

Press Release

THE NEW NRG DIGITAL SOLID STATE RELAYS WITH PHASE ANGLE AND SOFT START SWITCHING

Increased versatility with the addition of new switching capabilities.

Lainate, May 2021 - Carlo Gavazzi Automation, the international electronics group with activities in the design, manufacturing, and marketing of electronic equipment, today presents an addition to the family of NRG digital solid state relays – the NRG with phase angle and soft start switching.

The digital revolution of industrial automation is upon us. Industry specialists are focusing on IIoT systems to take the leap forward. The NRG system of digital solid state relays fits right into this digital thread of information with the availability of monitoring and diagnostic functions on top of switching capabilities via a communication interface. Initially released in Modbus RTU, the NRG is also available in the two largest Ethernet protocols on the market: PROFINET and EtherNet/IP™.

This new range of NRG solid state relays will expand the switching capabilities of the NRG system through the addition of phase angle and soft start switching. These switching modes are mainly targeted at applications utilising Short Wave Infrared heaters, which are becoming very popular in the industry. Phase angle is used to achieve a finer resolution of power for specific applications and the soft starting function limits the inrush current at start-up which can be detrimental to the heater's lifetime.

“The NRG is the solid state relay system ready for Industry 4.0”, Dora Lee Borg International Product Specialist says. “With this new range of solid state relays, Carlo Gavazzi will increase the flexibility of the NRG system of digital solid state relays to be integrated into a wider variety of applications. With all the switching modes and control settings available via the communication interface, setting up the system according to application requirements can be done in a matter of minutes.”

Developed in our competence centre in Malta, the NRG has been designed to suit any heating application where precise temperature control is crucial to guarantee the quality of the end product and where unplanned machine stoppages can result in considerable losses of revenue. Typical applications are plastic injection machines, packaging machines, semiconductor manufacturing and glass tempering machines.

Main technical features

- NRG controller with PROFINET, EtherNET/IP™ or Modbus RTU interface
- Max. 32 NRG solid state relays (RG..CM..N) in 1 NRG bus chain
- NRG solid state relays go up to 660 VAC 65 A, 90 A (versions without heatsink)
- Selectable switching modes: ON/OFF, Burst, Advanced Full Cycle, Distributed Full Cycle, Phase Angle and Soft Start
- Predictive failure detection with Load deviation indication
- Read-outs: Current, Voltage, Power, Energy consumption kWh, Load and SSR Running hours
- Malfunction detection: Mains loss, Load loss, SSR short circuit, SSR over-temperature, Voltage/Current/Frequency out-of-range

ABOUT CARLO GAVAZZI AUTOMATION

Carlo Gavazzi Automation is an international electronics group with activities in the design, manufacture and marketing of electronic equipment targeted at the global markets of industrial and building automation.

Carlo Gavazzi Automation provides customers with technologically innovative, high quality and competitive solutions, in compliance with their requirements and expectations through its 22 National Sales Companies in Europe, the Americas and Asia & Pacific, operating with its production sites in Denmark, Italy, Malta, Lithuania and China.

For further information:

Carlo Gavazzi Automation SpA - Via Milano 13 – 20045 Lainate (MI) - Italy
Marketing and Communication - info@gavazziautomation.com - www.gavazziautomation.com