

❖ DSA-PC Solar Carport-Single Cantilever 'L' – Dual Purlin - 3 or 4 Modules in Portrait

Single cantilever column and beam structures with dual purlins are offered in two design models;

- **L-3-P:** Full Cantilever 'L', 3 module rows in Portrait @ 15'-6" max. beam length, 7 or 10 degree tilt angle
- **L-4-P:** Partial' Cantilever 'L', 4 module rows in Portrait @ 21'-0" max. beam length, 7 or 10 degree tilt angle

The 'Dual Purlin' design consists of two parallel purlins (East/West) evenly spaced below the module row, at optimum strength locations perpendicular to the solar modules length, with PV modules in a portrait arrangement. Design limits based on 3 or 4 PV modules 39" W x 65" L (approx.).

Designs are choice of Tapered or Straight Beams, either Wide-Flange (W beam) or Hollow Structural Steel (HSS).

The 'W Beam' attachment to the column is by stiffener plates welded to the HSS column and bolting the W Beam to the stiffener plates in the field. Option to Full-Pen. weld stiffener plates to the W beam and field weld to the HSS column. HSS beams are field welded to the HSS columns with a 'saddle' stiffener plate between. Beams can be positive or negative tilt, positive shown below.

Columns

HSS Steel Tubing: ASTM A500, Grade B, Fy = 46 KSI

Spacing: 20ft. or 27ft O.C. (see table)

Finish: Hot Dip Galvanized ASTM A123

Beams

W Beam: ASTM A992 or A572, Fy = 50 KSI

HSS Beam: ASTM A500, Grade B, Fy = 46 KSI

Finish: Hot Dip Galvanized ASTM A123

Cee Purlins

Cold Formed #14GA. (or #12GA.) Steel

ASTM A653, A1003 or A1011-04, Fy = 55 KSI

Size: 10" x 3-1/2"

Finish: ASTM A653 G90 Galvanized

Trim

Purlin End Caps: Cold Formed Steel #14GA.

ASTM A653, A1003 or A1011-04, Fy = 55 KSI

Size: 1000T125-43 Track

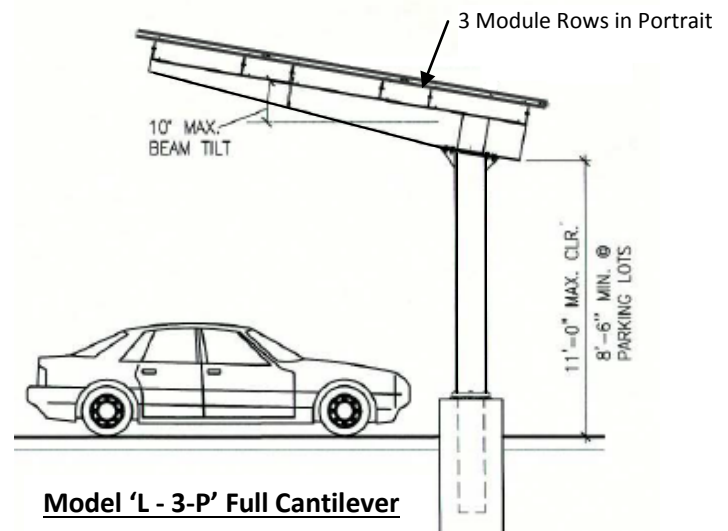
Finish: ASTM A653 G90 Galvanized

PV Module Mounting to Purlin

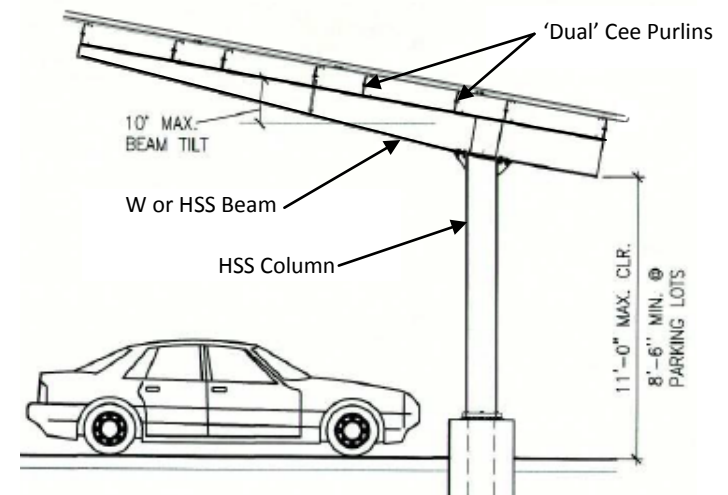
SSI Top Clamps: W/2 Self Drilling Screws-#12

Option: SkyGrip Top Clamps-Self Grounding

Beam Tilt	Bay Spacing (Max)	Wind Speed	Snow Load	Purlin Gauge
10-Degree	27'-0"	115 MPH	0 PSF	# 12
10-Degree	27'-0"	110 MPH	0 PSF	# 14
10-Degree	20'-0"	115 MPH	20 PSF	# 14
7-Degree	27'-0"	115 MPH	0 PSF	# 14
7-Degree	20'-0"	115 MPH	20 PSF	# 14



Model 'L-3-P' Full Cantilever



Model 'L-4-P' Partial Cantilever