



7317 Jack Newell Boulevard North
Fort Worth, Texas 76118
(817) 595-4969 (800) 886-4683 (817) 595-1290 (Fax)
www.exeltech.com

Installer Frequently Asked Questions about Exeltech PV AC Modules

Q: *We have a city rejecting an installation permit because they say the Home Run cable is not "PV" rated. Is "PV cable" an installation requirement with PVAC Modules?*

A: No. PV cable is not required by the National Electric Code with Exeltech's PVAC Modules.

PVAC Modules are very new to most municipalities and inspectors. Consequently, this is a common point of confusion/concern. Direct your city code official(s) to the 2008 or newer National Electric Code.

The "PV cable" requirement applies only to the **DC** side of a system, and only then for ungrounded (i.e. transformerless) systems [ref NEC 690.35, with emphasis on 690.35(D)(3)]. PVAC Modules don't have a "DC" side exposed, and are thus exempt.

We call your (and your inspector's) attention to the National Electric Code, sections 690.2 and 690.6(A):

690.2 Definitions.

Alternating-Current (ac) Module (Alternating-Current Photovoltaic Module).

A complete, environmentally protected unit consisting of solar cells, optics, inverter, and other components, exclusive of tracker, designed to generate ac power when exposed to sunlight.

and;

690.6(A) Photovoltaic Source Circuits.

The requirements of Article 690 pertaining to photovoltaic source circuits shall not apply to ac modules. The photovoltaic source circuit, conductors, and inverters shall be considered as internal wiring of an ac module.

Since the DC wiring between the module and inverter is an integral part of the product, and thus not accessible, NEC DC requirements no longer apply to the AC PV module [ref 690.6(A)].

The PVAC Module Home Run cable is comprised of three 12 AWG copper conductors, and is UL Listed to ANSI/UL1277 for exterior installation without conduit. It is UL certified as sunlight resistant; rated to 90C wet or dry; and is double-insulated to 600Vac. The UL file number is E171058.