

UPM310 – ELETTRICAL CONNECTIONS AND WIRING

7.4 VOLTAGE AND AMPEROMETRIC INPUTS

Connect the voltage inputs by means of the supplied 4-pin connector.

For current inputs use the 6-pin connector, to be fastened with the provided screws.

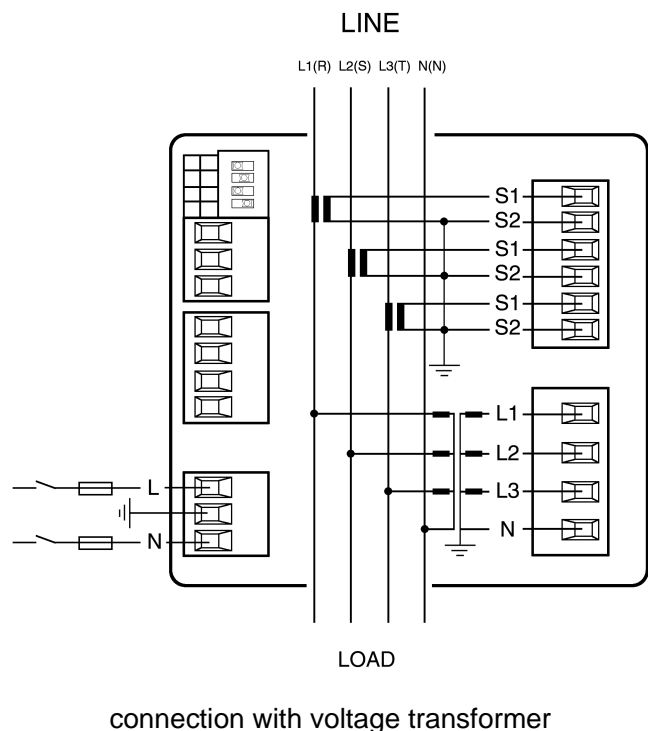
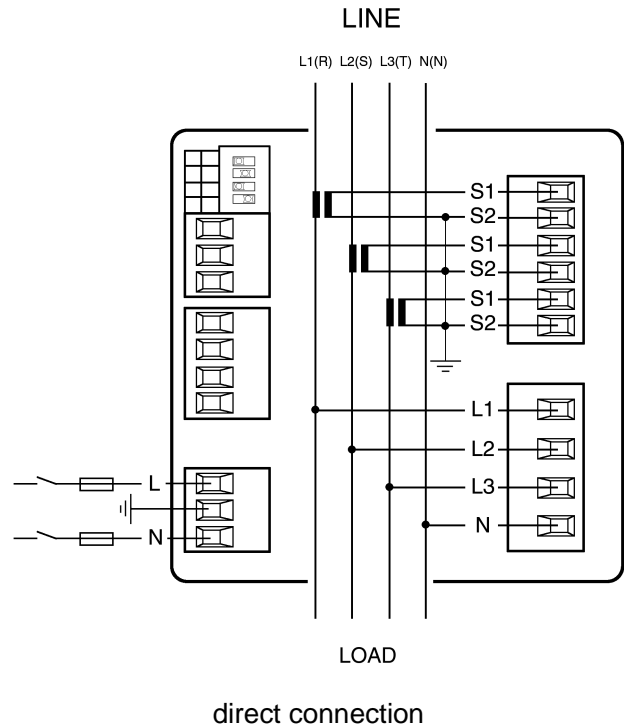
The following diagrams show some connection examples.



WARNING!
Check that:

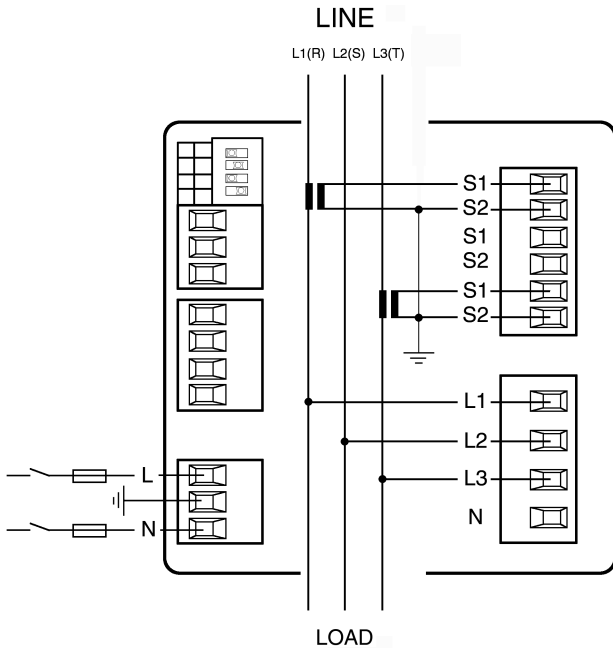
1. the connections are made respecting the polarities if the instrument must make bi-directional measurements to obtain correct measurements.
 2. the connections are made according to the diagrams in the following section, respecting the cyclic order of phases (important: L1 of the voltage input = L1 of the current input)
 3. be sure to respect input and output polarities when using voltage or current transformers (PT / CT).
 4. the amperometric signal connector is adequately fastened to avoid accidental disconnection.
 5. a current input is never disconnected without prior cutting off the load power supply.
- If this is not possible, the secondary CT must be connected in short-circuit.**

3 phases, 4 wires, current transformers

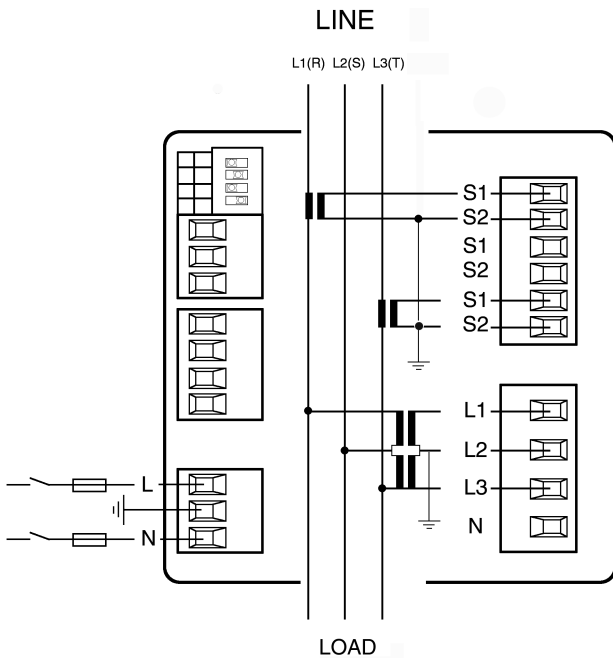


3 phases, 3 wires, 2 current transformers

NOTE
 In a 3-wire system (without neutral) the phase values are not indicated as they might be incorrect. In this case, the values refer to an artificial neutral generated inside the instrument.

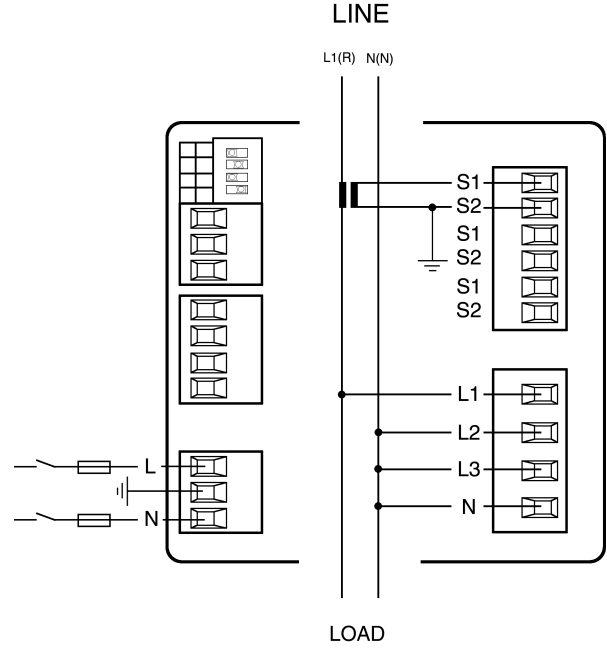


direct connection

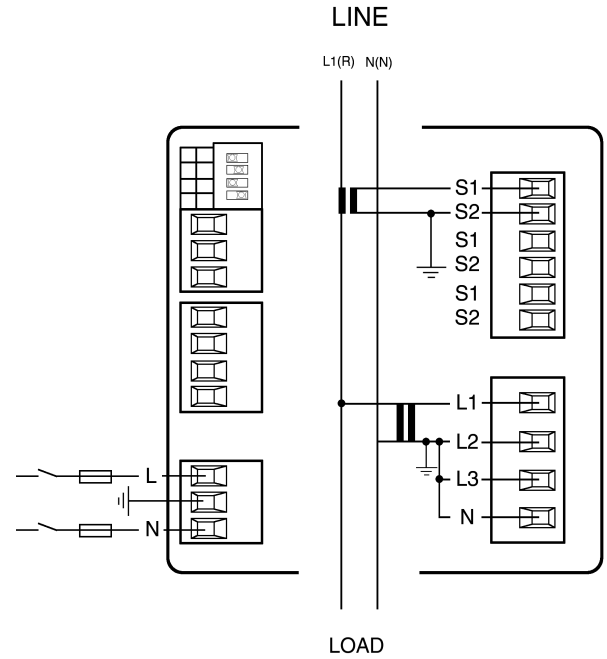


connection with voltage transformer

single phase (L1)

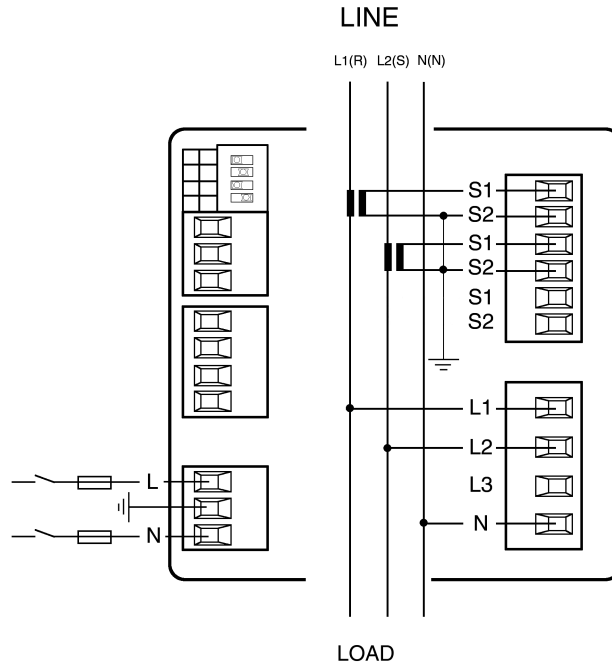


direct connection



connection with voltage transformer

1 phases, 3 wires, 2 current transformers



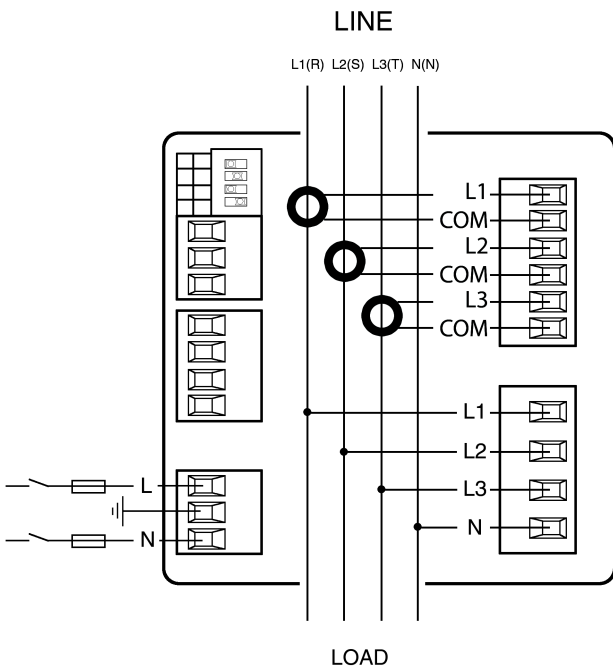
direct connection

The following diagrams show some connection examples in case of Rogowski coils (option).

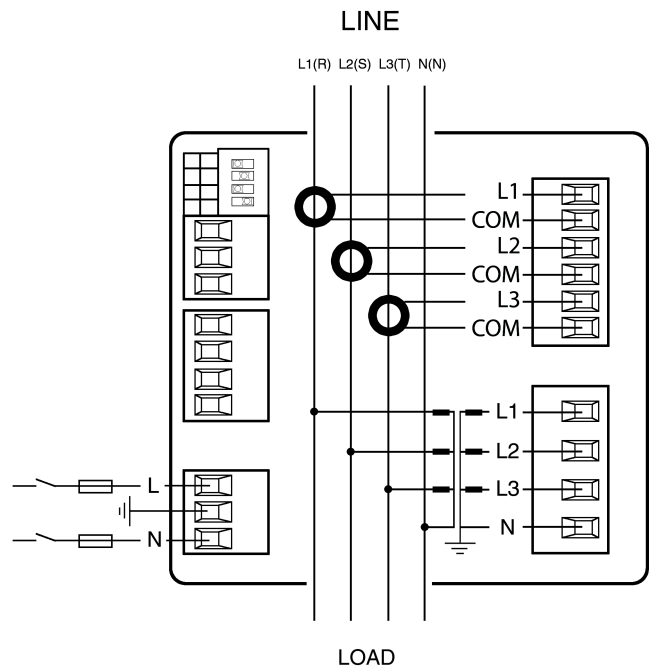


NOTE. In case of Rogowski coils, please check that **YELLOW** cable edge is connected to **S1** (signal) and the **WHITE** cable edge is connected to **S2** (common).

3phases, 4wires, 3coils up to 600V

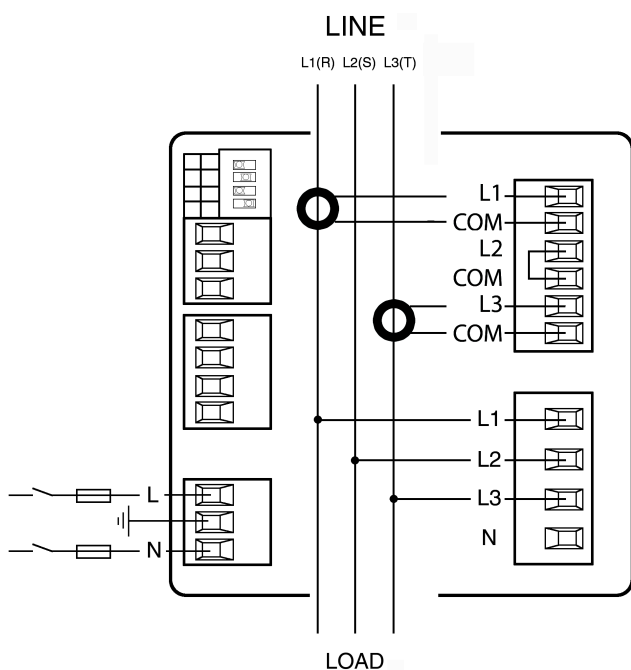


direct connection



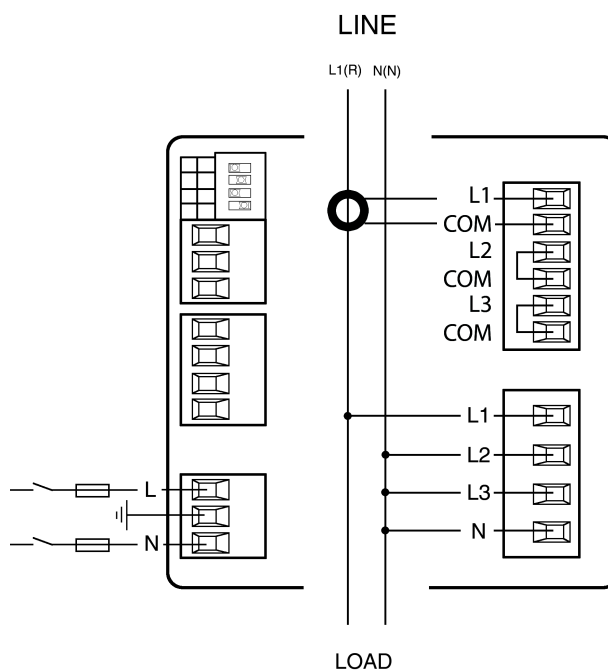
connection with voltage transformer

3phases, 3wires, 2coils up to 600V

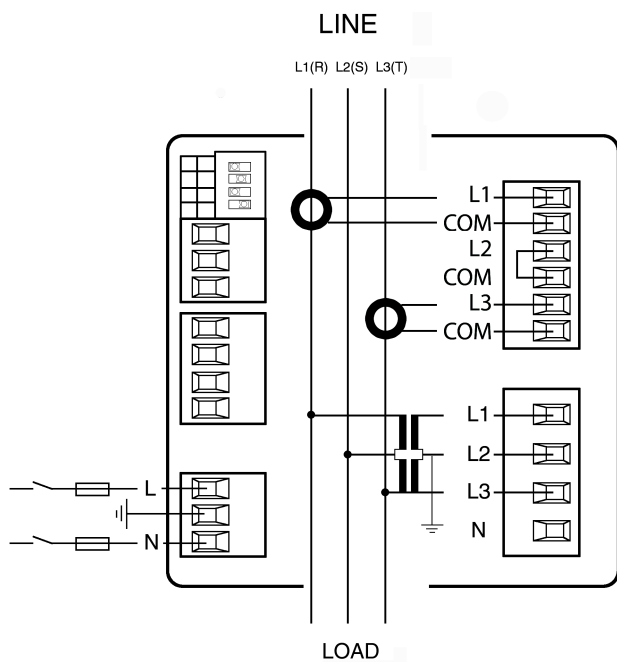


direct connection

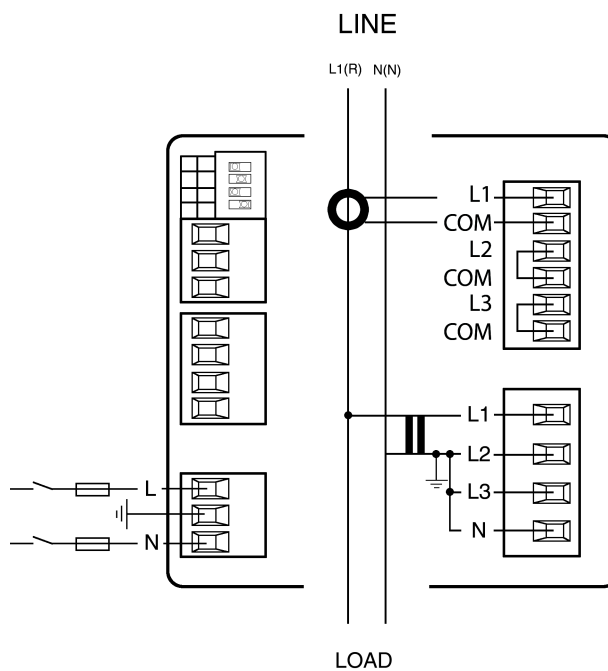
single phase up to 400V



direct connection



connection with voltage transformer



connection with voltage transformer

7.4.1 Voltage specifications

The phase and polarity of the AC input voltage is an essential parameter for correct functioning of the instrument. The voltage specifications are as follows:

Input voltage	600(750) V _{AC} max L-L
Input impedance	> 1.3 MOhm
Burden	max 0.15 VA per phase

7.4.2 Current specifications

The phase and polarity of the input current is an essential parameter for proper functioning of the instrument. When using current transformers, always use connectors which facilitate connection/ disconnection operations.

The current specifications are as follows:

Nom. input current	1 or 5 A programmable
Min. / Max. measurable current	20mA / 7A
Max. overload	10 A continuous – 100A per second
Input impedance	0,02 Ohm approx.
Load	max 0.05 VA per phase@ F.S.
Isolation	150 V _{RMS} max between phases
Rogowski coils input (optional)	200÷49995 A on request

NOTES:

- Extract from manual (1IAUXX310003)
- Subject to change without notice