

System Features

- High-efficiency CPV system using EMCORE's multi-junction solar cells
- Optimized for low-cost, utility-scale installation
- Includes 36 EMCORE G3-1090X modules
- Tilt-roll tracking system with minimal ground penetration
- Packing density potential < 5 acres/MW
- No water is needed for operation
- Dual axis tracking better matches peak energy consumption than fixed tilt PV
- High operational reliability due to on-line monitoring, control, and diagnostic access



System Advantages

EMCORE's Concentrator Photovoltaic (CPV) System is designed for utility-scale solar installations in high irradiance locations. As one of the world's largest supplier of III-V solar cells for concentrator systems, EMCORE is uniquely qualified to optimize all systems elements and subsystem components for world-class quality, cost, and performance. EMCORE's system achieves 26% DC efficiency at 1090X concentration to provide *solar power where solar power matters*.

EMCORE's multi-junction solar cell technology enables power production in the hot, dry climates associated with high solar flux. An innovative tilt/roll tracking system minimizes foundation requirements and allows for optimization of field packing density with minimal shadowing.

Absolute Maximum Ratings

Operating Temperature (min to max °F/°C)	-4 to +122°F -20 to 50°C
Storage Temperature (min to max °F/°C)	-40° to + 140°F -40° to 60°C



Specifications	Standard Test Conditions	PVUSA Test Conditions
DNI (W/m ²)	1000	850
Cell Temperature (°C)	25	--
Ambient Temperature (°C)	--	20
Wind Speed (m/s)	--	1
DC Efficiency	27.4%	25.8%
Peak Power (kWdc)	16.1	12.9