

MiaSolé FLEX SERIES—03W 40

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

KEY FEATURES

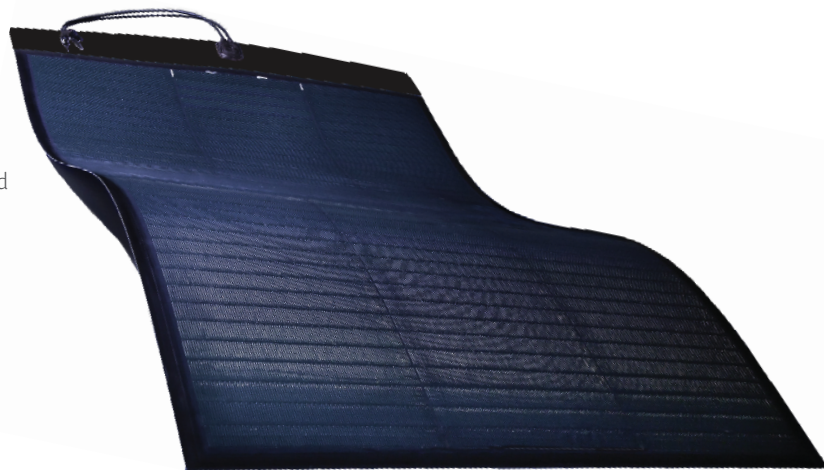
- ▶ Record efficiency levels in a flexible form factor
- ▶ Low installed weight at less than 2.0 kg/m² (<0.5 lb/ft²)
- ▶ No penetrations, ballast or racking required
- ▶ Applicable for high wind load and high seismic hazard areas
- ▶ Bypass diodes reduce PV system shading losses
- ▶ Directly bonds to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

RELIABILITY AND SAFETY

- ▶ IEC 61646, IEC 61730, IEC 61701 (Salt Spray)
- ▶ UL 1703
- ▶ UL Class A over TPO - slope up to 2.5"

WARRANTY

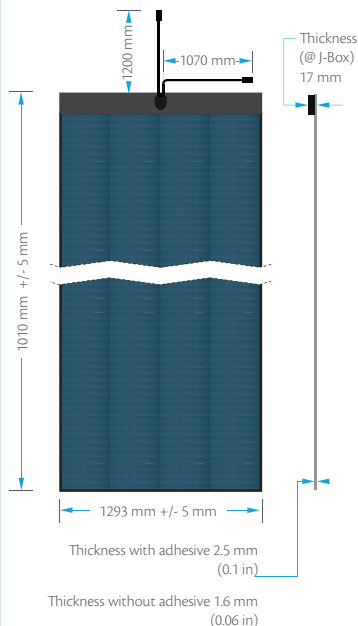
- ▶ 5 year workmanship
- ▶ 10/25 year warranty against power loss



MiaSolé FLEX SERIES

FLEX-03WS SERIES CIGS MODULE

ELECTRICAL PERFORMANCE AT STC¹



		FLEX-03W 40 160WS ¹	FLEX-03 170WS ²	FLEX-03 180WS ³	FLEX-03 190WS ⁴	
Nominal Power	P_{MPP}	[W]	160	170	180	190
Aperature Efficiency	η	[%]	14.7%	15.6%	16.5%	17.4%
Power Output Tolerance		[W]	+10/-0	+10/-0	+10/-0	+10/-0
Maximum Power Voltage	V_{MPP}	[V]	20.5	21.0	21.5	22.0
Maximum Power Current	I_{MPP}	[A]	7.82	8.09	8.37	8.64
Open Circuit Voltage	V_{OC}	[V]	26.2	26.5	26.7	27.0
Short Circuit Current	I_{SC}	[A]	9.40	9.40	9.40	9.40
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	1010 mm (39.8 in, 3ft 3.8in)
Width	1293 mm (50.9 in, 4ft 2.9in)
Thickness, Maximum at J-Box*, Module	17 mm (0.7 in), 2.5 mm (0.1 in)
Weight (Module without adhesive)	2.1 kg (4.7 lb)
Weight (Module with adhesive)	2.5 kg (5.6 lb)
Weight/Area (Module without adhesive)	1.6 kg/m ² (0.3 lb/ft ²)
Weight/Area (Module with adhesive)	1.9 kg/m ² (0.4 lb/ft ²)
Junction Box Type	IP68
Cable Connections	Amphenol Helios H ₄
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 1", 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

Corresponding UL/IEC Model Numbers:

¹FLEX-03 160W

²FLEX-03 170W

³FLEX-03 180W

⁴FLEX-03 190W



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