

N-TYPE MONOCRYSTALLINE HALF-CUT MODULE -BACK CONTACT TECHNOLOGY - DOUBLE GLASS


440 / 450 / 455 / 460 / 465 / 470 Watts




Half-Cut BackContact Series

Overview


BackContact modules provide numerous benefits to customers seeking a high-quality product with exceptional performance and aesthetic, captivating design. The "BackContact" module utilizes N-Type cell technology in conjunction with a rear connection method known as BackContact. As a result, there is 0% front grid shadow loss, which increases the PV module's yield. Due to reduced shading on the front of the cell, the module maximizes total cell area realizing higher efficiency and resulting in a fast return on investment.



Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance



100 % electro-luminescence tested



Key benefits



Zero Light Induced Degradation



0% Front Grid Shading Loss



Low LCOE



30 Years Limited Product Warranty



Low Pmax Temperature Coefficient



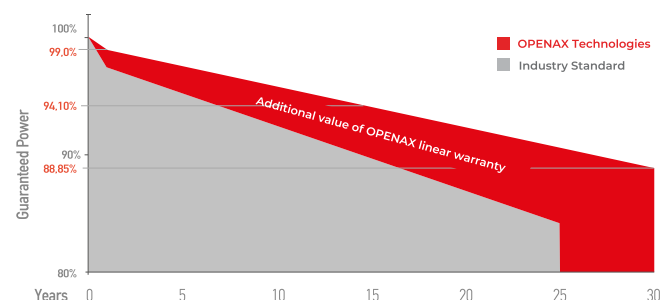
Higher Light Conversion

Tests, Certifications and Guarantees

Standard tests	IEC 61215, IEC 61730
Factory quality testing	ISO 9001: 2015, ISO 14001: 2015
Certifications	Conformity to CE, PV CYCLE Fire safety Class C according to UL790
Wind and Snow Loads Testing	Module certified to withstand extreme wind [2400 Pascal] and snow loads [5400 Pascal]
Withstanding Hail	Maximum Diameter of 25 mm with impact speed of 23 m/s

Power Tolerance	Guaranteed +0/+5W [STC condition]
Warranties	<ul style="list-style-type: none"> ✓ 30-year limited product warranty ✓ 15-year manufacturer warranty on 94,10% of the nominal performance ✓ Linear power output warranty over 30 years

Linear performance guarantees



Production 1st year	≥ 99.0%	Power between 2 and 30 years	≤ 0.35%	Power output at 30 years	≥ 88.85%
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OX-xxx-G10BVB108-01 (xxx=440-470)

Electrical performance

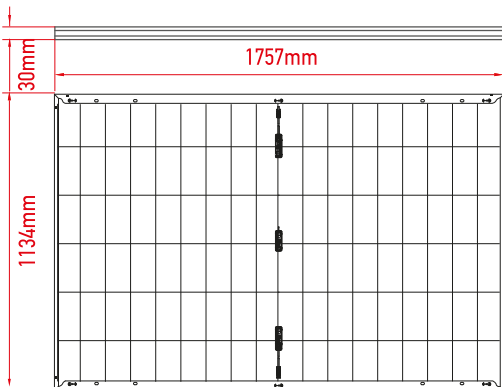
POWER CLASS ⁽¹⁾			440		450		455		460		465		470	
Measurement condition			STC ⁽²⁾	NMOT ⁽³⁾	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum power	P _{max}	[Wp]	440	331	450	339	455	343	460	346	465	350	470	354
Voltage at P _{max}	V _{mp}	[V]	34,38	32,47	34,50	32,58	34,56	32,64	34,62	32,69	34,68	32,75	34,74	32,81
Current at P _{max}	I _{mp}	[A]	12,80	10,22	13,05	10,41	13,17	10,51	13,29	10,61	13,41	10,71	13,54	10,80
Open Circuit Voltage	V _{oc}	[V]	40,82	38,55	40,94	38,66	41,00	38,72	41,06	38,77	41,12	38,83	41,18	38,89
Short circuit current	I _{sc}	[A]	13,92	11,26	14,12	11,42	14,22	11,50	14,25	11,52	14,29	11,55	14,32	11,58
Surface efficiency	Eff	[%]	22,1		22,6		22,8		23,1		23,3		23,6	
Max. Reverse Current	I _r	[A]	25											
System voltage max	V _{sys}	[V]	1500 CD (IEC)											

(1) Measurement tolerances: P_{max} (± 3%), I_{sc} & V_{oc} (± 3%) - Power classification 0/+5W
(2) STC (Standard Test Conditions): Irradiance 1000W/m² Cell Temperature 25°C, AM 1.5
(3) NMOT (Nominal Module Operating Temperature): Irradiance 800W/m² Ambient Temperature 20°C, AM

Mechanical characteristics

Dimensions	1775mm x 1134 x 30mm
Weight	24.5 Kg
Cells	N-Type 182mm x 91mm (2x54 Pcs) - G10
Front panel	2.0mm Tempered and low iron glass + ARC
Rear panel	2.0mm Tempered and low iron glass
Frame	Anodized aluminum alloy (Black)
Junction box	IP68 - 3 Bypass Diodes
Connectors	Compatible MC - EVO2
Cables	4 mm ² - Length: 1200mm or can be customized

Dimensions



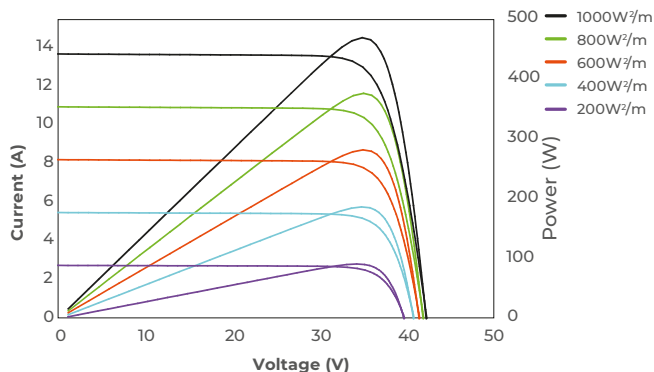
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I-V curve

Power loss in low-light environments: 200W/m² is less than 3%.



Thermal coefficients

Coeff./ P _{max}	-0.26% / °C
Coeff./ V _{oc}	-0.22% / °C
Coeff./ I _{sc}	+0.05% / °C
Operating temperature	-40~+85 °C
Nominal module operating temperature (NMOT)	42 ± 2 °C

Packaging configuration

Container	40' (HC)
Pieces per Pallet	36
Pallets per Container	26
Pieces per Container	(36+36)x13=936 pcs