

FLEX SERIES -02N

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 3.0kg/m²
- ▶ No penetrations, ballast or racking required
- ▶ Applicable for high wind load and high seismic hazard areas
- ▶ Bypass diodes reduce PV system shading losses

RELIABILITY AND SAFETY

- ▶ IEC 61646 & IEC 61730
- ▶ UL 1703

WARRANTY

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



FLEX-02N SERIES CIGS MODULE

ELECTRICAL PERFORMANCE AT STC¹

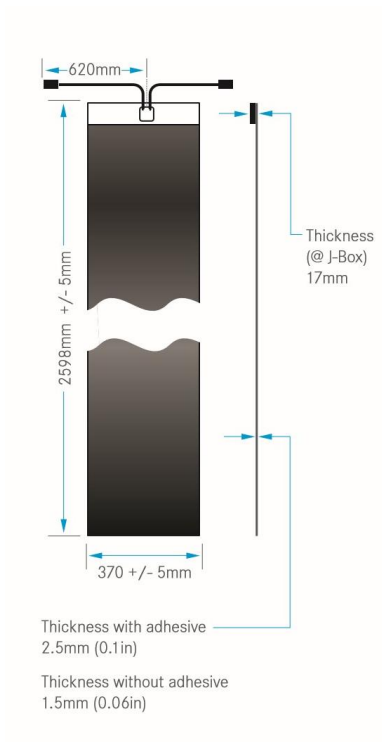
Nominal Power	P_{MPP}	[W]	110	115	120	125	130
Aperture Efficiency	η	[%]	14.4%	15.0%	15.7%	16.4%	17.0%
Power Output Tolerance		[W]	+5/-0	+5/-0	+5/-0	+5/-0	+5/-0
Maximum Power Voltage	V_{MPP}	[V]	28.9	29.7	30.5	31.3	32.0
Maximum Power Current	I_{MPP}	[A]	3.81	3.87	3.93	4.00	4.06
Open Circuit Voltage	V_{OC}	[V]	37.1	37.6	38.1	38.6	39.1
Short Circuit Current	I_{SC}	[A]	4.50	4.52	4.53	4.55	4.57
Maximum Series Fuse Rating		[A]	10				
Maximum System Voltage (IEC/UL)		[V]	1000/600				

¹Standard Test Conditions (STC):1000W/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	2598mm
Width	370mm
Thickness, Maximum at J-Box*	17mm
Weight(Module without adhesive)	2.0kg
Weight(Module with adhesive)	2.7kg
Weight/Area(Module without adhesive)	2.08kg/m ²
Weight/Area(Module with adhesive)	2.81kg/m ²
Junction Box Type	IP68
Cable connections	MC4 Compatible
Cell type	Copper Indium Gallium Diselenide (CIGS)
Warranty**	5 year workmanship; 5/10/25 year power output
Certifications	UL 1703, IEC 61646, IEC 61730

*2.5mm for the rest of the module with adhesive

*1.5mm for the rest of the module without adhesive

**Please see full warranty for details

主要特点

- 创纪录的柔性电池转换效率
- 小于 $3.0\text{kg}/\text{m}^2$ 的单位安装重量
- 安装时无需额外穿孔、压载、支撑
- 适用于高风压和地震高发地区
- 嵌入式旁路二极管串的设计减少遮荫效应的影响



可靠性和安全性

- IEC 61646 & IEC 61730
- UL 1703

质量保证

- 5年产品质保
- 5年/10年/25年峰值功率有限保证



柔性 02N 系列 CIGS 组件

标准测试条件下的电学性能

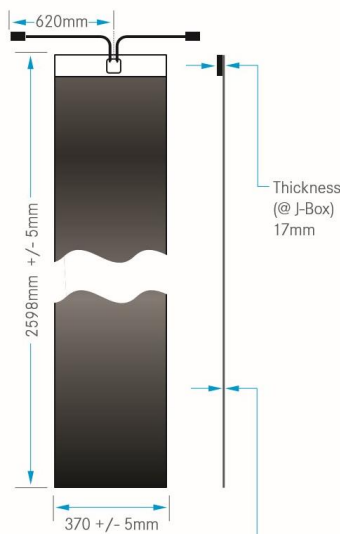
峰值功率	P_{MPP}	[W]	110	115	120	125	130
转化效率	η	[%]	14.4%	15.0%	15.7%	16.4%	17.0%
功率公差		[W]	+5/-0	+5/-0	+5/-0	+5/-0	+5/-0
峰值电压	V_{MPP}	[V]	28.9	29.7	30.5	31.3	32.0
峰值电流	I_{MPP}	[A]	3.81	3.87	3.93	4.00	4.06
开路电压	V_{OC}	[V]	37.1	37.6	38.1	38.6	39.1
短路电流	I_{SC}	[A]	4.50	4.52	4.53	4.55	4.57
最大保险丝额定电流		[A]	10				
最大系统电压 (IEC/UL)		[V]	1000/600				

1 标准测试条件(STC):1000W/m²,25°C 电池温度, AM 1.5 光谱

热性能

电池额定工作温度	[°C]	48
峰值功率的温度系数	[%/°C]	-0.38
开路电压的温度系数	[%/°C]	-0.28
短路电流的温度系数	[%/°C]	0.008

物理机械性能



Thickness with adhesive
2.5mm (0.1in)

Thickness without adhesive
1.5mm (0.06in)

长度	2598mm
宽度	370mm
厚度 (含接线盒) *	17mm
组件重量 (不含粘贴胶)	2.0kg
组件重量 (含粘贴胶)	2.7kg
组件重量/组件面积(不含粘贴胶)	2.08kg/m ²
组件重量/组件面积(含粘贴胶)	2.81kg/m ²
接线盒类型	IP68
输出端子类型	MC4 兼容
电池类型	铜铟镓硒(CIGS)
质量保证**	5年产品质保; 5年/10年/25年峰值功率有限保证;
组件认证	UL 1703, IEC 61646, IEC 61730

*2.5mm 是组件和粘贴胶的厚度

*1.5mm 是组件的厚度

**请阅读质保条款