

Sparkwing

Space made easy

The plug and play solution to power your small satellite

Sparkwing is the world's first commercially available off-the-shelf solar array for small satellites. It is optimized for LEO missions requiring power levels between 100W and 2000W, and bus voltages of 36V or 50V. We offer more than thirty different panel dimensions, which can be configured into deployable wings with one, two or three panels per wing.

3 easy steps:



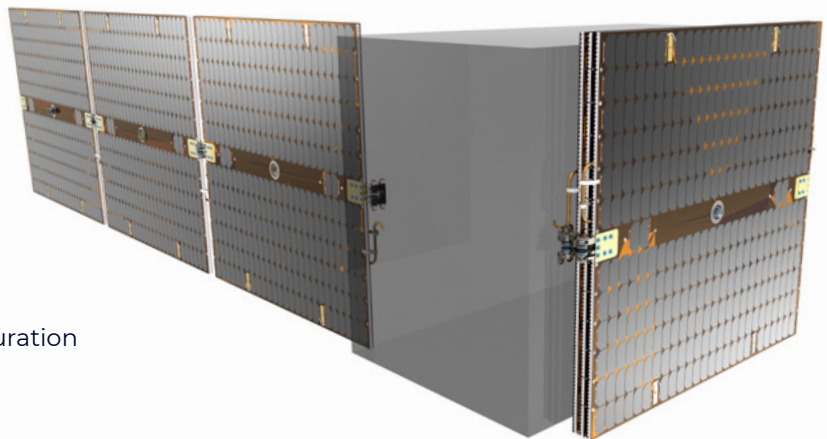
Choose your configuration from our catalogue.



Track and trace the manufacturing process.



Plug the solar array to your spacecraft and get ready for launch.

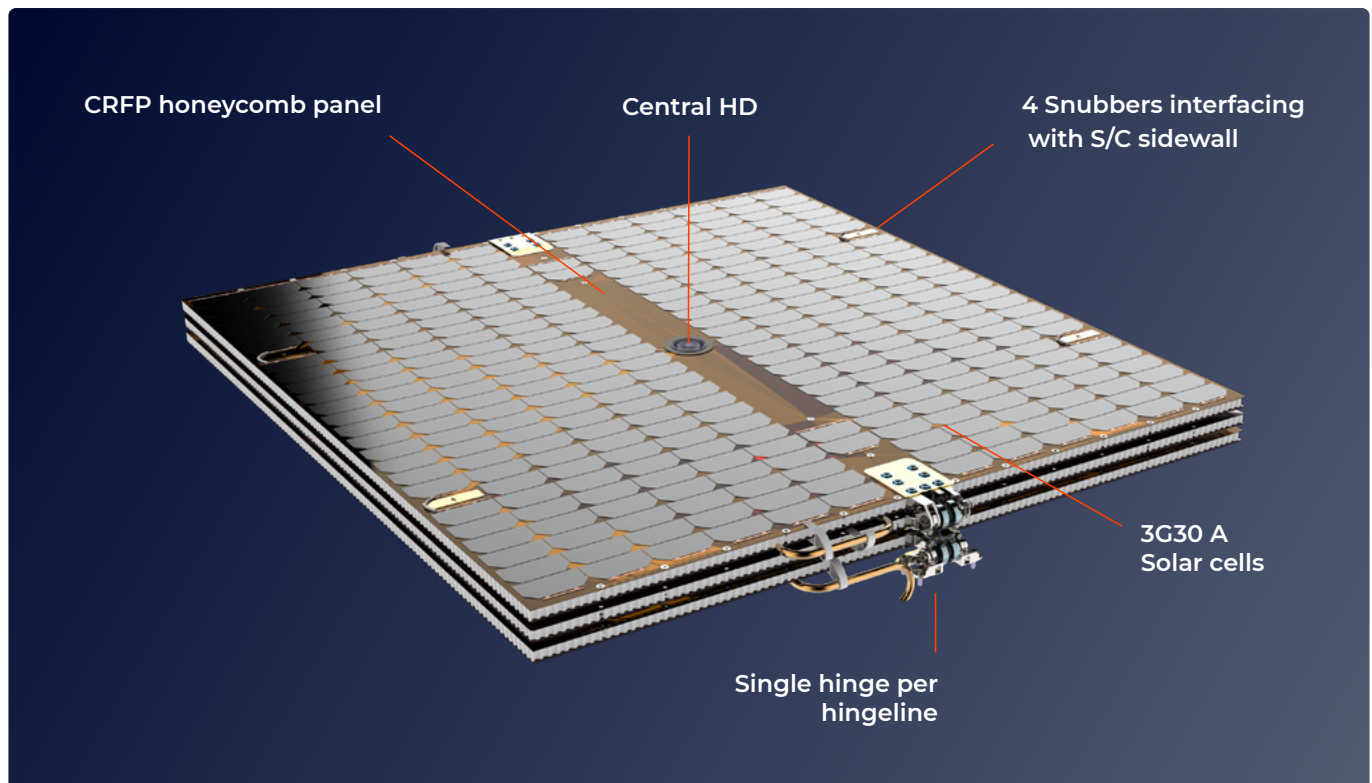


What do you get?

- ✓ A reliable solution that is built on decades of expertise and experience.
- ✓ Assured quality for an attractive price with a short lead time.
- ✓ A ready to launch product that is as easily ordered as integrated onto your spacecraft.

General specifications

Number of panels	1 - 3 panels per wing	Mass	can be estimated by adding: panels + PVA: 3,8kg/m ² mechanisms: 0,4kg/panel
Stackheight	37 mm for 1 panel config. 62mm for 2 panel config. 89mm for 3 panel config. (from sidewall S/C, local protrusion at HD location.)	Loads	≥25g quasi static design load ≥15grms random vibration
Cells	AZUR 3G30A solar cells	Wing configuration	See overview in the figure below. All components are free of ITAR restrictions
Electrical I/F	Sub-D connector (other options upon request)	Rothing deployment angle	90° other angles upon request
Stowed frequencies	≥100 Hz for small sizes ≥80 Hz for large sizes	Operational lifetime	guaranteed for 5 years
Deployed frequencies	1 panel: 5.0 – 17.0 Hz 2 panels: 1.5 – 5.0 Hz 3 panels: 0.6 – 2.2 Hz	Orbit height	optimized for LEO
		Lead time	6-9 months from order



Download the 3D CAD model at www.sparkwing.space.
For models of other panel dimensions please contact us.

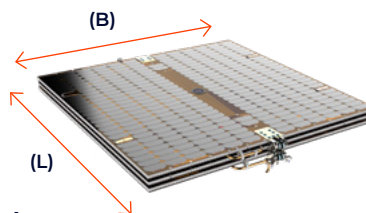
Panel dimensions

19 cells / string design (36V PVA design)

Wattages are BOL@28C, incidence angle of 0deg

	Width of panel (B)	440	600	750	1000	1160
Length of panel (L)	700	66W (3 strings)	110W (5 strings)			
	800	88W (4 strings)	132W (6 strings)	176W (8 strings)	242W (11 strings)	286W (13 strings)
965			154W (7 strings)	198W (9 strings)	264W (12 strings)	
1100				242W (11 strings)	308W (14 strings)	

Extra option: 1070x570 = 176W (8 strings)



26 cells / string design (50V PVA design)

Wattages are BOL@28C, incidence angle of 0deg

	Width of panel (B)	600	750	910	1070	1230
Length of panel (L)	570	90W (3 strings)	120W (4 strings)	150W (5 strings)	180W (6 strings)	210W (7 strings)
	800	120W (4 strings)	150W (5 strings)	210W (7 strings)	240W (8 strings)	270W (9 strings)
965		150W (5 strings)	210W (7 strings)	240W (8 strings)	300W (10 strings)	
1100		180W (6 strings)	240W (8 strings)	300W (10 strings)	360W (12 strings)	

Order your solar array

Technical questions



Call us
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