

GRID FREQUENCY RESPONSE

Abstract

5 Method and apparatus for determining inertia within a synchronous area of an electric
power grid are described. Power flow to and/or from a group of one or more power
units is modulated on the basis of a sequence of control signals (figure 4a) and a
frequency characteristic relating to a frequency of electricity flowing in the electric
power grid measured (solid lines of figures 4b-4d). A frequency response
10 characteristic associated with at least one area of the electric power grid is determined
on the basis of the measured frequency characteristic and the determined magnitude
characteristic. From this it is determined whether the inertia in the area of the grid in
which the power unit is located is low (figure 4b), medium (figure 4c) or high (figure
4d), and it enables frequency response characteristics within a synchronous area of the
15 electric power grid to be easily determined.

[Figures 4a to 4d]