



DATASHEET HELIOING 5





INTRODUCTION HELIOWING 5



The HelioWing series is a modular, flexible solar power plant solution for commercial and residential applications. A HelioWing will not only enable you to produce your own energy, but make parking and charging your car a charm. Integrated LEDs with motion sensors guide you in the dark until you are in the perfect parking position. Thanks to our integrated battery pack, you can store your valuable, green energy in the HelioWing itself or use it right away to charge your EV. All autonomously and independent either grid connected or off-grid. Store up to 24 kWh with the integrated battery pack. HelioWing is a standalone

system and does not require any specific spatial circumstances to be set up. The easy installation allows placement in tight spaces to make the most out of your valuable real estate whereas the durable and sturdy construction allows for placement in wide, open spaces to withstand high winds and weather. The HelioWing 5 is our model for smaller spaces, with a solar array of 22' 7" in width by 17' 0" in depth at 11' 0" entry height. It holds 18 x 410 W bifacial 108 half-cell modules with 7.38 kWp of solar PV power.

GENERAL

Shelve Temperature	-20°C / -4°F – 50°C / 122°F
Ambient Temperature	-25°C / -13°F – 50°C / 122°F, > 40°C / 104°F Derating, < -15°C / 5°F no battery charging
Humidity	5% - 95% (RH) No Condensation
Altitude	< 13,120 ft
Communication	<ul style="list-style-type: none"> • WiFi • GSM (4G SIM card) • Cloud monitoring and programming
Installation Modes (Up to 6 units parallel)	<ul style="list-style-type: none"> • Single unit, off-grid • Single unit, off grid w/ generator • Single unit, grid tied • Single unit, grid tied w/ backup battery
Warranty – Structure	20 years
Warranty – Electric system	10 years
Warranty – PV modules	min. 87,8% capacity after 20 years
Warranty – EV Charger	3 years

STRUCTURE

Material, Main Structure	Steel (50 KSI), powder coated (RAL 9005)
Material, Column Covers	Steel, powder coated (Configurable color)
Standards	Engineered to IBC 2018/ ASCE 7-16
Max. Ground snow load	50 psf ground snow (@100 mph wind speed)
Max. Wind speed	150 mph wind speed (@20 psf ground snow)
Seismic Category	D
Saltwater Spray tested	1000h +
Mounting Types	<ul style="list-style-type: none"> • Mounted to an existing structure • Concrete foundation

FOUNDATION

Concrete Foundation Types	<ul style="list-style-type: none"> • Pile Foundation • Excavated Foundation
---------------------------	---

LIGHTING

Power Supply	24 V DC, 350 W, MeanWell
Column	4x 84" Industrial grade LED-strip lights
Wing	2x 48" Industrial grade LED-strip lights

PV SYSTEM

Number of PV Panels	18
Rated PV Power	7.38 kWp
Open Circuit Voltage per MPPT	334.80 VDC
CEC Efficiency	96.5 %

ELECTRIC SYSTEM

2 Phase (grid tied)	240 V, 63 A, 6 AWG
2 Phase (off-grid)	208 V Split Phase, 63 A, 6 AWG
Neutral	6 AWG
Continuous AC Power to Grid / Load	9.00 kW
Self Consumption	<ul style="list-style-type: none"> • Inverter: 60 W • Battery Heating: 85 W • Battery Cooling: 9,6 W • Lighting: 220 W • EV-Charger: 30 W
Operation Modes	<ul style="list-style-type: none"> • Off-grid • Off-grid with generator • Smart load • Sell back (grid tied) • Sell back, household limited (grid tied) • Meter zero (grid tied) • Time of use (grid tied) • Peak shaving (grid tied)

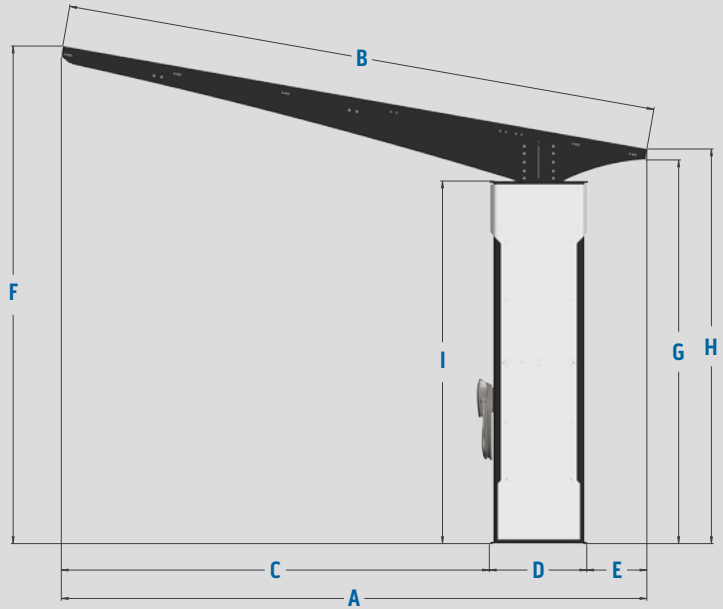
BATTERY

Battery Options	<ul style="list-style-type: none"> • No battery • 1 Block: 8.352 kWh • 2 Blocks: 16.704 kWh • 3 Blocks: 25.056 kWh
Nominal Voltage	48 V
PV to Battery to AC Efficiency	93 %

SHIPPING

Main Structure Crate Dimensions (L x W x H)	13' 6" x 3' 8" x 3' 8"
Main Structure Crate Weight (excl. PV panels)	4950 lbs
Weight PV Panels	880 lbs

Roof area	384 sq ft
Roof inclination	10°, fixed
Covered depth A	16' 10"
Solar array length B	17' 0"
Overhang column to eaves C	12' 4"
Column depth D	2' 10"
Overhang column to ridge E	1' 9"
Ridge height with flush foundation F	14' 4"
Entry height with flush foundation G	11' 0"
Eaves height with flush foundation H	11' 4"
Crossbeam hight with flush foundation I	10' 5"



Covered width L	22' 7"
Column width J	1' 4"
Mounting hole pattern [M x K]	9" x 26.6"

