

# Corporate and Education solutions range guide

April 2019

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# SONY

# The Sony Solution

When it comes to professional AV technology, Sony provides much more than just great products. We create solutions that make visual communications and knowledge sharing even smarter and more efficient.

We empower organisations of every industry, sector and size with advanced audio-visual tools that help them go further. From schools to universities, small business to big business, retail to automotive and more, we have the perfect solution.

Our comprehensive suite of TEOS solutions intelligently manage all of your connected devices, while our powerful collaboration tools enable real-time knowledge sharing. Discover new levels of detail with our class-leading BRAVIA Professional Displays, and take your presentations further with our bright, captivating range of Projectors.

For full product features and specifications please visit **pro.sony** 

# Workplace solutions for a changing world

Transformation. It's the buzzword that's reshaping the very idea of what a workplace should be.

# No longer is an office simply a place of work. It's a space that facilitates collaboration, unlocks creativity and increases productivity.

As a result, the expectations and pressures on workplace managers have grown considerably. Employees want intuitive ways to share and present work. IT managers demand total security and connectivity. Senior management want to promote consistent and high-quality branding throughout the premises.

And facilities managers have a vested interest in workplace design and data analysis to help boost efficiency.

Our goal is to help you not only meet these expectations, but to surpass them. We've designed our corporate solutions to cover every aspect of workplace management, from room booking to data analysis, virtual receptions to digital signage – all displayed on stunning 4K professional displays.

#### 1 Reception

Enable guests to check themselves in, sign terms and conditions forms and report their arrival

Entertain and inform with news or brand messaging on our stunning BRAVIA 4K Professional Displays

#### 2 Common areas

Inform and ensure branding consistency with digital signage and floorplans displayed on BRAVIA screens Analyse booking and occupancy rates with workspace analytics

#### 3 Large meeting room

Control lights, projectors and any other AV equipment straight from your device

Collaborate with remote participants via Vision Exchange and communicate with Skype for Business

Check room availability and book it with a tap of a button Put an end to ghost rooms and unused spaces

#### 4 Small meeting room

Check room availability and book it with a tap of a button

Mirror content wirelessly onto BRAVIA screens Put an end to ghost rooms and unused spaces Monitor the operating status of devices to catch issues before meetings are disrupted

#### 5 Operations room

Use a single and comprehensive solution to manage all your AV devices and signage content

Lower energy costs and improve environmental impact by scheduling device activation

Analyse data to get a better understanding of your workplace Set custom alerts in the case of emergencies

Create engaging signage and display instantly around the office

#### 6 Auditorium

Wow your audience with brilliant visuals from 3LCD laser projectors, and benefit from a far lower cost of ownership (no bulbs to be replaced)

Manage projectors from a single dashboard

Record presentations at broadcast quality

Stream live and share presentations

**FEOS** 

# TEOS Solutions Overview

## **TEOS Manage**

Manage your workplace from a single, intuitive dashboard

## **TEOS Book**

Check meeting room availability, book rooms and review activity from a stylish room booking tablet

## **TEOS Reception**

Enable guests to check in with our virtual receptionist on a range of tablets

## **TEOS Connect**

Mirror content wirelessly from your device to large displays

## **TEOS Employee App**

Take control of all the connected devices in a meeting room from your phone

## **TEOS Signage**

Easily create impressive signage and schedule across a wide range of displays













## TEOS Manage Streamline your workday, from start to finish

Make your working environment smarter and more productive with TEOS Manage – the workplace management platform from Sony. The systems give AV/IT, facilities and communications managers full control over devices, signage and content across the whole workplace ecosystem, from meeting rooms to reception areas. And, as your needs evolve, you can add further solutions with ease, including TEOS Book, TEOS Reception or TEOS Remote.

The result is simple yet systematic working, tighter team collaboration and intuitive management tools for all your facility and resource needs.

# Integrated management solutions

#### Manage all your networked devices

Enjoy a dashboard-style overview of devices; locations, activity status, green management settings and device issues.

#### Scheduled playout

Push content such as images, signage and videos to individual devices, zones or across the whole network. It's easy to manage and review playout schedules to ensure that the right content is displayed on the right screen, at the right time.

#### Group devices by location

With TEOS Manage, users can control, monitor, update and group displays by building, floor or area. Furthermore, adding more devices is easy with the network auto-discover function.

#### Receive device alerts

See the operating status of all connected display devices and receive alerts when one stops working.

#### Green management settings

Schedule on and off times for each display to save energy when devices are not in use.

### Simplicity

#### Cloud or on-site local deployment

Offering exceptional flexibility and easy access to TEOS Manage whenever and wherever a user needs. Alternatively, you can opt for local deployment and benefit from enhanced levels of security.

#### Easily create digital signage

Create colourful, eye-catching, and touch-interactive signage and distribute it across networked screens. For non-technical users, a revolutionary "e-mail to signage" feature simplifies the workflow – just email a PowerPoint slide to a chosen address.

#### Send emergency alerts

Push urgent alert notifications to all connected displays – such as directions to fire exits.

#### Wide device compatibility

TEOS Manage is compatible with most IP-enabled devices including Sony, LG, Samsung and Philips display screens, tablets and projectors that use PJLink (e.g. Epson or Panasonic, etc). For all other brands, TEOS Player can be integrated to enable signage management.

For full product specifications and features please visit **pro.sony** 

## TEOS Manage Specifications

1200 Manage	Number of sites/rooms	Nolimitation	
Facility Management	Advanced analytics	Yes	
, -	Alerts	Yes	
	Number of users	Nolimitation	
Users	Database compatibility	Active Directory	
	Rights Management	Advanced access customization	
	IP control	Yes	
	Scheduling	Yes	
Control	Sony compatibility	Professional BRAVIA, projectors, tablets*	
	Projector	Pjlink IP protocol	
	Other displays compatibility	Yes – Samsung SSSP3 or higher; LG (SNMP); Philips (IP control); etc	
	Virtual Reception	Yes (TEOS Reception)	
	Notifications	SMS and e-mail	
Reception	Badge Printing	Yes**	
	Guests Database	Yes (Export functions available)	
	Calendar compatibility	Google Calendar, Microsoft Exchange, Office 365	
	Customizable background	Yes	
	Customizable inputs titles	Yes	
	Lockable secured interface	Yes	
Meeting room	Scheduling	Yes	
	Room control	Yes (TEOS Remote)	
	Room booking	Yes (TEOS Book) with tablet to show/book/cancel or	
	Content creation	auto release a meetings	
	Content creation	Yes (Simple, and Advanced)	
	Main functions	Template design, Facebook, Instagram, Twitter, YouTube, websites, interactive content, PowerPoint, streamings, weather reports, RSS feeds	
	Picture format	BMP, JPG, GIF, PNG	
	Video format	AVI, MPG, WMV, H264	
	Sound format	WAV, MP3, streaming	
Signage	Monitoring	Mail	
	Scheduling	Yes	
	Emergency alarms	Yes	
	Content creation elements	Text, image, video element, graphics, TV, website, ticker, date and time, YouTube and audio stream, etc	
	External data integration	Function list to show system is open	
	Basic signage via email	Yes	
	Touch interactive signage	Yes	
Deployment	Local server (min requirements)	<ul> <li>Min Windows 2012 / 16GB</li> <li>IIS</li> <li>Net framework 4.5</li> <li>MSSQL Server</li> <li>40GB of available space</li> </ul>	
	Alternative deployment	Cloud	
	TEM-SRV100	Server software	
	TEM-CO10	License for Simple Control use (1 per device required)	
Licences	TEM-MR10	License for Meeting Room use (1 per device required)	
	TEM-TA10	License for tablet use (1 per device required)	
	TEM-DS10	License for Signage use (1 per device required)	
	Standard warranty	1 year for support and new features firmwares	
		PSP.TEM100.1X – 1 additional year for support and new features firmware. 1 per device required	
Warranty	Extensions	PSP.TEM100.2X – 2 additional years for support and new features firmware. 1 per device required	
		PSP.TEM100.4X – 4 additional years for support and new features firmware. 1 per device required	

\* TEOS Tablets: TEB-7DSQPM, TEB-10DSQPL, TEB-15DSKP, TEB-22DSK \*\* List of compatible printers available on demand





# **Collaboration Solutions**

## **Vision Exchange**

Enhance teaching, learning and business communications with these intuitive, cost effective solutions for real-time knowledge sharing and more focused collaboration.

#### Active learning

Inspire and engage with our interactive workgroup-based active learning solution for universities, colleges and corporate meeting rooms.

#### Share and engage

Let users share multimedia presentation content, bringing in other participants at remote locations to join the discussion as needed.

## Connect 10 workgroups with up-to 6 contributors per group



#### Interactive Lecture

Lecturers can easily present using a range of sources and devices, effortlessly switching multiple types of content controlled by a tablet or smartphone. Content can be displayed from virtually any source, including faculty laptop PCs, documents camera and Blu-ray players, whether you're using the main unit of pod software.

You can also share images wirelessly from personal, portable devices (BYOD).

The personal note taker feature supports interactive capture and note-taking. Simply connect to the main material, capture images, write notes and save all content together during live sessions.

For full product specifications and features please visit **pro.sony** 

# The dynamic, collaborative Active Learning Solution

Vision Exchange is the uniquely powerful and intuitive active learning solution that brings together students, lecturers and presenters. Ideal for knowledge sharing and brainstorming ideas, this immersive environment boosts audience engagement by directly involving everyone in the learning process. Cost-effective, flexible and easy to configure, Vision Exchange is ideal for universities and colleges.

#### Easily share knowledge and ideas

Vision Exchange lets presenters and lecturers easily share information, with the freedom to move around the teaching space in a truly active learning environment. Information can be shared from teacher to student, student to teacher, or through active collaboration with workgroup sharing. Connect up to 10 workgroups with up to 6 contributors per group.

#### Collaboration with any device

Vision Exchange is created for today's BYOD (Bring Your Own Device) classrooms and lecture theatres. Students can work collaboratively in small independent workgroups or clusters, creating content with their own tablets, laptops and smartphones to share wirelessly with other group members, workgroups and lecturers.

#### Annotation and whiteboard tools

Lecturers can enhance their presentations with easy-to-use annotation tools: draw and sketch to emphasise what's on screen, or bring up the whiteboard with handy digital tags.

#### Easy video collaboration

Video collaboration is possible with native support using Skype for Business, with overlaid annotations or whiteboard images for even more effective communication.

#### Lecture capture and recording ready

Every system installed is 'recording ready' making the deployment of lecture capture to every teaching space flexible and simple, without the need for dedicated local room recording hardware.

#### Active learning (optional license)

Adding an optional active learning license lets students 'mirror' their own devices and share content with other groups in the room or on the main presentation screen via simple drag-and-drop gestures under the lecturer's control.

#### Streaming output (optional license)

Stream content from the main view to a central server for lecture capture, recording or live distribution. Record directly to UbiCast MIRIS Netcapture.

#### Scalable and cost effective

Vision Exchange provides a dynamic and flexible solution to suit any teachingspace. It's easy and cost effective to expand Vision Exchange by adding further active workgroup 'pods'.



#### Active Learning class workflow



#### SHARE TO CLASS

- Easy sharing for teacher's materials (laptop/tablet images, documents, camera, HDMI inputs, etc.).
- Any image on the main view will be shown to all work group POD displays in full screen when "Pod share" button is pressed.



#### ACTIVE GROUP DISCUSSION

- Any student can easily mirror their BYOD content. Enhance discussion by simple switching, annotation/ digital tag whiteboard mode.
- Teacher can monitor and select any group's information, then share to all other group screens.



#### PRESENT AND FEEDBACK

- Quickly drag & drop to share anyone's screen.
- Promptly reflect teacher or student/ group comments with real-time annotation to feedback.

# Collaboration solutions for corporate environments

#### Conference Rooms

Today's conference rooms often harbour a confusing tangle of cables, switchers, video conferencing systems and other hardware. Hard to set up and operate, they're a frequent cause of wasted time as presenters struggle with awkward wiring instead of focusing on the meeting itself.

Vision Exchange streamlines conference room communications, allowing every participant to concentrate on business with fewer distractions and less stress.

Room occupants can share content from their own laptops, tablets and smartphones, with participants overlaying real-time 'whiteboard' annotations to images presented from their personal devices. Vision Exchange also extends collaboration globally, allowing rich interactive communication with colleagues at remote locations.



## Interactive Collaboration Solution

PEQ-C100	Main unit with HDMI x2 input, including 1st year hardware and software update program		
PEQ-C130	Main unit with HDMI x4 input, including 1st year hardware and software update program		
PES-C10 <sup>*1</sup>	Pod PC software , including 1st year software update program		
PEQA-C10	Optional Active Learning software for PEQ-C100/130		
PEQA-C30	Optional H.264 IP Streaming software for PEQ-C100/130 & PES-C10		

Hardware and Sof	tware Support
PSP.PEQC100.E1X	Additional 1 year Hardware support for PEQ-C100 main unit
PSP.PEQC130.E1X	Additional 1 year Hardware support for PEQ-C130 main unit
PEQ-C1SU	Additional 1 year Software Update Program support for PEQ-C100 and PEQ-C130
PES-C1SU	Additional 1 year Software Update Program support for PES-C10

\*1 Customer is required to locally provide physical mini 'Pod' PC to specifications provided by Sony.

Features	Vision Exchange PEQ-C100 Main Unit	Vision Exchange PEQ-C130 Main Unit	Vision Exchange PES-C10 POD
Interactive Lecture System	Yes	Yes	Yes
Main Unit for Active Group Learning System	Yes	Yes	No
Active Group Learning	Yes	Yes	Yes
Connected Displays	2	2	1
BYOD Mirror Connections	6 plus # POD views	6 plus # POD views	6
Device Bandwidth Control	Yes	Yes	Yes
HDMI Input	2	4	Yes' <sup>3</sup>
Whiteboard, Annotation, Snapshot	Yes	Yes	Yes
Multi Group Sharing	Yes	Yes	No
Multi User Control	Yes	Yes	Yes
Skype 4 Business*2	Yes	Yes	Yes
Active Learning Option	Yes	Yes	Yes
H264 IP Streaming Option	Yes	Yes	Yes

<sup>\*2</sup> Customer is required to locally provide and install Microsoft Office Skype for Business licensed software.
 <sup>\*3</sup> Customer is required to locally provide and purchase HDMI-USB convertor and adaptor unit.

# Vision Exchange Software Update Programme

Model	Code
PEQ-C100 & PEQ-C130	PEQ-C1SU
Annual Software Update Program	
Valid access to install new software versions as released	
including entitlement of new features, continued BYOD	
OS device support, vulnerability support and bug fixes.	
PES-C10	PES-C1SU
Annual Software Update Program	
Valid access to install new software versions as released	
including entitlement of new features, continued BYOD	
OS device support, vulnerability support and bug fixes.	

# UBICAST

## Sharing your knowledge has never been easier

UbiCast orchestrates every phase of producing and delivering rich video content - from recording and editing to publishing, managing and user analytics.

### A WORLD OF APPLICATIONS

- Lecture capture: Digitise lectures and deliver them as searchable, engaging videos.
- **MOOC creation**: Easily create high guality interactive learning videos for Massive Open Online Course
- Online training: Create engaging, flexible video training modules for employees, customers and partners.
- Webcasting: Stream conferences and events to a global audience, live or on demand.



- Adjust playback speed and image quality.
- Enhance your videos with attachments, comments or even external links associated to a moment of the video.
- Engage your audience with quizzes and surveys.





**Polls & Quizzes** 



Time-based annotations



**Dynamic Rich Media** 

With Dynamic Rich Media (DynRM) you are more than just a viewer, you can create the content you want to watch. Click on one of the video tiles to zoom in and focus on the area you are interested in. Up to 6 simultaneous sources can be synchronized.

# Sony Solutions

# Edge Analytics Appliance

Adding more intelligence to every presentation

The REA-C1000 Edge Analytics Appliance brings an exciting new dimension of audience engagement to lectures, MOOCs, government and corporate presentations.

Advanced built-in Al-based video technology analyses the input it receives from connected cameras. The result of this analysis is applied in combination with camera feeds and other image sources to create high-quality video content that can be displayed live or recorded. Acting as the smart hub of a connected AV setup, the compact and light-weight REA-C1000 allows educational institutes and corporate organisations to automatically generate compelling video content in real time – without the expense and complexity of dedicated production teams and specialised additional equipment. The REA-C1000 offers a range of powerful presentation features that are available via optional licenses:

#### Handwriting extraction & presenter overlay

The REA-C1000 intelligently extracts handwritten text and diagrams from black and white boards. This can be displayed as a real-time overlay that 'floats' in front of the presenter, allowing audiences to clearly see written content with enhanced colour and contrast as well as gestures and expressions of the presenter.

#### Chroma key-less CG overlay\*

Based on Sony's advanced motion detection technology, this feature can extract the presenter's image, overlaying it onto any background image or movie without the need for a dedicated chromakey system or specialist operator.

#### PTZ auto tracking

The REA-C1000 can serve as a virtual camera operator, controlling a connected PTZ camera to track the current presenter smoothly, keeping them accurately framed and sharply focused as they move around or turn their back to the audience.

#### Focus area cropping\*

Alandwriting <u>f(x)-</u> g(x)

Using this feature, an image from one camera can be simultaneously shown as two different output images. Connected to a 4K camera, the REA-C1000 can simultaneously output a wide-angle view in 4K resolution and a cropped view of the same presenter in FHD. The cropped image can also be selectable as static or dynamic.

#### Close-up by gesture

The REA-C1000 can react intelligently when an audience member stands up to speak, triggering the camera to zoom in and frame the new speaker.

\* These features will be available through a software update during 2019.



# Crystal LED

**Crystal LED** 

The ultimate big-screen display solution, delivering ultra-real visual experiences on virtually any scale.

#### Crystal LED Display System

- Spectacularly immersive high-contrast images with unprecedented depth and detail.
- Crystal clarity, with no image artefacts or picture noise.
- Exceptionally wide viewing angle, with no colour shift from any viewpoint.
- Seamless images on any scale, with no visible gaps or tiling lines between display modules.

# A blank canvas comes to life

Crystal LED turns the world's biggest ideas into thrilling visual reality – from automotive and industrial product design, theme parks, museums and galleries to corporate lobbies, boardrooms and broadcast studios.



# Design

Redefining reality

Our ultimate display solution brings the world's biggest ideas to life in the world of industrial product design and manufacturing. Simulate every step of the design process with groundbreaking, borderless design. Multiple panels can be seamlessly tiled to create super-sized displays with any dimension or aspect ratio and no bezels or visible gaps.

## High End Retail

Overwhelming visuals

With 10-bit colour depth, wide colour gamut (140% of sRGB) and a maximum rate of 120 frames per second, our Crystal LED display system offers astonishing pictures and superb contrast at more than 1,000,000:1. And with brightness of up to 1000 cd/ m2 (1000 nits), your customers will experience every fine detail.

## Corporate Boardrooms

SONY

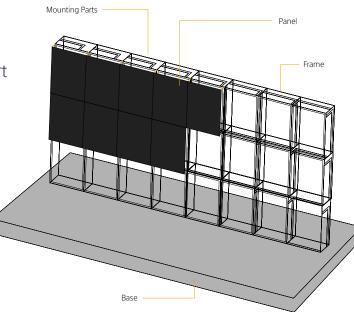
A stunning image at any angle Our Crystal LED display system offers a viewing angle of virtually 180 degrees so that anyone, no matter where they are in the room, can see the full picture, even in dimly lit environments. And because moving images are blur-free with near-instant response and a maximum refresh rate of 120 fps, it's perfect for bringing video conferences to life.

## **Crystal-LED Display**

Sony's dedicated team of Crystal-LED specialist engineers manage the full design, installation, service and support so you have complete peace of mind.

#### Crystal LED Display Base & Frame

Multiple Crystal LED Display Units and controller are integrated with the customised base and frame to create a complete large-scale display solution. The highly rigid frame structure ensures excellent positioning accuracy and stability for each display module. The accompanying base unit is carefully installed, using digital levelling measurement to ensure absolutely precise alignment.



### Crystal LED Display Unit - ZRD-2



Specifications	Crystal LED Display Unit - ZRD-2	
Method	Self Light Emitting Display	
Light emission device	Sony Original Developed Super Micro LED (RGB in 1pixel)	
Pixel pitch	1.26mm	
Black area	>99% (Ratio of display area except lighting point area)	
Unit resolution (W x H)	320 x 360 (115,200pixels)	
Unit size (mm/inch) (W x H x D)	403.2 x 453.6 x 100 / 15 <sup>7</sup> / <sub>8</sub> x 17 <sup>7</sup> / <sub>8</sub> x 4	
Unit area (sqm/sqft)	0.18 / 1.97	
Unit weight (kg/lb)	10.0 kg / 22 lb. 0.74 oz.	
Cell module resolution (W x H)	80 x 120 (9,600pixels)	
Cell module size (mm/inch) (W x H)	100.8 x 151.2 / 3 <sup>31</sup> / <sub>32</sub> x 5 <sup>15</sup> / <sub>16</sub>	
Cell module configuration (W x H)	4 x 3 in 1 unit (12 Cell Modules in 1 unit)	
Brightness (nit = cd/m2)	Maximum 1,000 ,Colour Temp D93	
Contrast ratio	more than 1,000,000:1	
Viewing angle	Almost 180°(H/V)	
Display native Colour space	140% wider than sRGB	
Input signal	10bit	
Signal interface	1 in 1out (2x RJ45) (Unit-Controller or Unit-Unit)	
Signal cable (Unit-Controller, Unit-Unit)	Cat.7 Ethernet Cable	
Power In/Out	1 AC Inlet, 1 AC Outlet (AC Inlet: IEC C13, AC Outlet: IEC C14 x1)	
Power requirements	AC200-240V, 50/60 Hz, Single Phase	
Average power consumption (per Unit)	100W	
Average power consumption (per sqm)	550W (approx.)	
LED lifespan (half brightness)	87,600hour	
Storage temperature	-20°C-60°C	
Operation humidity	20-80% (No condensation)	
Storage humidity	20-80% (No condensation)	

## Crystal LED Display Controller - ZRCT-200

Specifications	Crystal LED Display Controller - ZRCT-200	
Maximum control number of display unit	72(6unit/1port x 12port)	
Maximum input resolution	W3840 x H2160	
Maximum input frame rate	120p	
Video input	HDMI (HDMI2.0a) x 2 *HDCP Compliant, DisplayPort(DP1.2) x 2	
Unit output	RJ45 x 12	
Maximum power consumption	90W	
Controller size (mm) (W x D x H)	440 x 349 x 65 (without protrusions) 440 x 367.3 x 75 (incl. protrusions) *1.5U 19inch Rack	
Controller size (inch) (W x H x D)	17 <sup>3</sup> / <sub>8</sub> x 13 <sup>3</sup> / <sub>4</sub> x 2 <sup>5</sup> / <sub>8</sub> (without protrusions) 17 <sup>3</sup> / <sub>8</sub> x 14 <sup>15</sup> / <sub>32</sub> x 2 <sup>15</sup> / <sub>16</sub> (incl. protrusions) *1.5U 19inch Rack	
Storage temperature	-20°C-60°C	
Operation humidity	20-80% (No condensation)	
Storage humidity	20-80% (No condensation)	

For full product specifications and features please visit **pro.sony** 



# Projectors

From classrooms and offices to lecture halls and auditoriums, Sony projectors deliver outstanding quality, reliability and energy-efficiency in every kind of venue.

#### Installation projectors

#### Outstanding image quality

Our laser projectors are ideal for a wide range of high-end business, education or large-scale applications. The powerful Z-Phosphor laser light source is teamed with Sony's advanced 3LCD projection engine to deliver extremely bright, rich, and stable colours. For everyday applications and environments, our lamp projectors offer the same advanced 3LCD projection engine with cost-effective features that deliver the same high-quality performance.

#### Highlights - laser or lamp technology

- Powerful, WUXGA & WXGA resolution images.
- Models range from 4,000 to 12,000 colour and white light output.
- Easy, flexible installation.
- Energy-saving features.

#### Business and education projectors

Including portable and Ultra Short Throw For classrooms or meeting spaces, our portable and desktop projectors are lightweight, durable and easyto-use, combining outstanding performance with costefficiency. Wireless connectivity enables presentation direct from your PC. If space is limited, our Short Throw and Ultra Short Throw models produce big, bright images without needing to be far from the screen, whiteboard or wall.

#### Highlights

- 3LCD BrightEra<sup>™</sup> technology.
- Smart ECO features.
- Long lamp life.
- Options with XGA or WXGA resolution.
- Models range from 2,600 to 4,300 colour and white light output.



# D-200 Series

STOTATE

Four compact and lightweight economical desktop projectors for office and classroom, offering high performance, superior quality and ease of use.

**High Image Quality** 

XGA and WXGA resolution, our new

D-200 Series projectors feature new

Vivid Mode for a much more brilliant,

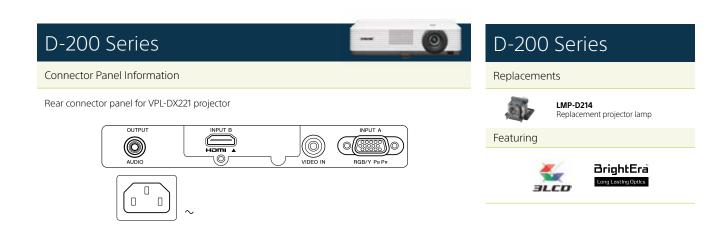
richer and stable colour experience.

#### Easy Connectivity

Two HDMI ports and a USB power supply port (5V 2A max) simplify connection with laptops plus other devices like 'stick' computers and smart dongles.

#### Auto On and Quick Off

Connecting to a PC automatically turns the projector on and Quick Off feature makes the projectors extremely easy to use.



Specifications			VPL-DX221
Display system	3 LCD		•
	0.63"(16mm) x 3, Aspe	ect ratio: 4:3	•
ize of effective display area		ghtEra Aspect ratio: 16:10	
	2,359,296 (1024x768 >	· ·	•
lumber of pixels	· · · · ·		
	3,072,000 (1280 x 800	J X 5) pixels	
	Manual Focus		•
Projection lens	Zoom	Powered/Manual	Manual
		Ratio	Approx. x1.2
	Throw Ratio		1.47-1.77
ight source	Ultra high pressure m	nercury lamp / 215 W type	•
		High	3,000H (4,000H)
ecommended lamp eplacement time* <sup>3</sup>	Lamp mode:	Standard	5,000H (7,000H)
		Low	10,000H (10,000H)
ilter cleaning			1000 H
creen size			30" to 300" (0.76 m to 7.62 m)
		High	2,800lm
/hite & Colour Light output*1	Lamp mode:	Standard	1,900lm
mile a colour light output	Lamp mode.		
		Low	1,600lm
ontrast ratio (full white / full black)*2			4000:1
peaker			1 W x 1 (monaural)
isplayable scanning frequency	Horizontal		19 kHz to 92 kHz
	Vertical		48 Hz to 92 Hz
	Computer signal inpu	ıt	Maximum display resolution: UXGA 1600 x 1200 dots
bisplay resolution	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 availab for digital signal (HDMI input) only; 1080/60P, 1080/50p
Colour System			NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N
eystone correction (Max.)*4	Vertical	+/- 30 degrees	•
ISD language	23-languages	English, French, German, Italian, Spanis	」 h, Portuguese, Japanese, Chinese (簡·繁), Korean, Russian, Thai, Arabic ,Turkis se, Farsi, Indonesian,Hungary,Greek,Czech,Slovak,Rumania
Operating Instructions languages (Note 1)		English, Germany, F	rench, Italy, Spanish, Russian, Chinese, Japanese, Taiwanese
	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, HDCP support Audio input connector: HDMI audio support
NPUT OUTPUT Computer / Video /Control)	INPUT C		
	VIDEO IN		Video input connector: Phono jack
	OUTPUT		Audio output connector: Stereo mini jack (Via USB Type A)
	POWER SUPPLY		
	TOWENSONTER	High	< 41dB
coustic poicot <sup>5</sup>	Lamp mode		
coustic noise*5	Lamp mode:	Standard	< 38dB
		Low	< 35dB
perating temperature / Operating humid	iity		0°C to 35°C (32°F to 95°F) / 20% to 80% (no condensation)
torage temperature / Storage humidity			-10°C to +60°C (14°F to 140°F) / 20% to 80% (no condensation)
ower requirements			AC 100 - 240V, 2.9A to 1.1A, 50Hz/60Hz
		High	293 W
	AC 100 V to 120 V	Standard	217 W
		Low	194 W
ower consumption		High	269 W
	AC 220 V to 240 V	Standard	206 W
		Low	185 W
	AC 100 V to 120 V		•
ower consumption standby Mode)		0.5 W	
	AC 220 V to 240 V		•
ower consumption (On Mode)	AC 100 V to 120 V		279W
leat dissipation AC 100 V to 120 V		998 BTU/h	
AC 220 V to 240 V		938 BTU/h	
ody Colour			White (Bottom : Gray)
			325.1 x 90.0x 233.2 mm
imensions (W x H x D)			325.1 x 79.8 x 230.5 mm
	ns)		
imensions (W x H x D) (without protrusion	ns)		Approx 27kg (59 lb)
Dimensions (W x H x D) (without protrusion			Approx. 2.7kg (5.9 lb)
Dimensions (W x H x D) Dimensions (W x H x D) (without protrusion Aass Battery for the remote	ns) Category Type		Approx. 2.7kg (5.9 lb) Lithium Battery CR2025

\*1 The values are estimated.
\*2 This value is average with lamp dimming.
\*3 The figures are approximate. They vary depending on the environment or how the projector is used. Jigyobu cannot guarantee them.

\*4 The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.
\*5 The figures are approximate. They vary depending on the environment or how the projector is used.

# E-400 Series

Ideal for education applications, these compact, energy efficient portable projectors offer excellent image quality plus affordable running costs.

#### Bright, high contrast images

with bright, detail-packed images. High 20,000:1 contrast ratio ensures crisp, images and text that stand out in any environment.

E-400 Series

#### Wider connectivity options

Project from a networked computer, or present wirelessly from laptops, tablets and smartphones. Dual HDMI ports for standard and latest wireless adaptors and direct USB display connection.

#### Affordable ownership costs

Smart energy-saving features plus up to 10,000 hours lamp replacement intervals contribute to low ownership costs and reduced maintenance.

Fill classrooms and meeting rooms

#### Connector Panel Information Replacements Rear connector panel for the VPL-EX435, VPL-EX455, VPL-EW435 and VPL-EW455 projectors LMP-E221 0 Π П MONITO AUDIO ß (0)Featuring Ð AUDIO 0 C 3LCD AUDIO VIDE 0

## E-400 Series

Replacement projector lamp

#### **Optional Accessories**

IFU-WLM3 USB wireless module

> BrightEra Loop Lasting Optics

Specification	c		VPL-EW455	VPL-EW435	VPL-EX455	VPL-EX435	
•							
Display system	3 LCD		•	•	•	•	
Size of effective display area	0.59"(15mm) x 3 Brigh	tEra LCD Panel Aspect ratio 16:10	•	•			
size of cricelive display area	0.63"(16 mm) x 3 BrightEra LCD Panel Aspect ratio 4:3				•	•	
Number of pixels			3,072,000 (1280	0x800 x 3) pixels	2,359,296 (1024	1x768 x 3) pixels	
Projection long	Manual Focus		•	•	•	•	
Projection lens	Throw Ratio			1.37:1 to 1.80:1		1.47:1 to 1.77:1	
Light source				Ultra high pressure me	ercury lamp 225W type		
		High		4,00	00 H		
Recommended lamp replacement time*1	Lamp mode:	Standard		6,00	00 H		
replacement time		Low		10,00	н ос		
Filter cleaning*1		1		10,00			
Screen size				30" to 300" (0.7	76 m to 7.62 m)		
		High	3500 lm	3100 lm	3600 lm	3200 lm	
White & Colour Light output*2	Lamp mode:	Standard	2500 lm	2200 lm	2500 lm	2300 lm	
White a colour Light output	Lamp mode.	Low	2100 lm	1900 lm	1900 lm	1800 lm	
Contract ratio (full white / full bla	ck)*3	LOW	2100 1111	2000		1000 1111	
Contrast ratio (full white / full bla				2000 16W (mo			
Speaker	Horizontal			15khz to	,		
Displayable scanning frequency	Horizontal						
	Vertical			48 Hz to			
	Computer signal input	t	Ma	iximum display resolution	n: 1600 x 1200 dots, fV:60	JHZ	
Display resolution	Video signal input		NTSC, PAL, SECAM, 480	0/60i, 576/50i, 480/60p, 9 1080/60p	576/50p, 720/60p, 720/5 , 1080/50p	0p, 1080/60i, 1080/50i,	
Colour System			NT	SC3.58, PAL, SECAM, NTS	C4.43, PAL-M, PALN, PAL	60	
Keystone correction (Max.)*4	Vertical		+/-20 0	degrees	+/-30 0	degrees	
OSD language	27-languages	English, French, German, Italiar Arabic ,Turkish, Polis		apanese, Chinese, Korean hish, Indonesian, Hungar			
	INPUT A		RGB / Y PB PR input connector: Mini D-sub 15 pin female/ Audio input connector: Stereo mini jack			ector: Stereo mini jack	
	INPUT B		RGB input connector: Mini Dsub 15 pin female/Audio input connector: Stereo mini jack				
	INPUT C		HDMI input connector: HDMI 19-pin, HDCP support/Audio input connector: HDMI audio support				
	INPUT D			r: HDMI 19-pin, HDCP supp			
	S VIDEO IN		nowiniput connecto	S Video input conne			
	VIDEO IN			Video input conne			
INPUT OUTPUT (Computer / Video /Control)	OUTPUT		MONITOD output o		-	nactor: Ctoron mini	
	Y PB/CB PR/CR		MONITOR output connector: Mini D-sub 15 pin female/Audio output connector: Stereo r			nector. Steleo mini	
			Component: Mini D-sub 15 pin female				
	REMOTE		D-sub 9-pin male/RS232C RJ-45. 10BASE-T/100BASE-TX				
	LAN			,			
	USB			Type-A 8			
	MICROPHONE IN		Mini Jack				
Acoustic noise*5	Lamp mode:	Low	29dB 0°C to 40°C / 32°F to 104°F (20% to 80%; no condensation)				
Operating temperature / Operating							
Storage temperature / Storage hu	-			o +60°C / 14°F to +140°F (	20% to 80%; no conden	sation)	
		A to 1.5 A, 50 Hz / 60 Hz	•				
Power requirements		A to 1.4 A,50 Hz / 60 Hz		•			
	AC 100 V to 240 V, 3.4	A to 1.5 A, 50 Hz / 60 Hz			•	•	
		High	332 W	318 W	333	3 W	
	AC 100 V to 120 V	Standard	270 W	260 W	270	) W	
Power consumption		Low	233 W	232 W	233	3 W	
		High	319 W	306 W	320	W C	
	AC 220 V to 240 V	Standard	261 W	252 W	260	D W	
		Low	225 W	226 W	25	W	
Power consumption (when	AC 100 V to 120 V			0.5	W		
"Standby mode" is set to "Low")	AC 220 V to 240 V			0.5	W		
Power Consumption	AC 100 V to 120 V	5.5W(LAN) / 6.0W (optional WLAN	N module) / 6.2W (ALL Tern	ninals and Networks Conne	cted, when "Standby Mode	e" is set to "Standard")	
(Networked Standby Mode)	AC 220 V to 240 V	5.8W(LAN) / 6.3W (optional WLAN					
Standby Mode / Networked Standby Mode Activated				Approx. 10			
Wireless Network(s) On/Off Switc	-	Press the MENU button.	then select [Connection/P	ower] > [WLAN Settings] > [		t On or Off	
••	AC 100 V to 120 V		1133 BTU	1085 BTU	-	BTU	
Heat dissipation	AC 220 V to 240 V		1088 BTU	1044 BTU		BTU	
Dimensions (W x H x D) (without				ox. 365 x 96.2 x 252 mm (	I		
Mass			Apr	0x. 305 x 96.2 x 252 mm Approx. 3.9		//	
	DM-DIQ Pomoto Com	mander (1), Lithium battery: CR2025 (1	AC Power Cord (1) One			201121 (1) Long cap (1)	
Supplied accessories	NIVI-FJO REITIULE COM				wij (1), Quick Kelerence M	anudi (1) Letis Cap (1)	
Optional Accessories		L	MP-E221, IFU-WLM3 (WL	mini mouulle)			

\*1 This figure is expected maintenance time, not guaranteed time. The actual value depends on the environment and how the projector is used.
\*2 The values are estimate.
\*3 The value is average.

\*4 The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.
\*5 The figures are approximate. They vary depending on the environment or how the projector is used.

# E-500 Series

These portable projectors fill larger rooms with bright, high-impact images. Smart features make the most of today's integrated AV/IT environments.

#### High brightness, high contrast images

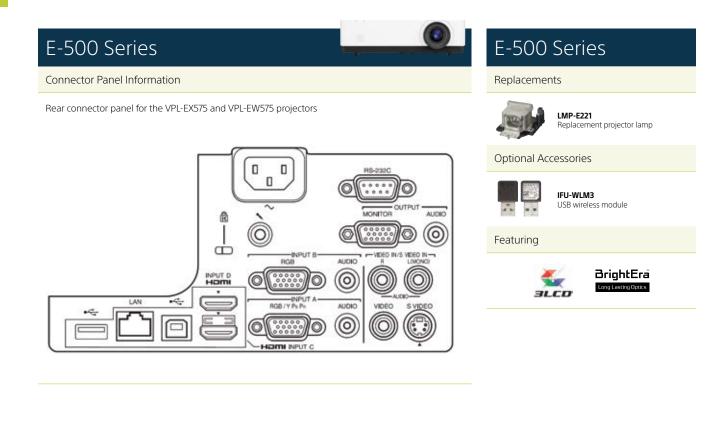
Fill larger classrooms and meeting rooms with powerful output up to 4300 lumen brightness. High 20,000:1 contrast ratio ensures crisp, images and text.

#### Wider connectivity options

Project from a networked computer, or present wirelessly from laptops, tablets and smartphones. Dual HDMI ports for standard and latest wireless adaptors and direct USB display connection.

#### Affordable ownership costs

Smart energy-saving features like Auto Mode and Lamp Dimming, plus up to 10,000 hours lamp replacement intervals contribute to low ownership costs and reduced maintenance.



Specifications			VPL-EW575	VPL-EX575	
Display system	3 LCD		•	•	
	0.75"(19mm) x 3 Brigh	tEra LCD Panel Aspect ratio 16:10	•		
Size of effective display area	0.63"(16 mm) x 3 BrightEra LCD Panel, Aspect ratio: 4:3			•	
	3,072,000 (1280x800 x		•		
Number of pixels	2,359,296 (1024x768 x			•	
	Manual Focus	-,	•	•	
Projection lens	Throw Ratio		1.10:1 to 1.79:1	1.40:1 to 2.27:1	
Light source	mownado		Ultra high pressure mer		
		High	4,000		
Recommended lamp	Lamp mode:	Standard	6,000		
replacement time*1	Lamp mode.	Low	10,000		
Filter cleaning (replacement cycle (N	1->× )*1	LOW	10,00		
Filter cleaning / replacement cycle (N Screen size	лал.)		30" to 300" (0.76		
Scieen size		llinh		4200 lm	
White 9 Colour Light outputt?	Laman madai	High	4300 lm 3200 lm		
White & Colour Light output*2	Lamp mode:	Standard		3000 lm	
	2	Low	2400 lm	2300 lm	
Contrast ratio (full white / full black)*			20000:1(SYQ)		
Speaker			16W (moi		
Displayable scanning frequency	Horizontal		15 kHz to		
· · · ·	Vertical		48 Hz to		
	Computer signal inpu	t	Maiximum display resolution	: 1600 x 1200 dots, fV:60Hz	
Display resolution	Video signal input		NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60 1080/50i, 1080/6		
Colour System			NTSC3.58, PAL, SECAM, NTSC	4.43, PAL-M, PAL-N,PAL60	
Keystone correction (Max.)*4	Vertical		+/-20 degrees +/-30 degrees		
OSD language	27-languages		ian, Spanish, Portuguese, Japanese, Chinese, Korea Jlish, Vietnamese, Farsi, Finnish, Indonesian, Hunga		
	INPUT A		RGB / Y PB PR input connector: Mini D-sub 15 pin female/Audio input connector: Stereo mini jack		
	INPUT B		RGB input connector: Mini D-sub 15 pin fema	le/Audio input connector: Stereo mini jack	
-	INPUT C		HDMI input connector: HDMI 19-pin, HDCP suppo	rt/Audio input connector: HDMI audio support	
	INPUT D		HDMI input connector: HDMI 19-pin, HDCP suppo	rt/Audio input connector: HDMI audio support	
	S VIDEO IN		S Video input connec	tor: Mini DIN 4-pin	
INPUT OUTPUT	VIDEO IN		Video input conne	ctor: Phono jack	
(Computer / Video /Control)	OUTUT		MONITOR output connector: Mini D-sub 15 pin female/Audio output connector: Stereo mini		
	Y PB/CB PR/CR		Component: Mini D-sub 15 pin female		
	REMOTE		D-sub 9-pin male/RS232C		
	LAN		RJ45,100BASE-TX (Shared with HDBaseT)	RJ-45, 10BASET/100BASE-TX	
	USB		Type-A & Type-B		
	MICROPHONE IN		Microphone jack: Mini Jack		
Acoustic noise*5	Lamp mode:	Low	29d		
Operating temperature / Operating h		2011			
Storage temperature / Storage humi			0°C to 40°C / 32°F to 104°F (20% to 80%; no condensation) -10°C to +60°C / 14°F to +140°F (20% to 80%; no condensation)		
stolage temperature / stolage humi		A to 1.5 A, 50 Hz / 60 Hz	10 C 10 100 C / 14 1 10 1140 1 (2		
Power requirements		A to 1.5 A, 50 Hz / 60 Hz	•	•	
	, te 100 v to 240 v, 3.4	High	332 W	333 W	
	AC 100 V to 120 V	Standard	270 W	270 W	
	AC 100 V 10 120 V				
Power consumption		Low	233 W	233 W	
	AC 330 1/1 - 515 1/1	High Chan do rel	319 W	320 W	
	AC 220 V to 240 V	Standard	261 W	260 W	
		Low	225 W	225 W	
Power consumption (when "Standby mode" is set to "Low")	AC 100 V to 120 V		0.5 \		
"Standby mode" is set to "Low") AC 220 V to 240 V		0.5 \			
Power Consumption (when AC 100 V to 120 V		5.5W(LAN) / 6.0W (optional WLAN module) / 6			
"Standby Mode" is set to Standard") AC 220 V to 240 V		5.8W(LAN) / 6.3W (optional WLAN module) / 6	6W (ALL Terminals and Networks Connected)		
Standby Mode / Networked Standby	Mode Activated		Approx. 10		
Wireless Network(s) On/Off Switch		Press the MENU button, then select [	Connection/Power] > [WLAN Settings] > [WLAN Connect	ion] > Select On or Off	
Heat dissipation	AC 100 V to 120 V		1133 BTU	1136 BTU	
	AC 220 V to 240 V		1088 BTU	1092 BTU	
Dimensions (W x H x D) (without prot	trusions)		Aprox. 365 x 96.2 x 252 mm (1	4 3/8 X3 25/32 X9 29/32 ″)	
Mass			Approx. 4.1kg (9 lb)	Approx. 4 kg (8.8 lb)	
Supplied accessories	RM-PJ8 Remote C	ommander (1), Lithium battery: CR2025	(1), AC Power Cord (1), Operating Instructions (CDROM)	(1), Quick Reference Manual (1) Lens cap (1)	
Optional Accessories			LMP-E221, IFU-WLM3 (WLAN module)		

\*1 This figure is expected maintenance time, not guaranteed time. The actual value depends on the environment and how the projector is used.
\*2 The values are estimate.
\*3 The value is average.

 <sup>\*4</sup> The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.
 \*5 The figures are approximate. They vary depending on the environment or how the projector is used.

# **CH-Series**

Four Installation models that raise the bar with higher resolution images and the same energy efficiency, TCO, image quality, brightness and stylish design that comes with our other C-Series range.

#### HDBaseT

Allows simple connectivity using an HDBaseT digital interface, multi signal transmission system, providing a single cable, cost-effective, longdistance, and high-quality digital transmission solution\*.

#### Audio / Speaker bypass

When set to "Always On," the speaker / microphone is available via Audio Input A.

11

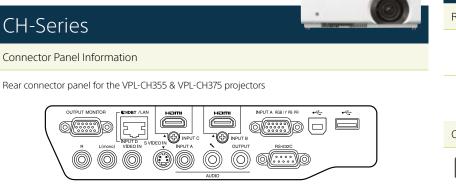
THE REPORT OF THE PARTY OF THE

### WUXGA resolution

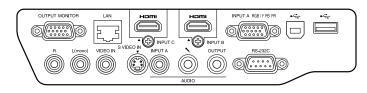
installation projectors 4000 – 5000 lumens brightness.

\* VPL-CH355 and VPL-CH375 only

**CH-Series** 



Rear connector panel for the VPL-CH350 & VPL-CH370 projectors







LMP-C281 Replacement projector lamp (CH370/CH375)

Optional Accessories

CH-Series



IFU-WLM3 USB wireless module





BrightEra Long Lesting Optics



		VPL-CH350	VPL-CH355	VPL-CH370	VPL-CH375
3 LCD system		•	•	•	•
0.64" (16.3 mm) × 3,	Aspect ratio: 16:10	•	•	•	•
6,912,000 (1920 × 12	00 × 3) pixels	•	•	•	•
Zoom	Optional: Manual (Approx. x1.45)	•	•	•	•
Focus	Manual	•	•	•	•
Lens shift	Manual (Vertical: +/- 5%, Horizontal: +/- 4%) Horizontal: +/- 2.3%	•	•	•	•
Throw ratio	1.5:1 to 2.2:1	•	•	•	•
Ultra high pressure	mercury lamp / 250 W type	•	•		
Ultra high pressure	mercury lamp / 280 W type			•	•
	High	3,00	DO H	2,50	00 H
Lamp mode:	Standard	4,00	00 Н	3,00	00 H
	Low	5,00	00 H	3,50	00 H
		Same tir	ne as the lamp rep	lacement is recom	mended
40" to 300" (1.02 m f	to 7.62 m) (measured diagonally)	•	•	•	•
		400	0 lm	500	0 lm
Lamp mode:	Standard				
	Low				) Im
2500:1		•	•	•	•
	High				dB
Lamp mode:					
Lump mode.					
Horizontal				23	•
		•	•	-	
vertical	46 HZ - 92 HZ	•	•	•	•
Computer signal inp	but	Maximum display resolution: 1920 × 1200 dots <sup>1</sup> Panel display resolution: 1920 × 1200 dots			ots
Video signal input		480/60i, 576/50i, 480/60b, 576/50b, 720/60b, 720/50b, 1080/60i, 1080/50i, 1080/60b, 1080/50b, 1080/24p			
		•	•	•	•
Vertical: Max. +/- 30	degrees, Horizontal: Max. +/- 20 degrees	•	•	•	•
24-languages	Dutch, Norwegian, Swedish, Thai, Arabic, Tu		amese, Farsi, Indon	esian, Finnish, Hun	
INPUT A Audio input connector:					
INPUT B / INPUT C HDMI input connector:					
	S video input connector:	Mini DIN 4-pin			
VIDEO IN	Video input connector:	Phono jack			
OUTPUT	· · ·		Mini D-sub 1	5-pin (female)	
	Audio output connector*5:		Stereo r	nini jack	
SPEAKER			12 W x 1 (i	monaural)	
MICROPHONE INPU	T		Mini	jack	
LAN		RJ45, 100BASE-TXT / 100BASE-TX	RJ45, 100BASE-TX (Shared with HDBaseT)	RJ45, 100BASE-TX	RJ45, 100BASE-TX (Shared with HDBaseT)
HDBaseT	RJ45, 4 Play		•		•
USB			Type-A	Туре-В	
0°C to 40°C (32°F to	104°F) / 20% to 80% (no condensation)	•	•	•	•
-10°C to +60°C (14°F t	to +140°F) / 20% to 80% (no condensation)	•	•	•	•
AC 100 V to 240 V, 3	.6 A to 1.6 A, 50/60 Hz	•	•		
AC 100 V to 240 V, 3	.9 A to 1.7 A, 50/60 Hz			•	•
	High	35	3 W	388	3 W
Lamp mode:	Standard	28	5 W	315	5 W
	Low	265	5 W	279	9 W
	High	334	1 W	36	7 W
Lamp mode:	Standard	272	2 W	299	9 W
	Low	254	4 W	266	5 W
AC 100 V to 120 V		4.7W / 0.5W	6.1W / 0.5W	4.7 / 0.3W	6.1W / 0.3W
AC 220 V to 240 V		4.9W / 0.5W	6.2W / 0.5W	4.9 / 0.5W	6.2W / 0.5W
			BTU		BTU
AC 100 V to 120 V					
AC 100 V to 120 V AC 220 V to 240 V			BTU	1252	BTU
AC 220 V to 240 V		1139			
		1139	BTU D6 × 113 × D 330.5 r Approx. 5.	mm (15 31/32 × 4 7,	
	0.64" (16.3 mm) × 3,         6,912,000 (1920 × 12         Focus         Iens shift         Utra high pressure         1         Lamp mode:         2500: 1         Lamp mode:         Utra bigh pressure         Vertical         Computer signal input         Video IN         VUDEO IN         SVIDEO IN         QUTPUT         GUTPUT         USB         O'C to 40°C (32°F to         10°C to 40°C (42°F y         AC 100 V to 240 V y         AC 100 V to 240 V y         AC 100 V to 240 V y	0.64" (i6.3 mm) × 3 × sect ratio: 16:106.912,000 (1920 × 120× x3) pixelsZoomOptional: Manual (Approx. x1.45)FocusManualLens shiftManui (Vertical: +/- S,%, Horizontal: +/- 4%)Manui (Vertical: +/- S,%, Horizontal: +/- 4%)Minic (Vertical: +/- S,%, Horizontal: +/- 4%)Ultra high pressureImage (Vertical: +/- S,%, Horizontal: +/- 4%)Ultra high pressureHighLamp mode:StandardMighStandardLamp mode:Standard2500: 1StandardLamp mode:StandardStandardIow2500: 1StandardLowIow2500: 1StandardLowIow260In StandardLowIow2700: 1In StandardVertical19 kHz - 92 kHzVertical48 Hz - 92 HzComputer signal inputInstein, French, German, Italian, Spanish, Portu Dutch, Norwegian, Sweidsh, Thai, Arabi, ToVertical: Max. +/- 30 Uerces, Horizontal: Max. +/- 20 degreesInstein, Spanish, Portu Dutch, Norwegian, Sweidsh, Thai, Arabi, To1NPUT ARGB / Y PB PR Input connector:SVIDEO INS video input connector:SVIDEO INS video input connector:SVIDEO INS video input connector:SVIDEO INS video input connector:*2:Monitor output connector:*2:Monitor output connector:*2:MUTE ARGB / Y PB PR Input connector:SVIDEO INS video input connector:*2:Monitor output connector:*2:<	0.64" (6.3 mm) × 3, steet ratio: 16:100.46,912,000 (1920 × 1200 × 3) pixels0.1ZoomOptional: Manual (Approx. x1.45)0.1FocusManual0.1Lens shiftManual (Vertical: +/- 5.%, Horizontal: +/-4.%)0.1Ultra high pressure0.10.1Ultra high pressure10000.0Lamp mode:Standard0.0Standard0.0000.000Lamp mode:Standard0.000Standard0.0000.000Lamp mode:Standard0.000Standard0.0000.000Lamp mode:Standard0.000Standard0.0000.000Standard0.0000.000Standard0.0000.000Standard0.0000.000Standard0.0000.000Vertical48 Hz - 92 Hz0.0000Vertical48 Hz - 92 Hz0.0000Video signal input10000.0000Video signal input10000.0000NTSC3.58, PAL, SEC-M. NTSCA, 43, PAL-M, PAL-M0.0000Video signal input5000, File, F	JLCD systemImage:	Image: state is the

**CH-Series** 

 $^{\star\!1}$   $\,$  Available for VESA Reduced Blanking signal.

\*2 From INPUT A.

# P-Series Laser Projectors

Compact, versatile laser projectors with excellent picture quality and easy maintenance: the bright choice for education and corporate environments.

#### Spectacular image quality

Powerful Z-Phosphor laser light source and advanced BrightEra 3LCD projection engine deliver detail-packed images with high 5000 lumens of colour brightness.

#### Long life, less maintenance

Reliable, long-lasting laser light source offers up to 20,000 hours virtually maintenance-free operation.



#### Flexible installation

Position the projector freely at any angle, on its side or even upside down. HDBaseT reduces cabling for simpler integration.

#### Discreet partner for any presentation space

Stylish blend-in design with tidy cable management and low fan noise.



**P-Series Laser Projectors** 

Specifications	)		VPL-PHZ10	VPL-PWZ10	
White & Colour Light output	3 LCD system		•	•	
Size of effective display area	0.76" (19.3 mm) x 3 E	rightEra LCD Panel	•	•	
	WUXGA: 6,912,000 (1920 x 1200 x 3) pixels		•		
Number of pixels Size of effective display area	WXGA: 3,072,000 (12	80 x 800 x 3) pixels		•	
size of effective display area	Aspect ratio: 16:10		•	•	
	Zoom		Manual (App	rox. x1.45)	
	Focus		Manı	Jal	
Projection lens	Lens shift		Manual (Vertical: +20%~+5	5%, Horizontal: +/- 10%)	
	Throw ratio		1.28-1.	88:1	
	Focal length(mm) /	Aperture	f=21.37mm - 31.25	mm f/ 1.50-1.95	
Light source			Laser + Ph	osphor	
Filter cleaning			20,00	ОН	
		High	5,000	Im	
White & Colour Light output 1	Lamp mode:	Standard	4,000		
		Low	3000	lm	
Contrast ratio (full white / full blac	k) *2		500,00		
Key stone correction (Max) *3			Horizontal: +/-30 degrees		
Power requirements			AC 100 V to 240 V, 4.3 A		
Speaker			16W (moi	,	
Display scanning frequency	Horizontal		15 kHz to		
	Vertical		48 Hz to		
Dianlassacar	Computer signal inp	ut	Maximum display resolu		
Display scanning frequency	Video signal input		NTSC, PAL, SECAM, 480/60i, 576/50i, 48 1080/60i, 1080/50i, 10		
Colour system			NTSC3.58, PAL, SECAM, NTSC	4.43, 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, Gleek,Czech,Slovakia,Romania		
Operating Instructions languages			English, Germany, French, Italy, Spanish, Russian, Simplified Chinese, Japanese, Arabic		
	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 RGE		
	INPUT C		HDMI input connector: HDMI 19-pin, Digital RGE		
	INPUT D		HDBaseT interface connector: RJ45, 4 play (		
INPUT OUTPUT	VIDEO IN		Video input connector: Phono Jack Audio	input connector: Shared with INPUT A	
(Computer / Video /Control)	OUTPUT		Audio output connect	or: Stereo mini jack	
	REMOTE		D-sub 9-pin (m	ale) / RS232C	
	LAN		RJ45,100BASE-TX (Shared with HDBaseT)		
	USB		TYPE-A / TYPE-B		
		High	36dB		
Acoustic noise *4	Lamp mode:	Standard	28d	В	
		Low	25dB		
Operating temperature / Operating	humidity		0°C to 40°C (32°F to 104°F) / 20	% to 80% (no condensation)	
Storage temperature / Storage hu	midity		-10°C to +60°C (14°F to +140°F) / 2	20% to 80% (no condensation)	
<b>.</b>		High	424 W	399 W	
Power consumption AC 100 V - 120 V	Lamp mode:	Standard	287 W	266 W	
		Low	217 W	198 W	
Power concurrentian		High	403 W	377 W	
Power consumption AC 220 V - 240 V	Lamp mode:	Standard	279 W	256 W	
		Low	211 W	193 W	
Power consumption (when	AC 100 V to 120 V		0.5 W	0.5 W	
"Standby mode" is set to "Low")	AC 220 V to 240 V		0.5 W	0.5 W	
Power Consumption	AC 100 V to 120 V		369W	342W	
(Networked Standby Mode)	AC 220 V to 240 V		353W	328W	
Power Consumption	AC 100 V to 120 V		12.5W(LAN) / 13.2W (optional WLAN (ALL Terminals and Networks Connected, w	hen "Standby Mode" is set to "Standard")	
(Networked Standby Mode)	AC 220 V to 240 V		11.9W(LAN) / 12.6W (optional WLAN (ALL Terminals and Networks Connected, w	hen "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		• Approx 510.429	•	
Dimensions (W x H x D)	title and a sector of the		Approx. 510 x128		
Outside Dimensions (W x H x D) (w	nitiout protrusions)		Approx. 510 x 11:		
Mass Supplied accessories			Approx. Remote commander (RM-PJ8), Battery (CR2025), A Quick Reference Manual, Warranty card, Securit	C power cord, Operating instructions (CD-ROM), y label, Flyers (WEEE) / (EU battery direction),	
			Application softw	are (CD-KUIVI)	

\*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.

<sup>\*4</sup> The figures are approximate. They vary depending on the environment or how the projector is used.

# **F-Series** Lamp Projectors

Model: VPL-FH60/65

**F-Series** 

WUXGA resolution for the most demanding venues that require the highest resolutions, brightest projections and highly sophisticated features. The F-Series delivers powerful performance, optional lenses, longer life and low maintenance.

#### Edge-Blend and Warp capabilities

Built-in GUI and PC software for multi projector image blending with warping (VPL-FH60/65).

#### **Reality creation**

panel for

projectors

Clarity in every pixel. Sony's process technology and proprietary algorithm creates pixel mapping that is as close to the original as you can get (VPL-FH60/56 projectors).

#### **DICOM** capabilities

Display X-ray and MRI images that conform to GSDF (Grayscale Standard Display Function).

#### Side by Side content

Displays two different images / content from two different input sources.



LMP-F280 (VPL-FH60) Replacement lamp

Featuring

3LCD







10	
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ōj	Displa
Р	Size of
ŭ	Numb
F-Series La	Projec
	Lens s
	Light s

Specifications			VPL-FH60 VPL-FH65		
Display device 3 LCD			•	•	
Size of effective display area		ghtEra LCD Panel, Aspect ratio: 16:10			
Number of pixels	6,912,000 (1920 x 120		•	-	
Number of pixels	Focus		Powered		
	Zoom - Powered/Ma	aual	Pow		
Projection lens*1					
	Zoom - Ratio		Appro		
	Throw Ratio		1.39:1 t		
	Powered/Manual		Pow		
Lens shift	Range Vertical		-5%,		
	Range Horizontal		+/-		
Light source	Type/Wattage	High pressure mercury lamp	280 W type	330 W type	
Recommended lamp	Lamp mode:	High	3,00	00 H	
replacement time*2	Lamp model	Standard	4,00	00 H	
Filter cleaning* <sup>2</sup>			20,000 H Same as the lamp r	eplacement is recommended	
Screen size*1			40" to 600" (1.02 m to 15.24	hm) (measured diagonally)	
White & Colour Light output	Lamp mode:	High	5000 lm	6000 lm	
White & Colour Light output	Lamp mode.	Standard	3200 lm	4400 lm	
Contrast ratio (full white / full bla	ck)*3		200	00:1	
Displayable scanning	Horizontal		15 kHz to	92 kHz	
frequency	Vertical		48 kHz t	o 92 kHz	
	Computer signal inp	ıt	Maximum display resolu	ition: 1920 x 1200 dots *4	
Display resolution			NTSC, PAL, SECAM, 480/60i, 576/50i, 480/6		
	Video signal input		1080/50i The following items are available	for digital signal only; 1080/60p, 1080/50p,	
			1080		
Colour System			NTSC3.58, PAL, SECAM, NTS		
Keystone correction (Max.)	Vertical		+/- 30 (	-	
, , ,	Horizontal		+/- 30 (	legrees	
OSD language	24-languages		English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, S Norwegian, Japanese, Simplified Chinese, Traditional Chinese, Korean, Thai, Vietnar Arabic, Farsi, Finnish, Indonesian, Hungarian, Greek		
	INPUT A	RGB / Y PB PR input connector:	RGB / Y PB PR input connector: Mini D-sub 15-pin (female) Audio input connector: Stereo mini jack		
	INPUT B	RGB input connector:	DVI input connector: DVI-D 24-pin (single link), HDCP support Audio input connector: Shared with Input A		
	INPUT C	HDMI input connector:	HDMI input connector: HDMI 19-pin, HDCP support Audio input connector: HDMI Audio Support		
	INPUT D	Audio input connector:	HDBaseT interface connector: RJ45, 4 play (Video, Audio, LAN, Control)		
INPUT OUTPUT	S VIDEO IN	HDMI input connector:	Video input connector: BNC, Audio input connector: Shared with input A		
(Computer / Video /Control)	VIDEO IN	S video input connector:	Monitor output for Input A Connector: Mini D-sub 15-pin (female) Audio output connector: Stereo mini jack		
	OUTPUT	Audio input connector:	Monitor output for Input B Connector: DVI-D 24-pin (single link), HDCP not support Audio output, Monitor out connector: Stereo mini jack		
	REMOTE	Monitor output for Input A Connector:	D-sub 9-pin (male) / RS232C		
	LAN	Audio input connector:	RJ45, 10BASE-T/100BASE-TX		
	IR (Control S)	Monitor output for Input B Connector:	Control S input connector: Stereo mini jack Plug in power DC 5V		
Acoustic noise	Lamp mode:	Standard	28 dB		
Operating temperature / Operating	ng humidity		0°C to 40°C (32°F to 104°F) / 2	0% to 80% (no condensation)	
Storage temperature / Storage hu	umidity		-10°C to +60°C (14°F to +140°F) /	20% to 80% (no condensation)	
Power requirements		3A to 1.8A, 50 Hz / 60 Hz	•		
	AC 100 V to 240 V, 5.0	0A to 2.1A, 50 Hz / 60 Hz		•	
	AC 100 V to 120 V	High	429 W	498 W	
Power consumption		Standard	268 W	346 W	
Lamp mode:	AC 220 V to 240 V	High	416 W	483 W	
		Standard	216 W	337 W	
Power consumption (Standby	AC 100 V to 120 V		0.5	W	
Mode" is set to "Low")	AC 220 V to 240 V		0.5	W	
Power Consumption	AC 100 V to 120 V		15.0 W (LAN) / 15.0 W (HDBaseT) /15.0 W (when "Standby Mode	(All Terminals and Networks Connected) " is set to "Standard")	
(Networked Standby Mode)	AC 220 V to 240 V		13.3 W (LAN) / 13.3 W (HDBaseT)13.3 W (All "Standby Mode" is	Terminals and Networks Connected) (when set to "Standard")	
Heat dissipation	AC 100 V to 120 V		1464 BTU/h	1699 BTU/h	
	AC 220 V to 240 V		1419 BTU/h	1648 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) 15/32 x 12 7/32 inches)		
Mass			Approx. 13	kg (28 lb)	
			atteries (2), AC Power Cord (1), Plug holder (1), Terr	ninal (1)RM-PJ27 Remote Commander (1),	
Supplied accessories		batteries (2), AC Power Cord (1), Plug holder (1), T	erminal, Size AA (R6) batteries (2), AC Power Cord ( anual (1), Operating Instructions (CD-ROM) (1)		

\*1 Specfications 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.

# Projectors

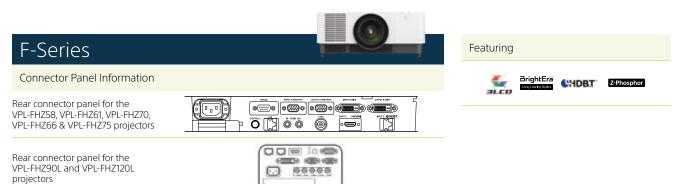
# F-Series Laser Projectors

Sony's flagship laser projectors for larger and more demanding venues requiring the best in technology, resolution and highly sophisticated features. Delivers powerful performance, optional lenses, up to 20,000 hours of life and attractive TCO.

Model: VPL-FHZ90L/120L

#### Laser light projectors with Sony 3LCD BrightEra™ Panel Technology

In a world first, Sony has combined a highly efficient laser light source with 3LCD BrightEra<sup>™</sup> technology. This unique combination delivers exceptionally bright, high contrast pictures with excellent colour accuracy and stability, plus high efficiency and significantly greater durability for reduced lifetime ownership costs.





<table-container>Barly registerOreImage: status and Products and NOPImage: status and Products and NOPImage: status and Products and NOPSine of Hole RegisterCOUNT COUNT AND AND AND AND AND AND AND AND AND AND</table-container>	Specification	าร		VPL-FHZ58	VPL-FHZ61	VPL-FHZ70	VPL-FHZ66	VPL-FHZ75	
<table-container>          Sec effective displayer         Prior base: Trans base: Prior base:</table-container>				•	•	•	•	•	
<table-container>Sind and any and a single s</table-container>	Display System		BrightEra LCD Panel, Aspect ratio: 16:10	•	•	•	•	•	
<table-container>          material         field        </table-container>	Size of effective display area								
<table-container>          Partner         Construct         Superior         Superior</table-container>	Number of pixels	6,912,000 (1920 :	x 1200 x 3) pixels	•	•	•	•	•	
Projection lates ***         Conversition         Second		Focus				Powered			
Image         Convertion         Approx         Approx         Approx         Approx           Ensibility         Theorem function         Solved Chin	Ducing tion lange \$1	Zoom - Powered	l/Manual			Powered			
Image isonal         Part ent is	Projection lens **	Zoom - Ratio				Approx. x 1.6			
<table-container>nearAngeSpin</table-container>		Throw Ratio				1.39:1 to 2.23:1			
<table-container>          Image factorial         Image factorial         Image factorial         Image factorial         Image factorial         Image factorial           Uses (n° 1         Upile adjammatic tools and states)         Image factorial         Image f</table-container>		Powered/Manua	al			Powered			
<th framew<="" framework="" image:="" is="" state="" th="" the=""><th>Lens shift</th><th>Range Vertical</th><th></th><th>-5% / +60% *5</th><th>-5% / +60% *5</th><th>-5% / +70%</th><th>-5% / +60% *5</th><th>-5% / +70%</th></th>	<th>Lens shift</th> <th>Range Vertical</th> <th></th> <th>-5% / +60% *5</th> <th>-5% / +60% *5</th> <th>-5% / +70%</th> <th>-5% / +60% *5</th> <th>-5% / +70%</th>	Lens shift	Range Vertical		-5% / +60% *5	-5% / +60% *5	-5% / +70%	-5% / +60% *5	-5% / +70%
		Range Horizonta	al			+/- 32%			
Filter damma / regiserment yue (Max) *     UND     2000*     Second       Streen size (Max)     Ling mode:     Made     300 In     500 In     500 In     600 In       Contact size (Max)     Ling mode:     Made     300 In     300 In     4.000 In     6.000 In       Contact size (Max)     Non-     300 In     300 In     4.000 In     6.000 In       Contact size (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *     6.000 In       Contact size (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *       Participate scamma / regiser (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *       Participate scamma / regiser (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *       Participate scamma / regiser (Max) *     International regiser (Max) *     International regiser (Max) *     International regiser (Max) *       Participate scamma / regiser (Max) *     Verticipate scamma / regiser (Max) *     International regiser (Max) *     International regiser (Max) *       Register (Max) *     Verticipate scamma / register (Max) *     Verticipate scamma / register (Max) *     International register (Max) *       Register (Max) * <th>-</th> <th>Туре</th> <th></th> <th></th> <th></th> <th>Laser diode</th> <th></th> <th></th>	-	Туре				Laser diode			
Auto Breakmany Consent Leg Maxy         Lang mode (bit option participal option partite parterior participal option participal option partit									
Scene sign (Mar)         Lamp mode         Lamp mode (Mar)         Mark (Mar)         All (Mar)         SOUID         SOUID <th></th> <th>cle (Max.) <sup>2</sup></th> <th></th> <th></th> <th></th> <th>20,000 H</th> <th></th> <th></th>		cle (Max.) <sup>2</sup>				20,000 H			
While & Colour Light output?Lamp model MuldieSended Muldie4,00 m5,500 m6,000 m6,000 m6,000 mConvertable Muldie3,000 m3,000 m3,000 m3,000 m3,000 m6,000 mm	-			•		•	•	•	
White Account Light output?         Impande:         Mudale         3,000 In         3,000 In         5,000 Ins         6,000 Ins           Constant Ling Duil white / NUB/EUC         Impande:         Impande	Screen size (Max)		Chanadand	4 200 lm				C 500 lm	
Control (Mill while / All Disc)         SUGUO1         SUGUO1           Colour calibration         15 Hi? 10 72 Hi?         40 Hor 30 Hi           Colour calibration         SUGUO1         Horizontal         SUGUO1           Colour calibration         SUGUO1         Maintal diagram calibration         Horizontal           Colour calibration         Variau         Maintal diagram calibration         Horizontal         Horizontal           Colour calibration         Variau         Maintal diagram calibration         Horizontal         Horizontal           Colour calibration         Variau         Horizontal         Horizontal         Horizontal         Horizontal           Colour calibration         Horizontal         Horizontal         Horizontal         Horizontal         Horizontal           Keystone correction (Max.] **         Vertical         Horizontal         Horizontal <th>White &amp; Colour Light output *2</th> <th>Lamp mode:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	White & Colour Light output *2	Lamp mode:							
IColor         Method Isolandian         Method Isolandiandian <th< th=""><th>Contrast ratio (full white / full b</th><th>ack) '3</th><th>widule</th><th>3,000 IIII</th><th>111 006,6</th><th></th><th>4,000 (11)</th><th>0,100 IM</th></th<>	Contrast ratio (full white / full b	ack) '3	widule	3,000 IIII	111 006,6		4,000 (11)	0,100 IM	
Displayeaduation (required)         Horizontal Ventical Ventical (computer signal input.         Initial (computer signal input.         Initial (computer signal input.         Initial (computer signal input.         Macrossi (computer signal input.         Macrossi (		uckj		•	•		•	•	
Vertical         Vertical         Image: Test of the Size o		Horizontal				15 kHz to 92 kHz			
Computer signal input         Maintain disky resolution         Participation of the second of the s									
Display resolution         MTSC: PM SCAM, 469/00, 7907/01, 900, 700, 500, 700 /00, 700			input *4		Maximum di		0 x 1200 dots		
Vertical Horizontal         Vertical Horizontal <th>Display resolution</th> <th>Video signal inp</th> <th>ut</th> <th></th> <th></th> <th>for digital signal (HDN</th> <th></th> <th></th>	Display resolution	Video signal inp	ut			for digital signal (HDN			
Keystone correction (Max.) ***         Herizonal         Internal         <	Colour System				NTSC3.58, PAL, SI	ECAM, NTSC4.43, PAL	-M, PAL-N, PAL60		
HORIZONIAL	Keystone correction (Max.) *1*8	Vertical				+/- 30 degrees			
INPUT BIPUT B <td r<="" th=""><th></th><th>Horizontal</th><th></th><th colspan="5"></th></td>	<th></th> <th>Horizontal</th> <th></th> <th colspan="5"></th>		Horizontal						
NPUT OLTPUTHere is a connector: Shared with input ANPUT 0HDM input connector: Shared with input ANPUT 0HDB asel interface connector: RMS, 4 play (Video, Audio, LAN, Control)NPUT 1HDB asel interface connector: RMS, 4 play (Video, Audio, LAN, Control)NPUT 1HDB asel interface connector: RMS, 4 play (Video, Audio, LAN, Control)NPUT 1NPUT 1NPUT 1HDB asel interface connector: RMS, 4 play (Video, Audio, LAN, Control)NPUT 1NPUT 1NPUT 2Notice control (MII) = 200 Spin (female)NPUT 3Notice control (MII) = 200 Spin (female)NPUT 4Notice control (MII) = 200 Spin (female)NPUT 5Notice control (MII) = 200 Spin (female)NPUT 6Notice control (MII) = 200 Spin (female)NPUT 6Notice control (MII) = 200 Spin (female)NPUT 7Notice control (MII) = 200 Spin (female)NPUT 8Notice control (MII) = 200 Spin (female)NPUT 9Notice control (MIII) = 200 Spin (female)NPUT 9Notice control (MIII) = 200 Spin (female)NPUT 9Notice control (MIII) = 200 Spin (female)NPUT 9Notice control (MIIII) = 200 Spin (female)NPUT 9Notice control (MIIII) = 200 Spin (female)NPUT 9Notice control (MIIII) = 200 Spin (female)NPUT 9Notice control (MIIIII) =		INPUT A			Audio input connector: Stereo mini jack				
INPUT D INPUT 5Audio input connector: BMI audio supportINPUT 6H2BaseT interface connector: RMS, 4 play (Vaco, Audio, LAN, Control)INPUT 7Imput 7INPUT 8Output 7INPUT 9Imput 6OUTPUT AVideo input connector: Shared with input AOUTPUT AVideo input connector: Shared with input AOUTPUT BOutput 0Input 7Imput 6OUTPUT BImput 6OUTPUT BImput 6Imput 7Monicor cutput for play AOUTPUT BImput 8Imput 7Imput 8OUTPUT BImput 8Imput 7Imput 8Imput 7Imput 8Imput 7Imput 8Imput 7Imput 8Imput 7Imput 8Imput 8 <t< th=""><th></th><th colspan="2">INPUT B</th><th></th><th>Audio inpu</th><th>t connector: Shared v</th><th>with input A</th><th>t</th></t<>		INPUT B			Audio inpu	t connector: Shared v	with input A	t	
INPUT OUTPUT (Computer / Video /Control)         INPUT F INPUT F         INPUT F           INPUT G         Video input connector: BNC, Audio input connector: Served with input A           OUTPUT A         Monitor output for input A           OUTPUT B         Monitor output for input Connector: New Owne output for input A           Audio output connector: New Owne output for input A         OutPUT A           DUTPUT B         Monitor output for input Connector: Serve ownin jack           REMOTE         OutPUT B           REMOTE         OutPUT B           REMOTE         OutPUT B           REMOTE         De-sub 9 µin (male) / RS22C           LN         REMOTE           REControl S         Steero min jack / Puid Nomitor outconnector: Steero min jack / Puid N					Audio input	t connector: HDMI au	idio support		
NPUT OUTPUT (Computer / Video /Control)     INPUT F INPUT G     Imput connector: BNC, Audio input connector: SNC Audio autor contextor: SNC Audio autor CON SNC AUTOR CONSTRUCTION (SNC AUTOR CONSTRUCTION)           OSD language         English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Pichian, Indonesian, Hungarian, Greek         32.48           Acoustit noise         Storage temperature / Or to 45°C (32°F to 140°F) / 20% to 80% (no condensation) <ul> <li>Storage temperature / Ac100 V to 240 V, S0 Hz / 60 Hz</li> <li>Storage temperature / Ac100 V to 120 V</li> <li>Storage temperature / Ac200 V to</li></ul>				HDB	aseT interface conne	ector: RJ45, 4 play (Vi	deo, Audio, LAN, Co	ntrol)	
$ \begin{array}{                                    $									
VIDEO INVideo input connector: BNC, Audio input connector: Shared with input AOUTPUT AMonitor output for input A Connector: Min D-sub D-sin (Email) Audio output, Monitor output for input A Connector: Min D-sub D-sin (Email) Audio output, Monitor output for input A Connector: Shared with input AMonitor output for input A Connector: Min D-sub D-sin (Email)REMOTED-sub D-sin (Email)REMOTED-sub D-sin (Email)State on min jackREMOTED-sub D-sin (Email)State on min jackRemote Colspan="2">State on min jackState on min jackRemote Colspan="2">State on min jackState on min jackRemote Colspan="2">State on min jackState on min jackColspan="2">D-sub D-pin (male) / RESSTColspan="2">Colspan="2"Colspan="2">Colspan="2									
	(Computer / Video /Control)								
$ \begin{array}{                                    $		VIDEO IN							
		OUTPUT A		Audio output connector: Stereo mini jack					
$ \begin{tabular}{ c                                   $				Audio output, Monitor out connector: Stereo mini jack					
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         Acoustic noise       Standard       32 dB       34 dB       32 dB         Operating hemperature / Operating humidity *       OrC to 45°C (32°F to 109°F) / 20% to 80% (no condensation)       •       •       •         Storage temperature / Storage temperature / Operating humidity *       -0°C to 45°C (14°F to +140°F) / 20% to 80% (no condensation)       •       •       •         Power requirements       -0°C to 45°C (14°F to +140°F) / 20% to 80% (no condensation)       •       •       •       •         Power consumption Lamp mode: High *s       AC 100 V to 120 V       367 W       420 W       515 W          Power consumption (Network Standby Mode) *s       AC 100 V to 120 V       352 W       408 W       497 W          Power Consumption (Network Standby Mode) *s       AC 100 V to 120 V       0.5 W        15.0 W (LAN)       19.4 W (HI DeaseT)         Power Consumption (Net Work Standby Mode) *s       AC 100 V to 120 V       0.5 W       15.0 W (LAN)       13.3 W (LAN)       13.4 W (LAN)         Power Consumption (Net Work Standby Mode) *s       AC 220 V to 240 V       13.3 W (LAN)       13.									
Osb language       24+anguages       Traditional Chinese, Korean, Thai, Vietnamese, Arabic, Farsi, Finnish, Indonesian, Hungarian, Greek         Acoustic noise       Standard       32 dB       34 dB       32 dB         Operating temperature / Operating humidity *       O°C to 45°C (32°F to 109°F) / 20% to 80% (no condensation)       •       •       •       •       •       •       28 dB		IK (Control S)	English Dutch Franch Halian Courses	nanich Portugues 7				ified Chipper	
Acoustic noiseMiddle28 dB28	OSD language			orean, Thai, Vietname		nish, Indonesian, Hur		1	
Operating temperature / Operating humidity *         O*C to 45°C (32°F to 109°F) / 20% to 80% (no condensation)         · </th <th>Acoustic noise</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Acoustic noise								
Storage temperature / Storage humidity *         · · · · · · · · · · · · · · · · · · ·			to 109°F) / 20% to 80% (no condensation)		•	20 00	•	20 00	
AC 100 V to 240 V, 50 Hz / 60 Hz         Power consumption Lamp mode: High *3       AC 100 V to 120 V       367 W       420 W       515 W         Power consumption (Standby mode)       AC 100 V to 120 V       352 W       408 W       497 W         Power consumption (Standby mode)       AC 100 V to 120 V       0.5 W       0.5 W         Power consumption (Network Standby Mode) *3       AC 100 V to 120 V       0.5 W       15.0 W (LAN) 19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         Power Consumption (Network Standby Mode) *3       AC 220 V to 240 V       15.0 W       13.3 W (LAN) 13.3 W (LAN)       13.3 W (LAN)         Body colour       White / Black Available       White / Black Available       White / Black Available         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. 460 x 169 x 515 mm, 18 1/8 x 6 21/32 x 20 9/32 inches         Mass       Remote commander       RM-Pi27       RM-Pi27         Ontional accessories       Remote commander       PAM 310, PAM-0.5M / PAM-1.0M / PAM-1.5M	Storage temperature /		4°F to +140°F) / 20% to 80% (no	•	•		•		
Power consumption Lamp mode: High *3         AC 100 V to 120 V         367 W         420 W         515 W           Power consumption (Standby mode)         AC 100 V to 120 V         352 W         408 W         497 W           Power consumption (Standby mode)         AC 100 V to 120 V         0.5 W         0.5 W           Power Consumption (Network Standby Mode) *5         AC 100 V to 120 V         0.5 W         15.0 W (LAN) 19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           Power Consumption (Network Standby Mode) *5         AC 220 V to 240 V         13.3 W (LAN) 17.4 W (HDBaseT) 17.4 W (HDBaseT)         13.3 W (LAN) 17.4 W (HDBaseT)           Body colour         Body colour         White / Black Available         13.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           Body colour         White / Black Available         White / Black Available         16 kg (34 lb)           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         16 kg (34 lb)           Supplied accessories         Remote commander         RM-P127         PAM 310, PAM-0.5M / PAM-1.5M					AC 10	0 V to 240 V, 50 Hz /	60 Hz		
Lamp mode: High *3       AC 220 V to 240 V       352 W       408 W       497 W         Power consumption (Standby mode)       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 (Network Standby Mode) *       AC 100 V to 120 V       0.5 W         AC 100 V to 120 V       15.0 W (LAN) 19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         AC 220 V to 240 V       13.3 W (LAN) 17.4 W (HDBaseT) 17.4 W (HDBaseT)         AC 220 V to 240 V       13.3 W (LAN) 17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         Body colour       13.3 W (LAN) 17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         Body colour       White / Black Available         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       Supplied accessories       Remote commander         Supplied accessories       Remote commander       RM-P127         Ontional accessories       Pointional accessories       PAM 310, PAM-0.5M / PAM-1.5M		AC 100 V to 120 V	J	367 W	1				
Power consumption (Standby mode)         AC 100 V to 120 V         0.5 W           AC 220 V to 240 V         0.5 W           Power Consumption (Network Standby Mode) *         AC 100 V to 120 V           AC 200 V to 240 V         15.0 W (LAN) 19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           Body colour         13.3 W (LAN) 17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           Body colour         White / Black Available           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           Projection Lans         PAM-0.5M / PAM-1.5M									
(Standby mode)       AC 220 V to 240 V       0.5 W         Power Consumption (Network Standby Mode)*5       AC 100 V to 120 V       15.0 W (LAN) 19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         Body colour       AC 220 V to 240 V       13.3 W (LAN) 17.4 W (HDBaseT) 17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         Body colour       Note that the set of th	Power consumption					0.5 W			
AC 100 V to 120 V         19.4 W (HDBaseT)           (Network Standby Mode)*5         19.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           AC 220 V to 240 V         13.3 W (LAN)           AC 220 V to 240 V         17.4 W (HDBaseT)           17.4 W (HDBaseT)         17.4 W (HDBaseT)           17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")         17.4 W (All Terminals / Networks) (when "Standby Mode" set to "Standard")           Body colour         White / Black Available         White / Black Available           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)         16 kg (34 lb)           Supplied accessories         Remote commander         RM-P127           Ontional accessories         Projection Lens         PAM-10,M / PAM-1,5M		AC 220 V to 240	v			0.5 W			
AC 220 V to 240 V     TT.4 W (HDBaseT)       17.4 W (HDBaseT)     17.4 W (HDBaseT)       17.4 W (HDBaseT)     White / Black Available       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       Paint and the commander     PAM-10,			15.0 W (LAN) 19.4 W (HDBaseT)				ndard")		
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-P127           Ontional accessories         Projection Lens         PAM-10,5M / PAM-10,5M / PAM-10,5M	(Network Standby Mode) 'S			17.4 W (HDBaseT)				ndard")	
Mass         16 kg (34 lb)           Supplied accessories         Remote commander         RM-PJ27           Optional accessories         Projection Lens         PAM-10.0M / PAM-1.5M	Body colour				V	Vhite / Black Availab	le		
Supplied accessories         Remote commander         RM-PJ27           Optional accessories         Projection Lens         PAM 310, PAM-0.5M / PAM-1.5M		t protrusions)			Approx. 460 x 169 x 1		/32 x 20 9/32 inche	s	
Optional accessories Projection Lens PAM-310, PAM-0.5M / PAM-1.5M									
	Supplied accessories	Remote comman	nder						
	Optional accessories	Projection Lens							

\*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.
\*5 To be updated for VPL-FHZ70 & VPL-FHZ75
\*6 The values are estimate.

Correct as of February 2019. Subject to change.

\*7 This figure is expected maintenance time, not guaranteed time. The actual value depends on the environment and how the projector is used.
\*8 The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.
\*9 When using BKM-PI20

F-Series Laser Projectors

Specification	רא (cont.)		VPL-FHZ90L	VPL-FHZ120L	
Display system	3LCD System		•	•	
		BrightEra LCD Panel, Aspect ratio: 16:10			
Size of effective display area	1" x 3 BrightEra L	CD Panel, Aspect ratio: 16:10	•	•	
Number of pixels	6,912,000 (1920	x 1200 x 3) pixels	•	•	
	Focus		Pow	ered	
Projection lens*1	Zoom - Powered/Manual		Pow	ered	
. ojection iena	Zoom - Ratio		Appro	их. x1.5	
	Throw Ratio		1:30:1 t	o 1.96:1	
	Powered/Manua	al	Pow		
Lens shift	Range Vertical			99%	
	Range Horizonta	al	+/-		
Light source	Туре		Laser		
Laser life <sup>*4</sup>	Light output mo	de: Standard		00 H	
Filter cleaning / replacement cy Auto filter cleaning			10,000 H (servic	•	
Screen size (Max)			40" to 600" (dependi		
Screen Size (Max)		Standard	9.000 lm	12.000 lm	
White & Colour Light output *6	Lamp mode:	Middle	8,000 lm	10,000 lm	
Contrast ratio (full white / full bl	ack)		0,000 min		
Colour calibration	ucity		•	•	
Displayable scanning	Horizontal			o 92 kHz	
frequency	Vertical			o 92 Hz	
	Computer signal	l input *4	Maximum display reso		
Display resolution	Video signal input		480/60i, 576/50i, 480/60p, 1080/60i, 1080/50i (The following items a		
Colour System			NTSC3.58, PAL, SECAM, NTS	C4.43, PAL-M, PAL-N, PAL60	
Keystone correction (Max.) "1"8	Vertical		+/- 30 degrees		
Registeric concetion (max.)	Horizontal		+/- 30 degrees		
	INPUT A		RGB / Y PB PR input co	nnector: 5 BNC (female)	
	INPUT B		RGB input connector: M	ini D-sub 15-pin (female)	
-	INPUT C		HDCF	pin (single link), HDCP support ?: v1.4	
	INPUT D		HDCF	DMI 19-pin, HDCP support P: v1.4	
	INPUT E		HDBaseT interface co	onnector: RJ45, 3 play	
INPUT OUTPUT	INPUT F		Optional adaptor slot for 3G-SDI Inpu Adaptor (BKM-PJ2O)		
(Computer / Video /Control)	INPUT G		USB Port: HTML Viewer Type-A x 1		
	VIDEO IN		Video input connector: BNC, Audio input connector: Shared with input A		
			Monitor output for Input A		
	OUTPUT A		Input B Connector: Mini D-sub 15-pin (female)		
	OUTPUT B				
	REMOTE		D-sub 9-pin (r	nale) / RS232C	
	LAN		RJ45, 10BASE-T/100BASE-TX	/1000BASE-T/1000BASE-TX	
	IR (Control S)		Stereo mini jack, P	lug in power DC5V	
OSD language	24-languages	Traditional Chinese, Ko	vanish, Portuguese, Turkish, Polish, Russian, Swedisi rean, Thai, Vietnamese, Arabic, Farsi, Finnish, Indor	esian, Hungarian, Greek	
Acoustic noise	Lamp mode:	Standard	39 dB	42 dB	
Operating temperature /		Middle to 109°F) / 20% to 80% (no condensation)	39 dB	39 dB	
Operating humidity			•	-	
Storage temperature / Storage humidity	-10°C to +60°C (1 condensation)	4°F to +140°F) / 20% to 80% (no	•	•	
Power requirements			AC 100 V to 240	V, 50 Hz / 60 Hz	
Power consumption	AC 100 V to 120 V	V	840 W	1076 W	
Lamp mode: High	AC 220 V to 240	V	814 W	1033 W	
Power consumption	AC 100 V to 120 V		0.5	0 W	
(Standby mode)	AC 220 V to 240	V	0.5	0 W	
Power Consumption	AC 100 V to 120 V	v		' (LAN) (HDBT) en "Standby Mode" set to "Standard")	
(Network Standby Mode) AC 220 V to 240 V		v	21.3W (LAN) 26.5W (HDBT) 26.6W (All Terminals / Networks) (when "Standby Mode" set to "Standard")		
Body colour				ck Available	
Dimensions (W x H x D) (without	t protrusions)		Approx. 544 x		
Mass	- /		26 kg	27 kg	
Supplied accessories	Remote comma	nder	-	PJ30	
Optional accessories	Projection Lens			Z4015, Z4019, Z4025, & Z4045	
<ol> <li>With supplied standard lens</li> <li>This figure is expected maintenance</li> </ol>			ed maintenance time, not guaranteed time. ends on the environment and how the projector is used.	Correct as of February 2019. Subject to char	

With supplied standard lens
 This figure is expected maintenance time, not guaranteed time. The actual value depends on the environment and how the projector is used.
 The value is average.
 Available for VESA Reduced Blanking signal.
 To be updated for VPL-FHZ70 & VPL-FHZ75
 The values are estimate.

\*7 This ingule is expected maintenance unity, for guaranteed unity.
The actual value depends on the environment and how the projector is used.
\*8 The picture quality may deteriorate when the V Keystone function is used for it is an electrical correction.
\*9 When using BKM-PI20

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## VPL-FHZ58/61/66, VPL-FHZ70, VPL-FHZ75, FH60/65

#### **Optional Bayonet Lenses**



VPLL-3003 WUXGA: 0.33:1



VPLL-3007 WUXGA: 0.65:1



VPLL-Z3009 WUXGA: 1.0-1.39:1

VPLL-3010 WUXGA: 1.0-1.39:1



VPLL-Z3024 WUXGA: 2.34 - 3.19



VPLL-Z3032 WUXGA: 3.18 - 4.84

## VPL-FHZ90L, FHZ120L

Optional Lenses



WUXGA: 3.02 - 5.58

VPLL-Z4045\* WUXGA: 5.56 - 7.50

**VPLL-Z4015** WUXGA: 1.85 - 2.44

\* VPLL-Z4045 max mechanical shift 9.6:1



## BRAVIA 4K Professional Displays

Bring the spectacular depth and quality of 4K to your business with the latest range of ultra-slim, energy efficient BRAVIA Professional Displays. Installation friendly and easy to manage, they're ideal for presenting your best image in a wide range of environments, from retail spaces to meeting rooms, lecture theatres and communal areas.

#### See every detail in 4K

The 4K resolution LCD panel (3840 x 2160 pixels) ensures incredible colour, contrast and realism, with four times the detail of Full HD. All models are HDR compatible, displaying a wider range of brightness levels for a level of detail and realism beyond anything you've seen before.

#### Superior displays designed for business

Portrait, advanced control, professional mode, optional interactive compatibility, 24/7 operation or an embedded HTML5 platform for easy digital signage creation; our BRAVIA 4K Displays are designed to suit all professional needs.

#### Personalise BRAVIA your way

BRAVIA suits any business application with a range of personalisation options and built-in solutions, including TEOS solutions, Touchscreen solution, Meeting Room solution, Media Player, TDM Digital Signage, Smart Automation, Screen Mirroring and Android Applications Store\*.

#### Highlights

- Brilliant 4K image quality with powerful 4K X1 processor and Reality Creation.
- Embedded HTML5 platform for easy digital signage.
- Copy custom settings to multiple screens via USB memory.
- Slim, stylish and installation friendly with versatile control options.
- Touchscreen option.
- 24/7 operation and reliable high-brightness panel.



## Do more with BRAVIA built-in solutions Bring the incredible depth and quality of 4K resolution to your business or university

#### Built-in Meeting-Room solution

Standard and enhanced interface in meeting rooms with smart features, and efficient automated systems for input management. There's no need for extra controllers in the room and settings stay exactly as they have been programmed.

#### Built-in mirroring (TEOSConnect)\*

Great for collaborative working, TEOSConnect allows smooth, speedy wireless screen mirroring from laptops, directly to BRAVIA Professional Displays. It's available as an easy-to-install app, with no extra hardware needed.

## Built-in workplace management solution (TEOSManage)\*

Sony BRAVIA Professional Displays are fully compatible with TEOSManage. Intelligent workspaces can now have complete control of all of their connected devices and content in boardrooms, meeting rooms, offices, public areas and other locations. Plus, there's no player required.

#### Built-in Android Applications Store

Endless possibilities to display what you need, without external devices, through dedicated applications.

#### Built-in Digital Signage Platform\* (TDM Digital Signage)

Create and generate your signage content simply and without limitation. This easy-to-use authoring tool lets you combine text, graphics, video, social media feeds and other live web content to produce dynamic marketing messages.

#### The total touchscreen solution

Turn your BRAVIA into an interactive touchscreen with our IR and capacitive technology overlays. Designed to fit seamlessly onto the BRAVIA screen, it's easy to set up and allows 10 multi-touch points for greater interaction.

#### Looks great in every light

The screen overlay's tough anti-glare surface ensures optimum visibility, even in the sunniest environments.

#### Quick and easy to install and set up

Simple, fuss-free installation and set up allows deployment of your interactive touchscreen solution in minutes.

Speci	fications	FW-43BZ35F	FW-49BZ35F	FW-55BZ35F	FW-65BZ35F	FW-75BZ35F	FW-85BZ35F
	Screen size (diagonal)	43''	49''	55''	65''	75''	85''
	Brightness (cd/m <sup>2</sup> )***	505 c	d/m2		620 c	d/m2	
	Native constrast ratio	3,50	00:1		4,00	00:1	
General	Dynamic contrast ratio			over 1	million		
features	Response time (ms)	5	8		5		6
	Display resolution				0x2160)		
	Compatible with HDR Aspect ratio				R10, HLG) 5:9		
	Portrait compatibility				es		
	Dimming type				Dimming		
	Display device				D		
Display	Backlight type						
features	Operating system		oid 7.0				
	Processor			>	(1		
	Operation time				/7		
	Wide Mode				al/Full/Zoom/14:9		
	4:3 Default				es		
	Video Processing Motionflow				ality PRO 0Hz (Native 100Hz)		
Video specs	Triluminos						
	Viewing angle (Right/Left/Up/Down)				39/89/89)		
	Video Signal (HDMI)	4096x2160p(2	4,60Hz), 3840x2160p(24		iz), 1080/24p, 1080i(60Hz	z), 720p(30,60Hz), 720/2	24p, 480p, 480i
	4K 60P quality format				it), 4:2:0(8,10bit) HDR incl		
	Speaker position			Down	Firing		
Audio specs	Audio Power Output			10W	+ 10W		
	Invisible speaker			Y	es		
	Professional Hidden Mode				es		
	HDMI auto wake-up				es		
Professional	HTML5 platform Multicast / IPTV						
features	Compatible with TDM Digital Signage	Yes (UDP/RTP) Yes					
	Available storage	Yes 16 GB					
	Compatible TDM content	Customised de	sign, text, pictures, vide		her, public information, Fa	acebook, Twitter, Power	Point and more.
	Wi-Fi Direct	Yes					
	Wi-Fi Certified			Y	es		
Network	DLNA			Network Client /	Network Renderer		
specs	Firmware update			Yes (netwo	ork or USB)		
	Internet Browser			Yes (C			
	Wireless LAN USB HDD REC				irated es		
		MPEG1:MPEG1/	MPEG2PS-MPEG2/MPEG		es 2,AVC/MP4(XAVC EG4,HE		/ASE(WMV)·V/C1/
	USB Play (contents	MOV:AVC,MPEG4, Mo	tionJpeg/MKV:Xvid,AVC	,MPEG4,VP8.HEVC/WEB	M:VP8/3GPP:MPEG4,AVC	C/MP3/ASF(WMA)/WAV	//MP4AAC/FLAC/JPEG
Convenience features	On screen clock			Y	es		
leatures	Sleep timer			Y	es		
	On/Off timer				es		
	Google Cast				es		
Control	IP Control RS-232C Control				es ack 3.5)		
specs	HDMI CEC				es		
	HDCP				MI1/2/3/4)		
	Composite Video Input(s)			1 (Rear Hybrid	w/Component)		
	Component Video (Y/Pb/Pr) Input(s)			1 (Rear Hybrid	w/Composite)		
Inputs and	HDMI™ Connection(s) (Total)				e/1Rear)		
outputs	Analog Audio Input(s) for HDMI (Total)				ear)		
	Digital Audio Output(s)				ear)		
	Audio Out USB				and Subwoofer Out) ide)		
	Ethernet Connection(s)			3 (S			
	Finish (Surface Colour)				ack		
Design features	Table Top Stand				mbly required)		
	VESA <sup>®</sup> Hole Spacing Compatible	Yes (10.0x20.0 cm)	Yes (20.0x20.0 cm)	Yes (30.0x20.0 cm)	Yes (30.0x30.0 cm)	Yes (40.0x30.0 cm)	Yes (40.0x40.0 cm)
	Light Sensor			Y	es		
	Energy Label						
	Screen size (measured diagonally)						
	Power Consumption (in Standby)	70.111	00.111		0 W	440.141	222.111
Environment specs	Power Consumption (in Operation) Lead content	76 W	88 W	103 W	120 W es	149 W	233 W
	Lead content Mercury content (mg)				.0		
	Dynamic Backlight Control				es		
	Power Saving Mode / Back Light Off Mode				es		
	AC Power Input	AC Ac	lapter		1 (Re	ear)	

BZ35-Series				
Optional Accessories				
TEOS Manage licenses TEM-CO10 TEM-MR10 TEM-DS10	TEOSCONNECT TEOSCONNECT TEC-SC100			
Frontcover accessories	Touch overlays			



For full product specifications and features please visit **pro.sony** 



# Visual Imaging Cameras

Sony's professional Full HD visual imaging cameras take your communications to a new level.

#### Visual Imaging Cameras

Smooth, silent operation combined with a powerful zoom range: you'll capture every presenter and contributor in crisp, high definition with our PTZ colour cameras. The SRGs feature Sony's unique View-DR and XDNR technology, ensuring complete clarity even in very poor light. Control is easy, over standard IP networks with intuitive PC software, including the option to stream content over the internet (SRG-300SE).

#### Highlights

- Powerful 30x optical zoom (SRG-300H, SRG-300SE and SRG-360SHE).
- View-DR and XDNR unique Sony technologies for clarity in poor light (SRG range).
- IP streaming stream (live or recorded) conferences, lectures and events (SRG-300SE and SRG-360SHE).







Sp	ecifications	SRG-360SHE	SRG-300SE	SRG-300H				
	Image Sensor Signal System	1/2 1080/59.94p,50p,1080/59.94i,50i,720/59.94p,50p	8" Exmor CMOS, Number of Effective Pixels: Approx. 2.1 Megap 1080/59.94p (A/B), 50p (A/B), 29.97p, 25p, 1080/59.94i,	1080/59.94p, 50p, 29.97p, 25p				
	Minimum Illumination (50 IRE)		50i, 720/59.94p, 50p, 29.97p, 25p Sensitivity Mode: 0.7 lux (50IRE, F1.6, 60fps) Normal Mode: 1.4lx (5	1080/59.94i, 50i, 720/59.94p, 50p, 29.97p, 25p iOIRE, F1.6, 30fps) Normal Mode: 2.8lx (50IRE, F1.6, 60fps)				
	S/N Ratio Gain	50 dB Auto/Manual (0 to +43 dB)						
	Day/Night Mode	Yes						
a	Shutter Speed	1/1 to 1/10000						
Camera	Exposure Control White Balance	Au	to, Manual, Priority AE (Shutter, Iris), Exposure Compensation, Bi Auto, Indoor, Outdoor, One-push Auto, ATW, Manual	ight				
Ü	Zoom		Optical Zoom: 30x, Digital Zoom: 12x					
	Focusing System		Auto/Manual					
	Horizontal Viewing Angle		65° (Wide)					
	Focal Length Minimum Object Distance	f = 4.3mm (Wide) to 129mm (Tele) F1.6 to 4.7 10 mm (Wide) to 1200 mm (Tele)						
	Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-30°	Pan: ±170° T	ïlt: +90°/-20°				
	Pan/Tilt Speed (Max.)	Pan: 60°/sec Tilt: 60°/sec		c Tilt: 90°/sec				
	Preset Position Wide-D	256 (16 by Vis	ca, 256 by CGI) View-DR (59.94fps 90dB/29.97fps 130db)	16				
Camera Features	Noise Reduction		Yes					
Featu	Image Stabilizer		Yes					
ıera	Image Flip		Yes	1				
Can	PTZ Sync PTZ Trace	Yes	No	No No				
	Video Output	3G-SDI, HDMI, IP *4	3G-SDI, IP	HDMI				
	MIC Input	Mini-phone (3.5 <b>q</b> )×2 (MIC/Line Selectable)	RCA x 1 (LINE), Mini-phone (3.5ø) x 1 (MIC) (selectable)	No				
e	Line Input	Mini-phone (3.5 $\phi$ )×2 (MIC/Line Selectable)	RCA x 1	No				
Interface	Network Port Camera Control Interface	RJ-45 "5	Yes RJ-45, 9-Pin PHOENIX Block	RJ-45, 8-Pin DIN, 9-Pin PHOENIX Block				
ī	Camera Control IR	Yes	No	Yes				
	Camera Control Protocol	RS-422, VISCA over IP, CGI, S700PTP	RS-422, VISCA over IP, CGI	RS-422, RS-232, VISCA over IP				
	Sync System		INT					
	Power Requirements Power Consumption	DC 12V (DC 10.8 to 13.2V) 25.5W 16.8 W						
	PoE	PoE+		10				
	Operating Temperature	0 °C to 40 °C						
	Storage Temperature	-20 °C to 60 °C 159 x 187.5 x 200.5mm 157 x 164 x 163mm						
a	Dimensions* (W x H x D) Mass	159 x 187.5 x 200.5mm Approx. 2.1kg		x.1.4kg				
General	Body Colour	White with black		:/Black				
G	Mountable Angle	<±15°						
	Ceiling Mount IR Remote Controller		Yes Yes					
	Ventilation Mechanism		Yes					
	Supplied Accessories	IR Remote Commander (1), AC Power Adaptor (1), Ceiling Bracket (2), Wire Rope (1), HDMI Cable Retainer (1), Screw M3 x8 (9), Screw M2.6 x6 (1)	AC Power Adaptor (1), AC Power Cable (1), Ceiling Bracket (2), RS-422 Connector Plug (1), Wire Rope (1), Screw M3 x8 (9)	AC Power Adaptor (1), AC Power Cable (1), IR Remote Commander (1), CD-ROM (Operating Instructions) (1), Ceiling Bracket (2), RS-422 Connector Plug (1), Wire Rope (1), Screw M3 x8 (8)				
	Resolution	1920 x 1080, 1280 x 720, 960 x 540, 720 x 480	1920 x 1080, 1280 x 720, 1024 x 576, 960 x 536, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 640 x 360, 352 x 288, 320 x 184					
Q.	Compression Format	H.264	H.264, JPEG	-				
IP Streaming / Video	Maximum Frame Rate Bitrate Compression Mode		(1920 x 1080) (selectable)	-				
ing ,	Range of Bitrate Setting		32 Mbps	-				
ream	Adaptive Rate Control	No	Yes	-				
IP St	Multi Streaming Capability		3	-				
	Maximum Number of Clients Protocols	IPv4, TCP, UDP, ARP, ICMP, IGMP, HTTP, DHCP, DNS, RTP/ RTCP, RTSP, HTTPS, SNMP, VISCA over IP	5 IPv4, TCP, UDP, ARP, ICMP, IGMP, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over HTTP, IPv6,					
di	Channel	2	HTTPS, SNMP (v1, v2c, v3), SSL 1	· · ·				
Audio	Codec Audio Setting Option		C LC ol (ALC), Equalizer	-				
<b>-</b> ¥	Multicast Streaming Support		ýes	-				
Network	ONVIF Comformance			•				
Net	Wireless Network Authentication	No	IEEE802.1X	-				
System Requirements	Operating System	Windows 7 (32/64bit), Windows 8.1 Pro (32/64bit) <sup>9</sup> , Windows 10 Pro (32/64bit) <sup>9</sup> Authorized editions: Windows 7: Ultimate, Professional, Windows 8.1: Pro, Windows 10: Pro	Microsoft Windows Vista (32bit), Windows 7 (32/64bit), Windows 8 Pro (32/64bit) <sup>2</sup> , Windows 8.1 Pro (32/64bit) <sup>2</sup> Authorized editions: Windows Vista: Ultimate, Rusiness, Windows 7: Ultimate, Professional. Windows 8: Pro, Windows 8.1: Pro, Microsoft DirectX 9.0c or higher					
Regu	Processor	Intel Core i7, 2.8 GHz or higher. Or Intel Core i3 / Intel	Core i5 / Intel Core i7 (with built-in Intel HD Graphics)	-				
tem	Memory	2GB c	r more	-				
Sys	Web Browser	Windows Internet Explorer Ver. 11.0 <sup>-1</sup> , Google Chrome Ver. 50.0	Windows Internet Explorer Ver. 7.0, Ver. 8.0, Ver. 9.0, Ver. 10.0° <sup>3</sup> , Ver. 11.0° <sup>3</sup> . Firefox Ver.19.0, Safari Ver.5.1, Google Chrome Ver.25.0					

The values for dimensions are approximate.
 If you use Windows 8.1, use the Internet Explorer for the desktop user interface (desktop UI).
 If you use Windows 10, turn off the tablet mode.

\*3 In case of Windows 8 or Windows 8.1, use the Internet Explorer desktop user interface (desktop UI) edition.
\*4 With PoE+ simultaneous output is limited to 3G-SDI and single IP stream.
\*5 Cascade connection is not available.

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Sp	ecifications	SRG-120DH	SRG-120DS	SRG-120DU		
	Image Sensor	1/2.8" Exmor CMOS				
	Image Sensor (Number of Effective Pixels)	Approx. 2.1 Megapixels				
	Signal System	1080/59.94p, 50p, 29.97p, 25p, 1080/59.94i, 50i, 720/59.94p, 50p, 29.97p, 25p	1080/59.94p (A/B), 50p (A/B), 29.97p, 25p, 1080/59.94i, 50i, 720/59.94p, 50p, 29.97p, 25p	1080/59.94p, 50p, 29.97p, 25p 720/59.94p, 50p, 29.97p, 25p,15p		
	Minimum Illumination (50 IRE)		: 0.4lx (50IRE, F1.8, 30fps) High Sensitivity Mode: 0. : 1.8lx (50IRE, F1.8, 30fps) Normal Mode: 3.6lx (50IR			
	S/N Ratio		50 dB			
	Gain		Auto/Manual (0 to +43 dB)			
	Day/Night Mode		No			
ē	Shutter Speed		1/1 to 1/10000			
Camera	Exposure Control	Auto, Mar	ual, Priority AE (Shutter, Iris), Exposure Compensati	on, Bright		
ů	White Balance	,	Auto, Indoor, Outdoor, One-push Auto, ATW, Manua	I		
	Optical Zoom		12x			
	Digital Zoom		12x			
	Focusing System		Auto/Manual			
	Horizontal Viewing Angle		71° (Wide)			
	Focal Length		f = 3.9mm (wide) to 46.8 mm (Tele) F1.8 to 2.0			
	Minimum Object Distance		10 mm (Wide) to 1500 mm (Tele)			
	Pan/Tilt Angle	Pan: ±100° Tilt: ±25°				
	Pan/Tilt Speed (Max.)	Pan: 300°/sec Tilt: 126°/sec				
	Preset Position	16				
	Wide-D	View-DR (59.94fps 90dB/29.97fps 130db)				
rres	Noise Reduction	Yes				
eatı	Image Stabilizer	No				
Camera Features	Image Flip	No				
ame	PTZ Sync	No				
0	PTZ Trace		No			
	Video Output	HDMI	3G-SDI	USB		
	MIC Input		No			
	Line Input	No				
ace	Network Port					
Interface	Camera Control Interface	8-Pin D	8-Pin DIN, RJ-45, USB 2.0/3.0			
=	Camera Control IR		Yes			
	Camera Control Protocol	RS-232, VISCA	VISCA over IP	RS-232, VISCA, VISCA over IP, UVC		
	Sync System		INT			
	Power Requirements	DC 12V (DC 10.8 to 13.2V)				
	Power Consumption		16.8 W			
	PoE		No			
	Operating Temperature		0 °C to 40 °C			
eral	Storage Temperature		-20 °C to 60 °C			
General	Dimensions* (W x H x D)		153 × 156 × 153 mm			
-	Mass		Approx. 1.6kg			
	Body Colour		Silver			
	Mountable Angle		<±15°			
	Ceiling Mount	No				
Supp	lied Accessories	AC Power Adaptor (1), AC	Power Cable (1) IR Remote Commander (1), CD-ROM (C	Operating Instructions) (1)		
video	e used for applications such as o collaboration client software via & UVC control	-	-	Skype, Skype for Business, Hangout, WebEx, other similar applications**		

\* The values for dimensions are approximate.
 \*\* Real customer environment requires local test.



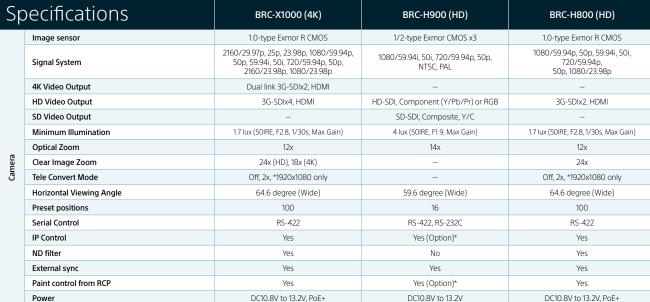
# **BRC Series**

From TV studios and sports stadiums to auditoriums, lecture theatres and houses of worship - our sophisticated, dependable BRC remote cameras capture and stream broadcast-quality video footage in detail-packed 4K or Full HD.



HD

<u>е</u> 4к	но	



For full product specifications and features please visit pro.sony

Power

# UMC-S3CA

With an ultra-high sensitivity of ISO 409600\* and internal recording, this compact 4K video camera is ideal for a wide range of remote shooting applications in almost total darkness.

#### Crisp, clear 4K video and still images, even in near darkness

With an ultra-high sensitivity of ISO 409600\*, the UMC-S3CA captures crisp, clear 4K/29.97P/25P colour video and low-noise 12 megapixel still images in minimum illumination conditions of 0.004 Ix. The 35 mm full-frame Exmor™ sensor captures significantly more incident light than conventional cameras, while the image processing extremely enhances the high sensitivity with very low noise. Area-specific noise reduction selectively divides the image into areas based on patterns (such as edges, textures and evenly coloured areas like blue skies) to efficiently reduce noise and improve image quality.



This lens is optional

Detail reproduction technology helps to accurately depict details with a more natural sense of dimension.

\* Standard ISO 100–102400, expandable to 50–409600



## Up to 5 controllers can operate on a single network

• Up to 5 RM-IP10 control panels can be used on a single network allowing shared control and simultaneous multi-operator control of large camera systems.

#### Control of up to 112 SRG/BRC cameras via IP

• The RM-IP10 remote control panel gives you control of up to 112 BRC cameras over an IP network.

## Simple RJ-45 (10Base-T/100Base-TX) connection for easy connection

• The RM-IP10 links to an IP network with via a RJ-45 connector providing very easy, low cost and speedy installation.

#### Additional ability to use VISCA control

• The RM-IP10 can also control up to 7 SRG/BRC cameras over a traditional VISCA (Video System Control Architecture) network.

# RM-IP500

#### Control up to 100 BRC or SRG cameras via IP

• SRG-300 and SRG-120 series are newly supported.

#### Simple set-up

- Automatic IP address assignment of connected cameras.
- Auto assignment of camera

## High-quality control of PTZF functions

- Pan and tilt adjustment with joystick.
- Zoom control either via joystick or a separate seesaw lever.
- Adjustable speed control of PTZF via dedicated dials.

## Store and recall camera presets

- Up to 100 presets (camera angles and settings) can be stored.
- Presets can be recalled instantly via the numeric keypad.



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