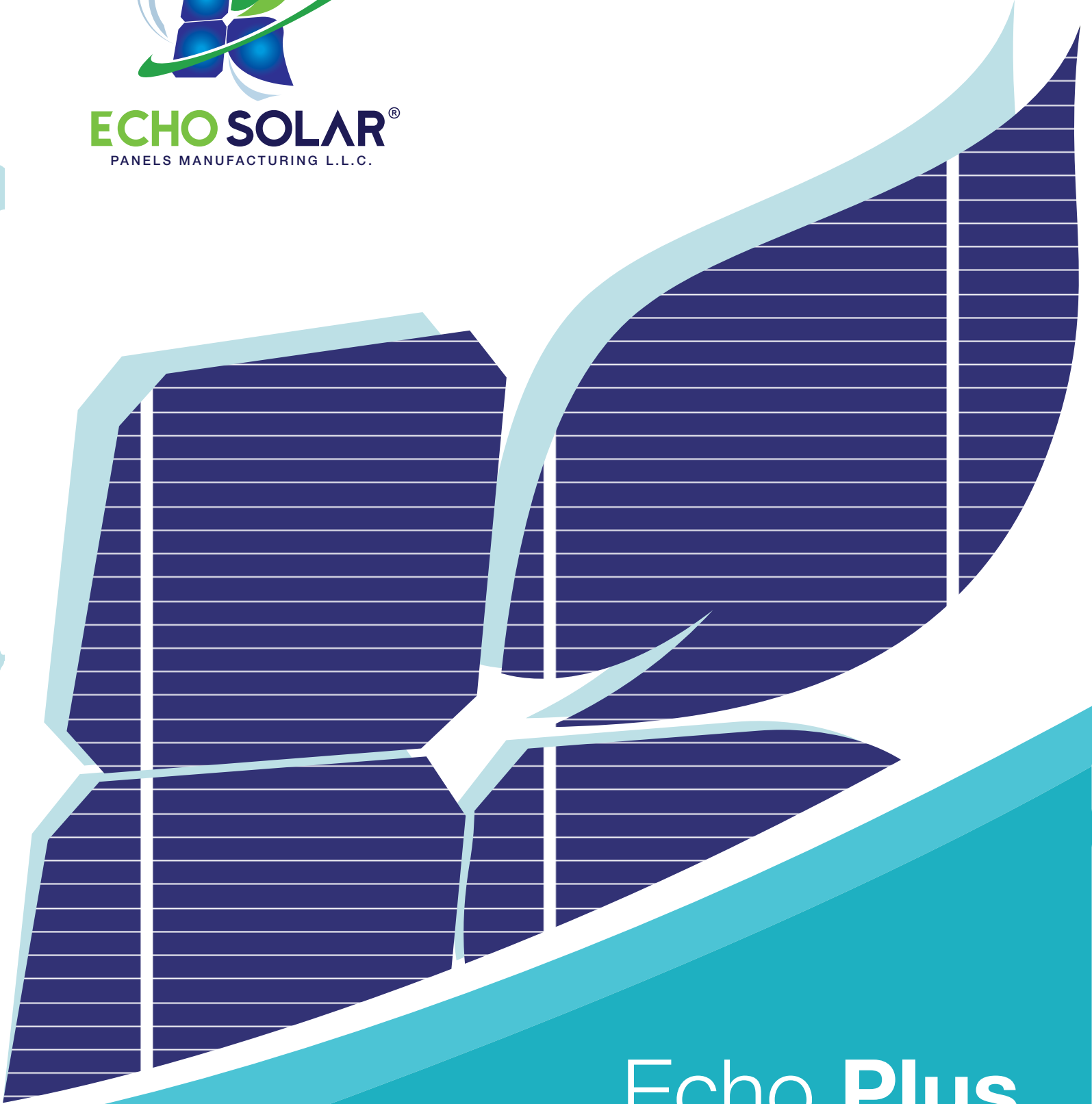




ECHO SOLAR[®]
PANELS MANUFACTURING L.L.C.

Powering Green Energy



Echo Plus

HIGH ENERGY DENSITY PRODUCT



More power
per m²



Robust &
Durable Design



100%
PID FREE



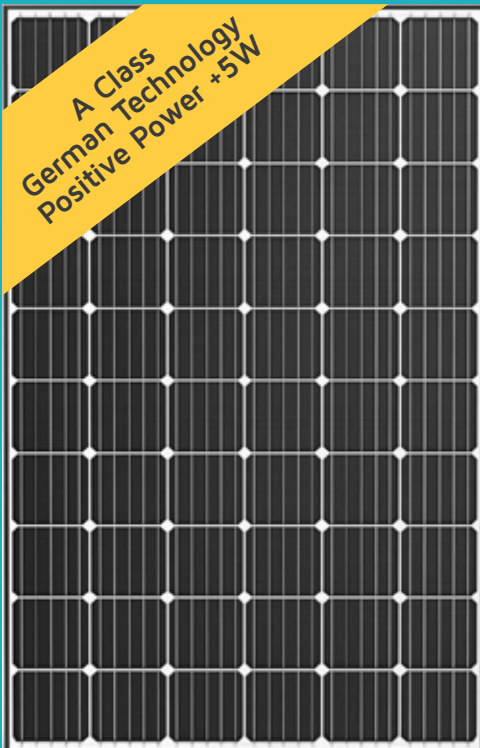
Low
LID

info@echosolarae.com
www.echosolaruae.com

ECHO PLUS

MONO-CRYSTALLINE MODULE

A-CLASS



ECHO Modules are manufactured at the highest levels in Dubai with state of art manufacturing facility having elevated feature and unsurpassed performance.

ECHO QUALITY CONTROL

Material Inspection



Process Monitoring



Functionality Check



Quality Reports



Module Packaging



Multi-crystalline modules designed for residential, commercial and utility applications - rooftop or ground mount.



4 & 5Bus-bar Solar Cell
Cutting Edge Technology Thoroughly methodically & carefully designed by professionals to improve the Efficiency of module.



PID Free
Long-term yield security with Anti-PID Technology



Resistance to Salt corrosion & Humidity
Module complies with IEC 61701



High Strength Design
Module complies with advanced load Test



IP67 Rating Junction Box
Advanced Water and Dust Proof Level



Superior Performance at High Temperature
Less power loss



Low-light Performance
Advanced glass and solar cell performance in low-light environments



Safe Electronics
Protection against short circuits and thermally induced power losses due to potted junction box and welded cables.



100 % EL testing Pre-EL & Post EL



Anti-reflective and anti-soiling surface reduces power loss from dirt and dust

PERFORMANCE | STC (I_r: 1000 W/m², Temp: 25°C, AM: 1.5)

Module Type	EM280	EM285	EM290	EM295	EM300
Maximum Power(P _{max})	280W	285W	290W	295W	300W
Number of Cells	60	60	60	60	60
Open Circuit Voltage(V _{oc})	38.46V	38.64V	39.12V	39.36V	39.78V
Short Circuit Current(I _{sc})	9.30A	9.36A	9.49A	9.56A	9.60A
Maximum Power Voltage(V _{mp})	32.20V	32.69V	33.25V	33.49V	33.84V
Maximum Power Current(I _{mp})	8.70A	8.72A	8.74A	8.81A	8.87A
Module Efficiency(η)	17.20%	17.50%	17.80%	18.10%	18.44%
Operating Temperature	-40 to 85°C				
Maximum System Voltage	1000V				
Maximum Fuse Rating	15A				
Power Tolerance	0~+5W				
Temperature Co-efficient V _{oc}	-0.26%/°C				
Temperature Co-efficient P _{max}	-0.35%/°C				
Temperature Co-efficient I _{sc}	0.02%/°C				

PERFORMANCE | NOCT (I_r: 800 W/m², Ambient Temp: 20°C, Wind speed: 1m/s)

Module Type	EM280	EM285	EM290	EM295	EM295
Maximum Power(P _{max})	202.35W	208.31	211.98W	215.58W	219.41W
Open Circuit Voltage(V _{oc})	35.62V	35.84	36.01V	36.06V	36.45V
Short Circuit Current(I _{sc})	7.34A	7.39A	7.43A	7.59A	7.65A
Maximum Power Voltage(V _{mp})	29.37V	30.06V	30.24V	30.45V	30.73V
Maximum Power Current(I _{mp})	6.89A	6.93A	7.01A	7.08A	7.14A

MECHANICAL PROPERTIES

Cells	ARC coated cells
Cell Type	Mono-crystalline
Cell Dimension	156X156mm
Module Dimensions	1640X992X40mm
Weight	18 Kgs.
Junction-Box	IP67
Connectors Type	MC4 Compatible
Cable Length	1000mm
Front Cover	Low Iron Tempered Textured Glass
Back Cover	Weather resistant back sheet
Frame	High strength Anodized aluminum frames
Front Load Capacity	5400Pa
Rear Load Capacity	2400Pa

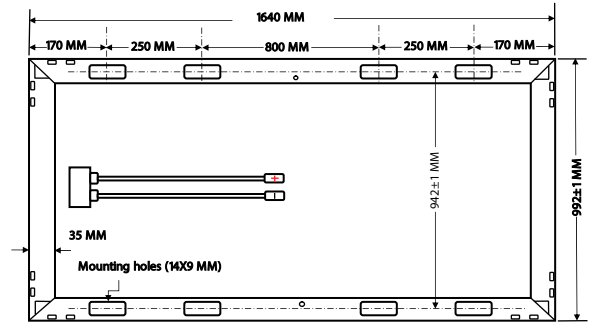
CERTIFICATES & WARRANTY

Certificates	ISO 9001:2015 IEC 61215, IEC 61730 - I & II IEC 61701 (Maximum Severity) IEC 62716
Module Fire Rating	CLASS A
Product Warranty	10 Years
Linear Output Warranty Power	25 Years

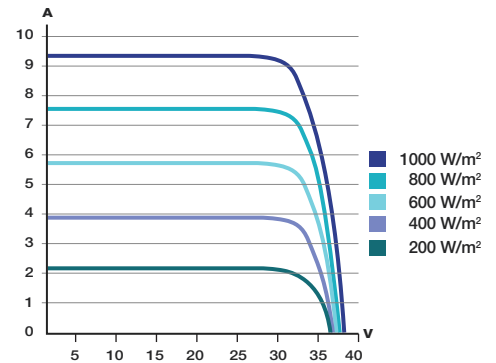
LOADING QUANTITY

No. of Modules Per Pallet	30 Modules	
No. of Palletes in 20 ft. Container	12 Palletes	360 Modules
No. of Palletes in 40ft. HQ Container	28 Palletes	840 Modules

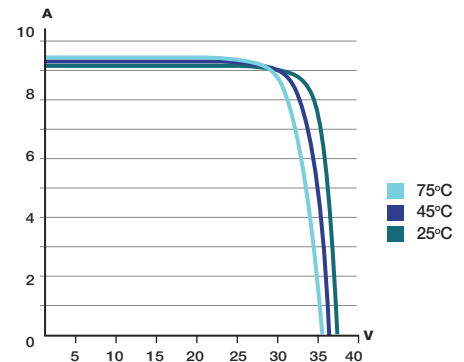
MODULE BACK VIEW



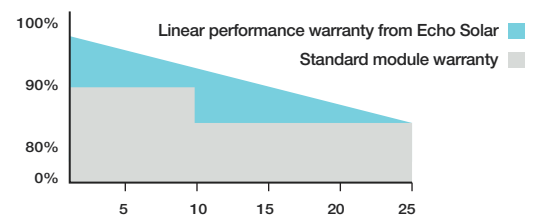
IV CHARACTERISTICS @ LOW IRRADIANCE



IV CHARACTERISTICS @ TEMPERATURES



LINEAR PERFORMANCE WARRANTY



60 Cells
Mono-Crystalline



280W - 300W
Power Output



18.44%
Efficiency



0~+5W
Power



PROUDLY MADE IN UAE



Echo Solar Panels Manufacturing L.L.C.

P.O.Box: 454429, Dubai, UAE,
Dubai Investment Park - 1,
Community 598 - 1212, Street - 55, #5.

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