

SONY



Introducing maintenance-free 3LCD laser projectors

Your complete Sony
laser projector toolkit

VPL-PHZ10, VPL-PWZ10, VPL-FHZ58, VPL-FHZ61,
VPL-FHZ66, VPL-FHZ700L, VPL-FHZ90L & VPL-FHZ120L

Z-Phosphor

HDBTTM
ASE

3LCD

We've put together this handy toolkit to guide you through our innovative, laser projector line-up. You'll see links to all the tools and resources featured throughout, but for more content, including full product specs, please visit pro.sony/laser

The laser story

In 2013, we publicly unveiled the **world's first** 3LCD laser projector. Offering users up to 20,000 hours of lamp-free operation with virtually no maintenance, it was our first product to the market after years of extensive research and development. One year later followed the **world's brightest** laser projector, the VPL-FHZ700L at 7,000 lumens. To date, we're still the only manufacturer offering 3LCD BrightEra™ laser projectors for corporate and education users.

Info tool



Enduring brightness

Read our article for an overview of laser light source projection

[pro.sony/
ending-brightness](http://pro.sony/ending-brightness)





Groundbreaking laser technology

Sony's true laser light engine starts with 100% laser light, directed at a spinning phosphor wheel that glows bright white. Light from the phosphor wheel is then concentrated towards Sony's BrightEra™ 3LCD panels and this unique combination of both laser and 3LCD inorganic technology provides a much higher level of brightness and colour reproduction; outperforming any previous hybrid laser or LED projector. All the models in our line-up offer instant brightness with no warm-up time, continuous high performance for up to 15 years*, 360° free-angle installation and a host of energy saving features, making them a perfect investment for any environment requiring a high performance, cost-effective projection solution.

*Actual hours may vary depending on usage and environment

Key features

Sony's 3LCD laser projectors at a glance

- Energy efficient, low maintenance, low TCO
- **Pioneering technology heritage:** world's first and world's brightest
- **Superb picture quality:** unique 3LCD/Blue phosphor technology

Info tool



Lamp or laser? Projector technologies compared

Read our article and compare.

pro.sony/lamp-or-laser

Driving laser innovation

We're proud of our laser innovations and are determined to push the boundaries to further develop our technology. Our latest models take laser a step further by incorporating Reality Creation and Contrast Enhancer features from our advanced Home Cinema projector technology for an even sharper image.

Info tool



Laser hub

Learn more about our full laser projector line-up and access all the resources at the laser hub

pro.sony/laser

VPL-PHZ10, VPL-PWZ10, VPL-FHZ58, VPL-FHZ61, VPL-FHZ66, VPL-FHZ90L & VPL-FHZ120L laser projector features

- **Reality Creation:** analyses and enhances image quality for a crisper, sharper picture
- **Contrast Enhancer:** automatically adjusts dark and light areas without diminishing colour in real time
- **HDBaseT:** single cable port for simpler installation covering longer distances (up to 100m)
- **Bayonet lenses:** 3000 series, and upgrade compatible adaptor for 2000 and 1000 lens series

The laser market

For environments requiring constant projector use, laser is the clear choice. With virtually no maintenance, it's cost-effective for a broad range of applications including universities, large auditoriums, corporate boardrooms, museums and retail. Edge-blending delivers large scale, stunning projection for greater impact. For environments where usage may be less, Sony's UHP based projectors are the ideal choice, incorporating the same BrightEra™ technology, same chassis, brightness, colour quality, features and performance.



Info tool



3LCD laser in action

Take a look at our case studies for laser installations:

- **Historyland, Poland**
pro.sony/eu-HistoryLand-case-study
- **Helsinki University**
pro.sony/Helsinki-university

When to choose laser over UHP

When it's mission critical that the projector never fails, laser is the clear, reliable choice. Unlike traditional UHP lamp projectors (including dual-lamp projectors), the light source in our laser models never requires replacement or the same level of maintenance, so there's no downtime or interruptions to meetings or lectures. It means you can expect up to 20,000 hours of continuous, bright performance with virtually no maintenance, and no bulbs to add to your purchasing costs.

White paper:



a detailed insight into
our 3LCD laser
projection technology

pro.sony/laser-whitepaper

Checklist

Laser vs UHP

Laser 3LCD outperforms UHP lamp projectors on many counts:

- **Longer life:**
Up to 15 years operation*
- **Constant brightness:**
Maintain constant brightness for the expected operational life for a consistent visual experience.
- **Economical:**
No maintenance or downtime, no lamp replacement
- **Eco-friendly:**
No mercury, no lamp and instant on/off
- **Easy:**
Simple, 360° installation

*Actual hours may vary depending on usage and environment



Specifications

Compare the key features of our complete laser projector range to help identify the right model for your needs:

			VPL-PHZ10	VPL-PWZ10
Light output / Colour light output	3 LCD system		•	•
Size of effective display area	0.76" (19.3 mm) x 3 BrightEra LCD Panel		•	•
Number of pixels Size of effective display area	WUXGA: 6,912,000 (1920 x 1200 x 3) pixels		•	
	WXGA: 3,072,000 (1280 x 800 x 3) pixels			•
	Aspect ratio: 16:10		•	•
Projection lens	Zoom		Manual (Approx. x1.45)	
	Focus		Manual	
	Lens shift		Manual (Vertical: +20%~+55%, Horizontal: +/- 10%)	
	Throw ratio		1.28-1.88:1	
	Focal length(mm) / Aperture		f=21.37mm - 31.25mm f/ 1.50-1.95	
Light source	Laser + Phosphor			
Filter cleaning	20,000 H			
Light /Colour output ¹	Lamp mode:	High	5,000 lm	
		Standard	4,000 lm	
		Low	3000 lm	
Contrast ratio (full white / full black) ²		500,000:1		
Key stone correction (Max) ³		Horizontal: +/-30 degrees Vertical: +/-20 degrees		
Power requirements		AC 100 V to 240 V, 4.3 A to 1.7 A, 50 Hz / 60 Hz		
Speaker		16W (monaural)		
Display scanning frequency	Horizontal		15 kHz to 92 kHz	
	Vertical		48 Hz to 92 Hz	
Display scanning frequency	Computer signal input		Maximum display resolution: 1920 x 1200 dots	
	Video signal input		NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 575/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p	
Colour system		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL-60		
OSD language	27-languages		English, French, German, Italian, Spanish, Portuguese, Japanese, Chinese(簡・繁), Korean, Russian, Dutch, Norwegian, Swedish, Thai, Arabic, Turkish, Polish, Vietnamese, Farsi, Finnish, Indonesian, Hungary, Greek, Czech, Slovakia, Romania	
Operating Instructions languages		English, Germany, French, Italy, Spanish, Russian, Simplified Chinese, Japanese, Arabic		
INPUT OUTPUT (Computer / Video /Control)	INPUT A		RGB / Y PB PR input connector: Mini D-sub 15 pin female Audio input connector: Stereo mini jack	
	INPUT B		HDMI input connector: HDMI 19-pin, Digital RGB/YPBPR, HDCP support, HDMI audio support	
	INPUT C		HDMI input connector: HDMI 19-pin, Digital RGB/YPBPR, HDCP support, HDMI audio support	
	INPUT D		HDBaseT interface connector: RJ45, 4 play (Video, Audio, LAN (100BASE-TX), RS-232C)	
	VIDEO IN		Video input connector: Phono Jack Audio input connector: Shared with INPUT A	
	OUTPUT		Audio output connector: Stereo mini jack	
	REMOTE		D-sub 9-pin (male) / RS232C	
	LAN		RJ45,100BASE-TX (Shared with HDBaseT)	
USB		TYPE-A / TYPE-B		
Acoustic noise ⁴	Lamp mode:	High	36dB	
		Standard	28dB	
		Low	25dB	
Operating temperature / Operating humidity		0°C to 40°C (32°F to 104°F) / 20% to 80% (no condensation)		
Storage temperature / Storage humidity		-10°C to +60°C (14°F to +140°F) / 20% to 80% (no condensation)		
Power consumption AC 100 V - 120 V	Lamp mode:	High	424 W	399 W
		Standard	287 W	266 W
		Low	217 W	198 W
Power consumption AC 220 V - 240 V	Lamp mode:	High	403 W	377 W
		Standard	279 W	256 W
		Low	211 W	193 W
Power consumption (when "Standby mode" is set to "Low")	AC 100 V to 120 V		0.5 W	0.5 W
	AC 220 V to 240 V		0.5 W	0.5 W
Power Consumption (Networked Standby Mode)	AC 100 V to 120 V		369W	342W
	AC 220 V to 240 V		353W	328W
Power Consumption (Networked Standby Mode)	AC 100 V to 120 V		12.5W(LAN) / 13.2W (optional WLAN module) / 16.8W(HDBaseT)/17.4W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")	
	AC 220 V to 240 V		11.9W(LAN) / 12.6W (optional WLAN module) / 17.0W(HDBaseT)/17.6W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")	
On mode power consumption	AC 100 V to 120 V		369W	342W
	AC 220 V to 240 V		353W	328W
Heat dissipation	AC 100 V to 120 V		1446BTU	1361BTU
	AC 220 V to 240 V		1374BTU	1286BTU
Body Colour (Colour Code)	White/Gray		•	•
Dimensions (W x H x D)		Approx. 510 x128.5 x 354.6mm		
Outside Dimensions (W x H x D) (without protrusions)		Approx. 510 x 113 x 354.6 mm		
Mass		Approx. 8.7 kg		
Supplied accessories		Remote commander (RM-PJ8), Battery (CR2025), AC power cord, Operating instructions (CD-ROM), Quick Reference Manual, Warranty card, Security label, Flyers (WEEE) / (EU battery direction), Application software (CD-ROM)		
Battery for the remote commander of the projector		Lithium Battery / CR2025 / 1		

¹ The values are estimates.

² This value is average with lamp dimming.

³ The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.

⁴ The figures are approximate. They vary depending on the environment or how the projector is used.

			VPL-FHZ58	VPL-FHZ61	VPL-FHZ66
Display system	3 LCD		•	•	•
Size of effective display area	0.76" (19 mm) x 3 BrightEra LCD Panel, Aspect ratio: 16:10		•	•	
	0.95" (24.1 mm) x 3 BrightEra LCD Panel, Aspect ratio 16:10				•
Number of pixels	6,912,000 (1920 x 1200 x 3) pixels		•	•	•
Projection lens*1	Focus		Powered		
	Zoom - Powered/Manual		Powered		
	Zoom - Ratio		Approx. x1.6		
	Throw Ratio		1.39:1 to 2.23:1		
Lens shift	Powered/Manual		Powered		
	Range Vertical		-5% / +60% *5		
	Range Horizontal		+/- 32% *5		
Light source	Type		Laser diode		
Filter cleaning*2			20,000 H		
Screen size			40" to 600" (1.02 m to 15.24 m) (measured diagonally)		
Light output	Lamp mode:	High	4200 lm	5100 lm	6100 lm
		Standard	3000 lm	3500 lm	4000 lm
Colour light output	Lamp mode:	High	4200 lm	5100 lm	6100 lm
		Standard	3000 lm	3500 lm	4000 lm
Contrast ratio (full white / full black)*3			500,000:1		
Displayable scanning frequency	Horizontal		15 kHz to 92 kHz		
	Vertical		48 Hz to 92 Hz		
Display resolution	Computer signal input**4		Maximum 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 The following items are available for digital signal (HDMI input) only; 1080/60P, 1080/50p, 1080/24p		
Colour System			NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60		
Keystone correction (Max.)	Vertical		+/- 30 degrees		
	Horizontal		+/- 30 degrees		
OSD language	24-languages	English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, Swedish, Norwegian, Japanese, Simplified Chinese, Traditional Chinese, Korean, Thai, Vietnamese, Arabic, Farsi, Finnish, Indonesian, Hungarian, Greek			
INPUT OUTPUT (Computer / Video / Control)	INPUT A		RGB / Y PB PR input connector: Mini D-sub 15 pin (female) Audio input connector: Stereo mini jack		
	INPUT B		DVI input connector: DVI-D 24-pin (single link), HDCP support Audio input connector: Shared with input A		
	INPUT C		HDMI input connector: HDMI 19-pin, HDCP support Audio input connector: HDMI audio support		
	INPUT D		HDBaseT interface connector: RJ45, 4 play (Video, Audio, LAN, Control)		
	VIDEO IN		Video input connector: BNC, Audio input connector: Shared with input A		
	OUTPUT A		Monitor output for Input A Connector: Mini D-sub 15-pin (female) Audio output connector: Stereo mini jack		
	OUTPUT B		Monitor output for Input B Connector: DVI-D 24-pin (single link), HDCP not supported Audio output, Monitor out connector: Stereo mini jack		
	REMOTE		D-sub 9-pin (male) / RS232C		
	LAN		RJ45, 10BASE-T/100BASE-TX		
	IR (Control S)		Stereo mini jack, Plug in power DC5V		
Acoustic noise	Lamp mode:	Standard	34 dB		32 dB
Operating temperature / Operating humidity			0°C to 40°C (32°F to 104°F) / 20% to 80% (no condensation)		
Storage temperature / Storage humidity			-20°C to +60°C / -4°F to +140°F / 20% to 80% (no condensation)		
Power requirements			AC 100 V to 240 V, 50 Hz / 60 Hz		
Power consumption Lamp mode: High	AC 100 V to 120 V	High	367 W	420 W	515 W
	AC 220 V to 240 V	High	352 W	408 W	497 W
Power consumption (when "Standby mode" is set to "Low")	AC 100 V to 120 V		0.5 W		
	AC 220 V to 240 V		0.5 W		
Power Consumption (Networked "Standby Mode" is set to "Standard")	AC 100 V to 120 V		15.0 W (LAN) 19.4 W (HDBaseT) 19.4 W		
	AC 220 V to 240 V		13.3 W (LAN) 17.4 W (HDBaseT) 17.4 W		
Standby Mode / Networked Standby Mode Activated			Approx. 10 Minutes		
Heat dissipation	AC 100 V to 120 V		1252 BTU/h	1433 BTU/h	1757 BTU/h
	AC 220 V to 240 V		1201 BTU/h	1392 BTU/h	1696 BTU/h
Dimensions (W x H x D) (without protrusions)			Approx. 460 x 169 x 515 mm, 18 1/8 x 6 21/32 x 20 9/32 inches		
Mass			16 kg (34 lb)		
Supplied accessories	Remote commander		RM-PJ27		
Optional accessories			PAM 310, PAM-0.5M / PAM-1.0M / PAM-1.5M		
	Projection Lens		VPLL-3003 / 3007 / Z3009 / Z3010 / Z3024 / Z3032		

*1 With supplied standard lens

*2 This figure is expected maintenance time, not guaranteed time.

The actual value depends on the environment and how the projector is used.

*3 The value is average.

*4 Available for VESA Reduced Blanking signal.

		VPL-FHZ700L	VPL-FHZ90L	VPL-FHZ120L	
Display system	3 LCD	•	•	•	
Size of effective display area	0.95" X 3 BrightEra, Aspect ratio 16X10 1" x 3 BrightEra LCD Panel, Aspect ratio: 16:10	•		•	
Number of pixels		6,912,000 (1920 x 1200 x 3) pixels			
Projection lens*1	Focus	Powered			
	Zoom - Powered/Manual	Powered			
	Zoom - Ratio	Approx. x1.6	Approx. x1.5		
	Throw Ratio	1.38 to 2.06	1.30:1 to 1.95:1		
Lens shift	Powered/Manual	Powered			
	Range Vertical	+/- 110%	+/- 99%		
	Range Horizontal	+/- 57%	+/- 51%		
Light source	Type	Laser diode			
Laser life *4	Light output mode: Standard	20,000 H			
Filter cleaning / replacement cycle (Max.) *3		20,000 H	10,000 H (service maintenance)		
Auto filter cleaning			•	•	
Screen size (Max)		40" to 600" (depending on projection lens)			
Light output *2	Standard	7000 lm	9,000 lm	12,000 lm	
Colour light output *2	Standard	7000 lm	9,000 lm	12,000 lm	
Constant brightness *2*4		.8000:1	∞:1	∞:1	
Contrast ratio (full white / full black)		.8000:1	∞:1	∞:1	
Colour calibration			•	•	
Colour space *2	Picture mode: sRGB	-	-	sRGB 100%	
Power functions	Quick power on	-	Yes (Picture: approx. 7 sec)		
Lens functions	Bayonet lens attachment function		•	•	
	Lens position memory function		•	•	
Displayable scanning frequency	Horizontal	14 KHz to 93 KHz	15 kHz to 92 kHz		
	Vertical	47 Hz to 93 Hz	48 Hz to 92 Hz		
Display resolution	Computer signal input	Maximum 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 (The following items are available for digital signal (HDMI input) only; 1080/60p, 1080/50p, 1080/24p)			
Colour System		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60			
Keystone correction (Max.) *1*5	Vertical	+/- 30 degrees			
	Horizontal	+/- 30 degrees			
OSD language	24-languages	English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, Swedish, Norwegian, Japanese, Simplified Chinese, Traditional Chinese, Korean, Thai, Vietnamese, Arabic, Farsi, Finnish, Indonesian, Hungarian, Greek			
INPUT OUTPUT (Computer / Video / Control)	INPUT A	RGB / Y PB PR input connector: 5BNC (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			
	INPUT D	HDMI input connector: HDMI 19-pin, HDCP support			
	INPUT E	Optional adaptor slot (HDBaseT or 3G-SDI Adaptor)	•		
		HDBaseT interface connector: RJ45, 3 play (Video, LAN, Control) (BKM-PJ10 or BKM-PJ20)	•	•	•
	INPUT F	Optional adaptor slot (For 3G-SDI Input Adaptor BKM-PJ20)			•
	INPUT G	USB Port: HTML Viewer Type-A x 1		•	•
	OUTPUT A	Monitor output Connector: Mini D-sub 15-pin (female)	•		
		Monitor output for Input A Input B Connector: Mini D-sub 15-pin (female)		•	•
REMOTE	D-sub 9-pin (male) / RS232C				
LAN	RJ45, 10BASE-T/100BASE-TX	RJ45, 10BASE-T/100BASE-TX/1000BASE-T/1000BASE-TX			
Acoustic noise	Lamp mode: Standard	39dB		42 dB	
Operating temperature / Operating humidity	0°C to 40°C (32°F to 104°F) / 35% to 85% (no condensation)	•			
	0°C to 45°C (32°F to 109°F) / 20% to 80% (no condensation)		•	•	
Storage temperature / Storage humidity	-20°C to +60°C (-4°F to +140°F) / 10% to 90% (no condensation)	•			
	-10°C to +60°C (14°F to +140°F) / 20% to 80% (no condensation)		•	•	
Power requirements		AC 100 V to 240 V			
Power consumption Lamp mode: High	AC 100 V to 120 V	497 W / 404 W	657 W	909 W	
	AC 220 V to 240 V	476 W / 387 W	641 W	878 W	
Power consumption (Standby mode)	AC 100 V to 120 V	12.2 W / 0.1 W	0.50 W		
	AC 220 V to 240 V	8.4 W / 0.5 W	0.50 W		
Power Consumption (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")	AC 100 V to 120 V	21.6W (LAN) 26.5W (HDBT) 26.6W	•	•	
		12.2 W (LAN) 13.8 W (optional HDBaseT adaptor) 13.8 W	•		
	AC 220 V to 240 V	21.3W (LAN) 26.5W (HDBT) 26.6W	•	•	
		8.4 W (LAN) 10.0 W (optional HDBaseT adaptor) 10.0 W	•		
Body colour		White, Black			
Dimensions (W x H x D) (without protrusions)	Approx. W 530 x H 204 x D 545 mm, (18 1/8 x 6 21/32 x 20 9/32 in)	•			
	Approx. 544 x 205 x 564 mm		•	•	
Mass		22kg	26 kg	27 kg	
Supplied accessories	Remote commander	RM-PJ30			

*1 Specifications based on VPL-Z4111 (VPL-FHZ90L & VPL-FHZ120L)

*2 The values are estimate.

*3 This figure is expected maintenance time, not guaranteed time.

The actual value depends on the environment and how the projector is used.

*4 The figures are approximate. They are dependent on the environment or how the projector is used.

*5 The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.