Protection Relays Current Monitoring Relays and Transducers

LSRU SERIES

Load sensor



Answers Delivered



Wiring Diagram



Ordering Information

See next page.

Description

The LSRU Series is a microcontroller-based family of load sensors. The LSRU family of products employ three basic types of control logic: motor control logic, alarm logic and feed control logic.

Motor Control Logic

Several combinations of functions are available in the LSRU, including overcurrent and undercurrent or either overcurrent or undercurrent with variable trip, restart or extended restart delay settings. These various versions of the LSRU trip on the respective fault and then automatically reset after the restart delay expires, in preparation for the next motor start. LSRUs do not trip on undercurrent when the load turns off, this is recognized as a normal condition.

Alarm Logic

The LSRU-AL simply indicates whether the current is between the setpoints or outside of the setpoints. This product is best used with a PLC or other controller where status indication is desired.

Feed Control

The LSRU-FC is a load monitor intended to control feeder mechanisms in a variety of applications. It stops the feeder when the grinder, chipper, saw, auger, etc. nears overload. When the load is reduced to a preset level, the feeder is restarted.

Features & Benefits

FEATURES	BENEFITS	
LED indicator	Visual indication of relay status	
Built in current sensor	Eliminates the need for a stand alone current transformer and also provides isolation between the monitored and control circuits	
Adjustable current sensing range	Provides ability to precisely set the current trip point for any application	

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Ordering Information

LSRU SERIES

MODEL	LINE VOTAGE	CURRENT RANGE	DESCRIPTION
LSRU-024-AL-2	24VAC	5-25A	Alarm logic
LSRU-024-AL-3	24VAC	25-100A	Alarm logic
LSRU-115-AL-1.5	115VAC	0-10A	Alarm logic
LSRU-115-AL-2	115VAC	5-25A	Alarm logic
LSRU-115-AL-3	115VAC	25-100A	Alarm logic
LSRU-115-FC-1.5	115VAC	0-10A	Feed control logic
LSRU-115-0T-1.5	115VAC	0-10A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-0T-2	115VAC	5-25A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-0T-3	115VAC	25-100A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-0R-1.5	115VAC	0-10A	Motor control logic with overcurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-0R-2	115VAC	5-25A	Motor control logic with overcurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-UE-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj ext restart delay (2-300m, manual)
LSRU-115-UT-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj trip delay (0.5-60s)
LSRU-115-UT-3	115VAC	25-100A	Motor control logic with undercurrent trip, adj trip delay (0.5-60s)
LSRU-115-UR-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-0U-1.5	115VAC	0-10A	Motor control logic with overcurrent and undercurrent trip
LSRU-115-0U-2	115VAC	5-25A	Motor control logic with overcurrent and undercurrent trip
LSRU-115-0U-3	115VAC	25-100A	Motor control logic with overcurrent and undercurrent trip

PART # KEY

0 = Overcurrent Trip

U = Undercurrent Trip

T = Adj. Trip Delay (0.5-60 seconds)

R = Adj. Restart Delay (0.5-300 seconds, Manual)

E = Adj. Extended Restart Delay (2-300 minutes, Manual)

Specifications

Functional Characteristics

Isolation Power **Motor Acceleration Time** When not selected as an option: **Fixed Trip Delay** (-AL, -FC) **Fixed Restart Delay** (-AL only) (-FC only) Input Characteristics Control Power **Output Characteristics**

2 seconds 0.5 second

600VAC rms

2 Watts

1.5 = 0-10 Amps

3 = 25-100 Amps

2 = 5-25 Amps

1 second 1 second as soon as current is within limits 0.5 second

24VAC or 115VAC

www.littelfuse.com/lsru

Output Contact Rating (SPDT) Pilot Duty General Purpose

480VA @ 240VAC 10A @ 240VAC

General Characteristics

Temperature Range Wire Size **Hole Size Terminal Torque Safety Marks** CSA, CSA-NRTL/C CE Dimensions Weight

Mounting Method

-40° to 70°C (-40° to 158°F) #12-24AWG 0.725" diameter 7 in.-lbs.

(File #46510)

H 42.42 mm (1.67"); **W** 58.42 mm (2.3"); **D** 90.43 mm (3.56") 0.5 lb. (8 oz., 226.8 g) Four #6 screws 3/4" in length

Caution: This product should not be relied upon solely for safety of life or safety applications.