



- Facade LITE

Plug & Power Up! - As easy as it sounds

Energy Generating Building Materials:
eFacade LITE Product Datasheet

 MITREX™
mitrex.com

Introducing the Next Evolution in ⚡ Solar Facade

eFacade LITE is transforming the building-integrated photovoltaic industry with its cutting-edge design and flawless integration. With no visible wiring and a simple plug-and-power setup, eFacade LITE ensures fast and cost-effective installation. Available in two sizes and four colors, it harmonizes effortlessly with Cladify sustainable cladding, EIFS, stucco, ACM, and many other materials and finishes—making it an ideal choice for modern architectural projects. Combining advanced solar technology with effortless installation, Mitrex eFacade LITE delivers performance, beauty, and sustainability in one sleek package.

Plug & Power, Simplified Wiring

- Eliminate panel-to-panel wiring
- Streamlined solar systems

Easy Installation

- Pre-engineered for optimal performance, ease, and aesthetic appeal
- Quick to install, making a big impact in no time

Design Versatility

- 150 SQFT of solar material with a variety of architectural configurations
- 5 colors and texture finishes available

Sizing Options

- Choose from 73 × 36 in or 73 × 18 in modules
- Modular design for customizable building solutions

Long-Lasting Confidence

- Backed by a 25-year product and energy performance warranty

Applications

- Ideal for both new constructions and retrofits
- High-performance rainscreen system – one complete solution for all your needs

Sustainable Energy Generation

- Power range of 6 to 17 W/SQFT

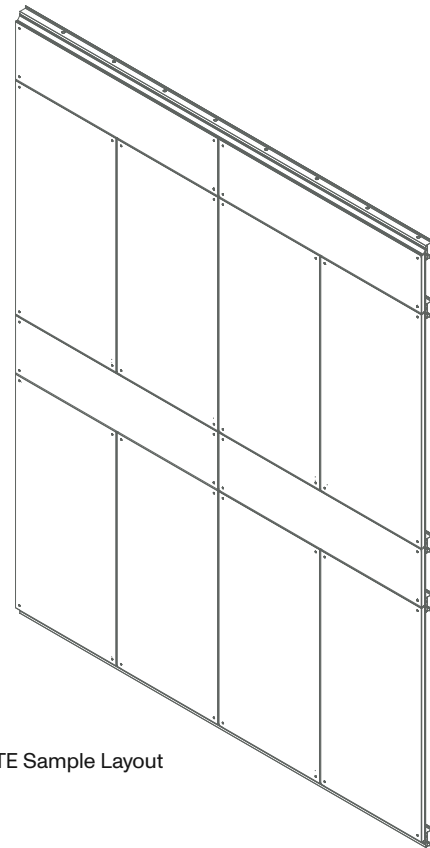
Testing And Certifications

Certifications:

- UL 61730-1/-2, CSA 61730-1/-2, IEC 61730-1/-2
- UL 61215-1/-2, CSA 61215-1/-2, IEC 61215-1/-2
- ANSI Z97.1

Testing:

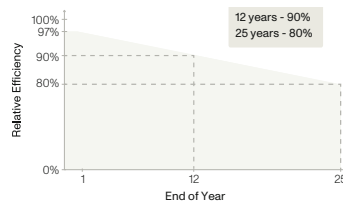
- NFPA 285
- ASTM E84, ASTM E136, ASTM E119
- ASTM E283, ASTM E330, ASTM E331
- ASTM E1886, ASTM E1996
- ASTM G154
- ASTM D6578



• eFacade LITE Sample Layout

Warranty

Our products are backed by an industry-leading 25-year product and performance warranty.



Product Material Warranty: 25 years
 Performance Warranty: 25 years
 ≥ 97% end of 1st year
 ≥ 90% end of 12th year
 ≥ 80% end of 25th year

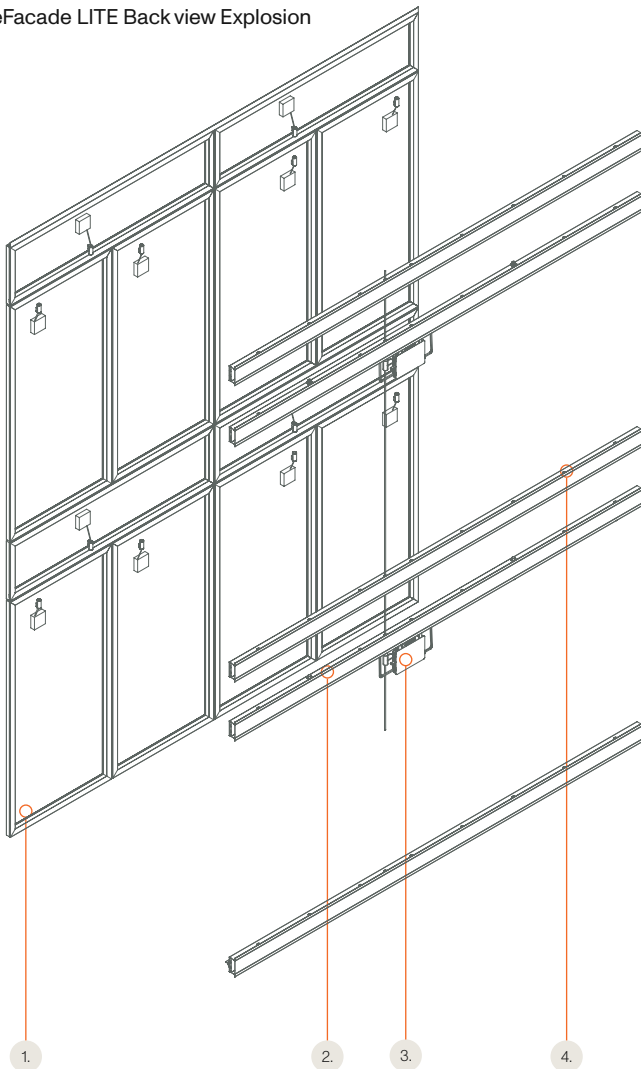
eFacade LITE System Components

Plug And Play System

Mitrex eFacade LITE simplifies installation and wiring without compromising functionality or facade aesthetics. This innovative product allows for mix-and-match panels, enabling visually striking appearances with two standard module sizes that seamlessly complement each other.

eFacade LITE has streamlined the wiring process by developing a pre-engineered solution where each solar module has just one wire connecting directly to the power bar, eliminating complicated on-site wiring, further simplifying installation and enhancing safety.

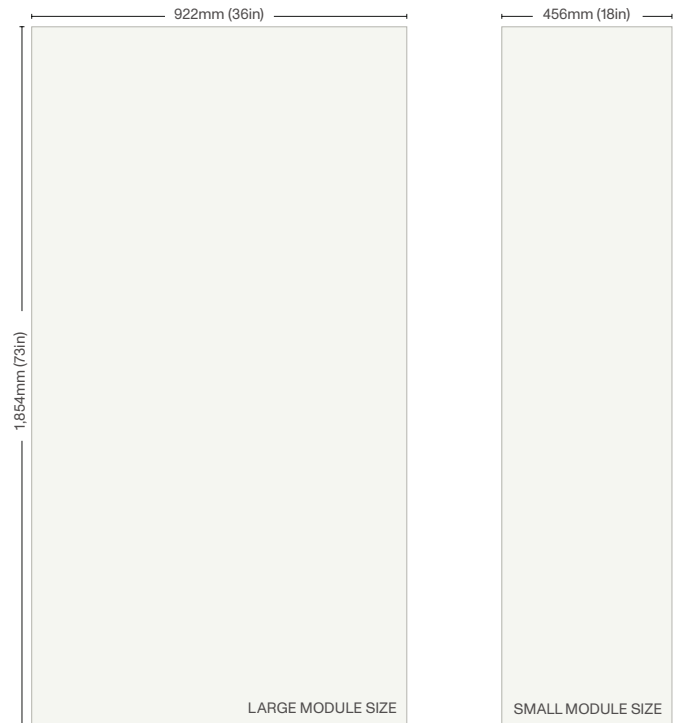
• eFacade LITE Back view Explosion



1. ⚡ SunTile (Solar Modules)
2. Power Bar
3. Microinverter
4. Support Bar

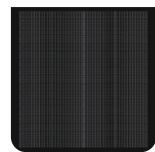
Module Size Capabilities

Mitrex eFacade LITE offers two standard sizes that can be seamlessly integrated either with other modules of the same size or between the two sizes.



Module Colour Options

Mitrex eFacade LITE offers four standard high-performance colors. These colors can be combined to create interesting design patterns.



Core Black
⚡ 18W/SQFT



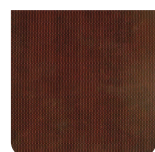
Blackout
⚡ 16W/SQFT



Nobel Grey
⚡ 10W/SQFT



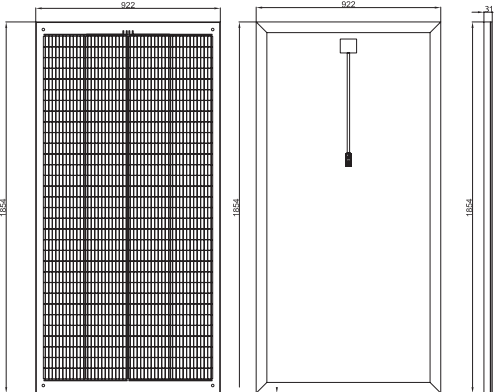
Storm Grey
⚡ 13W/SQFT



Cassia
⚡ 14W/SQFT

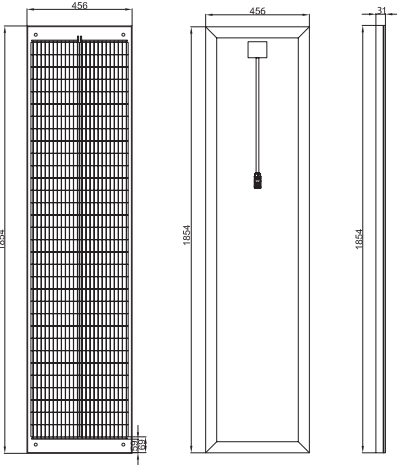
SunTile Electrical And Mechanical Data

For Large Standard Panel 1854×922×31mm (72.9×36.2×1.2in)

● Test	● Specification	● Engineering Drawing																								
<table><tr><th>Test Conditions</th><th>STC</th></tr><tr><td>Module Power (Pmax)</td><td>170 - 315 W</td></tr><tr><td>Maximum Power Voltage (Vpmax)</td><td>41.0 - 41.3 V</td></tr><tr><td>Maximum Power Current (Ipmax)</td><td>4.15 - 7.63 A</td></tr><tr><td>Open Circuit Voltage (Voc)</td><td>49.2 - 49.6V</td></tr><tr><td>Short Circuit Current (Isc)</td><td>4.38 - 8.05 A</td></tr><tr><td>Module Efficiency</td><td>9.9 - 18.4%</td></tr><tr><td>Cell Efficiency</td><td>23.5% - Monocrystalline Solar Cell</td></tr><tr><td>Maximum System Voltage (VDC)</td><td>1000V (IEC/UL)</td></tr><tr><td>Max Series Fuse Rating</td><td>20A</td></tr><tr><td>Power & Other Electrical Specification Tolerance</td><td>5%</td></tr><tr><td>Application Classification</td><td>Class A</td></tr></table> Measurement Conditions: STC 1000 W/m² - AM 1.5 - Temperature 25°C		Test Conditions	STC	Module Power (Pmax)	170 - 315 W	Maximum Power Voltage (Vpmax)	41.0 - 41.3 V	Maximum Power Current (Ipmax)	4.15 - 7.63 A	Open Circuit Voltage (Voc)	49.2 - 49.6V	Short Circuit Current (Isc)	4.38 - 8.05 A	Module Efficiency	9.9 - 18.4%	Cell Efficiency	23.5% - Monocrystalline Solar Cell	Maximum System Voltage (VDC)	1000V (IEC/UL)	Max Series Fuse Rating	20A	Power & Other Electrical Specification Tolerance	5%	Application Classification	Class A	
Test Conditions	STC																									
Module Power (Pmax)	170 - 315 W																									
Maximum Power Voltage (Vpmax)	41.0 - 41.3 V																									
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Open Circuit Voltage (Voc)	49.2 - 49.6V																									
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Module Efficiency	9.9 - 18.4%																									
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Maximum System Voltage (VDC)	1000V (IEC/UL)																									
Max Series Fuse Rating	20A																									
Power & Other Electrical Specification Tolerance	5%																									
Application Classification	Class A																									
● Mechanical Properties	● Metric	● Imperial																								
Module Weight	19kg	41lbs																								
Dimensions (H x L x D)	1854 × 922 × 31mm	72.9 × 36.2 × 1.2in																								
Maximum Surface Load (Wind / Snow)	2400Pa rear load / 2400Pa front load	50psf rear load / 50psf front load																								
Design Load	1600Pa rear load / 1600Pa front load	33psf rear load / 33psf front load																								
Hail Impact Resistance	ø 25mm at 83 km/h	ø 1in at 51.6 mph																								
Cells	128 [2 x (2 × 32)] Mono-crystalline M12 quarter cell (210.0 × 52.5mm)	128 [2 x (2 × 32)] Mono-crystalline M12 quarter cell (8.26 × 2.07in)																								
Glass	3.2mm tempered glass, high transmittance, anti-reflective coating	0.125in tempered glass, high transmittance, anti-reflective coating																								
Backsheet	High durability, UV resistant, PV backsheet																									
Back Support	Black anodized aluminum frame																									
Junction Box	IP68 rated, TUV and UL certified																									
Fire Rating	Spread of Flame A, Burning Brand C																									
● Temperature Ratings																										
Temperature Coefficient Isc	0.05% /°C																									
Temperature Coefficient Voc	-0.28% /°C																									
Temperature Coefficient Pmax	-0.35% /°C																									
Nominal Module Operating Temperature	45 ± 3°C																									
Operating Temperature	-40°C ~ +85°C																									

SunTile Electrical And Mechanical Data

For Small Standard Panel 1854×456×31mm (72.9×18.0×1.2in)

Test	Specification	Engineering Drawing
Test Conditions	STC	
Module Power (Pmax)	85 - 160 W	
Maximum Power Voltage (Vpmax)	41.0 - 41.3 V	
Maximum Power Current (Ipmax)	2.07 - 3.87 A	
Open Circuit Voltage (Voc)	49.2 - 49.6 V	
Short Circuit Current (Isc)	2.19 - 4.03 A	
Module Efficiency	10.0 - 18.9 %	
Cell Efficiency	23.5% - Monocrystalline Solar Cell	
Maximum System Voltage (VDC)	1000V (IEC/UL)	
Max Series Fuse Rating	20A	
Power & Other Electrical Specification Tolerance	5%	
Application Classification	Class A	
Measurement Conditions: STC 1000 W/m² - AM 1.5 - Temperature 25°C		

Mechanical Properties	Metric	Imperial
Module Weight	10kg	22lbs
Dimensions (H x L x D)	1854 × 456 × 31mm	72.9 × 18.0 × 1.2in
Maximum Surface Load (Wind / Snow)	2400Pa rear load / 2400Pa front load	50psf rear load / 50psf front load
Design Load	1600Pa rear load / 1600Pa front load	33psf rear load / 33psf front load
Hail Impact Resistance	ø 25mm at 83 km/h	ø 1in at 51.6 mph
Cells	64 [32 × 2] Mono-crystalline M12 quarter cell (210.0 × 52.5mm)	64 [32 × 2] Mono-crystalline M12 quarter cell (8.26 × 2.07in)
Glass	3.2mm tempered glass, high transmittance, anti-reflective coating	0.125in tempered glass, high transmittance, anti-reflective coating
Backsheet	High durability, UV resistant, PV backsheet	
Back Support	Black anodized aluminum frame	
Junction Box	IP68 rated, TUV and UL certified	
Fire Rating	Spread of Flame A, Burning Brand C	

Temperature Ratings	
Temperature Coefficient Isc	0.05% /°C
Temperature Coefficient Voc	-0.28% /°C
Temperature Coefficient Pmax	-0.35% /°C
Nominal Module Operating Temperature	45 ± 3°C
Operating Temperature	-40°C ~ +85°C

SunTile (Solar Module) Detailed Information

Solar Glass Mechanical Data

	Imperial	Metric
Glass Type	Satin Glass	
Thickness	0.125 ± 0.012in	3.2 ± 0.3mm
Weight	1.54lb/SQFT	7.53kg/m ²
Dimensional Tolerance	± 0.04in	± 1.0mm
Density	0.09lbs/in ³	2.5gm/cm ³
Corner	Radius, Chamfer or cut (0.04-0.16in)	Radius, Chamfer or cut (1.0-4.0mm)
Overall Bow / Warp (EN 12150-1:2015)	0.16in / 39.37in	4.0mm/M / 990mm/M
Local Warp (EN 12150-1:2015)	0.002in / 11.81in	0.5mm / 300mm/M
Bending Strength (EN 12150-1:2015) (0.23in / 6mm)	685.21lbs/in	120N/mm
Iron Content (ASS)	<120ppm	
Edge	At least seamed	
Scratch Hardness (Mohs)	5	
Fragmented Particles in 50×50mm (If Tempered) (EN 12150-1:2015)	Min 40 pcs	

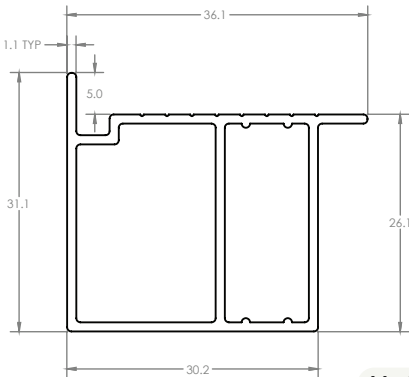
Solar Glass Facing Specification

	Certification	Imperial	Metric
Density	ASTM C729	158lb/ft ³	2,530kg/m ³
Absorption By Wt.	ASTM C373	0%	0%
Compressive Strength	-	150,000psi	1,000MPa
Flexural Strength (Dry)	ASTM C158	8,700psi	60MPa
Modulus Rupture	ASTM C158	5,950psi	41MPa
Hardness	ASTM C730	570KHN	

For further mechanical information about solar glass, please check Mitrex solar glass datasheet.

Module Frame Mechanical Data

	Imperial	Metric
Dimensions	1.42 × 1.22in	36.1 × 31.1mm
Weight	0.29lb/ft	0.43kg/m
Tensile Modulus	10 × 10 ⁶ psi	69 GPa
Tensile Strength	0.21 × 10 ⁵ psi	145 MPa
Shear Strength	0.17 × 10 ⁵ psi	117 MPa
Material	Aluminum Alloy	



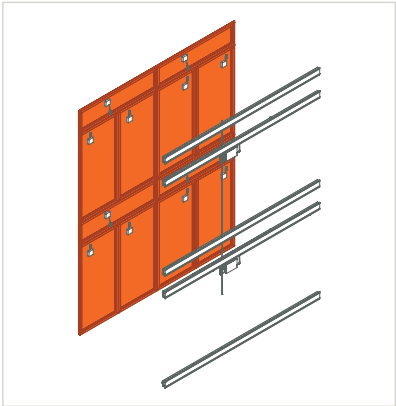
Module Frame Detail

Smoke And Flame Spread (ASTM E84)

	Rating
Mitrex Cladishield System (Rainscreen System)	Class A

Sound Transmission Coefficient (ASTM E90)

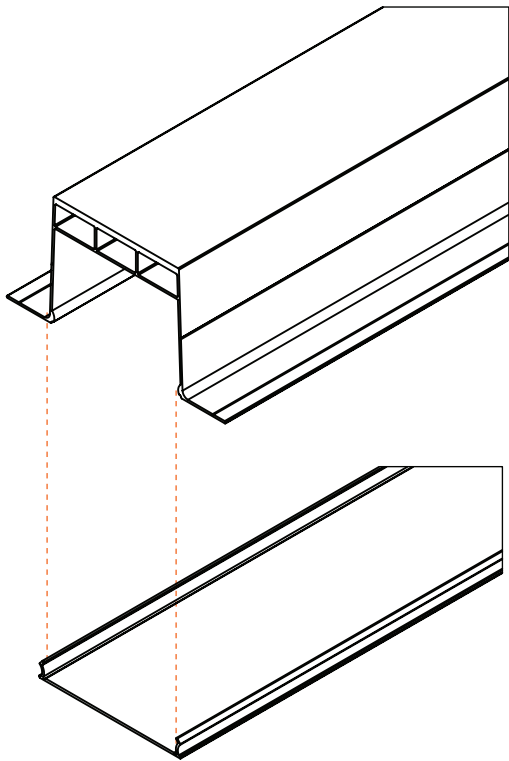
	STC Rating
Mitrex Cladishield System (Rainscreen System)	34



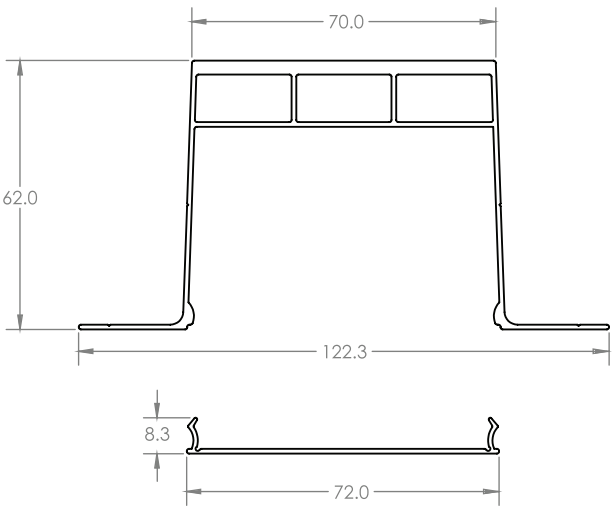
System Components Detailed Information

Power Bar (Mounting Rail and Cap) Mechanical Data

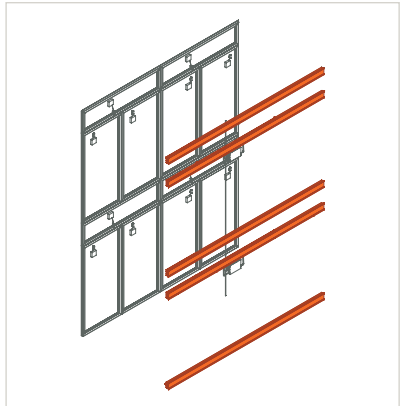
	Imperial	Metric
Dimensions	4.80 × 2.44in	122 × 62mm
Weight	1.24lb/ft	1.84kg/m
Tensile Modulus	10 × 10 ⁶ psi	64 GPa
Tensile Strength	0.21 × 10 ⁵ psi	145 MPa
Shear Strength	0.17 × 10 ⁵ psi	117 MPa
Material	Aluminum Alloy	



Power Bar (Mounting Rail and Cap) Isometric View



Power Bar (Mounting Rail and Cap) Detail



Microinverter Detailed Information

Mechanical Data

	Imperial	Metric
Ambient Temperature Range	-40 to +149 F°	-40 to +65 C°
Enclosure Rating	Outdoor - IP67 (NEMA6)	
Cooling	Natural Convection - No Fans	

Input Data (DC)

	Model 480V
Commonly Used Module Power (W)	50 to 1000 +
Maximum Input Voltage (V)	65
MPPT Voltage Range (V)	16 - 60
Start-up Voltage (V)	22
Maximum Input Current (A)	4 × 30
Maximum Input Short Circuit Current (A)	4 × 40
Number Of MPPTs	4
Number Of Inputs Per MPPT	1

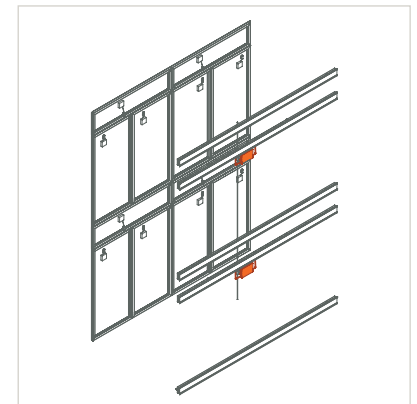
Efficiency

	Model 480V
CEC Peak Efficiency	>= 96.5%
Normal MPPT Efficiency	>= 99.7%
Night Power Consumption (mW)	< 50

Output Data (AC)

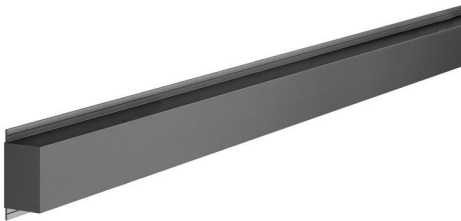
	Model 480V
Peak Output Power	1900
Maximum Continuous Output Power (A)	1900
Maximum Continuous Output Current (A)	2.28
Normal Output Voltage/Range (V) ¹	480/422 - 528
Nominal Frequency/Range (Hz)	60/55 - 65
Power Factor (Adjustable)	> 0.99 default 0.8 leading ... 0.8 lagging
Total Harmonic Distortion	< 3%
Maximum Units Per 8AWG Branch (45A) ²	15

¹ Nominal voltage/frequency range can depending on local. ² Refer to local requirements for exact number of microinverters per branch

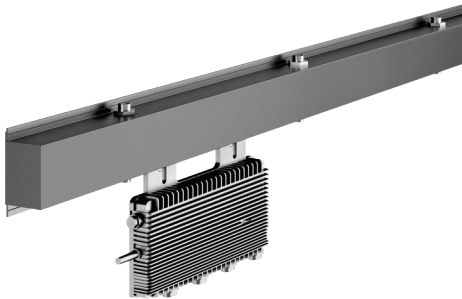


eFacade LITE Package Components

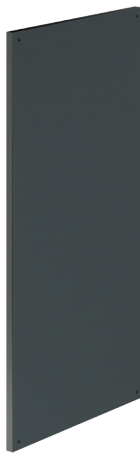
Each eFacade LITE package comes with 150 SQFT of material and the following components. The amount of the SunTiles may vary depending on the layout.



x2 Support Bar



x1 ⚡ Power Bar

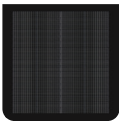


⚡ Large SunTile



⚡ Small SunTile

System Size Per Color



Core Black
⚡ 2.5 kW



Blackout
⚡ 2.2 kW



Nobel Grey
⚡ 1.3 kW



Storm Grey
⚡ 1.8 kW

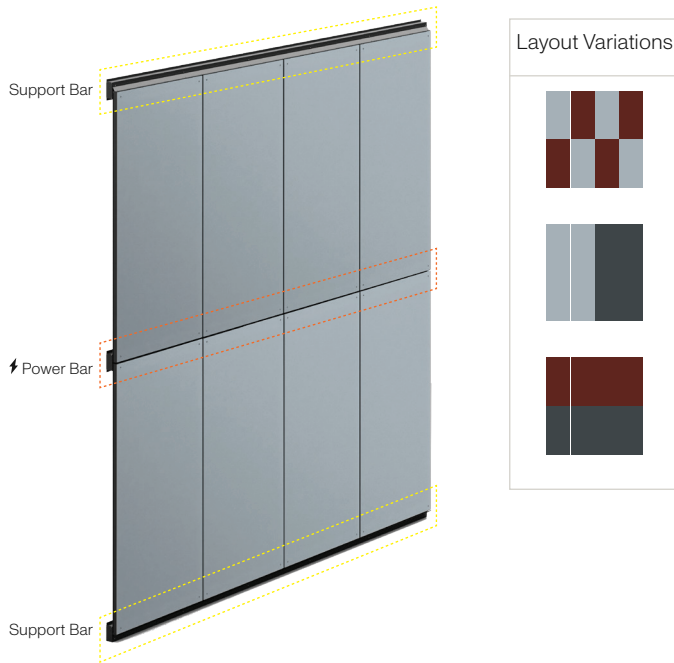


Cassia
⚡ 2.0 kW

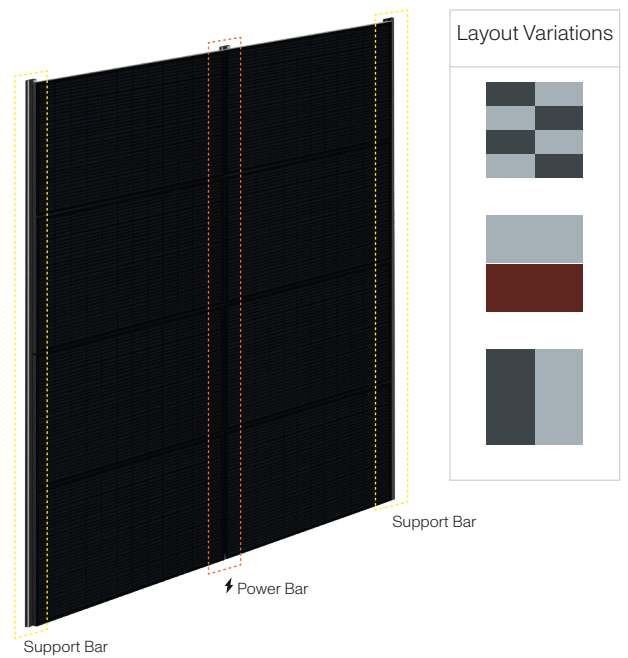
Note: These system sizes are based on one standard package consisting of 150 SQFT.

eFacade LITE Layout Options

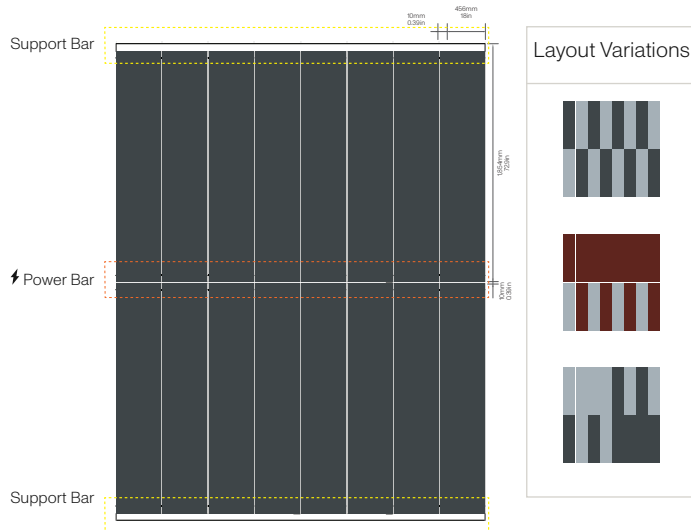
eFacade LITE Linear Precision



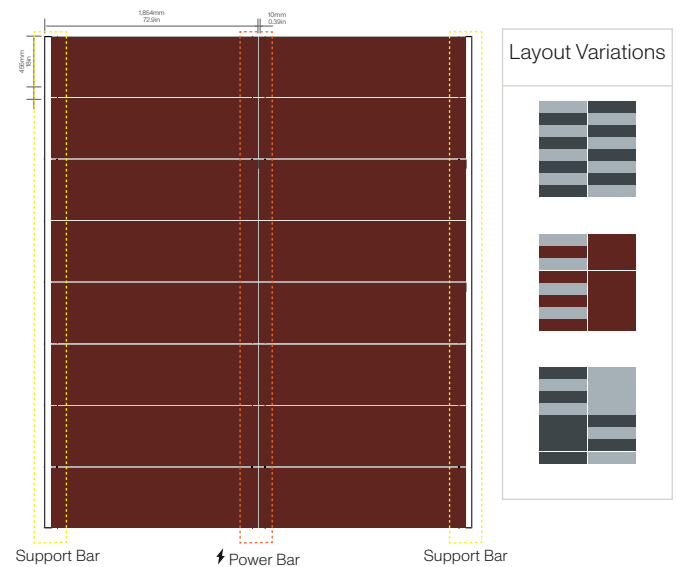
eFacade LITE Horizon Grid



eFacade LITE Half Linear Precision

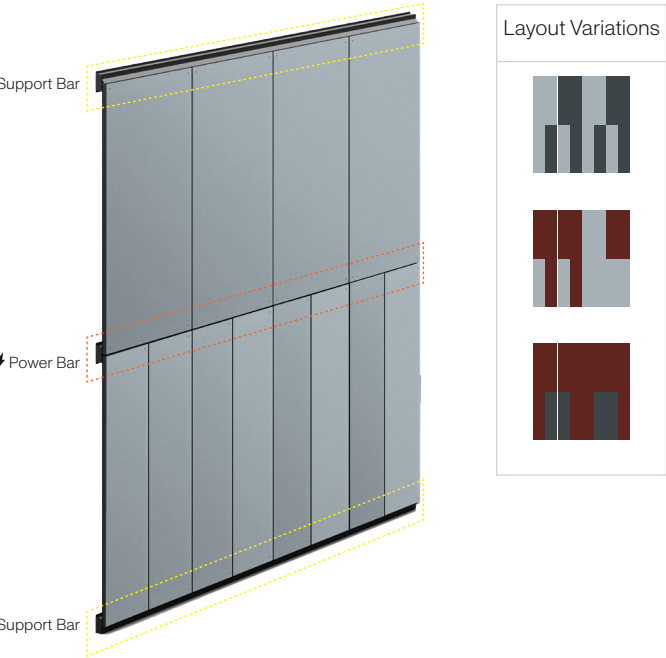


eFacade LITE Half Horizon Grid

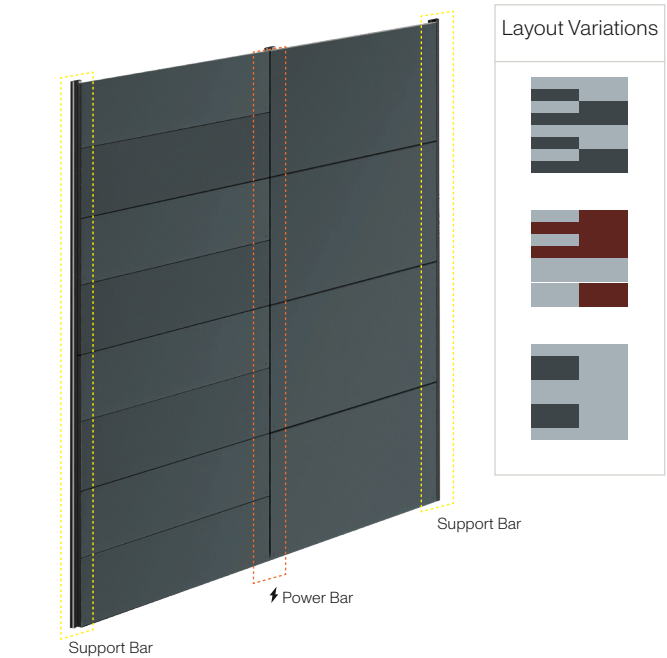


eFacade LITE Layout Options

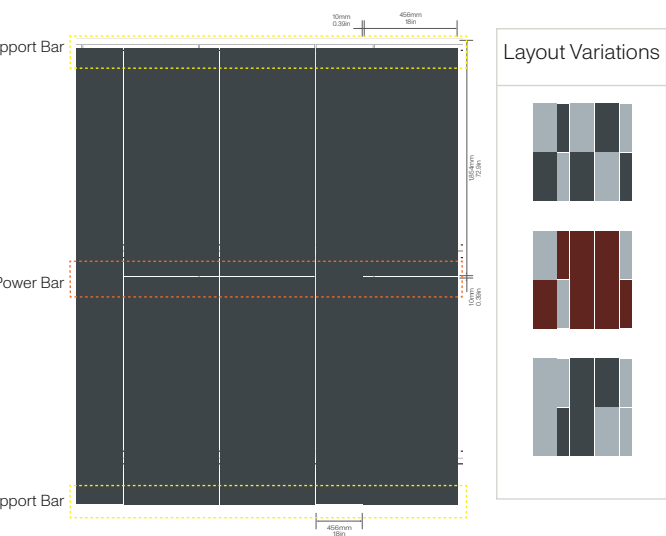
eFacade LITE Dual Linear Precision



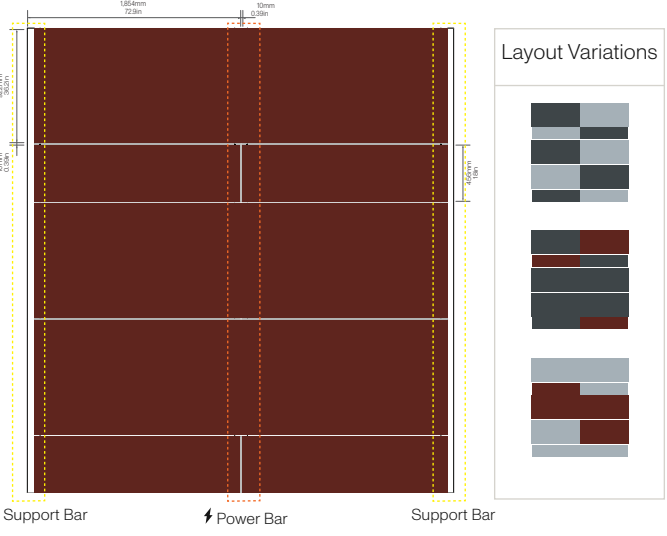
eFacade LITE Dual Horizon Grid



eFacade LITE Mixed Linear Precision

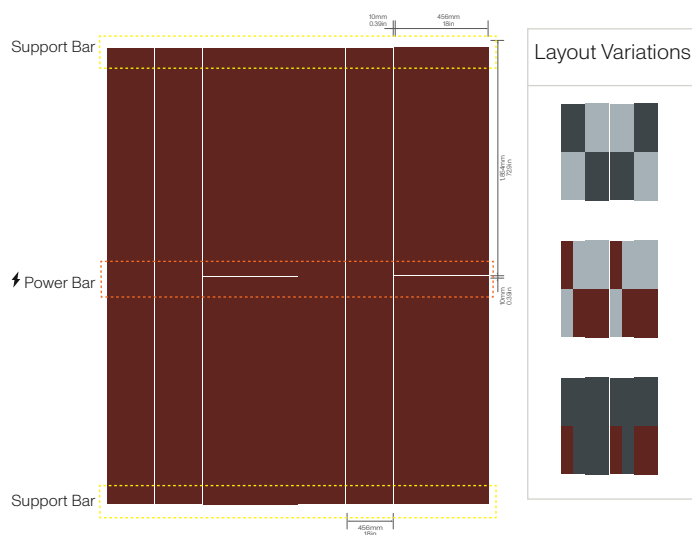
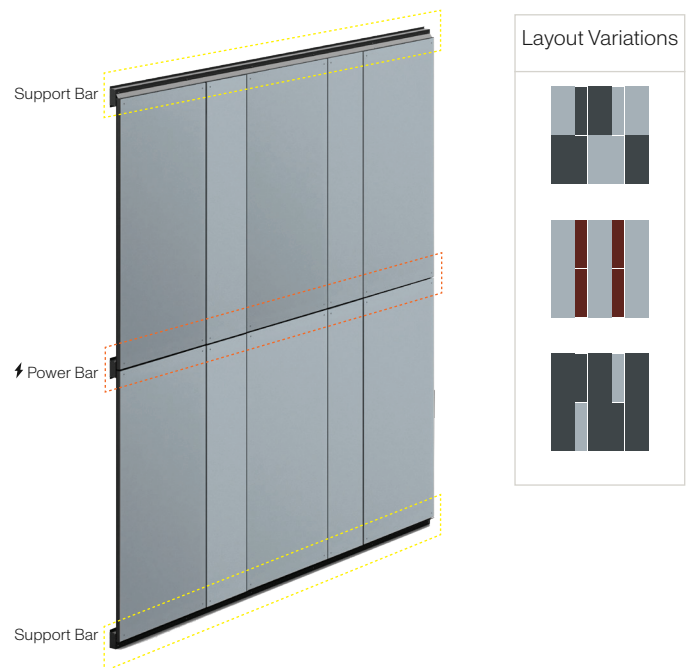
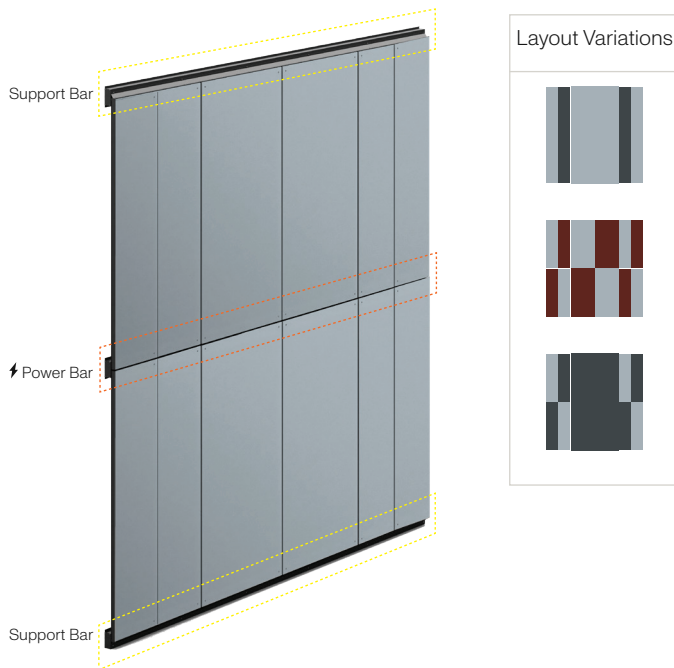


eFacade LITE Mixed Horizon Grid

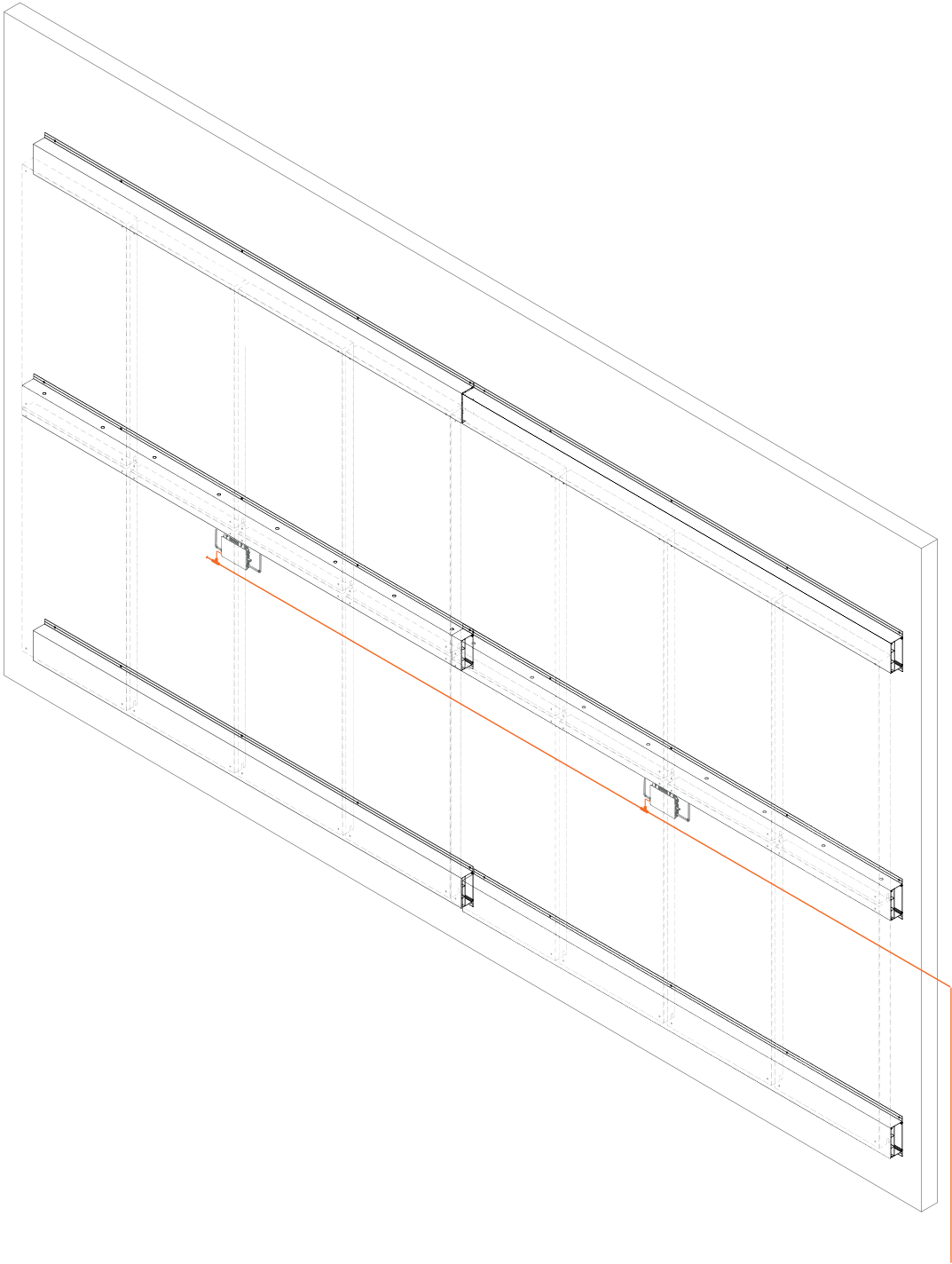


eFacade LITE Layout Options

More eFacade LITE Dual Linear Precision



eFacade LITE Electrical Connection



AC trunk cable - Connection to next microinverter or building panel

Mitrex and Cladify Projects



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- **Learn More**

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