SONY

VPL-FHZ700L

Laser Light Source 3LCD Projector

3LCD

BrightEra™
Long Lasting Optics

HDMI

HDBT™

Ideal Combination of High Image Quality, Low Cost of Ownership, and Exceptional Integration

Sony is proud to introduce a powerful projector for the most demanding applications – the VPL-FHZ700L. This new WUXGA 7,000 lumens 3LCD laser light source projector delivers an ideal combination of high image quality, low cost of ownership, and exceptional integration flexibility.

To achieve 7,000-lumen color light output at high resolution (1920 x 1200), this projector is designed with both a laser light source and a 3LCD optical system. Colors appear natural and the brightness is extraordinary, thanks to Sony's BrightEra 3LCD engine together with the laser light source. Full color is displayed (red + green + blue) with three micro displays and there is no visible color breaking or rainbow effect even on high-contrast images.

For up to 20,000 hours* of maintenance-free, replacement-free operation, and in addition to a laser light source, the VPL-FHZ700L has a long-life LCD panel and advanced filter system. It also offers a range of energy-saving features. The result is a substantially lower total lifetime cost of ownership than with a conventional lamp projector.

* Actual hours may vary depending on the usage environment.

Blend-in Design

The projector comes in white or black, and has a simple, stylish design that fits any modern environment. Its flat top surface enables unobtrusive ceiling mounting.

To achieve exceptional installation flexibility in virtually any environment – academic, business, public sector, medical, retail, entertainment, and more – the VPL-FHZ700L offers multiple interfaces and lens shift positions. It also provides a tilt-angle-free design for easy installation at any angle (even sideways and upside down!) and convenient features such as built-in edge blending (for super-sized displays, images from multiple projectors can be seamlessly blended), geometric correction, and quick power on/off. All from the world's brightest 3LCD laser light source projector!

For business
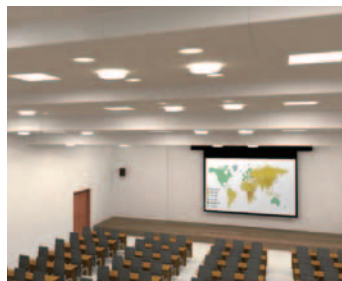
For education

For entertainment

High Image Quality

Laser Light Source and 3LCD Optical System Create High Brightness and Vivid Color Image

Combining a laser light source with a 3LCD optical system, the ground-breaking VPL-FHZ700L projector generates a powerful 7,000 lumens of color light output at WUXGA resolution. The projector's light engine uses blue laser as its light source, which excites a phosphorous material that in turn creates white light. The white light is delivered to the 3LCD optical system, which generates constant, vibrant RGB color through a color splitting process. The resulting 7,000 lumen output produces brightness sufficient for a broad range of commercial applications.
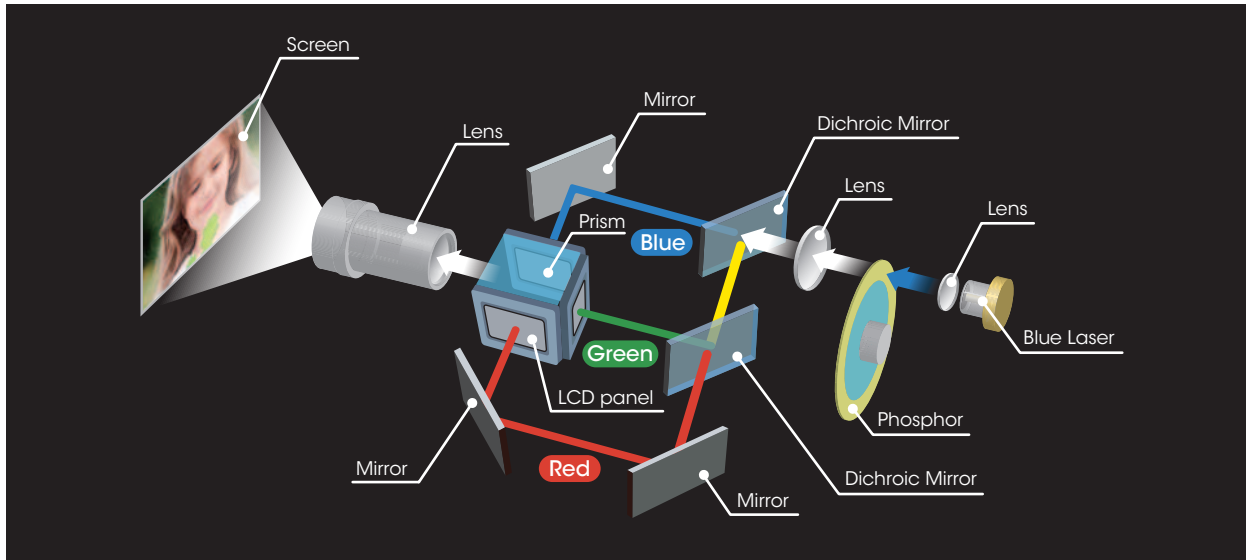

High-resolution WUXGA Image

The VPL-FHZ700L delivers an amazing resolution of WUXGA (1920 x 1200), which exceeds Full-HD resolution (1920 x 1080). It also allows projection in a wider display range. More information can be displayed on screen, so the user can see the whole page without scrolling.
Extremely clear and detailed high-quality images are projected, even on a large screen, and native Full-HD images can be projected full screen. The ground-breaking VPL-FHZ700L is the ultimate tool for projecting images in a range of applications requiring exceptional detail.
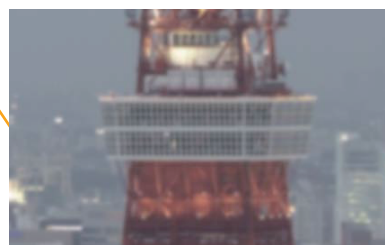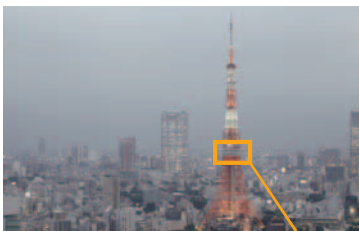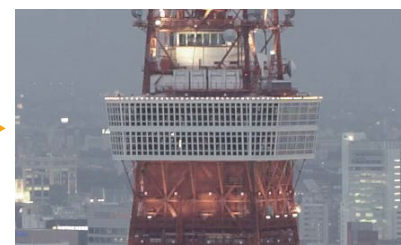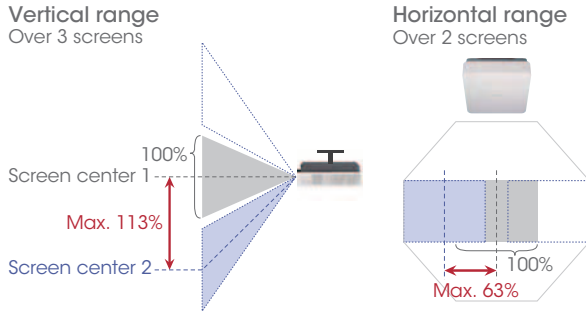

WXGA picture quality   WUXGA picture quality

Simulated image
Licensed by Tokyo Tower

Installation Advantages

Lens Shift Function

The VPL-FHZ700L has a Lens Shift function. Using this function, the position of the projected image can be moved vertically by -113% to +113% and horizontally by -63% to +63%. Images can be easily adjusted to the desired settings during installation. With this exceptional shift range, the VPL-FHZ700L can be installed in ways to maximize performance even in the most difficult environments.

Vertical range
Over 3 screens

Horizontal range
Over 2 screens

100%
Screen center 1
Max. 113%
Screen center 2
100%
Max. 63%

Variety of Optional Lenses

Various optional zoom lenses are available for the VPL-FHZ700L, and these can be used for many different applications.

## Edge Blending for Seamless Wide Projection

Built-in features enable the installation of multiple projectors to create one large seamless and uniform image.

* Finer adjustment can be achieved by using a software application provided separately by Sony. Please contact your account manager for details.

Overlapping image edge

Without edge blending   With edge blending

Simulated image
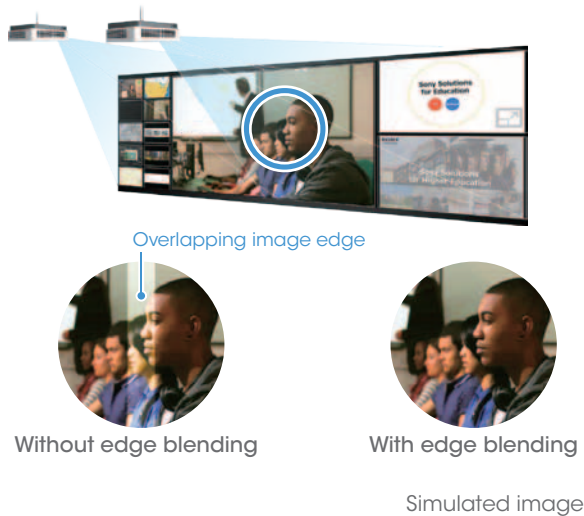
Tilt Angle-free

Enjoy supreme installation flexibility: position the projector freely at any angle, on its side, or even upside down.

Vertical   Horizontal
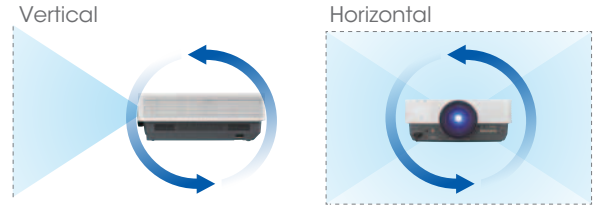
## Simple Installation by HDBaseT*

HDBaseT is a multi-signal transmission system via a single cable, which simplifies the installation task. It cuts the total system cost by reducing not just cabling requirements but also the number of signal extenders and receiver boxes.
One Cat5e/6 cable can run up to 100 meters, reducing the number of cable runs and eliminating the need for signal extenders. And fewer signal extenders and receiver boxes mean fewer potential points of failure. In addition, Cat5e/6 cables are much easier to terminate than cables such as HDMI, and therefore can be simply and quickly terminated even onsite during the installation process.

* The optional BKM-PJ10 is required.

Video

Control

328 ft (100 m)
CAT5e/6 Cable

Ethernet

Simulated image
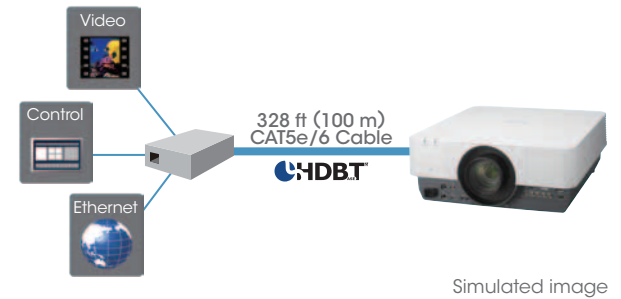
Advanced Geometric Correction

Each corner and side can be grabbed and fitted squarely to the desired position. This feature is useful when offset projection is necessary.

Four corners correction   Four sides correction
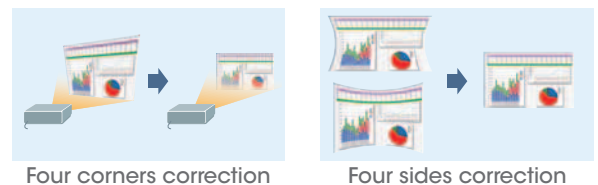
With these projectors, keystone distortion of vertically up to +/- 30 degrees and horizontally up to +/- 30 degrees can be digitally corrected. This enables detailed images to be projected with their correct geometry, even when installation space is limited.

Good TCO & Energy Efficient

20,000 Hours Maintenance-free Operation

Thanks to its laser light source with control technology, long-life LCD panel, and advanced filter system, the VPL-FHZ700L offers up to 20,000 hours* of operation without maintenance or replacement. Virtually zero maintenance requirements and a range of energy-saving features reduce total lifetime ownership costs compared with conventional UHP projectors.

* Actual hours may vary depending on usage environment.

Energy-efficient Functions
• Auto Dimming Mode

The VPL-FHZ700L is equipped with a light source dimming function. After 10 seconds of a static signal feed, the light source dims by approximately 15% which is barely noticeable. If the VPL-FHZ700L is left powered on while not in use, after a set period of time it will automatically detect no change of signal input and will dim the light source to as low as approximately 5% of original brightness to significantly reduce energy consumption.
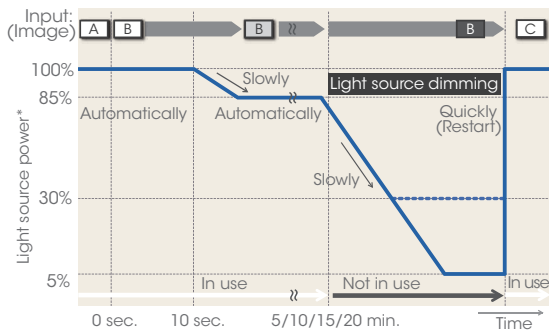
* Light source mode: High. The values are approximate.

When the input signal is unchanged, the unit shifts into dimming mode

Simulated image

• Auto Light Source Control for Energy Saving

The brightness of the light source's output is automatically adjusted depending on the brightness of the projected image, to avoid unnecessary power consumption.
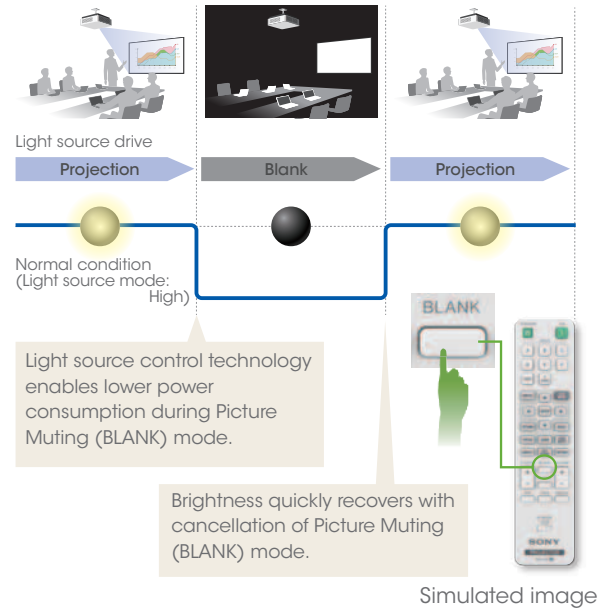When showing darker images that don't require high brightness, the light source output decreases.
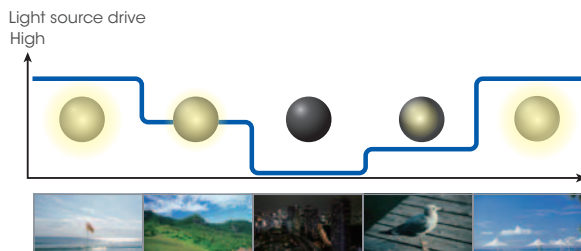
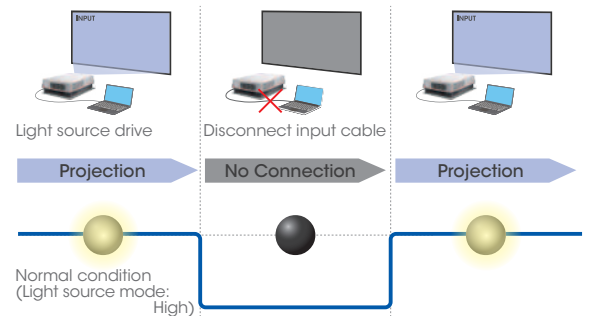Simulated images

• Blank (Picture Muting)

The VPL-FHZ700L can temporarily disable the video signal output. This function can be easily operated with just the touch of a button on the supplied Remote Commander unit. In addition, this function allows blank image projection with low power consumption using light source control technology.

Light source control technology enables lower power consumption during Picture Muting (BLANK) mode.

Brightness quickly recovers with cancellation of Picture Muting (BLANK) mode.

Simulated image

Low Power Consumption with No Input

The VPL-FHZ700L automatically detects no signal input and dims the light source to as low as approximately 0% of original brightness to significantly reduce energy consumption.
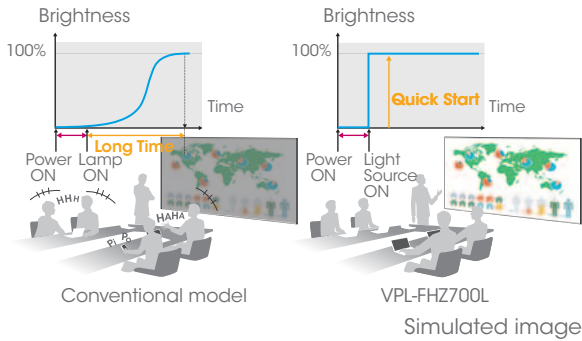

Simulated image

Hg (Mercury) Free

The VPL-FHZ700L laser light source projector is mercury free to provide a more environmentally friendly solution.

User Advantages

Instant ON/OFF for Smooth Presentations

The VPL-FHZ700L delivers instant on/off. Turn it on and you have immediate full brightness. Turn it off and you're done. You're not even limited in the number or duration of on/off cycles. It's the total convenience that today's users expect.

Brightness   Brightness

100%   100%

Time   Quick Start Time

Long Time

Power Lamp   Power Light
ON   ON   ON   Source
                                                 ON

Conventional model   VPL-FHZ700L

Simulated image

Extended Mode for Long-term Operation

The VPL-FHZ700L provides an entirely predictable and incredibly low TCO (total cost of ownership). This is extremely valuable for process control monitoring, visualization and simulation applications, as no lamp changes are required.

Constant Brightness Mode for Stable Projection

Constant brightness mode allows users to maintain brightness throughout the expected 20,000 hour life by driving the projector at reduced light output. This is useful for applications including digital signage, museums, or even classrooms where you want to maintain a consistent visual experience for the audience.

Conventional model   VPL-FHZ700L
Lamp changes   **No lamp changes**

Simulated image

Other Features

Picture-by-Picture

With this feature, users can project two different images at the same time, greatly expanding creative possibilities and enabling exciting new applications.

DICOM GSDF Simulation*

Get a clear view of digital medical images for training and other non-diagnostic applications.

* Conforms to GSDF (Grayscale Standard Display Function) medical standards for DICOM (Digital Imaging and Communications in Medicine).
* This function is for training and reference only, and cannot be used for medical diagnosis.

Closed Captioning

Official teletext broadcasting, developed by the NCI, USA

Network and Control

Controls and monitors projector status
Compatible with various control systems

OPTIONAL LENSES

<Premium Series>

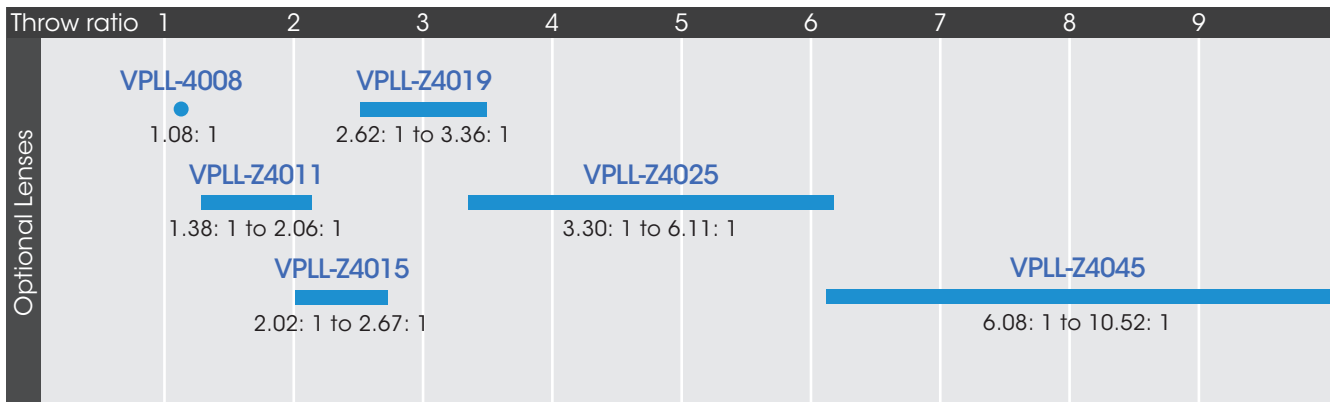| Projection lens	VPLL-4008	VPLL-Z4011	VPLL-Z4015	VPLL-Z4019
Throw ratio	1.08:1	1.38:1 to 2.06:1	2.02:1 to 2.67:1	2.62:1 to 3.36:1
Zoom / Focus	— / Manual	Powered / Powered	Powered / Powered	Powered / Powered
Lens shift	Vertical: Upward 41% to Downward 41% Horizontal: Right 19% to Left 19%	Vertical: Upward 110% to Downword 110% Horizontal: Right 57% to Left 57%	Vertical: Upward 109% to Downward 109% Horizontal: Right 57% to Left 57%	Vertical: Upward 113% to Downward 113% Horizontal: Right 63% to Left 63%
Aperture	f/2.00	f/1.75 to 2.40	f/2.20 to 2.60	f/1.70 to 2.10
Screen size*	40" to 600"	60" to 600"	40" to 600"	40" to 600"
Dimensions	W 5 13/16 x H 5 1/4 x D 9 7/16 in (W 148 x H 133 x D 240 mm)	W 6 3/16 x H 5 29/32 x D 10 7/16 in (W 157 x H 150 x D 265 mm)	W 5 13/16 x H 5 1/4 x D 9 3/32 in (W 148 x H 133 x D 231 mm)	W 5 13/16 x H 5 1/4 x D 8 11/32 in (W 148 x H 133 x D 212 mm)
Weight	5.63 lb / 2.55 kg	8.16 lb / 3.70 kg	6.62 lb / 3.00 kg	6.75 lb / 3.06 kg
Required projection lens adapter	—	—	—	—

Projection lens	VPLL-Z4025	VPLL-Z4045
Throw ratio	3.30:1 to 6.11:1	6.08:1 to 10.52:1
Zoom / Focus	Powered / Powered	Powered / Powered
Lens shift	Vertical: Upward 113% to Downward 113% Horizontal: Right 63% to Left 63%	Vertical: Upward 113% to Downward 113% Horizontal: Right 63% to Left 63%
Aperture	f/2.20 to 3.10	f/2.20 to 3.60
Screen size*	40" to 600"	60" to 600"
Dimensions	W 5 13/16 x H 5 1/4 x D 9 9/16 in (W 148 x H 133 x D 243 mm)	W 5 13/16 x H 5 1/4 x D 9 1/4 in (W 148 x H 133 x D 235 mm)
Weight	6.18 lb / 2.80 kg	6.62 lb / 3.00 kg
Required projection lens adapter	—	—

* Viewable area, measured diagonally.

<Value Series>

Projection lens	VPLL-ZM42
Throw ratio	1.83:1 to 2.32:1
Zoom / Focus	Manual / Manual
Lens shift	Vertical: Upward 59% to Downward 59% Horizontal: Right 31% to Left 31%
Aperture	f/1.74 to 2.28
Screen size*	40" to 300"
Dimensions	W 3 15/32 x H 3 15/32 x D 6 1/4 in (W 88 x H 88 x D 159 mm)
Weight	1.44 lb / 0.65 kg
Required projection lens adapter	PK-F500LA2

* Viewable area, measured diagonally.

Throw ratio	1	2	3	4	5	6	7	8	9

Optional Lenses

VPLL-4008
1.08: 1

VPLL-Z4019
2.62: 1 to 3.36: 1

VPLL-Z4011
1.38: 1 to 2.06: 1

VPLL-Z4025
3.30: 1 to 6.11: 1

VPLL-Z4015
2.02: 1 to 2.67: 1

VPLL-Z4045
6.08: 1 to 10.52: 1

Compatible with the VPLL-ZM42

OPTIONAL ACCESSORIES
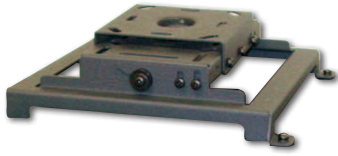
PAM-400
Projector Suspension Support

PAM-400EXP
Extension Pole for PAM400

PK-F500LA2
Projection Lens Adapter

BKM-PJ10
Digital Interface Adaptor

PRESET SIGNAL CHART

Computer Signal

Resolution	fH [kHz]/ fV [Hz]	Input connector	
		RGB*1	DVI-D*2/HDMI*6/ Digital Interface Adaptor BKM-PJ10*7
640 x 350	31.5/70	●	—
	37.9/85	●	—
640 x 400	31.5/70	●	—
	37.9/85	●	—
640 x 480	31.5/60	●	●
	35.0/67	●	—
	37.9/73	●	—
	37.5/75	●	—
	43.3/85	●	—
800 x 600	35.2/56	●	—
	37.9/60	●	●
	48.1/72	●	—
	46.9/75	●	—
	53.7/85	●	—
832 x 624	49.7/75	●	—
1024 x 768	48.4/60	●	●
	56.5/70	●	—
	60.0/75	●	—
	68.7/85	●	—
1152 x 864	64.0/70	●	—
	67.5/75	●	—
	77.5/85	●	—
1152 x 900	61.8/66	●	—
1280 x 960	60.0/60	●	●
	75.0/75	●	—
1280 x 1024	64.0/60	●	●
	80.0/75	●	—
	91.1/85	●	—
1400 x 1050	65.3/60	●	●
1600 x 1200	75.0/60	●	●
1280 x 768	47.8/60	●	●
1280 x 720	45.0/60	●	●*5
1920 x 1080	67.5/60	—	●*5
1366 x 768	47.7/60	●	●
1440 x 900	55.9/60	●	●
1680 x 1050	65.3/60	●	●
1280 x 800	49.7/60	●	●
1920 x 1200	74.0/60	●*4	●*4
1600 x 900	60.0/60	●*4	●*4

Video Signal

Signal	fV [Hz]	Input connector		
		VIDEO/ S VIDEO	RGB/YP$_B$P$_R$*3	DVI-D*2/HDMI*6/ Digital Interface Adaptor BKM-PJ10*7
NTSC	60	●	—	—
PAL/SECAM	50	●	—	—
480i	60	—	●	●
576i	50	—	●	●
480p	60	—	●	●
576p	50	—	●	●
1080i	60	—	●	●
1080i	50	—	●	●
720p	60	—	●	●*5
720p	50	—	●	●
1080p	60	—	—	●*5
1080p	50	—	—	●
1080p	24	—	—	●

*1: INPUT A, INPUT B
*2: INPUT C
*3: INPUT A
*4: Available for VESA Reduced Blanking signals only
*5: INPUT C/E is determined as a computer signal; INPUT D is determined as a video signal
*6: INPUT D
*7: INPUT E
• When a signal other than the signals listed in the table is input, the picture may not be displayed properly.
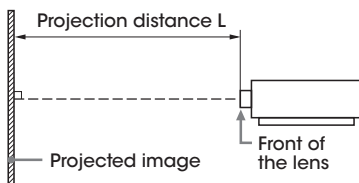• An input signal meant for a screen resolution different from that of the panel will not be displayed in its original resolution. Text and lines may be uneven.
• An actual value may differ slightly from the design values given in the table.

INSTALLATION DIAGRAM

Unit: inches (m)

Projection image size		Projection distance L						
Diagonal	Width x Height	VPLL-4008	VPLL-Z4011	VPLL-Z4015	VPLL-Z4019	VPLL-Z4025	VPLL-Z4045	VPLL-ZM42
80-inch (2.03 m)	1.72 x 1.08 (68 x 42)	1.80 (71)	2.36 – 3.56 (93 – 140)	3.36 – 4.42 (132 – 174)	4.36 – 5.57 (172 – 219)	5.48 – 10.14 (216 – 399)	10.09 – 17.46 (397 – 687)	3.17 – 3.98 (125 – 157)
100-inch (2.54 m)	2.15 x 1.35 (85 x 53)	2.27 (89)	2.96 – 4.47 (117 – 176)	4.22 – 5.55 (166 – 219)	5.48 – 6.99 (216 – 275)	6.88 – 12.71 (271 – 500)	12.66 – 21.88 (498 – 861)	3.98 – 4.99 (157 – 196)
120-inch (3.05 m)	2.58 x 1.62 (102 x 64)	2.74 (108)	3.57 – 5.38 (141 – 211)	5.09 – 6.68 (200 – 263)	6.60 – 8.41 (260 – 331)	8.29 – 15.28 (326 – 602)	15.23 – 26.30 (600 – 1035)	4.78 – 6.00 (188 – 236)
150-inch (3.81 m)	3.23 x 2.02 (127 x 79)	3.44 (135)	4.48 – 6.74 (177 – 265)	6.38 – 8.38 (251 – 330)	8.29 – 10.55 (326 – 415)	10.40 – 19.14 (409 – 754)	19.10 – 32.93 (752 – 1296)	5.99 – 7.51 (236 – 296)
200-inch (5.08 m)	4.31 x 2.69 (170 × 106)	4.61 (182)	6.00 – 9.01 (236 – 354)	8.55 – 11.20 (337 – 441)	11.09 – 14.10 (437 – 555)	13.92 – 25.57 (548 – 1007)	25.53 – 43.99 (1005 – 1732)	8.01 – 10.03 (315 – 395)

Projection distance L

Projected image

Front of the lens

SPECIFICATIONS

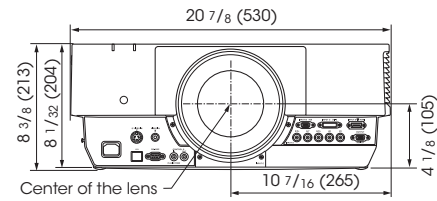|		VPL-FHZ700L
Display system		3 LCD system
Display device	Size of effective display area	0.95" (24.1 mm) x 3, Aspect ratio: 16:10
	Number of pixels	6,912,000 (1920 x 1200 x 3) pixels
Projection lens	Zoom	Powered/Manual (Depends on lens)
	Focus	Powered/Manual (Depends on lens)
	Throw ratio	Powered/Manual (Depends on lens)
Light source	Type	Laser diode
Screen size		40" to 600" (1.02 m to 15.24 m), measured diagonally
Light output (Mode: High / Standard)		7000 lm / 5600 lm
Color light output (Mode: High / Standard)		7000 lm / 5600 lm
Contrast ratio (full white / full black)		8000:1
Displayable scanning frequency	Horizontal	14 kHz to 93 kHz
	Vertical	47 Hz to 93 Hz
Display resolution	Computer signal input	Maximum display resolution: 1920 x 1200 dots *1 Panel display resolution: 1920 x 1200 dots
	Video signal input	NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p,1080/24p
Color system		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60
Keystone correction		Vertical: Max. +/- 30 degrees Horizontal: Max. +/- 30 degrees
OSD language		24-language (English, French, German, Italian, Spanish, Portuguese, Japanese, Simplified Chinese, Traditional Chinese, Korean, Russian, Dutch, Norwegian, Swedish, Thai, Arabic, Turkish, Polish, Vietnamese, Farsi, Indonesian, Finnish, Hungarian, Greek)
Computer and video signal input/output	INPUT A	RGB / Y P$_B$ P$_R$ input connector: 5BNC (female)
	INPUT B	RGB input connector: Mini D-sub 15-pin (female)
	INPUT C	DVI-D input connector: DVI-D 24-pin (Single link), supported HDCP
	INPUT D	HDMI input connector: Digital RGB/Y P$_B$ P$_R$
	INPUT E	Optional adaptor slot (For Digital Interface Adaptor BKM-PJ10)*2
	S-VIDEO IN	S-video input connector: Mini DIN 4-pin
	VIDEO IN	Video input connector: BNC
	OUTPUT	Monitor output connector*3: Mini D-sub 15-pin (female)
Control signal input/output		RS-232C connector: D-sub 9-pin (male) LAN connector: RJ45, 10BASE-T/100BASE-TX Control S input connector: Stereo mini jack, Plug in power DC 5 V Control S output connector: Stereo mini jack
Operating temperature (Operating humidity)		32°F to 104°F / 0°C to 40°C (35% to 85%; no condensation)
Storage temperature (Storage humidity)		-4°F to +140°F / -10°C to +60°C (10% to 90%; no condensation)
Power requirements		AC 100 V to 240 V, 5.0 A to 2.1 A, 50/60 Hz
Power consumption (Mode: High / Standard)	AC 100 V to 120 V	497 W / 404 W
	AC 220 V to 240 V	476 W / 387 W
Standby mode power consumption (Standby mode: Standard / Low)	AC 100 V to 120 V	12.2 W / 0.1 W
	AC 220 V to 240 V	8.4 W / 0.5 W
Heat dissipation	AC 100 V to 120 V	1696 BTU
	AC 220 V to 240 V	1624 BTU
Outside dimensions		W 20 7/8 x H 8 3/8 x D 21 15/32 in (W 530 x H 213 x D 545 mm) W 20 7/8 x H 8 1/32 x D 21 15/32 in (W 530 x H 204 x D 545 mm) (without protrusions)
Weight		47 lb / 22 kg
Supplied accessories		RM-PJ27 Remote Commander (1), Size AA (R6) batteries (2), AC Power Cord (1), Cable ties (2), Cable tie holder (1), Screws of lens attachment (4), Lens gap cover (1), Quick Reference Manual (1), Security Label (1), Operating Instructions (CD-ROM) (1)

*1 Available for VESA Reduced Blanking signal.
*2 HDBaseT 3play (Video, Control, Ethernet)
*3 From INPUT A and INPUT B.

This data projector is classified as a CLASS 2 LASER PRODUCT.
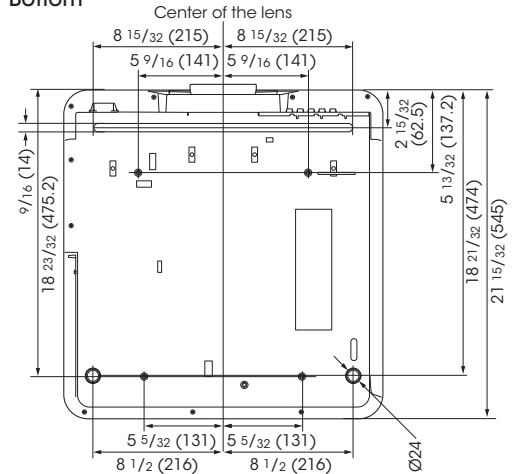(Laser radiation IEC60825-1:2007)
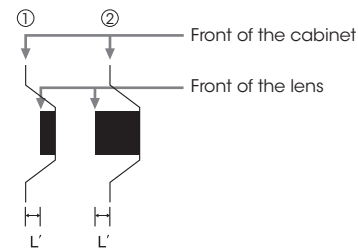
DIMENSIONS

Front
Unit: inches (mm)

20 7/8 (530)
8 3/8 (213)
8 1/32 (204)
4 1/8 (105)
Center of the lens
10 7/16 (265)

Bottom

Center of the lens
8 15/32 (215) 8 15/32 (215)
5 9/16 (141) 5 9/16 (141)
2 15/32 (62.5)
5 13/32 (137.2)
9/16 (14)
18 23/32 (475.2)
5 13/32 (474)
18 21/32 (474)
21 15/32 (545)
5 5/32 (131) 5 5/32 (131)
8 1/2 (216) 8 1/2 (216)
Ø24

The distance L is between the front of the lens (center) and the front of the cabinet

Unit: mm (inches)

Lens	L	Type
VPLL-ZM42	40.1 (1 19/32)	①
VPLL-4008	57.8 (2 9/32)	②
VPLL-Z4011	75.5 (3)	②
VPLL-Z4015	47.8 (1 7/8)	②
VPLL-Z4019	26.7 (1 1/16)	②
VPLL-Z4025	55.4 (2 3/16)	②
VPLL-Z4045	53.0 (2 3/32)	②

① ②
Front of the cabinet
Front of the lens
L' L'

SONY