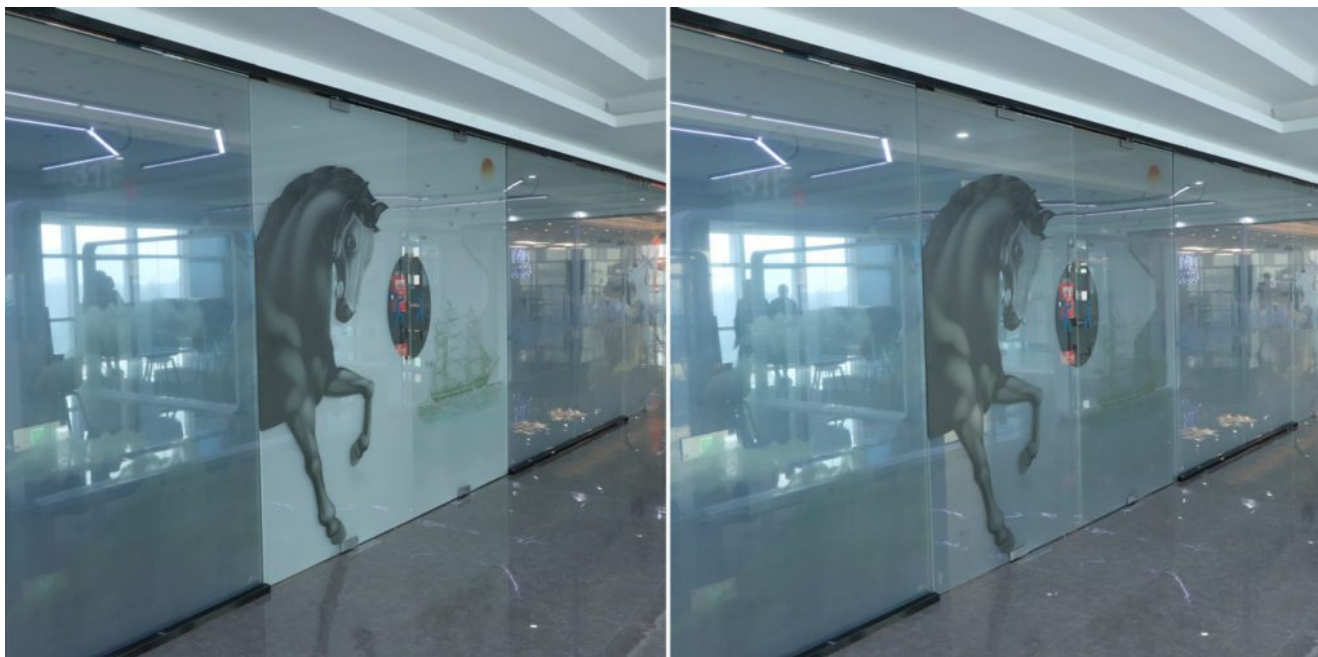


# Smart glass electric privacy glass manufacturers China, Super smart glass



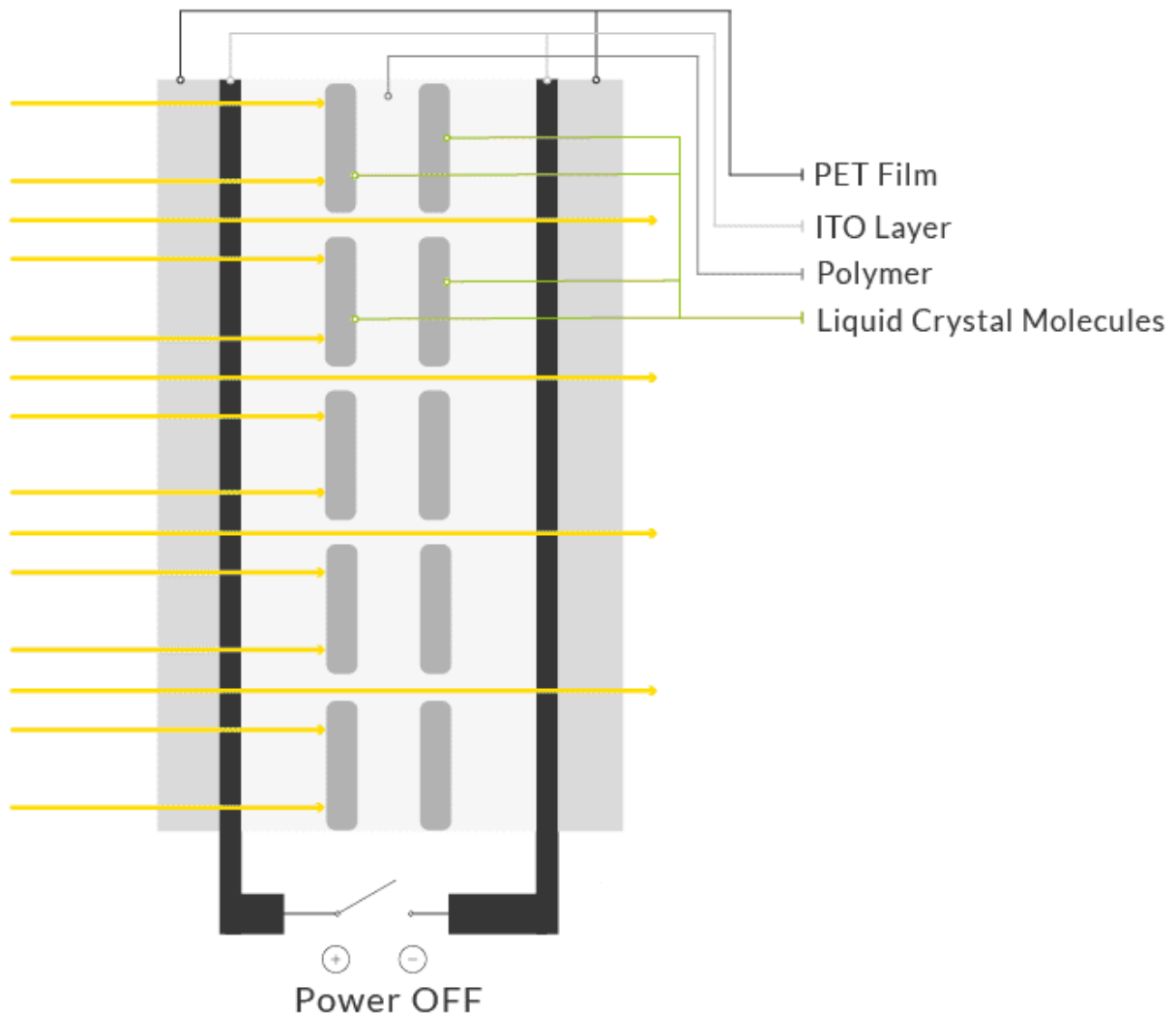
Smart glass electric is also known as smart glass, switchable glass is glass or glazing whose light transmission properties dynamically alter to control the passage of solar irradiation into buildings. In general, the glass changes between transparent and translucent and vice versa, either letting light pass through or blocking some or all wavelengths of light.

## How does electric smart glass work?

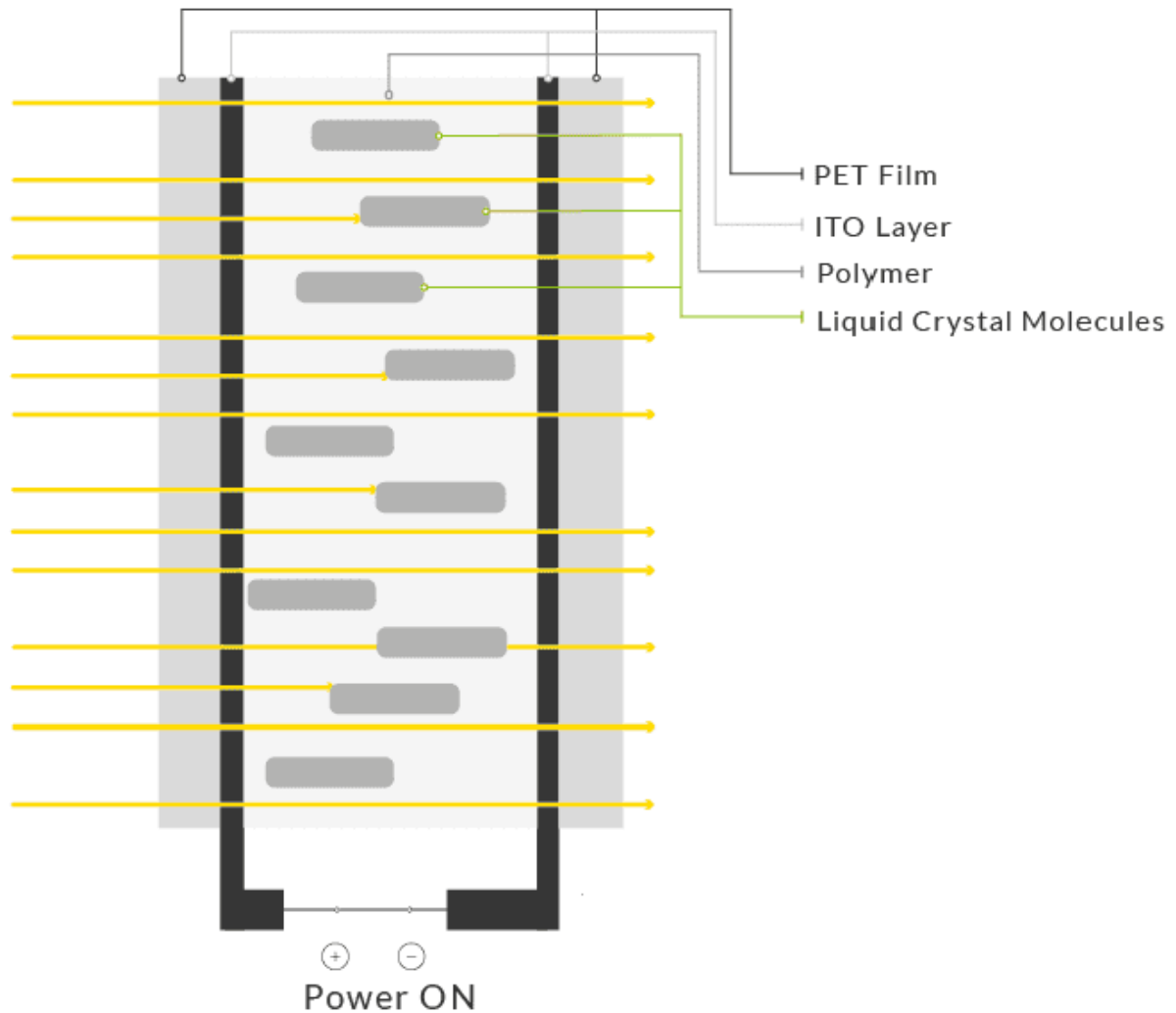
The smart electric glass tint relies on the electronic smart glass film which is laminated into the glass. The electronic smart glass film is made of polymer dispersed liquid crystal (PDLC) and special electrodes by a special process. When the power is off, the visible light is scattered and appears in an opaque fog state. When the power is on, the visible light can

penetrate smoothly and make it transparent.

**The figures below demonstrate how the smart glass electric technology works:**



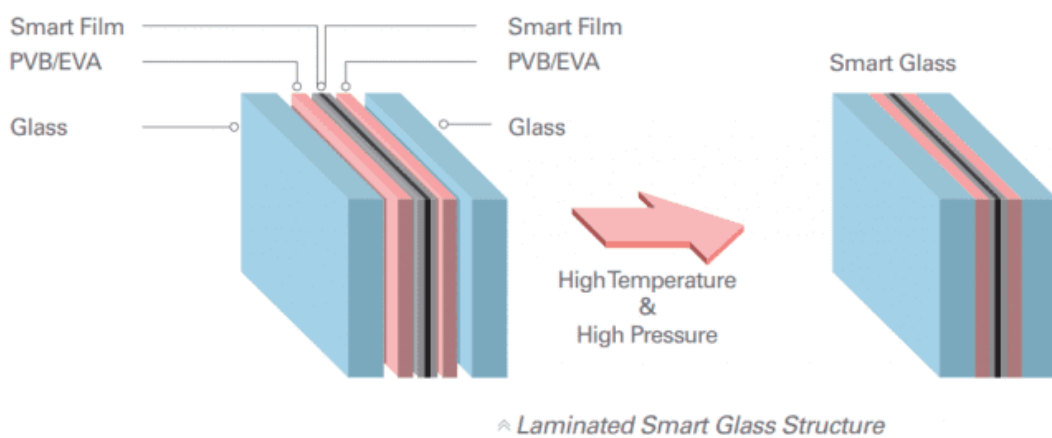
We can see that, with an absence of electrical current, the natural state of the film is frosted. The liquid crystals in the electronic smart glass film core are naturally arranged in a way that blocks out a lot of the light that would pass through them otherwise. However, one of the benefits of this technology is that it is not a complete black-out technology, blocking out around 33% of the light whilst allowing some of the ambient light to penetrate the layers.



Displays the smart glass electric technology when it is switched on, where we can see that almost all of the light is able to permeate through the film as the product presents clearly. Due to the nature of the technology, switchable glass is not as optically clear as standard glass and may still present with a slight haze. Whilst clarity is a very important variable we work towards, a degree of haze is a normal manifestation of the product, especially from an angular perspective.

# How smart glass made?

Smart glass is a new building decoration material that combines smart film with glass. This laminated smart glass is an innovative opto-electronic laminated glass that is composed of two layers of toughened glass on the outer side, an electronic smart glass film in the middle, and other composite materials to form a sandwich-like structure.



All those materials stick together firmly through special lamination machinery and can achieve the effect of smart electric glass tint. When powered off, it's opaque; when powered on, it turns transparent instantaneously. It's a safety glass that acts as a smart projection screen too.



*Smart glass electric privacy glass*



*Smart glass electric privacy glass*



*Smart glass electric privacy glass*

# Specification parameters

- **Glass Thickness:** any combination of flat glass 5mm to 19mm, depending on the area for use.
- **Glass Spec:** annealed laminated Glass, toughened clear glass, toughened low-Iron glass, toughened tinted glass, insulated glass units, curved switchable glass
- **Max size:** 2440 x 3660 mm.
- **Glass color:** clear, ultra-clear, grey, bronze, blue, green, etc
- **Switchable film color:** purple, green, orange, yellow, blue, red, grey, black, etc
- **Shape:** flat/curved
- **Switching times**  $\square > 2000000$  times
- **Operating Voltages:** 36V/60V/110V AC
- **Working temperature:** -40°C-95°C
- **Response time**  $\square < 50$ ms
- **Viewing angle**  $\square > 150^\circ$
- **Active life:** More than 80000 hours with the power on
- **Power adapter power:** 30W/50W/100W/200W/300W
- **Power adapter input:** AC100-240V 50/60Hz
- **UV block:** more than 98%
- **Capacity:** 1500 SQM/DAY
- **Quality:** subject to CE/ASTM/AS/ISO9001/BS/CE
- **Production time:** 15~25 days
- **Customize available.**





## Smart glass benefits

1. **Privacy protection:** The biggest function of intelligent dimming glass is the privacy protection function, which can control the transparency of glass at any time.
2. **Projection function:** Smart glass electric privacy glass can be projected in a state of power failure.
3. **Safety:** Smart glass electric privacy glass has all the characteristics of safety glass, in which the film in the middle sticks to the glass firmly and can prevent

debris splash hurts when the glass is broken. On the other hand, the strength of this glass is also excellent.

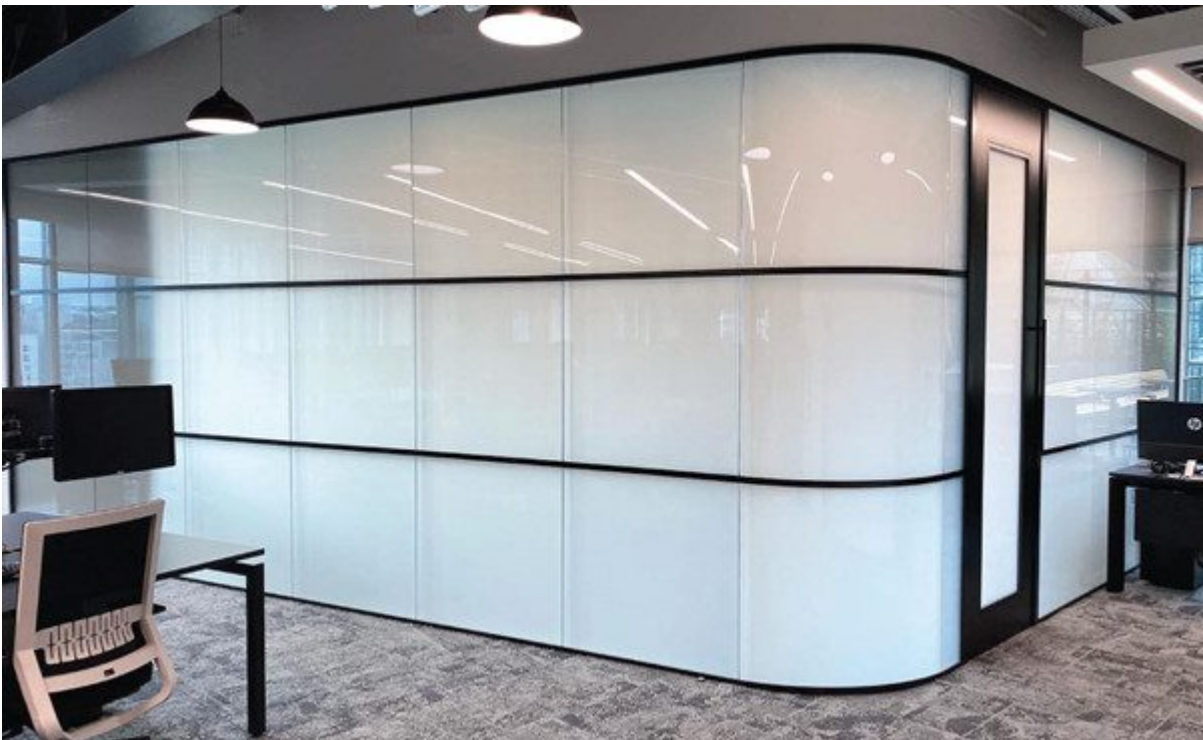
4. **Energy-saving and environmental protection:** Smart glass electric privacy glass can block the heat, with more than 99 % UV light, and more than 90% IR light.
5. **Soundproofing features:** Can partially block noise.
6. **Stable performance and long service life:** The number of switches reaches more than 20 million, and it can be used for more than 80,000 hours in the open state and can be used normally for 15 years.
7. **Diversified control methods:** Manual switch, remote control, trigger control, voice control, mobile APP control, timing control, remote network control, etc., can be customized according to customer needs.

## Smart glass electric application

A variety of glass can be used such as insulating glass, laminated glass, art glass, fireproof glass, etc. It is transparent when powered on and opaque when powered off, which can be widely used in room partitions, curtain walls, glass doors, and windows.



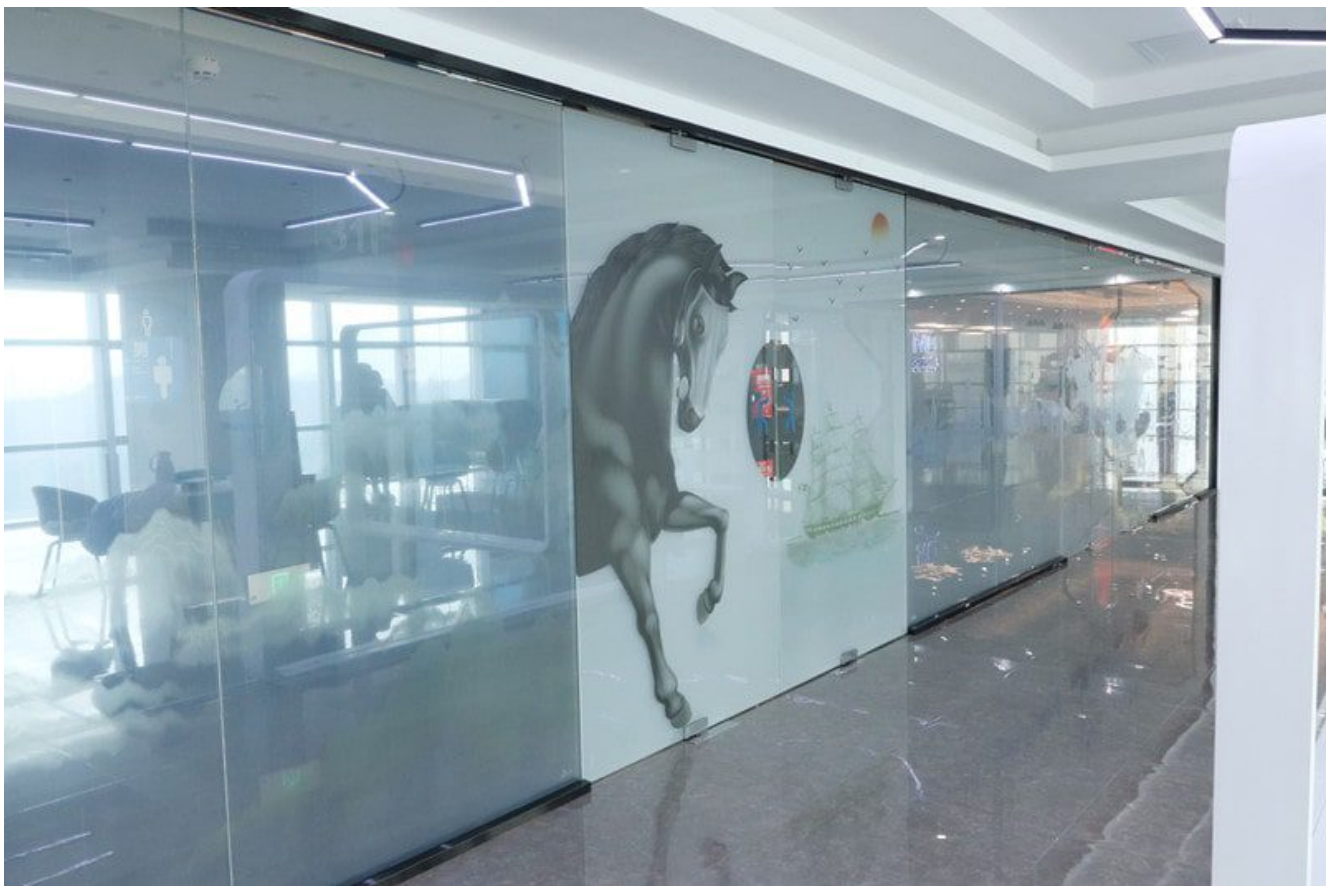
*smart glass electric privacy glass ON*



*smart glass electric privacy glass meeting room OFF*



*smart glass electric privacy glass partition ON*



*smart glass electric privacy glass partition OFF*

**Smart glass electric switchable blinds** □

For other applications, click [here to view more of our videos.](#)

## RFQs

### 1, How long does smart glass last?

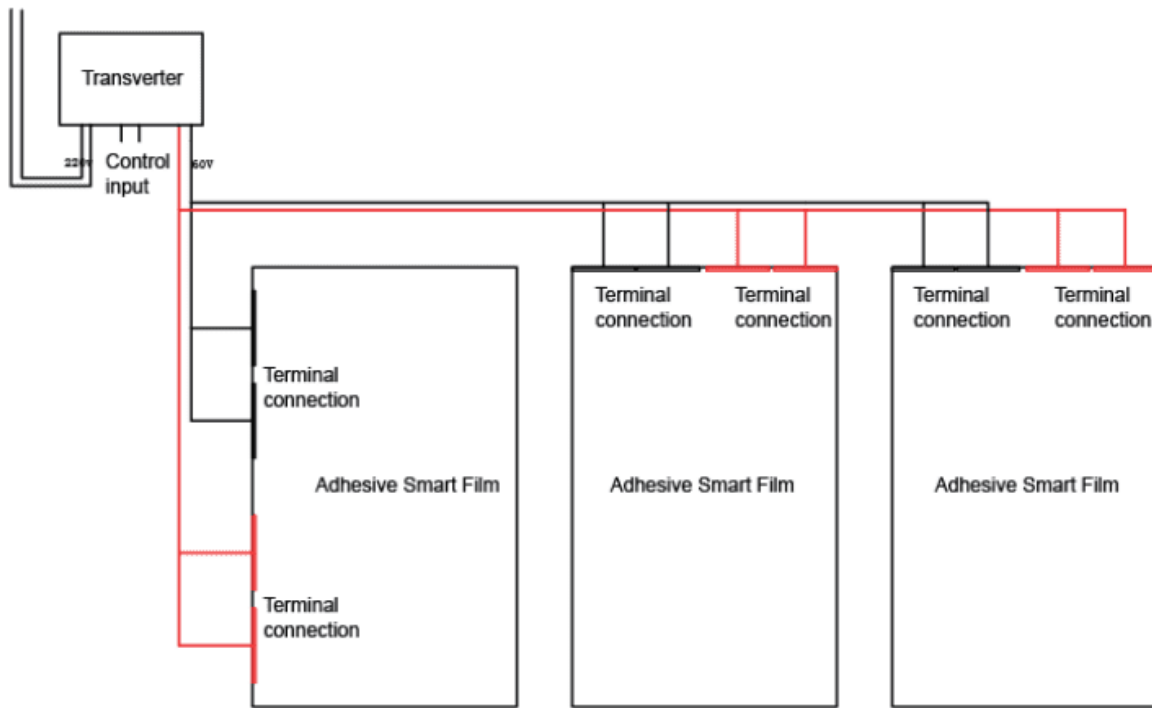
Our electronic smart glass film and smart electric glass tint switching times >2000000 times

### 2, What are smart glass windows?

Smart glass windows use smart glass for windows, with smart glass, you can make windows clear or tinted on demand, offering the promise of better comfort and significant energy savings without blinds or louvers obscuring the view.

### 3, What does a smart glass wiring diagram look like?

- Step 1: Each glass has a busbar and a short wire on it. Use regular wire solder to connect to the existing wire.
- Step 2: Connect to the power.
- Step 3: Gathering several glass into one transformer.



#### 4, How many smart glass types?

There are three main types of smart glass on the market: electrochromic smart glass, thermochromic smart glass and photochromic smart glass. We mainly produce electrochromic smart glass.

#### 5, What is self-adhesive electric smart glass film?

Self-adhesive electric smart glass film provides customers with a simple solution to add a dimming effect on the existing glass, which can be attached to the existing glass surface to achieve unique functions.

## 6, Is smart glass worth it?

Smart glass may not be the best fit for every project or application, but it has been used successfully for years, and many experts have.

Smart electric glass products offer instant privacy thanks to smart electric glass tint technology. Smart glass and smart film go from transparent to opaque with the flick of a switch, adding unprecedented speed and control to security procedures in schools, government buildings, airports, and military settings.

I believe the answer is YES!

## 7, what does electric glass cost?

Electric glass cost will be influenced by several factors, such as:

- Glass color;
- Drilling holes or not;
- Sizes: as it will influence the cutting rate;
- Quantity: large quantity, cheaper price;
- Other Processing: if needed insulated, silkscreen printed, etc

[Shenzhen Dragon Glass](#) is a smart glass international supplier. Fill out the contact form below, wherever you are in the world, one of our team will be in touch to advise on the best smart glass solution for your needs.