

Current Transformer for MultiPlus-II & MultiPlus 20kW



Current Transformer 100 A with wire end



Current transformer 100 A with headphone jack



Current Transformer 400 A with wire end

Current Transformer 100 A

The 100 A Current Transformer can be used together with a MultiPlus-II or MultiPlus 20kW 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 or MultiPlus 20kW 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 20kW are supplied with a two-wire terminal connection. The headphone jack connection was used in older MultiPlus-II units.

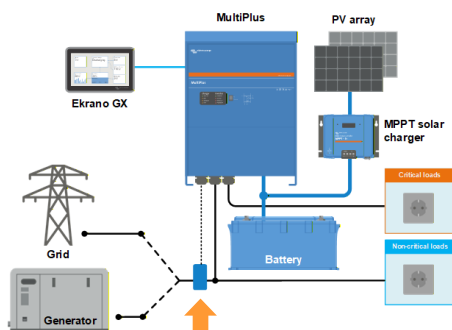
Limitations

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 100 A or 400 A

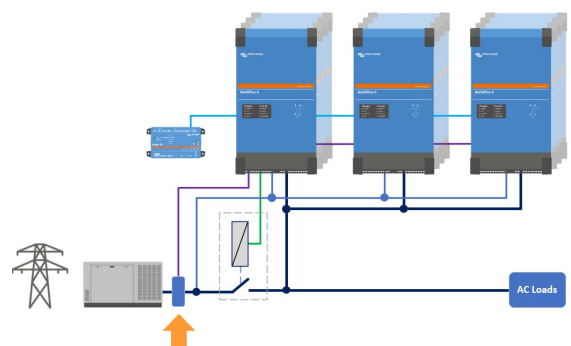
The 100 A or 400 A Current Transformer **must** be used in an external transfer switch application where an external transfer switch replaces the internal AC transfer switches of each individual MultiPlus-II or MultiPlus 20kW in a three-phase multi-unit system. One Current Transformer is required per phase and is connected to the master unit of that phase. For more information, refer to the [External transfer switch application manual](#).

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



Grid parallel topology with MPPT solar charge controller.

The MultiPlus-II or MultiPlus 20kW 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 or MultiPlus 20kW. Each MultiPlus-II or MultiPlus 20kW 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 100 A:50 mA	1 m	50 mV	100 A	Wire end	Newer MultiPlus-II units and MultiPlus 20kW
Current Transformer 100 A:50 mA	5 m				
Current Transformer 100 A:50 mA	20 m				
Current Transformer 100 A:50 mA	1 m			Headphone jack	Older MultiPlus-II units
Current Transformer 100 A:50 mA	5 m				
Current Transformer 100 A:50 mA	20 m				
Current Transformer 400 A:50 mA	10 m	400 A	Wire end	MultiPlus-II units in External Transfer switch configuration (s99 firmware)	

Connection

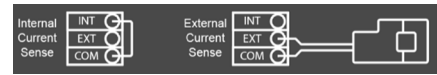
- The Current Transformer clips around the AC conductor.
- Pay attention to the correct direction of the Current Transformer. The arrow on the Current Transformer must be pointing in the direction of the MultiPlus.
- The cable connects directly to the MultiPlus-II or MultiPlus 20kW.
- Do not shorten the cable; it is calibrated to the current transformer.

Newer MultiPlus-II models

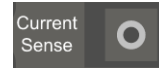
- Remove the wire link.
- Connect the Current Transformer wires to the external current sensor terminals.
- Note that the Current Transformer is polarity sensitive.
- Connect the red wire to the EXT terminal.
- Connect the white wire to the COM terminal.

Older MultiPlus-II models

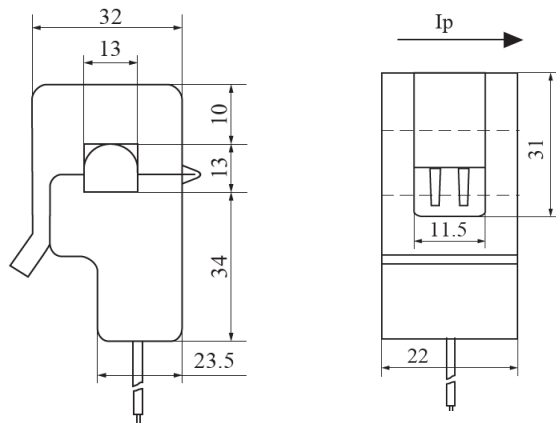
- Plug the CT headphone jack into the headphone socket.



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



Connection socket MultiPlus-II (Older models)



Front view

Side view

Enclosure dimensions 100 A Current Transformer
(dimensions in mm)