# Specifications Main unit

Power supply			AC 100 V-240 V, 50 Hz/60 Hz				
Power consumption <sup>1</sup>	Maximum power con	sumption	230 W (2.5-1.0 A) (235 VA)				
	On-mode power	[NORMAL]	205 W (100-240V), 195 W (200-240V)				
	consumption	[ECO]	155 W (100-240V), 145 W (200-240V)	<ul> <li>* Operating Temperature: 25 °C (77 °F)</li> <li>Altitude: 700 m (2,297 ft)</li> </ul>			
	(Light power)	[QUIET]	150 W (100-240V), 145 W (200-240V)	Altitude: 700 III (2,297 II)			
	Standby mode	[NORMAL]	14 W				
	power consumption		When [IN STANDBY MODE] in [AUDIO SET set to [OFF], and <dc out=""> terminal is not</dc>				
		[ECO]	0.5 W				
BTU value		1	Max 785 BTU				
LCD panel	Size		16.3 mm [0.64 in] diagonal (16:10 aspect ra	tio)			
	Display system		Transparent LCD panel (x 3, R/G/B)				
	Number of pixels		1,024,000 (1280 x 800) pixels				
Refresh rate	1		60 Hz Refresh rate varies depending on scar	nning frequency.			
Light source			Laser diode				
Light output <sup>1</sup>	Light Power	[NORMAL]	4,200 lm				
			When [PICTURE MODE] is set to [DYNAMI [DAYLIGHT VIEW] is set to [OFF], and [AUT				
		[ECO/QUIET]	2,940 lm				
Time until light output declines to 50% <sup>2</sup>	Light Power	[NORMAL/ QUIET]	20,000 hours				
		[ECO]	24,000 hours				
Filter Replacement Cyc	le		20,000 hours (Under the dust conditions of	0.08mg/m³)			
			10,000 hours (Under the dust conditions of 0.15mg/m <sup>3</sup> )				
			Filter cleaning cycle varies depending on environment. Filter				
			can be washed and reused up to two times.				
Resolution			WXGA (1280 x 800 pixels)				
Contrast ratio <sup>1</sup>			3,000,000:1 (Full On/Full Off) (When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1]				
Screen size			0.76-7.62 m [30-300 in], 16:10 aspect ratio				
Center to corner zone	ratio <sup>1</sup>		85%				
Lens			1.2x manual zoom (throw ratio: 1.36-1.64:1), manual focus lens, F 1.61-1.76, f 19.1-23.0 mm				
Digital Zoom Extender	3		Throw ratio: 1.36-2.05:1 <sup>4</sup>				
			(Corresponding value. When used together with optical zoom.)				
Keystone correction ra	nge		Vertical: ±35 ° (Auto, Manual), Horizontal: ±35 ° (Manual)				
Installation			Ceiling/floor, front/rear, free 360-degree installation				
Built-in speaker			10 W (monaural)				
Compatible Signal	COMPUTER signal input		Video signal resolution: 480i (525i), 576i (625i), 480/60p to 1080/50p Computer signal resolution: 640 x 480 to 1920 x 1200 (non-interlace)				
			Dot clock frequency: 13.5 MHz to 162 MHz				
	HDMI signal input		Video signal resolution: 480/60p, 576/50p to 4096 x 2160/30p				
	signal input		Computer signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 25 MHz to 297 MHz				
Terminals	HDMI 1 IN/ 2 IN		HDMI 19pin x 2				
			Deep Color, compatible with HDCP 1.4, 4K/30p signal input <sup>5</sup> , CEC supported <sup>6</sup> Audio Signal: Linear PCM (Sampling frequency: 48 kHz/44.1 kHz/32 kHz)				
	COMPUTER 1 IN / 2	IN	D-sub 15pin (female) x 2				
		RGB	0.7 V [p-p], 75 ohms (1.0 V [p-p], 75 ohms for sync on G)				
			HD/SYNC, VD: TTL, high impedance, positive/negative automatic				
		$\mathbf{Y}\mathbf{P}_{B}\mathbf{P}_{R}$	Y: 1.0 V [p-p], including sync signal, P <sub>B</sub> /P <sub>R</sub> (C <sub>B</sub> /C <sub>R</sub> ): 0.7 V [p-p], 75 ohms				
	AUDIO 1 IN/ 2 IN		M3 stereo mini-jack x 2 0.5 V [rms], input Impedance 22 k Ohms and more				
	AUDIO OUT		M3 stereo mini-jack x 1 0 V [rms] to 2.0 V [rms] variable, output Impedance 2.2 k ohms and less				
	SERIAL IN		D-sub 9-pin (female) x 1				
	LAN		for computer control (RS-232C compliant)				
	L/11		RJ-45 x 1 for network control, 10Base-T, 100Base-TX				

# **PT-LMW420**

Terminals	USB (VIEWER/WIRELESS/DC OUT)	USB connector (Type A) x 1 for Memory Viewer function, optional Wireless Module AJ-WM50, power supply (DC 5 V, maximum 2 A <sup>7</sup> )		
Supported Internet pr	rotocol version	IPv4		
Power cord length		India: 3.0 m [9 ft 10 in] Other countries or regions: 2.0 m [6 ft 7 in]		
Cabinet materials		Molded plastic		
Dimensions (W x H x	D)	349 x 105 x 309 mm [13 3/4 x 4 1/8 x 12 5/32 in] (with feet at shortest position)		
Weight with supplied	lens <sup>8</sup>	Approx. 4.2 kg (9.3 lbs)		
Operating noise <sup>1</sup>		33 dB (NORMAL/ECO), 23 dB (QUIET)		
Laser Classification	Laser Class	Class 1 (IEC/EN 60825-1:2014)		
	Risk Group	Risk Group 2 (IEC 62471-5:2015)		
Operating environment	Operating environment temperature	0-45 °C (32-113 °F) <sup>9</sup>		
	Operating environment humidity	20%-80% (no condensation)		

#### **Remote control unit**

Power supply	3V DC (AAA/R03/LR03 battery x 2)
Operation range	Approx. 20 m [65 ft 7 in] (when operated directly in front of signal receptor)
Dimensions (W x H x D)	44 x 105 x 20.5 mm [1-47/64 x 4-9/64 x 13/16 in]
Weight <sup>s</sup>	Approx. 63 g (2.22 ozs.) including batteries

#### Supplied accessories

Wireless remote control unit (x 1)

Power cord (x 2 for Europe & Asia model/ x 1 for other countries) Batteries for remote control (R03/AAA type x 2)

#### **Other Applications**

Multi Monitoring & Control Software (for Windows) Projector Network Setup Software (for Windows) Logo Transfer Software (for Windows) Presenter Light Software (for Windows)<sup>10</sup> Wireless Projector App (for iOS/Android)11

#### Supported services of Control via LAN

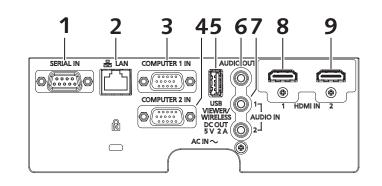
PJLink<sup>™</sup> (Class2) Crestron Connected™ AMX Device Discovery

#### **Optional accessories**

	Complete de la settement	FT DIVI 400U	
Ceiling Mount Bracket	for high ceilings	ET-PKL100H	
Cening Mount Blacket	for low ceilings	ET-PKL100S	
Projector Mount Bracket		ET-PKL420B	
Replacement Filter Unit		ET-RFL400	
		AJ-WM50 Series	
Wireless Module	Module Note: product availability may vary by country or region. The suffix at the end of the model num		
		omitted. Operating Temperature: 0-40 °C (32-104 °F).	
Forthe Marning Software		ET-SWA100 series	
Early Warning Software		Note: part number suffix may differ depending on the license type.	
Wirelass Presentation System PressIT		TY-WPS1 (basic set)	
Wireless Presentation System PressIT		Note: visit https://panasonic.net/cns/prodisplays/pressit/for more information.	

- Weights and dimensions shown are approximate. Specifications subject to change without notice.
   Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped.
   Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C (86 °F), elevation 700 m (2.297 ft) with 0.15 mg/m<sup>3</sup> of particulate matter). Estimated time until light output declines to 50 % varies depending on environment.
   Resolution decreases when using this function. 6-Point Screen Correction, V/H Keystone Correction, and curved-screen correction are not available when using this function, and range of contraction and using this function. corner adjustment is limited.
  When Digital Zoom Extender is set to 80 %.
  4W When Digital Zoom Extender is set to 80 %.
  5 4K signals are converted to the projector's resolution upon projection.
  Depending on the connected CEC command-compatible device, the link control may not operate normally.
  On standby, power supply is available with Quick Startup set to ON or Power Management set to Ready.
  Average value. May dier depending on the actual unit.
  Ight output is limited at operating temperatures higher than 30 °C (86 °F), and projectors cannot be operated at altitudes higher than 2,700 m (8,858 ft) above sea level.
  When optional AJ-WMSO Series Wireless Module is attached, operating temperature range becomes 0-40 °C (32-104 °F).
  When using Presenter Light Software, images are projected with 1280 x 800 dots or 1024 x 768 dots onto the screen. Also, your PC display resolution may be forcibly changed, and audio playback disrupted or become noisy, while images and sound are being transmitted.
  When using the Wireless Projector app, display resolution diers depending on your iOS/Android™ device and the display device. The maximum supported display resolution is WXGA (1280 x 800). corner adjustment is limited.

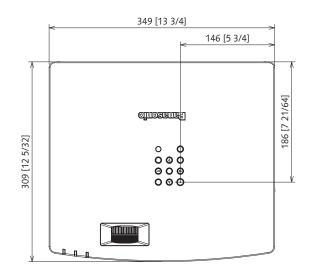
# Terminals

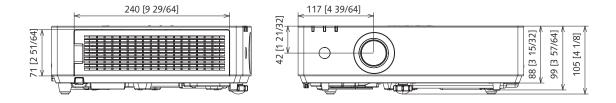


1	SERIAL IN	6	AUDIO OUT
2	LAN	7	AUDIO 1 IN/AUDIO 2 IN
3	COMPUTER 1 IN	8	HDMI 1 IN
4	COMPUTER 2 IN	9	HDMI 2 IN
5	USB (VIEWER/WIRELESS/DC OUT)		

# Dimensions

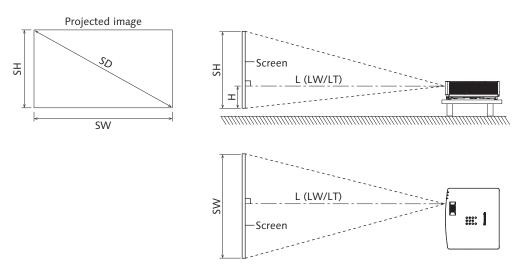
unit : mm [inch] NOTE: This illustration is not drawn to scale.





## Projected image and throw distance

Install the projector referring to the projected image size and projection distance. Image size and image position can be adjusted in accordance with the screen size and screen position.



#### Note

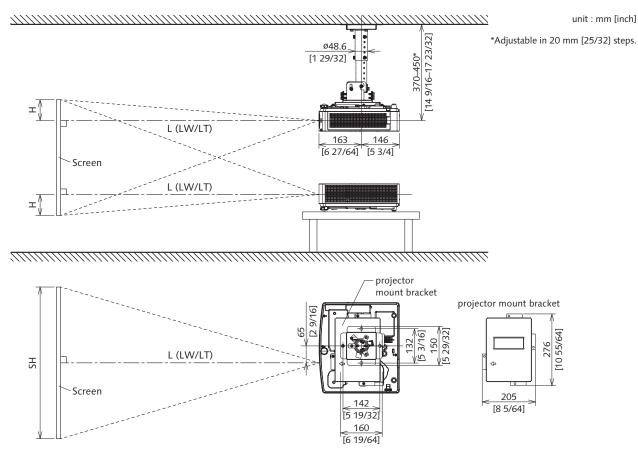
- This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
- This illustration is not drawn to scale.

L		Projection distance		
	LW	Minimum distance		
	LT Maximum distance			
S	Н	Projected image height		
SI	W	Projected image width		
н		Distance from the lens center to the bottom edge of the projected image		
S	D	Projected image size		

# **PT-LMW420**

# Standard setting position

Illustrations show the projector installed using optional ceiling mount bracket ET-PKL100H and projector mount bracket ET-PKL420B.



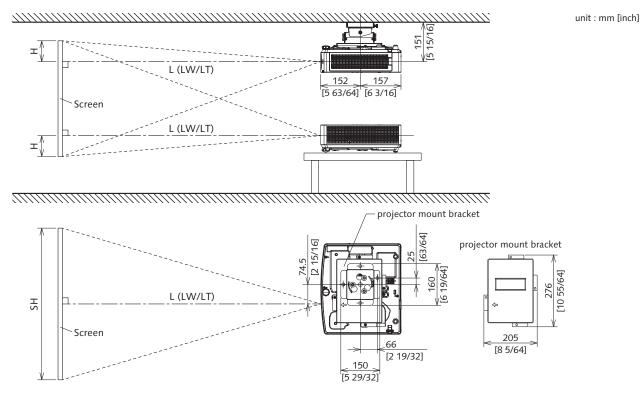
### Caution

- All construction work should be done by a qualified technician.
  When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

#### Note

- This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
- This illustration is not drawn to scale.
- The values are approximate.

Illustrations show the projector installed using optional ceiling mount bracket ET-PKL100S and projector mount bracket ET-PKL420B.



#### Caution

- All construction work should be done by a qualified technician.
  When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

#### Note

- This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
- This illustration is not drawn to scale.
- The values are approximate.

## **Projection distance**

A  $\pm$ 5 % error in listed projection distances may occur.

When [SCREEN ADJUSTMENT] is used, distance is corrected to become smaller than the specified image size.

#### Screen aspect ratio 16:10

Screen aspect	ratio 16:10					Unit: meters
			Optica	l zoom	Digital Zoom Extender <sup>1</sup>	
Т	Throw ratio		1.36-	1.64:1	1.36-2.05:1 <sup>2</sup> (Corresponding Value)	UD 7.7:1
Proje	cted image siz	e		Proje	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	0.40	0.64	0.86	1.04	1.30	0.046
40 / 1.02	0.54	0.86	1.16	1.40	1.76	0.062
50 / 1.27	0.67	1.08	1.45	1.75	2.20	0.077
60 / 1.52	0.81	1.29	1.74	2.10	2.64	0.093
70 / 1.78	0.94	1.51	2.04	2.47	3.09	0.108
80 / 2.03	1.08	1.72	2.33	2.82	3.53	0.124
90 / 2.29	1.21	1.94	2.63	3.18	3.98	0.140
100 / 2.54	1.35	2.15	2.92	3.53	4.42	0.155
120 / 3.05	1.62	2.59	3.52	4.25	5.32	0.186
150 / 3.81	2.02	3.23	4.40	5.31	6.65	0.232
200 / 5.08	2.69	4.31	5.87	7.09	8.87	0.309
250 / 6.35	3.37	5.38	7.35	8.87	11.09	0.387
300 / 7.62	4.04	6.46	8.82	10.65	13.32	0.464

1 The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.

2 When optical zoom is used together and Digital Zoom Extender is set to 80%.

3 Only for optical zoom

						Unit: feet
			Optica	l zoom	Digital Zoom Extender <sup>1</sup>	
-	Throw ratio		1.36-	1.64:1	1.36-2.05:1 <sup>2</sup> (Corresponding Value)	UD 7.7:1
Proje	ected image siz	e		Proje	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	1.31	2.10	2.82	3.41	4.27	0.15
40 / 1.02	1.77	2.82	3.81	4.59	5.77	0.20
50 / 1.27	2.20	3.54	4.76	5.74	7.22	0.25
60 / 1.52	2.66	4.23	5.71	6.89	8.66	0.31
70 / 1.78	3.08	4.95	6.69	8.10	10.14	0.35
80 / 2.03	3.54	5.64	7.64	9.25	11.58	0.41
90 / 2.29	3.97	6.36	8.63	10.43	13.06	0.46
100 / 2.54	4.43	7.05	9.58	11.58	14.50	0.51
120 / 3.05	5.31	8.50	11.55	13.94	17.45	0.61
150 / 3.81	6.63	10.60	14.44	17.42	21.82	0.76
200 / 5.08	8.83	14.14	19.26	23.26	29.10	1.01
250 / 6.35	11.06	17.65	24.11	29.10	36.38	1.27
300 / 7.62	13.25	21.19	28.94	34.94	43.70	1.52

1 The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.

2 When optical zoom is used together and Digital Zoom Extender is set to 80%.

3 Only for optical zoom

#### Screen aspect ratio 16:9

# **PT-LMW420**

Screen aspect	ratio 16:9					Unit: meters
			Optica	l zoom	Digital Zoom Extender <sup>1</sup>	
T	Throw ratio		1.36-	1.64:1	1.36-2.05:1 <sup>2</sup> (Corresponding Value)	UD 12.9:1
Proje	cted image siz	e		Proje	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	0.37	0.66	0.88	1.07	1.34	0.027
40 / 1.02	0.50	0.89	1.19	1.44	1.81	0.036
50 / 1.27	0.62	1.11	1.49	1.80	2.26	0.045
60 / 1.52	0.74	1.33	1.79	2.16	2.71	0.054
70 / 1.78	0.87	1.55	2.10	2.54	3.18	0.063
80 / 2.03	0.99	1.77	2.40	2.90	3.63	0.072
90 / 2.29	1.12	2.00	2.71	3.27	4.10	0.081
100 / 2.54	1.24	2.21	3.01	3.63	4.55	0.090
120 / 3.05	1.49	2.66	3.61	4.37	5.46	0.108
150 / 3.81	1.87	3.32	4.52	5.46	6.83	0.134
200 / 5.08	2.49	4.43	6.04	7.29	9.12	0.179
250 / 6.35	3.11	5.54	7.55	9.12	11.40	0.224
300 / 7.62	3.73	6.64	9.07	10.95	13.69	0.269

The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.
 When optical zoom is used together and Digital Zoom Extender is set to 80%.

3 Only for optical zoom

#### Unit: feet

		Optical zoom		Digital Zoom Extender <sup>1</sup>		
1	Throw ratio		1.36-1.64:1		1.36-2.05:1 <sup>2</sup> (Corresponding Value)	UD 12.9:1
Proje	cted image siz	e		Projec	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	1.21	2.17	2.89	3.51	4.40	0.09
40 / 1.02	1.64	2.92	3.90	4.72	5.94	0.12
50 / 1.27	2.03	3.64	4.89	5.91	7.41	0.15
60 / 1.52	2.43	4.36	5.87	7.09	8.89	0.18
70 / 1.78	2.85	5.09	6.89	8.33	10.43	0.21
80 / 2.03	3.25	5.81	7.87	9.51	11.91	0.24
90 / 2.29	3.67	6.56	8.89	10.73	13.45	0.27
100 / 2.54	4.07	7.25	9.88	11.91	14.93	0.30
120 / 3.05	4.89	8.73	11.84	14.34	17.91	0.35
150 / 3.81	6.14	10.89	14.83	17.91	22.41	0.44
200 / 5.08	8.17	14.53	19.82	23.92	29.92	0.59
250 / 6.35	10.20	18.18	24.77	29.92	37.40	0.73
300 / 7.62	12.24	21.78	29.76	35.92	44.91	0.88

The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.
 When optical zoom is used together and Digital Zoom Extender is set to 80%.
 Only for optical zoom

#### Screen aspect ratio 4:3

# **PT-LMW420**

Screen aspect	ratio 4:3					Unit: meters
			Optica	l zoom	Digital Zoom Extender <sup>1</sup>	
Т	hrow ratio		1.63-	1.97:1	1.63-2.46:1 <sup>2</sup> (Corresponding Value)	UD 7.7:1
Proje	cted image siz	e		Proje	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	0.46	0.61	0.97	1.18	1.48	0.052
40 / 1.02	0.61	0.82	1.31	1.59	2.00	0.070
50 / 1.27	0.76	1.02	1.64	1.99	2.49	0.088
60 / 1.52	0.91	1.22	1.97	2.38	2.99	0.105
70 / 1.78	1.07	1.42	2.31	2.80	3.50	0.123
80 / 2.03	1.22	1.62	2.64	3.19	4.00	0.140
90 / 2.29	1.37	1.83	2.98	3.61	4.51	0.158
100 / 2.54	1.52	2.03	3.31	4.00	5.01	0.175
120 / 3.05	1.83	2.44	3.98	4.81	6.02	0.210
150 / 3.81	2.29	3.05	4.98	6.02	7.53	0.263
200 / 5.08	3.05	4.06	6.65	8.03	10.05	0.350
250 / 6.35	3.81	5.08	8.32	10.05	12.56	0.438
300 / 7.62	4.57	6.10	9.99	12.06	15.08	0.526

The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.
 When optical zoom is used together and Digital Zoom Extender is set to 80%.

3 Only for optical zoom

#### Unit: feet

			Optical zoom		Digital Zoom Extender <sup>1</sup>	
1	Throw ratio		1.63-1.97:1		1.63-2.46:1 <sup>2</sup> (Corresponding Value)	UD 7.7:1
Proje	cted image siz	e		Projec	ction distance (L)	Height from the edge of screen
Diagonal (SD) inches / m	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Max. (LT)	to center of lens (H) <sup>3</sup>
30 / 0.76	1.51	2.00	3.18	3.87	4.86	0.17
40 / 1.02	2.00	2.69	4.30	5.22	6.56	0.23
50 / 1.27	2.49	3.35	5.38	6.53	8.17	0.29
60 / 1.52	2.99	4.00	6.46	7.81	9.81	0.34
70 / 1.78	3.51	4.66	7.58	9.19	11.48	0.40
80 / 2.03	4.00	5.31	8.66	10.47	13.12	0.46
90 / 2.29	4.49	6.00	9.78	11.84	14.80	0.52
100 / 2.54	4.99	6.66	10.86	13.12	16.44	0.57
120 / 3.05	6.00	8.01	13.06	15.78	19.75	0.69
150 / 3.81	7.51	10.01	16.34	19.75	24.70	0.86
200 / 5.08	10.01	13.32	21.82	26.34	32.97	1.15
250 / 6.35	12.50	16.67	27.30	32.97	41.21	1.44
300 / 7.62	14.99	20.01	32.78	39.57	49.47	1.73

The display resolution decreases when the Digital Zoom Extender function is used. In addition, the 6-point correction, keystone correction and curved correction functions cannot be used, and the adjustable range of corner correction is reduced.
 When optical zoom is used together and Digital Zoom Extender is set to 80%.
 Only for optical zoom

# Formula for calculating the projection distance

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate the value.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.) When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

				Unit. m	
Aspect ratio		16:10	16:9	4:3	
Screen height (SH)		= 0.530 x SD	= 0.490 x SD	= 0.6 x SD	
Screen width (S	5W)	= 0.848 × SD	= 0.872 × SD	= 0.8 x SD	
Projection distance (L) <sup>1</sup>	Minimum (LW)	= 1.1614 x SD/X - 0.0265	= 1.1936 x SD/X - 0.0265	= 1.3147 x SD/X - 0.0265	
	Maximum (LT)	= 1.4011 x SD/X - 0.0264	= 1.4400 x SD/X - 0.0264	= 1.5861 x SD/X - 0.0264	

**Panasonic** 

1 X in the formulas represents the setting value of [DIGITAL ZOOM EXTENDER] (100%=1.00, 99%=0.99, ...).

#### Note

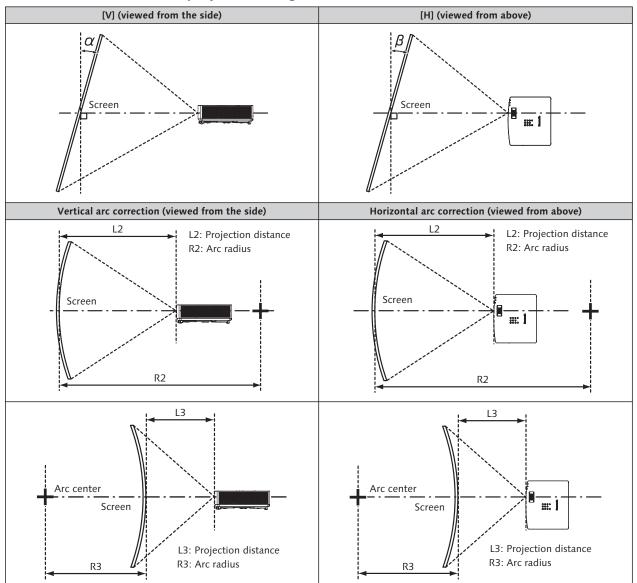
• The value for L (distance to screen) varies slightly within  $\pm 5\%$  depending on the zoom lens characteristics.

• When keystone correction is used, the image is corrected in the direction that reduces its projected size.

I Init: m

# **PT-LMW420**

# [SCREEN ADJUSTMENT] projection range



Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used		
Vertical keystone correction angle α (°)	keystone	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/ L2	Min. value of R3/ L3	Min. value of R2/ L2	Min. value of R3/ L3	
±35	±35	±35	±35	0.6	0.5	0.4	0.4	

#### Note

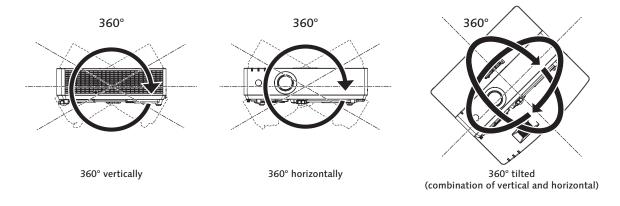
When [SCREEN ADJUSTMENT] is used, the focus may not be able to match the whole screen as correction increases.
The curved screen should be in the shape of a circular arc part of a perfect circle.

# PT-LMW420

## Installable angle

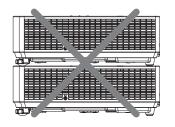
Install the projector at an angle within the range shown below.

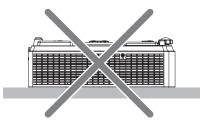
FULL 360-degree projection

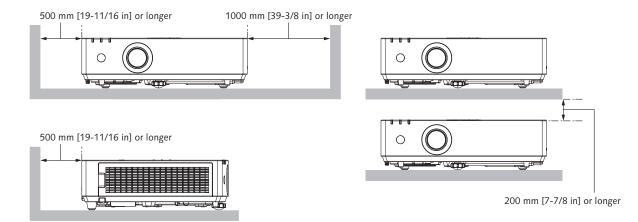


# Notes on projector placement and operation

- 1. Never place objects on top of the projector while it is operating.
- 2. Make sure there is the unobstructed space as shown below or more around the projector's exhaust openings. In addition to this space, also ensure that there is a sufficient work space for removing and installing filter and other parts.
- 3. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
- 4. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.







# **PT-LMW420**

## LCD Projector

## List of compatible signals

The following table specifies the type of signals compatible with the projector. This projector supports the signal with  $\checkmark$  in the compatible signal column.

Signal type	Signal name	Resolution (Display Resolution)	Scanning freq.		Dot clock	compatible signal		Plug and play correspondence	
			Horizontal (kHz)	Vertical (Hz)	freq. (MHz)	COMPUTER	HDMI	COMPUTER	HDM
	480i (525i)	712 x 483i	15.7	59.9	13.5	√	_	_	_
	576i (625i)	702 x 575i	15.6	50.0	13.5	√	_	-	-
	480/60p	720 x 480	31.5	59.9	27.0	✓	$\checkmark$	-	√
	576/50p	720 x 576	31.3	50.0	27.0	✓	$\checkmark$	-	√
	720/60p	1280 x 720	45.0	60.01	74.3	✓	$\checkmark$	-	√
	720/50p	1280 x 720	37.5	50.0	74.3	✓	$\checkmark$	-	√
	1080/60i	1920 x 1080i	33.8	60.0 <sup>1</sup>	74.3	✓	$\checkmark$	-	√
	1080/50i	1920 x 1080i	28.1	50.0	74.3	✓	$\checkmark$	-	√
	1080/24p	1920 x 1080	27.0	24.0 <sup>1</sup>	74.3	✓	$\checkmark$	-	√
Video	1080/24sF	1920 x 1080i	27.0	48.0 <sup>1</sup>	74.3	✓	$\checkmark$	-	_
Signal	1080/25p	1920 x 1080	28.1	25.0	74.3	√	$\checkmark$	-	_
	1080/30p	1920 x 1080	33.8	30.0 <sup>1</sup>	74.3	√	√		_
	1080/60p	1920 x 1080	67.5	60.0 <sup>1</sup>	148.5	√	√		√
	1080/50p	1920 x 1080	56.3	50.0	148.5	√	√		1
	3840 x 2160/24p	3840 x 2160	54.0	24.0 <sup>1</sup>	297.0	_	√		1
	3840 x 2160/25p	3840 x 2160	56.3	25.0	297.0	_	√	_	√
	3840 x 2160/30p	3840 x 2160	67.5	30.0 <sup>1</sup>	297.0	_	√	_	1
-	4096 x 2160/24p	4096 x 2160	54.0	24.0 <sup>1</sup>	297.0	_	√	_	1
	4096 x 2160/25p	4096 x 2160	56.3	25.0	297.0	_	√	_	1
	4096 x 2160/30p	4096 x 2160	67.5	30.0 <sup>1</sup>	297.0	_	√		1
	640 x 480/60	640 x 480	31.5	59.9	25.2	1	√	✓ ✓	1
	800 x 600/60	800 x 600	37.9	60.3	40.0	1	√	✓ <b>√</b>	1
-	1024 x 768/50	1024 x 768	39.6	50.0	51.9	✓ ✓	√	_	
	1024 x 768/60	1024 x 768	48.4	60.0	65.0	√ 	 ✓	√	1
	1024 x 768/70	1024 x 768	56.5	70.1	75.0	√ 	 ✓	√ 	
	1024 x 768/75	1024 x 768	60.0	75.0	78.8	√ 	 ✓	√ 	
	1152 x 864/75	1152 x 864	67.5	75.0	108.0	√ 	√ 	_	_
	1152 x 864/85	1152 x 864	77.1	85.0	119.7	✓ ✓	 ✓	_	_
	1280 x 720/60	1280 x 720	44.8	59.9	74.5	✓ ✓	 ✓	_	_
Computer Signal	1280 x 768/60	1280 x 720	47.8	59.9	79.5	✓ ✓			_
	1280 x 800/50	1280 x 800	41.3	50.0	68.0	✓ ✓	 ✓		_
	1280 x 800/50	1280 x 800	41.5	59.8	83.5	✓ ✓			
	1280 x 800/00	1280 x 800	62.8	74.9	106.5	✓ ✓			• _
	1280 x 800/75	1280 x 800	71.6	84.9	122.5	✓ ✓		_	
	1280 x 800/85	1280 x 800	60.0	60.0	122.5	✓ ✓			
	1280 x 960/60	1280 x 960	64.0	60.0	108.0	✓ ✓			
	1280 x 1024/80	1280 x 1024	80.0	75.0	135.0	✓ ✓			
	1280 x 1024/75	1280 x 1024	91.1	85.0	155.0	✓ ✓			
	1280 x 1024/85	1280 x 1024 1366 x 768	47.7			✓ ✓	 ✓		
	1400 x 1050/60	1400 x 1050		59.8 60.0	85.5 121.8	✓ ✓	 ✓	-	_
	1400 x 1050/80		65.3 82.2	75.0		v √	 ✓		_
		1400 x 1050	82.2 55.9	75.0 59.9	155.9	✓ ✓	 ✓		
	1440 x 900/60 1600 x 900/60	1440 x 900			106.5			++	
		1600 x 900	55.9	60.0	119.0	1	<i>J</i>	-	-
	1600 x 1200/60	1600 x 1200	75.0	60.0	162.0	1	<i>√</i>	✓	1
	1680 x 1050/60	1680 x 1050	65.3	60.0	146.3	<i>√</i>	<i></i>	-	_
	1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	1	<i>√</i>	-	_
	1920 x 1200/50	1920 x 1200 1920 x 1200	61.8 74.0	49.9 60.0	158.3 154.0	√ √	√ √	-	-

1 It also supports signals with vertical scanning frequency of 1 / 1.001 times.

2 VESA CVT-RB (Reduced Blanking)-compliant

#### Note

A signal with a different resolution is converted to the number of display dots. 1920 x 1200
The "i" at the end of the resolution indicates an interlaced signal.
When interlaced signals are connected, flickering may occur on the projected image.

• Even the above signals exist, some image signals recorded in special method may not be displayed.