Websol Energy System Limited

"Bringing light into people's lives"

WEBEL SOLAR

PRODUCT DATA SHEET OF W4600-GTB-MP435/440/445/450/455/460

BI-FACIAL (GTB) PERC M10

W4600-GTB-MP435/440/445/450/455/460

SALIENT FEATURES OF W4600-GTB-MP435/440/445/450/455/460 MODULE

HIGH PERFORMANCE
Higher module power and module efficiency, lower power degradation. Lower installation cost of power plant.

ENVIRONMENT FRIENDLY
Wide range of applications, such as snow areas, high humidity areas and Strong sandstorm areas, etc.

LID & LeTID
Very low degradation for LID and LeTID

PID RESISTANCE
PID resistance cell and module design.

INNOVATIONAL HALF-CUT & MULTI-BUSBAR TECHNOLOGY
Lower risk of micro crack, lower risk of shading effect and high reliability.

BIFACIAL DESIGN
Up to 25% additional power gain, higher revenue generation and faster ROI.

POSITIVE TOLERANCE
Guaranteed Positive tolerance (0～ 5W) to ensure minimum nominal power output.

SYSTEM & PRODUCT CERTIFICATES

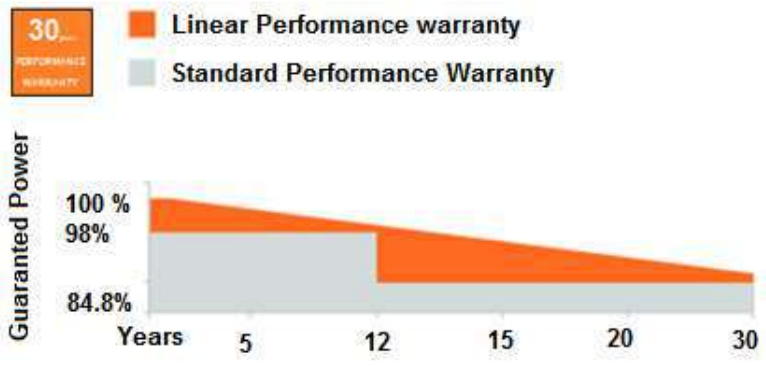
IEC 61215 /IEC 61730 /UL 61215/UL 61730

ISO 9001:2015 QUALITY MANAGEMENT SYSTEM

ISO 14001:2015 ENVIRONMENT MANAGEMENT SYSTEM

ISO 45001:2018 OCCUPATIONAL HEALTH AND SAFETY

PERFORMANCE WARRANTY



W4600-GTB-MP435/440/445/450/455/460

ELECTRICAL SPECIFICATION AT STC

Power (Wp)	435	440	445	450	455	460
Power Tolerance (Wp)	0~+5	0~+5	0~+5	0~+5	0~+5	0~+5
Module Efficiency	20.12%	20.35%	20.58%	20.81%	21.05%	21.28%
Maximum Voltage Vmp (V)	34.1	34.27	34.32	34.44	34.56	34.62
Maximum Current Imp (A)	12.76	12.84	12.97	13.07	13.17	13.29
Open-circuit voltage Voc (V)	40.56	40.74	40.80	40.92	41.04	41.10
Short-circuit current Isc (A)	13.34	13.41	13.50	13.51	13.61	13.71

OPERATING CONDITION

Maximum system voltage(UL&IEC)	1000/1500VDC
Maximum series fuse rating(A)	30A
Limiting reverse current(A)	30A
Operating temperature range(ºC)	–40 ºC and +85 ºC
Maximum static load (snow or wind)	113psf (5400Pa)

MODULE MECHANICAL CHARACTERISTICS

Module dimensions LxWxH(mm)	1906mmx1134mmx40/35mm
Module weight	24Kg (approx.)
Number of cells & size	120cells (182x91) mm(M10)
Frame material	Anodized aluminum frame
Maximum static load(snow or wind)	113psf(5400Pa)

TEMPERATURE COEFFICIENT

Nominal Operating Cell Temperature	45±2 °C
Coefficient of Power(Pmax)	-0.35% /°C
Coefficient of Voltage(Voc)	-0.28% /°C
Coefficient of Current(Isc)	0.048% /°C

BIFACIAL GAIN

		435	440	445	450	455	460
10%	Power Output (W)	479	484	490	495	501	506
	Module Efficiency (%)	21.55%	21.77%	22.04%	22.27%	22.54%	22.76%
15%	Power Output (W)	500	506	512	518	523	529
	Module Efficiency (%)	23.13%	23.41%	23.68%	23.96%	24.19%	24.47%
20%	Power Output (W)	522	528	534	540	546	552
	Module Efficiency (%)	24.15%	24.42%	24.70%	24.98%	25.26%	25.53%
25%	Power Output (W)	544	550	556	563	569	575
	Module efficiency (%)	25.16%	25.44%	25.72%	26.04%	26.32%	26.60%

** Bifacial gain is dependent on albedo from surface behind the panel

Corporate Office and Plant:
Sector - II, Falta Special Economic Zone; Falta, 24 Parganas (South); Pin - 743504; West Bengal; India;
Ph. No.: 03174-222443
website: www.webelsolar.com

For any sales Query mail us:
sales@webelsolar.com
Website: www.webelsolar.com

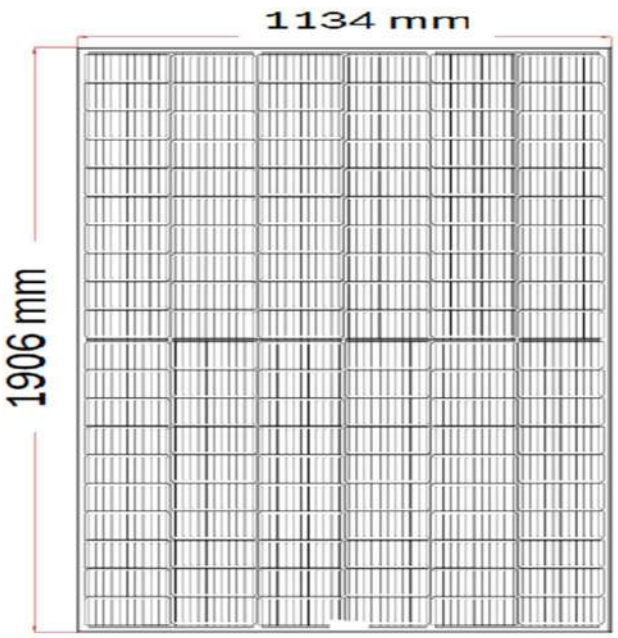
Registered Office:
48, Pramatha Choudhary Sarani, Plot No.849, Block - P, 2nd Floor, Kolkata – 700 053, New Alipore, Ph-(033)2400-0419,

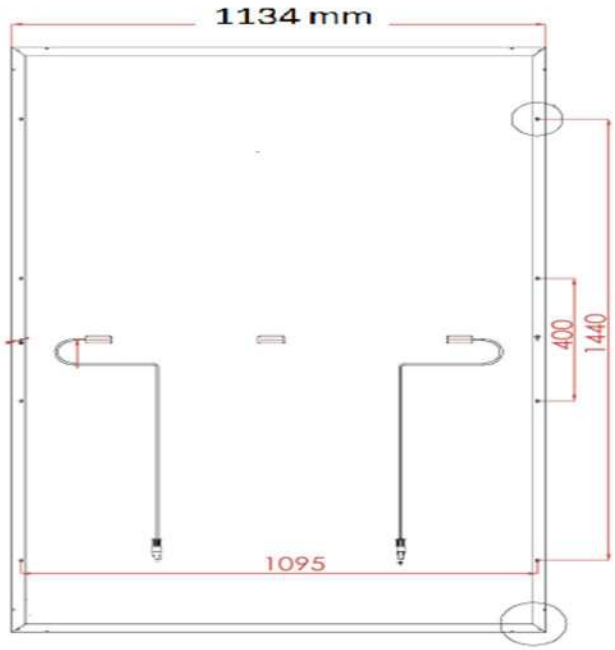
W4600-GTB-MP435/440/445/450/455/460

ELECTRICAL SPECIFICATION AT NOCT

Nominal Power (Wp)	435	440	445	450	455	460
Power at NOCT (Wp)	315	321	325	330	333	337
Module Efficiency	14.57%	14.85%	15.03%	15.26%	15.40%	15.59%
Maximum Voltage Vmp (V)	31.32	31.54	31.60	31.83	32.01	32.14
Maximum Current Imp (A)	10.06	10.19	10.30	10.37	10.41	10.49
Open-circuit voltage Voc (V)	37.56	37.99	38.02	38.15	38.26	38.34
Short-circuit current Isc (A)	10.71	10.74	10.82	10.83	10.89	10.99

Engineering Drawings





Packing and shipping Information

Number of modules per Pallet	31Pcs
Number of pallets per 40 ft. container	24Pcs
No. of Panel/40ft	744Pcs

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