

# MiaSolé FLEX SERIES -03W

## CIGS Flexible Modules for Carports: The Lightweight Peel-and-Stick Solar Solution

### BENEFITS OF SOLAR CARPORTS:

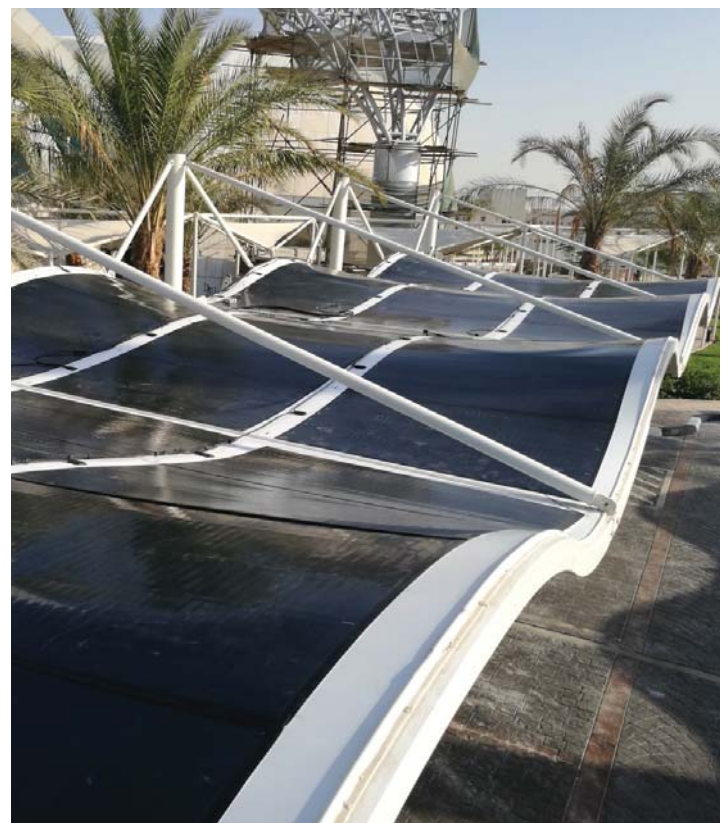
- ▶ Provide highly desirable shade for parked cars, providing increased owner comfort and a lower carbon footprint when the car is started and cooled
- ▶ Rain, snow and hail protection
- ▶ Reduced parking lot temperatures and heat-island effect
- ▶ Large power generation area when compared to traditional roofs
- ▶ Fewer engineering and inspection challenges than traditional rooftop solar installations
- ▶ Fewer shading issues than traditional roofs

### MIASOLE FLEX BENEFITS:

- ▶ Lightweight: less than 2.0 kg/m<sup>2</sup> (<0.5 lb/ft<sup>2</sup>)—Ideal for today's cost-optimized carport structures
- ▶ Easy to install—simply peel-and-stick
- ▶ No need for ballast or penetrations into the carport roof
- ▶ Resistant to wind and seismic events - won't detach or shatter if struck by debris
- ▶ Flexible modules conform to unique architecture
- ▶ Blends into the carport; does not protrude above the carport structure
- ▶ Theft and vandalism resistant

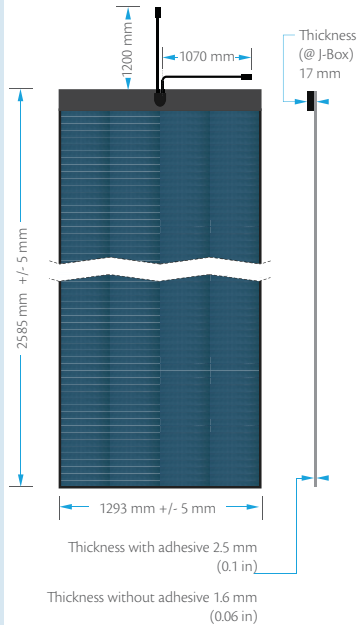
### WARRANTY

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



# MiaSolé FLEX SERIES

## FLEX-03W SERIES CIGS MODULE



### ELECTRICAL PERFORMANCE AT STC<sup>1</sup>

			FLEX-03 470W	FLEX-03 480W	FLEX-03 490W	FLEX-03 500W	FLEX-03 510W
Nominal Power	$P_{MPP}$	[W]	470	480	490	500	510
Aperature Efficiency	$\eta$	[%]	15.4%	15.7%	16.0%	16.4%	16.7%
Power Output Tolerance		[W]	+10/-0	+10/-0	+10/-0	+10/-0	+10/-0
Maximum Power Voltage	$V_{MPP}$	[V]	58.5	59.0	59.5	60.0	60.6
Maximum Power Current	$I_{MPP}$	[A]	8.04	8.13	8.23	8.33	8.42
Open Circuit Voltage	$V_{OC}$	[V]	73.9	74.2	74.5	74.8	75.1
Short Circuit Current	$I_{SC}$	[A]	9.40	9.40	9.40	9.40	9.40
Maximum Series Fuse Rating		[A]	25				
Maximum System Voltage (IEC/UL)		[V]	1000/1000				

<sup>1</sup>Standard Test Conditions (STC): 1000 W/m<sup>2</sup>, 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	2585 mm (101.8 in)
Width	1293 mm (50.9 in)
Thickness, Maximum at J-Box*, Module	17 mm (0.7 in), 2.5 mm (0.1 in)
Weight (Module without adhesive)	5.5 kg (12.2 lb)
Weight (Module with adhesive)	6.6 kg (14.6 lb)
Weight/Area (Module without adhesive)	1.7 kg/m <sup>2</sup> (0.3 lb/ft <sup>2</sup> )
Weight/Area (Module with adhesive)	2.0 kg/m <sup>2</sup> (0.4 lb/ft <sup>2</sup> )
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 1", cUL 1703, IEC 62716, Australia CEC
Packaging Info	10 modules per crate, 40 modules per pallet, 320 modules per 20' ISO container, 640 modules per 40' ISO container

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

\*\*1.5 mm (0.06 in) for the rest of module without adhesive

\*\*Please see full warranty for details



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