



# Specco2 BIPV Solutions Integrated Photovoltaic

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PART

**1**

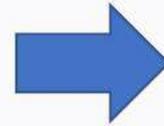
# Flex PV Panels

# Installation pain points

## Conventional Installation



Disadvantages

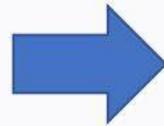


1. **Damage to the roof structure**
2. **Destroy the waterproof layer on the roof**
3. **Installation cost is high**
4. **High maintenance costs**
5. **Aesthetics are poor**



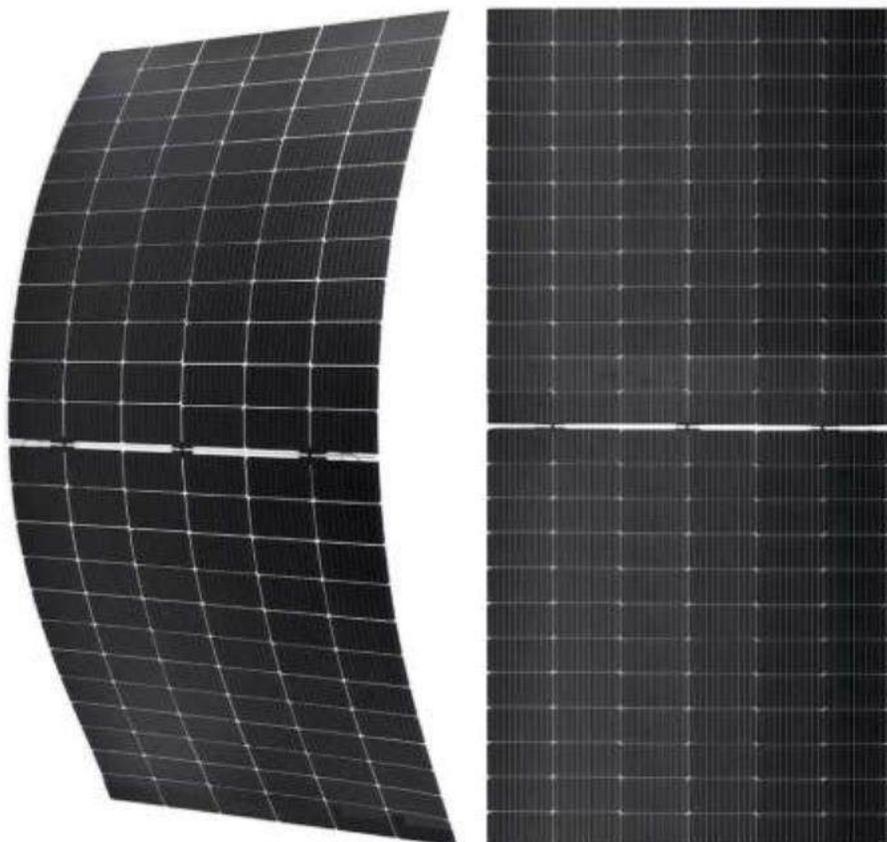
Make up for the shortcomings

## Flexible solar solutions



1. **lightweight panels, 1/3 of traditional weight**
2. **Simple and easy-to-install**
3. **high-efficiency solar cells**
4. **Adapt to different surfaces and shapes**

## Flex Panels series



### 520W

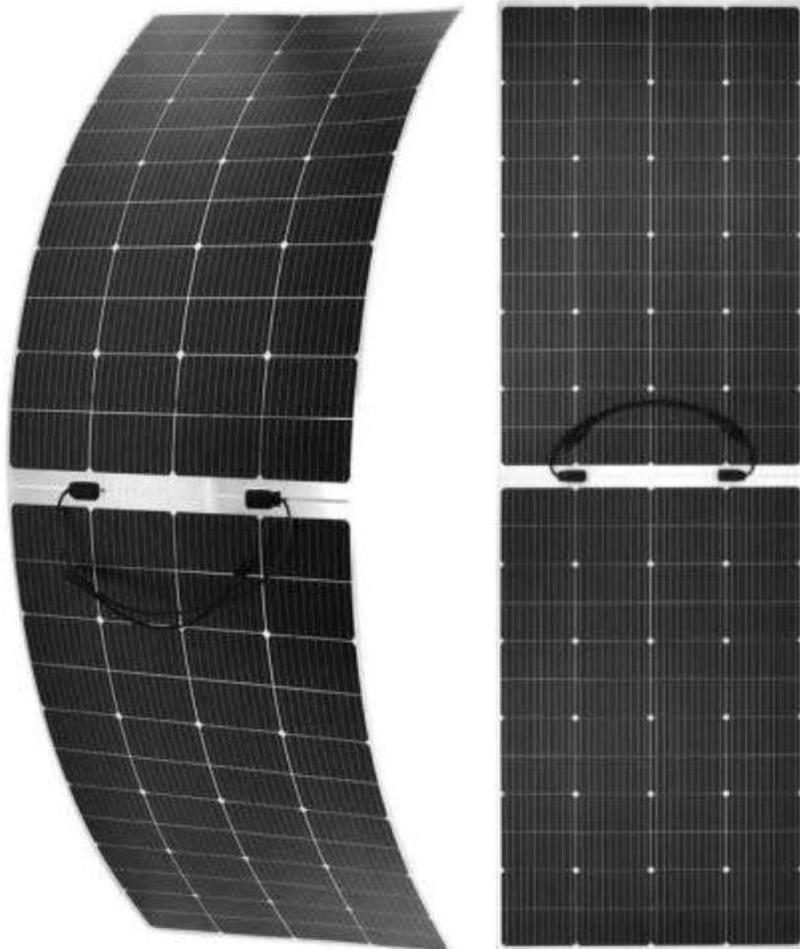
#### Electrical Characteristics

Maximum power (Pmax/W)	520
Open circuit voltage (Voc/V)	49.3
Voltage at maximum power (Vmp/V)	41.8
Short circuit current (Isc/A)	13.32
Current at maximum power (Imp/A)	12.45
Temperature coefficient of Pmax	-0.38%/°C
Temperature coefficient of Voc	-0.36%/°C
Temperature coefficient of Isc	0.07%/°C
Power output tolerance	0~3%
Maximum system voltage	1000V VDC(IEC)
Maximum series fuse	25A
Operational Temperature	-40~85°C

#### Specifications

Cell orientation	Mono 144(6×24)
Weight	10Kg
Dimension	2327*1122*18.8mm
Output cable	4mm <sup>2</sup>
Junction box	IP68, 3 diodes
Connector	MC4
Cable length(Including Connector)	270mm

## Flex Panels series



### 430W

#### Electrical Characteristics

Maximum power (Pmax/W)	430
Open circuit voltage (Voc/V)	41.4
Voltage at maximum power (Vmp/V)	34.5
Short circuit current (Isc/A)	13.22
Current at maximum power (Imp/A)	12.47
Temperature coefficient of Pmax	-0.38%/°C
Temperature coefficient of Voc	-0.36%/°C
Temperature coefficient of Isc	0.07%/°C
Power output tolerance	0~3%
Maximum system voltage	1000V VDC(IEC)
Maximum series fuse	25A
Operational Temperature	-40~85°C

#### Specifications

Cell orientation	Mono 120(6×20)
Weight	8.3Kg
Dimension	1955*1122*18.8mm
Output cable	4mm <sup>2</sup>
Junction box	IP68, 3 diodes
Connector	MC4
Cable length(Including Connector)	270mm



PART

**2**

**Applications**

## Flex Panels Roof Solar



## Flex Panels Roof Solar





PART

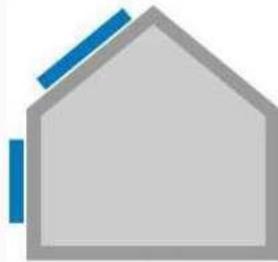
**3**

**BIPV Panels**

# Industry pain points

## BAPV

Building Attached Photovoltaic



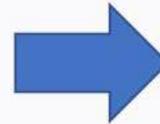
Disadvantages



1. **building appearance**
2. **Photovoltaic systems increase building loads**
3. **Affects the overall resistance of the building**
4. **Installation scenarios are limited**

## BIPV

Building Integrated Photovoltaic

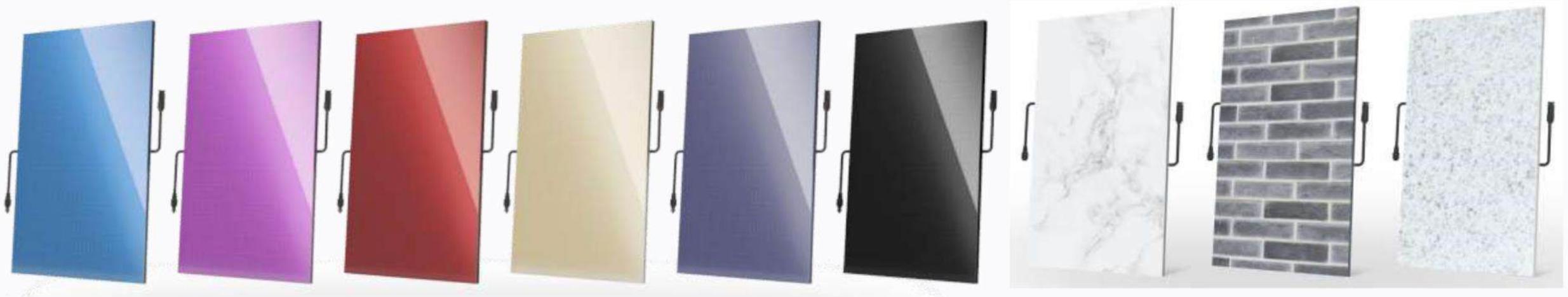


1. **Reduce duplication of construction and cost**
2. **Reduce building energy consumption**
3. **optimized integrated system for construction**
4. **Aesthetics**



Make up for the shortcomings of BAPV

# BIPV Façade Panels



Colorful products guarantee both beautiful architecture and high power generation



Anti-glare surface



Various installation methods



Long material life and high reliability



Installation meets building grade mechanical requirements



Customization

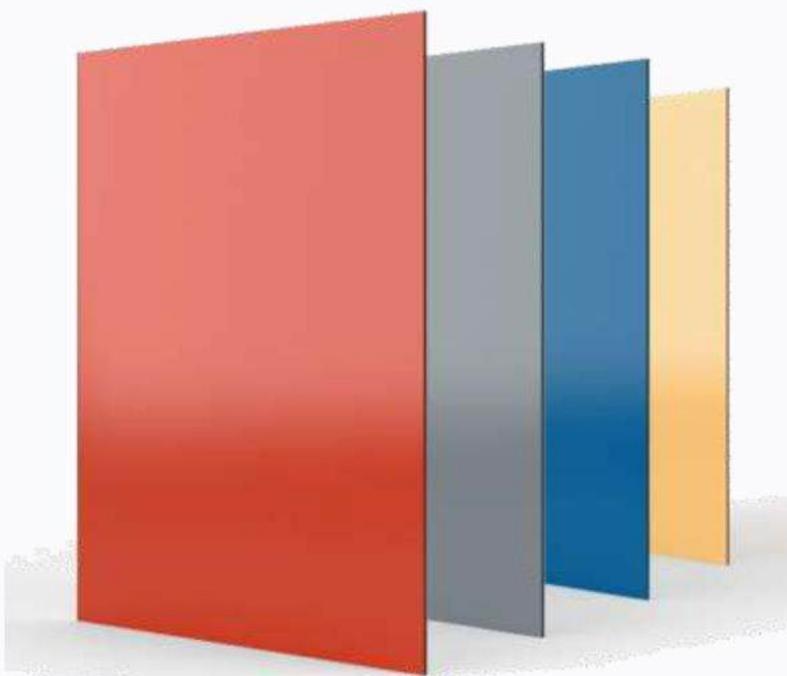
## 120-150W/m<sup>2</sup>



Product parameters					
Solar cells	158.75mm (182mm /210mm optional)				
Solar panels size	1200*600mm (customizable)				
Thickness of glass	4+4mm (Optional)				
Solar panels weight	14.8kg				
Maximum Power (Pmax/W)	85	90	95	100	105
Voltage at Pmax (Vmpp /V)	10.8	11.2	11.6	12.0	12.4
Current at Pmax (Impp /A)	7.89	8.03	8.19	8.34	8.48
Open-Circuit Voltage (Voc /V)	13.3	13.8	14.3	14.8	15.3
Short-Circuit Current (Isc /A)	8.57	8.74	8.90	9.05	9.19
Module Efficiency $\eta$ (%)	12.4	13.2	13.9	14.6	15.3

# BIPV Panels

## 60-120W/m<sup>2</sup>



Product parameters						
Solar cells	158.75mm (182mm/210mm optional)					
Solar panels size	1200*600mm (customizable)					
Thickness of glass	4+4mm (Optional)					
Solar panels weight	14.8kg					
Color	Bule series			Green series		
Maximum Power (Pmax/W)	80	85	90	85	90	95
Voltage at Pmax (Vmpp /V)	11.6	12.0	12.4	11.6	12.0	12.4
Current at Pmax (Impp /A)	6.90	7.08	7.26	7.33	7.50	7.66
Open-Circuit Voltage (Voc /V)	14.1	14.6	15.1	14.1	14.6	15.1
Short-Circuit Current (Isc /A)	7.22	7.41	7.60	7.67	7.86	8.02
Module Efficiency η (%)	11.7	12.4	13.1	12.4	13.1	13.8
The power of different colors is different, please refer to the actual proofing.						

# BIPV Balconies



Product parameters				
Solar cells	158.75mm (182mm/210mm optional)			
Solar panels size	1000*1200mm			
Thickness of glass	8+8mm (Optional)			
Maximum Power (Pmax/W)	80	85	90	95
Voltage at Pmax (Vmpp /V)	17.4	17.6	18.4	18.8
Current at Pmax (Impp /A)	4.60	4.83	4.89	5.05
Open-Circuit Voltage (Voc /V)	20.5	21	21.5	22.0
Short-Circuit Current (Isc /A)	5.15	5.22	5.30	5.37



Good anti-occlusion effect  
Fully parallel design

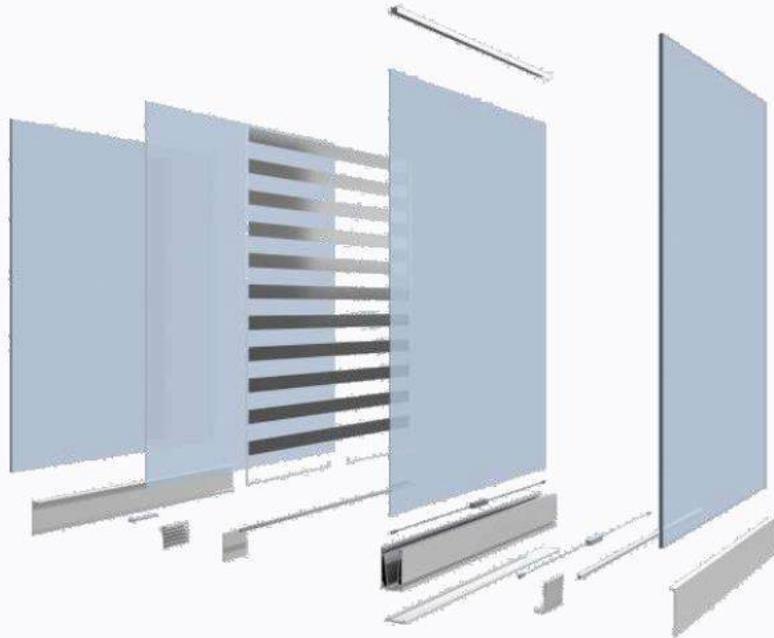


Beautiful appearance  
Flexible and adjustable cell  
width Meet different visual  
effects Better color  
consistency



easy installation  
Compatible with  
various guardrail  
installation methods

# BIPV Balconies



Adjustable light transmittance  
By adjusting the number of cells



Beautiful appearance  
Flexible and adjustable cell width  
Meet different visual effects  
Better color consistency



easy installation  
Compatible with various guardrail installation methods



Good anti-occlusion effect  
Fully parallel design



Green and efficient Shingled process ensures high power density

# BIPV Roof Tiles

## 75-90W



Product parameters			
Solar cells	166mm		
Solar panels size	1140*410*30mm		
Thickness of glass	2+2mm (Optional)		
Solar panels weight	4.6kg		
Maximum Power (Pmax/W)	70	75	80
Voltage at Pmax (Vmpp /V)	18.70	19.00	19.30
Current at Pmax (Impp /A)	3.70	3.90	4.10
Open-Circuit Voltage (Voc /V)	22.50	22.80	23.00
Short-Circuit Current (Isc /A)	4.00	4.20	4.40
Module Efficiency $\eta$ (%)	14.9	16.00	17.10

## BIPV Roof Tiles

Type	A	B	C
Size	1310*670*30	987*670*30	670*670*30
Watts	155-165W	120-130W	15-17W



PART

**4**

**Applications**

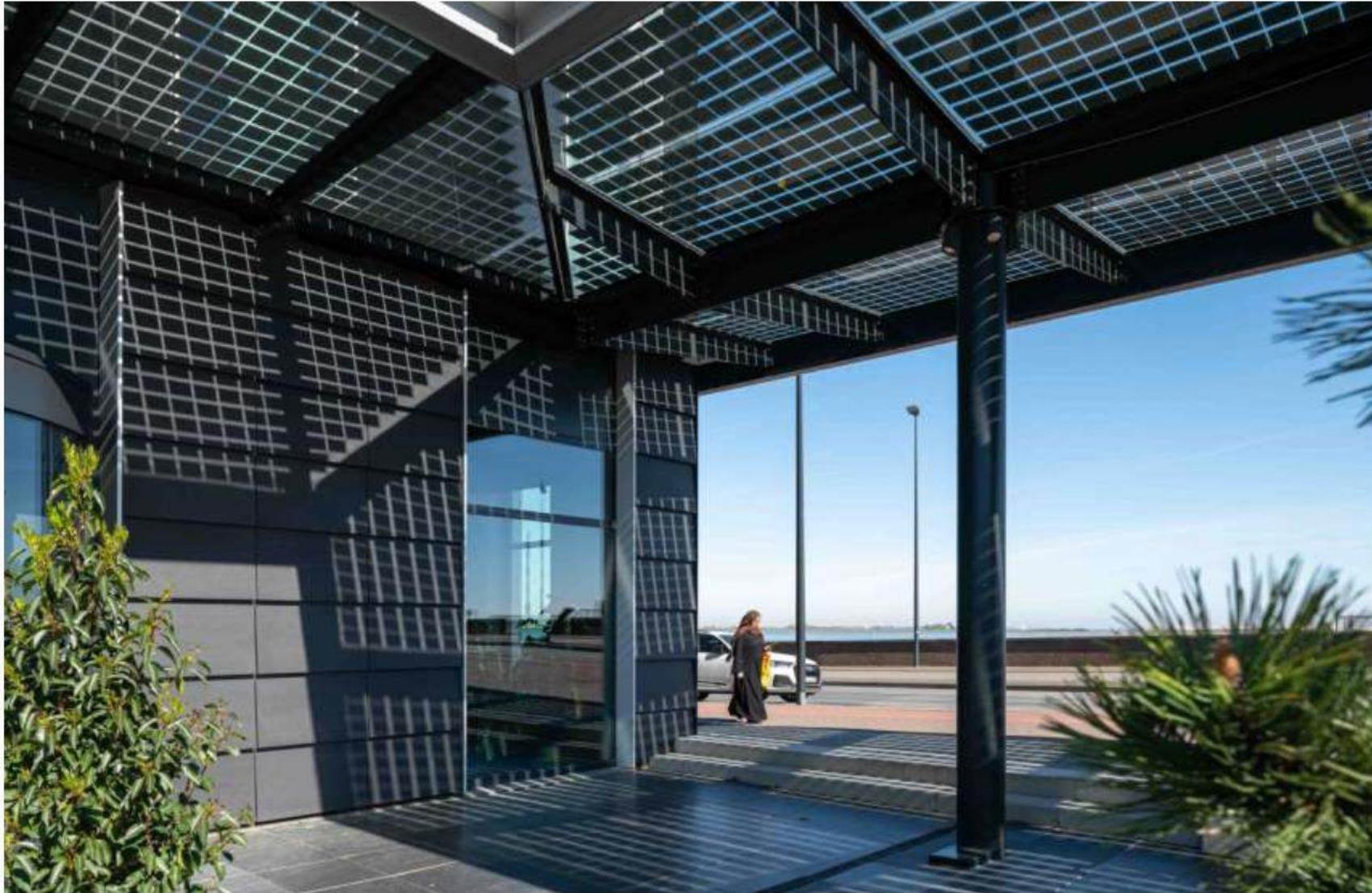
## BIPV Façade Panels



## BIPV Façade Panels



# BIPV Integrated PV design



## BIPV Façade Panels



## BIPV Façade Panels



**Under construction**



**After completion**

## BIPV Balconies



## BIPV Roof Tiles

