

**SmartSkin** is a dynamic façade innovation by PHYSEE combining photovoltaics and sensors with a self-learning building management system. Through a network of sensors, SmartSkin detects changes in internal and external conditions, in order to autonomously manage sun blinds, lighting and ventilation to optimize user comfort and well-being. Thanks to the accurate and early data's delivered by SmartSkin, the BMS can manage heating and cooling of the building. This enables an annual 15-30% savings on the total building energy consumption.

## **Technical specifications**

#### **ELECTRICAL SPECS STC\***

Part List	Specifications
Power output (Pmpp)	6.5 W/m <sup>2</sup>
Voltage output (Vmpp)	24 V
Current output (Impp)	0.25 A/m <sup>2</sup>
Open circuit voltage (Voc)	28 V
Short circuit voltage (Isc)	0.3 A/m <sup>2</sup>
Module efficiency	17 %
Voltage temperature coefficient	- 2.1 mV/K
Current temperature coefficient	+0.12 mA/(cm <sup>2</sup> K)
Energy savings	15-30% of total building consumption
Sensor data	Measuring temperature, light, air quality, pressure, humidity
Powerline communication	Same cabling for data and power

\* STC: 1000 W/m2, 25 °C, AM 1.5 according to EN 60904-3

### **MECHANICAL & PHYSICAL SPECS\***

Part List	Specifications
PV type	Monocrystalline Silicon
PV strip	19,5 mm x 285 to 3600 mm (spacer 15 mm) 34 mm x 285 to 3600 mm (spacer 29 mm)
Window sizes	Min: 545 x 360mm / Max: n.a.
Frame	Anodized Aluminium
Weight	0.35 kg/m*
Connector type	SSL, IP67
Cable	1000 W/m2, 25 °C, AM 1.5 , EN 60904-3
Spacer type	Warm edge, TGI

\*Additional to standard IGU

SmartSkin is co-produced by **AGC** and **O H**YSEE

## Composition



# Application

Windows Glass facades For any building type