

Clat Innovation LLC Unveils Proprietary PMSM-1 PV Module Smart Manager Product

(Walpole, MA July 2016) Clat Innovation LLC has launched its proprietary PMSM-1 PV Module Smart Manager product, which can be used in solar array installed on rooftop, to meet the soon to be released NEC2017 Article 12 (B) requirement.

Samples are available for potential customers.



NEC2017 Article 690.12(B)(2)(b) requires that “... **Controlled conductors located inside the boundary or not more than 1 m (3 ft) from the point of penetration of the surface of the building shall be limited to not more than 80 volts within 30 seconds of rapid shutdown initiation. Voltage shall be measured between any two conductors and between any conductor and ground...**”

The Clat Innovation LLC’s PMSM-1 PV Module Smart Manager product enables PV module manufacturers meeting the requirement cost effectively, and shortening time to market with an off-the-shelf module.

Designed by Clat Innovation LLC, PMSM-1 product is an electronic module which can be installed in a junction box.

Its main functions are: 1). It serves as PV module junction box with built-in reverse diodes. 2). It is part of Rapid Shutdown System (required by NEC 2017 article 12 for PV arrays installed on a rooftop). It receives commands from the host, to connects / disconnects the PV module from the PV circuits, therefore limits the voltage inside PV array to below 80V (within the 305mm boundary of PV circuit) should an emergency occur. 3). It reports the PV module status. The PMSM-1 also measures PV panel current, PV cell voltage, and reports to PV system host via its built-in FCC certified WIFI module.

The PMSM-1 product uses a mechanical relay as the disconnect device to minimize the energy consumption, as well as maintains low leakage current to minimize shock hazard to firefighter.

PMSM-1 customization is available per customer request. PV arc fault detection is also provided as an option.

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