CHROMASUN

High Temperature Micro-Concentrator Commercial-Industrial Solar Thermal

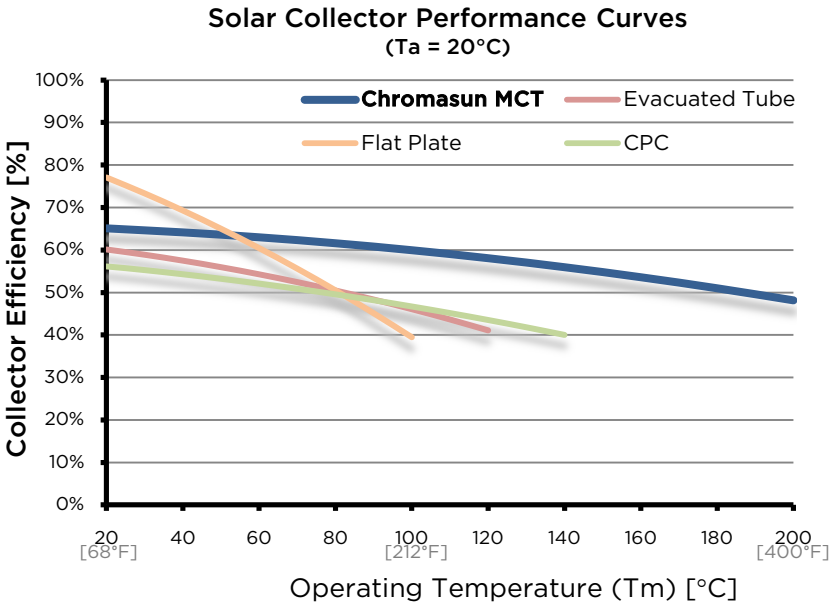
Ultra-high performance solar collector – no other flat panel like it.

The Chromasun Micro-Concentrator (MCT) is a next generation high performance solar collector that uses the same technology as utility scale solar systems, except now in a much smaller package. It has been designed purposely for rooftop integration.

The MCT is low profile, lightweight and has no external moving parts, so it's simple to mount and easy to maintain. Using a 20X Fresnel reflector optic the MCT generates temperatures up to 200°C (400°F), something you wouldn't expect from a flat panel solar collector.

Perfect for process heat applications and ideal for air-conditioning systems, this exciting product is now in production and ready to deploy on commercial and industrial rooftops.

- Concentrating optic for more kWh_t per annum
- Enclosed tracking for low maintenance and long term durability
- Closed-loop solar tracking for easy solar field layout. No setup; the MCT finds the sun itself
- Welded aluminum enclosure is sealed to dust and rain and allows easy cleaning
- Sleek, low profile design for seamless architectural integration and low wind load
- Centralized control system with network or web interface
- Industry standard BACnet or Modbus data communication
- 24VDC power bus with UPS backup



Not all solar collectors are created equal.

'Typical' flat panel solar collectors are low in efficiency at high temperatures.

Even the best panels quickly drop below 50% efficiency above 100°C (200°F).

The Chromasun MCT is still 50% efficient at 200°C (400°F).

There is no other flat panel collector like it.

Chromasun MCT Performance Specification

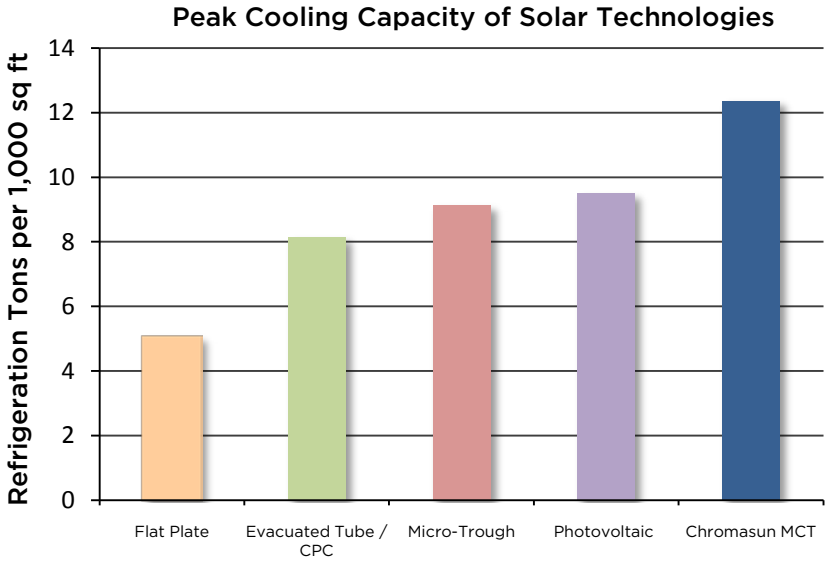
Energy Performance		
Thermal Output – Peak at DNI of 1,000 W/m²	2.2 kW_t	7.5x10^3 BTU/h
Thermal Output – Peak at DNI of 850 W/m²	1.9 kW_t	6.4x10^3 BTU/h
Solar Aperture Area	3.5 m^2	38.2 sq ft
Operating Conditions		
Maximum Output Temperature	200°C	400°F
Maximum Operating Pressure	40 bar	580 psi
Physical Characteristics		
Dimensions	See Diagram Below	
Weight	100 kg	220 lb
Unit Area	4.15 m^2	44.7 sq ft
Weight per unit area	24 kg/m^2	4.9 lb/sq ft

Chromasun MCT provides more cooling from the rooftop.

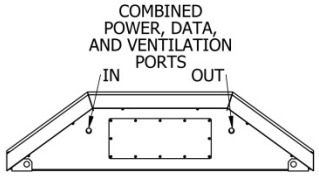
High output temperature allows the Chromasun MCT to drive high COP double effect absorption chillers.

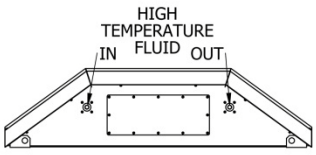
The Fresnel reflector optic reduces mirror shading which allows for the highest rooftop collector density in its class.

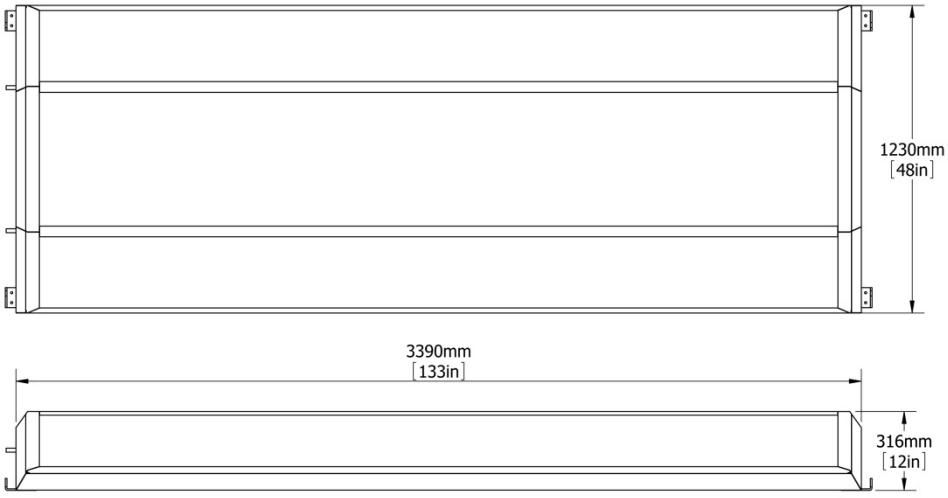
The combined effect is more cooling tons per square foot of rooftop than any other solar technology.



Solar Cooling Examples (COP = 1.35)		
US Refrigeration Tons (kW_t)	100RT (350kW_t)	400RT (1,400kW_t)
Number of MCT units	120	480
Total roof footprint including pathways	600m^2 (6,480 sq ft)	2,400m^2 (25,920 sq ft)







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