Oakridge POWER

CORE Series Bifacial Modules

Power Range | 415-435W

Maximum Efficiency | 22.28%

Power Output Tolerance | 0W ~ +5W

FEATURES

Outstanding Performance

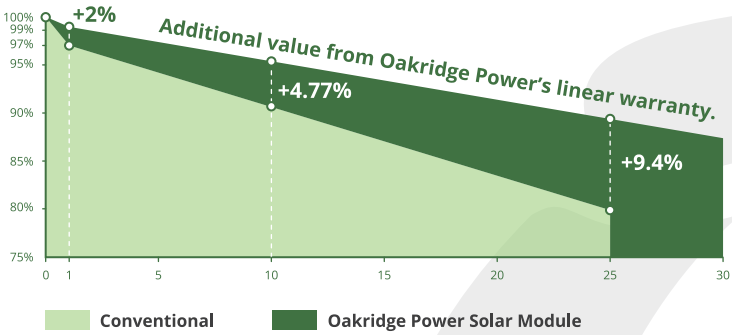
- Small-sized modules fit irregular roofs better
- Excellent temperature coefficient for hot climates
- Bifacial design captures reflected light with no extra cost

Long-Term Reliability

- Advanced dual-glass structure resists moisture and PID
- First year degradation under 1% from day one
- 30 year power warranty plus 12 year product warranty

Lifetime Investment Return

- Higher energy harvest reduces balance-of-system costs
- More power and lower degradation shorten your payback period
- Lower Levelized Cost of Energy over 30 years



30 years *Linear power output warranty*

12 years *Guarantee on product material and workmanship*

1st-year ≤ **1%**

2nd~30th year ≤ **0.40%** */year*

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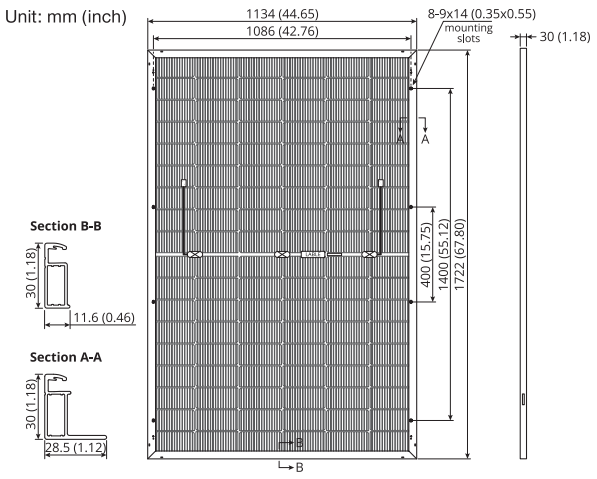
C SA® US

CORE Series Bifacial Modules OPA-HBDW415~435-182(54)

Physical Characteristics



Mechanical Description

No. of Half cells	108pcs(6×18)
Dimension	1722×1134×30mm (67.8 × 44.65 × 1.18in)
Weight	23.1kg (50.93lbs)
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Rear Glass	2.0mm, tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 rated
Cable	4mm², portrait: 400mm(+) / 200mm (-), landscape: 1400mm (+) / 1400mm (-), can be customized
Diode Quantity	3 pcs
Connector	MC4 Compatible

Temperature Characteristics

Nominal Module Operating Temperature	44±2°C	**Temperature Coefficient (V_{OC})**	-0.25%
Temperature Coefficient (I_{SC})	+0.043%	**Temperature Coefficient (P_{MAX})**	-0.30%

Maximum Parameters

Load Rating	Front Side 5400pa Rear Side 2400pa	**Maximum System Voltage**	1500V DC
Operating Temperature	-40~+85°C	**Maximum Fuse Rating**	30A

Packaging Information

Modules Per Pallet	36 pcs/pallet	**Per Container**	20 pallet/container, 720 pcs/ 40'HQ container

Electrical Performance Parameters

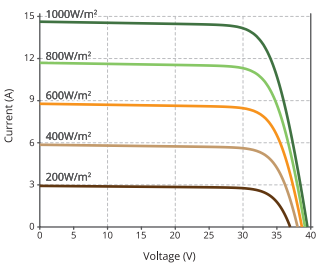
Model Type	OPA-HBDW415-182(54)			OPA-HBDW420-182(54)			OPA-HBDW425-182(54)			OPA-HBDW430-182(54)			OPA-HBDW435-182(54)		
Testing Condition	**STC**	**NMOT**	**BNPI**	**STC**	**NMOT**	**BNPI**	**STC**	**NMOT**	**BNPI**	**STC**	**NMOT**	**BNPI**	**STC**	**NMOT**	**BNPI**
Nominal Max. Power (P_{MAX}) (W)	415	311	457	420	315	463	425	319	468	430	323	474	435	327	479
Max. Power Voltage (V_{MP}) (V)	31.18	29.41	31.24	31.42	29.61	31.48	31.65	29.82	31.71	31.88	30.02	31.94	32.11	30.23	32.17
Max. Power Current (I_{MP}) (A)	13.31	10.58	14.65	13.37	10.64	14.72	13.43	10.70	14.79	13.49	10.76	14.85	13.55	10.82	14.92
Open Circuit Voltage (V_{OC}) (V)	38.57	35.98	38.56	38.72	36.12	38.71	38.87	36.26	38.86	39.02	36.40	39.01	39.17	36.54	39.16
Short Circuit Current (I_{SC}) (A)	14.55	11.80	16.06	14.61	11.85	16.13	14.67	11.90	16.20	14.73	11.95	16.26	14.79	12.00	16.33
Module Efficiency (%)	21.25			21.51			21.76			22.02			22.28		

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

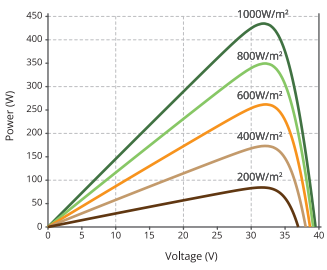
Bifacial Output-rearside Power Gain

5%	**Maximum Power (P_{MAX}) (W)**	436	441	446	452	457
	Module Efficiency (%)	22.31	22.58	22.85	23.12	23.39
10%	**Maximum Power (P_{MAX}) (W)**	457	462	468	473	479
	Module Efficiency (%)	23.38	23.66	23.94	24.22	24.50
25%	**Maximum Power (P_{MAX}) (W)**	519	525	531	538	544
	Module Efficiency (%)	26.57	26.89	27.21	27.53	27.85

Current-Voltage Curve (435W)



Power-Voltage Curve (435W)



Data contained in these specifications is subject to change without notice.

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