

KLLC100 AND KLLC480 LEAD-LAG CONTROLLER

DESCRIPTION



In response to customer demand, and with an increasing number of cooling applications requiring multiple air conditioners on a single cabinet, Kooltronic has developed the KLLC100 Lead-Lag Controller, an option for use with all Kooltronic air conditioners equipped with a 24V relay and external connection (option "D").

This true dual-stage device allows users to control the operation of up to two air conditioners based on either temperature or run-time. For users with fluctuating heat loads, the Lead-Lag Controller will bring the second air conditioner on-line as the heat load increases, and shuts it down as the demand for additional cooling diminishes. It can also be used to distribute the run-time over multiple units, balancing the service life of the air conditioners.

Applications using more than one air conditioner on a cabinet, either for extreme heat load or as a redundant system are becoming more prevalent. Adding a Lead-Lag Controller is an effective solution for users who need to maintain a critical cabinet temperature without interruption or failure.

The Controller features an LED display to indicate which air conditioner is on the run cycle and whether a unit is in the cooling or heating mode, if equipped with a heater. There is also an easy-to-read display panel that provides options to tailor the control of the air conditioners to suit any application. Other standard features include a built-in thermostat with adjustable set-point, deadband and sequencer. A universal mounting plate is supplied for simple installation within the cabinet. The KLLC100 Lead-Lag Controller works with 115 and 230V units, and is supplied with a 115V wall outlet transformer. Kooltronic also offers the KLLC480, designed to work with 480V units. The KLLC480 comes with a multi-voltage field-wired transformer. NOTE: The KLLC100-480 is not RoHS compliant.

APPROXIMATE WEIGHT

2.2 lbs. [1.0 kg]

SPECIFICATIONS

ELECTRICAL

INPUT

Nominal Voltage: 18-30 VAC
Frequency: 50/60Hz

OUTPUT

Type: Triac
Number: Four (4)
Rating: 2 amps per output @ nom. 24 VAC

KLLC100 Supplied with a 115V wall outlet transformer

KLLC480 Supplied with multi-voltage field-wired transformer

OPERATIONAL

HEAT/COOL STAGING

First Stage Heat (H1): deadband setting above thermostat setpoint (C1)
Second State Heat (H2): 2°F above H1
First Stage Cool (C1): equal to thermostat setpoint
Second Stage Cool (C2): 2°F below C1

DEADBAND

Adjustable: 2° to 20°F

SHORT-CYCLE PROTECTION

Stage 1: Three (3) minutes
Stage 2: Four (4) minutes

SETPOINT

Adjustable: 55 to 90°F @ C1

ADVANCE SEQUENCER

Pin selectable: Alternates every 1, 3, 7, 15 or 28 days, or fixed
Manual ADVANCE pushbutton initializes sequence record

MODE MEMORY

On power loss, system 'remembers' which previous mode it was in

TEST MODES

Thermistor bypass calibration mode jumper
Accelerated test mode jumper

DISPLAY LEDs

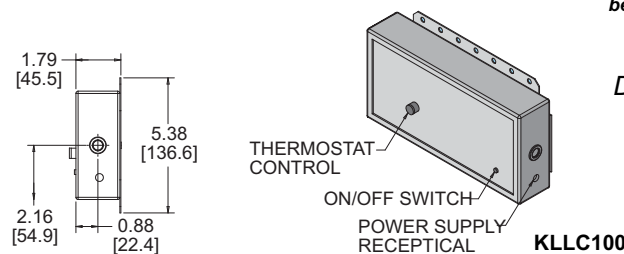
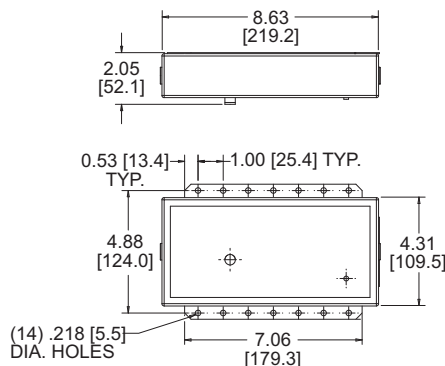
Green LEDs: call for COOL (C1 & C2)
Red LEDs: call for HEAT (H1 & H2)

STANDARD FEATURES

- True Dual Stage control
- Regulates 1 or 2 air conditioners
- Controls units based on temperature and run-time
- Second unit can heat or cool only when necessary
- Built-in thermostat (adjustable setpoint, deadband and sequencer)
- Compact housing
- Memory on power loss
- Enables load balancing and redundancy
- Manages heating and cooling of both units
- Provides Short-Cycle protection
- Includes status LEDs



DRAWINGS AND DIMENSIONS inches [metric]



Find additional information on this model at kooltronic.com, or use the Technical Documents QR code below.

Technical Documents



HOW TO ORDER

Specify model number.

Dimensions, inches [mm], are for reference only and subject to change.

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