

## VPL-FHZ91L

9,000 lm (9,800 lm center) laser light source projector (colour availability may vary by country)



### Overview

**Combining spectacular image quality with easy set-up and minimal maintenance needs, these high-brightness 3LCD laser projectors are ideal for installation in larger spaces.**

Captivate your audience in conference halls, lecture theatres, galleries, museums, visitor attractions and other large spaces. A high light output of 9,000 lumens ensures big-screen presentations with extra presence, even in brightly lit rooms.

Impressive picture quality is boosted by Sony's unique super resolution Reality Creation technology. This uses a powerful pattern-matching database to optimise lower-resolution images, enhancing clarity without increasing digital picture noise.

Save time with Sony's Intelligent Setting function that simplifies installation with pre-sets to optimise brightness, cooling, colour and other projector settings. You'll be rewarded with great pictures in every environment.

You'll appreciate an industry-leading lens shift adjustment range and a wide choice of interchangeable lenses, giving more options to install the projector in any space, including classrooms and halls with high ceilings. For extra flexibility the VPLL-Z4107 short throw lens is ideal when positioning the projector close to the screen to avoid ceiling-mounted obstructions.

## Features

### **Reduced maintenance**

The laser light source offers up to 20,000 hours\* operation without lamp exchange, reducing maintenance needs compared with traditional projectors.

*\* Depending on usage environment.*

### **Consistent brightness**

Experience consistent image brightness throughout the laser light source's 20,000 hours recommended lifespan.

### **Networked control and monitoring**

Ideal for integration in AV environments with leading control, monitoring and management systems such as Crestron Connected™ and Extron® XTP™ Systems.\*

*\* Extron and XTP Systems are trademarks of RGB Systems Inc.*

### **Easy edge blending**

Seamlessly join colour-matched images from multiple projectors for stunning super-size displays in corporate and education environments.

### **Versatile lens options**

There's a wide range of lens options to suit virtually any size of room and throw requirements. Quick-release bayonet mount simplifies lens exchange.

### **Generous lens shift range**

Enjoy greater flexibility to position the projector in restricted spaces, ensuring that audience and presenters aren't distracted by the light source.

### **Lens position memory**

Memorise and recall up to six settings for projected image size, position and aspect ratio, saving time in different environments.

(Requires optional VPLL-Z4111 lens)

## Stylish blend-in design

The slim, stylish body features a flat top surface that blends discreetly into any space when the projector is ceiling mounted.

## Specifications

### Display system

|                |              |
|----------------|--------------|
| Display system | 3 LCD system |
|----------------|--------------|

### Display device

|                                |   |
|--------------------------------|---|
| Size of effective display area | 1" x 3 BrightEra LCD Panel, Aspect ratio: 16:10 |
|--------------------------------|---|

|                  |                                    |
|------------------|------------------------------------|
| Number of pixels | 6,912,000 (1920 x 1200 x 3) pixels |
|------------------|------------------------------------|

|              |       |
|--------------|-------|
| Aspect ratio | 16:10 |
|--------------|-------|

|            |                            |
|------------|----------------------------|
| Resolution | WUXGA (1920 x 1200 pixels) |
|------------|----------------------------|

### Projection lens

|       |                                |
|-------|--------------------------------|
| Focus | Powered/Manual(Depend on lens) |
|-------|--------------------------------|

|                       |                                |
|-----------------------|--------------------------------|
| Zoom - Powered/Manual | Powered/Manual(Depend on lens) |
|-----------------------|--------------------------------|

|              |                |
|--------------|----------------|
| Zoom - Ratio | Depend on Lens |
|--------------|----------------|

|             |                |
|-------------|----------------|
| Throw ratio | Depend on Lens |
|-------------|----------------|

|                                |         |
|--------------------------------|---------|
| Lens shift -<br>Powered/Manual | Powered |
|--------------------------------|---------|

|   |  |
|---|--|
| Lens shift - Range<br>Vertical/Horizontal | Range Vertical: Depend on Lens<br>Range Horizontal: Depend on Lens |
|---|--|

## Light source

|      |             |
|------|-------------|
| Type | Laser diode |
|------|-------------|

## Filter replacement cycle (Max.)

|                                    |                                |
|------------------------------------|--------------------------------|
| Filter replacement<br>cycle (Max.) | 10,000 H (service maintenance) |
|------------------------------------|--------------------------------|

## Screen size

|             |                |
|-------------|----------------|
| Screen size | Depend on Lens |
|-------------|----------------|

## Light output \*1

|                |                                 |
|----------------|---------------------------------|
| Mode: Standard | 9,000lm *2 / 9,800lm (Center)*3 |
|----------------|---------------------------------|

|              |         |
|--------------|---------|
| Mode: Middle | 8,000lm |
|--------------|---------|

|           |         |
|-----------|---------|
| Mode: Low | 7,000lm |
|-----------|---------|

## Colour light output \*1

|                |         |
|----------------|---------|
| Mode: Standard | 9,000lm |
|----------------|---------|

|              |         |
|--------------|---------|
| Mode: Middle | 8,000lm |
|--------------|---------|

|           |         |
|-----------|---------|
| Mode: Low | 7,000lm |
|-----------|---------|

## Contrast ratio \*1

|  |  |
|--|--|
| Contrast ratio (full white / full black) | Contrast ratio (full white / full black) : ∞ : 1 |
|--|--|

## Displayable scanning frequency

|            |                  |
|------------|------------------|
| Horizontal | 15 kHz to 92 kHz |
|------------|------------------|

|          |                |
|----------|----------------|
| Vertical | 48 Hz to 92 Hz |
|----------|----------------|

## Accepted signal resolution

|                       |  |
|-----------------------|--|
| Computer signal input | Maximum signal resolution: 1920 x 1200 |
|-----------------------|--|

|                    |  |
|--------------------|--|
| Video signal input | 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i<br>The following items are available for digital signal only; 1080/60P, 1080/50p, 1080/24p, 1080/30p *4 |
|--------------------|--|

## Keystone correction (Max.)

|            |                |
|------------|----------------|
| Horizontal | +/- 30 degrees |
|------------|----------------|

|          |                |
|----------|----------------|
| Vertical | +/- 30 degrees |
|----------|----------------|

## INPUT OUTPUT (Computer/Video/Control)

|         |   |
|---------|---|
| INPUT A | RGB / Y PB PR input connector: 5 BNC (female) |
|---------|---|

|         |   |
|---------|---|
| INPUT B | RGB input connector: Mini D-sub 15-pin (female) |
|---------|---|

|         |   |
|---------|---|
| INPUT C | DVI input connector: DVI-D 24-pin (single link), HDCP support<br>HDCP: v1.4 |
|---------|---|

|         |   |
|---------|---|
| INPUT D | HDMI input connector: HDMI 19-pin, HDCP support<br>HDCP: v1.4 |
|---------|---|

|         |   |
|---------|---|
| INPUT E | HDBaseT interface connector: RJ45, 3 play |
|---------|---|

|         |   |
|---------|---|
| INPUT F | Optional adaptor slot for 3G-SDI Input Adaptor (BKM-PJ20) |
|---------|---|

|         |             |
|---------|-------------|
| INPUT G | HTML Viewer |
|---------|-------------|

|          |                                    |
|----------|------------------------------------|
| OUTPUT 1 | Monitor output for Input A/Input B |
|----------|------------------------------------|

|        |                                       |
|--------|---------------------------------------|
|        | Connector: Mini D-sub 15-pin (female) |
| USB-1  | Type-A x 1                            |
| USB-2  | Type-B x 1 (for service)              |
| REMOTE | D-sub9pin male/RS232C                 |
| LAN    | RJ45, 10BASE-T/100BASE-TX/1000BASE-T  |

## Acoustic Noise \*1

Light output mode:  
Standard 39dB

Light output mode:  
Middle 39dB

## Operating temperature / Operating humidity

Operating temperature /  
Operating humidity 0°C to 45°C (32°F to 109°F) / 20% to 80% (no condensation)

## Storage temperature / Storage humidity

Storage temperature / -10°C to +60°C (14°F to +140°F) /

Storage humidity 20% to 80% (no condensation)

## Power requirements

|                    |  |
|--------------------|--|
| Power requirements | AC 100 V to 240 V, 8.4 A to 3.4 A, 50 Hz / 60 Hz |
|--------------------|--|

## Power consumption

|                   |       |
|-------------------|-------|
| AC 100 V to 120 V | 840 W |
|-------------------|-------|

|                   |       |
|-------------------|-------|
| AC 220 V to 240 V | 814 W |
|-------------------|-------|

## Power Consumption (Standby Mode)

|                   |   |
|-------------------|---|
| AC 100 V to 120 V | 0.50W (when "Standby mode" is set to "Low") |
|-------------------|---|

|                   |   |
|-------------------|---|
| AC 220 V to 240 V | 0.50W (when "Standby mode" is set to "Low") |
|-------------------|---|

## Power Consumption (Networked Standby Mode)

|                   |  |
|-------------------|--|
|                   | 21.6W (LAN)  |
|                   | 26.5W (HDBT)   |
| AC 100 V to 120 V | 26.6W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard") |



|                   |   |
|-------------------|---|
| AC 220 V to 240 V | 21.3W (LAN)<br>26.5W (HDBT)<br>26.6W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard") |
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## Standby Mode / Networked Standby Mode Activated

|   |                   |
|---|-------------------|
| Standby Mode / Networked Standby Mode Activated | Approx. 2 Minutes |
|---|-------------------|

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## Heat dissipation

|                   |            |
|-------------------|------------|
| AC 100 V to 120 V | 2866 BTU/h |
|-------------------|------------|

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|                   |            |
|-------------------|------------|
| AC 220 V to 240 V | 2777 BTU/h |
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## Dimensions (W x H x D) (without protrusions)

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|--|--|
| Dimensions (W x H x D) (without protrusions) | Approx. 544 x 205 x 564 mm<br>(21 13/32 x 8 1/16 x 22 7/32 inches) |
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## Mass

|      |                       |
|------|-----------------------|
| Mass | Approx. 26 kg (58 lb) |
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## Supplied accessories

Remote commander      RM-PJ30

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## Projection Lens

Projection Lens      VPLL-Z4107, 4008, Z4111, Z4015,  
Z4019, Z4025, Z4045

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## Optional Projection Lens

VPLL-Z4107      Throw Ratio: 0:75:1 to 0:94:1  
Lens Shift - Range Vertical: +/-50%  
Lens Shift - Range Horizontal:  
+/-24%

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VPLL-4008      Throw Ratio: 1:00:1  
Lens Shift - Range Vertical: +/-32%  
Lens Shift - Range Horizontal:  
+/-15%

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VPLL-Z4111      Throw Ratio: 1:30:1 to 1:96:1  
Lens Shift - Range Vertical: +/-99%  
Lens Shift - Range Horizontal:  
+/-51%

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VPLL-Z4015      Throw Ratio: 1:85:1 to 2:44:1  
Lens Shift - Range Vertical: +/-98%  
Lens Shift - Range Horizontal:  
+/-51%

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|            |  |
|------------|--|
| VPLL-Z4019 | Throw Ratio: 2:41:1 to 3:07:1<br>Lens Shift - Range Vertical:<br>+/-107%<br>Lens Shift - Range Horizontal:<br>+/-57% |
| VPLL-Z4025 | Throw Ratio: 3:02:1 to 5:58:1<br>Lens Shift - Range Vertical:<br>+/-107%<br>Lens Shift - Range Horizontal:<br>+/-57% |
| VPLL-Z4045 | Throw Ratio: 5.56:1 to 7.5:1<br>Lens Shift - Range Vertical:<br>+/-107%<br>Lens Shift - Range Horizontal:<br>+/-57%  |

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## Notes

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|    |  |
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| *1 | The figures are approximate. They vary depending on the environment or how the projector is used.                    |
| *2 | The value is in accordance with ISO 21118, and may differ depending on the actual unit. Brightness and contrast vary |

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depending on use conditions and environments.

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\*3

The value is light output measured at center area of screen in Standard mode, and average of all products shipped.

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\*4

When using BKM-PJ20

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## Gallery

