



GENESIS INTERNATIONAL, INC.

Wizard

Single Zone Evaporator / Defrost Control System with Humidity Control & Sherlock Refrigerant Leak Detection NEMA 4X (WEC-L-H-4)



Wizard Evaporator / Defrost With Humidity Control (WEC-L-H-4), Part #88-0350-00

The Wizard Industrial Control System in a NEMA 4X ABS watertight housing (WEC-L-H-4) was designed to incorporate the functions necessary to control one valve group in a large refrigerated spaces into a compact, simple to install package. The WEC-L-H-4 is compliant with ASHRAE 15-2019 and MECHANICAL CODE requirements for refrigerant gas monitoring with the addition of a Sherlock refrigerant gas sensor. A single WEC-L-H-4 can replace the following items:

- Evaporator Valve Group Status Monitor
- Multi-Function Defrost Clock
- Temperature Control, Monitoring and Alarming
- Refrigerant Gas Leak Monitor and Alarm
- Humidity Monitor
- De-Humidification
- Load Shedding Control
- System Shutdown
- Temperature Recorder

MODEL #	NEMA/IP RATING	ELECTRICAL CATEGORY	POLLUTION PROTECTION
WEC-L-H-4	4x / Ip67	II	3

NEMA 4X Compliant Enclosure - This enclosure is intended for either indoor or outdoor use, 0 to 50 °C, to provide a degree of protection against corrosion, windblown dust and rain, splashing water, and hose directed water.

Specifications

Housing	NEMA 4X, ABS
Dimensions Inches (mm)	14.0 x 12.0 x 7.0 (356 x 305 x 178)
Power	100 to 240vac, 50/60 hz, 2.5 Amps
Inputs	Up to Three (3) NTC Thermistor Temperature Sensors One (1) SHERLOCK Refrigerant Sensor Cmos, Infrared or Electro-Chemical One (1) 1-2 VDC Humidity Sensor, 10-90% RH Three dry contacts -- <i>Force Defrost, Shutdown, Load Shedding.</i>
Outputs	Fourteen (14) SPDT, 1 Form C, 250V AC, 5.0 Amp relays.
Optional VSD	Dual Variable Speed Drive control relay, (Fans, Compressors, Etc.)
Alarms	System Alarms (2 relay) Low & High Temperature Termination Failure / Coil Recovery Refrigerant Gas Leak Alarm, Two (2) alarm levels (2 SPDT Relays per level)
Display	2 lines by 20 characters Alphanumeric LCD with back light. Evaporator Control Status LEDs -- indicates Control Operating Status of Evaporator Controls Circuits Alarm Status LEDs -- indicates Alarm Status
Keypad	5 tactile pushbuttons: Scroll up, Scroll down Select/Edit/Change, Force Defrost Start/Advance
Alarm Indicators	
LCD	Name, description, and current reading of alarming sensor
Buzzer	piezo-electric, 90db @10ft, silenceable
Status LED	Two on front panel of control. Indicates alarm status of the System Alarm
Optional Strobe Light	Mounted on the enclosure, activates during any alarm condition.

Listings

ETL, Conforms to UL Std. 61010-1
Certified to CAN/CSA, C22.2 Std. No. 61010-1

Warranty

15 Month Limited

60-0125-00 WEC-L-H-4 09-25-19

Temperature Control & Alarming - Each WEC-L-H-4 is equipped with a temperature sensor for monitoring and controlling temperature. The control monitors alarms both high and low levels, each having its own programmed delay. The WEC-L-H-4 can also monitor coil temperature, and an auxiliary temperature.

Defrost Control - The WEC-L-H-4 is an electronic control and time clock which can operate up to 12 defrost cycles per day with three separate defrost schedules as well as manual defrost. The defrost can be gas, electric, water or off-time defrost. During a defrost cycle the Wizard will sequence solenoids, valves, fans & heaters as required.

Defrost Termination - A defrost cycle can be terminated by clicks-on thermo-disk, temperature termination sensor, suction pressure switch or time.

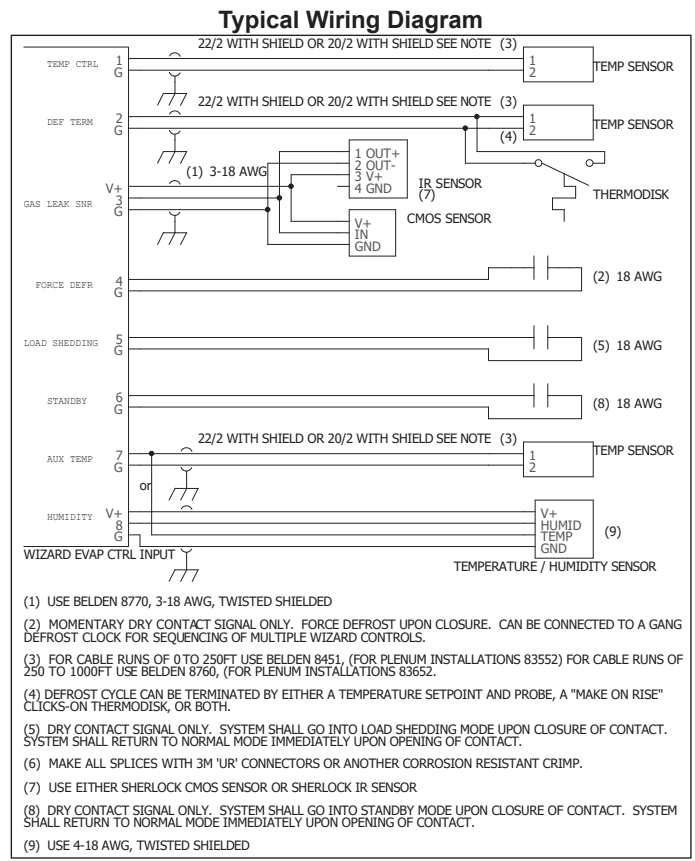
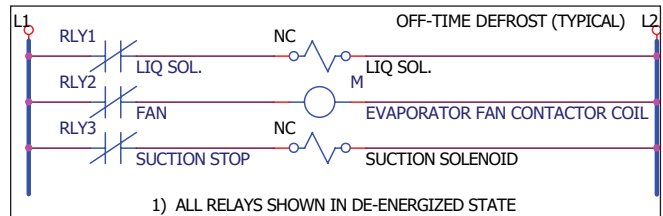
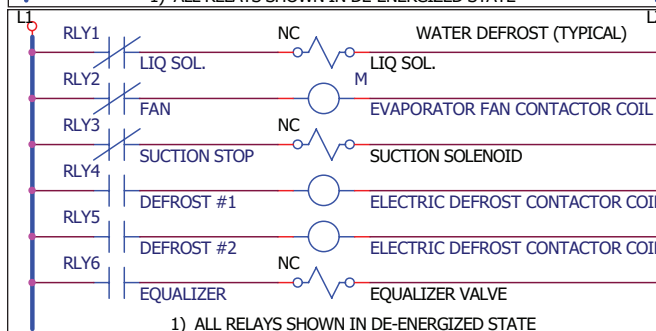
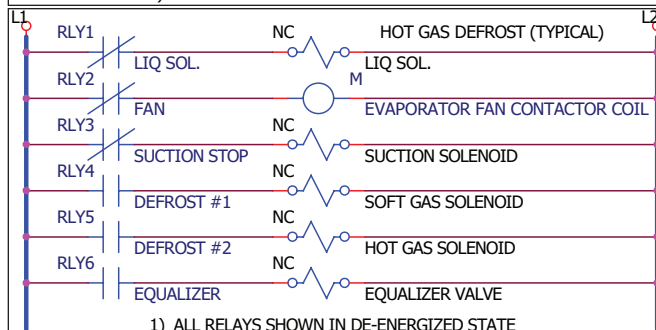
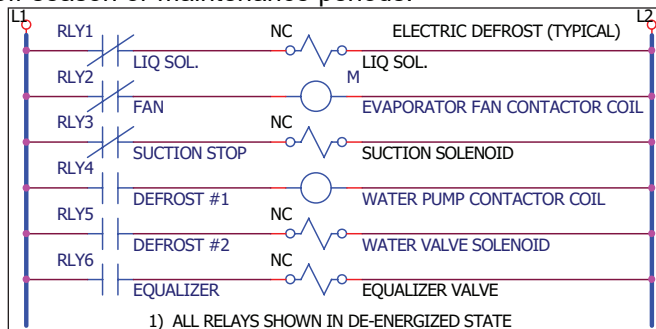
Load Shedding / Temperature Control Setback - The WEC-L-H-4 allows the user to change the temperature control setpoint during peak energy times to a higher value in order to reduce energy demand.

Shutdown (Standby) - The WEC-L-H-4 can be configured to shutdown the system on a daily schedule, during off-season or maintenance periods.

Refrigeration Leak Monitoring - The WEC-L-H-4 makes a room code compliant with the addition of a Sherlock refrigerant sensor (Solid State CMOS, Infrared or Electro-Chemical). The WEC-L-H-4 will activate four separate alarm relays based upon two alarm level threshold set-points energizing alarm indication equipment and any additional safety procedures as required by local codes. The WEC-L-H-4 gives the user an option to pump down, then isolate the evaporator coil should the leak concentration exceed level two.

Humidity / Dehumidification Control Relays - Used with the Wizard Temperature/Humidity Sensor. One relay is for humidity and the second relay is for de-humidification. The heat will come on as the cooling is used for room dehumidification.

Remote Communications & Data Logging - GenCom communications software allows the computer operator to access and change the WEC-L-H-4 within a facility via a PC connection. The WEC-L-H-4 will record up to 1500 temperature log entries into its internal memory.



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