

MiaSolé

FLEX SERIES—03

OFF-GRID CUSTOM MODULE

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

KEY FEATURES

- ▶ Record efficiency levels in a CIGS flexible form factor
- ▶ Low installed weight at less than 2.2 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 62716

WARRANTY

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

16V (32 CELLS PER STRING) DESIGN

ELECTRICAL PERFORMANCE AT STC ¹			16V(32 cells)	16V(64 cells)	16V(96 cells)	16V(128 cells)
Nominal Power	P_{MPP}	[W]	72	144	216	288
Aperture Efficiency	η	[%]	16.5%	16.5%	16.5%	16.5%
Power Output Tolerance		[W]	+5/-0	+5/-0	+5/-0	+5/-0
Maximum Power Voltage	V_{MPP}	[V]	17.22	17.22	17.22	17.22
Maximum Power Current	I_{MPP}	[A]	4.17	8.34	12.51	16.68
Open Circuit Voltage	V_{OC}	[V]	21.44	21.44	21.44	21.44
Short Circuit Current	I_{SC}	[A]	4.7	9.4	14.1	18.8
Dimensions		[mm]	1525 x 363	1525 x 677	1524 x 993	1525 x 1293

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

MiaSolé FLEX SERIES- OFF-GRID CUSTOM MODULE

FLEX-03 CIGS MODULE

32V (32 CELLS PER STRING) DESIGN ELECTRICAL PERFORMANCE AT STC¹

		32V (64 cells)	32V (128 cells)
Nominal Power P_{MPP}	[W]	144	288
Aperture Efficiency η	[%]	16.5%	16.5%
Power Output Tolerance	[W]	+5/-0	+5/-0
Maximum Power Voltage V_{MPP}	[V]	34.43	34.43
Maximum Power Current I_{MPP}	[A]	4.17	8.34
Open Circuit Voltage V_{OC}	[V]	42.88	42.88
Short Circuit Current I_{SC}	[A]	4.7	9.4
Dimensions	[mm]	1525 x 677	1525 x 1293

48V (32 CELLS PER STRING DESIGN) ELECTRICAL PERFORMANCE AT STC¹

		48V (96 cells)
Nominal Power P_{MPP}	[W]	216
Aperture Efficiency η	[%]	16.5%
Power Output Tolerance	[W]	+5/-0
Maximum Power Voltage V_{MPP}	[V]	51.64
Maximum Power Current I_{MPP}	[A]	4.17
Open Circuit Voltage V_{OC}	[V]	64.32
Short Circuit Current I_{SC}	[A]	4.7
Dimensions	[mm]	1525 x 993

64V (32 CELLS PER STRING) DESIGN ELECTRICAL PERFORMANCE AT STC¹

		64V (128 cells)
Nominal Power P_{MPP}	[W]	288
Aperture Efficiency η	[%]	16.5%
Power Output Tolerance	[W]	+5/-0
Maximum Power Voltage V_{MPP}	[V]	68.86
Maximum Power Current I_{MPP}	[A]	4.17
Open Circuit Voltage V_{OC}	[V]	85.76
Short Circuit Current I_{SC}	[A]	4.7
Dimensions	[mm]	1525 x 1293

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	2935 mm
Width	120 mm
Thickness, Maximum at J-Box*, Module	17 mm (0.7 in), 2.5 mm (0.1 in)
Weight/Area (Module without adhesive)	1.8 kg/m ² (0.4 lb/ft ²)
Weight/Area (Module with adhesive)	2.2 kg/m ² (0.5 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, cUL 1703, IEC 62716,

*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

Made in the USA



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