

Please note below our recommendations to set properly the sentinel Energy trip unit at first start.

1) Set the protection



Risk of settings that are non-compliant with the short circuit and selectivity calculations

In order to correctly adjust the trip unit, a short circuit and selectivity calculation must be performed for the installation in advance by the electrical designer. This will allow to set the circuit breaker and to protect the installation in complete safety.

Set the LTD, STD, Instantaneous, Neutral protection and if required earth fault (G) protection according the electrical design short-circuit and selectivity calculation.

For that go to PROTECTION menu of the trip unit.

If you have hagercad file export with settings values, you can use Hager Power setup software to make the commissioning and automatically upload the settings values to the trip unit.

2) Check the date and time (see user manual sentinel Energy trip units, § 2.1)

For that go to CONFIGURATION ⇒ DATE & TIME menu of the trip unit.

Update the date and time if necessary or use Hager Power setup software (SETTINGS ⇒ CONFIGURATION MENU) to synchronize date and time with the computer.

3) Set the nominal electrical network parameters (see user manual sentinel Energy trip units, § 6.12)

For that go to CONFIGURATION ⇒ NETWORK menu of the trip unit.

Setting Un nominal voltage, Fn nominal frequency and Pn nominal power is required if you are using the advanced protections.

Setting P SIGN power sign convention is required if you are using the power, energy, power factor, $\cos\phi$ and quadrant metering values. It is also required if you are using RP-32R advanced protection.

P SIGN is with factory setting “Positive” that is required if the circuit breaker is supplied by the top power terminals. It has to be set to “Negative” if the circuit breaker is supplied by the bottom power terminals.

4) Set the measurement parameters (see user manual sentinel Energy trip units, § 6.13)

Setting measurement parameters is required if you are using the metering values.

For that go to CONFIGURATION ⇒ MEASURES menu of the trip unit.

If you are using a 3 poles circuit breaker, make sure that ENVA parameter is set to “ON” and make also sure that the vN terminal of the terminal blocks is connected to neutral potential of the distribution board. If not, the circuit breaker is not able to provide correct metering values of the phase-to-neutral voltages, the power values per phase and advanced protection will not work properly.

If you are using a 3 poles circuit breaker fitted with an external neutral current sensor, make also sure that ENCT parameter is set to “ON”. If not, the circuit breaker is not able to provide correct metering values of the current per phase and earth fault protection (G) will not work properly.

PHASE SEQ. parameter must be set properly if you want to be warned in case of a change of the rotary field.

CALCULATION convention is defining the method of calculation of the reactive and apparent power. It is with factory setting Vector which is the most common method.

INTERVAL and DEM. MODE parameters must be set properly if you are using current demand values and power demand values.

PF SIGN parameter is defining the calculation convention of power quadrant. It is with factory setting IEC which is the usual convent in European countries.

TARIFF parameter must be activated if you are using multitariff energy counters. It is with factory setting “OFF”.

AX1/vN	
12	vN
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Note

Please note that you can find all the detailed and further settings instructions in sentinel Energy trip units user manual.