

## Explore the Benefits of DimGlass®

DimGlass® transforms spaces with innovative smart glass technology and sleek designs. Our products provide on-demand privacy, UV protection, and energy efficiency, allowing for versatile and stylish environments. With dedicated customer service, we ensure that each project meets our clients' unique needs, creating functional and aesthetically pleasing spaces.



### Maximize Natural Sunlight:

**Enjoy** abundant natural light while benefiting from **UV protection** and **infrared blockage**.

### Reduce Energy Costs:

**Lower** your air conditioning expenses with **effective heat insulation**.

### Instant Privacy Control:

**Switch** between privacy and transparency **effortlessly** using your mobile device, motion sensors, and more.

### Innovative Technology and Project Development:

Experience cutting-edge privacy glass technology that **enhances** your space.

## DimGlass® Features

- On-Demand Privacy:** Protect your privacy with the ability to switch between transparent and opaque states at your convenience. Enhance your personal space by choosing between openness and privacy effortlessly.
- Touch to Projection:** Achieve outstanding image quality on the smart film using an HD projector.
- Safety and Security:** In the event of breakage, glass fragments adhere to the film, minimizing injury risk from shattered glass.
- Cooling and UV Protection:** Experience effective heat insulation by blocking over 98% of infrared radiation. Additionally, more than 99% of UV rays are blocked, safeguarding your interior furnishings from fading and aging, while also protecting your skin from UV damage.
- Sound Insulation:** Compared to standard glass, our smart film offers a 20% improvement in soundproofing capabilities.

- **Multiple Control Options:** Tailor your experience with various control methods, including remote control, wired control, infrared induction, voice control, and mobile app integration, to meet your diverse needs.

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## Transformers

### What are smart film transformers?

- Smart film transformers are specialized electrical devices designed to control the operation of smart films. These transformers provide the necessary voltage and current to switch the smart film between its transparent and opaque states. They are essential for ensuring that the smart film functions correctly and efficiently.

### Types of Smart Film Transformers

- **Single On/Off Transformers:** These transformers operate at fixed voltage levels (e.g., 30, 50, 100, 500, 700 volts). They are used to provide a simple on/off control for smart films, allowing users to switch the film from transparent to opaque and vice versa.
- **Channel Transformers:** Channel transformers can manage multiple smart film zones or sections, enabling different areas to operate independently. This type is useful in applications where various windows or partitions need to be controlled separately.
- **Dimmer Transformers:** Dimmer transformers allow users to adjust the level of opacity of smart films, providing not just on/off functionality but also the ability to control how much light passes through. This feature can help create ambiance and enhance energy efficiency by controlling glare and light levels.
- **Multifunction Transformers:** Multifunction transformers combine various functionalities, allowing for on/off control, dimming, and channel management in one device. They provide flexibility for complex installations where multiple smart films need to be controlled in different ways.

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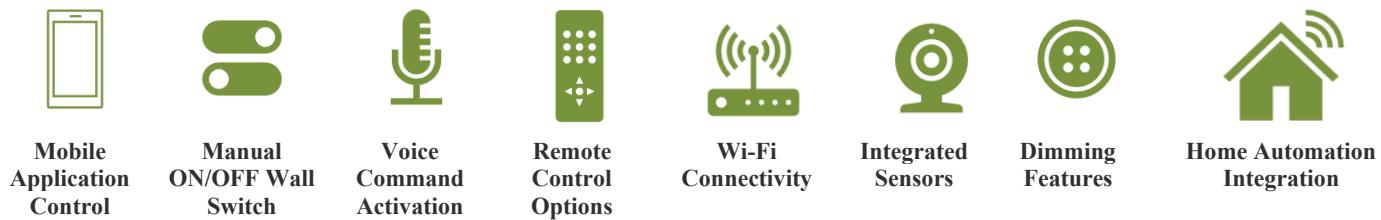
## Transformer Features

- **Safe Output Voltage:** Ensures that the output voltage is maintained at a level that does not damage the liquid crystal molecules within the glass.
- **Short-Circuit Protection:** Automatically resumes operation once the fault is cleared, eliminating the need to replace fuses.
- **Over-Current Protection:** Activates protection when excessive current is detected and resumes operation once the fault is resolved.
- **Overload Protection:** Provides enhanced construction protection, alleviating concerns about accidents such as line burns or potential fires caused by overload conditions.
- **Overvoltage Protection:** A smart chip continuously monitors output voltage parameters in real-time to prevent overvoltage situations.

- **Control System:** Features a program control system along with electronic and relay switch control. The electronic switch operates silently, while the relay switch utilizes high-indium contacts for a long lifespan and strong resistance to current surges.
- **Transition Response:** The effect transition response is faster and smoother, with no noticeable delay.
- **Unique Remote Control Codes:** Each remote control has independently developed codes, ensuring no duplication with other remotes.
- **Simple Code Pairing:** Offers users a convenient method for pairing new remote controls, alleviating concerns about losing the original remote.
- **Enhanced Sensitivity:** Improved sensitivity allows for a longer remote control range.
- **Multiple switch features:** an adapter that allows control over multiple transformers in the same time.

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## DimGlass® Control Systems

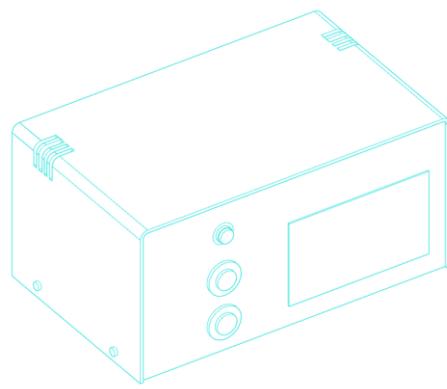


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## Transformer 3D Diagram Images

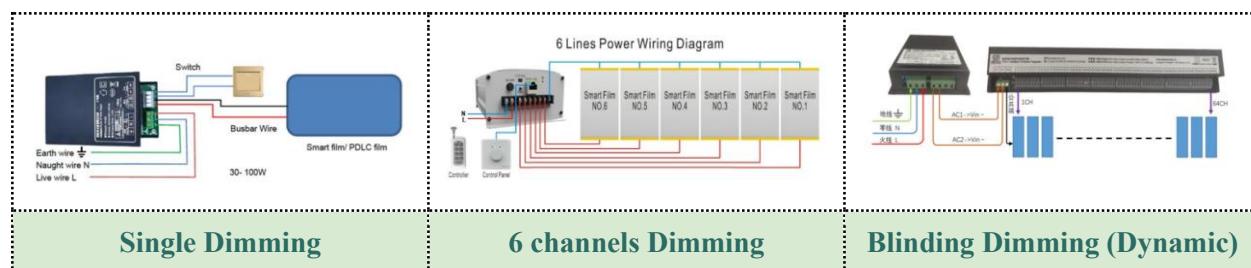


Transformer Unit



Transformer Unit

## Transformer Dimming functionality diagrams



## Product General Specs: Transformers

**Product name**  
Transformers

Power	Input Voltage	Output Voltage	Frequency	Size (LWH)	Weight	Max. matching area of PDLC film
30W	220	60V+-0.3V	50-60Hz	120*99*65mm	1.1kg	5m <sup>2</sup>
50W	220	60V+-0.3V	50-60Hz	120*99*65mm	1.2kg	8m <sup>2</sup>
100W	220	60V+-0.3V	50-60Hz	180*109*76mm	2.5kg	15m <sup>2</sup>
200W	220	60V+-0.3V	50-60Hz	200*120*100mm	3.9kg	30m <sup>2</sup>
300W	220	60V+-0.3V	50-60Hz	200*120*100mm	4.8kg	45m <sup>2</sup>
500W	220	60V+-0.3V	50-60Hz	200*120*100mm	5.5kg	65m <sup>2</sup>

→ Note: The source power must be greater than the power of the PDLC film, usually 4-6W/m<sup>2</sup>. The larger the area, the lower the average power is, and the smaller the area, the greater the average power is.

## Packaging

Sign Warnings		
<b>Caution</b>		Please pay attention to the precautions and restrictions during operation to avoid incorrect handling.
<b>Danger</b>		Important warnings during operation; neglecting these may lead to life-threatening situations or major accidents.

Before installing and using the product, please read this guide carefully and keep it in a safe place for future reference.

Abbreviations	PDLC - Polymer Dispersed Liquid Crystal

### 1. Packing List

Please check the equipment after unpacking and verify the accessories and accompanying documents according to the packing list below:

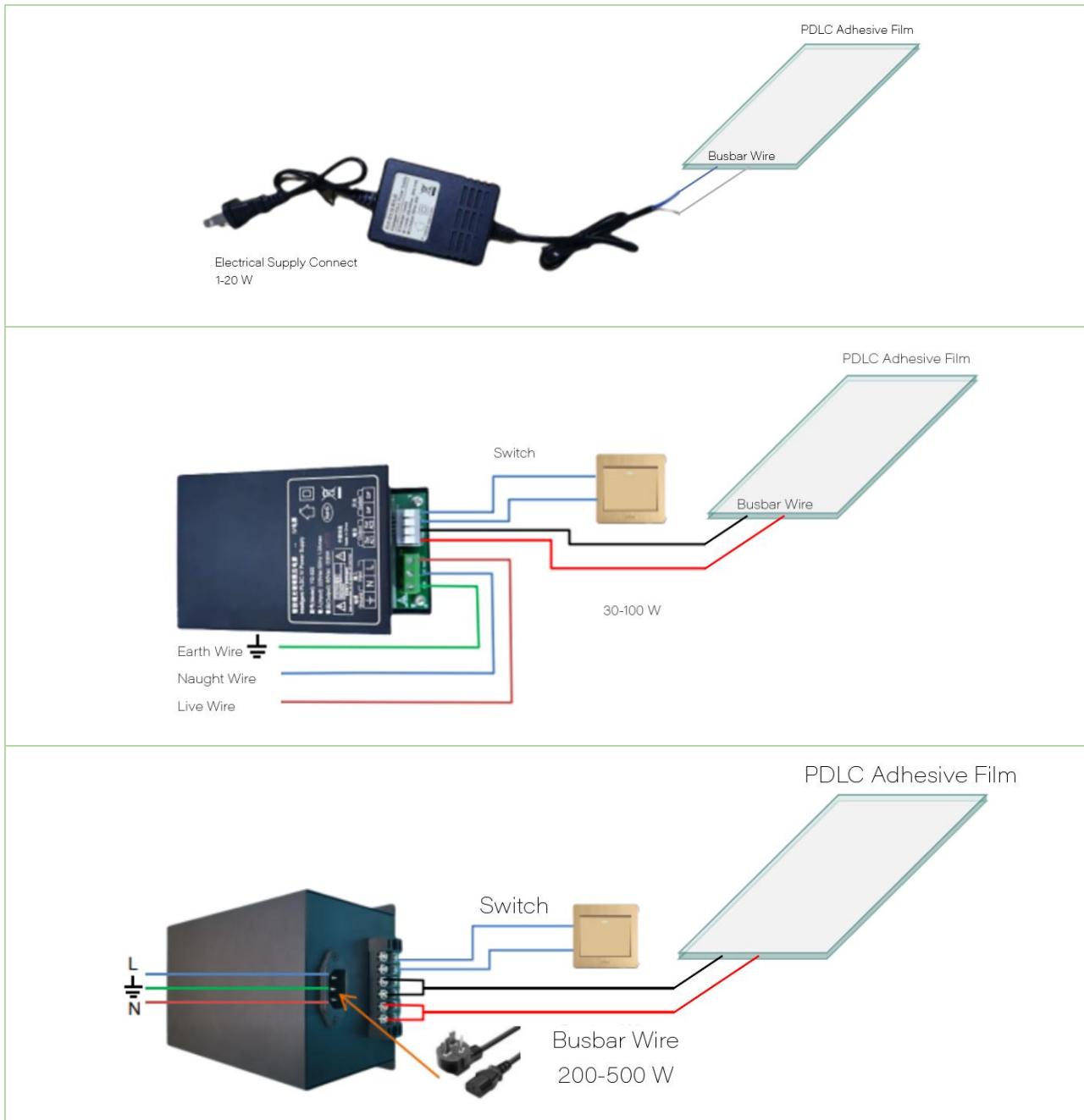
Item	Device Name	QTY
1	Smart Film / PDLC Film Transformer	1pc
2	Remote Control (without battery)	1pc
3	Transformer Instruction Manual	1pc

### 2. Product Diagram and wiring mode

The product shell has four fixing holes, which should be secured with M3 screws.



Power Off Operation



### 3. Product Size

Model	Parameters	Comments
YG-XW	1-20W	Please refer to Spec or Material Object
YG-920-S	30W/50W	120x99x65mm
YG-920-M	100W	180x109x76mm

YG-920-B	200W/300W/500W	200x136x100mm
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#### 4. Wiring Instruction

Symbol	Wiring	Comments
	Earth wire	
N	Neutral wire	
L	Live wire	Please refer to the input parameter on the name plate
AC1	PDLC Electrode/Busbar	
AC2	PDLC Electrode/Busbar	
O/F	Switch	

#### 5. Electrical Parameters

Item	Parameter	Comments
<b>Input Voltage</b>	110 VAC 60 Hz or 220 VAC 50 Hz	
<b>Input current</b>	Please refer to the actual parameters	
<b>Output Volatage</b>	36 VAC / 48 VAC / 6 VAC / Other	
<b>Output Current</b>	Current = Power ÷ Voltage	
<b>Input OVP</b>	$V_{in} * 1.1 - 1.2$	Automatic Recovery
<b>Output OVP</b>	$V_{out} * 1.2 - 1.4$	Automatic Recovery
<b>Input OCP</b>	Fuse: 5A / 6.3A / 10A, 250 VAC, explosion-proof, low-breaking fuse type	Irreversible Damage
<b>Output OCP</b>	Load > 1.2 times rated current	Automatic Recovery
<b>OLP</b>	Load > 1.2 times rated load	Automatic Recovery
<b>SCP</b>	Output electrodes are on	Automatic Recovery

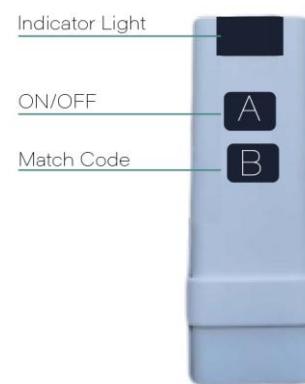
#### 6. Remote Control Operation



To match the code, please follow these steps (for reference only; individual results may vary):

- After turning on the device, press and hold the "B" key within 3 seconds. You will see the PDLC flicker.
- Next, press the "A" key. The PDLC will flicker again.

Once you see the second flicker, the matching process is complete.



## Disclaimer

- Damage resulting from the use of a power supply that does not meet Dimglass Transformers standards.
- Damage caused by improper handling or operation during the installation or maintenance of the transformers.
- Lack of regular and necessary maintenance can lead to performance issues and potential damage.
- Damage resulting from natural disasters, such as earthquakes, fires, or other unforeseen events.
- Defects arising from intentional or unintentional human actions that compromise the integrity of the transformers.
- Defects caused by irregularities or instability in the electricity supply.
- Defects resulting from environmental conditions that do not meet the specified requirements for operation.