

# CG APPLICATIONS

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**Application Note :** December 2010

**Market involved :** Renewable Energy

**Product :** RGC1D1000D15KKE

**Customer :** Saitim

**Subject :** Switching of Photovoltaic Strings in Solar trackers

## CUSTOMER ISSUE :

In order to generate more energy, additional PV panels should be installed. If the power output increases of 15% over the inverter's rated, a control system is needed to avoid loss of production time, due to the tripping of the breaker.

To maximise the effectiveness of such a system, downtimes must be reduced to the minimum. A solid state switch would be the ideal solution since the technology involved enables a longer operation lifetime compared to a mechanical switch.

This device must be as compact as possible in order to duly fit in already existing panels.

The temperature inside the panel can rise up to 60°C and current can reach 8 Adc per string, with the total string voltage reaching a maximum of 800 VDC.

## OUR SOLUTION:

RGC1D1000D15KKE is a slim DC switching solid state contactor with 17.5mm width and with integrated heatsink.

The current rating reaches 8A at 60°C.

The free-wheeling diode is integrated in the product for protection against back-voltage.

## ACHIEVED BENEFITS:

- Increased pay back.
- Improved system reliability and efficiency.
- Enhanced maintenance and security due to the independent control of the strings.