

Power Sign and Operating Quadrant

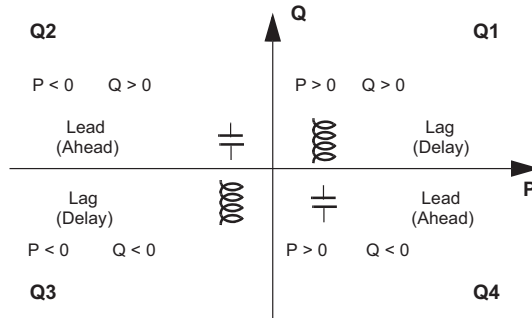
By definition, the active powers are:

- Signed + when they are consumed by the user, i.e. when the device is acting as a receiver
- Signed - when they are supplied by the user, i.e. when the device is acting as a generator

By definition, the reactive powers are:

- Signed with the same sign as the active energies and powers when the current lags behind the voltage, i.e. when the device is inductive (lagging)
- Signed with the opposite sign to the active energies and powers when the current is ahead of the voltage, i.e. when the device is capacitive (leading)

These definitions therefore determine 4 operating quadrants (Q1, Q2, Q3 and Q4):



NOTE: The power values are:

- Signed on the communication (for example, when reading the front display module FDM121)
- Not signed when reading the Micrologic LCD display

Power Supply From the Top or Underside of the Device

Compact NSX circuit breakers can be powered from either the top (usual scenario, considered to be the default position) or from the underside: the sign for the power running through the circuit breaker depends on the type of connection.

NOTE: By default, the Micrologic E trip unit signs as positive the powers running through the circuit breaker supplied from the top with loads connected from the underside.

If the circuit breaker is powered from the underside, the powers must be signed as negative.

The Power sign parameter can be modified using the RSU software (see *Metering Setup, page 123*).