

OMRON will Promote Visualization of GHG Emissions throughout the Supply Chain and Contribute to the Acceleration of Society's Decarbonization

OMRON Corporation has begun providing carbon footprint data of products (PCF^{*2}) calculations based on global standards ^{*1} for high-capacity power relays for energy storage systems and other new energy equipment to customers. Next, the company will promote visualization of GHG emissions ^{*3} throughout the supply chain in the electrical equipment industry and contribute to the acceleration of society's decarbonization globally.

In order to realize a decarbonized society, society as a whole is required to reduce GHG emissions, and countries around the world are strengthening regulations regarding PCF in order to promote the reduction of GHG emissions, especially in the manufacturing industry, where energy consumption is high. As a result, as a trend toward green procurement in the supply chain, the use of PCF disclosure as a policy for selecting suppliers has been increasing, and it is becoming necessary for companies to implement PCF calculations.

To strengthen the connectivity between non-financial and financial environmental impact, OMRON has introduced an "Environmental Evaluation Framework" and is working to design and develop products that take the environment into consideration. In line with this system, OMRON has established its own calculation guidelines for PCF based on global standards. In the electronic components business, PCF is calculated based on the guidelines for the G9KB series of high-capacity power relays for new energy devices such as power conditioners and storage systems and has begun providing calculation data upon customer request from May 2024. The PCF for this product series is calculated based on ISO 14067^{*4} and has been certified by a third party. OMRON will gradually provide data on a wide range of high-capacity power relays to accelerate the society's decarbonization.

OMRON will continue to contribute to the acceleration of a decarbonized society by leading the industry in creating products and providing value to reduce environmental impact.

^{*1} Global standards: ISO 14067, PACT Pathfinder Framework, etc.

^{*2} PCF: Abbreviation for Carbon Footprint of Product. Calculates and displays the amount of greenhouse gas emissions (=GHG emissions) per product in terms of CO₂ over the life cycle from raw material procurement to disposal and recycling.

^{*3} GHG emissions: Abbreviation of greenhouse gas emissions

^{*4} ISO 14067: One of the standards for climate change that defines requirements and guidelines for quantifying the carbon footprint of products

Main specifications of the G9KB series high-capacity relays

The G9KB-E is a new product that has gone on general sale on June 1st, 2024.

The G9KB-E is a high-capacity version of the G9KB series, which has the same size and weight as the G9KB reference model, but with a maximum opening and closing voltage of 800 V DC and a maximum current of 100 A. The rated value of 800 V DC 50 A and 600 V DC 100 A is especially suitable for 15~40 kW class battery related applications such as power storage systems and EV charger/V2X.



We chose the slogan "Make the world green" to express OMRON Device & Module Solutions Company (DMS)'s commitment to develop our products and provide our services in a way that considers their impact on the planet, so that we, as a member of the global community, can help combat climate change.

In response to the social issue of climate change (global warming), we, as a manufacturer of electronic components, will work globally to achieve carbon neutrality through the "DMS Green Project" by utilizing and further advancing our proprietary technologies to contribute to global efforts to accelerate carbon neutrality.



DMS's "GREEN PROJECT" takes on the challenge of contributing to achieving carbon neutrality throughout the customer's entire value chain by linking the three initiatives of products, production process, and purchase.

PRODUCTS

DMS contributes to carbon neutrality through the supply of its products.

PRODUCTION PROCESS

DMS is constantly working to develop products and construction methods that are effective in reducing CO₂ emissions during production. DMS will further accelerate the use of clean energy during production.

PURCHASE

DMS practices the procurement of materials based on OMRON's group-wide supply chain management. In addition, DMS is now working on the collection and presentation of the CO₂ emissions of our electronic components, for example by measuring our carbon footprint.



What is "DMS Green Project"?

This is a project that DMS will contribute to the promotion of decarbonization activities for our customers and our company through the provision of our own products and our own activities, initiative to take on the challenge of advanced decarbonization activities.

<https://components.omron.com/us-en/green-project>

The "PRODUCTS" initiative offers a broad lineup of products that contribute to decarbonization during customer production with respect to the following three items. DMS will continue to provide more effective products and services.

Contribution to clean energy-related equipment

Contribution to decarbonization of customers' products

Reduction of carbon emissions when customers produce products

Safe interruption of high-capacity loads

Realizing safe current interruption and highly efficient power transmission in increasingly large-capacity clean energy generation equipment.

High-capacity, bi-directional nature allows for the release of storage batteries for charging and discharging with a single unit. 7-4-1 acquired.



High-capacity power relay
G9KA, G7EB



High-capacity power relay
G9KB



Power relay
Signal relay
(IEC/EN 60079-15 compliant products)

Green refrigerant compatible

Conforms to (IEC/EN) 60079-15. Contributes to the introduction of flammable green refrigerants.

Low power consumption drive

Realizes lower power consumption by reducing the drive current during operation.

Realizes lower power consumption by reducing the drive current during operation.

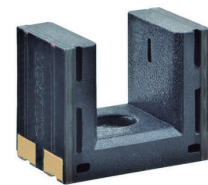
Contributes to long battery life by minimizing pulse width.



Power relays /
Signal relays
(High-sensitivity type)



MOS FET relays
(High-sensitivity type)



Transmissive optical sensor
(High-speed response type)

Low heat generating

Low contact resistance reduces heat generation, eliminating the need for heat sinks and contributing to smaller, lighter products.



High-capacity power relay
(Low contact resistance)