MITSUBISHI ELECTRIC CORPORATION
PUBLIC RELATIONS DIVISION
7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

FOR IMMEDIATE RELEASE **No. 2905**

Customer Inquiries

Advanced Technology R&D Center
Mitsubishi Electric Corporation
https://www.MitsubishiElectric.com/ssl/contact/company/rd/form
http://www.MitsubishiElectric.com/company/rd/

Media Inquiries

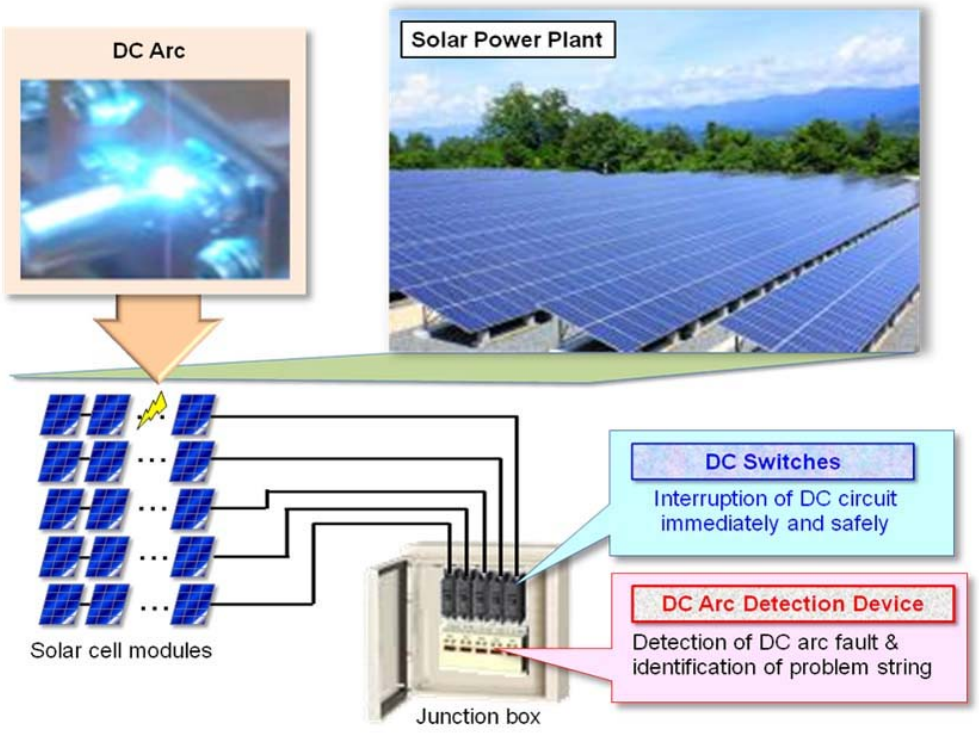
Public Relations Division
Mitsubishi Electric Corporation
prd.gnews@nk.MitsubishiElectric.co.jp

http://www.MitsubishiElectric.com/news/

Mitsubishi Electric Develops DC Arc-fault Circuit Protection Technology for Solar Power Plants

Minimizes power-generation drops by quickly detecting arc faults and isolating faulty circuit

TOKYO, February 17, 2015 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today that it has developed a direct-current (DC) arc-fault circuit protection technology for solar power plants that detects any DC arc fault, or high-temperature luminous electrical discharge between DC wiring, and isolates the faulty circuit in just 0.25 second. The technology enables plants both to prevent large decreases in power generation and quickly restore faulty circuits.



The new technology detects the DC arc fault as well as identifies the faulty circuit by monitoring sources of high-frequency current and possible deviations from normal current and voltage characteristics in solar cells.

The quick detection of the DC arc fault prevents the spread of failure to circuits that are functioning normally. Continuous operation of healthy circuits and faster restoration of faulty circuits results in minimized decreases in electric power generation by individual solar cells and therefore the solar power plant overall.

Mitsubishi Electric also announced today its new "ARC SWEEPER®" technology. DC, unlike alternating current (AC), presents two difficulties when attempting to shut off the current to switches. Firstly, the current direction is determined by magnetic polarity because current is interrupted by magnetic action. Secondly, larger magnets and broader breaking area are necessary due to higher voltage used in circuits. ARC SWEEPER improves the breaking capability by enhancing the magnetic blowout effect, so DC current can be separated accurately and quickly regardless of current direction.

Following the occurrence of various fires at solar plants in North America due to DC arcs caused by malfunctioning circuit connections, the use of devices to detect DC arc has become increasingly mandatory according to UL standards in the United States. Also, the International Electrotechnical Commission (IEC) is working to standardize DC arc countermeasures.

Conventional detectors require up to two seconds to detect a DC arc. As a result, all circuits, including healthy circuits, must be shut down, leading to drastic decreases in power generation and long intervals before the faulty circuit can be restored.

Trademarks

Mitsubishi Electric Corporation has registered "ARC SWEEPER®" as a trademark.

Patents

Pending patents for the technology announced in this news release number 12 in Japan and three abroad in 11 countries.

###

About Mitsubishi Electric

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,054.3 billion yen (US$ 39.3 billion*) in the fiscal year ended March 31, 2014. For more information visit http://www.MitsubishiElectric.com

*At an exchange rate of 103 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2014