

Current Transformer for MultiPlus-II



Current Transformer 100A with wire end



Current transformer 100A with headphone jack

Current Transformer 100A

The 100A Current Transformer can be used together with a MultiPlus-II or MultiPlus 20k to measure AC current on an external conductor, without routing that current through the inverter/charger itself. It is used to implement PowerControl and PowerAssist, and to optimize self-consumption using external current sensing. The Current Transformer allows the MultiPlus-II to determine how much power is flowing to or from the grid and can be used where a full energy meter is not required.

Retrofit and space constrained installations

The Current Transformer clips around an existing live conductor, so no rewiring of the main supply is required. It is useful where there is no space for a DIN rail energy meter and provides a faster and simpler installation than a full meter.

Two types

Two versions are available, one with wire ends and one with a headphone jack. Current MultiPlus-II units and MultiPlus 20k are supplied with a two-wire terminal connection. The headphone jack connection was used in older MultiPlus-II units.

Limitations

The Current Transformer supports single-phase monitoring only and measures current, not voltage. It is less accurate than a dedicated energy meter, especially at low currents. The wires must not be extended or shortened, as they are calibrated for use with the current transformer.

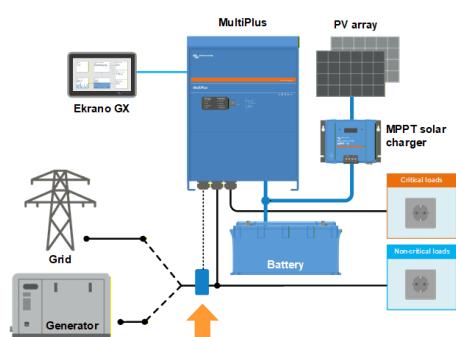
Current Transformer 100A or 400A

The 100A or 400A Current Transformer **must** be used in an external transfer switch application where an external transfer switch replaces the internal AC transfer switches of each individual MultiPlus-II in a three-phase multi-unit system. One Current Transformer is required per phase and is connected to the master unit of that phase. For more information, refer to the [External transfer switch manual](#).

Note that the 400A Current Transformer can only be used in an external transfer switch application.

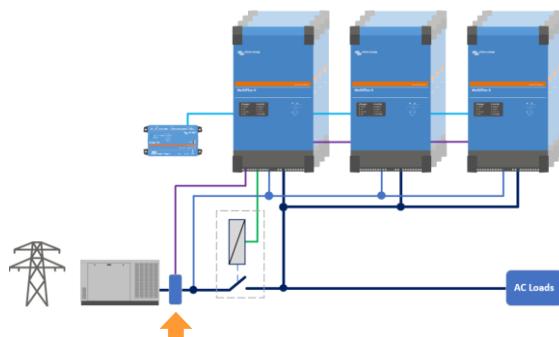


Current Transformer 400A with wire end



Grid parallel topology with MPPT solar charge controller.

The MultiPlus-II or MultiPlus 20k uses data from the Current Transformer to optimize self-consumption and, if required, to prevent feed-in to the grid. In the event of a power outage, the MultiPlus-II continues to supply the critical loads. Features such as UPS functionality, AC input current limit, PowerControl, and PowerAssist remain active.



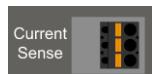
External Transfer Switch topology

The external transfer switch replaces the internal AC transfer switch of each individual MultiPlus-II. Each MultiPlus-II phase uses data from a Current Transformer to determine whether AC input is available and controls the external transfer switch accordingly. A separate Current Transformer is required for each phase. Features such as UPS functionality, AC input current limit, PowerControl, and PowerAssist remain active.

Model	Wire length	Voltage	Current rating	Wire termination	Use for
Current Transformer 100A:50mA	1 m	50mV	100 A	Wire end	Newer MultiPlus-II units and MultiPlus 20k
Current Transformer 100A:50mA	5 m				
Current Transformer 100A:50mA	20 m				
Current Transformer 100A:50mA	1 m		400 A	Headphone jack	Older MultiPlus-II units
Current Transformer 100A:50mA	5 m				
Current Transformer 100A:50mA	20 m				
Current Transformer 400A:50mA	10 m			Wire end	MultiPlus-II units in External Transfer switch configuration (s99 firmware)

Connection

- The Current Transformer clips around the AC conductor.
- Pay attention to the correct direction of the Current Transformer. The arrow on the Current Transformer must be pointing in the direction of the MultiPlus.
- The cable connects directly to the MultiPlus-II.
- Do not shorten the cable; it is calibrated to the current transformer.



Connection terminal MultiPlus-II and MultiPlus 20k (Newer models)



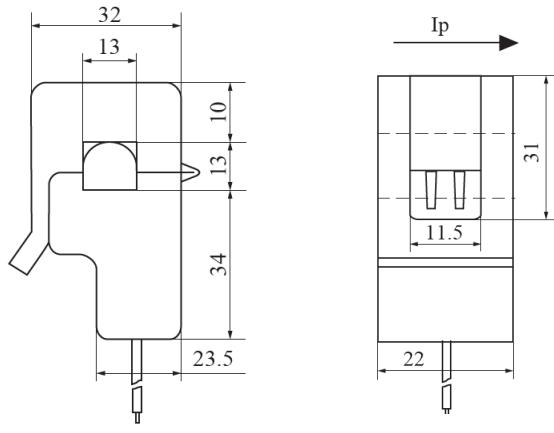
Connection socket MultiPlus-II (Older models)

Newer MultiPlus-II models

- Remove the wire link.
- Connect the Current Transformer wires to the external current sensor terminals.
- Note that the Current Transformer is polarity sensitive.
- Connect the red wire to the EXT terminal.
- Connect the white wire to the COM terminal.

Older MultiPlus-II models

- Plug the CT headphone jack into the headphone socket.



Front view

Side view

Enclosure dimensions 100A Current Transformer
(dimensions in mm)