SONY
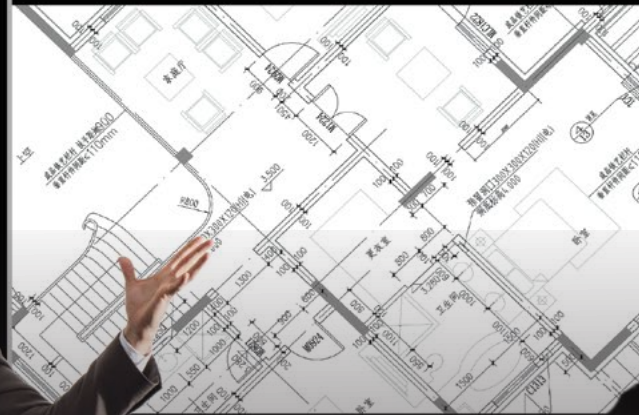
Introducing maintenance-free 3LCD laser projectors

Your complete Sony laser projector toolkit

VPL-FHZ57, VPL-FHZ60, VPL-FHZ65 & VPL-FHZ700L

Z-Phosphor · HDBT · 3LCD

We've put together this handy toolkit to guide you through our innovative, four-model-strong 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.eu/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, and we're still **number one** in the laser projector product market.*

* 2015 Futuresource Consulting - Projectors Market Insights

Info tool

Enduring brightness

Read our article for an overview of laser light source projection

pro.sony.eu/ enduring-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 four models in our line-up offer instant brightness with no warm-up time, continuous high performance for up to 10 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:** world's first and world's brightest
- **Superb picture quality:** unique 3LCD/Blue phosphor technology

Info tool

10 bright reasons you should switch to laser projection

Read our article and download.

pro.sony.eu/10brightreasons

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, VPL-FHZ57, VPL-FHZ60 and VPL-FHZ65, 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

www.pro.sony.eu/laser

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, corporate boardrooms, museums, digital art, retail and business signage. 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.

VPL-FHZ57, VPL-FHZ60 & VPL-FHZ65: our latest 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)

- **New bayonet lenses:** 3000 series, and upgrade compatible adaptor for 2000 and 1000 lens series

Info tool

3LCD laser in action

Take a look at our case studies for laser installations:

- **Aarus Museum:** pro.sony.eu/ art-to-life

- **Helsinki University** pro.sony.eu/ 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.eu/laser-whitepaper

Laser vs UHP

Laser 3LCD outperforms UHP lamp projectors on many counts:

- **Longer life:**
  Up to 10 years operation*

- **Constant brightness:**
  Maintain constant brightness for the expected 20,000 hours 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

Both Laser & UHP Sony projectors provide:

- **Colour brightness:**
  Only 3LCD achieves 100% colour brightness to match 100% white brightness

- **Image quality:**
  Higher colour accuracy and greyscale performance; no breakup, bleed or blurring

*Actual hours may vary depending on usage and environment

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

		VPL-FHZ57	VPL-FHZ60	VPL-FHZ65	VPL-FHZ700L
Display system		3 LCD system			
Display device	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	Focus	Powered			Powered/manual (depending on lens)
	Zoom – Powered/Manual	Powered			Powered/manual (depending on lens)
	Zoom – Ratio	Approx. x 1.6			Powered/manual (depending on lens)
	Throw ratio	1.39:1 to 2.23:1			Depends on optional lens
	Lens shift – Powered/Manual	Powered			Depends on optional lens
	Lens shift – Range Vertical	-5% / +60%			Depends on optional lens
	Lens shift – Range Horizontal	+/- 32%			Depends on optional lens
Light source	Type	Laser diode			
Filter cleaning / replacement cycle (Max.)*²	Filter cleaning / replacement cycle (Max.)	20000 H (cleaning)			
Screen size*¹	Screen size (measured diagonally)	40" to 600" (1.02 m to 15.24 m)			
Light output	Lamp mode: High	4100 lm	5000 lm	6000 lm	7000 lm
	Lamp mode: Standard	3000 lm	3500 lm	4000 lm	5600 lm
Color light output	Lamp mode: High	4100 lm	5000 lm	6000 lm	7000 lm
	Lamp mode: Standard	3000 lm	3500 lm	4000 lm	5600 lm
Contrast ratio (full white / full black)*³		10000:1			8000:1
Displayable scanning frequency	Horizontal	15 kHz to 92 kHz			14 kHz to 93 kHz
	Vertical	48 Hz to 92 Hz			47 kHz to 93 kHz
Display resolution	Computer signal input	Maximum display resolution: 1920 x 1200 dots *⁴			
	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			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 (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			RGB / Y PB PR input connector: 5BNC (female)
	INPUT B	DVI input connector: DVI-D 24-pin (single link), HDCP support Audio input connector: Shared with input A			RGB input connector: Mini D-sub 15 pin female
	INPUT C	HDMI input connector: HDMI 19-pin, HDCP support Audio input connector: HDMI audio support			DVI-D input connector: DVI-D 24-pin (Single link), supported HDCP
	INPUT D	HDBaseT interface connector: RJ45, 4 play (Video, Audio, LAN, Control)			HDMI input connector: HDMI 19-pin, HDCP support, Digital RGB / Y PB PR / Y CB CR
	INPUT E	–			Optional adaptor slot (For HDBaseT and 3G-SDI Adaptor BKM-PJ10 & BKM-PJ20)
	VIDEO IN	Video input connector: BNC Audio input connector: Shared with input A			Video input connector: BNC
	OUTPUT A	Monitor output for Input A Connector: Mini D-sub 15-pin (female) Audio output connector: Stereo mini jack			Monitor output connector: Mini D-sub 15-pin (female)
	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	RS-232C connector: D-sub 9-pin (male)			RS-232C connector: D-sub 9-pin (female)
	LAN	RJ45, 10BASE-T/100BASE-TX			RJ45, 10BASE-T/100BASE-TX
	IR (Control S)	Stereo mini jack, Plug in power DC5V			
Acoustic noise	Lamp mode: High	32 dB	34 dB		39 dB
	Lamp mode: Low	28 dB			33 dB
Operating temperature / Operating humidity		0°C to 40°C / 32°F to 104°F / 20% to 80% (no condensation)			0°C to 40°C / 32°F to 104°F / 35% to 85% (no condensation)
Storage temperature / Storage humidity		-20°C to +60°C / -4°F to +140°F / 20% to 80% (no condensation)			-20°C to +60°C / -4°F to +140°F / 10% to 90% (no condensation)
Power requirements		AC 100 V to 240 V, 50 Hz / 60 Hz	AC 100 V to 240 V, 4.5 A to 1.9 A, 50/60 Hz	AC 100 V to 240 V, 5.5 A to 2.3 A, 50/60 Hz	AC 100 V to 240 V, 5.0 A to 2.1 A, 50/60 Hz
Power consumption	AC 100 V to 120 V	Lamp mode: High: 370 W	Mode: High: 420 W	Mode: High: 509 W	497 W / 404 W
	AC 220 V to 240 V	Lamp mode: High: 355 W	Mode: High: 408 W	Mode: High: 492 W	476 W / 387 W
Power consumption (Standby Mode)	AC 100 V to 120 V	0.5W (when "Standby mode" is set to "Low")			12.2 W / 0.1 W
	AC 220 V to 240 V	0.5W (when "Standby mode" is set to "Low")			8.4 W / 0.5 W
Power consumption (Networked Standby Mode)	AC 100 V to 120 V	15.0W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")			12.2 W (LAN) 13.8 W (optional HDBaseT adaptor)13.8 W (All Terminals and Networks Connected) (when "Standby Mode" is set to "Standard")
	AC 220 V to 240 V	13.3W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")			8.4 W (LAN) 10.0 W (optional HDBaseT adaptor)10.0 W (All Terminals and Networks Connected) (when "Standby Mode" is set to "Standard")
Heat dissipation	AC 100 V to 120 V	1262 BTU/h	1433 BTU/h	1737 BTU/h	1696 BTU/h
	AC 220 V to 240 V	1211BTU/h	1393 BTU/h	1679 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)			Approx. W 530 x H 204 x D 545 mm (W 20 7/8 x H 8 1/32 x D 21 15/32 in)
Mass		16 kg / 34 lb			22 kg / 47 lb
Supplied accessories	Remote commander	RM-PJ27			
Optional lenses	Projection Lens (throw ratios)	VPLL-3003 / 3007 (0.65:1) / Z3009 (0.85-1.0) / Z3024 (2.34 to 3.19) / Z3032 (3.18 to 4.84)			VPL-Z4007 (0.68-0.8) / VPLL-4008 (1.08) / VPL-Z4011 (1.38 to 2.06) / VPLL-Z4015 (2.02 to 2.67) /VPLL-Z4019 (2.62 to 3.36) / VPLL-Z4025 (3.30 to 6.11) / VPLL-Z4045 (6.08 to 10.52)
Optional accessories	Ceiling Bracket	PAM 310			N/A
	Extension Pole & Celling plate	PAM-0.5M / PAM-1.0M / PAM-1.5M			N/A

*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.

For full features visit: **pro.sony.eu/laser**

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