

PHILIPS

LCU7590



Specification Sheet

3-Phase Coil

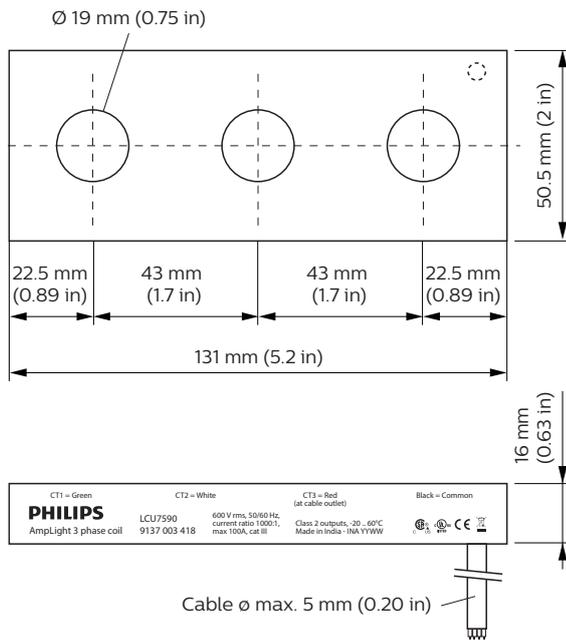
The 3-Phase Coil / current-sensor can be used in combination with the Current to measure the supplied mains currents, in order to monitor possible failures and unsafe situations. Current threshold values can easily be configured to fit specific needs with a web application that runs on a central server.

The 3-phase coil must be used in combination with the Current. In a centralized streetlight control system - the Current is used for monitoring the individual control cabinets. The Current can be used for a wide range of monitoring purposes.

Power failures, cable breakages, street lamp failures, leakages, etc. are immediately reported to the central server. Direct communication between the modules takes place by means of an A-Bus interface, which is based on the industrially proven RS-485 technology. The A-Bus interface is also used to power supply the other modules.

For more detailed information, see the specific manuals and guides.

Dimensional drawing



Functionality

Communication	The coil consists of three independent AC measurement coils with one common. The output signal represents the mains-current wave-form that can be interpreted by the Current.
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Installation

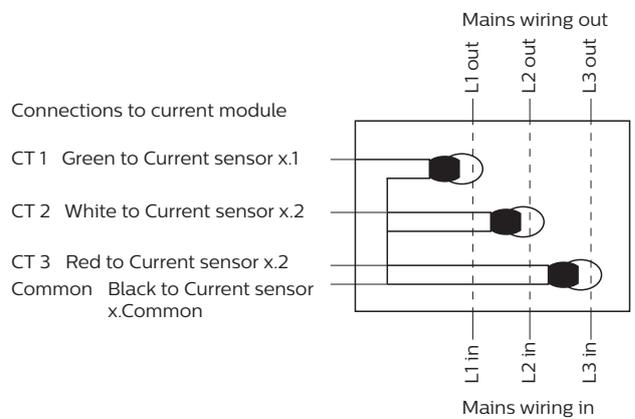
The 3-Phase Coil should be protected from dust and water, preferably by enclosing the system in a metal IP class 65 (NEMA type 4) outdoor cabinet.



Warning

Do not cut the cable connected to the sensor. Make sure all sensor wires are connected to the right input of the Current. Don't leave wires of the sensor floating! Never connect the sensor wires while mains is connected!

Wiring



Connection wires: 0.35 mm² (AWG 22)

Specifications

Environmental conditions

Storage temperature	-40 to 85 °C (-40 to 185 °F)
Operating temperature	-20 to 60 °C (-4 to 140 °F)
Max humidity	90% (non-condensing) (IP protection level 54)

Supply characteristics

Current sensor specifications (three per product)

Frequency range	48 to 62 Hz
Transformer ratio	1000:1 (primary:secondary)
Maximum primary voltage	600 Vrms
Rated primary current	100 A, cat III
Maximum primary current	250 A
Nominal secondary current	0 to 100 mA
Accuracy	1.5% (in combination with Current)
Insulation between primary and secondary	≥ 4 kV

Mechanical

Mounting	No mounting holes or flanges present, only fix with insulating materials
Color	black
Cable Length	2,500 mm ±10mm (8.2 ft ±0.4 in)
Cores	0.35 mm ² (AWG 22)
Colors	Black PVC sheath, cores: red, white, black and green
Weight	404 g (14.3 oz)

Connections

Stripped length	Outer insulator (sheath) 20 mm ±1 mm (0.8 in ±0.04 in) Core insulators (wires) 10 mm ±1 mm (0.4 ±0.04 in)
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Standards and approvals

2006/95/EC, Low Voltage Directive (LVD)
2004/108/EC, EMC Directive
1999/5/EC, R&TTE Directive
2002/95/EC, RoHS Directive
2006/121/EC, REACH directive
UL 916
C22.2 No.205-M1983



Packing data

Type	Box dimensions	Qty	Material	Weight	
				net	gross
LCU7590 3-Phase Coil	410 x 310 x 215 mm (16.1 x 12.2 x 8.46 in)	52	Cardboard	20.8 kg (45.9 lb)	22 kg (48.5 lb)

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
LCU7590 3-Phase Coil	1	9137 003 41803	8727900 947724	8727900 947731	947724 00

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