



Helios Hercules PV Junction Box

BACKGROUND

Photovoltaic modules convert the energy from the sun to DC electricity. The power generated in the silicon wafer is gathered and transferred in the PV module to a collection point. At this collection point (the junction box) the electricity that is being conducted down the PV module ribbons is transferred to wires. As this is DC power, one wire for positive and one wire for negative is required. The installation of diodes is done at this collection point so as to prevent the consumption of power by the PV module during non-generating periods.

PROBLEM

The transition of the DC current to wire needs to be done in an environmental enclosure that can withstand large temperature fluxes and harsh environmental conditions. Enclosures need to be large enough to contain the proper electrical spacing for voltage requirements and diode placement, while being small enough to be considered economical termination points.

AIO SOLUTION

The Hercules series of junction boxes provides a wide range of electrical performance capabilities in a rugged enclosure built for the harshest of environmental conditions. Hercules is available in numerous contact configurations to accommodate a wide range of PV module sizes. Diode selection allows the junction box performance to match the output of the PV module. The material selection and unique design features allow the box to withstand a full range of temperature extremes, as well as, exposure to various forms of moisture without any compromise in performance. Termination may be done with either clip or solder terminations and is IP67 rated with or without the use of potting compounds.