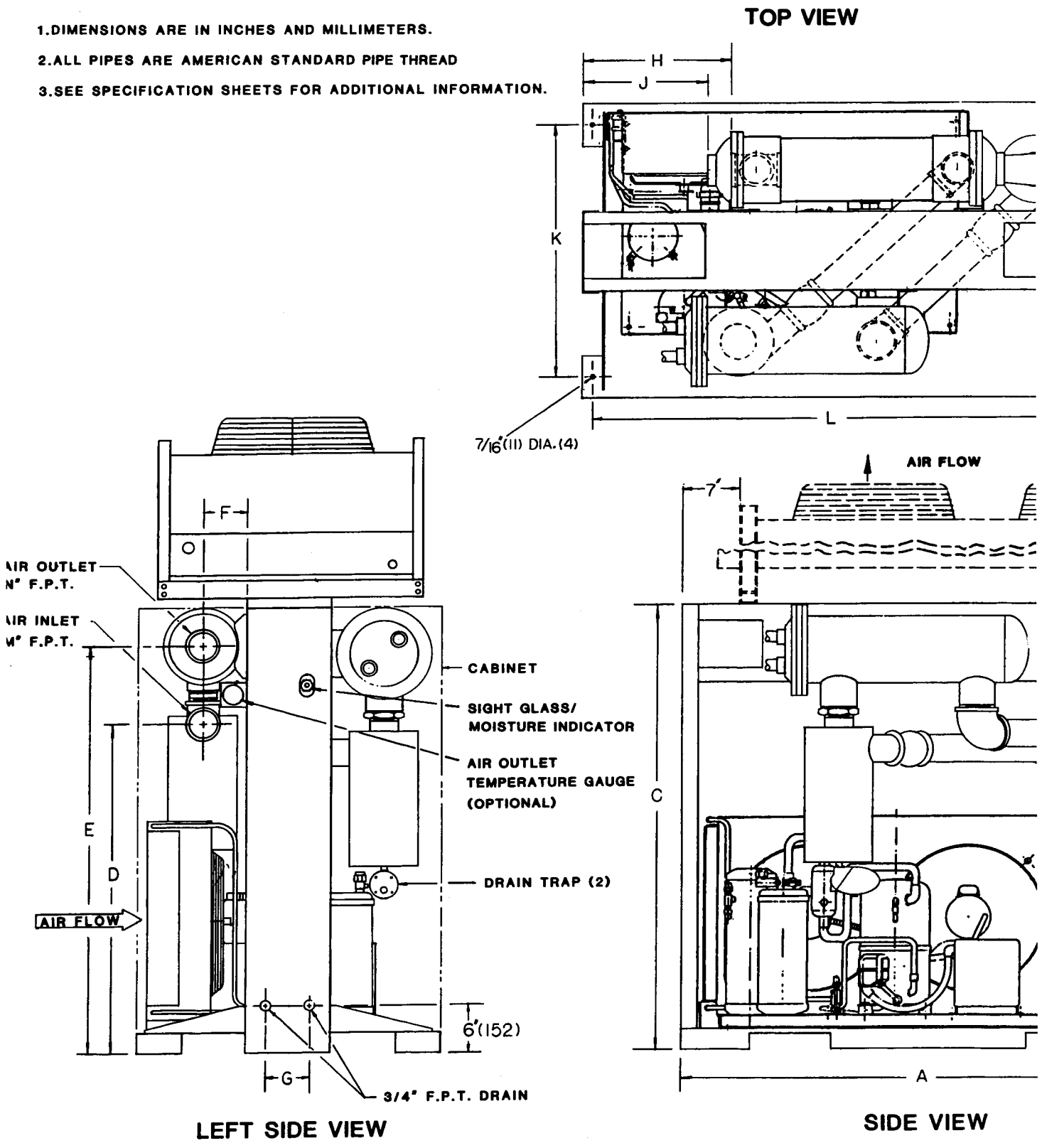
SUGGESTED PIPING INSTALLATION

PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER: 8165

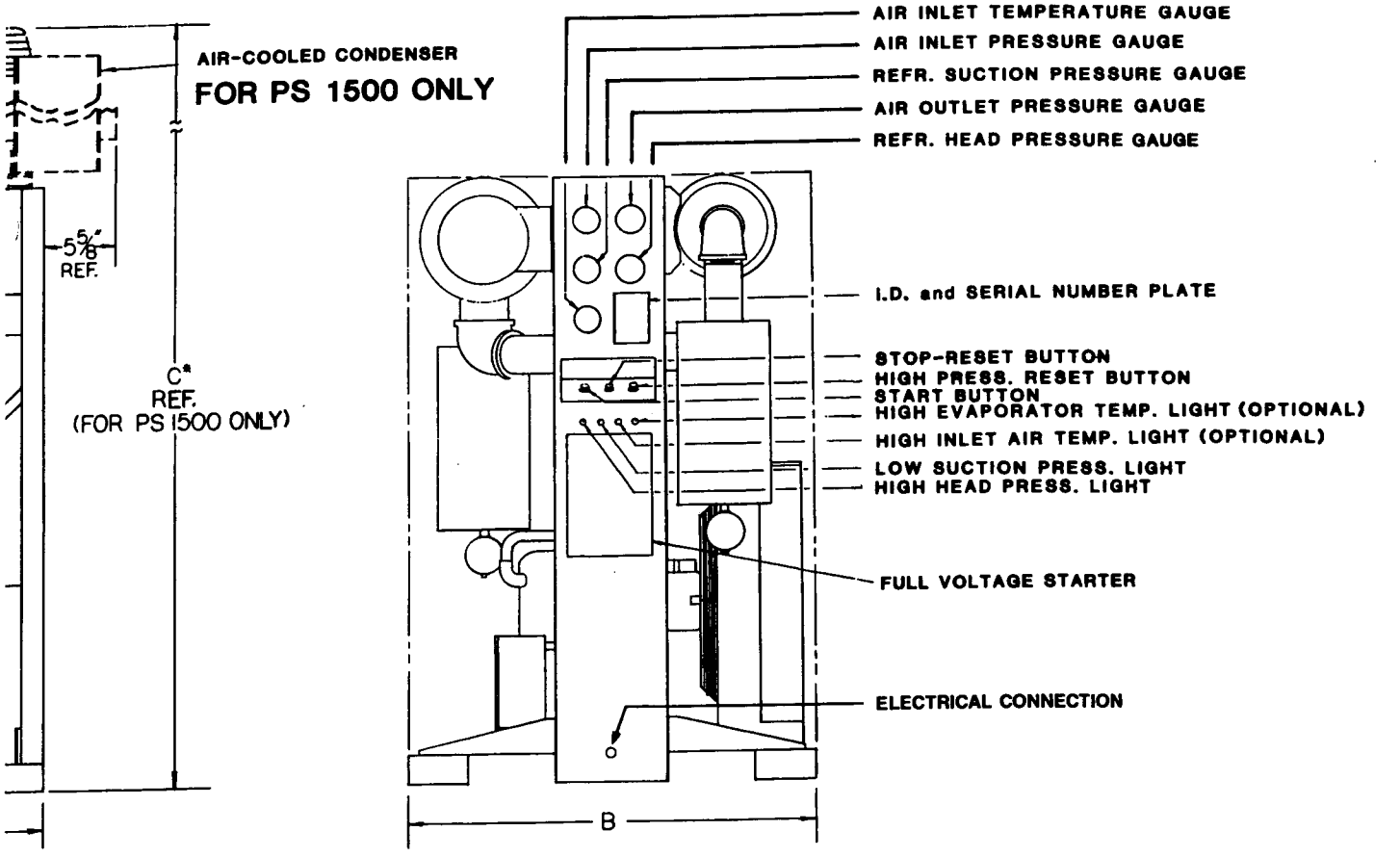
NOTES:

1. DIMENSIONS ARE IN INCHES AND MILLIMETERS.
2. ALL PIPES ARE AMERICAN STANDARD PIPE THREAD
3. SEE SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION.



REFRIGERATED AIR DRYER

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	WEIGHT LBS. / KGS.
PS 100	45	25	42	32	38	2.8	4	4	3	23	43	1.5	1.5	540
	1143	635	1067	813	965	71	102	102	76	584	1092	38	38	245
PS 150	45	25	42	32	38	2.8	4	4	3	23	43	1.5	1.5	577
	1143	635	1067	813	965	71	102	102	76	584	1092	38	38	262
PS 200	45	25	42	32	38	3.9	4	6	4	23	43	1.5	1.5	645
	1143	635	1067	813	965	99	102	152	102	584	1092	38	38	293
PS 250	45	25	42	32	38	3.9	4	6	4	23	43	1.5	1.5	674
	1143	635	1067	813	965	99	102	152	102	584	1092	38	38	306
PS 300	53	28	42	29	38	3.5	4	11	9	26	51	2	2	782
	1364	711	1067	737	965	89	102	279	229	660	1295	51	51	355
PS 375	53	28	42	29	38	3.5	4	11	9	26	51	2	2	797
	1346	711	1067	737	965	89	102	279	229	660	1295	51	51	365
PS 500	53	28	42	29	38	4.1	4	11	9	26	51	2	2	831
	1346	711	1067	737	965	104	102	279	229	660	1295	51	51	377
PS 600	53	28	42	29	38	4.1	4	11	9	26	51	3	3	831
	1364	711	1067	737	965	104	102	279	229	660	1295	76	76	377
PS 700	63	38	57	42	52	5.4	5	19	16	32	59.8	3	3	1286
	1600	965	1448	1067	1321	137	127	483	406	813	1519	76	76	583
PS 1000	63	38	57	42	52	5.4	5	19	16	32	59.8	3	3	1426
	1600	965	1448	1067	1321	137	127	483	406	813	1519	76	76	647
PS 1200	63	38	57	42	52	5.4	5	19	16	32	59.8	3	3	1503
	1600	065	1448	1067	1321	137	127	483	406	813	1519	76	76	682
PS 1500	63	38	81 #	42	52	5.4	5	16	13	32	59.8	4	4	1810
	1600	965	2057	1067	1321	137	127	406	310	813	1519	102	102	821



RIGHT SIDE VIEW

AIR-COOLED

REV:	DATE:	DESCRIPTION:	BY:

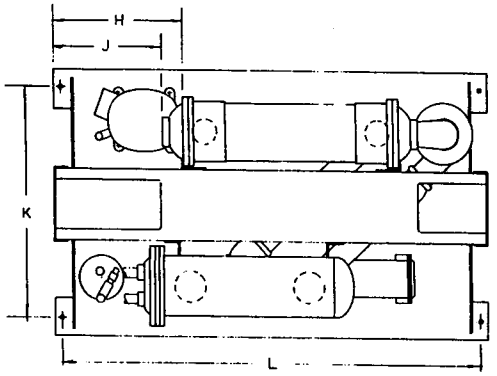
DATE 10-21-83 | SCALE: NTS | DRAWN BY: btrodriguez

TITLE: REFRIGERATED AIR DRYER ("PS" MODEL)

PURE-AIRE INC. CHARLOTTE, N. C.

DRAWING NUMBER: 003200A

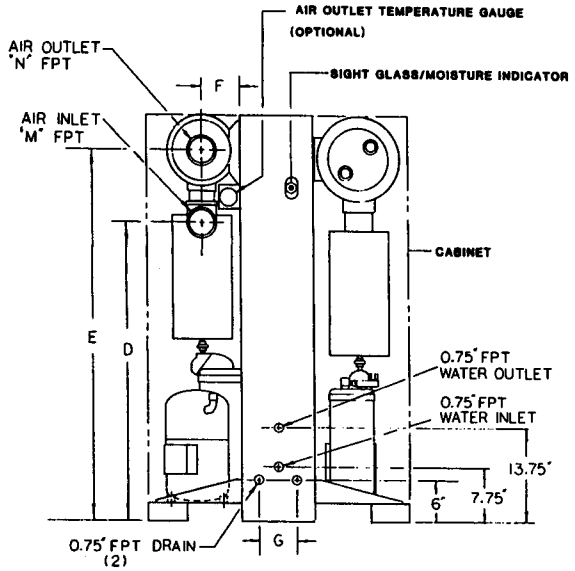
4112A



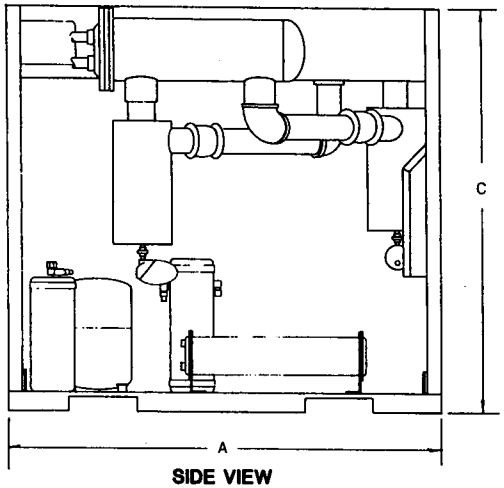
TOP VIEW

DIMENSIONS OF AIR-COOLED AND WATER-COOLED UNITS ARE IDENTICAL FOR PS 100-1200 (SEE DWG. NO. 4112A)

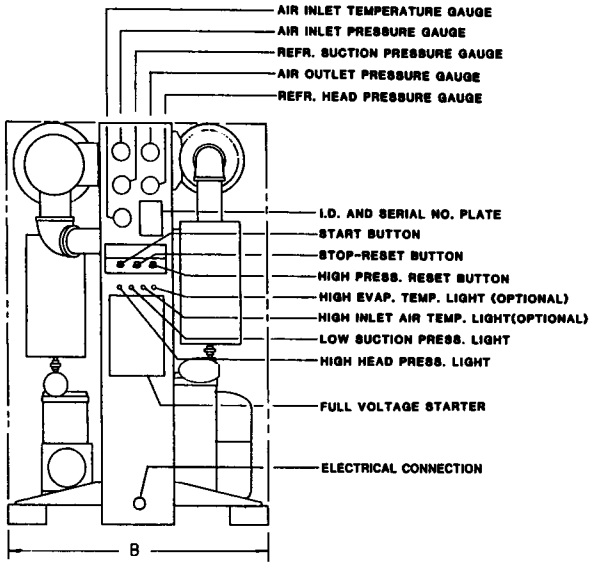
FOR PS 1500 WC, "C" DIMENSION IS 57"(1448mm)



LEFT SIDE VIEW



SIDE VIEW



RIGHT SIDE VIEW

REV:	DATE:	DESCRIPTION:	BY:

DATE: 7-19-84 | SCALE: —— | DRAWN BY: BTR

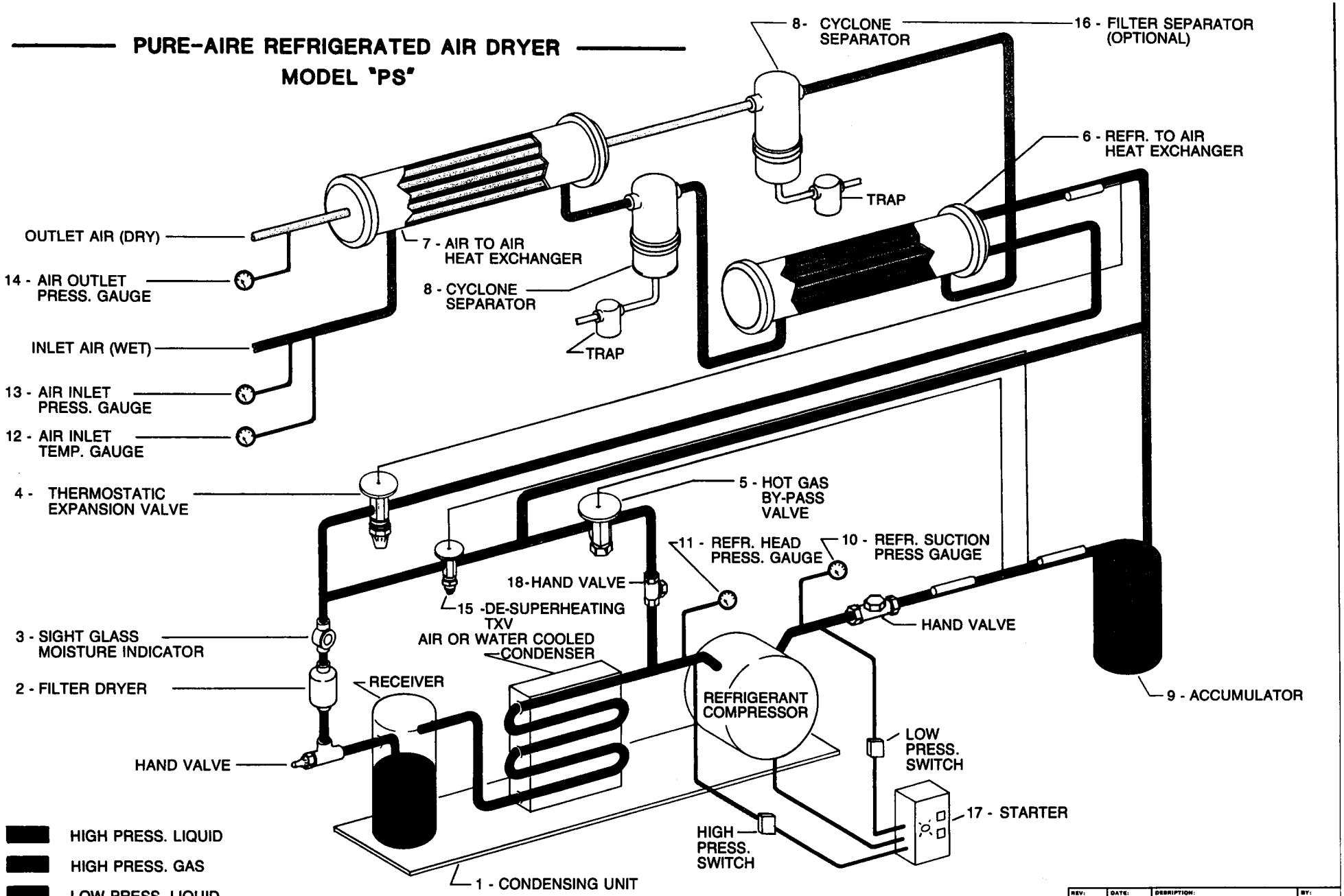
TITLE: **REFRIGERATED AIR DRYER**
PS WATER-COOLED

4112B

PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER: 003200B

PURE-AIRE REFRIGERATED AIR DRYER
MODEL "PS"



REV:	DATE:	DESCRIPTION:	BY:

DATE: 4-15-83 SCALE: — DRAWN BY:

TITLE: REFRIGERATED AIR DRYER SCHEMATIC DIAGRAM

PURE-AIRE INC. CHARLOTTE, N. C.

DRAWING NUMBER: 8268

004558

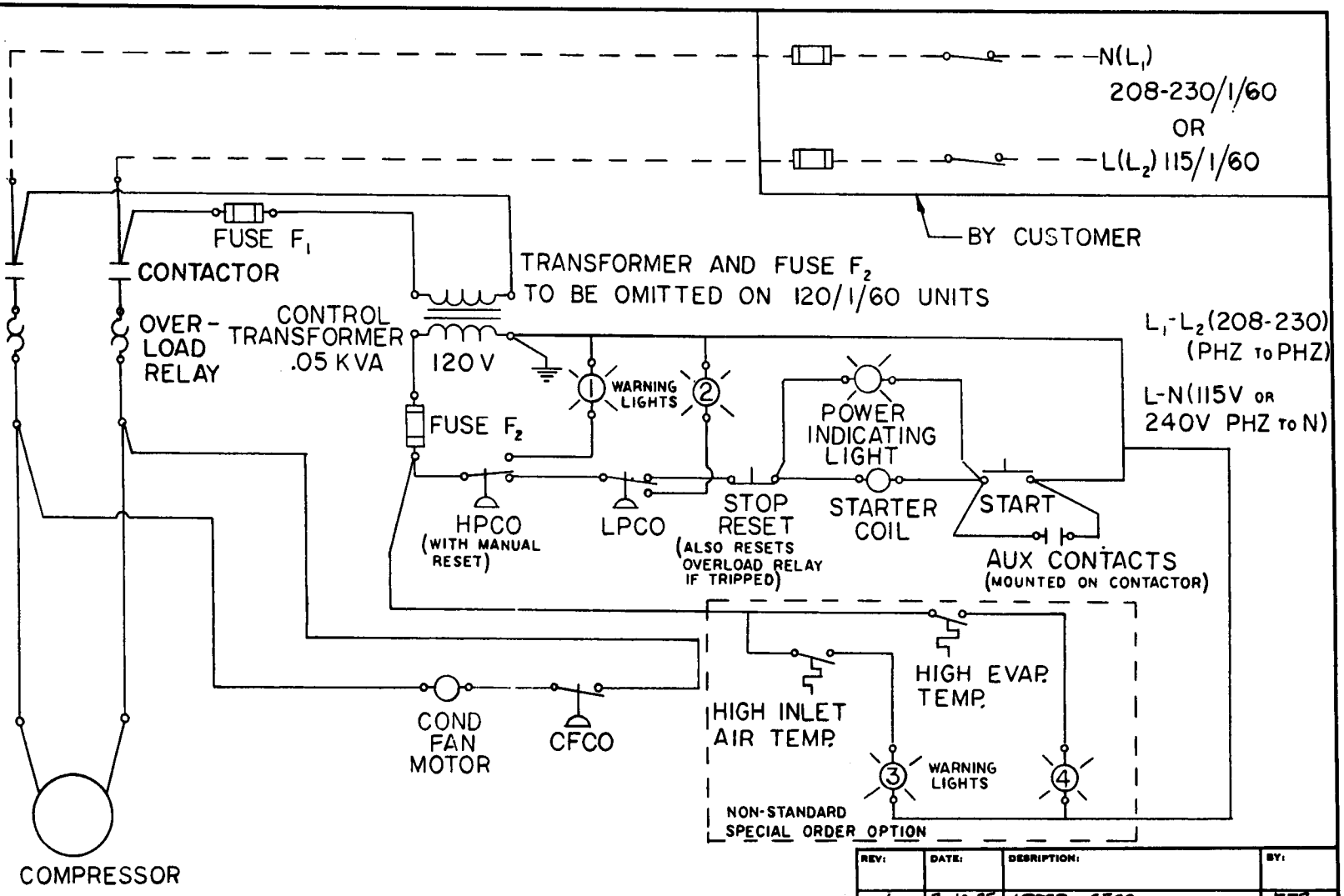
UNIT MODEL	MAX. STARTER OVERLOAD AMPS 115/1/60	MAX. STARTER OVERLOAD AMPS 208-230/1/60
PS 100	11.5	5.8
PS 150	16.1	9.2

REPLACEMENT SIZES NOT TO EXCEED 115% OF CONDENSING UNIT'S RLA'S.

FUSE REPLACEMENT SIZES

UNIT: PS 100 - 150
VOLTAGE: 208-230/1/60
FUSE: F_1 - 1/8 AMP TIME-DELAY
F_2 - 1/2 AMP NON-TIME DELAY

UNIT: PS 100 - 150
VOLTAGE: 115/1/60
FUSE: F_1 - 1/2 AMP



1) COMPRESSOR EQUIPPED WITH INTERNAL OVERLOAD.
2) STARTER EQUIPPED WITH MECHANICAL START-STOP STATION AND POWER INDICATING LIGHT.
3)
4) HIGH PRESSURE CUTOUT (HPCO)
5) LOW PRESSURE CUTOUT (LPCO)
6)

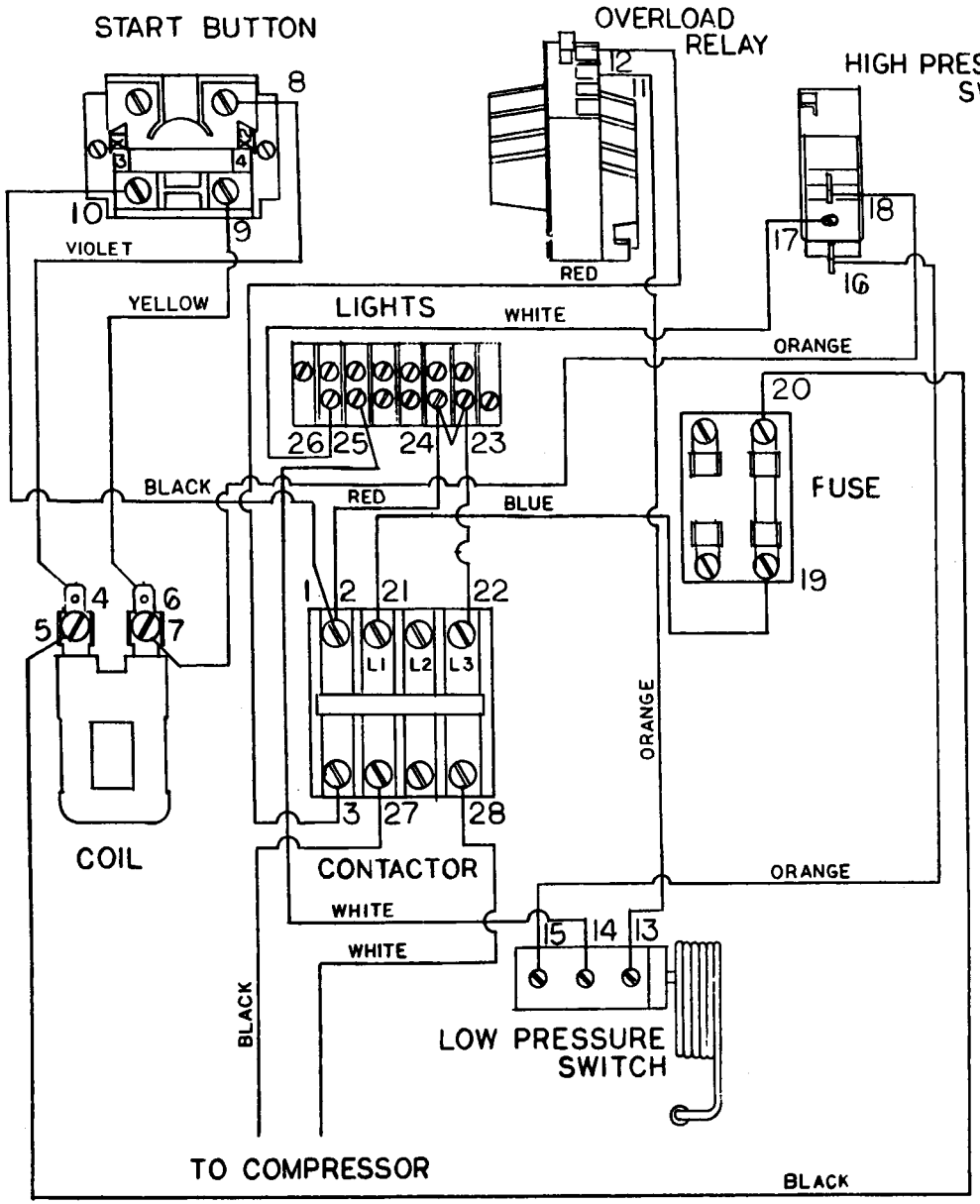
REV:	DATE:	DESCRIPTION:	BY:
1	7-10-85	ADDED CFCO	BTR

DATE: 7-23-82 SCALE: —— DRAWN BY: H MASLEY

TITLE: WIRING SCHEMATIC (PS 100 & 150) 208-230/1/60 OR 115/1/60

PURE-AIRE INC. CHARLOTTE, N. C.

DRAWING NUMBER: 8255



REV:	DATE:	DESCRIPTION:	BY:

DATE: 2/8/84 | SCALE: —— | DRAWN BY: A MASSEY

TITLE:
WIRE ROUTING DIAGRAM 115/1/60
PS100-150

PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER:
8279

UNIT MODEL	MAX. STARTER OVERLOAD AMPS 208-230/3/60	MAX. STARTER OVERLOAD AMPS 460/3/60
PS 200	7.1	4.1
PS 250	7.1	4.1
PS 300	10.6	5.2
PS 375	10.6	5.2
PS 500	14.4	7.1
PS 600	14.4	7.1
PS 700	19	9
PS 1000	22	11
PS 1200	22	11
PS 1500		16.0

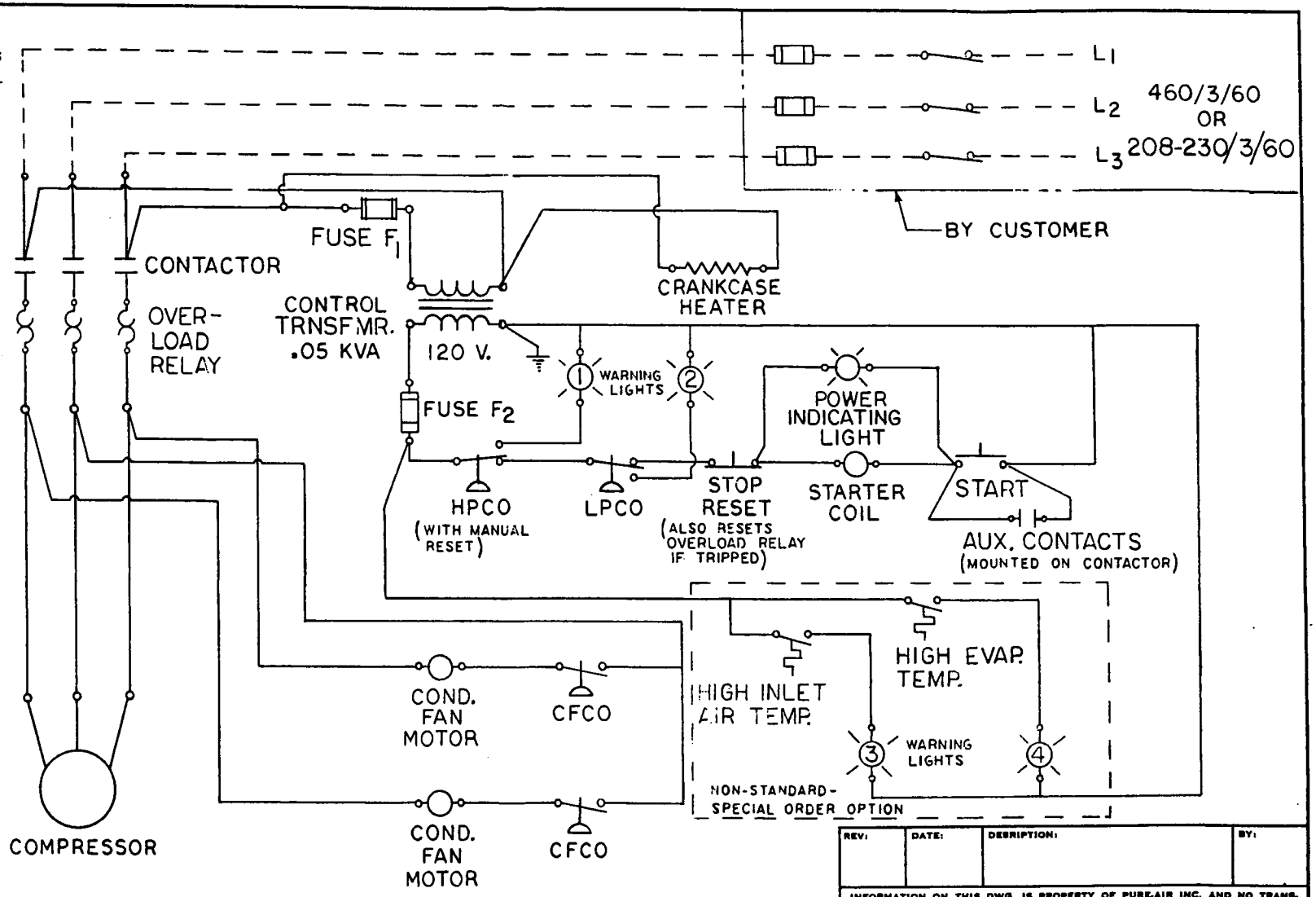
REPLACEMENT SIZES NOT TO EXCEED 115% OF CONDENSING UNIT'S RLA'S

FUSE REPLACEMENT SIZES

UNIT: PS 200 - 1500
VOLTAGE: 460/3/60
FUSE: F_1 - 1/8 AMP TIME -DELAY
F_2 - 1/2 AMP NON-TIME DELAY

UNIT: PS 200 - 375
VOLTAGE: 208-230/3/60
FUSE: F_1 - 1/8 AMP TIME -DELAY
F_2 - 1/2 AMP NON-TIME DELAY

UNIT: PS 500 - 1200
VOLTAGE: 208-230/3/60
FUSE: F_1 - 1/4 AMP TIME-DELAY
F_2 - 1/2 AMP NON-TIME DELAY



1) COMPRESSOR EQUIPPED WITH INTERNAL OVERLOAD.
2) STARTER EQUIPPED WITH MECHANICAL START-STOP STATION AND POWER INDICATING LIGHT.
3) CRANKCASE HEATER TO BE ON AT ALL TIMES.
4) HIGH PRESSURE CUTOUT (HPCO)
5) LOW PRESSURE CUTOUT (LPCO)
6) CONDENSER FAN CUTOUT (CFCO)

COND. FAN MOTORS USED ONLY ON AIR COOLED UNITS

PS 200 & 250 (ONE FAN MOTOR) — NO FAN CUT-OUT SW.
PS 300, 375, 500, 600, 700, 1000, 1200 AND 1500 (TWO FAN MOTORS)

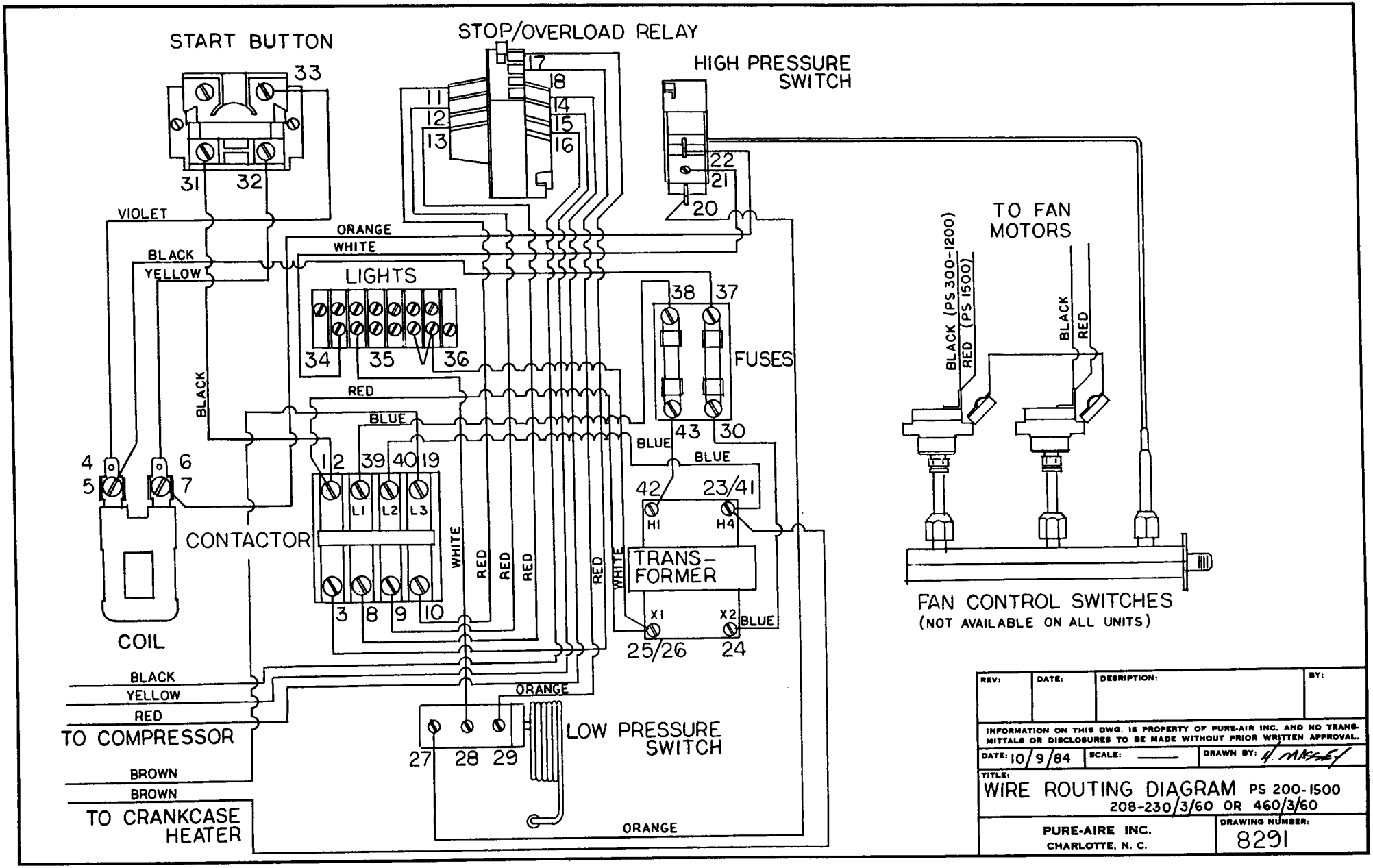
REV:	DATE:	DESCRIPTION:	BY:

DATE: 7-6-82 | SCALE: — | DRAWN BY:

TITLE: WIRING SCHEMATIC (PS 200-1500) 208-230/3/60 OR 460/3/60

PURE-AIRE INC. CHARLOTTE, N. C.

DRAWING NUMBER: 8254



REV:	DATE:	DESCRIPTION:	BY:

DATE: 10/9/84 | SCALE: —— | DRAWN BY: H. MASSEY

TITLE:
WIRE ROUTING DIAGRAM PS 200-1500
208-230/3/60 OR 460/3/60

PURE-AIRE INC.
CHARLOTTE, N. C.

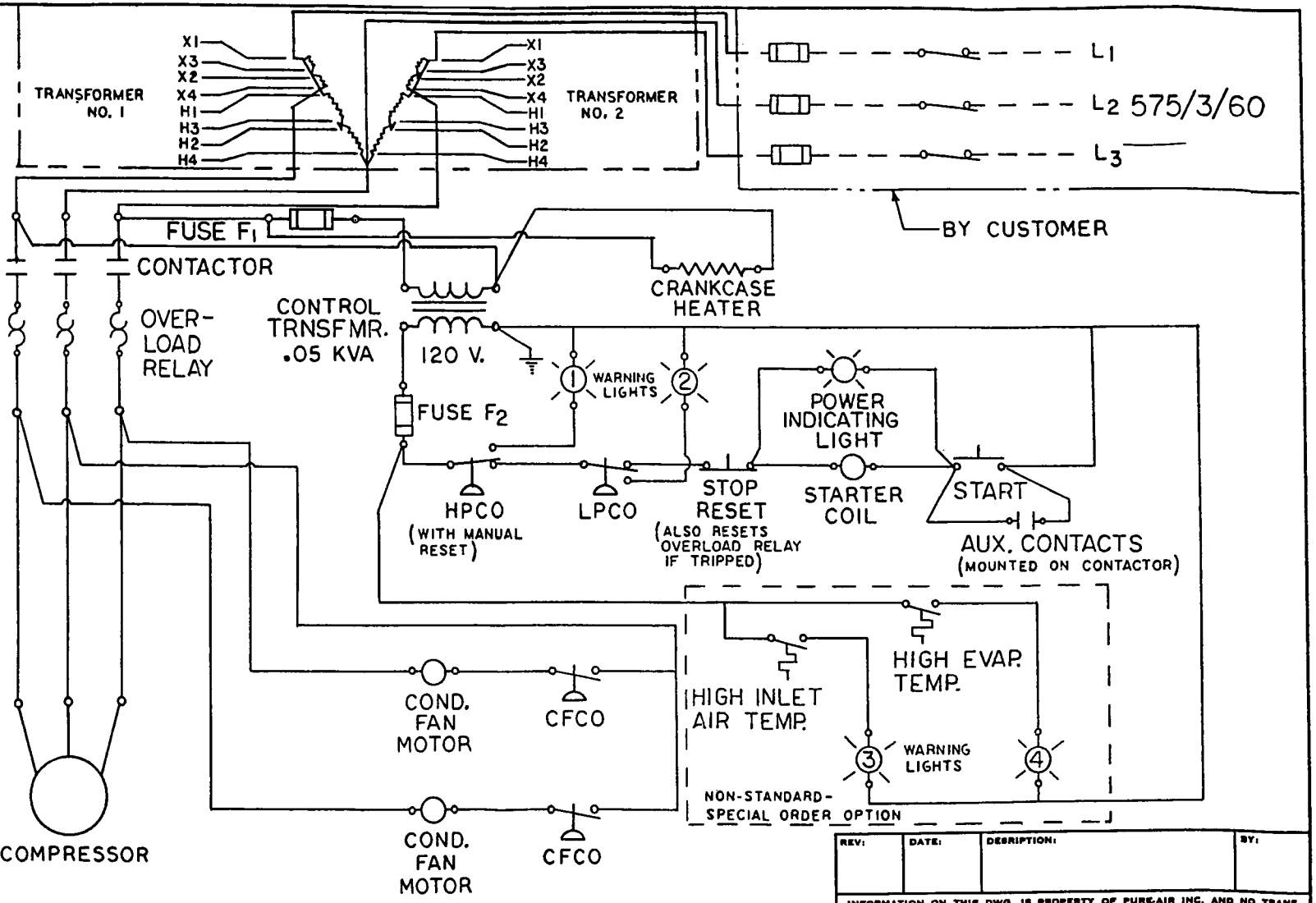
DRAWING NUMBER:
8291

UNIT MODEL	MAX. STARTER OVERLOAD AMPS 460/3/60
PS 200	4.1
PS 250	4.1
PS 300	5.2
PS 375	5.2
PS 500	7.1
PS 600	7.1
PS 700	9
PS 1000	11
PS 1200	11
PS 1500	16.0

REPLACEMENT SIZES NOT TO EXCEED 115% OF CONDENSING UNIT'S RLA'S

FUSE REPLACEMENT SIZES

UNIT: PS 200 - 1500
VOLTAGE: 460/3/60
FUSE: F_1 - 1/8 AMP TIME -DELAY
F_2 - 1/2-AMP NON-TIME DELAY



1) COMPRESSOR EQUIPPED WITH INTERNAL OVERLOAD.
2) STARTER EQUIPPED WITH MECHANICAL START-STOP STATION AND POWER INDICATING LIGHT.
3) CRANKCASE HEATER TO BE ON AT ALL TIMES.
4) HIGH PRESSURE CUTOUT (HPCO)
5) LOW PRESSURE CUTOUT (LPCO)
6) CONDENSER FAN CUTOUT (CFCO)

COND. FAN MOTORS USED ONLY ON AIR COOLED UNITS

PS 200 & 250 (ONE FAN MOTOR) — NO FAN CUT-OUT SW.
PS 300, 375, 500, 600, 700, 1000, 1200 AND 1500 (TWO FAN MOTORS)

REV:	DATE:	DESCRIPTION:	BY:

DATE: 7-6-82 | SCALE: — | DRAWN BY: BTR

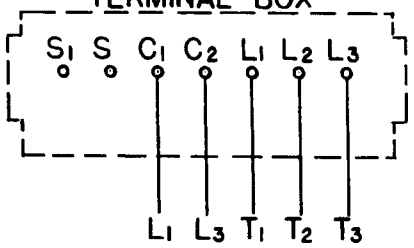
TITLE: WIRING SCHEMATIC (PS 200-1500) 575-3-60

PURE-AIRE INC. CHARLOTTE, N. C.

DRAWING NUMBER: 8263

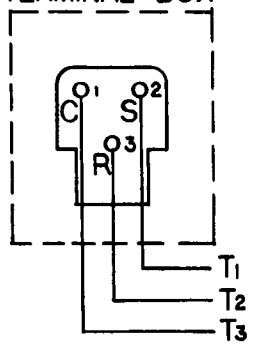
TECUMSEH COMPRESSOR (P/N 7548)

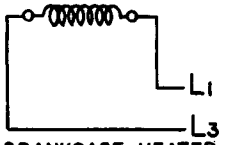
TERMINAL BOX



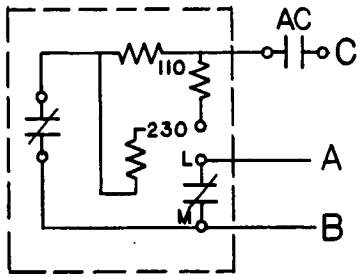
COPELAND COMPRESSOR
(AIR-COOLED - P/N 7078)
(WATER-COOLED - P/N 7079)

TERMINAL BOX



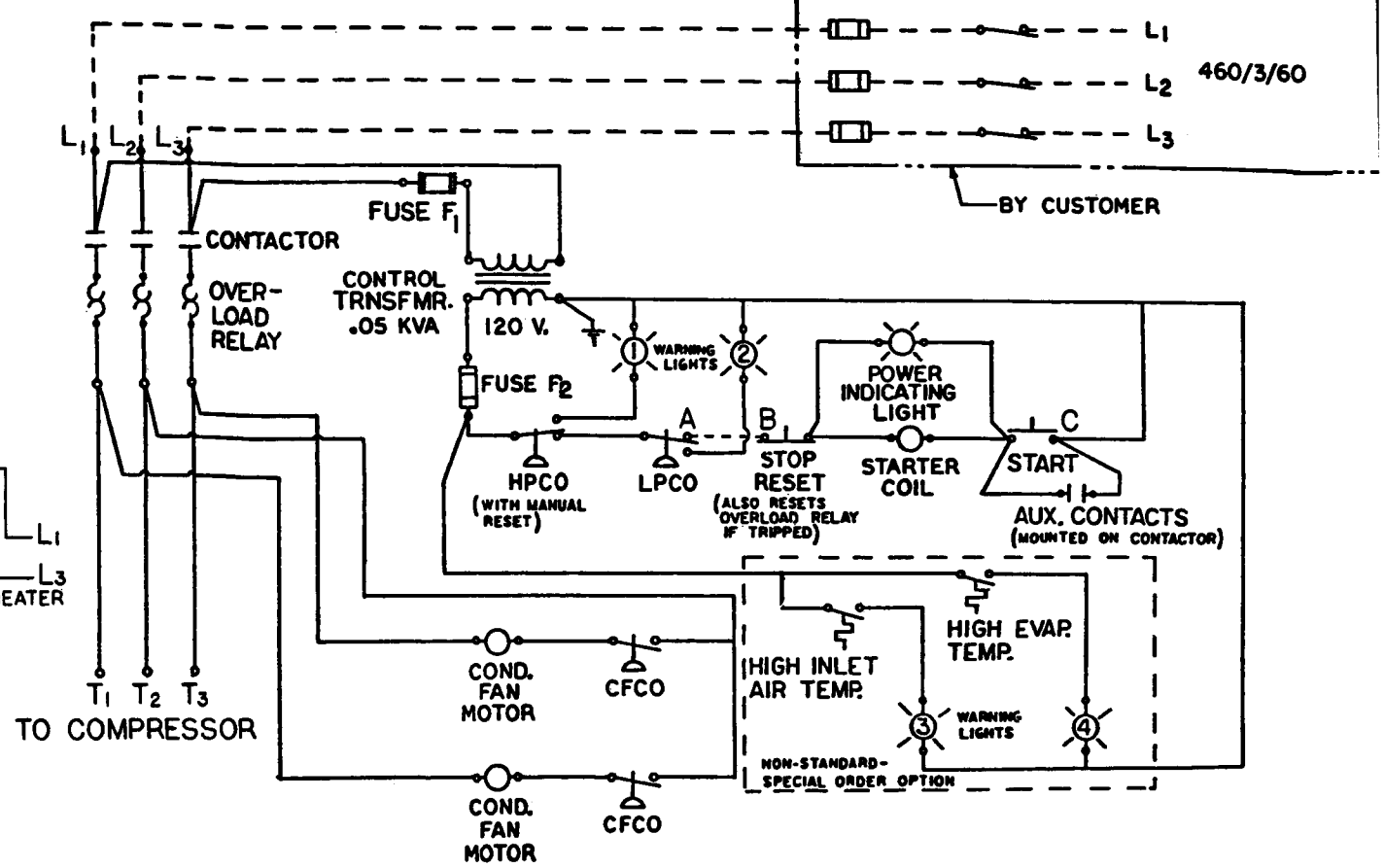


CRANKCASE HEATER CONNECTION



OIL FAILURE SWITCH

NOTE: FOR OIL FAILURE SWITCH CONNECTION, LINE AB IN WIRING DIAGRAM IS NOT CONNECTED DIRECTLY.



CONDENSER FAN MOTORS AND CUT-OUTS ARE USED IN AIR-COOLED UNITS ONLY.
FOR 575-3-60 POWER SUPPLY, SEE DWG. 8263 FOR CONNECTION.
COMPRESSOR EQUIPPED WITH INTERNAL OVERLOAD.
STARTER EQUIPPED WITH MECHANICAL START-STOP STATION AND POWER INDICATING LIGHT.
CRANKCASE HEATER TO BE "ON" AT ALL TIMES.

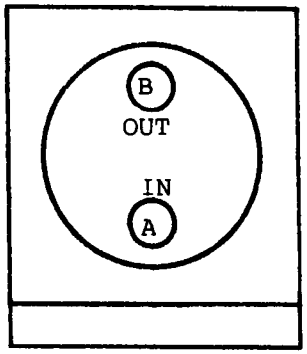
REV:	DATE:	DESCRIPTION:	BY:

DATE: 7-30-84 | SCALE: —— | DRAWN BY: BTR

TITLE: WIRING SCHEMATIC
PS 1500 AIR OR WATER-COOLED

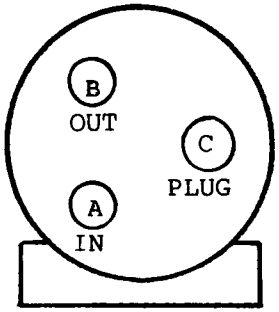
PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER: 8287

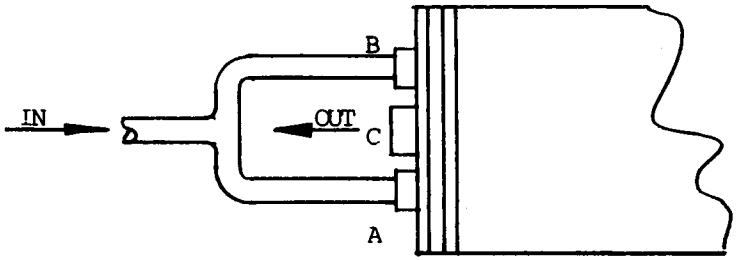


MODEL	A (FPT)	B (FPT)	C (FPT)	MAXIMUM GPM
PS 100	3/8"	3/8"	-	1.6
PS 150	3/8"	3/8"	-	3.1
PS 200-250	3/8"	3/8"	-	6.2
PS 300-375	1/2"	1/2"	-	9.3
PS 500-600	3/4"	3/4"	-	12.4
PS 700-1200	1"	1"	-	18.6
PS 1500	1"	1"	1 1/4"	17.0
PS 2000-2500	1"	1"	1 1/4"	20.0
PS 3000	1 1/4"	1 1/4"	1 1/2"	30.0
PS 4000	1 1/4"	1 1/4"	1 1/2"	40.0
PS 5000	1 1/2"	1 1/2"	2"	40.0
PS 6000	1 1/2"	1 1/2"	2"	60.0

FOR CITY WATER CONNECTION



FOR COOLING TOWER CONNECTION



NOTE: Maximum condenser-water flowrate (GPM) is based at 100°F condensing temperature, 80°F condenser-water inlet temperature, and 90°F condenser-water outlet temperature.

REV:	DATE:	DESRIPTION:	BY:

DATE:	SCALE:	DRAWN BY:
7-26-84	-----	BTR

TITLE:
COOLING WATER CONNECTIONS AND GPM REQUIREMENT
PS WATER-COOLED MODELS

PURE-AIRE INC. CHARLOTTE, N. C.	DRAWING NUMBER: 004522

ITEM	DESCRIPTION	QTY	M				O				D				E						L					
			PS 100		PS 150		PS 200		PS 250		PS 300		PS 375		PS 500		PS 600		PS 700		PS 1000		PS 1200		PS 1500	
	HORSEPOWER		0.50		0.75		1.50		1.50		2.00		2.00		3.00		3.00		4.00		5.00		5.00		7.50	
	VOLTAGE/PH/FREQ.		115/1/60	230/1/60	115/1/60	230/1/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	230/3/60	460/3/60	460/3/60	
1	COMPRESSOR[T]	1	5161	5163	5106	5109	5112	5115	5112	5115	5118	5119	5118	5119	5184	5185	5184	5185	5189-1	5189	5186	5187	5186	5187	7548	
	FAN MOTOR[T]		5101	5104	5107	5110	5113	5116	5113	5116	5113	5116	5113	5116	5122	5126	5122	5126	5215-1	5215	5129	5133	5129	5133	7723-3	
	FAN BLADE[T]		5102		5108		5114		5114		5114		5114		5127		5127		5216		5131		5131		7723-2	
	(LOW) FAN #1 SWITCH	1	7812-3		7812-3		7812-3		7812-3		7812-3		7812-3		7812-1		7812-1		7812-1		7812-1		7812-1		7812-1	
	(HIGH) FAN #2 SWITCH	1	NONE		NONE		NONE		NONE		7812-4		7812-4		7812-2		7812-2		7812-2		7812-2		7812-2		7812-2	
2	LIQUID LINE FILTER DRIER	1	7660		7660		7660		7660		7660		7660		7660		7660		7660-1		7660-1		7660-1		7660-2	
3	SIGHT GLASS/MOISTURE IND.	1	7659		7659		7659		7659		7659		7659		7659		7659		7659-1		7659-1		7659-1		7659-2	
4	THERMO-EXPANSION VALVE	1	7822-1		7822-1		7822-2		7822-2		7822-3		7822-3		7822-4		7822-4		7822-5		7822-5		7822-5		7822-6	
5	HOT GAS BYPASS VALVE	1	7820-1		7820-1		7820-1		7820-1		7820-7		7820-7		7820-2		7820-2		7820-6		7820-6		7820-6		7820-3	
6	FXA HEAT EXCHANGER	1	7779-418		7779-418		7779-430		7779-430		7779-528		7779-532		7779-538		7779-630		7779-648		7779-826		7779-826		7779-840	
	FXA HEAT EXCHR. GASKET	1	5217-4		5217-4		5217-4		5217-4		5217-5		5217-5		5217-5		5217-6		5217-6		5217-8		5217-8		5217-8	
7	AXA HEAT EXCHANGER	1	7778-332		7778-332		7778-430		7778-430		7778-530		7778-530		7778-630		7778-630		7778-830		7778-830		7778-830		7778-842	
	AXA HEAT EXCHR. GASKET	1	5218-3		5218-3		5218-4		5218-4		5218-5		5218-5		5218-6		5218-6		5218-8		5218-8		5218-8		5218-8	
10,11 13,14	REFR./AIR PRESS. GAUGE	4	7608		7608		7608		7608		7608		7608		7608		7608		7608		7608		7608		7608	
12	AIR INLET TEMP. GAUGE	1	7136		7136		7136		7136		7136		7136		7136		7136		7136		7136		7136		7136	
15	DESUPERHEATING EXP. VALVE	1	7821-1		7821-1		7821-1		7821-1		7821-1		7821-1		7821-2		7821-2		7821-2		7821-3		7821-3		7821-4	
16	FILTER SEPARATOR (OPT.)	1	9536		9536		9536		9536		9537		9537		9537		9537		9538		9538		9538		9538	
	REPLACEMENT ELEMENT KIT	1	5031		5031		5031		5031		5032		5032		5032		5032		5033		5033		5033		5033	
17	OVERLOAD RELAY	1	7804-5	7804-3	7804-5	7804-3	7804-3	7804-1	7804-3	7804-1	7804-3	7804-1	7804-3	7804-1	7804-5	7804-3	7804-5	7804-3	7804-4	7804-3	7804-4	7804-3	7804-4	7804-3	7804-5	
	HOLDING COIL	1	7783		7783		7783		7783		7783		7783		7783		7783		7783		7783		7783		7783	
	CONTACTOR	1	7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1		7782-1	
	AUXILLARY CONTACT	1	7784		7784		7784		7784		7784		7784		7784		7784		7784		7784		7784		7784	
18	HAND CONTROL VALVE	1	7825-1		7825-1		7825-1		7825-1		7825-1		7825-2		7825-2		7825-2		7825-3		7825-3		7825-3		7825-3	
	REFR. LO-PRESS. CUTOUT SW.	1	7576-2		7576-2		7576-2		7576-2		7576-2		7576-2		7576-1		7576-1		7576-1		7576-1		7576-1		7576-1	
	REFR. HI-PRESS. CUTOUT SW.	1	7576-4		7576-4		7576-4		7576-4		7576-4		7576-4		7576		7576		7576		7576		7576		7576	
*	CONTROL TRANSFORMER	1	7805		7805		7805		7805		7805		7805		7805		7805		7805		7805		7805		7805	
*	TRANSFORMER FUSE (F_1)	1	7794	7796	7794	7796	7796		7796		7796		7796		7797	7796	7797	7796	7797	7796	7797	7796	7797	7796	7796	
*	CONTROL FUSE (F_2)	1	NONE	7794	NONE	7794	7794		7794		7794		7794		7794		7794		7794		7794		7794		7794	
*	CRANKCASE HEATER	1	NONE		NONE		7706-1	7706	7706-1	7706	7706-1	7706	7706-1	7706	7706-1	7706	7706-1	7706	7706-3	7706-2	7706-3	7706-2	7706-3	7706-2	7706-2	
*	575V. TRANSFORMER (460V. ONLY)	1	——		——		——	7406	——	7406	——	7406	——	7406	——	7407	——	7407	——	7408	——	7408	——	7408	7408	
▲	WATER-COOLED CONDENSER	1	7265		7265		7266		7266		7267		7267		7268		7268		7269		7269		7269		7750	
▲	WATER REGULATING VALVE	1	7800-1		7800-1		7800-1		7800-1		7800-1		7800-1		7800-2		7800-2		7800-2		7800-2		7800-2		7800-2	
	COMPRESSOR[C]	1													5222-6	5222-7	5222-6	5222-7	5222-9	5222-10	5222-12	5222-13	5222-12	5222-13		
	FAN MOTOR [C]	2													5223-4	5223-5	5223-4	5223-5	5223-6	5223-7	5223-6	5223-7	5223-6	5223-7		
	FAN BLADE [C]	2													5224-3		5224-3		5224-4		5224-4		5224-4			

NOTES:
* - LISTED BUT NOT ILLUSTRATED.
▲ - ADDITIONAL COMPONENT - FOR WATER-COOLED UNITS ONLY.
575V. TRANSFORMER TO BE USED FOR 575V. UNITS.
THIS PARTS LIST IS EFFECTIVE - 7-17-84 AND SUPERSEDES - 8-26-83.
[C] - COPELAND REPLACEMENT PARTS
[T] - TECUMSEH REPLACEMENT PARTS

IF TECUMSEH CONDENSING UNIT IS USED, DELETE COPELAND REPLACEMENT PARTS OR VICE VERSA.
PS 1500 IS STANDARD WATER-COOLED

REV.	DATE:	DESCRIPTION:	BY:

DATE: 7-17-84 | SCALE: —— | DRAWN BY: BTR

TITLE: **PARTS LIST**
PS DRYERS

PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER: **8276-1**

Model No.		PS 100	PS 150	PS 200	PS 250	PS 300	PS 375	PS 500	PS 600	PS 700	PS 1000	PS 1200	PS 1500
Flow Capacity[1] SCFM 35°F Dew Point		110	170	240	280	350	450	520	650	800	1000	1200	1500
Economy Flow SCFM 50° Dew Point		150	200	280	350	450	520	650	800	1000	1200	1400	2000
Capacity M^3/Hr.	2°C PDP	187	289	408	476	595	765	884	1105	1360	1700	2040	2720
	10°C PDP	255	340	476	595	765	884	1105	1360	1700	2040	2380	3400
KW Input		.91	1.30	2.05	2.05	2.83	2.83	4.50	4.50	5.0	5.9	5.9	9.28
Air Line Connection In/Out		1½ FPT	1½ FPT	1½ FPT	1½ FPT	2 FPT	2 FPT	2 FPT	3 FPT	3 FPT	3 FPT	3 FPT	4 FPT
Drain Connection		3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT
Refrigeration Compressor H.P. Rating		1/2	3/4	1½	1½	2	2	3	3	4	5	5	7½
Max. Heat Rejection BTU/Hr.[2]	AIR COOLED	6145	9496	13407	15641	19552	25138	29048	36310	44690	55862	67034	OPTION 89379
	WATER COOLED	5798	8960	12650	14758	18448	23719	27408	34260	42166	52708	63250	84334
Cooling Air Flow CFM		350	800	1125	1125	2000	2000	2100	2100	4200	5000	5000	6800
Req. Water Flow GPM 80°F. In, 90°F Out, 100°F Condensing		1.16	1.79	2.53	2.95	3.69	4.74	5.48	6.85	8.43	10.54	12.65	16.87
Voltage		A,B	A,B	C,D,E	C,D,E	C,D,E	C,D,E	C,D,E	C,D,E	C,D,E	C,D,E	C,D,E	D,E
Height	Inches	42	42	42	42	42	42	42	42	57	57	57	57*
	mm.	1067	1067	1067	1067	1067	1067	1067	1067	1448	1448	1448	1448
Width	Inches	25	25	25	25	28	28	28	28	38	38	38	38
	mm.	635	635	635	635	711	711	711	711	965	965	965	965
Length	Inches	45	45	45	45	53	53	53	53	63	63	63	63
	mm.	1143	1143	1143	1143	1346	1346	1346	1346	1600	1600	1600	1600
Weight (Max.)	Lbs.	540	577	645	674	782	797	831	831	1286	1426	1503	1810
	kg.	245	262	293	306	355	362	377	377	583	647	682	821
Condenser Type		AIR OR WATER COOLED											

*Voltage Code
A- 115/1/60
B- 208-230/1/60
C- 208-230/3/60
D- 460/3/60
E- 575/3/60

1. Flow ratings based on design conditions of 100°F inlet air temperature, 100 PSI, 100°F ambient air temperature.

2. Maximum heat rejection based on 120°F condensing for air cooled, 100°F condensing for water cooled.

* Height dimension shows for PS 1500 Water-cooled
For PS 1500 air-cooled, height is 81" (2057 mm.)

REV:	DATE:	DESCRIPTION:	BY:

DATE: 8-16-84 | SCALE: —— | DRAWN BY: BTR

TITLE: SPECIFICATIONS (PS DRYERS)

PURE-AIRE INC.
CHARLOTTE, N. C.

DRAWING NUMBER: 8269-A

SERVICE RECORD

DATE	PROBLEM	SERVICE PERFORMED	SERVICE TECHNICIAN

NOTES

Part Number

250041-220