

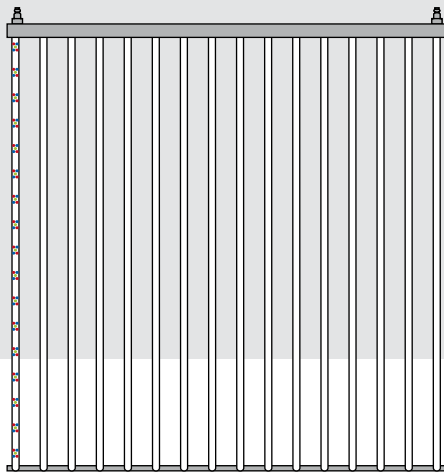
# Phantom 60

Large Format Transparent LED Display  
PixelPerfect Video and Graphics

**G-LEC**<sup>®</sup>  
Visual  
Technology #



*Transparent to light, audio and wind*



*Nothing but plastic tubes,  
a thin frame and transparency*

## Facts

- Most transparent LED video system available
- Transparent to light, audio and wind
- Powerful LEDs for indoor or outdoor use
- Very lightweight, easy to hang and transport
- Fast and easy to assemble with patented QuickLock frames
- Video can be shown on a single screen or separate clusters of screens
- Accepts DVI-D video from any professional media server

## Applications

- Indoor and outdoor staged events
- Television shows and awards ceremonies
- Corporate events, exhibitions and presentations
- Can be flown and mounted on trucks
- Can be integrated into scenery
- Any video, graphic or still content depending on server supplied by customer
- Phantom<sup>®</sup> 60 can mix and match with Phantom<sup>®</sup> 30, connecting frames together regardless of resolution

### Overview

The Phantom 60 consists of a number of 1m<sup>2</sup> aluminium frames carrying the display pixels. The frames are powered externally by power supply units that can be located separately from the frames. Control is from a Drive Box that is configured by a PC or laptop with configuration software. Content and external media server are supplied by the client.

### Display

Each 1 m x 1 m frame carries 16 translucent polycarbonate tubes, each holding 16 ultrabright LED pixels at a pitch of 60 mm. Each frame may be connected to other frames, using the patented QuickLock system, or fixed separately.

### S-Drive

The Drive Box transmits video and control data to the frames via fibre optic cables. The configuration PC or laptop is not required during the operation of the system.

### Speed

The DVI input is transmitted to the configured display positions at full video speed via fibre optic cables which are daisy-chained between frames.

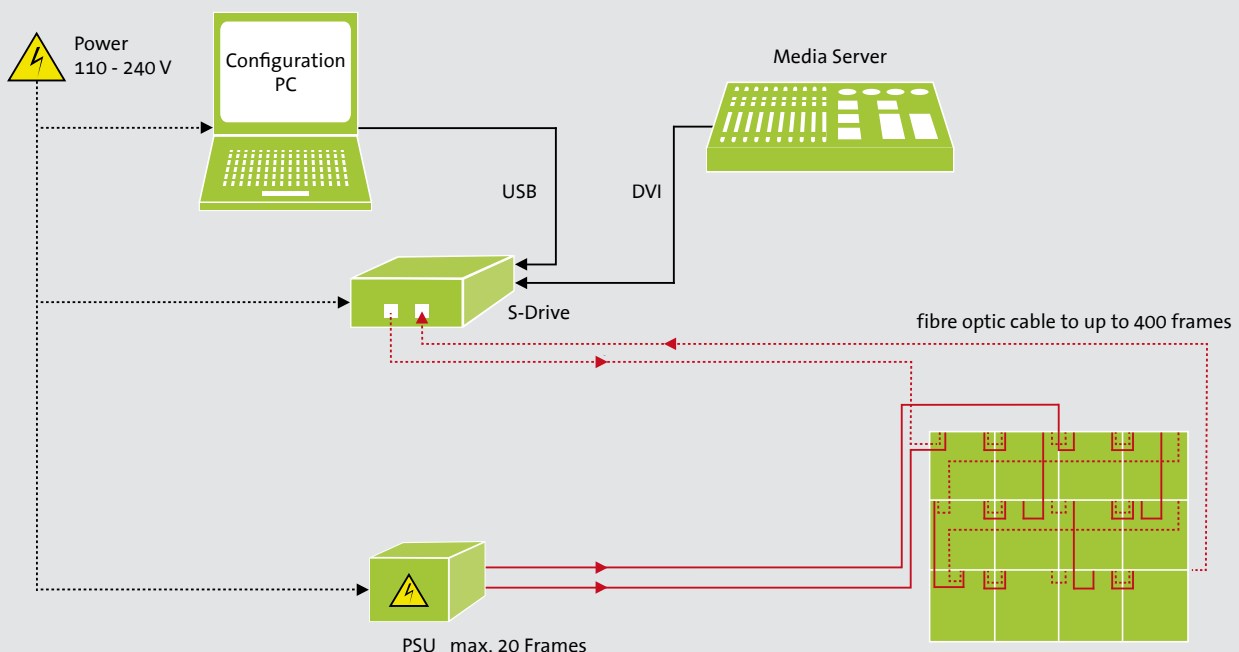
### Reliability

Because G-LEC display equipment is used daily in the demanding conditions found on stages and in studios around the world, the technology, both hardware and software, is designed to be hardwearing and robust. G-LEC uses high specification cables, connectors and electronic and mechanical components to ensure the reliability needed for large live performances.

### Customised Solutions

The Phantom system is optimised for touring and rental applications, however G-LEC prides itself on a flexible use of the technology to provide customised solutions to even the most difficult design demands. Increasingly specified for architectural and fixed installation projects, the technology can be designed to easily blend into any indoor or outdoor application.

### System Diagram



## Specifications

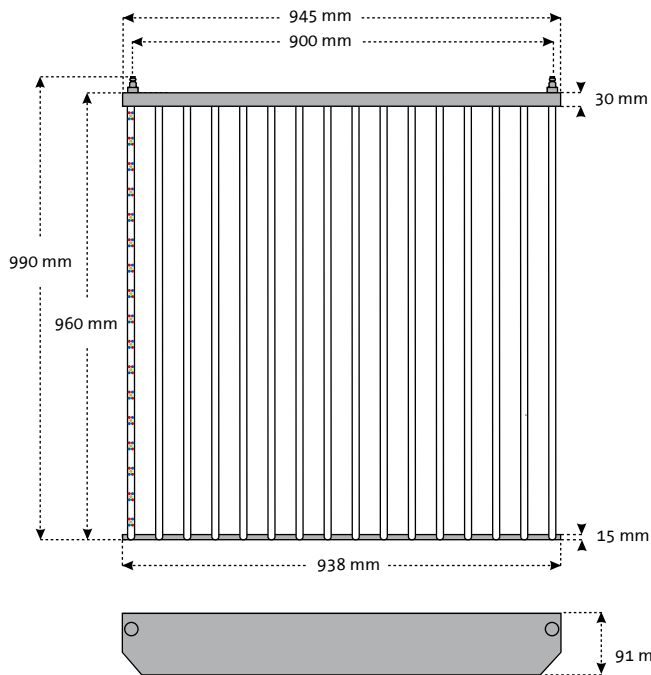
Transparency	Visual, audio and wind 75%		
Configuration dimensions	Each frame:	0.96 x 0.96 m	0.90 m <sup>2</sup>
Tube diameter	18 mm		
Weight	Each frame:	5.6 kg	
	Per area:	6 kg / m <sup>2</sup>	
Pixel pitch	60 mm		
Resolution	256 pixel/m <sup>2</sup>		
Luminance	1550 nits (cd/m <sup>2</sup> )		
Pixel luminous intensity	3 LED pixel (RGB) 5600 mcd		
Colours	16 million, 24 bit full colour		
Angle of viewing	50% brightness: 110° horizontal / 50° vertical		
Viewing distance	Recommended minimum to view graphics: low resolution: 10m, good resolution: 60m		
Cabling & voltage	Internal Cables: Multimode fibre optics 50/125 µm, SC-SC connector Speakon for 48 V DC power HAN for power multicore		
	External connectors: 230 V: PowerCon DVI-D connector USB-B socket for control		
Power consumption	100 W per Frame		
Video Input	DVI-D up to 1600 x 1200 pixels		
Configuration	Any frame can be defined to be at any position on a virtual plane, defined by the configuration software.		
S-Drive	DVI In and amplified DVI Out for Drive Box daisy-chain connection USB interface		

## Environmental

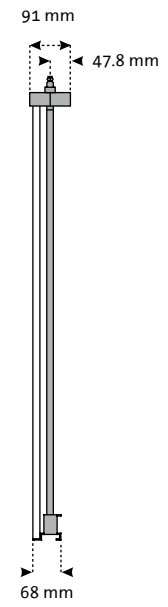
Phantom 60 is designed for use indoors and outdoors. With prolonged outdoor use, there may be UV and IP considerations. Please contact G-LEC for information on outdoor ruggedization.

Frame	Operating temperature:	-25°C to 70°C
	Tube material:	polycarbonate
	Electronics housed inside frame and tubes	
	No fan	
	Ingress protection:	IP32
S-Drive	Clean equipment area	
	Ambient air temperature:	0°C to 40°C
Humidity	5-95%, non-condensing	

**Phantom 60**  
front view



side view

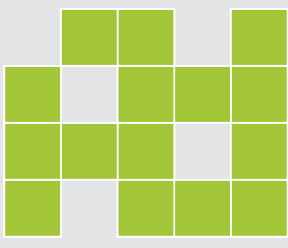


top view



weight: 5.6kg  
not to scale

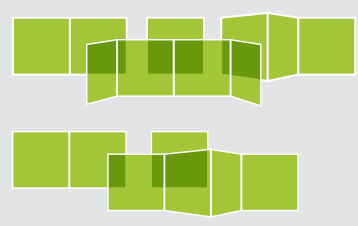
The **Phantom system** consists of two or more frames and ...



can be used like a screen or ...



moved like curtains or ...



... built to form 3D objects



Photo: Marco Calzavara



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