

Zosma™ M Black

PERC High efficiency Bifacial Single Glass Module

TS-BB72(545-565)



Bifacial technology allows for the harvesting of up to an additional 25% energy from the rear side of the module.



Excellent low irradiance performance.



Enhanced light trapping and optimized current collection contribute to the improvement of both module power output and reliability.



Industry leading lowest thermal coefficient of power.



Design optimized for lower operating current, resulting in minimized hot spot loss and improved temperature coefficient.

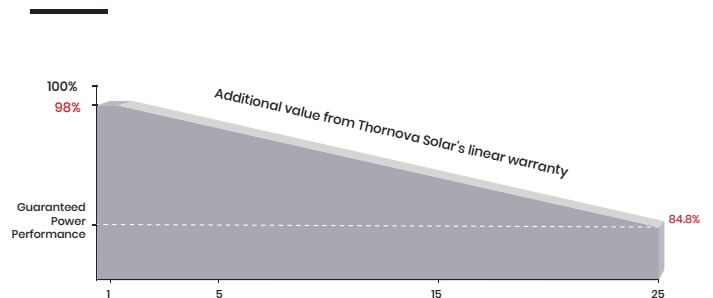


Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



100% triple EL test enables remarkable reduction of module hidden crack rate.

LINEAR PERFORMANCE WARRANTY



15 years

Product quality & process guarantee

25 years

Linear power guarantee

0.55 %

Annual degradation Over 25 years

COMPREHENSIVE CERTIFICATES



ISO 9001: Quality Management System

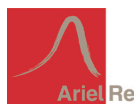
ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

* Different markets have different certification requirements. Also, the products are under rapid innovation. Please confirm the certification status with regional sales representatives.

RE INSURANCE

Warranty partner



* Optional performance warranty insurance. Please contact our local sales staff for more information.

CARACTERÍSTICAS ELÉCTRICAS

Modelo del módulo	TS-BB72(545)		TS-BB72(550)		TS-BB72(555)		TS-BB72(560)		TS-BB72(565)	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Potencia máxima – P _{mp} (W)	545	406	550	410	555	414	560	417	565	420
Tensión en circuito abierto – V _{oc} (V)	49.51	46.73	49.60	46.82	49.68	46.90	49.76	46.97	49.84	47.04
Corriente de cortocircuito – I _{sc} (A)	13.94	11.26	14.04	11.34	14.13	11.42	14.25	11.51	14.37	11.60
Tensión de potencia máxima – V _{mp} (V)	40.76	38.16	40.83	38.22	40.89	38.28	40.95	38.33	41.01	38.38
Corriente de potencia máxima – I _{mp} (A)	13.38	10.65	13.48	10.73	13.58	10.81	13.68	10.89	13.78	10.97
Eficiencia del módulo – η _m (%)	21.1		21.3		21.5		21.7		21.9	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5

NMOT (Nominal Module Operating Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

GENERACIÓN DE POTENCIA DESDE LA PARTE TRASERA (TASA DE IRRADIANCIA: 13.5%)

Potencia de pico (P _{max}) (W)	597	602	608	613	619
Tensión en circuito abierto (V _{oc}) (V)	49.51	49.60	49.68	49.76	49.84
Corriente de cortocircuito (I _{sc}) (A)	15.26	15.37	15.47	15.60	15.73
Tensión del MPP – V _{mp} (V)	40.76	40.83	40.89	40.95	41.01
Corriente del MPP – I _{mp} (A)	14.64	14.75	14.86	14.97	15.08

CARACTERÍSTICAS ESTRUCTURALES

Dimensiones del módulo	89.69 x 44.65 x 1.38 inch (2278 x 1134 x 35 mm)
Peso	59.97 lbs (27.2 kg)
Número de celdas	144 celdas
Celda	PERC monocrystalline (M10)
Vidrio	Templado, 3,2 mm AR, Alta transmitancia, Bajo contenido en hierro
Lámina posterior	Película de malla negra transparente
Marco	Aleación de aluminio anodizado
Cable de salida	IP68, 3 diodos de bypass
Longitud del cable	4.0 mm ²
Conector	300 mm / 1200 mm o personalizada
Especificaciones de embalaje	MC4 - EVO2
Packing specification	31 piezas/palet; 620 piezas/40'HQ

PARÁMETROS DE FUNCIONAMIENTO

Tolerancia de potencia (W)	(0,+5)
Tensión máxima del sistema (V)	1500
Corriente nominal máxima del fusible (A)	30
Temperatura de funcionamiento actual (°C)	-40~+185 °F (-40~+85 °C)
Bifacialidad	70±5 %

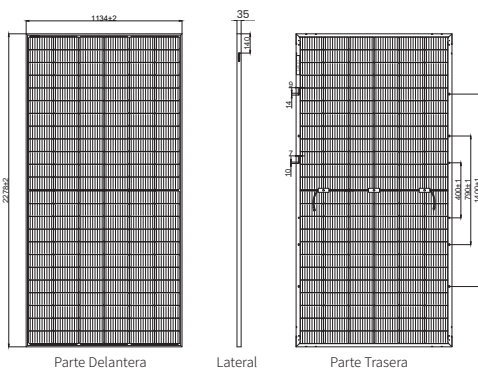
CARGA MECÁNICA

Carga estática máxima en la parte delantera (Pa)	5400
Carga estática máxima en la parte trasera (Pa)	2400
Ensayo Hailstone (mm)	35

TEMPERATURA CARACTERÍSTICAS

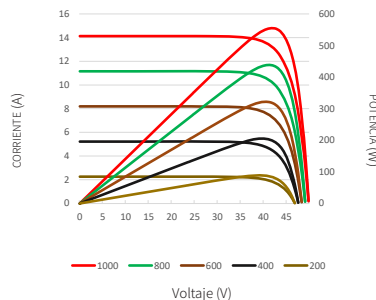
Coefficiente de temperatura (P _{max})	-0.33 %/K
Coefficiente de temperatura (V _{oc})	-0.26 %/K
Coefficiente de temperatura (I _{sc})	+0.06 %/K
Temperatura operativa nominal del módulo	109.4±35.6 °F (43±2 °C)

DIMENSIONES DEL MÓDULO (MM)

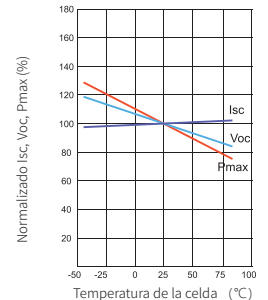


* La tolerancia no marcada es de ±1 mm Longitud mostrada en mm

Curvas de corriente-voltaje y potencia-voltaje (560W)



Dependencia de temperatura de I_{sc}, V_{oc}, P_{max}



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