G2Power Co., Ltd

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major business	Heavy electric equipment(Switchgear, MCC, Distribution Board), PV		

G2POWER is a technology-intensive small and medium-sized company that supply comprehensive solutions spanning product manufacturing, installation, and maintenance in the heavy electrical equipment sector, including switchgear, as well as in the renewable energy field, encompassing PV solar generation systems and energy storage systems. We have earned various certifications, including NEP(New Product Certification), NET(New Technology Certification), Procurement Excellent Product Certification, Innovative Product Certification, Artificial Intelligence Plus Certification, and hold numerous patents. These achievements are bolstering our reputation as a recognized smart grid IT solution provider in Korea.

Products

Intelligent AI switchgear

Use	A power facility that receives extra-high voltage, converts it into high and low voltage, and distributes power stably to buildings and facilities
Description	Korea's only partial discharge AI diagnostic switchboard that can detect insulation deterioration in the switchboard in advance by applying partial discharge detection technology by high-frequency current and machine learning-based AI diagnosis technology

DC arc detection type PV generation system of PV line
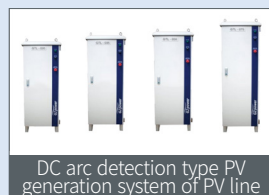
Use	PV solar generation system that generates solar light energy into direct current through a PV module and converts it into alternating current through an inverter to supply power to the system
Description	G2POWER PV generation system was developed by composing a sensor module, a monitoring device, and a fire sensor, and installed in the most efficient combiner box when detecting

ARC fires monitoring& diagnosis ESS
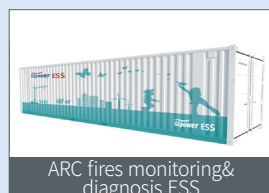
Use	An energy storage device and overall system that stores power generated by renewable energy in advance and supplies stable power so that it can be used at the required time
Description	Supply power at all times with a real time integrated monitoring solution and technology that can monitor and diagnose accidents caused by arc fires inside th battery compartment

Technical Capacity

» **Partial discharge diagnosis AI technology(PRPDA, PCA)**
   Partial discharge detection technology using high-frequency current and machine learning-based AI diagnosis technology that can detect insulation deterioration in switchboards in advance

» **AI based partial discharge type analysis technology**
   The technology employs the FCM_RBFNN algorithm, which is the optimal algorithm for partial discharge detection and pattern classification. This algorithm is used to accurately determine the type of partial discharge

» **ARC detection and analysis technology in PV module line**
   PV solar technology detects the DC arc by detecting the cliff in the same time domain when an arc is generated by direct current in a PV string line and at the same time analyzing the difference in frequency before and after cliff

» **Arc fires monitoring and diagnosis technology in battery compartment**
   Real time fires monitoring and diagnosis technology: Fire monitoring and diagnosis by detecting 185~270nm ultraviolet rays in case of arc
   International standard technique: Arc fires prevention in battery compartment that meets UL criteria