



QUALITY STANDARDS

Next Energy Technologies N3235 Laminated units are designed and manufactured to comply with ASTM Standard C1376 Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass.

AESTHETICS AND PERFORMANCE

VLT (\geq)	%	32
Transmitted Color	CIE a* (± 3)	-3
	CIE b* (± 5)	0
Haze (\leq)	%	2.5
Color Uniformity (within) (\leq) ¹	DeltaE	2
Color Uniformity (between) (\leq) ¹	DeltaE	2

MECHANICAL DESCRIPTION

Substrate Length	up to 3 m
Substrate Width	up to 1.5 m
Module Thickness	~12.5mm
Module Weight	~6.5 lbs/ft ² ~32 kg/m ²
Leadwire	Included
Connectors	MC4
Cell Type	Transparent Organic Photovoltaic
Frame Material	Anodized Aluminum
Front Glass	6 mm heat strengthened
Back Glass	6 mm heat strengthened
Encapsulation	Laminate material with edge seal

INSPECTION GUIDELINES

From a distance of 10 ft. (3 m) in transmission, at a viewing angle of 90 degrees to the specimen, against a bright, and uniform background.

Uniformity	Production variation from the glass floating process may induce subtle variations in appearance from glass ply to glass ply. A similar observation can be stated for the thin film coating process.
Pinholes	Reject if detectable at arm length (1 ft.) and > 1/32"
Coating Scratches, Rubs, Chatter, Streaks	Inspect glass from a distance of 10 ft. (3 m). Scratches up to 2" (50 mm) are allowed in 80 percent central glass area and scratches up to 3" (75 mm) are allowed in the outer area. Concentrated scratches or abraded areas are not allowed.

WARRANTY

Power Output Warranty PCE ²	10 Years
Product Warranty	10 Years
Color Stability (DeltaE \leq 4.5) ¹	10 Years

CERTIFICATIONS AND TESTS³

IEC	61215, TS 62876
UL	61730 (1500V Listed)
Extended Durability Tests ⁴	ASTM G154 / G155

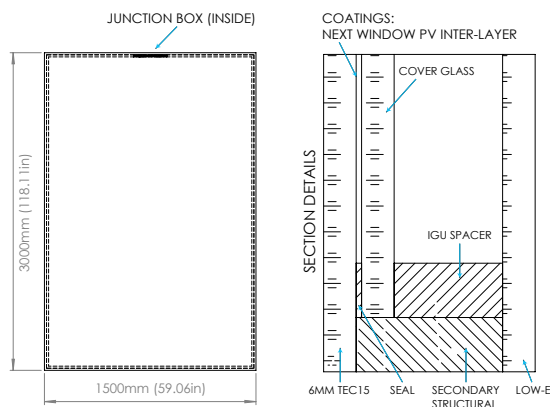
TEMPERATURE CHARACTERISTICS⁵

Module Operating Temperature Range	$^{\circ}\text{C}$	-30 to +85
Temperature Coefficient of P_{MAX}	$T_K (P_{\text{MAX}})$	+0.16%/ $^{\circ}\text{C}$ (25C-75C)
Temperature Coefficient of V_{OC}	$T_K (V_{\text{OC}})$	-0.17 %/ $^{\circ}\text{C}$
Temperature Coefficient of I_{SC}	$T_K (I_{\text{SC}})$	+0.17 %/ $^{\circ}\text{C}$

IGU SPECIFICATIONS

U-Value ⁶	W/m ² K	1.6
Solar Heat Gain Coefficient (PV not included) ⁷	with Low-E	0.21 - 0.18
Solar Heat Gain Coefficient (w/ PV contribution) ⁸	With Low-E	0.21 - 0.16

MECHANICAL DRAWING



RATING AT STANDARD TEST CONDITIONS (1000W/m², AM1.5, 25°C, Alumina Backing)⁹

Nominal Power ² (>)	P_{MAX} (W)	157
Efficiency ² (\geq)	%	3.5
Voltage at P_{MAX}	V_{MAX} (V)	430
Current at P_{MAX}	I_{MAX} (mA)	222
Open Circuit Voltage	V_{OC} (V)	716
Short Circuit Current	I_{SC} (mA)	370
Maximum System Voltage	V_{SYS} (V)	1500

RATING AT NOMINAL OPERATING CELL TEMPERATURE OF 45°C (800W/m², 20°C air temperature, AM1.5, 1 m/s wind speed, Alumina Backing)⁹

Nominal Power ⁵ (>)	P_{MAX} (W)	127
Efficiency ⁵ (%)	%	3.5
Voltage at P_{MAX}	V_{MAX} (V)	430
Current at P_{MAX}	I_{MAX} (mA)	178
Open Circuit Voltage	V_{OC} (V)	716
Short Circuit Current	I_{SC} (mA)	296

¹ As measured according to ASTM C1376

² 20% of nameplate PCE %

³ Testing Certifications/Listings pending

⁴ Validation pending and not required for sale

⁵ Measurement uncertainties apply

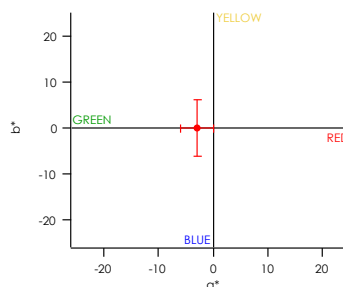
⁶ Match with IGU utilizing specified materials

⁷ Depending on low-E position (PV not included)

⁸ Depending on low-E position (with PV contribution)

⁹ All ratings $\pm 10\%$ unless specified otherwise. Specifications are subject to change. As measured according to ASTM E927-10, E1036-12, E973-10, E2236-10

TRANSMITTED COLOR SPECIFICATIONS



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