

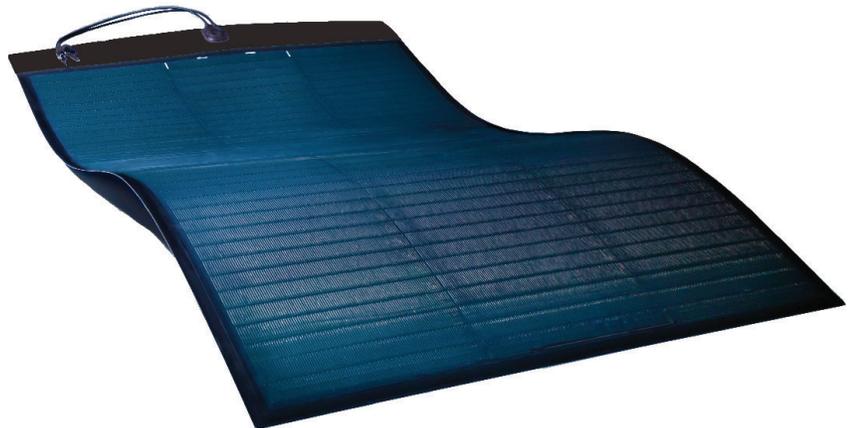
FLEX SERIES—03M 1.7 METER

1m x 1.7m
220 – 270W

CIGS Flexible Modules: High Power Density in a Flexible Form Factor

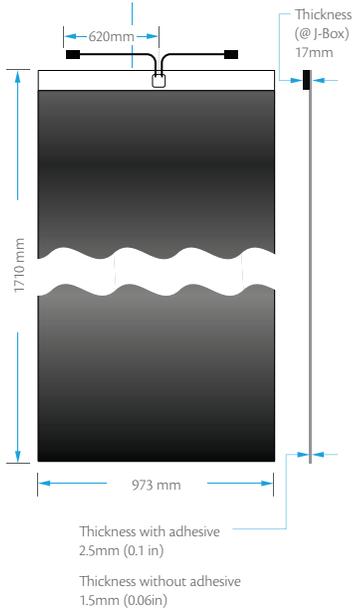
KEY FEATURES

- ▶ Record efficiency levels in a flexible form factor
- ▶ Low installed weight at less than 2.0 kg/m² (<0.5 lb/ft²)
- ▶ No penetrations, ballast or racking required
- ▶ Applicable for high wind load and high seismic hazard areas
- ▶ Bypass diodes reduce PV system shading losses
- ▶ Directly bonds to many approved surfaces



FLEX-03M 1.7 METER SERIES CIGS MODULE

ELECTRICAL PERFORMANCE AT STC¹



			FLEX-03 220M	FLEX-03 230M	FLEX-03 240M	FLEX-03 250M	FLEX-03 260M	FLEX-03 270M
Nominal Power	P_{MPP}	[W]	220	230	240	250	260	270
Aperature Efficiency	η	[%]	14.9%	15.6%	16.3%	17.0%	17.6%	18.3%
Power Output Tolerance		[W]	+10/-0	+10/-0	+10/-0	+10/-0	+10/-0	+10/-0
Maximum Power Voltage	V_{MPP}	[V]	18.8	19.4	20.0	20.6	21.2	21.8
Maximum Power Current	I_{MPP}	[A]	11.78	11.90	12.03	12.16	12.28	12.41
Open Circuit Voltage	V_{OC}	[V]	23.7	24.2	24.7	25.3	25.8	26.3
Short Circuit Current	I_{SC}	[A]	13.87	13.74	13.61	13.48	13.35	13.22
Maximum Series Fuse Rating		[A]	25					
Maximum System Voltage (IEC/UL)		[V]	1000/1000					

¹Standard Test Conditions (STC): 1000 W/m², 25°C cell temperature, AM 1.5 spectrum

THERMAL CHARACTERISTICS

NOCT	[°C]	48
Temperature Coefficient of P_{MPP}	[%/°C]	-0.38
Temperature Coefficient of V_{OC}	[%/°C]	-0.28
Temperature Coefficient of I_{SC}	[%/°C]	0.008

PHYSICAL AND MECHANICAL SPECIFICATIONS

Length	1710 mm (67.3 in)
Width	973 mm (38.3 in)
Thickness, Maximum at J-Box*, Module	17 mm (0.7 in), 2.5 mm (0.1 in)
Weight (Module without adhesive)	
Weight (Module with adhesive)	
Weight/Area (Module without adhesive)	1.7 kg/m ² (0.3 lb/ft ²)
Weight/Area (Module with adhesive)	2.0 kg/m ² (0.4 lb/ft ²)
Junction Box Type	IP68
Cable Connections	Amphenol Technology Shenzhen (E346053)
Cell Type	Copper Indium Gallium Diselenide (CIGS)
Warranty**	5 year workmanship; 10/25 year power output
Certifications	UL 1703, IEC 61646, IEC 61730, UL Class A over TPO - slope up to 2.5°, cUL 1703, IEC 62716, IEC 61701 (Salt Spray)

*2.5 mm (0.1 in) for the rest of the module with adhesive

**1.6 mm (0.06 in) for the rest of module without adhesive

**Please see full warranty for details