

# Poly Crystalline Silicon Solar PV Modules

## CITIZEN SOLAR

solarising the nation



### KEY FEATURES



5BB Solar Cell design to improve the module efficiency and give a better aesthetic appearance.



Excellent module efficiency up to 17.00% achieved through advanced manufacturing capabilities and technology.



ARC Coated and high transmission glass features that directs more light on module resulting higher energy output.



Robust aluminum frame, ensure the modules to withstand wind load up to 2400 Pa. & heavy snow load up to 5400 Pa.



Positive power tolerance of up to +3% extra output.



High PID resistant, advance technology & qualified material leads to high resistant to PID.



Ip68 junction box for long-term weather endurance.



Low degradation and excellent performance under low light condition and with standing to harsh environment.



# CSPL 72 CELL MODULE TYPE : CSPL 315-330 Watt

## Electrical Parameters at Standard Test Conditions STC

Type	CSPL24P315	CSPL24P320	CSPL24P325	CSPL24P330
Power Output Pmax (W)	315W	320W	325W	330W
Voltage at Pmax V mpp (V)	36.95	37.26	37.58	37.84
Current at Pmax I mpp (A)	8.54	8.62	8.67	8.73
Open-circuit Voltage VOC (V)	45.46	45.63	45.93	46.16
Short-circuit Current ISC (A)	9.09	9.14	9.21	9.25
Module Efficiency (%)	16.23	16.49	16.74	17.00

STC : 1000 W/m irradiance, 25°C cell temperature, AM 1.5g

## Electrical Parameters at NOCT

Type	CSPL24P315	CSPL24P320	CSPL24P325	CSPL24P330
Power Output Pmax (W)	232.93	238.10	241.53	245.14
Voltage at Pmax V mpp (V)	34.75	35.01	35.27	35.54
Current at Pmax I mpp (A)	6.80	6.85	6.90	6.93
Open-circuit Voltage VOC (V)	42.71	42.90	43.13	43.34
Short-circuit Current ISC (A)	7.22	7.26	7.30	7.31

NOCT : 800 W/m irradiance, ambient temperature 20°C, wind speed 1 m/sec

## Thermal Characteristics

Nominal Operating Cell Temperature	NOCT	°C	45°C ± 2°C
Temperature Coefficient of Pmax	$\gamma$	%/°C	-0.361
Temperature Coefficient of VOC	$\beta$	%/°C	-0.304
Temperature Coefficient of ISC	$\alpha$	%/°C	0.045

## Operating Condition

Max. System Voltage	1000vdc
Max. Series Fuse Rating	15A
Limiting Reverse Current	25A
Operating Temperature Range	-40 °C to+85 °C
Max. Static Load, Front	5400pa
Max. Static Load, Back (e.g., wind)	2400pa
Max. Hailstone Impact (diameter / velocity)	25mm/3.3m/s

## Mechanical Data

Dimensions (L / W / H)	1960mm / 990mm / 35mm
Weight	21.5kg
Front Cover (material / thickness)	Ar Coated High Transmission Low Iron Tempered Glass/3.2mm
Cell (qty. / material / dim./no. of busbars)	72/ multicrystalline / 156.75mm x 156.75mm / 5BB / 4BB
Encapsulate (material)	Enthylene Vinyl acetate (EVA)
Backsheet	UV Protected
Frame (material / color )	Anodized aluminum alloy /silver
Junction Box (protection degree)	IP68/67, 3 bypass diodes
Cable (length / cross-sectional area)	1200mm / 4mm
Plug Connector ( type / protection degree)	MC4

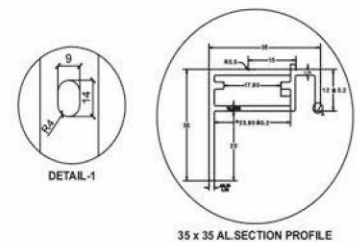
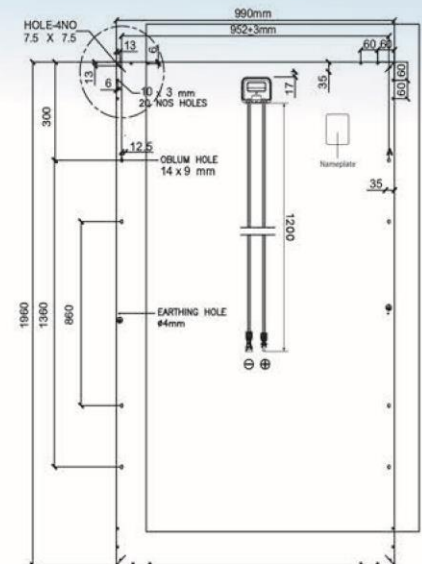
## Packaging Specification

Number of Modules Per Pallet	30
Number of Pallets per 40' Container	22
Packaging Box Dimensions (L / W / H)	2005mm / 1115mm / 1150mm
Box Weight	700kg

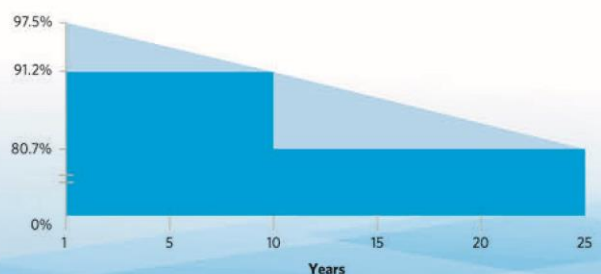
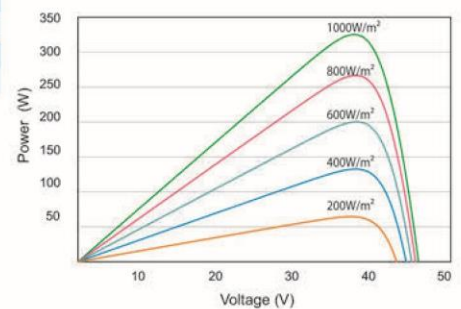
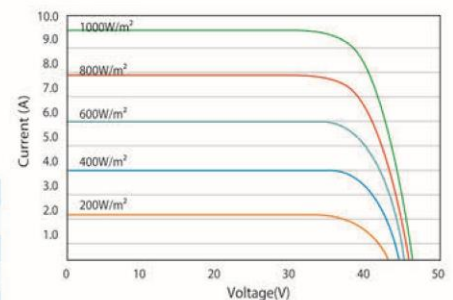
## Linear Performance Warranty

- 90% of the specified minimum output of the module for a 10 years period
- 80% of the specified minimum output of the module for a 25 years period
- 10-year product warranty
- 25-year linear performance warranty

## Engineering Drawing (mm)



## Electrical Performance



## QUALITY ASSURANCE

- ☀ High quality control standards.
- ☀ High quality Component from International Supplier.
- ☀ Enhanced reliability through use of distinctive encapsulate and back sheet.
- ☀ PID free modules (85°C / 85RH for 288hrs).
- ☀ Optimized edge clearance for high quality rugged design.
- ☀ 2x100 % Electro luminescence checking to ensure defect free modules.
- ☀ 100%In-line hi-pot testing (H.V+GB+IR).
- ☀ High FF for improved energy conversion efficiency.
- ☀ Torsion and corrosion resistant with anodized aluminum frame.
- ☀ Unique design of back-sheet for high resistance to moisture ingress.



## Applications



On Grid Solar System



Solar Water Pump



Off Grid Solar System



Solar Water Heater



Solar Street Lights



Solar EPC

## COMPREHENSIVE PRODUCTS & SYSTEM CERTIFICATES

- ☀ IS 14286/61730-1/61730-2/62804
- ☀ ISO 9001: 2015 Quality Management System
- ☀ ISO 14001: 2015 Environmental Management System
- ☀ OHSAS 18001: 2007 Occupation Health and Safety Management System

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CAUTION : READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.  
Specifications included in this datasheet are subject to change without notice. Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.

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