Overview

PV CARPORT STRUCTURES

For Framed and Frameless Photovoltaic Modules

Optimized & Designed by Solar Experts

Solar design professionals understand how to maximize the solar energy production from any given site, and a common sense approach to column placement and span distances ensures the functionality of the parking lot is not compromised. By maximizing solar energy harvest and minimizing the amount of steel needed, we can offer the best overall value in quality cantilevered PV Carports.

Innovative Design

Using innovative steel design and modern manufacturing techniques, elegant tapered beams and built up columns of exactly the right dimensions are custom designed to resist the wind, snow and seismic forces for every project.

S:FLEX PV Carports can be individually designed and engineered to meet all space requirements, but there is also a range of standardized designs for the fastest and most cost-effective solutions available. Typically columns are spaced at 27' on center and placed every three parking bays which are often 9'-0" wide.

Efficient Installation

Foundations can be completed prior to the delivery of the steel structure. Any below ground obstacles or problematic soil conditions can be overcome in advance without causing a schedule impact. Longer spans between columns reduce the number of foundations making it easier to avoid any underground services.

The modules of our PV Carport structures can be pre-assembled and even wired on the ground before fully installing them at height. The structures can be also partially pre-assembled off-site and then delivered to reduce time on site.

Comprehensive Project Support

Project specific support to optimize material use, ease of installation and logistics are essential to a successful project. S:FLEX offers a large variety of services from design, over geotechnical surveys and preparation of complete permitting packages to the final assembly and module installation.

S:FLEX can provide Supply-Only Kits or Full Turnkey Solutions including module installation.

ENGINEERED IN U.S.A. & GERMANY

MADE IN GERMANY

MADE IN U. S. A.

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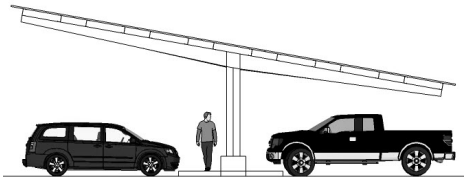
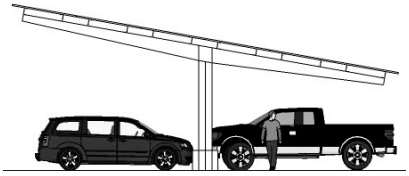
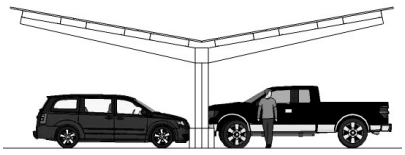


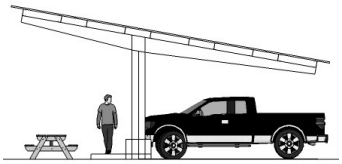
PV Carport 7 High



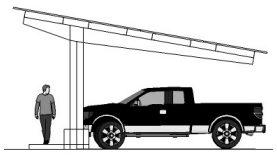
PV Carport 6 High



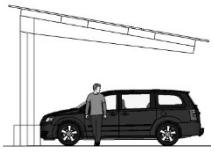
PV Carport 3-3-Y



PV Carport 5 High



PV Carport 4 High



PV Carport 3 High

The PV Carport examples are designed with 72-cell modules in portrait.

Application	Carport Structures
Tilt	Variable but usually up to 15° in North-South direction.
Terrain Slope	Any terrain slope can be overcome by using above grade concrete piers. Structures can be installed parallel to the horizon or follow grade.
Versatility	Every module size and format can be accommodated. Due to the built-in flexibility of our system, even last minute module changes can be made.
Module Clamps	Universal height-adjustable module End-Clamps and Mid-Clamps with patented click-technology offer an easy and quick installation of framed and frameless modules.
Module Orientation	Portrait or Landscape
Project Design	Column spans are optimized for each local wind, snow, and seismic load requirements.
Design Standards	Meets or exceeds IBC 2006/2009/2012, ASCE 7-05, ASCE 7-10, current Steel and Aluminum Design Manuals, CBC 2013, 2010 AISC code. Compliant in all North American jurisdictions.
Hardware & Tools	Standardized stainless steel bolts and nuts require only the use of a few tools
Grounding	Integrated grounding options are available
Foundation Type	Concrete foundations vary dependent on the project specific requirements. Spread footings and foundations with the embedment of helical piers are just some specific options. Maximum adjustability in the field is typically achieved by the use of anchor bolts with leveling nuts.
Manufacturing	Flexible use of various fabrication facilities in North America to meet the variable demands of the markets
Maintenance	Minimal maintenance due to galvanized steel structures with industrial painting options available. Aluminum rails and components are naturally corrosion resistant. Modules are easily accessible for system maintenance.
Warranty	10 year limited product warranty. Extended warranty upon request.
Additional Services	Project specific design and engineering services as well as installation support upon request

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