

Half-Cut Cell Monocrystalline

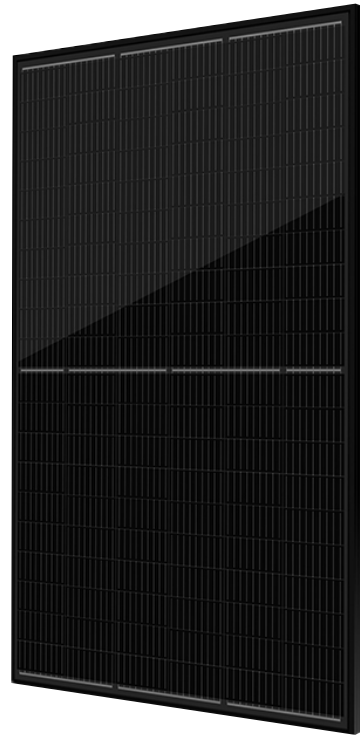
ART545-144

1500VDC

Solar Panel

MODULE

Design	144 CELL
Dimensions	2279 x 1134 x 35mm
Weight	28.5kg ± 3%



OUR APPROACH

ARTsolar believes high quality solar power should be produced locally at globally competitive pricing. Meticulous manufacturing, testing and quality assurance standards, certified raw materials and in-house developed MES system ensures consistent traceable quality.

CERTIFICATIONS

Manufactured in line with:

SABS ISO 9001

ISO 14001

ISO 45001

IEC 61215

IEC 61730

UL 61730

CE

The IEC perscribed test with 25mm hail stones. (Speed of 23m/s)

LOCAL SUPPORT

Designed for the African Climate

2400 Mpa wind & 5400 Mpa mechanical loads

High Temperature Operation

Certified salt & ammonia resistance

PID resistance certified

High efficiency: Up to 21.1%

Earth leakage tested to 3600V DC

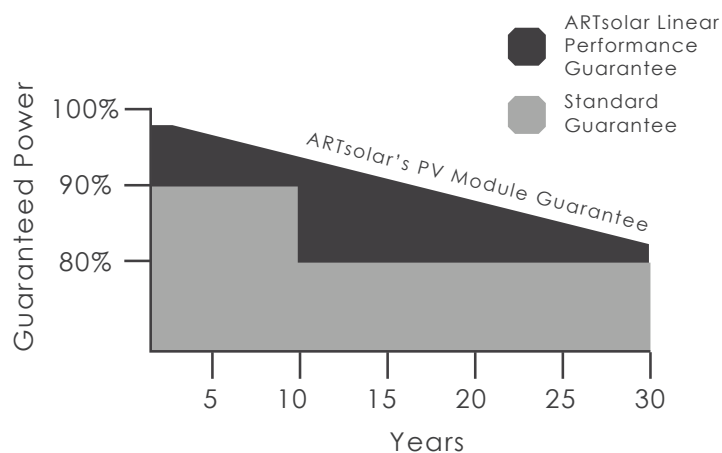
Electroluminescence (EL) tested

Quality control and traceability

LOCALLY GUARANTEED

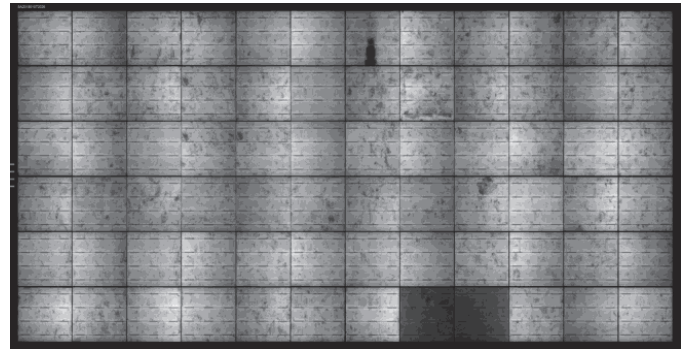
12 Year Product Guarantee

30 Year Linear Power Guarantee



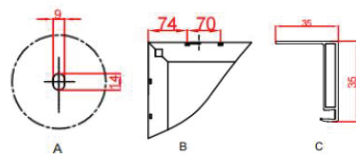
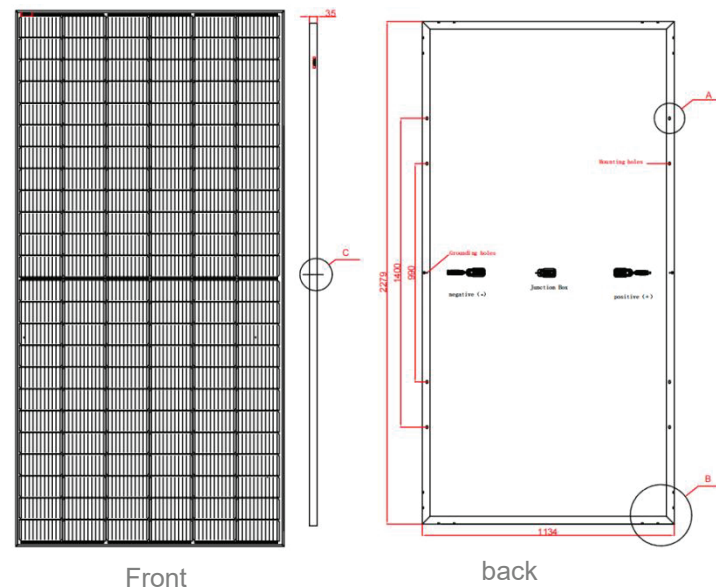
MULTIPLE ELECTRO-LUMINESCENCE (EL) TESTED

Multiple EL tests throughout the production line
 EL images can be requested with each purchase
 Make sure your PV module doesn't look like the image to the right. An EL looks like an X-Ray which spots cracks and power loss areas invisible to the naked eye.



MODULE SPECIFICATIONS

Solar Cells	MBB, Larger Wafer, Half-Cut Cell Mono Percium
Solar Glass	3.2mm, tempered, low iron, high transparency solar safety glass with anti-reflective coating.
Encapsulation	EVA
Backsheet	Black
Frame	Black Anodized Aluminum Alloy
Junction Box	IP68 rated, 3 diodes, 1200mm cable, MC4 standard connectors



ELECTRICAL DATA

	STC	NOCT	
Design	144 Cell	144 Cell	STC - Irradiance 1000W/m ² , cell temp. @ 25°C
Pmax (Wp)	545 Wp	405 Wp	NOCT - Irradiance 800W/m ² , cell temp. @ 20°C KEY
Vmp	41.85V	38.25V	Pmax(Wp) - Maximum Power Vmp - Voltage at Max Power
Imp	13.03A	10.60A	Voc - Open Circuit Voltage Isc - Short Circuit Current
Voc	49.70V	46.74V	Imp - Max Power Current Eff - Module Efficiency %
Isc	13.91A	11.27A	STC - Standard Test Conditions
Eff	21.1%		NOCT - Nominal Operating Cell Temperature
			<i>*Figures are typical values of performance. Slight variances do occur, exact specifications available with each module.</i>

TEMPERATURE RATINGS

Nominal Operating Cell Temp.	45°C (±2°C)
Nominal Module Operating Temp (NMOT)	41°C (±3°C)
Temp coefficient of Pmax	-0.360%/°C
Temp coefficient of Voc	-0.260%/°C
Temp coefficient of Isc	+0.046%/°C

MAXIMUM RATINGS

Operational Temp	-40 to +85°C
Max System Voltage	1500VDC (IEC/UL)
Max Series Fuse Rating	20A
Mechanical Load	5400Mpa