The industry's smallest, lightest,
8,000 lm* projectors** with robust features.

WUXGA
FHZ85 : 8,000lm (Center) **7,300lm**
FHZ80 : 6,500lm (Center) **6,000lm**

3LCD **BrightEra** Long Lasting Optics **Z-Phosphor** LASER LIGHT SOURCE **HDBT**

pro.sony/projectors

* VPL-FHZ85   ** As of August 2021 (according to Sony research), in 3LCD laser projectors of 8,000 lm center brightness

Bright, rich color even in high ambient lighting

Improved Reality Creation and new, Reality Text

Reality Creation is Sony's unique real-time signal processing technology that improves image clarity to close-to-true 4K quality. In addition, Reality Text improves display of text-based presentation materials which are commonly used for conference rooms and classrooms.

For images

Reality Creation OFF

Reality Creation ON
Clearer image with more depth
Simulated images

For presentation materials

Reality Text OFF

Reality Text ON
Clearer letters and lines with enhance legibility
Simulated images

Bright View

Bright View is Sony's unique signal processing technology that brightens images without sacrificing color in high ambient light environments typically found in business and higher education environments.
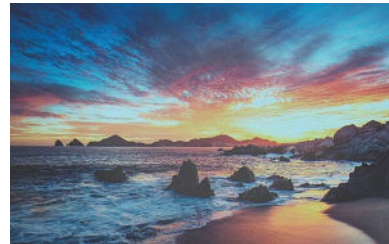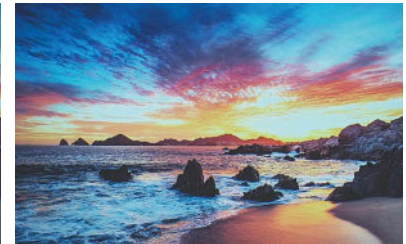

Bright View OFF

Bright View ON
Simulated images

Intelligent Settings with Ambiance

Intelligent Settings offer four location selections, optimizing brightness, cooling system and other projector settings to suit usage environments. In addition, with Ambiance, our new built-in ambient light sensor, the projector measures a room's brightness and automatically adjusts color gain, Bright View mode, and Reality Creation settings to match the environment and enhance the viewing experience.

Ambiance includes an ambient light sensor

Location selection in Intelligent Setting

Meeting/Classroom	Museum	Entertainment	Multi-screen
Clarity first	**Color Accuracy first**	**Vivid color first**	**Easy-to-match in color first**

High Picture Quality

The projectors support up to 4K 60P input signals, a standard format for 4K videos. Sony's super-resolution Reality Creation 4K upscaler analyzes every pixel in any direction, then employs a digital signal processing algorithm to map pixels against an ever-evolving picture patterning database to enhance color, contrast, and textures, for beautiful near-4K image quality from a WUXGA Projector.

Market-available Projector

VPL-FHZ85/FHZ80
Simulated images

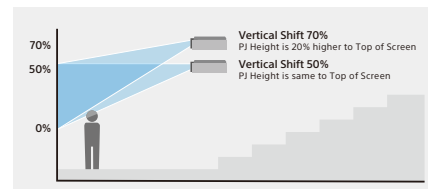# Sophistical spatial design and installation flexibility

Smallest*, lightest* in its class with attractive blend-in design

Slim, stylish case design features a flat top surface that blends in discreetly when the projector is ceiling mounted.

*As of August 2021 (according to Sony research), in 3LCD laser projectors
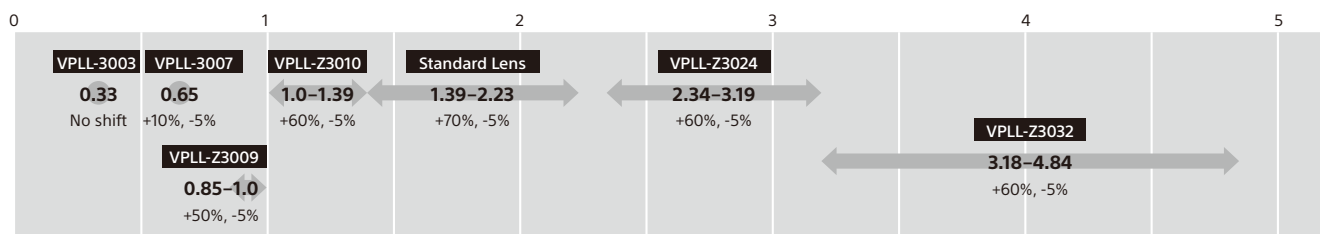
Wide Lens Shift

Very wide lens shift capability of vertical + 70%

70% — Vertical Shift 70%
PJ Height is 20% higher to Top of Screen
50% — Vertical Shift 50%
PJ Height is same to Top of Screen
0%

The projector has variety of lens options and wide lens shift capability for flexible installation, virtually anywhere.

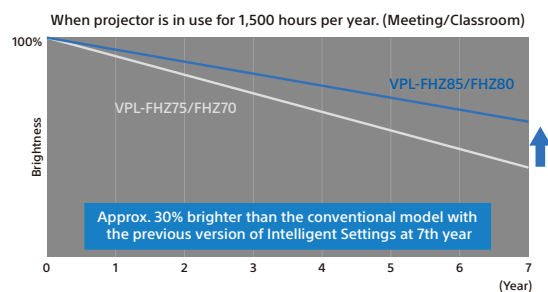**Optional Lenses - throw ratio and vertical lens shift chart**

0	1	2	3	4	5

VPLL-3003 — 0.33 — No shift
VPLL-3007 — 0.65 — +10%, -5%
VPLL-Z3010 — 1.0–1.39 — +60%, -5%
Standard Lens — 1.39–2.23 — +70%, -5%
VPLL-Z3024 — 2.34–3.19 — +60%, -5%
VPLL-Z3009 — 0.85–1.0 — +50%, -5%
VPLL-Z3032 — 3.18–4.84 — +60%, -5%

Extended brightness

Intelligent Settings

The Intelligent Settings function simplifies installation and maximizes performance based on usage, image detail, color richness, color fidelity, light output, cooling level and output noise.
In addition, the Meeting/Classroom setting controls the laser output to maximize brightness levels based on actual usage times and operation frequency.

When projector is in use for 1,500 hours per year. (Meeting/Classroom)

100%

Brightness

VPL-FHZ85/FHZ80

VPL-FHZ75/FHZ70

Approx. 30% brighter than the conventional model with the previous version of Intelligent Settings at 7th year
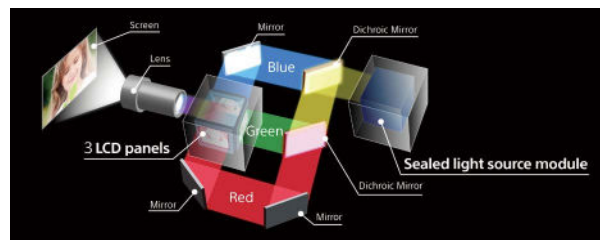
0 1 2 3 4 5 6 7 (Year)

Hassle-free Automatic Filter Cleaning

The projector has an automated filter cleaning system that removes dust every 100 hours to prevent dust from being accumulated. The feature enables sufficient intake of clean air to allow for proper cooling.
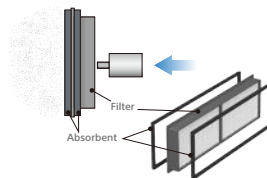
Filter
Absorbent

Countermeasures to dust

The laser light source is sealed to prevent it from attracting dust that can interfere with brightness. The 3LCD panels are also enclosed in a dedicated cooling duct structure with an air filter to prevent dust from entering.

Screen
Mirror
Dichroic Mirror
Lens
Blue
Green
3 LCD panels
Red
Sealed light source module
Dichroic Mirror
Mirror
Mirror

Other Features

Data Cloning

Any settings made for one projector can be copied to the second and subsequent projectors using a USB memory drive. This greatly simplifies installation and set up of multiple projectors.
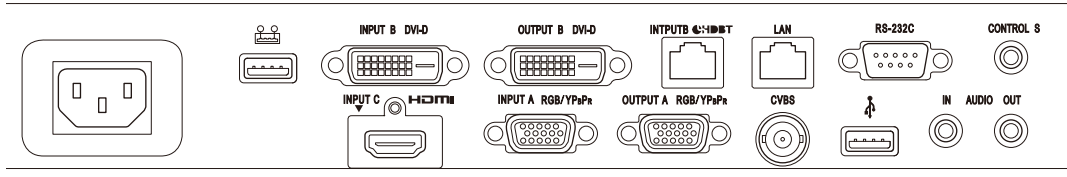
Auto Input Select

The Auto Input Select feature automatically selects a wide input signal, so there's no need to change the input each time a device is connected to the projector.

Auto Power on

When connected to a computer, the projector's power turns on automatically, without having to operate the power button.

Connector Panels

Specifications

		VPL-FHZ85	VPL-FHZ80
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	
	Number of pixels	6,912,000 (1920 x 1200 x 3) pixels	
Projection lens*[1]	Zoom	Powered (Approx. x 1.6)	
	Focus	Powered	
	Lens shift	Powered, Vertical: -5%, +70%, Horizontal: +/-32%	
	Throw ratio	1.39:1 to 2.23:1	
Light source		Laser diode	
Screen size		40'' to 600'' (1.02 m to 15.24 m) (measured diagonally)	
Light output (Mode: Standard / Middle)		7,300 lm*[2], 8,000 lm (Center)*[3] / 5,840 lm	6,000 lm*[2], 6,500 lm (Center)*[3] / 4,800 lm
Color light output (Mode: Standard / Middle)		7,300 lm / 5,840 lm	6,000 lm / 4,800 lm
Time until light output declines to 50 %*[4]		20,000 hours (Standard) / 30,000 hours (Middle)	
Contrast ratio*[5] (full white / full black)		∞:1	
Displayable scanning frequency	Horizontal	15kHz to 93kHz	
	Vertical	23Hz to 63Hz	
Display resolution	Computer signal input	Maximum display resolution: 1920 x 1200 dots*[6]	
	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, 3840/60p, 3840/30p, 3840/25p, 3840/24p, 4096/60p, 4096/30p, 4096/25p, 4096/24p	
Keystone correction (Max.)		Vertical: +/- 30 degrees Horizontal: +/- 30 degrees	
Input / Output (Computer / Video /Audio / 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 DC 5 V	
	USB	TYPE-A (for F/W update) , TYPE-A (for Power supply)	
Acoustic noise (Mode: Standard / Middle)		38 dB / 36 dB	36 dB / 34 dB
Operating temperature (Operating humidity)		0°C to 45°C (32°F to 109°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 requirements		AC 100 V to 240 V, 5.1 A to 2.2 A, 50 Hz / 60 Hz	
Power consumption (Mode: Standard / Middle)	AC 100 V to 120 V	506 W / 384 W	397 W / 288 W
	AC 220 V to 240 V	474 W / 363 W	378 W / 278 W
Power consumption (Standby mode)	AC 100 V to 120 V	0.5 W (when "Standby mode" is set to "Low")	
	AC 220 V to 240 V	0.5 W (when "Standby mode" is set to "Low")	
Power consumption (Networked Standby mode)	AC 100 V to 120 V	9.8 W (LAN) / 10.6 W (HDBaseT) / 10.6 W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")	
	AC 220 V to 240 V	10.9 W (LAN) / 11.6 W (HDBaseT) / 11.6 W (ALL Terminals and Networks Connected, when "Standby Mode" is set to "Standard")	
Outside dimensions		Approx. W 460 x H 169 x D 494 mm (W 18 1/8 x H 6 3/4 x D 19 1/2 in) (without protrusions)	
Mass		Approx. 13 kg (29 lb)	Approx. 13 kg (28 lb)
Optional accessories	Projection lenses	VPLL-3003 / 3007 / Z3009 / Z3010 / Z3024 / Z3032	

*1 With supplied standard lens   *2 The value is in accordance with ISO 21118, and may differ depending on the actual unit. Brightness and contrast vary depending on use conditions and environments.   *3 The value is light output measured at center area of screen in Standard mode, and average of all products shipped.   *4 Estimated time until light output declines to 50 % varies depending on environment.   *5 The figures are approximate. They vary depending on the environment or how the projector is used.   *6 Available for VESA Reduced Blanking signal.

IEC 60825-1:2014   CLASS 1 LASER PRODUCT

RG2

As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015.

Beautifully slim and light with the smallest body in its class, the VPL-PHZ61/51 laser projectors combine outstanding picture performance with up to 7,000lm* center brightness and impressive reliability.
With flexible installation options, minimal maintenance, and 4K 60P input support, these projectors are an ideal choice for today's integrated AV environments.   *VPL-PHZ61

WUXGA
PHZ61 : 7,000lm (Center) **6,400lm**
PHZ51 : 5,800lm (Center) **5,300lm**

pro.sony/projectors

Bold, rich color even in brightly lit rooms

Clearer images and text

Reality Creation uses powerful algorithms that boost image resolution closer to 4K-like quality. Reality Text improves visibility of characters: great for conference rooms, university seminar rooms and large classrooms.

For images

Reality Creation OFF

Reality Creation ON
Clearer image with more depth
Simulated images
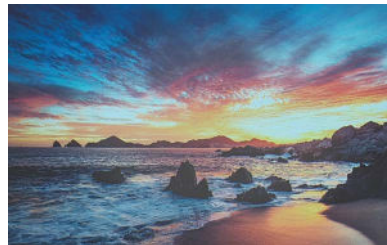
For presentation materials
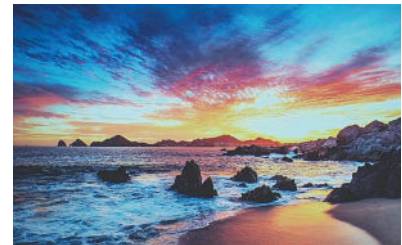

Reality Text OFF

Reality Text ON
Clearer letters and lines with enhance legibility
Simulated images

Bright, beautiful colors

Bright View is Sony's unique processing technology that brightens images while maintaining rich color – even in brightly-lit business and educational environments.

Bright View OFF

Bright View ON
Simulated images

Enhanced viewing experience

Sony's Intelligent Settings feature optimizes brightness, cooling system, and other projector settings to suit four usage environments. In addition, with Ambiance, our new built-in ambient light sensor, the projector measures a room's brightness and automatically adjusts color gain, Bright View mode, and Reality Creation settings to match the environment and enhance the viewing experience.

Ambiance includes an ambient light sensor

Location selection in Intelligent Settings
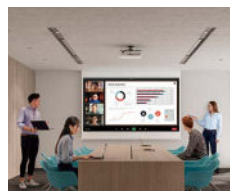
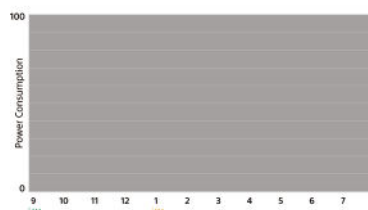| Meeting/Classroom	Museum	Entertainment
Clarity first	Color accuracy first	Vivid color first

Enjoy optimum pictures while saving energy

The VPL-PHZ61/51 make sound business sense, helping you reduce running costs in corporate and educational environments. A new Auto Light Output feature works in conjunction with Ambiance, optimizing image quality and maintaining high visibility while reducing power consumption.
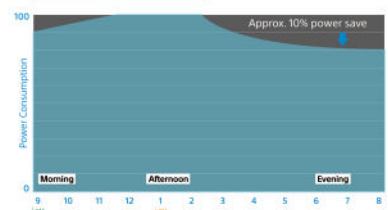
*The feature works in conjunction with Ambiance, optimizing image quality and maintaining high visibility while reducing power consumption.

4K 60P input support

Support for 4K 60P input signals makes life simpler when you're using the VPL-PHZ61/51 in multi-screen set-ups with flat panel sub-screens. Just split the same 4K signal to drive all your display devices with no conversion needed. There's also a high-performance image scaler that effortlessly converts 4K input signals to WUXGA resolution while achieving close to 4K image quality. Now optimized for 4K60P signals, Reality Creation is Sony's unique picture enhancement feature that gives projected images even greater crispness and depth. There's also support for devices with content protection such as 4K UHD players.

Smart, installation friendly design

Enjoy flexible installation options with a generous +55% vertical lens shift range, making it easy to achieve perfectly-proportioned pictures without long pole mounts or keystone correction when the projector is ceiling mounted. We've also widened the throw ratio range, simplifying replacement of a previously installed projector without the hassle of re-positioning an existing ceiling mount.

# Brighter for longer with less maintenance

Designed with intelligence

Intelligent Settings simplifies installation and maximizes performance based on usage, image detail, color richness and fidelity, light output, cooling level and output noise. The Meeting/Classroom function controls laser output to keep brightness as high as possible for years of real-world use.
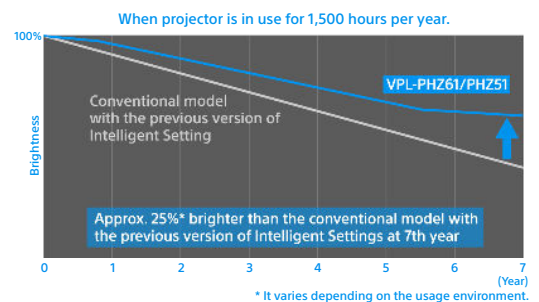
Keep dust out of the picture

The projector's laser light source is sealed to prevent dust accumulation and eliminate reduced brightness.
The dedicated cooling duct structure for the projector's 3LCD panels is covered with an air filter to prevent dust from entering.
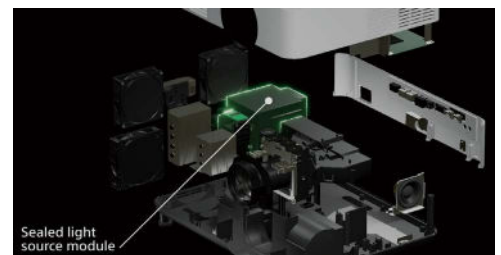
Hassle-free filter care

Focus on great-looking images instead of time-consuming maintenance. A new filter material makes routine filter changes unnecessary for general use in classrooms and meeting rooms.* For heavier use in dusty environments there's a new clogging sensor to advise when filter replacement is needed.   * Dust density < 0.03mg/m3 and operating time < 10,500 hours. (1,500 hours/yearover 7 years.)

Other Features

Data Cloning

Settings for one projector can be copied to other projectors using a USB memory drive. This greatly simplifies installation and set-up of multiple projectors.
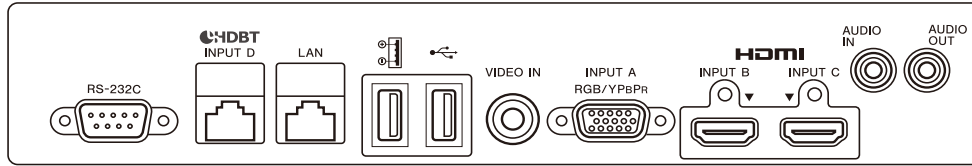
Auto Input Select

The Auto Input Select feature automatically selects an active signal input, so there's no need to change input each time a device is connected to the projector.

Auto Power on

Connect the VPL-PHZ61/51 to a switched-on computer, and the projector turns on automatically, without having to operate the power button.

Connector Panels

Connector panel layout: RS-232C, HDBT INPUT D, LAN, USB ports, VIDEO IN, INPUT A RGB/YPBPR, HDMI INPUT B, INPUT C, AUDIO IN, AUDIO OUT

Specifications

		VPL-PHZ61	VPL-PHZ51
Display system		3 LCD system	
Display device	Size of effective display area	0.64" (16.3 mm) x 3 BrightEra LCD Panel, Aspect ratio: 16:10	
	Number of pixels	6,912,000 (1920 x 1200 x 3) pixels	
Projection lens	Zoom	Manual (Approx. x 1.6)	
	Focus	Manual	
	Lens shift	Manual, Vertical: -35% to +55%, Horizontal: +/- 15%	
	Throw ratio	1.23:1 to 1.97:1	
Light source		Laser diode	
Filter cleaning maintenance / replacement cycle (Max.)[*1]		Auto detecting (by clogging sensor)	
Screen size		40'' to 300'' (1.02 m to 7.62 m) (measured diagonally)	
Light output (Mode: Standard / Middle)[*2]		6,400 lm[*3], 7,000 lm (Center)[*4] / 4,700 lm	5,300 lm[*3], 5,800 lm (Center)[*4] / 4,000 lm
Color light output (Mode: Standard / Middle)[*2]		6,400 lm / 4,700 lm	5,300 lm / 4,000 lm
Contrast ratio (full white / full black)[*2]		∞ : 1	
Speaker		16 W	
Displayable scanning frequency	Horizontal	15 kHz to 92 kHz	
	Vertical	24 Hz to 92 Hz	
Accepted signal resolution	Computer signal input	Maximum signal resolution: 1920 x 1200 [*5]	
	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, 3840/60p, 3840/30p, 3840/25p, 3840/24p, 4096/60p, 4096/30p, 4096/25p, 4096/24p	
Keystone correction (Max.)		Horizontal: +/- 30 degrees Vertical: +/- 30 degrees	
OSD language		27-language (English, French, German, Italian, Spanish, Portuguese, Japanese, Chinese, Korean, Russian, Dutch, Norwegian, Swedish, Thai, Arabic, Turkish, Polish, Vietnamese, Farsi, Finnish, Indonesian, Hungary, Gleek,Czech,Slovakia,Romania)	
Input / Output (Computer / Video / Audio / 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/Y PB PR, HDCP support, Audio input connector: HDMI audio support	
	INPUT C	HDMI input connector: HDMI 19-pin, Digital RGB/Y PB PR, 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: Phono jack (Composite), Audio input connector: Shared with INPUT A	
	OUTPUT	Audio output connector: Stereo mini jack	
	REMOTE	D-sub 9-pin (male) / RS232C	
	LAN	RJ45, 10BASE-T / 100BASE-TX	
	USB	TYPE-A x 1 (for F/W update) , TYPEA for Power supply	
Acoustic Noise (Mode: Standard / Middle)[*2]		37 dB / 34 dB	35 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)		-10°C to +60°C (14°F to +140°F) / 20% to 80% (no condensation)	
Power requirements		AC 100 V to 240 V, 4.7 A to 2.0 A, 50 Hz / 60 Hz	
Power consumption (Mode: Standard)	AC 100 V to 120 V	463 W	
	AC 220 V to 240 V	434 W	
Power Consumption (Standby Mode)	AC 100 V to 120 V	0.5 W (when "Standby mode" is set to "Low")	
	AC 220 V to 240 V	0.5 W (when "Standby mode" is set to "Low")	
Power Consumption (Networked Standby Mode)	AC 100 V to 120 V	1 W (LAN), 21 W (ALL Terminals and Networks Connected / exclude USB Device and speaker off,when "Standby Mode" is set to "Standard")	
	AC 220 V to 240 V	1 W (LAN), 21 W (ALL Terminals and Networks Connected / exclude USB Device and speaker off,when "Standby Mode" is set to "Standard")	
Standby Mode / Networked Standby Mode Activated		Approx. 2 minutes	
Dimensions (W x H x D) (without dust filter, protrusions)		Approx. W 422 x H 100 x D 333 mm (16 5/8 x 3 15/16 x 13 1/8 inches)	
Mass		Approx. 7.0 kg (15 lb)	Approx. 6.8 kg (15 lb)
Supplied accessories		RM-PJ8 Remote Commander (1), Lithium battery (CR2025) (1), AC Power Cord (1), Setup Guide (1)	

*1 This figure is the expected maintenance time, not a guaranteed time. The actual value depends on the environment and how the projector is used.
*2 The figures are approximate. They vary depending on the environment or how the projector is used.
*3 The value is in accordance with ISO 21118, and may differ depending on the actual unit. Brightness and contrast vary depending on use conditions and environments.
*4 The value is light output measured at center area of screen in Standard mode, and average of all products shipped.
*5 Available for VESA Reduced Blanking signal.

For other countries/regions
IEC 60825-1:2014 CLASS 1 LASER PRODUCT

RG2
As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015.

MK22002V1YIT22SEP