

1.1.6 Reactive current control

A reactive current setpoint can be set to compensate the reactive current or to stabilize the line voltage in infeed mode. The total setpoint is the sum of the fixed setpoint p3610 and the dynamic setpoint via the connector input p3611.

Note

The direction of rotation of the network is compensated automatically with reactive current control. A negative reactive current setpoint causes an inductive reactive current; a positive setpoint generates a capacitive reactive current.

Note

The closed-loop control limits the reactive current setpoint dynamically in such a way that the sum of the active current setpoint and the reactive current setpoint does not exceed the maximum device current.

Note

The reactive current consumption of the line filter selected in the configuration wizard is automatically covered by the Active Infeed closed-loop control. This means that the display value of the current reactive current setpoint in r0075 no longer corresponds with the parameterized total reactive current setpoint.

Note

The reactive power setpoint of the Line Module with respect to the line supply can be derived by multiplying the parameterized total reactive current setpoint by $1.73 \cdot \text{rated line voltage}$.

Function diagrams (see SINAMICS S120/S150 List Manual)

- 1774 Overviews - Active Infeed
- 8946 Current pre-control / current controller / gating unit (p3400.0 = 0)

Overview of important parameters (see SINAMICS S120/S150 List Manual)

- p3610 Infeed reactive current fixed setpoint
- p3611 CI: Infeed reactive current supplementary setpoint