

Oakridge

POWER



RELIABLE ENERGY, POWERING AMERICA

2026 Product Manual

Version 9/2026

The U.S. solar market is evolving rapidly — yet many customers continue to face familiar challenges: inconsistent supply, delayed communication, limited local support, and inflexible commercial models. Oakridge Power is built to close this gap.

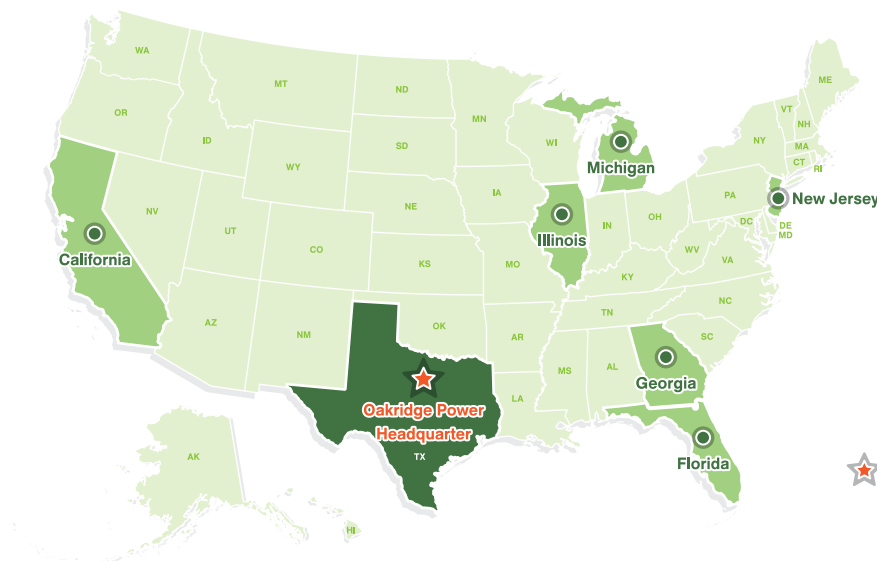
We believe solar partnerships should be reliable, responsive, and execution-driven. By combining a mature global supply chain with a fully localized U.S. operating team, we help customers move projects forward with greater confidence, speed, and flexibility.

Established in America, Positioned for Growth

Founded in 2026 and headquartered in Texas, Oakridge Power is a fast-growing U.S. solar solutions company focused on delivering reliable, high-performance photovoltaic modules and end-to-end support, with a main focus on the commercial & industrial (C&I) and utility-scale solar markets.

With regional offices in Texas and California, alongside strategically distributed warehousing

capabilities across the East, Central, and West Coast regions, we are building a responsive and localized platform to better serve customers throughout the United States.



★ **Headquarter** ● **Warehousing Network**

Global Supply Chain U.S.-Ready Standards

As a PV module supplier, Oakridge Power combines module design and technical expertise with global production partners to deliver solar modules under our brand and quality control oversight, designed to meet U.S. market expectations for performance, quality, and compliance. Our products are certified to UL standards, with additional compliance documentation and certification packages available on request.



Local Team, Real-Time Support

Our fully localized U.S. team covers sales, technical support, customs clearance coordination, logistics management, and customer service, enabling us to provide timely, responsive, and end-to-end support throughout the project lifecycle — from product selection, design support and delivery coordination to installation support as well as after-sales service.



Flexible Partner Growing Together

Backed by a mature global supply chain and experienced industry expertise, Oakridge Power delivers solar modules designed to meet U.S. market expectations for performance, quality, and compliance. Our products are certified to UL standards, with additional compliance documentation and certification packages available on request.

Our Vision

To become a trusted long-term partner powering the growth of the U.S. solar industry through reliability, responsiveness, and customer-focused execution.

Our Mission

To bridge global supply chain strength with localized U.S. execution, delivering reliable solutions, responsive support, and customer-focused partnerships that help customers move projects forward with confidence.





**Backed by a global network of production partners
with a combined manufacturing capacity of 5 GW.**

Our Certificates



**CALIFORNIA
ENERGY COMMISSION**

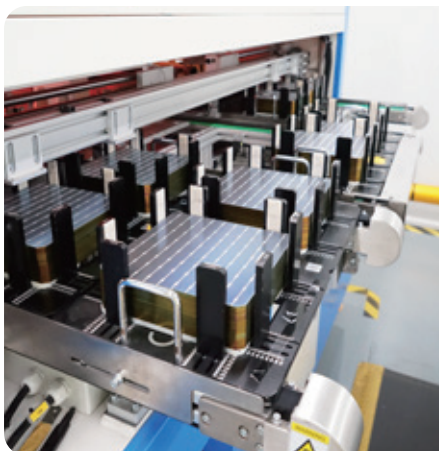


IEC 61215, IEC 61730

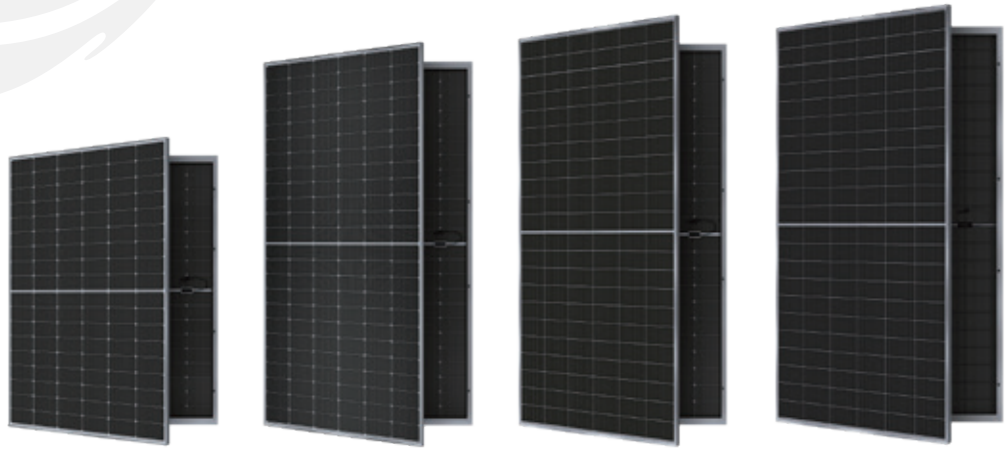
ISO 9001:2015 Quality Management System

ISO 14001:2015 Environment Management System

ISO 45001:2018 Occupational Health and Safety Management System



CORE Series Bifacial Modules



Power Range	415-435W	580-600W	610-630W	710-730W
Maximum Efficiency	22.28%	23.23%	23.32%	23.5%

☆ Outstanding Performance

- Industry-leading efficiency — enables higher power density and optimized project layouts.
- Premium power output per standard size panel — supports efficient system configurations.
- Excellent temperature coefficient — maintains strong output in hot climates.
- Bifacial design captures reflected light from snow, white roofs, concrete, or gravel — up to 90% bifaciality for extra energy at no added cost.

∞ Long-Term Reliability

- Advanced dual-glass structure — exceptional moisture resistance virtually eliminates PID degradation.
- First year degradation $\leq 1\%$ — delivers full performance right from day one.
- 12-year product warranty, 30-year performance, coverage with 0.4% max annual degradation and 87.4% retained performance.

\$ Lifetime Investment Return

- Higher energy harvest reduces the number of panels required, directly lowering balance of system costs.
- Stronger return on investment — more power, lower degradation and extended warranty combine to shorten your payback period.
- Lower LCOE — more affordable electricity over the full 30-year system lifespan, maximizing your long-term savings.

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

Physical Characteristics		Mechanical Description	
Unit: mm (inch)	1134 (44.65) 1086 (42.76)	No. of Half cells	108pcs(6×18)
	30 (1.18)	Dimension	1722×1134×30mm (67.8 × 44.65 × 1.18in)
8x(9x14) 8x (0.35x0.55)		Weight	23.1kg (50.93lbs)
Section B-B		Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
30 (1.18) 11.6 (0.46)		Rear Glass	2.0mm, tempered glass
Section A-A		Frame	Anodized aluminum alloy
30 (1.18) 28.5 (1.12)		Junction Box	IP68 rated
		Cable	4mm ² , portrait: 400mm(+) / 200mm (-), landscape: 1400mm (+) / 1400mm (-), can be customized
		Diode Quantity	3 pcs
		Connector	MC4 Compatible

Temperature Characteristics				Maximum Parameters			
Nominal Module Operating Temperature	44±2°C	Temperature Coefficient (V _{oc})	-0.25%	Load Rating	Front Side 5400pa Rear Side 2400pa	Maximum System Voltage	1500V DC
Temperature Coefficient (I _{sc})	+0.043%	Temperature Coefficient (P _{max})	-0.30%	Operating Temperature	-40~+85°C	Maximum Fuse Rating	30A

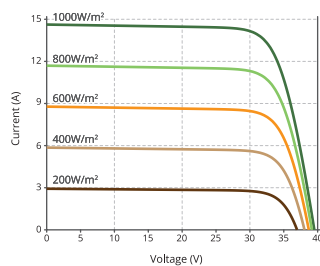
Packaging Information			
Modules Per Pallet	36 pcs/pallet	Per Container	20 pallet/container, 720 pcs/ 40'HQ container

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			

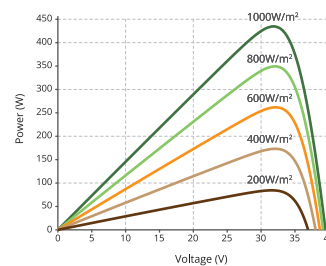
* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

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)

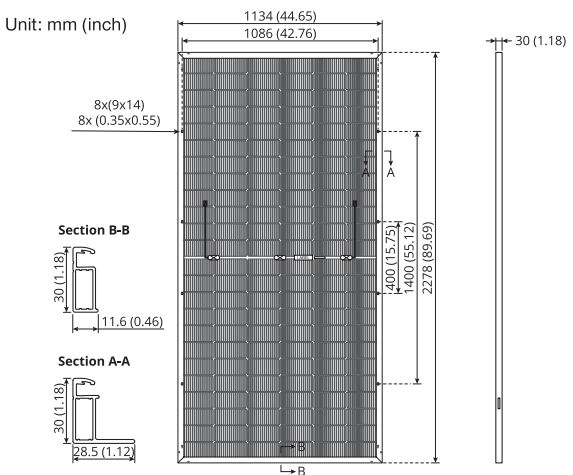


Power-Voltage Curve (435W)



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

CORE Series Bifacial Modules OPA-HBDW580~600-182(72)

Physical Characteristics		Mechanical Description	
Unit: mm (inch)		No. of Half cells	144pcs(6×24)
		Dimension	2278×1134×30mm (89.69 × 44.65 × 1.18in)
		Weight	31.2kg (68.78lbs)
		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	4mm ² , portrait: 400mm(+) / 200mm (-), landscape: 1400mm (+) / 1400mm (-), can be customized
		Diode Quantity	3 pcs
		Connector	MC4 Compatible

Temperature Characteristics				Maximum Parameters			
Nominal Module Operating Temperature	44±2°C	Temperature Coefficient (V _{oc})	-0.25%	Load Rating	Front Side 5400pa Rear Side 2400pa	Maximum System Voltage	1500V DC
Temperature Coefficient (I _{sc})	+0.043%	Temperature Coefficient (P _{max})	-0.30%	Operating Temperature	-40~+85°C	Maximum Fuse Rating	30A

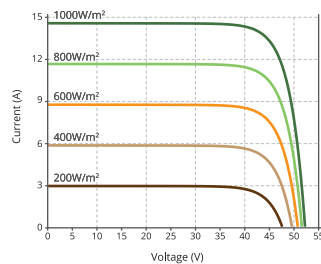
Packaging Information			
Modules Per Pallet	36 pcs/pallet	Per Container	16 pallet/container, 576 pcs/ 40'HQ container

Electrical Performance Parameters															
Model Type	OPA-HBDW580-182(72)			OPA-HBDW585-182(72)			OPA-HBDW590-182(72)			OPA-HBDW595-182(72)			OPA-HBDW600-182(72)		
Testing Condition	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power P _{MAX} (W)	580	437	639	585	441	645	590	445	650	595	449	655	600	453	660
Max. Power Voltage V _{MP} (V)	42.75	40.17	42.84	42.89	40.32	42.98	43.04	40.47	43.11	43.18	40.62	43.25	43.33	40.77	43.39
Max. Power Current I _{MP} (A)	13.57	10.88	14.94	13.64	10.94	15.02	13.71	11.00	15.08	13.78	11.06	15.15	13.85	11.12	15.22
Open Circuit Voltage V _{OC} (V)	51.43	48.85	51.42	51.63	49.04	51.62	51.83	49.23	51.82	52.03	49.42	52.02	52.23	49.61	52.22
Short Circuit Current I _{SC} (A)	14.33	11.56	15.82	14.39	11.61	15.89	14.45	11.66	15.95	14.51	11.70	16.02	14.57	11.75	16.09
Module Efficiency (%)	22.45			22.65			22.84			23.03			23.23		

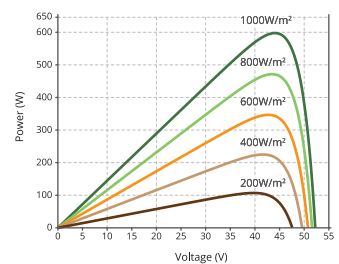
* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

Bifacial Output-rearside Power Gain						
5%	Maximum Power P _{MAX} (W)	609	614	620	625	630
	Module Efficiency (%)	23.57	23.78	23.98	24.18	24.39
10%	Maximum Power P _{MAX} (W)	638	644	649	655	660
	Module Efficiency (%)	24.70	24.91	25.12	25.34	25.55
25%	Maximum Power P _{MAX} (W)	725	731	738	744	750
	Module Efficiency (%)	28.07	28.31	28.55	28.79	29.03

Current-Voltage Curve (600W)



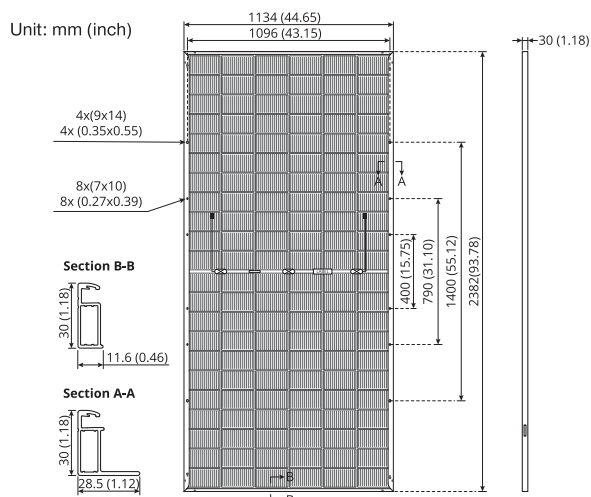
Power-Voltage Curve (600W)



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

CORE Series Bifacial Modules OPA-HBDW610~630-210R(66)

Physical Characteristics



Mechanical Description

No. of Half cells	132pcs(6×22)
Dimension	2382×1134×30mm (93.78 × 44.65 × 1.18in)
Weight	32.5kg (71.65lbs)
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	4mm ² , 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	35A

Packaging Information

Modules Per Pallet	36 pcs/pallet	Per Container	15 pallet/container, 540 pcs/ 40'HQ container
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Electrical Performance Parameters

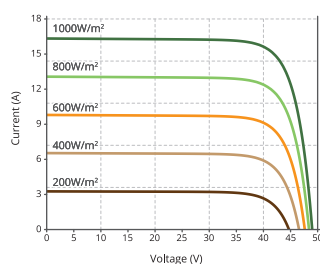
Model Type	OPA-HBDW610-210R(66)			OPA-HBDW615-210R(66)			OPA-HBDW620-210R(66)			OPA-HBDW625-210R(66)			OPA-HBDW630-210R(66)		
Testing Condition	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power P _{MAX} (W)	610	460	673	615	464	679	620	468	685	625	472	688	630	476	695
Max. Power Voltage V _{MP} (V)	40.64	38.10	40.69	40.76	38.26	40.83	40.88	38.43	40.97	40.99	38.60	41.06	41.12	38.77	41.23
Max. Power Current I _{MP} (A)	15.01	12.08	16.54	15.09	12.13	16.63	15.17	12.18	16.71	15.25	12.23	16.78	15.33	12.28	16.87
Open Circuit Voltage V _{OC} (V)	48.69	46.20	48.70	48.82	46.33	48.83	48.95	46.46	48.96	49.08	46.59	49.09	49.21	46.72	49.22
Short Circuit Current I _{SC} (A)	15.89	12.82	17.53	15.98	12.89	17.63	16.06	12.96	17.73	16.15	13.03	17.83	16.23	13.10	17.91
Module Efficiency (%)	22.58			22.77			22.95			23.14			23.32		

* 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%.

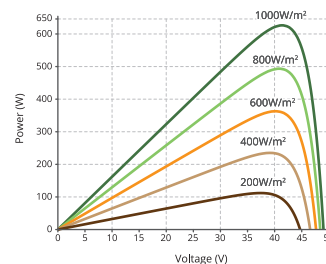
Bifacial Output-rearside Power Gain

5%	Maximum Power P _{MAX} (W)	641	646	651	656	662
	Module Efficiency (%)	23.71	23.91	24.10	24.29	24.49
10%	Maximum Power P _{MAX} (W)	671	677	682	688	693
	Module Efficiency (%)	24.84	25.04	25.25	25.45	25.66
25%	Maximum Power P _{MAX} (W)	763	769	775	781	788
	Module Efficiency (%)	28.23	28.46	28.69	28.92	29.15

Current-Voltage Curve (630W)

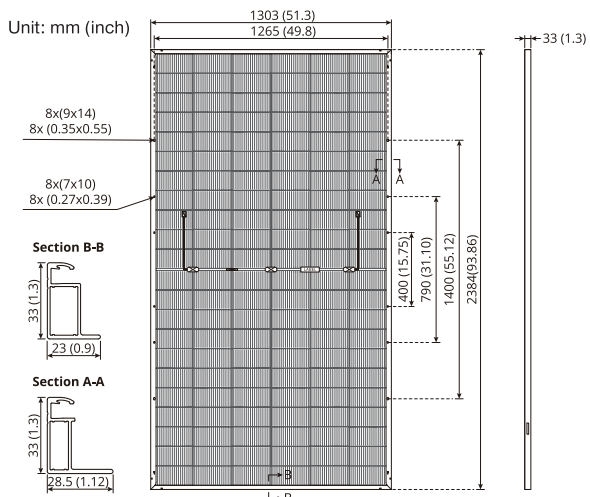


Power-Voltage Curve (630W)



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

CORE Series Bifacial Modules OPA-HBDW710~730-210(66)

Physical Characteristics				Mechanical Description			
Unit: mm (inch)				No. of Half cells	132pcs(6×22)		
				Dimension	2384×1303×33mm (93.86 × 51.3 × 1.3in)		
				Weight	37.8kg (83.33lbs)		
				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	4mm ² , portrait: 400mm(+) / 200mm (-), landscape: 1400mm (+) / 1400mm (-), can be customized		
				Diode Quantity	3 pcs		
				Connector	MC4 Compatible		
Temperature Characteristics				Maximum Parameters			
Nominal Module Operating Temperature	44±2℃	Temperature Coefficient (V _{oc})	-0.25%	Load Rating	Front Side 5400pa Rear Side 2400pa	Maximum System Voltage	1500V DC
Temperature Coefficient (I _{sc})	+0.043%	Temperature Coefficient (P _{MAX})	-0.30%	Operating Temperature	-40~+85℃	Maximum Fuse Rating	35A

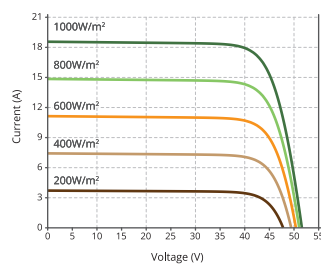
Packaging Information			
Modules Per Pallet	33 pcs/pallet	Per Container	15 pallet/container, 495 pcs/ 40'HQ container

Electrical Performance Parameters															
Model Type	OPA-HBDW710-210(66)			OPA-HBDW715-210(66)			OPA-HBDW720-210(66)			OPA-HBDW725-210(66)			OPA-HBDW730-210(66)		
Testing Condition	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power P _{MAX} (W)	710	543	775	715	547	780	720	551	785	725	555	790	730	559	795
Max. Power Voltage V _{MP} (V)	40.51	38.06	39.91	40.73	38.26	40.09	40.95	38.46	40.27	41.16	38.66	40.46	41.37	38.86	40.64
Max. Power Current I _{MP} (A)	17.53	14.27	19.43	17.56	14.30	19.46	17.59	14.33	19.50	17.62	14.36	19.54	17.65	14.39	19.58
Open Circuit Voltage V _{OC} (V)	50.76	46.50	50.78	50.97	46.71	50.99	51.18	46.92	51.20	51.39	47.13	51.41	51.60	47.34	51.62
Short Circuit Current I _{SC} (A)	18.45	14.89	20.35	18.49	14.93	20.39	18.53	14.97	20.44	18.57	15.01	20.48	18.61	15.05	20.53
Module Efficiency (%)	22.86			23.02			23.18			23.34			23.50		

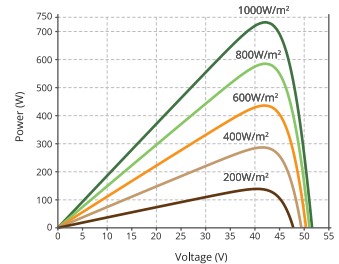
* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

Bifacial Output-rearside Power Gain						
5%	Maximum Power P _{MAX} (W)	746	751	756	761	767
	Module Efficiency (%)	24.00	24.17	24.34	24.51	24.68
10%	Maximum Power P _{MAX} (W)	781	787	792	798	803
	Module Efficiency (%)	25.14	25.32	25.50	25.67	25.85
25%	Maximum Power P _{MAX} (W)	888	894	900	906	913
	Module Efficiency (%)	28.57	28.77	28.97	29.17	29.38

Current-Voltage Curve (730W)

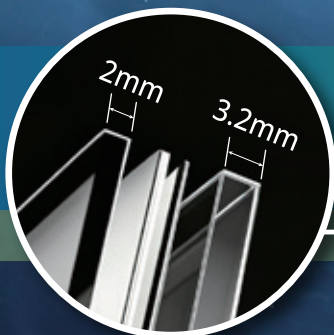


Power-Voltage Curve (730W)



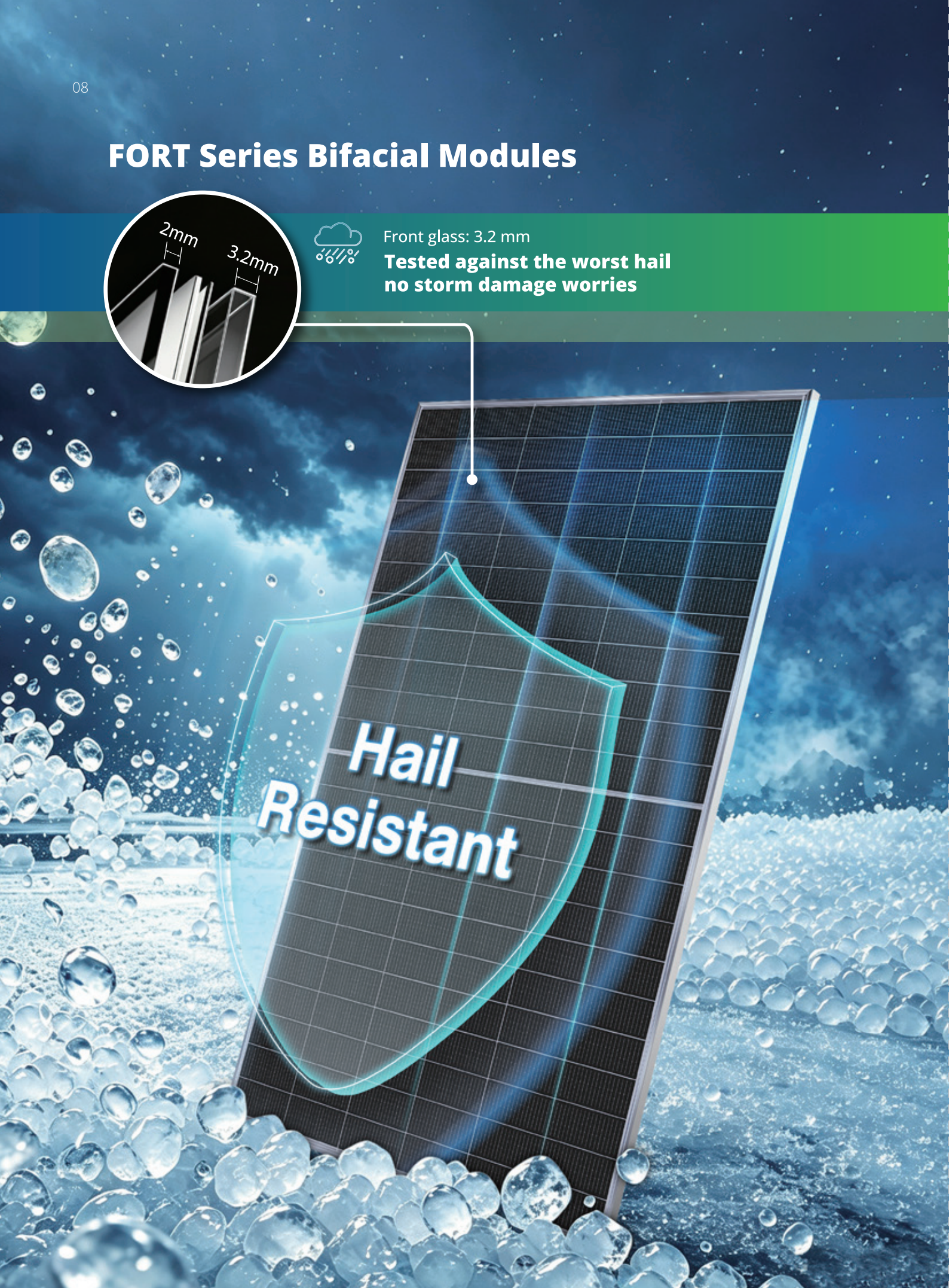
Data contained in these specifications is subject to change without notice.

FORT Series Bifacial Modules



Front glass: 3.2 mm

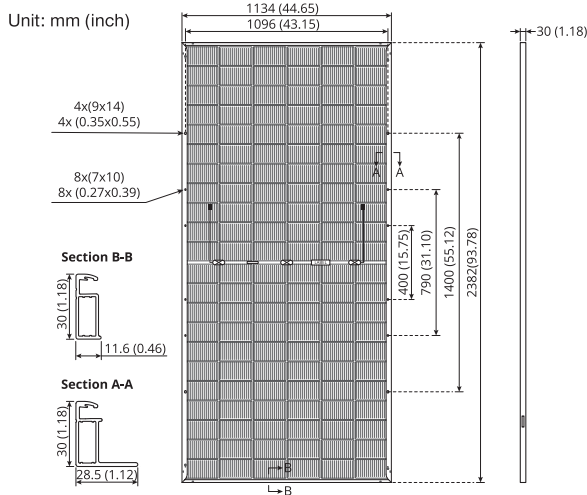
**Tested against the worst hail
no storm damage worries**



**Hail
Resistant**

FORT Series Bifacial Modules OPA-HBDH610~630-210R(66)

Physical Characteristics



Mechanical Description

No. of Half cells	132pcs(6×22)
Dimension	2382×1134×30mm (93.78 × 44.65 × 1.18in)
Weight	40.7kg (89.73lbs)
Front Glass	3.2mm, highly transparent tempered glass with anti-reflective coating
Rear Glass	2.0mm, tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 rated
Cable	4mm ² , 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	35A

Packaging Information

Modules Per Pallet	36 pcs/pallet	Per Container	12 pallet/container, 432 pcs/ 40'HQ container
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Electrical Performance Parameters

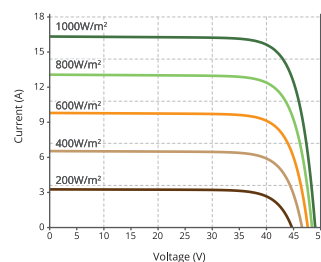
Model Type	OPA-HBDH610-210R(66)			OPA-HBDH615-210R(66)			OPA-HBDH620-210R(66)			OPA-HBDH625-210R(66)			OPA-HBDH630-210R(66)		
Testing Condition	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power P _{MAX} (W)	610	460	673	615	464	679	620	468	685	625	472	688	630	476	695
Max. Power Voltage V _{MP} (V)	40.64	38.10	40.69	40.76	38.26	40.83	40.88	38.43	40.97	40.99	38.60	41.06	41.12	38.77	41.23
Max. Power Current I _{MP} (A)	15.01	12.08	16.54	15.09	12.13	16.63	15.17	12.18	16.71	15.25	12.23	16.78	15.33	12.28	16.87
Open Circuit Voltage V _{OC} (V)	48.69	46.20	48.70	48.82	46.33	48.83	48.95	46.46	48.96	49.08	46.59	49.09	49.21	46.72	49.22
Short Circuit Current I _{SC} (A)	15.89	12.82	17.53	15.98	12.89	17.63	16.06	12.96	17.73	16.15	13.03	17.83	16.23	13.10	17.91
Module Efficiency (%)	22.58			22.77			22.95			23.14			23.32		

* 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%.

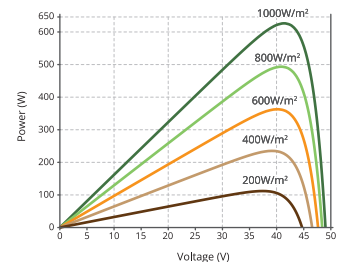
Bifacial Output-rearside Power Gain

5%	Maximum Power P _{MAX} (W)	641	646	651	656	662
	Module Efficiency (%)	23.71	23.91	24.10	24.29	24.49
10%	Maximum Power P _{MAX} (W)	671	677	682	688	693
	Module Efficiency (%)	24.84	25.04	25.25	25.45	25.66
25%	Maximum Power P _{MAX} (W)	763	769	775	781	788
	Module Efficiency (%)	28.23	28.46	28.69	28.92	29.15

Current-Voltage Curve (630W)



Power-Voltage Curve (630W)



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



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