OMRON Electronic Components Europe

Press Release

OMRON Introduces a Bi-directional DC Power Relay Specifically for Next Generation of Home Renewable Energy Systems

Hoofddorp, Netherlands, Tuesday, 28 June 2022 – OMRON DMS Europe has launched the first product as part of its new organisation-wide focus on tackling the challenges of climate change and, specifically, helping to drive the change to net zero emission fuels.

The new device – the OMRON G9KB – is a PCB power relay that provides bi-directional high power DC switching for the next generation of renewable energy systems for homes and electric vehicles (EVs). It can replace two standard uni-directional relays in this type of application.

The market for domestic-scale renewable energy generation systems is transitioning from a feed-in tariff (FIT) model where unused ("redundant") energy from solar panels is fed into the electricity grid, to a self-consumption or larger-scale energy storage system (ESS) that reduces grid dependency and makes it easier to make the most of low or zero emissions power.

Steve Drumm, Strategic Marketing Manager at OMRON said: "This new relay is part of our response to the next stage of the renewable energy market, which will need reliable and safe switching between charging and discharging power from storage devices. The G9KB bi-directional relay can be used within a power conditioner to ensure stable power output from a battery, and it will be particularly beneficial for domestic-scale renewable energy systems: for example, where electricity from solar panels is being used to charge an electric vehicle".

The G9KB (DC 600V/50A) features OMRON's arc cut off technology (CAE) that 'stretches' the arc using the magnetic force of a permanent magnet placed near the contact point. This makes the relay suitable for next generation vehicle to home (V2H) and vehicle to grid (V2G) charger systems. In a V2H system, the relay enables an EV battery to be used as a source of power for a household electricity system when the solar panels are not generating power; whereas in a V2G system the stored energy can be exported to the grid.

The G9KB bi-directional high power DC PCB relay is based on OMRON's new arc suppression technology for improved performance

About OMRON Electronic Components Europe

On 1 April 2022, OMRON Corporation announced that its' Electromechanical Components (EMC) division was renamed as OMRON Device and Module Solutions (DMS) in line with the global long-term vision „Shaping the Future 2030."

OMRON Electronic Components Europe is the European subsidiary of the Device and Module Solutions division. The revised division name reflects a new focus on delivering solutions to customers globally and in Europe. Society is facing new social and environmental changes, and OMRON recognises and is responding to that. The company aims to offer its' customers solutions that help them address these universal challenges. In accordance with the long-term strategy, OMRON intends to contribute further to the roll-out of new energy sources and of high-speed communications by enabling the creation of sturdier, advanced and more efficient devices. These devices will make people's lives easier and better, in particular by achieving carbon neutrality, realizing a digital society and extending healthy life expectancy.

OMRON Electronic Components Europe strongly supports its customers in Western and Eastern Europe through 8 regional offices, a network of local offices and partnerships with specialist, local, regional and global distributors.

About OMRON Corporation

OMRON Corporation is a global leader in the field of automation based on its core technology of "Sensing & Control + Think." OMRON's business fields cover a broad spectrum, ranging from industrial automation and electronic components to social infrastructure systems, healthcare, and environmental solutions. Established in 1933, OMRON has about 30,000 employees worldwide, working to provide products and services in around 120 countries and regions. For more information, please visit https://www.omron.com/global/en/

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