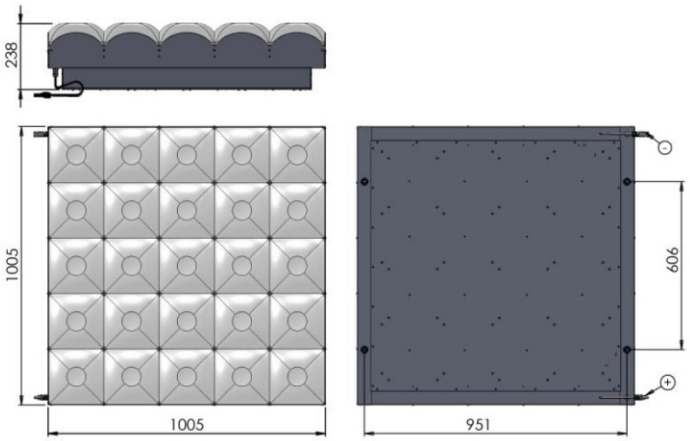
bsqsolar®
beyond the limits

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV GL = ISO 9001 = = ISO 14001 =

BSQ-D280 HCPV Module Abridged Data Sheet

Dimensions



Description

With more than a decade of intensive field-testing and thorough development in the lab, the BSQ-D280 HCPV module features high efficiency, a very high concentration factor, wide acceptance angle non-imaging optics, and a simple and rugged module design. Thus enabling the module to provide sustained and high-density solar energy output especially at high DNI and high-temperature locations.

Performance

> Very high concentration ratio of 820X

> Unique domed-shaped concentrating Fresnel lens with top dimple, (produced by automobile headlamp manufacturer), maximizes acceptance angle pointing tolerance up to 0.9°

Features

> Secondary optical based on kaleidoscopic optics that creates uniform light flux over the cell.

> Integration of high-efficiency triple junction cells with average efficiency by 1st tier manufacturer.

Reliability

> Passed IEC62108,IEC61730-1,IEC61730-2

> A Kaleidoscopic homogenizer and three-junction cell, both packaged in a fall-proof receiver block.

> Over 30 yrs. of lifetime for encapsulation polymers in receiver block when subjected to accelerated aging under extreme critical conditions.

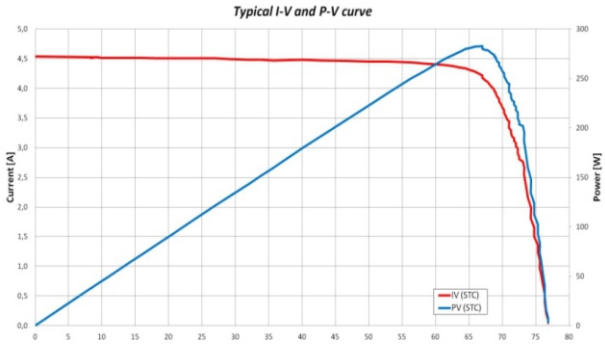
> Only requires passive cooling, no finned heat sinks.

Module Features

Dimensions	1005×1005×238 mm
Solar aperture	1 m^2
Weight	23.6 kg
Maximum static load	2400 Pa (backpanel) 5400 Pa (else)
Distance of gravity center to backpanel	70 mm
Cells per module	25
Lens Material	PMMA
Enclosure Material	Aluminum Alloy
Cell Material	InGaAs/GaAs/Ge
Geometric Concentration	820X
Acceptance Angle (90% output)	±0.92 º

Electric Features (Typ.)

Module Efficiency	28 %
V_{oc}	78 V
I_{sc}	4.3 A
V_{mpp}	70 V
I_{mpp}	4.0 A
Power	280 W
Max. System Voltage	900 V
Temperature Coefficient	-0.21 %/K
Connector model	Amphenol® Helios4
Pigtail length	0.25 m



Standard Test Conditions according to IEC 62670-1 DNI 1000W/m², T_c 25ºC

Compañía Española de Alta Eficiencia Fotovoltaica BSQ Solar, SL Sales & Engineering: C/del Vivero, 5, 28040 Madrid, Spain
Factory: Polígono Industrial Las Canteras, Camino del Torrejón, 1, 45220 Yeles (Toledo), Spain
(+34) 915 336 143 (+34) 915 348 693 info@bsqsolar.com