

# sparkwing

your go-to partner for smallsat solar arrays

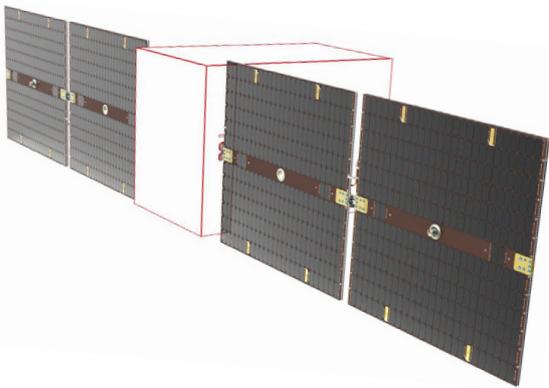
## about

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SparkWing is the first commercially available off-the-shelf solar array for smallsats. The standardized SparkWing building blocks and unique 3-step approach minimize your effort from order to orbit. Just select a configuration that covers your needs from our catalogue, place your order and get it delivered!

## our approach

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choose your configuration, get all the information you need and place your order



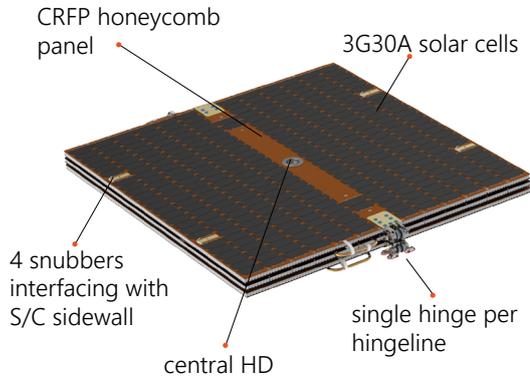
track and trace the progress of the manufacturing process



plug the solar array to your spacecraft and get ready for launch

## general specifications

number of panels	1 -3 deployable panels per wing
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.)
power	~285W/m <sup>2</sup> (pmp) BoL at 25°C ~250W/m <sup>2</sup> (pmp) BoL at 80°C exact power dependent on size
cells	AZUR 3G30A solar cells
electrical I/F	Sub-D connector
frequencies	stowed: ≥100 Hz for small sizes ≥80 Hz large sizes deployed: ≥2 Hz for small sizes ≥1 Hz for large sizes
mass	can be estimated by adding: panels + PVA: 3,8kg/m <sup>2</sup> mechanisms: 0,4kg/panel
loads	up to 25kg quasi static design load Up to 13grms random vibration
wing configuration	1 central hold-down per wing
roothinge deployment angle	90° other angles upon request
operational lifetime	up to 5 years extension can be discussed
orbit height	optimized for 600-1500km LEO



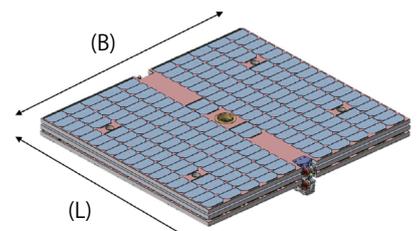
## panel dimensions

19 cell / string design, 36V PVA

width of panel (B)	440	600	750	1000	1160
length of panel (L)	700 (3 strings)	700 (5 strings)			
	800 (4 strings)	800 (6 strings)	800 (8 strings)	800 (10 strings)	800 (12 strings)
		965 (7 strings)	965 (9 strings)	965 (12 strings)	
			1100 (11 strings)	1100 (14 strings)	1100 (16 strings)

26 cell / string design, 50V PVA

width of panel (B)	600	750	910	1070	1230
length of panel (L)	570 (3 strings)	570 (4 strings)	570 (5 strings)	570 (6 strings)	570 (7 strings)
	800 (4 strings)	800 (5 strings)	800 (7 strings)	800 (8 strings)	800 (9 strings)
	965 (5 strings)	965 (7 strings)	965 (8 strings)	965 (10 strings)	965 (11 strings)
	1100 (6 strings)	1100 (8 strings)	1100 (10 strings)	1100 (12 strings)	1100 (14 strings)



## order your solar array

contact us  
sparkwing@airbusDS.nl

call us  
+31 71 52 45 775

find us  
www.sparkwing.eu