

LCD Projectors

PT-MZ20K Series

Note: Product availability varies by country or region.

The World's Smallest,
Lightest, and Quietest
20,000 lm¹ Projector



Note: Light output of PT-MZ20KL. As of July 2025, based on publicly available dimensions, weight, and operation noise values for LCD laser projectors with 20,000 lm brightness and above.

White Models

Black Models

Note: Projectors ship without a lens.

■ Main Features

01 | World's Smallest, Lightest, and Quietest 20,000 lm¹ LCD Projector

Introducing the smallest, lightest, and quietest LCD laser projector in its class with up to 20,000 lm¹, compact 23 kg² (50.7 lbs) body, and quiet 42 dB³ operation. Optimized optical engine delivers significantly higher brightness over the previous series from the same body size, ensuring clear visibility in well-lit spaces.

02 | Long-Life Energy-Saving Design Enhances Reliability

Multi-Laser Drive Engine and Backup Input⁴ enable continuous projection even in the event of trouble, and no light-source or filter maintenance is required for 20,000 hours⁵. The series efficiently delivers high brightness with MZ20KL achieving the lowest power consumption in its class⁶ for sustainable operation.

03 | Delivering up to 20,000 lm¹ on AC 100–240 V, a World First⁷

PT-MZ20K Series is the industry's first⁷ 20,000 lm-class projector to deliver full brightness on AC 100–240 V power, eliminating need to install a high-voltage power supply. It supports NFC function⁸, optional lenses including ET-EMU100 Ultra-Short-Throw Zoom Lens, and preactivated upgrade kits for Geo Pro⁹.

PT-MZ20K Series				
	PT-MZ20KL	PT-MZ17KL	PT-MZ14KL	PT-MZ11KL
Light Output	20,000 lm ¹ / 20,000 lm (ANSI) ¹⁰	16,500 lm ¹ / 16,500 lm (ANSI) ¹⁰	14,000 lm ¹ / 14,000 lm (ANSI) ¹⁰	11,000 lm ¹ / 11,000 lm (ANSI) ¹⁰
Resolution	WUXGA (1920 x 1200 pixels)			



1 With ET-EMS650 Zoom Lens. The value varies depending on the lens. When [OPERATING MODE] is set to [NORMAL]. Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped. 2 For the PT-MZ20KL. PT-MZ17KL/MZ14KL/MZ11KL: 22.5 kg (49.6 lbs). 3 For the PT-MZ20KL in NORMAL Mode. Noise levels of other models in NORMAL Mode are 38 dB for PT-MZ17KL and 35 dB for PT-MZ14KL/MZ11KL. 4 Primary and backup terminal assignment is fixed. Input signals must be identical. 5 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [3], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). Replacement of parts other than the light source may be required in a shorter period. Estimated time until light output declines to 50 % varies depending on environment. Filter replacement at this time is under conditions of 0.15 mg/m³ of particulate matter. Estimated maintenance time varies depending on environment. Filter can be washed and reused up to two times. 6 As of July 2025, based on publicly available power consumption values for LCD laser projectors with 20,000 lm brightness and above according to internal research. 7 As of July 2025, based on LCD laser projectors with 20,000 lm brightness and above according to internal research. 8 Projectors sold in some countries or regions require an ET-NUK10 Upgrade Kit available from PASS to activate NFC function. See NFC Regional Compatibility List for details. 9 Geometry Manager Pro software for Windows* and preactivated upgrade kits require projector registration. Visit PASS to register your projector and download free software. 10 With ET-EMS650 Zoom Lens. The value varies depending on the lens. When [OPERATING MODE] is set to [NORMAL]. Measurement, measuring conditions, and method of notation all comply with American National Standards Institute standards. Value is the average of all products when shipped. 11 Input signals are converted to the projector's display resolution (1920 x 1200 pixels) upon playback. YPbPr 4:2:0 format only for 4K/60p and 4K/50p signals input via DIGITAL LINK.

Light, Bright, Quiet, and Harmonious

As the smallest and lightest 20,000 lm¹ LCD laser projector in its class², MZ20K Series installs flexibly almost anywhere and delivers bright, immersive images in a wide range of applications, from conferences to edutainment. Its sophisticated body styling harmonizes with the spatial environment while quiet operation limits distractions, ideal for hybrid meeting rooms, museums, or lecture halls.

Well Balanced Brightness and Color

Together with high-efficiency optical engine for immersive high-contrast images in well-lit rooms, MZ20K Series features Pure White Generator, an original technology that minimizes loss of light energy and balances rich color and high brightness. Dynamic Contrast NX includes new scene-recognition circuitry that detects light and dark areas of the image more precisely, while Detail Clarity Processor 4 sharpens text edges for clear visibility.

1 With ET-EMS650 Zoom Lens. The value varies depending on the lens. When [OPERATING MODE] is set to [NORMAL]. Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped. 2 Light output of PT-MZ20KL. As of July 2025, based on publicly available dimensions, weight, and operation noise values for LCD laser projectors with 20,000 lm brightness and above. 3 As of July 2025, based on LCD laser projectors with 20,000 lm brightness and above according to internal research. 4 Geometry Manager Pro software for Windows* and preactivated upgrade kits require projector registration. Visit PASS to register your projector and download free software. 5 Projectors sold in some countries or regions require an ET-NUK10 Upgrade Kit available from PASS to activate NFC function. See NFC Regional Compatibility List for details. 6 Input signals are converted to the projector's display resolution (1920 x 1200 pixels) upon playback. YPbPr 4:2:0 format only for 4K/60p and 4K/50p signals input via DIGITAL LINK. 7 As of July 2025, based on publicly available power consumption values for LCD laser projectors with 20,000 lm brightness and above according to internal research. 8 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE], [DYNAMIC], [DYNAMIC CONTRAST]) set to [3], temperature 30 °C (86 °F), elevation 700 m (2,297 ft) with 0.15 mg/m³ of particulate matter). Replacement of parts other than the light source may be required in a shorter period. Estimated time until light output declines to 50 % varies depending on environment. Filter replacement at this time is under conditions of 0.15 mg/m³ of particulate matter. Estimated maintenance time varies depending on environment. Filter can be washed and reused up to two times. 9 Primary and backup terminal assignment is fixed. Input signals must be identical. 10 The optional AJ-WM50 Series Wireless Module does not support IPv6.

Specifications

Model		PT-MZ20KL	PT-MZ17KL	PT-MZ14KL	PT-MZ11KL
Projector type		LCD projector			
LCD Panel	Size	25.4 mm (1.0 in) diagonal (16:10 aspect ratio)			
	Display system	Transparent LCD panel (x 3, R/G/B)			
	Pixels	2,304,000 (1920 x 1200 pixels)			
Light source		Laser diode			
Light output ¹		20,000 lm ² / 20,000 lm (ANSI) ³	16,500 lm ² / 16,500 lm (ANSI) ³	14,000 lm ² / 14,000 lm (ANSI) ³	11,000 lm ² / 11,000 lm (ANSI) ³
Time until light output declines to 50 % ⁴		20,000 hours (NORMAL/QUIET)			
Resolution		WUXGA (1920 x 1200 pixels)			
Contrast ratio ²		3,000,000:1 (Full On/Full Off) (When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] set to [3].)			
Screen size (diagonal)		2.03–15.24 m (80–600 in), 2.54–10.16 m (100–400 in) with ET-EMU100, 16:10 aspect ratio 2.03–15.24 m (80–600 in), 2.54–10.16 m (100–400 in) with ET-EMU100, 2.03–12.70 m (80–500 in) with ET-EMT800 ⁵ , 16:10 aspect ratio			
Center-to-corner zone ratio ²		85 %			
Lens		Optional (no lens included with this model)			
Lens shift (from center of screen)	Vertical	±60 % (±50 %, -20 % with ET-EMU100, ±40 % with ET-EMW200, ±50 % with ET-EMW300) (powered)			
	Horizontal	±20 % (±19 % with ET-EMW200) (powered)			
Keystone correction range		Vertical: ±45° (±5° with ET-EMU100, ±14° with ET-EMW200/ET-EMW300, ±22° with ET-EMW400/ET-EMW500), Horizontal: ±40° (±0° with ET-EMU100, ±8° with ET-EMW200/ET-EMW300, ±15° with ET-EMW400/ET-EMW500). When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding a total of 55°.			
Terminals	SDI IN	BNC x 1: 3G/HD-SDI input			
	HDMI ¹ 1/2 IN	HDMI ¹ 19-pin x 2 (Compatible with HDCP 2.3, Deep Color, 4K/60p signal input ⁹), CEC supported			
	SERIAL/MULTI PROJECTOR SYNC IN	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)			
	SERIAL/MULTI PROJECTOR SYNC OUT	D-sub 9-pin (male) x 1 for link control (RS-232C compliant)			
	REMOTE 1 IN	D-sub 9-pin (female) x 1 for external control (parallel)			
	REMOTE 2 IN	M3 x 1 for wired remote control			
	REMOTE 2 OUT	M3 x 1 for link control (for wired remote control)			
	DIGITAL LINK	RJ-45 x 1 for network and DIGITAL LINK connection (video/network/serial control) (HDBaseT™ compliant), 100Base-TX (Compatible with PLink™ [Class 2], Art-Net, HDCP 2.3, Deep Color, 4K/60p signal input ⁴)			
	LAN	RJ-45 x 1 for network connection, 10Base-T, 100Base-TX (Compatible with PLink™ [Class 2], Art-Net)			
	DC OUT	USB connector (Type A) x 1 for power supply (Output: 5 V / 2 A)			
USB	USB connector (Type A) x 1 for optional AJ-WM50 Series Wireless Module, for USB memory				
Power supply		Single-phase AC 100–240 V, 50/60 Hz			
Power consumption ⁷	Maximum power consumption	1100 W (11.2–4.6 A) (1120 VA)	950 W (9.6–4.0 A) (960 VA)	800 W (8.1–3.3 A) (810 VA)	615 W (6.3–2.7 A) (630 VA)
	On-mode power consumption [NORMAL]	1050 W (AC 100–120 V), 1000 W (AC 200–240 V)	880 W (AC 100–120 V), 850 W (AC 200–240 V)	720 W (AC 100–120 V), 690 W (AC 200–240 V)	540 W (AC 100–120 V), 520 W (AC 200–240 V)
	(Operating mode) [QUIET]	630 W (AC 100–120 V), 610 W (AC 200–240 V)	580 W (AC 100–120 V), 560 W (AC 200–240 V)	460 W (AC 100–120 V), 445 W (AC 200–240 V)	360 W (AC 100–120 V), 340 W (AC 200–240 V)
Filter		Included (Estimated maintenance time: approx. 20,000 hours ⁴)			
Operation noise ²		42 dB (NORMAL), 36 dB (QUIET)	38 dB (NORMAL), 32 dB (QUIET)	35 dB (NORMAL), 30 dB (QUIET)	
Dimensions (W x H x D)		Approx. 650 x 185 x 440 mm (25 19/32" x 7 9/32" x 17 5/16") (excluding feet and protrusions), 650 x 211 x 440 mm (25 19/32" x 8 5/16" x 17 5/16") (excluding protrusions, feet at shortest position)			
Weight ⁸		Approx. 23.0 kg (50.7 lbs) Approx. 22.5 kg (49.6 lbs)			
Operating environment		Operating temperature: 0–45 °C (32–113 °F) ¹⁰ , operating humidity: 10–80 % (no condensation)			
Applicable software		Logo Transfer Software, Multi Monitoring & Control Software, Geometry Manager Pro, Projector Network Setup Software, Smart Projector Control for iOS/Android ¹¹			

1 When [OPERATING MODE] is set to [NORMAL]. This is the value when the Zoom Lens (Model No.: ET-EMS650) is used. The value varies depending on the lens. 2 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped. 3 Measurement, measuring conditions, and method of notation all comply with American National Standards Institute standards. Value is the average of all products when shipped. 4 Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast contents, Normal Mode, [DYNAMIC CONTRAST] set to [3], under conditions with 30 °C (86 °F), 700 m (2,297 ft) above sea level, and 0.15 mg/m³ of particulate matter. Estimated time until light output decreases to 50 % will vary depending on environment. 5 ET-EMT800 is compatible with PT-MZ17KL/MZ14KL/MZ11KL only. It cannot be used with PT-MZ20KL. 6 4K signals are converted to the projector's resolution (1920 x 1200 pixels) upon projection. 4K/60p and 4K/50p signals input via DIGITAL LINK are supported in YPbPr 4:2:0 format only. 7 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. On-mode power consumption measured at 25 °C (77 °F) operating temperature at an altitude of 700 m (2,297 ft). 8 Under conditions of 0.15 mg/m³ of particulate matter. Estimated maintenance time varies depending on environment. Filter can be washed and reused up to two times. 9 Average value. May differ depending on the actual unit. 10 Note that the projector cannot be used at altitudes 2,700 m (8,858 ft) or higher above sea level. In the following operating environments, light output may be reduced to protect the projector: when the projector is used at altitudes below 1,400 m (4,593 ft) and ambient temperature is 35 °C (95 °F) or higher; when the projector is used at altitudes between 1,400 m (4,593 ft) and 2,700 m (8,858 ft) exclusive and ambient temperature is 30 °C (86 °F) or higher. The operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F) when the optional AJ-WM50 Series Wireless Module is attached.

Optional Accessories

- **Zoom Lens**
ET-EMU100 (0.330–0.353:1) / ET-EMW200 (0.480–0.550:1) / ET-EMW300 (0.550–0.690:1) / ET-EMW400 (0.690–0.950:1) / ET-EMW500 (0.950–1.36:1) / ET-EMS650 (1.35–2.10:1) / ET-EMS600 (1.35–2.10:1)¹ / ET-EMT750 (2.10–4.14:1) / ET-EMT700 (2.10–4.14:1)¹ / ET-EMT850 (4.14–7.40:1) / ET-EMT800 (4.14–7.40:1)¹
1 ET-EMS600, ET-EMT700, and ET-EMT800 are compatible with PT-MZ17KL/MZ14KL/MZ11KL only. They cannot be used with PT-MZ20KL.
- **Replacement Filter**
ET-RFM100

- **Ceiling Mount Bracket**
ET-PKD120H (for high ceilings) / ET-PKD120S (for low ceilings) / ET-PKD130H (with 6-axis adjustment mechanism)
Note: ET-PKD120H/PKD120S/PKD130H used in combination with ET-PKE301B (sold separately).
- **Attachment for Ceiling Mount Bracket**
ET-PKE301B
- **ET-FMP50 Series Media Processors**
ET-FMP50 / ET-FMP20
Note: For more information, please visit: <https://docs.connect.panasonic.com/projector/products/fmp50/>.

- **Wireless Module**
AJ-WM50 Series
Note: Availability may vary by country or region. The suffix at the end of the model number is omitted. Operating temperature: 0–40 °C (32–104 °F).
- **Wireless Presentation System PressIT**
TY-WPS2 (basic set)
Note: Visit <https://docs.connect.panasonic.com/prodisplays/products/ty-wps2/> for more information.
- **NFC Upgrade Kit**
ET-NUK10
Note: Availability may vary by country or region.



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All information included here is valid as of July 2025.

PT-MZ20Kseries_G3 Printed in Japan.