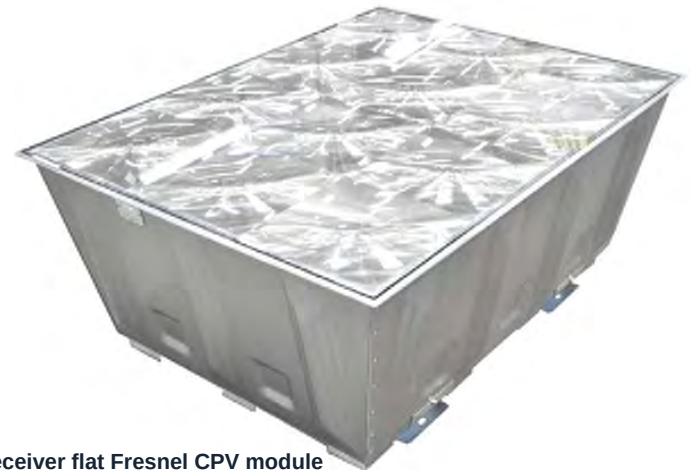
High-Efficiency Concentrator PV Module

Triple-junction GaAs receivers with multi-level optical concentration



12-receiver flat Fresnel CPV module

360 W RATED PMAX	**27.5%** MODULE EFFICIENCY
+/-0.86 deg ACCEPTANCE ANGLE	**12** MODULAR RECEIVERS
1,000+ OPTICAL CONCENTRATION	**-40 to 50 C** OPERATING RANGE

Features and Benefits

More Power

- Advanced triple-junction GaAs receivers.
- Multi-level optics reduce chromatic aberration.
- High output from a compact module footprint.

Reliable Design

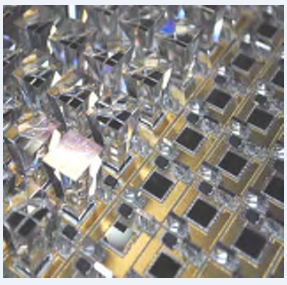
- Fully enclosed receiver assemblies and wiring.
- Anodized frame and glass-based concentrators.
- No moving components inside the module.

System Integration

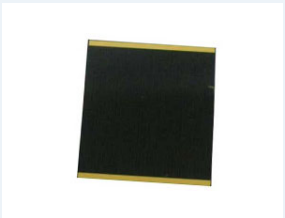
- Broad acceptance angle supports tracker tolerance.
- Four mounting supports and plug-and-play output.
- Designed for precision dual-axis tracking.

Receiver and Optical Architecture

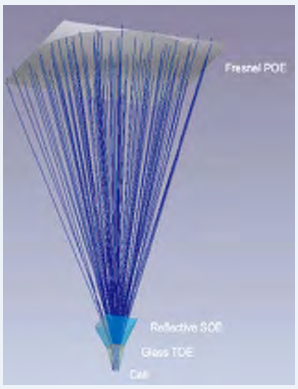
TRIPLE-JUNCTION GaAs / DBC / THREE-STAGE OPTICS



Receiver array



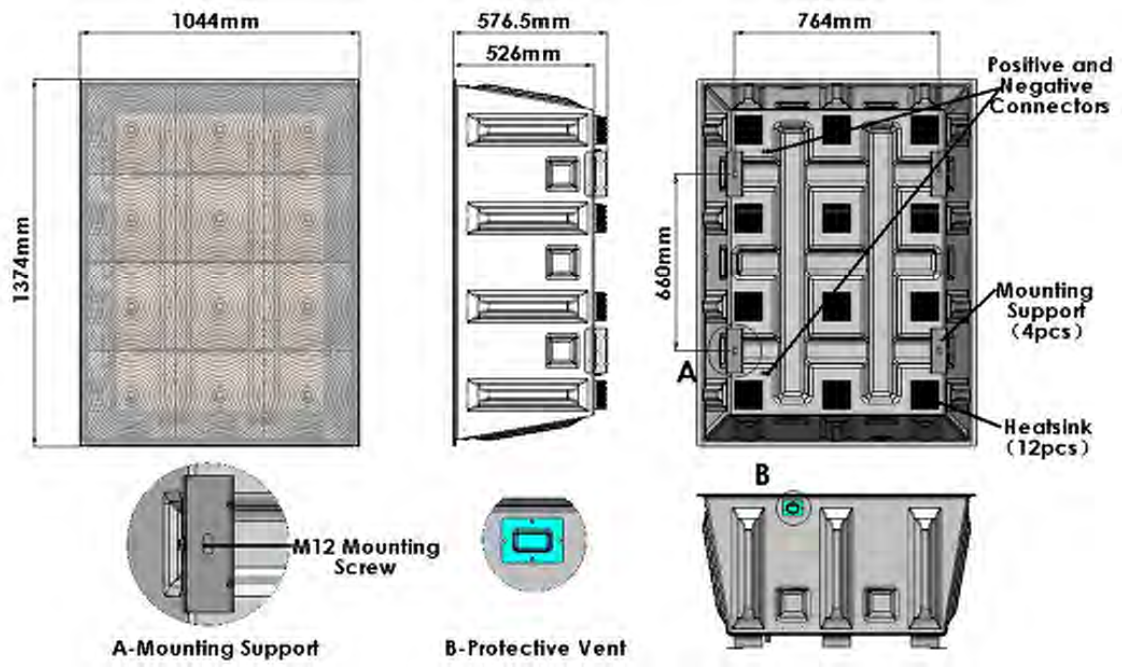
GaAs CPV cell



Each modular receiver combines one triple-junction solar cell and a bypass diode on a DBC substrate. Primary Fresnel optics, a reflective secondary element and a tertiary non-imaging element direct concentrated sunlight to the cell.

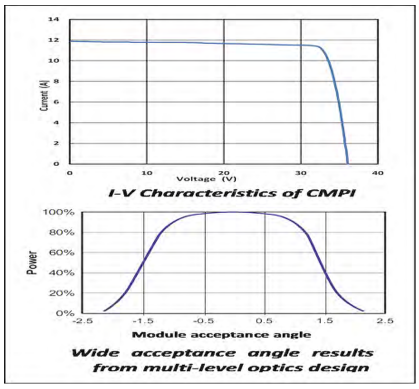
Mechanical Configuration

ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED



Electrical, Thermal and Mechanical Data

Performance Characteristics at 1000 W/m^2 DNI	
Power (Pmax)*	360 W +/-5%
Max Power Voltage (Vmp)	32.84 V
Max Power Current (Imp)	10.96 A
Open Circuit Voltage (Voc)	36.79 V
Short Circuit Current (Isc)	11.97 A
Module Efficiency	27.5%
Acceptance Angle	+/-0.86 deg
Optimized Work Temperature	-40 to 50 deg C
Temperature Coefficient	
Power	-0.2% / deg C
Voltage	-65 mV / deg C
Current	1.35 mA / deg C
Mechanical Specification	
Dimensions (L x W x D)	1.37 x 1.04 x 0.58 m
Weight	44 kg
Connector Termination	4 mm^2 plug-and-play connector
Material	Aluminum
Fresnel Lens	Silicone on glass (SOG)
Referenced Standards	
Qualification	IEC 62108
Safety	IEC 62688
Performance	IEC 62670



Engineering note

Electrical output depends on DNI, optical alignment, cell temperature and tracker accuracy. Specifications are based on the supplied source document and require engineering confirmation before procurement or system design.

** Design and specifications are subject to change without notice.*