



**NITROGEN-PAC™ M SERIES  
MODEL IRD-42 REFRIGERATED DRYER**

**Description**

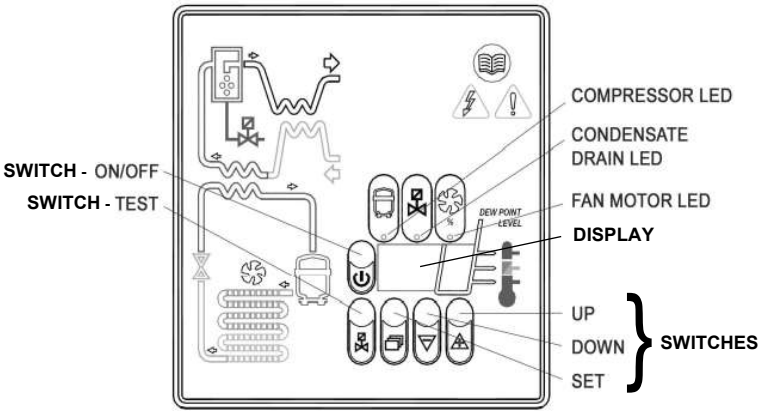
The **UNITED Fire Systems Model IRD-42 Refrigerated Dryer** removes moisture from compressed air sent to a **NITROGEN-PAC™ M Series** sprinkler corrosion inhibiting system nitrogen generator module. Use of the **Model IRD-42 Refrigerated Dryer** ensures that the air sent to the generator module is temperature and moisture conditioned to suit the operating characteristics of the membrane within the generator module. Refer to Figures 1 and 4 for mechanical details.

**Graphical Interface**

Refer to Figures 2 and 3. The dryer is equipped with a state-of-the-art graphical interface to make all control and programming functions intuitive and easy.



**FIGURE 1  
NITROGEN-PAC™ Model IRD-42 Refrigerated Dryer**



**FIGURE 2  
Dryer Graphical Interface**

DISPLAY	DESCRIPTION
	the unit is ON with low load
	the unit is ON with normal load
	the unit is ON with normal-high load
	the unit is ON with high load

LED	STATUS	DESCRIPTION
	ON	Compressor energized
	Blinking	Programming mode activated
	ON	Condensate drain energized
	ON	Speed of the fan = 100%
	Blinking	Speed of the fan < 100%
	OFF	Fan not running

**FIGURE 3  
Display - Details**

For downloadable architect's specifications and drawing details, go to:  
[unitedfiresystems.com/product/nitrogen-pac-m-series](http://unitedfiresystems.com/product/nitrogen-pac-m-series)

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This literature is provided for informational purposes only. **UNITED Fire Systems** assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to perform as intended. The information in this document is believed to be correct at the time of publication. **UNITED Fire Systems** reserves the right to add to, delete, or revise any information in this document without notice.



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**MODEL IRD-42 REFRIGERATED DRYER**

**Technical Specifications**

Capacity @ Inlet Pressure 100 PSIG, Inlet and Ambient Temperature 100°F

- Rated Capacity: 42 SCFM
- Pressure Drop: 1.2 PSID

Power

- Voltage: 115 VAC 60 Hz single-phase
- Motor Power: 0.33 HP (370 W)
- Motor Full Load Current: 5.3 A
- Motor Locked Rotor Current: 35 A
- Dryer Total Current Draw: 6.0 A

Dimensions

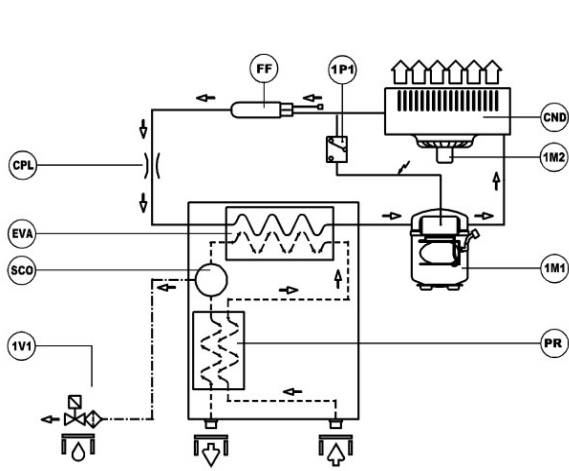
- Length x Width x Height : 18 x 16 x 18 inches
- Weight: 62 pounds
- Inlet and Outlet Connections: 1/2 inch NPT Female
- Drain Connection: 1/4 inch Polymer Tubing

Included with Assembly

- Refrigerated Dryer
- Refrigerant Charge (R134a Refrigerant)
- Power Cord with NEMA 3-Prong Plug
- Graphical Interface with Display
- Electronically-controlled Drain Valve
- Volt-Free Contact for Remote Signaling

Instructions

- Refer to **UNITED Fire Systems** manual P/N 30-NPMICM-001 for detailed installation, operation, and maintenance instructions, with checklists for carrying out procedures.



LEGEND FOR FIGURE 4		
1M1		Refrigerant compressor
1M2		Fan motor
1P1		High pressure switch
1V1		Solenoid drain valve
CND		Condenser
CPL		Capillary tube
EVA		Evaporator
FF		Filter
PR		Air-to-air heat exchanger
SCO		Condensate separator
Solid line		Refrigerant circuit
Dotted line		Air path
Broken line		Water drainage
Line as shown		Internal electrical connection

**FIGURE 4**  
**Mechanical Schematic**

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