

HELIOS VOLT®

Helios Volt® Bifacial PV Parking Canopies Product Data Sheet

UK PATENT APPLICATION NUMBER GB 2211304.7

INNOVATION KNOWS NO BOUNDARIES, HAVING DESIGNED THE MOST EFFICIENT AND POWERFUL PV PARKING CANOPY PER M2 AVAILABLE.

BASE MODELS

8 parking bays in four variants Single, Double Bay, Multi-Storey and Walkway (cars parked either side of a pedestrian walkway) each variant is a mono tilt 7° 10° 15° available in five construction formats.

FS – FREE STANDING

A self-ballasted structure ideal for fast installation and estate flexibility, FS range is fully demountable for relocation.

FS – FREE STANDING +

A self-ballasted structure with added stainless steel holding straps secured to Spiral Ground Anchors, perfect combination in coastal or high wind zone applications.

MSR – MULTI-STOREY ROOF

Designed with threaded bolt and plate fixing through the multi-storey deck, individual structural design included to accompany various types of constructions.

PF – PERMANENT FOUNDATION WALKWAY

Steelwork spans the walkway allowing free passage for pedestrians with vehicles parked either side of a central walkway and covered within the canopy, civils required for foundations.



MSR – MULTI-STOREY ROOF



FS – FREE STANDING

General Details

Typical low pass height of canopy 2.4m (*can be adjusted to suit requirements*)

Bifacial HJT cell technology, combines a crystalline silicon cell sandwiched between two layers of amorphous “thin-film” silicon. This allows an increase in the efficiency of the panels and more energy to be harvested from both sides, when compared to conventional single sided cell solar panel.

Warranties

Linear power warranty of 88.1% at year 30 of operations.

Canopy and Frames 30 years with full term manufacturers O&M Contract.

Without manufacturers O&M Contract 20 years.

FREE STANDING SELF BALLASTED, COMPRISING; CONCRETE KENTLEDGE BASE, STEEL FRAME AND ROOF CASSETTE

SINGLE BAY FS-FREE STANDING NUMBER OF PARKING BAYS	8	12	16	20	24	28
Canopy PV Capacity at BSTC – kWp	25.3	37.9	50.5	75.84	101.1	126.4
AC output Azimuth 180° Tilt 15° (UK) – kWh	27,201	40,887	54,712	82,506	109,056	136,605
Canopy Area PV – m ²	103.2	155.9	206.8	313.1	415.6	521.8
Cassette Frame dimensions	5.4m x 4.9m					
Ballasted Bases	3	4	5	7	9	11
Number of Cassette Frames	4	6	8	12	16	20
DOUBLE BAY FS-FREE STANDING NUMBER OF PARKING BAYS	16	24	32	40	48	56
Canopy PV Capacity at BSTC – kWp	50.6	75.8	101.1	126.4	151.7	176.9
AC output Azimuth 180° Tilt 10° (UK) – kWh	53,425	80,514	106,435	133,287	160,850	188,238
Canopy Area PV – m ²	210.2	315.7	419.8	524.7	630.6	735.5
Cassette Frame dimensions	5.4m x 4.9m					
Ballasted Bases	3	4	5	6	7	8
Number of Cassette Frames	8	12	16	20	24	28

PERMANENT FOUNDATION, COMPRISING; STEEL FRAME AND ROOF CASSETTE

PERMANENT FOUNDATION SINGLE BAY	8	12	16	20	24	28
Canopy PV Capacity at BSTC – kWp	25.3	37.9	50.5	75.84	101.1	126.4
AC output Azimuth 180° Tilt 15° (UK) – kWh	27,201	40,887	54,712	82,506	109,056	136,605
Canopy Area PV – m ²	103.2	155.9	206.8	313.1	415.6	521.8
Cassette Frame dimensions	5.4m x 4.9m					
Number of Cassette Frames	4	6	8	12	16	20
PERMANENT FOUNDATION DOUBLE BAY	16	24	32	40	48	56
Canopy PV Capacity at BSTC – kWp	50.6	75.8	101.1	126.4	151.7	176.9
AC output Azimuth 180° Tilt 10° (UK) – kWh	53,425	80,514	106,435	133,287	160,850	188,238
Canopy Area PV – m ²	210.2	315.7	419.8	524.7	630.6	735.5
Cassette Frame dimensions	5.4m x 4.9m					
Number of Cassette Frames	8	12	16	20	24	28
PERMANENT FOUNDATION SINGLE BAY WITH CHARGING PLINTH	8	12	16	20	24	28
Canopy PV Capacity at BSTC – kWp	31.6	47.4	50.5	75.8	94.8	110.6
AC output Azimuth 180° Tilt 10° (UK) – kWh	33,127	50,372	54,712	82,506	99,654	117,340
Canopy Area PV – m ²	129	193.2	206.8	313.1	388.8	453.9
Cassette Frame dimensions	6.6m x 4.9m					
Number of Cassette Frames	4	6	8	12	16	20
PERMANENT FOUNDATION DOUBLE BAY WITH CENTRAL CHARGING PLINTH	16	24	32	40	48	56
Canopy PV Capacity at BSTC – kWp	56.9	85.3	113.8	142.2	170.6	199.0
AC output Azimuth 180° Tilt 10° (UK) – kWh	60,291	89,492	120,282	150,600	180,983	209,272
Canopy Area PV – m ²	235.5	351.9	471.5	588.5	707.7	826.3
Cassette Frame dimensions	12m x 4.9m					
Number of Cassette Frames	4	6	8	10	12	14
PERMANENT FOUNDATION DOUBLE BAY WITH CENTRAL PEDESTRIAN WALKWAY	16	24	32	40	48	56
Canopy PV Capacity at BSTC – kWp	75.8	113.76	151.68	189.6	227.5	265.4
AC output Azimuth 180° Tilt 7° (UK) – kWh	79,049	117,848	157,903	195,100	235,857	276,678
Canopy Area PV – m ²	315.4	473.2	419.8	791.7	950.1	1,109.5
Cassette Frame dimensions	8.1m x 4.9m					
Number of Cassette Frames	8	12	16	20	24	28

MULTI-STOREY ROOF, COMPRISING; STEEL FRAME AND ROOF CASSETTE

THROUGH DECK FIXING BY STRUCTURAL ENGINEERS SINGLE BAY	8	12	16	20	24	28
Canopy PV Capacity at BSTC – kWp	25.3	37.9	50.5	75.84	101.1	126.4
AC output Azimuth 180° Tilt 15° (UK) – kWh	26,540	39,893	53,155	79,828	106,416	133,046
Canopy Area PV – m ²	103.2	155.9	206.8	313.1	415.6	521.8
Cassette Frame dimensions	5.4m x 4.9m					
Number of Cassette Frames	4	6	8	12	16	20
PERMANENT FOUNDATION DOUBLE BAY WITH WALKWAY CARS PARKED EITHER SIDE	16	24	32	40	48	56
Canopy PV Capacity at BSTC – kWp	50.6	75.8	101.1	126.4	151.7	176.9
AC output Azimuth 180° Tilt 10° (UK) – kWh	52,439	78,554	104,740	130,950	157,161	183,268
Canopy Area PV – m ²	210.2	315.7	419.8	524.7	630.6	735.5
Cassette Frame dimensions	6.6m x 4.9m					
Number of Cassette Frames	8	12	16	20	24	28

SPECIALLY ADAPTED FOR DISABLED DRIVERS, LOWERED CURBS TO ACCESS CHARGERS, EXCESS HEIGHT FOR OVERSIZED VEHICLES AND BUSES

MOB PERMANENT FOUNDATIONS DISABLED BAYS PUBLIC CAR PARKING	3	5	8			
Canopy PV Capacity at BSTC – kWp	50.6	75.8	101.1			
AC output Azimuth 180° Tilt 10° (UK) – kWh	53,425	80,514	106,435			
Canopy Area PV – m ²	210.2	315.7	419.8			
Cassette Frame dimensions	6.6m x 4.9m	6.6m x 4.9m	6.6m x 4.9m			
Number of Cassette Frames	8	12	16			