SIEMENS

Press Presse Prensa

Automation and Drives

For the Trade Press
Nuremberg, March 03, 2006
Hanover Fair
Hall 9, Booth A72

Sinamics drives family with regenerative feedback

With Smart Infeed and Active Infeed, Siemens Automation and Drives (A&D) will present two regenerative feedback concepts for the Sinamics drives family at this year's Hanover Fair. The current from regenerative operation of drives is returned to the system. Depending on the requirements of an application and its environment, either Smart Infeed is used as a standard solution, or Active Infeed is used for especially high plant availability and system quality. For applications that do not require power recovery, Siemens offers a low-cost solution with the Basic Infeed version. Sinamics thus provides the user with a drives family with three infeed versions.

Conveyor belts, elevators, paper machines or steel production all confront drives with both motorized and regenerative demands. The braking energy can be either converted thermally using resistors or returned to the system via regenerative feedback capable devices. Regenerative feedback saves on energy consumption costs as well as on costs for additional cooling or heat dissipation.

The Sinamics family of drives from Siemens A&D has two regenerative feedback versions. The standard solution is Sinamics with Smart Infeed. Non-stabilized infeed/ regenerative feedback units in IGBT technology return the braking energy to the system here. The suitable devices are Sinamics S120 Smart Line Modules. Through the use of IGBT technology, the new SINAMICS S120 Smart Line Modules have a significantly

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more robust response to system voltage dips than conventional regenerative feedback equipment with thyristors.

If attention is also focused on correcting system voltage dips for the drives as well as on regenerative feedback capability, or if the quality of the regenerative current has to be especially high, inverters with Active Infeed technology are available. Stabilized infeed/regenerative feedback units in IGBT technology supply the connected drives with a constant voltage. High-speed vector control guarantees a sinusoidal system current, and the integral Clean Power Filter eliminates low-frequency system perturbation almost completely.

This not only fulfills the stringent conditions of many energy supply companies, it also eliminates the losses caused by harmonic currents in low-voltage distribution, in the power transformer and in the power infeed. Optimized fault tolerance provides the stabilized DC link voltage that isolates the motor from the system voltage, making the drives system insensitive to system voltage fluctuations and brief system voltage dips.

The power factor cos φ is freely selectable with Active Infeed. With the standard setting cos φ = 1, no reactive power is picked up. Inductive and capacitive reactive power from other sources can be compensated for with non-standard settings. Typical application areas for Active Infeed devices such as Sinamics S120 Active Line Modules and Sinamics S150 include test bays, hoisting gear, printing machines, machine tools, production machinery and sugar centrifuges.

For applications with exclusively motorized operation of drives, regenerative feedback capability is not required. Here, the low-cost solution is provided by the space-saving devices with Basic Infeed such as Sinamics G120, Sinamics G130, Sinamics G150 or Sinamics S120 Basic Line Modules. Sinamics thus provides the user with a drives family with three versions for infeed and regenerative feedback.

You can find more information at www.siemens.de/sinamics

A picture accompanies this press release. You can find this picture on the Internet at:

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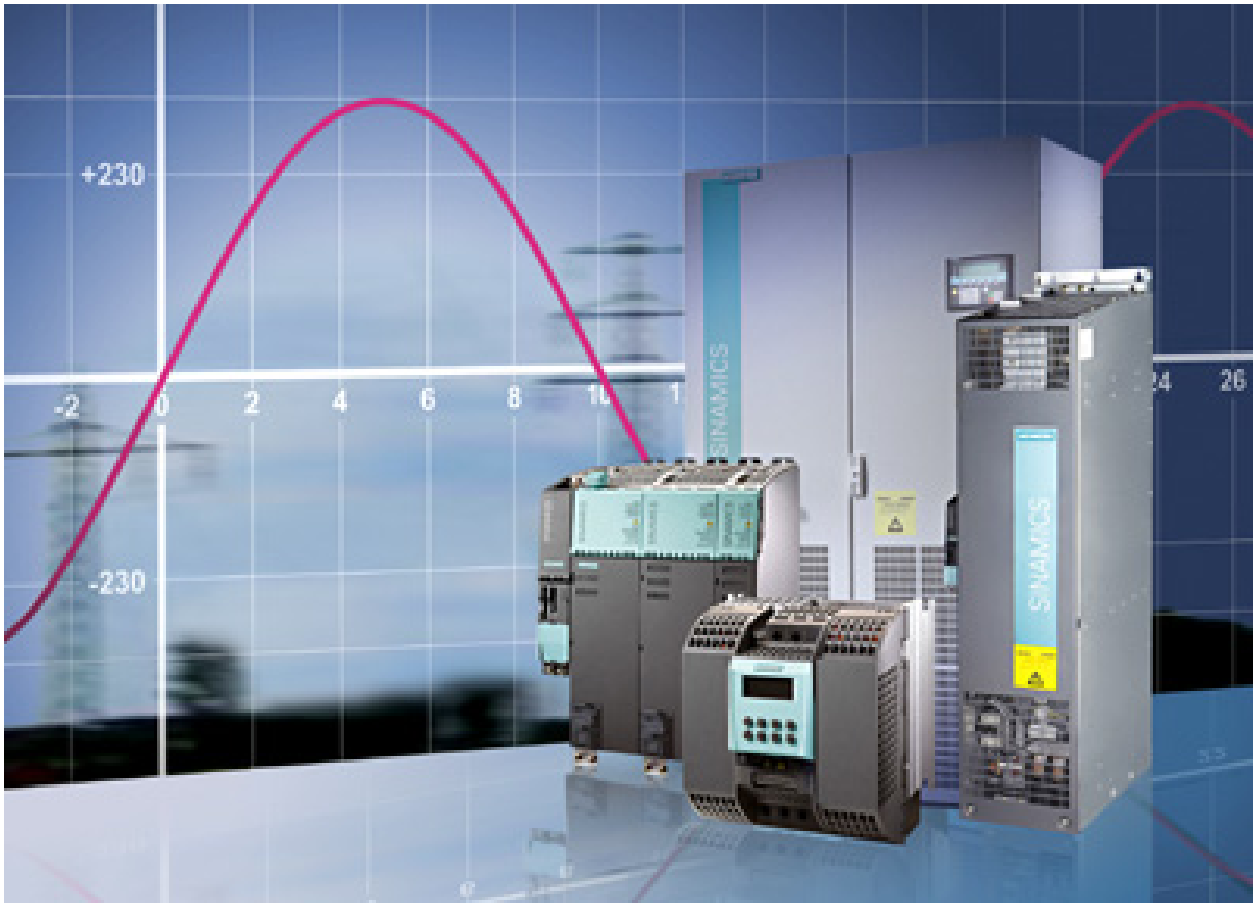

With Smart Infeed and Active Infeed, Siemens Automation and Drives (A&D) will present two regenerative feedback concepts for the Sinamics drives family. The current from regenerative operation of drives is returned to the system. Depending on the requirements of an application and its environment, either Smart Infeed is used as a standard solution, or Active Infeed is used for especially high plant availability and system quality. The Basic Infeed version is suitable for plants that do not require regenerative feedback. Sinamics thus provides the user with a drives family with three infeed versions.

You will find the photo on the Internet under: www.siemens.com/ad-picture/1112

If you would like a copy of this photo, please call us. You can also receive Siemens A&D press releases electronically. Please send us an email.

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