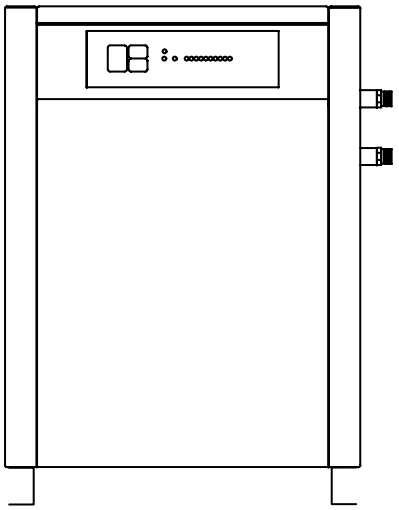
INTERNAL USE ONLY
7610.478.39/040103
7610.721.73 1/04
CA18-2-645, 1st Ed.

INSTRUCTION MANUAL

Models: CRN25, CRN35, CRN50, CRN75, CRN100



CONTENTS

CRN SERIES

REFRIGERATED

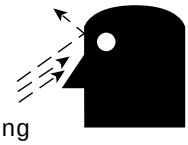
COMPRESSED

AIR DRYERS

SERVICE DEPARTMENT: (724) 746-1100

GENERAL SAFETY INFORMATION

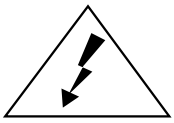
1. PRESSURIZED DEVICES:



This equipment is a pressure containing device.

- Do not exceed maximum operating pressure as shown on equipment serial number tag.
- Make sure equipment is depressurized before working on or disassembling it for service.

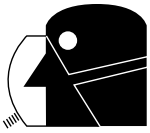
2. ELECTRICAL:



This equipment requires electricity to operate.

- Install equipment in compliance with all applicable electrical codes.
- Standard equipment is supplied with electrical enclosures not intended for installation in hazardous environments.
- Disconnect power supply to equipment when performing any electrical service work.

3. BREATHING AIR:



- Air treated by this equipment may not be suitable for breathing without further purification.

  Refer to applicable standards and specifications for the requirements for breathing quality air.

RECEIVING, MOVING, AND UNPACKING

A. RECEIVING

This shipment has been thoroughly checked, packed and inspected before leaving our plant. It was received in good condition by the carrier and was so acknowledged.

Check for Visible Loss or Damage. If this shipment shows evidence of loss or damage at time of delivery to you, insist that a notation of this loss or damage be made on the delivery receipt by the carrier's agent.

B. UNPACKING

Check for Concealed Loss or Damage. When a shipment has been delivered to you in apparent good order, but concealed damage is found upon unpacking, notify the carrier immediately and insist on his agent inspecting the shipment. Concealed damage claims are not our responsibility as our terms are F.O.B. point of shipment.

C. MOVING

In moving or transporting dryer, do not tip dryer onto its side.

D. STORAGE/SHUT DOWN

⚠ CAUTION Dryer should not be stored outside (either packed or unpacked) or exposed to the weather. Damage to electrical and control components may result.

IMPORTANT: Do not store dryer in temperatures above 130°F, 54.4°C.

IMPORTANT:

READ PRIOR TO STARTING THIS EQUIPMENT

1.0 INSTALLATION

1.1 Location

A. For typical placement in a compressed air system, see drawing.

B. Air compressor intake–Locate air compressor so that contaminants potentially harmful to the dryer (e.g. ammonia) are not drawn into the air system.

C. Dryer should be installed in a moderately heated, well ventilated area. Avoid locations immediately adjacent to cold exterior windows or walls, or adjacent to high temperature ovens or boilers.

D. Clearances: Minimum requirements for free air flow and service access

Flows 25 to 100 scfm:
Front 24 inches (610 mm)
Back 24 inches (610 mm)
Sides 12 inches (305 mm)

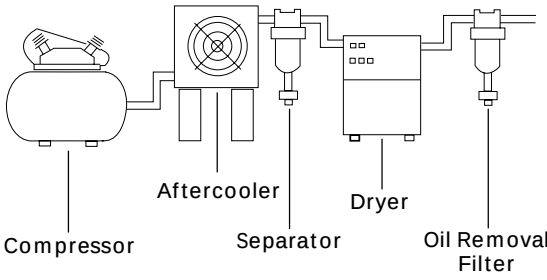
E. Standard units are designed to operate in ambients:
Air-cooled: 45 to 110°F (7 to 43°C).
Water-cooled: 45 to 130°F (7 to 54°C).

F. Installations in altitudes above 4500 feet (1370 meters) – Dryer is adjusted to operate in altitudes up to 4500 feet (1370 meters). If dryer is installed in an altitude above this, and has not been preset at the factory for this altitude, contact manufacturer's Service Department.

NOTE: Outdoor installation–Standard units are designed for indoor installation. Contact manufacturer if installing outdoors.

1.2 Mounting

Mount the dryer on a level solid surface. Holes are provided in the dryer base to permanently mount the dryer to the floor.



1.3 Piping connections

A. Air Inlet - Connect compressed air line from air source to air inlet. (See callout drawing on page 3 for air in/outlet connection locations)

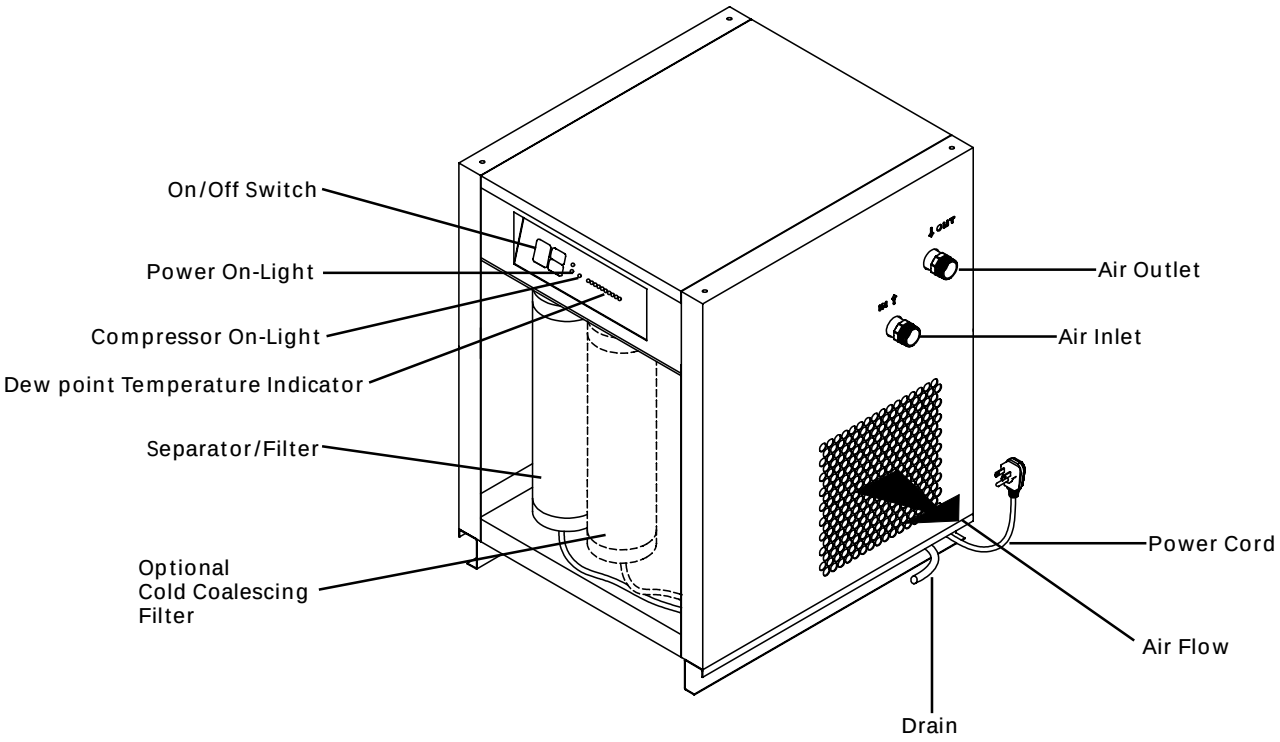
⚠WARNING Refer to Serial Number Tag for maximum working pressure. Do not exceed dryer's Maximum Working Pressure.

NOTE:
Install dryer in air system at highest pressure possible (e.g. before pressure reducing valves).

NOTE:
Install dryer at coolest compressed air temperature possible. Maximum inlet compressed air temperature: 110°F (43°C). If inlet air exceeds this temperature, precool the air with an aftercooler.

B. Air Outlet—Connect air outlet to downstream air lines.

C. By-pass piping—
If servicing the dryer without interrupting the air supply is desired, piping should include inlet and outlet valves and an air by-pass valve.

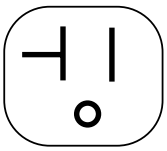


1.4 Electrical connections

A. Dryer is designed to operate on the voltage, phase, and frequency listed on the serial number tag.

B. If dryer is supplied with a cord and plug, install in a receptacle of proper voltage.

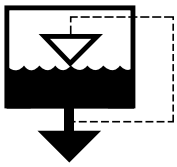
NOTE:
Refrigeration condensing unit is designed to run continuously and should NOT be wired to cycle on/off with the air compressor. Excessive cycling of the refrigeration system could lead to premature failure and void the warranty.



1.5 Moisture separator

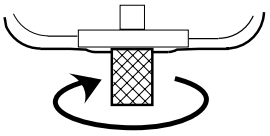
A. Separator (and Oil Removal Filter where applicable) has an internal drain which automatically discharges collected condensate. It may be desirable to pipe the condensate from the Automatic Drain outlet to a suitable drain.

NOTE:
Discharge is at system pressure. Drain line should be anchored.



NOTE:
Condensate may contain oil. Comply with applicable laws concerning proper disposal.

B. I -Controller Level 1 ONLY:
Separator has a knurled fitting with flexible drain tubing attached. Be sure knurled fitting is tightened by turning it counter-clockwise before operating dryer.



TO CLOSE
TURN COUNTERCLOCKWISE

2.0 Operation

2.1 Minimum/Maximum operating conditions

A. Maximum inlet air pressure: refer to dryer serial number tag

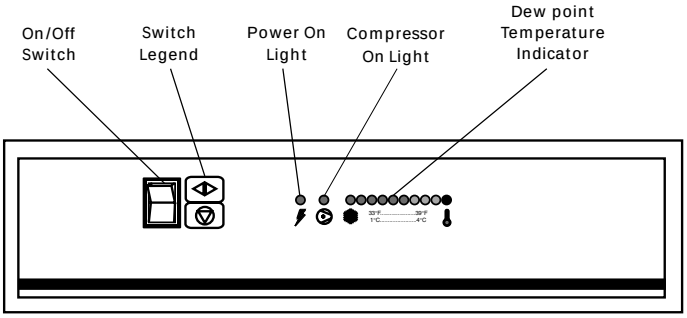
B. Minimum inlet air pressure: 30 psig (2.1 kgf/cm^2)

C. Maximum inlet air temperature: 110°F (43°C)

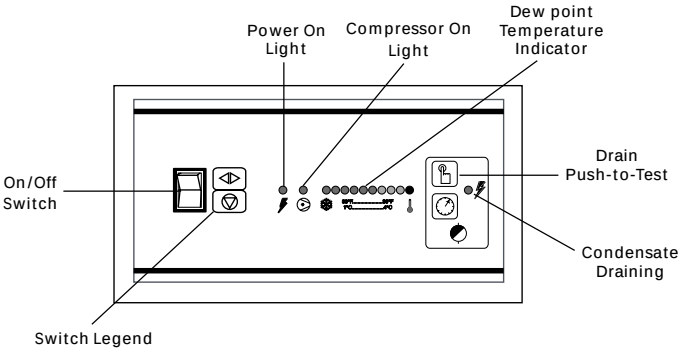
D. Maximum ambient temperature:
Air-cooled models: 110°F (43°C)
Water-cooled models: 130°F (54°C)

E. Minimum ambient temperature: 45°F (7°C)

I - Controller Level 1 - Standard



Optional Controller



2.2 Start-up

1. Confirm On/Off Switch is in the “Off” position.
2. Energize dryer. Green power-on light will illuminate.

2.3 Timer Drain Option

(Only Models with I-Controller Level 2)

Note: The Timer Drain LED level has been pre-programmed at the factory for your specific dryer. Programming is based upon a minimum of 100 psi saturated inlet air pressure and maximum energy efficiency. The drain open time is fixed at one second and a small amount of air will be exhausted with each cycle. Generally, no adjustment to the timer is required.

⚠ CAUTION If water is present downstream of the dryer, always verify that any condensate drains installed upstream of the dryer are draining properly before attempting to readjust the LED setting.

Table 1 Timed drain illuminated LED Settings

FLOW (scfm)	Inlet Pressure					
	75	100*	125	150	200	225
25	4	5	5	5	6	6
35	4	4	4	4	5	5
50	3	3	4	4	4	4
75	4	4	4	4	5	5
100	3	3	4	4	4	4

* Recommended and pre-programmed factory settings for each dryer model. Assumes CAGI ADF100 inlet conditions with 100°F ambient and 10°F air-cooled aftercooler approach temperature.

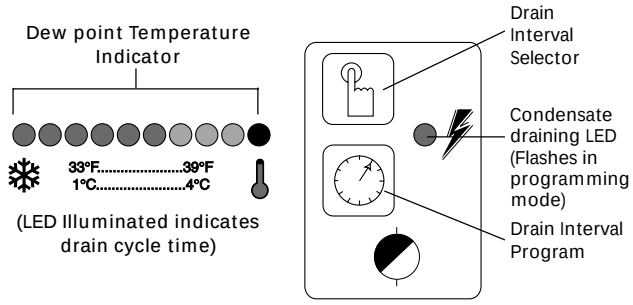
Table 2 LED Legend

LED **Illuminated**	Minutes between **Drain Cycles**
1st	1
2nd	3
3rd	5
4th	10
5th	20
6th	30
7th	40
8th	50
9th	60

1. For minimum inlet air pressures that fall between column values, the setting for the lower pressure is recommended. (i.e. select the 100 psi column values for 124 psi inlet pressure listed in Table 1.)

2. Where the dryer is consistently operating at less than maximum capacity, it may be possible to increase the LED set point to minimize air loss. Discretionary adjustments to the dryer should only be made on a hot, humid day when the maximum expected air load is flowing through the dryer. Failure to do so may prevent the condensate from draining completely when operating under peak load conditions.

2.4 Timer Drain Programming Mode



1. Press the “Drain Interval Program” button (the “Condensate Draining” LED will start to flash, and the illuminated LED on the “Dew Point Temperature Indicator” will identify the factory setting for “Minutes Between Drain Cycles.” (See Table 1)
2. Press and release the “Drain Interval Selector” button to sequence the “Minutes Between Drain Cycle LED’s” from left to right until reaching your selection. The “Red” LED is not used (Reference Table 2 for “Drain Cycle Intervals”)
3. To initiate the new setting, press the “Drain Interval Program” button (this will store the new setting and exit the program).
4. Exiting the Program will cause the Timer Drain to discharge and begin a new cycle.

Note: Failure to perform step 3 within 25 seconds of completing step 2 will cause the unit to revert back to the previous setting.

Note: In the event of a brief or extended period of power loss, the unit will retain the existing program setting and will begin a new cycle once power is reapplied. Had drain been ready to drain before the loss of power, the drain bowl’s capacity would prevent downstream flooding. Condensate will drain completely within a couple of cycles. (Manually pressing the “Push-to-Test” button would drain bowl immediately)

2.5 Operating check points

Check the following on a periodic basis:

A. Green power on light is illuminated.
B. Dewpoint indicator is in green area.
C. Condensate is discharging from drain.

3.0 Maintenance

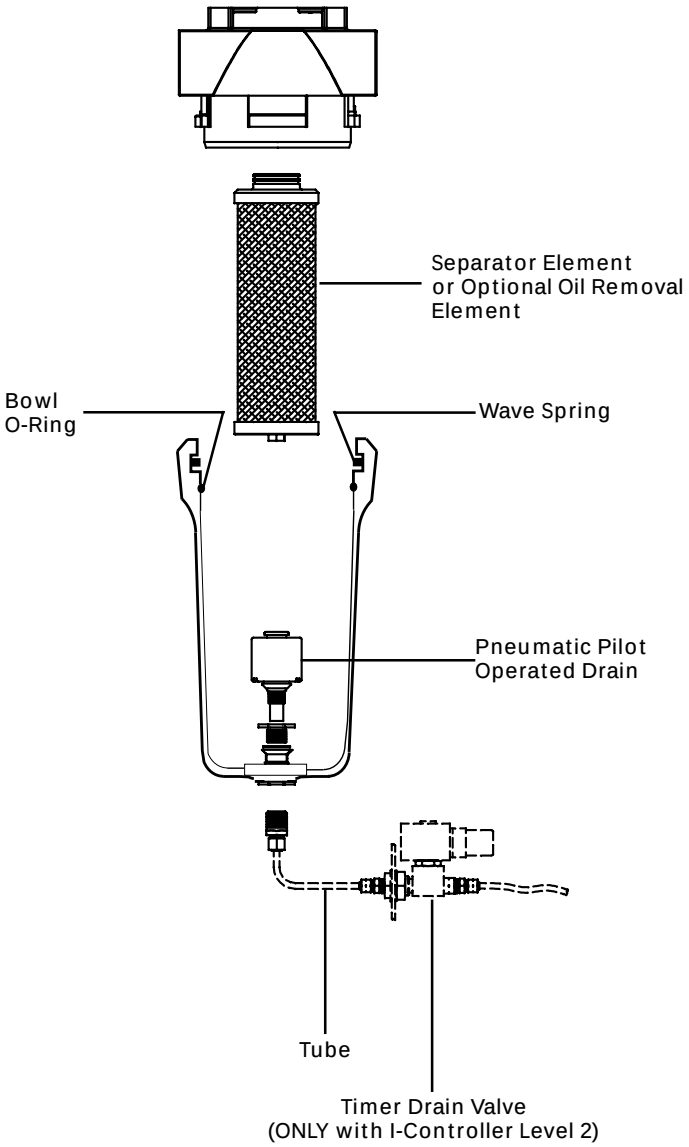
3.1 Condenser coil—
Clean off accumulated dust and dirt monthly or as necessary in dirty environments.

3.2 Moisture separator/Filter and optional Oil Removal Filter—
Replace filter element when pressure drop across dryer is excessive or annually.

3.3 Check separator daily to be sure automatic drain is discharging.

3.4 Replace or rebuild drain mechanism annually.

To facilitate service, maintenance kits are available.
Please refer to page 11.



Sizing

Determining dryer capacity at actual operating conditions

To determine the maximum inlet flow capacity of a dryer at various operating conditions, multiply the rated capacity from Table 1 by the multipliers shown in Table 2.
Example: How many scfm can an air-cooled 100 scfm model handle when compressed air to be dried is at 80 psig and 90°F; ambient air temperature is 80°F; and a 38°F dew point temperature is desired?
Answer: 100 x 1.17 x 1.12 x 1.0 = 131 scfm.

TABLE 1
Rated capacity (scfm) and pressure drop @ 100 psig inlet pressure, 100°F inlet temperature, and 100°F ambient temperature

MODEL		25	35	50	75	100
Rated capacity of	**60 Hz**	25	35	50	75	100
air-cooled models (scfm)	**50 Hz**	21	29	42	63	84

TABLE 2
Air capacity correction factors (Multipliers)

INLET COMPRESSED AIR CONDITIONS					
INLET PRESSURES		INLET TEMPERATURES			
		80°F	90°F	100°F	110°F
psig	kgf/cm²	27°C	32°C	38°C	43°C
50	3.5	1.35	1.05	0.84	0.69
80	5.6	1.50	1.17	0.95	0.79
100	7.0	1.55	1.23	1.00	0.82
125	8.8	1.63	1.31	1.07	0.91
150	10.5	1.70	1.37	1.13	0.95
175	12.3	1.75	1.42	1.18	0.99
200	14.0	1.80	1.47	1.22	1.03

COOLING MEDIUM*		
AMBIENT TEMPERATURE		MULTIPLIER
°F	°C	
80	27	1.12
90	32	1.06
100	38	1.00
110	43	0.94

OUTLET DEWPOINT		
DEW POINT TEMPERATURE		MULTIPLIER
°F	°C	
38	3	1.0
40	4	1.1
45	7	1.2
50	10	1.3

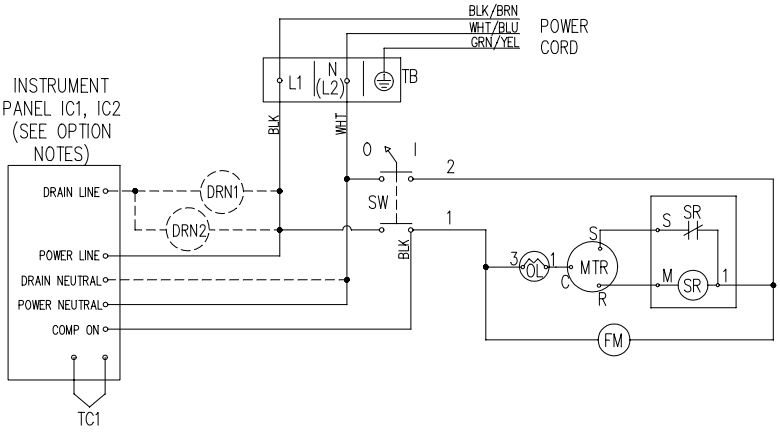
*Air-cooled models

ENGINEERING DATA

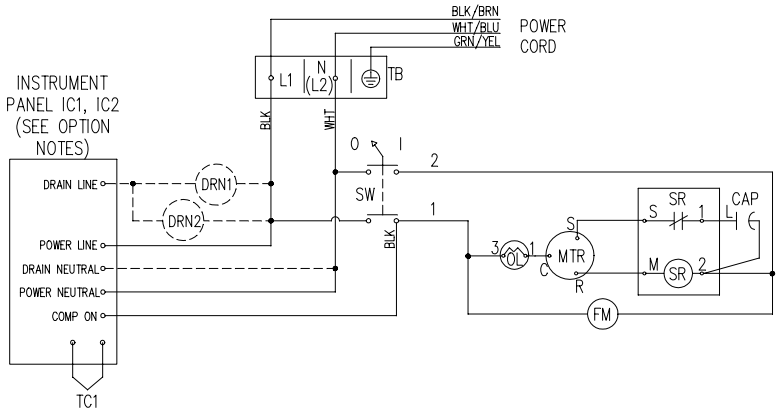
Minimum – Maximum Operating Conditions	25 scfm	35 scfm	50 scfm	75 scfm	100 scfm
Min.-Max. Inlet Air Pressure (compressed air at inlet to dryer)	30 psig (2.1 kgf/cm²) - 232 psig (16.3 kgf/cm²)				
Max. Inlet Air Temp. (compressed air at inlet to dryer)	110°F				
Min.-Max. Ambient Temperature	Air-cooled 45°F (7°C) - 110°F (43°C)				
Refrigeration System Data					
Compressor Type	Hermetic - Resistance Start, Induction Run - Non-Cycling				
Refrigeration Compressor Horsepower	1/6	1/5	1/4	1/3	1/2
BTU/HR – Refrigeration Only @ 35°F Evaporator & 100°F Ambient **60 Hz / 50 Hz**	1010 / 842	1380 / 1150	2160 / 1800	2780 / 2317	4430 / 3692
Refrigerant Type	R-134a	R-134a	R-134a	R-134a	R-134a
Refrigerant Charge	See dryer serial number tag				
Suction Pressure Setting (controlled by hot gas by-pass valve)	31.5 psig	31.5 psig	31.5 psig	31.5 psig	31.5 psig
Condenser Fan Switch Setting (in-out) (psig)	NA	NA	NA	NA	NA
Air Flow Across Condenser (cfm) **60 Hz / 50 Hz**	105 / 98	235 / 196	275 / 229	220 / 183	350 / 292
Electrical					
Nominal Voltages	**115/1/60**				
Max.- Min. Voltage	127-104	127-104	127-104	127-104	127-104
Rated Load Amps	3.4	3.9	5.9	7.4	10.3
Locked Rotor Amps	18.0	22.0	28.0	35.0	48.0
Minimum Circuit Ampacity	4.0	4.7	7.3	9.1	12.4
Branch Circuit Fuse Size (amps)	15	15	15	15	20
Watts @ 35°F Evaporator & 100°F Ambient	280	290	465	600	815
Overload	Thermal & Current (Auto reset)				
Nominal Voltages	**208-230/1/60**				
Max.-Min. Voltage	253-187	253-187	253-187	253-198	253-187
Rated Load Amps	1.8	2.1	3.0	4.1	5.1
Locked Rotor Amps	8.5	13.7	14.4	19.0	23.0
Minimum Circuit Ampacity	2.2	2.6	3.7	5.1	5.2
Branch Circuit Fuse Size (amps)	15	15	15	15	15
Watts @ 35°F Evaporator & 100°F Ambient	280	290	470	600	815
Overload	Thermal & Current (Auto reset)				
Nominal Voltages	**220-240/1/50**				
Max.-Min. Voltage	264-198	264-198	264-198	264-198	264-198
Rated Load Amps	1.6	1.8	2.6	3.5	4.2
Locked Rotor Amps	8.7	10.7	14.5	15.2	21.0
Minimum Circuit Ampacity	2.0	2.2	3.2	4.4	5.2
Branch Circuit Fuse Size (amps)	15	15	15	15	15
Watts @ 35°F Evaporator & 100°F Ambient	223	257	395	507	669
Overload	Thermal & Current (Auto reset)				

Electrical Schematic

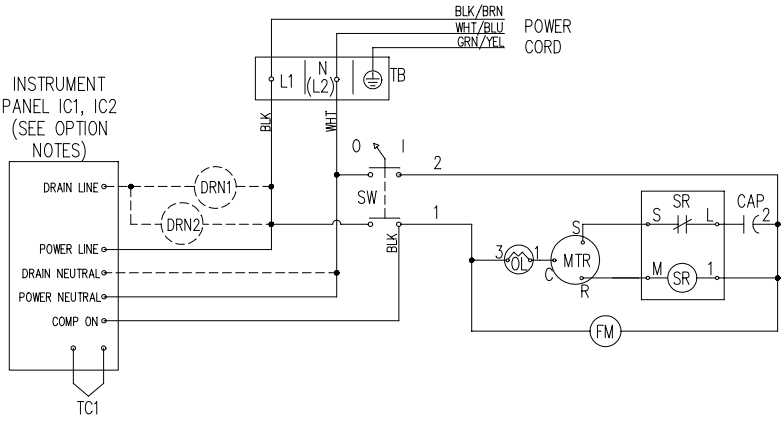
Models 25, 35, 50, 75 - 115V/60 Hz



Model 50 - 208-230V/60Hz
Model 75 - 208-230V/60 Hz; 220-240V/50 Hz



Models 100 - All Voltages



Legend

SW - On/Off Switch	OL - Overload
TB - Terminal Block	CAP - Start Capacitor
SR - Start Relay	DRN1 - Drain Solenoid (STD IC2)
MTR - Compressor	DRN2 - Drain Solenoid (IC2, Oil Coalescing Option)
FM - Fan Motor	TC1 - Temperature Sensor

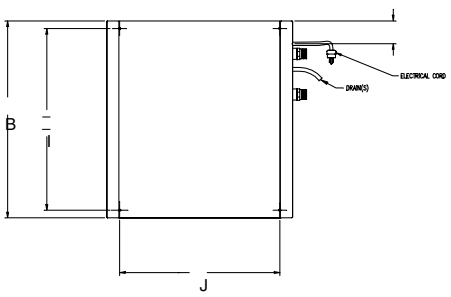
Optional Notes:

1. IC1-Includes IC1 Instrument Panel and Pneumatic Pilot operated Drains.
2. IC2-Includes IC2 Instrument Panel and Timed Solenoid Drains.
3. DRN2-Optional Cold Coalescing Drain.

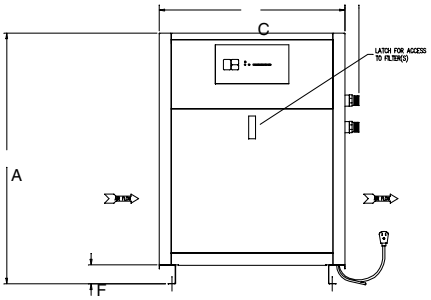
DIMENSIONS/WEIGHTS

	Dimensions inches				
Flow (scfm)	**25**	**35**	**50**	**75**	**100**
A	26	26	26	33-1/8	33-1/8
B	18-1/2	18-1/2	181/2	25-5/16	25-5/16
C	20-1/2	20-1/2	20-1/2	26	26
D	3-3/16	3-3/16	3-3/16	4-1/8	4-1/8
E	6	6	6	9-7/16	9-7/16
F	2	2	2	4-1/2	4-1/2
G	18-3/16	18-3/16	18-3/16	20-11/16	20-11/16
H	21-3/16	21-3/16	21-3/16	24-3/16	24-3/16
I	18-1/2	18-1/2	18-1/2	24	24
J	16-1/2	16-1/2	16-1/2	21-13/16	21-13/16
Inlet/Outlet Connections	1/2 MPT	1/2 MPT	1/2 MPT	3/4 MPT	3/4 MPT
Weights lbs	142	146	152	209	228
Weights lbs w/Oil Removal Filter	147	151	157	216	235

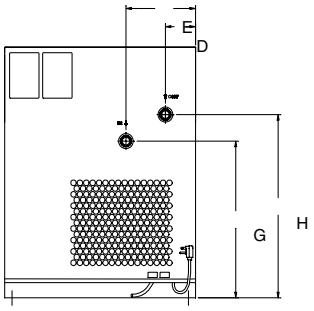
25 thru 50



TOP VIEW

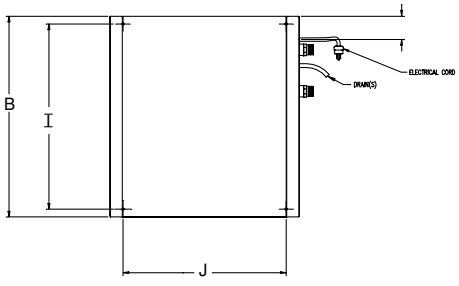


FRONT VIEW

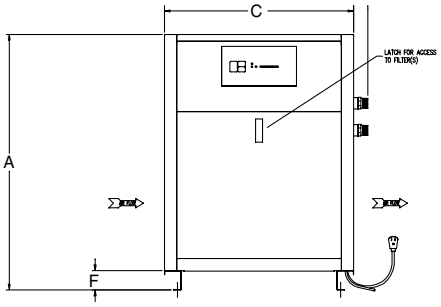


LEFT SIDE VIEW

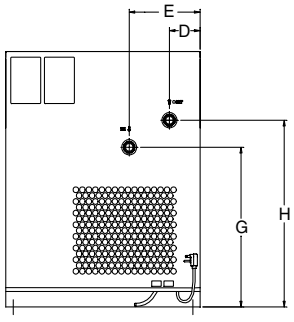
75 thru 100



TOP VIEW



FRONT VIEW



LEFT SIDE VIEW

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
A. Water downstream of dryer	1. Residual free moisture remaining in downstream pipelines	Blow out system with dry air
	2. Air by-pass system is open	Check valve positions
	3. Inlet and Outlet connections are reversed	Check for correct connection
	4. Temperatures surrounding air lines downstream of dryer have dropped below dryers dew point rating	Insulate or heat trace air lines exposed to low ambients or dry air to lower dew point
	5. Excessive free moisture (bulk liquid) at dryer inlet	Install separator ahead of dryer
	6. Condensate not being automatically drained	
	Drain mechanism is clogged or inoperative.	Replace drain mechanism if inoperative
	Drain line is restricted or frozen.	Open drain line
	Electric drains–timer not set to allow for sufficient condensate removal	Electric drains–reset time so that all liquid is discharged
	7. Dryer overloaded resulting in elevated dew point.	Check inlet air temperature and pressure, flow rate (compressor capacity) and ambient air or water temperature.
	8. Refrigeration system not functioning properly resulting in elevated dew point.	See D below
B. High pressure drop across dryer	1. Excessive air flow	Check flow rate
	2. Freezing of moisture in evaporator because of refrigeration system improperly functioning.	See D below
	3. Separator or optional Oil Removal filter element clogged.	Replace filter element(s).
C. Dew point indicator in red area	1. Dryer overloaded resulting in high air outlet temperature.	See A 7
	2. Refrigeration system not functioning properly resulting in high air outlet temperature.	See D below
	3. Dryer is running with no load	Light will go out when air flow is established
D. Refrigeration system not functioning properly		
1. Compressor on light off	a. Power failure	Check power to unit
	b. Line disconnect switch open	Close disconnect switch
	c. Blown fuses, open breaker	Check for continuity
	d. Faulty wiring, loose terminals	Have electrician check electrical connections
2. Refrigerant compressor cycles on and off	a. High or low ambient conditions	Check min./max. temperature ranges
	b. Air-cooled models–Dirty, clogged condenser fins, obstructed air flow across condenser, or non functioning fan motor or fan control switch.	Clean condenser and check for free air flow, if problem persists contact qualified refrigeration repairman or manufacturer's service department.

PARTS LIST

PARTS DESCRIPTION	25			35			50		
	115/1/60 100/1/50	208-230/1/60	220-240/1/50	115/1/60 100/1/50	208-230/1/60	220-240/1/50	115/1/60 100/1/50	208-230/1/60	220-240/1/50
Condensing Unit (Air-cooled)	C41301205	C41301208	C41301209	C413012111	C41301219	C41301219	C413012210	C413012211	C413012215
Compressor (Only)	C413010834	C413010861	C413010835	C413010838	C413010839	C413010840	C413010841	C413010842	C413010843
Overload	C59255702	C592557824	C59255703	C59255781	C59255782	C59255783	C59255784	C59255785	C59255785
Start Relay	C59456555	C594568324	C59456556	C59456831	C59456832	C59456833	C59456834	C59456835	C59456835
Start Capacitor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C5910-103-23	N/A
Fan Motor	C61052391	C61052374	C61052374	C610523827	C610523828	C610523828	C610523829	C610523830	C610523830
Fan Blade	C41402282	C41402282	C41402282	C414022717	C414022717	C414022717	C414022718	C414022718	C414022718
Hot Gas By-Pass Valve	C98021	C98021	C98021	C98021	C98021	C98021	C98021	C98021	G98021
Condenser (Air Cooled)	C413011026	C413011026	C413011026	C413011118	C413011118	C413011118	C413011119	C413011119	C413011119
Dryer	C413016514	C413016514	C413016514	C413016514	C413016514	C413016514	C413016514	C413016514	C413016514
By-Pass Valve Strainer	C41307018	C41307018	C41307018	C41307018	C41307018	C41307018	C41307018	C41307018	C41307018
On-Off Switch	C611070613	C611070613	C611070613	C611070613	C611070613	C611070613	C611070613	C611070613	C611070613
High Temperature Sensor	C61503332	C61503332	C61503332	C61503332	C61503332	C61503332	C61503332	C61503332	C61503332
Digital PC Board (IC 1-0) w/ high temp-sensor	C59455767	C59455767	C59455767	C59455767	C59455767	C59455767	C59455767	C59455767	C59455767

PARTS DESCRIPTION	75			100		
	115/1/60 100/1/50	208-230/1/60	220-240/1/50	115/1/60 100/1/50	208-230/1/60	220-240/1/50
Condensing Unit (Air-cooled)	C413012212	C413012213	C413012214	C413012312	C413012313	C413012314
Compressor (Only)	C413010844	C413010845	C413010846	C413010847	C413010848	C413010849
Overload	C59255787	C59255788	C59255789	C592557810	C592557811	C592557812
Start Relay	C59456837	C59456838	C59456839	C594568310	C594568311	C594568312
Start Capacitor	N/A	C591010326	C591010327	C591010328	C591010329	C591010329
Fan Motor	C610523831	C610523832	C610523832	C610523833	C610523834	C610523834
Fan Blade	C414022719	C414022725	C414022725	C414022720	C414022720	C414022720
Hot Gas By-Pass Valve	C98021	C98021	C98021	C98021	C98021	C98021
Condenser (Air Cooled)	C413011120	C413011120	C413011120	C413011121	C413011121	C413011121
Dryer	C413016514	C413016514	C413016514	C413016514	C413016514	C413016514
Fan Pressure Switch	N/A	N/A	N/A	N/A	N/A	N/A
Contactor	N/A	N/A	N/A	N/A	N/A	N/A
By-Pass Valve Strainer	C41307018	C41307018	C41307018	C41307018	C41307018	C41307018
On-Off Switch	C611070613	C611070613	C611070613	C611070613	C611070613	C611070613
High Temperature Sensor	C61503332	C61503332	C61503332	C61503332	C61503332	C61503332
Digital PC Board (IC 1-0) w/ high temp-sensor	C59455767	C59455767	C59455767	C59455767	C59455767	C59455767

Maintenance Kits

Flow (scfm)	25	35	50	75	100
Standard	CRNMK2	CRNMK2	CRNMK3	CRNMK4	CRNMK4
With Optional Cold Coaleser	CRNMK12	CRNMK12	CRNMK13	CRNMK14	CRNMK14

WARRANTY

The manufacturer warrants the product manufactured by it, when properly installed, operated, applied, and maintained in accordance with procedures and recommendations outlined in manufacturer's instruction manuals, to be free from defects in material or workmanship for a period as specified below, provided such defect is discovered and brought to the manufacturer's attention within the aforesaid warranty period.

The manufacturer will repair or replace any product or part determined to be defective by the manufacturer within the warranty period, provided such defect occurred in normal service and not as a result of misuse, abuse, neglect or accident. Normal maintenance items requiring routine replacement are not warranted. The warranty covers parts and labor for the warranty period unless otherwise specified. Repair or replacement shall be made at the factory or the installation site, at the sole option of the manufacturer. Any service performed on the product by anyone other than the manufacturer must first be authorized by the manufacturer.

Unauthorized service voids the warranty and any resulting charge or subsequent claim will not be paid. Products repaired or replaced under warranty shall be warranted for the unexpired portion of the warranty applying to the original product.

The foregoing is the exclusive remedy of any buyer of the manufacturer's product. The maximum damages liability of the manufacturer is the original purchase price of the product or part.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR STATUTORY, AND IS EXPRESSLY IN LIEU OF THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. THE MANUFACTURER SHALL NOT BE LIABLE FOR LOSS OR DAMAGE BY REASON OF STRICT LIABILITY IN TORT OR ITS NEGLIGENCE IN WHATEVER MANNER INCLUDING DESIGN, MANUFACTURE OR INSPECTION OF THE EQUIPMENT OR ITS FAILURE TO DISCOVER, REPORT, REPAIR, OR MODIFY LATENT DEFECTS INHERENT THEREIN.

THE MANUFACTURER, HIS REPRESENTATIVE OR DISTRIBUTOR SHALL NOT BE LIABLE FOR LOSS OF USE OF THE PRODUCT OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE BUYER, WHETHER ARISING FROM BREACH OF WARRANTY , NEGLIGENCE OR STRICT LIABILITY IN TORT.

The manufacturer does not warrant any product, part, material, component, or accessory manufactured by others and sold or supplied in connection with the sale of manufacturer's products.

Warranty Period

Parts and labor for two (2) years from the date of shipment from the factory; heat exchangers are covered (parts only) for an additional three (3) years (total of five [5]). Lifetime heat exchanger warranty (parts only) requires a CFF Series prefilter on the initial purchase and annual filter element replacements with genuine CFF Series elements.

On units that manufacturer requests be returned to the factory, a one time removal/reinstallation labor allowance as noted in the Service Warranty Policies and Procedures Handbook will apply. Freight to the factory from the installation site and to the installation site from the factory will be paid by the manufacturer; means of transportation to be specified by manufacturer.

AUTHORIZATION FROM THE SERVICE DEPARTMENT IS NECESSARY BEFORE MATERIAL IS RETURNED TO THE FACTORY OR IN-WARRANTY REPAIRS ARE MADE.

SERVICE DEPARTMENT: (724) 746-1100

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