

## VPL-EX235

2,800 lumens XGA portable projector with wireless connectivity



### Overview

**Bring learning to life with this bright, energy-efficient, wireless-ready portable projector that has been designed in consultation with teachers and made for today's classrooms**

Combining superb XGA image quality with smart energy-efficient features, the VPL-EX235 portable projector enhances learning with powerful presentations that really stand out. Simple to use and wireless ready, the projector is ideal for maximising student engagement in today's networked classrooms, making it your ideal partner throughout the busy school day.

Sony BrightEra™ panel technology assures clear pictures in any conditions, from daylight to darkened classrooms. Plenty of interfaces allow easy connection, while a choice of Picture Modes optimises viewing with any source – slide presentations, PC documents, pictures or videos. Adding an optional Wi-Fi module lets students and teachers wirelessly share homework, images and graphics from mobile devices like smartphones and tablets. There's a wide range of smart energy-saving features built in. And with a recommended lamp replacement time of 10,000 hours, downtime and maintenance costs are minimised.

### Features

**Energy efficient with long-lasting lamp of 10,000**

## **hours**

The lamp driver optimally controls the wattage of the lamp and achieves a long-lasting lamp time of 10,000\* hours. The recommended lamp replacement time is extended by 43%, compared to the previous model.

\*Lamp mode: low, Complies with IEC61947 standard

## **Advanced energy-saving features**

Advanced lamp technology enables robust energy-saving features. For example, greater brightness control in Auto Light Dimming mode saves considerable energy when the projector is left on without being used. During projection, Auto Lamp Mode automatically adjusts light output to suit the projected scene. When you need to mute the picture temporarily, light output can be completely deactivated to minimise energy consumption.

## **High image quality 3LCD BrightEra™ natural and vivid colour images**

XGA (1024 x 768) 4:3 screen resolution, 3LCD BrightEra™ natural and vivid colour images, plus various Picture Modes for optimising image quality, make the projector one of the best in its class. Thanks to the optical system projecting three basic colours constantly, the projector offers excellent light efficiency, ensuring colourful and bright images. Sony's BrightEra™ panels deliver improved panel light resistance, higher resolution, high brightness and increased panel reliability. High colour reproducibility is important especially when using colourful content, such as materials used in classrooms.

## **Various picture modes for optimal picture quality**

The projector has six available picture modes for correct picture quality: Dynamic, Standard, Presentation, Blackboard, Game, and Cinema. With six picture modes and three brightness modes combined, the user can select the most suitable picture/brightness combination according to the picture source and environment, to create the optimal image.

## **Network presentation (LAN/Wireless LAN)**

When the projector is installed in a LAN, presentations can be projected from any PC and Mac on the network. A tablet or smartphone can be connected at the same time. You can project jpg, pdf and other supported formats. Up to four users can project PC/Mac images simultaneously, while up to eight users can connect to one projector. For PC/Mac, an application, Projector Station for Network Presentation, is provided. For a tablet/smartphone, an application is provided by Pixelworks, downloaded from the web. For details, please visit: <http://PWPresenter.pixelworks.com>

## **Remote control for iOS device**

Projector Remote is a simple remote control application for Sony's projectors. Networked projectors can be controlled by this remote application. Remote Control allows you to operate the projector with simple and easy-to-read buttons.

## **USB display**

The projector allows you to display pictures and audio\* with one USB cable. You do not need to install any driver for this function. It is a convenient way to connect to the projector when you want to connect easily.

\* There is a time lag in video and audio. When not in simple use, it is recommended to use Line-in or HDMI-in.

## **Input Label**

The input label, which appears in the input menu on screen, can be customised. This gives users a clear understanding of which equipment is connected.

## **Built-in speaker**

The projector includes a 16W monaural speaker.

## Specifications

### Display System

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

### Display device

|                                |   |
|--------------------------------|---|
| Size of effective display area | 0.63"(16 mm) x 3 BrightEra LCD Panel, Aspect ratio: 4:3 |
|--------------------------------|---|

|                  |                                 |
|------------------|---------------------------------|
| Number of pixels | 2,359,296 (1024x768 x 3) pixels |
|------------------|---------------------------------|

### Projection lens

|       |        |
|-------|--------|
| Focus | Manual |
|-------|--------|

|                       |        |
|-----------------------|--------|
| Zoom - Powered/Manual | Manual |
|-----------------------|--------|

|              |               |
|--------------|---------------|
| Zoom - Ratio | Approx. x 1.3 |
|--------------|---------------|

|             |                  |
|-------------|------------------|
| Throw Ratio | 1.37:1 to 1.80:1 |
|-------------|------------------|

### Light source

|      |                                  |
|------|----------------------------------|
| Type | Ultra high pressure mercury lamp |
|------|----------------------------------|

|         |            |
|---------|------------|
| Wattage | 210 W type |
|---------|------------|

### Recommended lamp replacement time\*1

|                 |        |
|-----------------|--------|
| Lamp mode: High | 3000 H |
|-----------------|--------|

|                     |         |
|---------------------|---------|
| Lamp mode: High     | 5000 H  |
| Lamp mode: Standard | 5000 H  |
| Lamp mode: Low      | 10000 H |

### Filter cleaning / replacement cycle (Max.)\*1

|  |                   |
|--|-------------------|
| Filter cleaning / replacement cycle (Max.) | 7000 H (cleaning) |
|--|-------------------|

### Screen size

|             |   |
|-------------|---|
| Screen size | 30" to 300" (0.76 m to 7.62 m)<br>(measured diagonally) |
|-------------|---|

### Light output

|                     |         |
|---------------------|---------|
| Lamp mode: High     | 2800 lm |
| Lamp mode: Standard | 2100 lm |
| Lamp mode: Low      | 1600 lm |

### Color light output

|                     |         |
|---------------------|---------|
| Lamp mode: High     | 2800 lm |
| Lamp mode: Standard | 2100 lm |

Lamp mode: Low      1600 lm

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## Contrast ratio (full white / full black)\*2

Contrast ratio (full white / full black)      3300:1

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## Speaker

Speaker      16 W x 1 (monaural)

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## Displayable scanning frequency

Horizontal      14 kHz to 93 kHz

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Vertical      47 Hz to 93 Hz

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## Display resolution

Computer signal input      Maximum display resolution: UXGA  
1600 x 1200 dots\*3

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Video signal input      NTSC, PAL, SECAM, 480/60i,  
576/50i, 480/60p, 576/50p, 720/60p,  
720/50p, 1080/60i, 1080/50i, The  
following items are available for  
digital signal (HDMI input) only;  
1080/60p, 1080/50p

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## Color system

|              |  |
|--------------|--|
| Color system | NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N |
|--------------|--|

## Keystone correction (Max.)

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

## OSD language

|              |  |
|--------------|--|
| OSD language | 24-languages (English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, Swedish, Norwegian, Japanese, Simplified Chinese, Traditional Chinese, Korean, Thai, Vietnamese, Arabic, Farsi, Finnish, Indonesian, Hungarian, Greek) |
|--------------|--|

## INPUT OUTPUT (Computer/Video/Control)

|         |  |
|---------|--|
| INPUT A | RGB / Y PB PR input connector: Mini D-sub 15-pin (female)<br>Audio input connector: Stereo mini jack |
|---------|--|

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

|               |   |
|---------------|---|
|               | Audio input connector: Stereo mini jack   |
| INPUT C       | HDMI input connector: HDMI 19-pin, HDCP support   |
| S VIDEO IN    | S video input connector: Mini DIN 4-pin<br>Audio input connector: Pin jack (x2) (shared with VIDEO IN)              |
| VIDEO IN      | Video input connector: Pin jack<br>Audio input connector: Pin jack (x2) (shared with S VIDEO IN)                    |
| OUTPUT        | Monitor output connector*4: Mini D-sub 15-pin (female)<br>Audio output connector*5: Stereo mini jack (variable out) |
| REMOTE        | RS-232C connector: D-sub 9-pin (male)   |
| LAN           | RJ-45, 10BASE-T/100BASE-TX  |
| USB           | Type-A  |
| USB           | Type-B  |
| MICROPHONE IN | Microphone jack: Mini Jack  |

## Acoustic noise



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|                |       |
|----------------|-------|
| Lamp mode: Low | 30 dB |
|----------------|-------|

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## Operating temperature / Operating humidity

|   |  |
|---|--|
| Operating temperature /<br>Operating humidity | 0°C to 40°C (32°F to 104°F) / 35% to 85% (no condensation) |
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## Storage temperature / Storage humidity

|   |   |
|---|---|
| Storage temperature /<br>Storage humidity | -20°C to +60°C (-4°F to +140°F) /<br>10% to 90% (no condensation) |
|---|---|

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## Power requirements

|                    |  |
|--------------------|--|
| Power requirements | AC 100 V to 240 V, 3.0 A to 1.3 A, 50 Hz / 60 Hz |
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## Power consumption

|                   |                        |
|-------------------|------------------------|
| AC 100 V to 120 V | Lamp mode: High: 310 W |
|-------------------|------------------------|

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|                   |                        |
|-------------------|------------------------|
| AC 220 V to 240 V | Lamp mode: High: 299 W |
|-------------------|------------------------|

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## Power Consumption (Standby Mode)

|                   |   |
|-------------------|---|
|                   | 0.5 W (when “Standby mode” is set to “Low”) |
| AC 100 V to 120 V |   |

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|                   |   |
|-------------------|---|
| AC 220 V to 240 V | 0.5 W (when "Standby mode" is set to "Low") |
|-------------------|---|

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## Power Consumption (Networked Standby Mode)

|                   |   |
|-------------------|---|
|                   | 5.0 W (LAN)   |
|                   | 5.6 W (optional WLAN module)  |
| AC 100 V to 120 V | 5.8 W (All Terminals and Networks Connected) (when "Standby Mode" is set to "Standard") |

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|                   |   |
|-------------------|---|
|                   | 5.3 W (LAN)   |
|                   | 5.9 W (optional WLAN module)  |
| AC 220 V to 240 V | 6.0 W (All Terminals and Networks Connected) (when "Standby Mode" is set to "Standard") |

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## Standby Mode / Networked Standby Mode Activated

|   |                        |
|---|------------------------|
| Standby Mode / Networked Standby Mode Activated | After about 10 Minutes |
|---|------------------------|

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## Wireless Network(s) On/Off Switch

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1) Press the MENU button, then

|                                      |   |
|--------------------------------------|---|
| Wireless Network(s)<br>On/Off Switch | <ol style="list-style-type: none"> <li>1) Press the MENU button, then select [Connection/Power]</li> <li>2) [WLAN Settings]</li> <li>3) [WLAN Connection]</li> <li>4) Select On or Off</li> </ol> |
|--------------------------------------|---|

## Heat dissipation

|                   |            |
|-------------------|------------|
| AC 100 V to 120 V | 1013 BTU/h |
|-------------------|------------|

|                   |           |
|-------------------|-----------|
| AC 220 V to 240 V | 976 BTU/h |
|-------------------|-----------|

## Dimensions (W x H x D)

|   |  |
|---|--|
| Dimensions (W x H x D)<br>(without protrusions) | Approx. 365 x 96.2 x 252 mm (14 3/8<br>X 3 25/32 X 9 29/32 inches) |
|---|--|

## Mass

|      |                       |
|------|-----------------------|
| Mass | Approx. 3.9 kg (8 lb) |
|------|-----------------------|

## Supplied accessories

|                  |        |
|------------------|--------|
| Remote commander | RM-PJ8 |
|------------------|--------|

## Optional Accessories

|               |          |
|---------------|----------|
| Optional Lamp | LMP-E212 |
|---------------|----------|

|                     |          |
|---------------------|----------|
| Wireless LAN module | IFU-WLM3 |
|---------------------|----------|

## Notes

|   |   |
|---|---|
| *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 value is average.   |
| *3  | Available for VESA Reduced Blanking signal.   |
| *4  | From INPUT A and INPUT B.   |
| *5  | Works as an audio switcher function. Output from a selected channel; not available in standby.  |
| Environmental notice for customers in the USA | Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or see <a href="http://www.sony.com/mercury">www.sony.com/mercury</a> for additional information. |

## Gallery

