



MBB HC BIFACIAL PHOTOVOLTAIC MODULE 540W-550W

ZES - 540/550 W - HC182 MODEL

Highly efficient bifacial solar modules; designed with 182 mm multi busbar and half-cut cell technology; offer superior performance with ZES Solar guarantee.



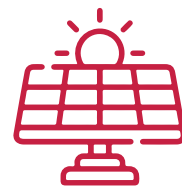
0,+5W

POSITIVE
POWER TOLERANCE



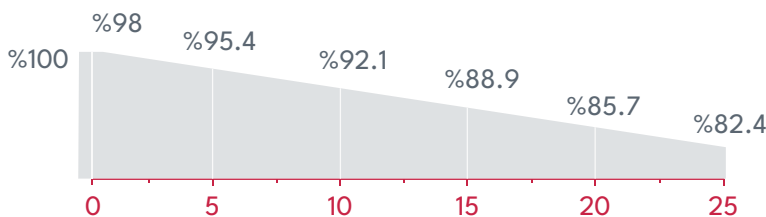
550W_p

MAXIMUM
MODULE POWER



21,17%

MAXIMUM
MODULE EFFICIENCY



LINEAR DEGRADATION GUARANTEE



PRODUCT
GUARANTEE



LINEAR
PERFORMANCE
GUARANTEE



For detailed information and product requests:
0850 339 99 37/info@zessolar.com

ZES - 540/550 W - HC182 MODEL

MECHANICAL CHARACTERISTICS

Dimensions	2295±2 x 1132±2 x 42±1 mm
Weight	29 kg
Cell Type	PERC Bifacial 182 x 91mm (144 pcs)
Front Glass	3.2mm Coating Tempered Glass
Back Layer	Transparent Film
Frame	Anodized Aluminium Alloy
Conjunction Box	IP68, 3diode – MC4 Compatible/MC4 Original
Output Cables*	4.0 mm ² , 1300mm
Maximum Static Power	Front (Snow) 5400Pa / Back (Wind) 2400Pa

*Output cables length must be specify at order.

**Connector type must be specify at order

ELECTRICAL CHARACTERISTICS

STC Nominal Power (Pmp)

	540 W		545 W		550 W	
	STC	NOCT	STC	NOCT	STC	NOCT
STC Maximum Power (Pmp) (W)	540	410.4	545	414.2	550	419
Open Circuit Voltage (Voc) (V)	49.25	46.13	49.33	46.21	49.82	46.67
Short Circuit Current (Isc) (A)	13.58	10.87	13.70	10.88	13.71	10.97
Maximum Power Voltage (Vmp) (V)	42.06	39.40	42.13	39.46	42.55	39.86
Maximum Power Current (Imp) (A)	12.92	10.48	12.96	10.51	12.97	10.52
STC Module Efficiency (nm) (%)	20.79		20.98		21.17	
Power Tolerance (W)	(0,+5)					
Maximum System Voltage	1500 VDC					
Maximum Circuit Breaker	20A					

STC: Radiation 1000W/m², Cell Temperature 25°C, AM=1.5

NOCT: Radiation 800W/m², Ambient Temperature 20°C, AM=1.5, Wind speed 1m/s

PACKAGING

Pallet Dimensions (Length, Width, Height)	2326±1 x 1145±1 x 1170±1 mm	
Pallet Weight	830kg	
Container	20'GP	40'HC
Number of Modules in One Pallet	27	27
Number of Pallet in One Container	5	22
Number of Modules in One Container	135	594

BIFACIAL OUTPUT POWER GAIN

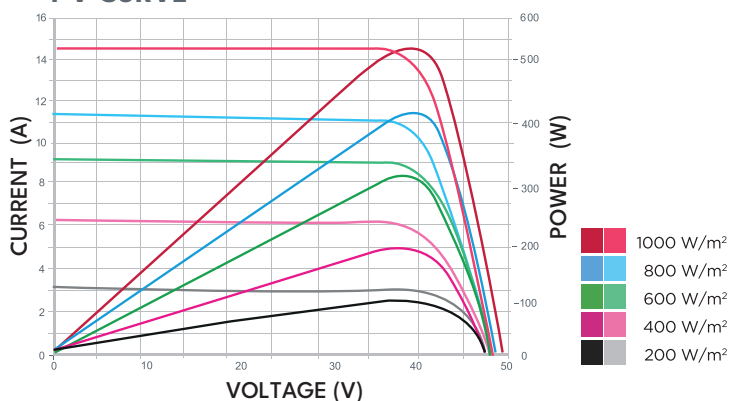
Radiation per surface (W/m ²)	Pmax	Eff	Pmax	Eff	Pmax	Eff	Pmax	Eff
0	535	20,59	540	20,79	545	20,98	550	21,17
100	575	22,14	580	22,33	585	22,52	590	22,71
200	615	23,68	620	23,88	625	24,07	630	24,25
300	655	25,23	660	25,42	665	25,62	670	25,79
400	695	26,78	700	26,97	705	27,16	710	27,33
500	735	28,32	740	28,51	745	28,71	750	28,87

Bifacial Gain : Under standard test conditions; additional gain from back surface relative to the power on the front surface. Depends on surface assembly (structure, height, tilt angle etc.) and albedo.

TEMPERATURE CHARACTERISTICS

Pmax Temperature Coefficient	-0.311 %/°C
Voc Temperature Coefficient	-0.237 %/°C
Isc Temperature Coefficient	+0.04 %/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

I-V CURVE



Current-Voltage

