

Zoom Lens

This zoom lens is designed for use with Panasonic’s applicable projectors. The lens makes it possible to vary the projection distance by changing the focal distance.

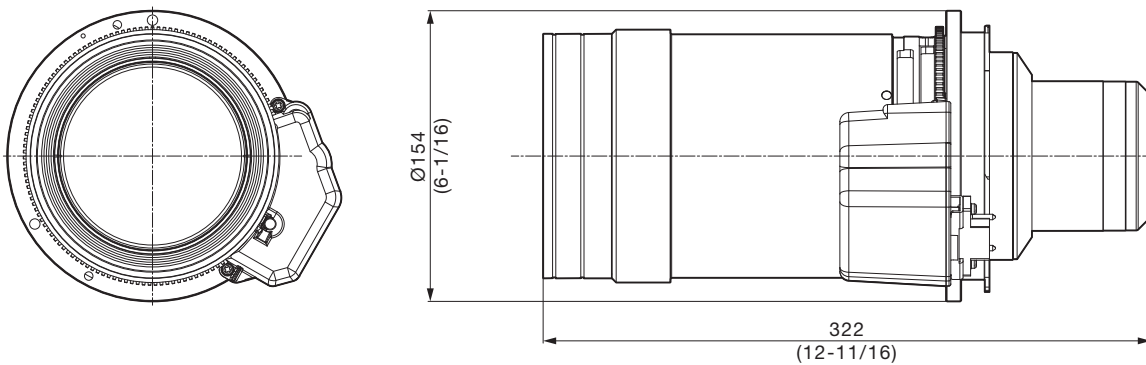
NOTE: Please use the lens only on the specified Panasonic projector.

Specifications

F value:	2.5
Focal distance (f):	50.4– 98.0 mm
Throw ratio:	2.57-5.00:1 for PT-RQ32K/RQ22K (16:10 aspect ratio) 2.40-4.66:1 for PT-RZ31K/RZ21K (16:10 aspect ratio) 2.59-5.05:1 for PT-RS30K/RS20K (4:3 aspect ratio)
Auto Lens Identification Function	Compatible models : PT-RQ32K/RZ31K/RS30K/RQ22K/RZ21K/RS20K
Dimensions (W × H × D):	154 × 154 × 322mm (6-1/16 × 6-1/16 × 12-11/16 inches) (without protrusion parts)
Weight:	Approximately 5.8 kg* (12.8 lbs*)
Applicable projector	[Group A] PT-RZ21K/RS20K PT-RQ22K [Group B] PT-RZ31K/RS30K PT-RQ32K PT-RQ35K/RZ34K/RZ16K *For details, see the spec file of the individual projector.

*Average value. May differ depending on the actual unit.
The throw ratio is an approximate value calculated by dividing the screen width by the projection distance.

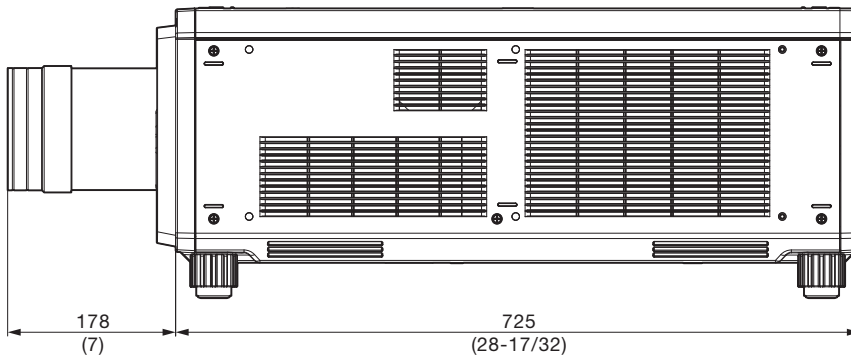
Dimensions



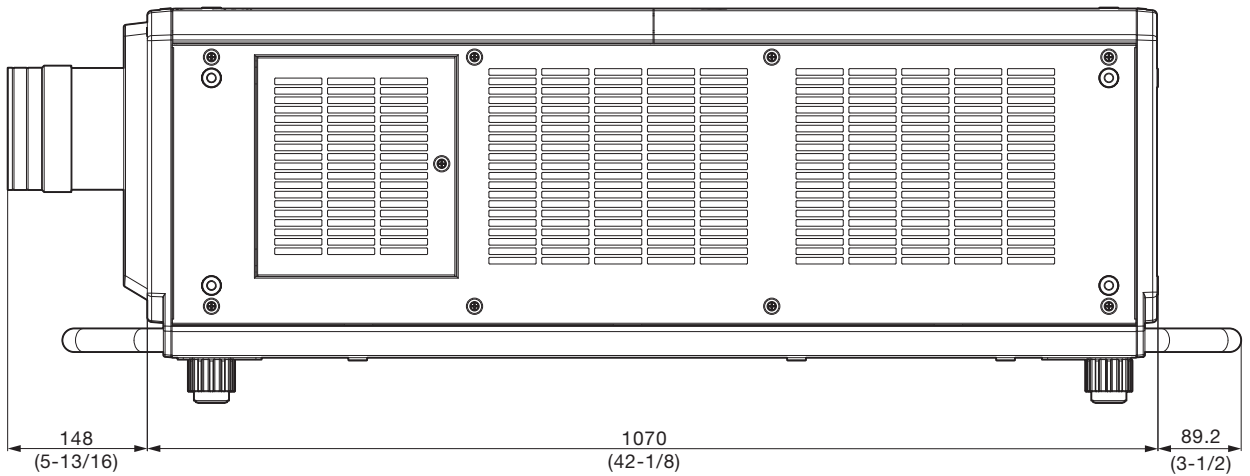
unit : mm (inch)
NOTE: This illustration is not drawn to scale.

NOTE: Weights and dimensions shown are approximate. Specifications subject to change without notice.

[Group A]



[Group B]

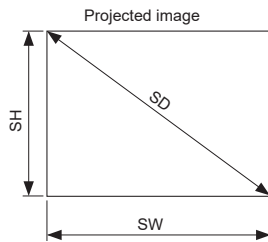


unit : mm (inch)
NOTE: This illustration is not drawn to scale.

NOTE: Weights and dimensions shown are approximate. Specifications subject to change without notice.

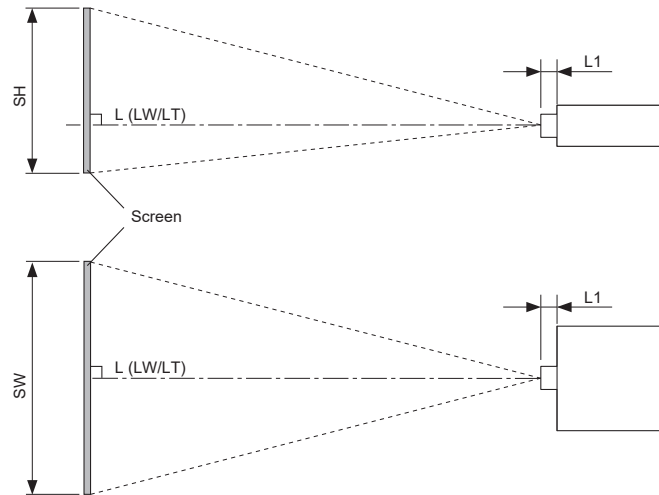
Zoom Lens

Projection relationships



NOTE

- This diagram assumes that the size and position of the projected image will be adjusted so that the image fills the entire screen.
- This illustration is not drawn to scale.



L	Projection distance
	LW Minimum distance
	LT Maximum distance
L1	Lens protrusion dimension
SH	Projected image height
SW	Projected image width
SD	Projected image size

Projector model	Dimension for L1 (approximate value)
PT-RQ22K/RZ21K/RS20K	0.18
PT-RQ32K/RZ31K/RS30K	0.15

(Unit: m)

Projection distance

PT-RQ32K/R22K/RZ31K/RZ21K
Aspect ratio 16:10

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	PT-RQ32K/RQ22K (2560×1600)		PT-RZ31K/RZ21K (WUXGA; 1920×1200)	
			Throw ratio[2.57-5.00:1]		Throw ratio[2.40-4.66:1]	
			Min [LW]	Max [LT]	Min [LW]	Max [LT]
1.778 m / 70"	0.942 (3.09)	1.508 (4.95)	3.80 (12.5)	7.45 (24.4)	3.54 (11.6)	6.94 (22.8)
2.032 m / 80"	1.077 (3.53)	1.723 (5.65)	4.36 (14.3)	8.54 (28.0)	4.06 (13.3)	7.96 (26.1)
2.286 m / 90"	1.212 (3.98)	1.939 (6.36)	4.92 (16.1)	9.63 (31.6)	4.59 (15.1)	8.97 (29.4)
2.540 m / 100"	1.346 (4.42)	2.154 (7.07)	5.48 (18.0)	10.72 (35.2)	5.11 (16.8)	9.99 (32.8)
3.048 m / 120"	1.615 (5.30)	2.585 (8.48)	6.60 (21.7)	12.90 (42.3)	6.16 (20.2)	12.03 (39.5)
3.810 m / 150"	2.019 (6.62)	3.231 (10.60)	8.29 (27.2)	16.17 (53.1)	7.73 (25.4)	15.08 (49.5)
5.080 m / 200"	2.692 (8.83)	4.308 (14.13)	11.09 (36.4)	21.63 (71.0)	10.34 (33.9)	20.17 (66.2)
6.350 m / 250"	3.365 (11.04)	5.385 (17.67)	13.90 (45.6)	27.08 (88.8)	12.96 (42.5)	25.26 (82.9)
7.620 m / 300"	4.039 (13.25)	6.462 (21.20)	16.70 (54.8)	32.54 (106.8)	15.58 (51.1)	30.35 (99.6)
8.890 m / 350"	4.712 (15.46)	7.539 (24.73)	19.50 (64.0)	37.99 (124.6)	18.20 (59.7)	35.45 (116.3)
10.160 m / 400"	5.385 (17.67)	8.616 (28.27)	22.31 (73.2)	43.44 (142.5)	20.81 (68.3)	40.54 (133.0)
12.700 m / 500"	6.731 (22.08)	10.770 (35.33)	27.92 (91.6)	54.35 (178.3)	26.05 (85.5)	50.72 (166.4)
15.240 m / 600"	8.077 (26.50)	12.923 (42.40)	33.52(110.0)	65.26 (214.1)	31.28(102.6)	60.90 (199.8)
17.780 m / 700"	9.423 (30.92)	15.077 (49.47)	39.13(128.4)	76.17 (249.9)	36.52(119.8)	71.08 (233.2)
20.320 m / 800"	10.770 (35.33)	17.231 (56.53)	44.74(146.8)	87.08 (285.7)	41.75(137.0)	81.26 (266.6)
22.860 m / 900"	12.116 (39.75)	19.385 (63.60)	50.35(165.2)	97.99 (321.5)	46.99(154.2)	91.44 (300.0)
25.400 m /1000"	13.462 (44.17)	21.539 (70.67)	55.96(183.6)	108.90 (357.3)	52.22(171.3)	101.62 (333.4)

Zoom Lens

PT-RQ32K/RQ22K/RZ31K/RZ21K/RS30K/RS20K
Aspect ratio 16:9

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	PT-RQ32K/RQ22K (2560×1440)		PT-RZ31K/RZ21K (1920×1080)		PT-RS30K/RS20K (1440×788)	
			Throw ratio[2.57-5.00:1]		Throw ratio[2.40-4.66:1]		Throw ratio[2.60-5.06:1]	
			Min [LW]	Max [LT]	Min [LW]	Max [LT]	Min [LW]	Max [LT]
1.778 m / 70"	0.872 (2.86)	1.550 (5.09)	3.91 (12.8)	7.66 (25.1)	3.64 (11.9)	7.14 (23.4)	3.95 (13.0)	7.74 (25.4)
2.032 m / 80"	0.996 (3.27)	1.771 (5.81)	4.49 (14.7)	8.78 (28.8)	4.18 (13.7)	8.18 (26.8)	4.53 (14.9)	8.87 (29.1)
2.286 m / 90"	1.121 (3.68)	1.992 (6.54)	5.06 (16.6)	9.90 (32.5)	4.72 (15.5)	9.23 (30.3)	5.12 (16.8)	10.01 (32.8)
2.540 m / 100"	1.245 (4.08)	2.214 (7.26)	5.64 (18.5)	11.02 (36.2)	5.25 (17.2)	10.28 (33.7)	5.70 (18.7)	11.14 (36.5)
3.048 m / 120"	1.494 (4.90)	2.657 (8.72)	6.79 (22.3)	13.26 (43.5)	6.33 (20.8)	12.37 (40.6)	6.86 (22.5)	13.40 (44.0)
3.810 m / 150"	1.868 (6.13)	3.321 (10.90)	8.52 (28.0)	16.63 (54.6)	7.94 (26.0)	15.51 (50.9)	8.61 (28.2)	16.80 (55.1)
5.080 m / 200"	2.491 (8.17)	4.428 (14.53)	11.40 (37.4)	22.23 (72.9)	10.63 (34.9)	20.74 (68.0)	11.52 (37.8)	22.47 (73.7)
6.350 m / 250"	3.113 (10.21)	5.535 (18.16)	14.29 (46.9)	27.84 (91.3)	13.32 (43.7)	25.97 (85.2)	14.43 (47.3)	28.13 (92.3)
7.620 m / 300"	3.736 (12.26)	6.641 (21.79)	17.17 (56.3)	33.45 (109.7)	16.01 (52.5)	31.20 (102.4)	17.35 (56.9)	33.80 (110.9)
8.890 m / 350"	4.358 (14.30)	7.748 (25.42)	20.05 (65.8)	39.05 (128.1)	18.70 (61.4)	36.44 (119.6)	20.26 (66.5)	39.46 (129.5)
10.160 m / 400"	4.981 (16.34)	8.855 (29.05)	22.93 (75.2)	44.66 (146.5)	21.39 (70.2)	41.67 (136.7)	23.17 (76.0)	45.12 (148.0)
12.700 m / 500"	6.226 (20.43)	11.069 (36.32)	28.70 (94.2)	55.87 (183.3)	26.77 (87.8)	52.13 (171.0)	29.00 (95.1)	56.45 (185.2)
15.240 m / 600"	7.472 (24.51)	13.283 (43.58)	34.46 (113.1)	67.08 (220.1)	32.15 (105.5)	62.60 (205.4)	34.82 (114.2)	67.78 (222.4)
17.780 m / 700"	8.717 (28.60)	15.497 (50.84)	40.22 (132.0)	78.29 (256.9)	37.53 (123.1)	73.06 (239.7)	40.64 (133.3)	79.11 (259.5)
20.320 m / 800"	9.962 (32.68)	17.710 (58.10)	45.99 (150.9)	89.51 (293.7)	42.92 (140.8)	83.53 (274.0)	46.47 (152.5)	90.44 (296.7)
22.860 m / 900"	11.207 (36.77)	19.924 (65.37)	51.75 (169.8)	100.72 (330.4)	48.30 (158.5)	93.99 (308.4)	52.29 (171.6)	101.76 (333.9)
25.400 m / 1000"	12.453 (40.86)	22.138 (72.63)	57.52 (188.7)	111.93 (367.2)	53.68 (176.1)	104.45 (342.7)	58.12 (190.7)	113.09 (371.0)

PT-RQ32K/RQ22K/RZ31K/RZ21K/RS30K/RS20K
Aspect ratio 4:3

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	PT-RQ32K/RQ22K (2133×1600)		PT-RZ31K/RZ21K (1600×1200)		PT-RS30K/RS20K (SXGA+; 1400×1050)	
			Throw ratio[3.09-6.01:1]		Throw ratio[2.88-5.61:1]		Throw ratio[2.59-5.05:1]	
			Min [LW]	Max [LT]	Min [LW]	Max [LT]	Min [LW]	Max [LT]
1.778 m / 70"	1.067 (3.50)	1.422 (4.67)	4.32 (14.2)	8.46 (27.8)	4.02 (13.2)	7.88 (25.9)	3.62 (11.9)	7.09 (23.3)
2.032 m / 80"	1.219 (4.00)	1.626 (5.33)	4.95 (16.2)	9.69 (31.8)	4.61 (15.1)	9.03 (29.6)	4.15 (13.6)	8.13 (26.7)
2.286 m / 90"	1.372 (4.50)	1.829 (6.00)	5.59 (18.3)	10.93 (35.9)	5.21 (17.1)	10.18 (33.4)	4.69 (15.4)	9.17 (30.1)
2.540 m / 100"	1.524 (5.00)	2.032 (6.67)	6.22 (20.4)	12.16 (39.9)	5.80 (19.0)	11.34 (37.2)	5.22 (17.1)	10.21 (33.5)
3.048 m / 120"	1.829 (6.00)	2.438 (8.00)	7.49 (24.6)	14.63 (48.0)	6.99 (22.9)	13.64 (44.8)	6.29 (20.6)	12.29 (40.3)
3.810 m / 150"	2.286 (7.50)	3.048 (10.00)	9.40 (30.8)	18.34 (60.2)	8.76 (28.7)	17.10 (56.1)	7.89 (25.9)	15.41 (50.6)
5.080 m / 200"	3.048 (10.00)	4.064 (13.33)	12.57 (41.2)	24.51 (80.4)	11.73 (38.5)	22.86 (75.0)	10.57 (34.7)	20.61 (67.6)
6.350 m / 250"	3.810 (12.50)	5.080 (16.67)	15.75 (51.7)	30.69 (100.7)	14.69 (48.2)	28.63 (93.9)	13.24 (43.4)	25.81 (84.7)
7.620 m / 300"	4.572 (15.00)	6.096 (20.00)	18.92 (62.1)	36.86 (120.9)	17.65 (57.9)	34.39 (112.8)	15.91 (52.2)	31.01 (101.7)
8.890 m / 350"	5.334 (17.50)	7.112 (23.33)	22.10 (72.5)	43.04 (141.2)	20.61 (67.6)	40.15 (131.7)	18.59 (61.0)	36.21 (118.8)
10.160 m / 400"	6.096 (20.00)	8.128 (26.67)	25.27 (82.9)	49.21 (161.5)	23.58 (77.4)	45.91 (150.6)	21.26 (69.8)	41.41 (135.9)
12.700 m / 500"	7.620 (25.00)	10.160 (33.33)	31.62 (103.7)	61.56 (202.0)	29.50 (96.8)	57.44 (188.5)	26.61 (87.3)	51.81 (170.0)
15.240 m / 600"	9.144 (30.00)	12.192 (40.00)	37.97 (124.6)	73.91 (242.5)	35.43 (116.2)	68.97 (226.3)	31.95 (104.8)	62.21 (204.1)
17.780 m / 700"	10.668 (35.00)	14.224 (46.67)	44.32 (145.4)	86.26 (283.0)	41.36 (135.7)	80.49 (264.1)	37.30 (122.4)	72.61 (238.2)
20.320 m / 800"	12.192 (40.00)	16.256 (53.33)	50.67 (166.2)	98.62 (323.6)	47.28 (155.1)	92.02 (301.9)	42.65 (139.9)	83.01 (272.3)
22.860 m / 900"	13.716 (45.00)	18.288 (60.00)	57.02 (187.1)	110.97 (364.1)	53.21 (174.6)	103.54 (339.7)	47.99 (157.4)	93.41 (306.5)
25.400 m / 1000"	15.240 (50.00)	20.320 (66.67)	63.37 (207.9)	123.32 (404.6)	59.13 (194.0)	115.07 (377.5)	53.34 (175.0)	103.80 (340.6)

Zoom Lens

Calculation of the projection distance

Aspect ratio 16:10

unit: meters

PT-RQ32K/RQ22K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0561 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1091 - 0.1892$
PT-RZ31K/RZ21K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0523 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1018 - 0.1892$

Aspect ratio 16:9

unit: meters

PT-RQ32K/RQ22K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0576 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1121 - 0.1892$
PT-RZ31K/RZ21K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0538 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1046 - 0.1892$
PT-RS30K/RS20K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0582 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1133 - 0.1892$

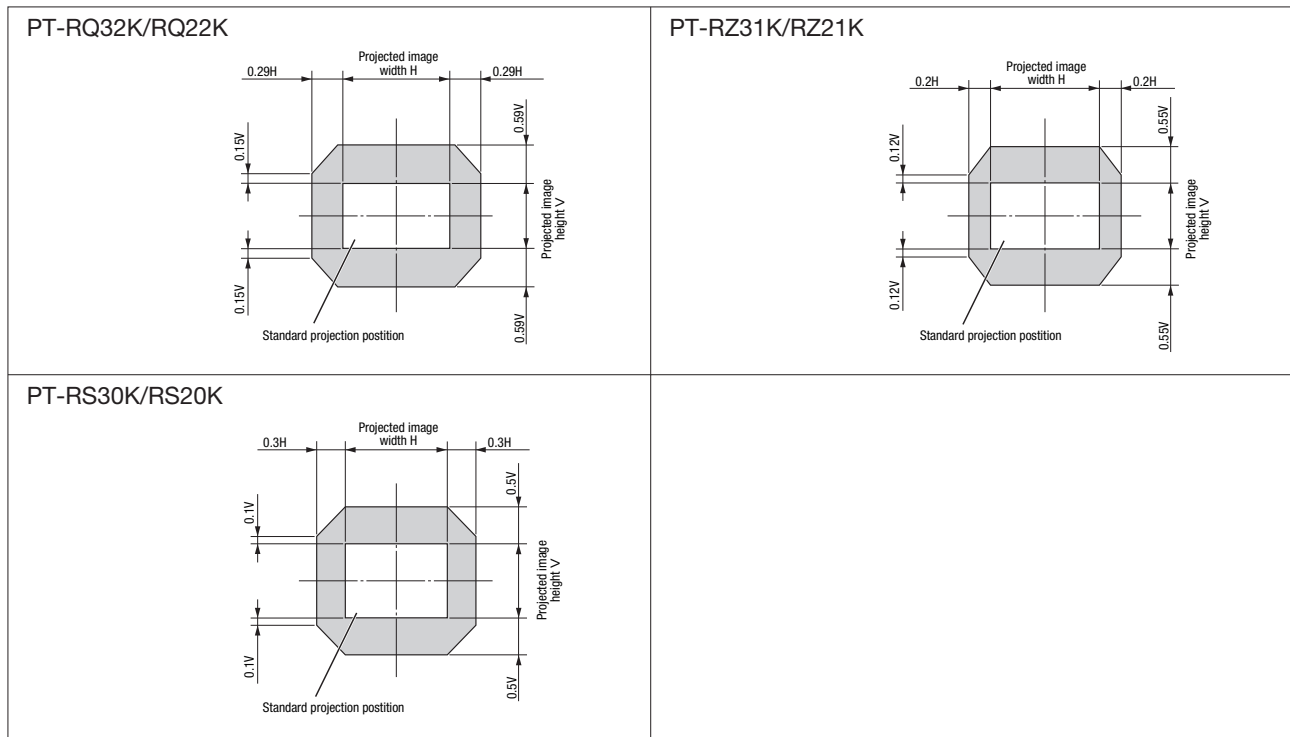
Aspect ratio 4:3

unit: meters

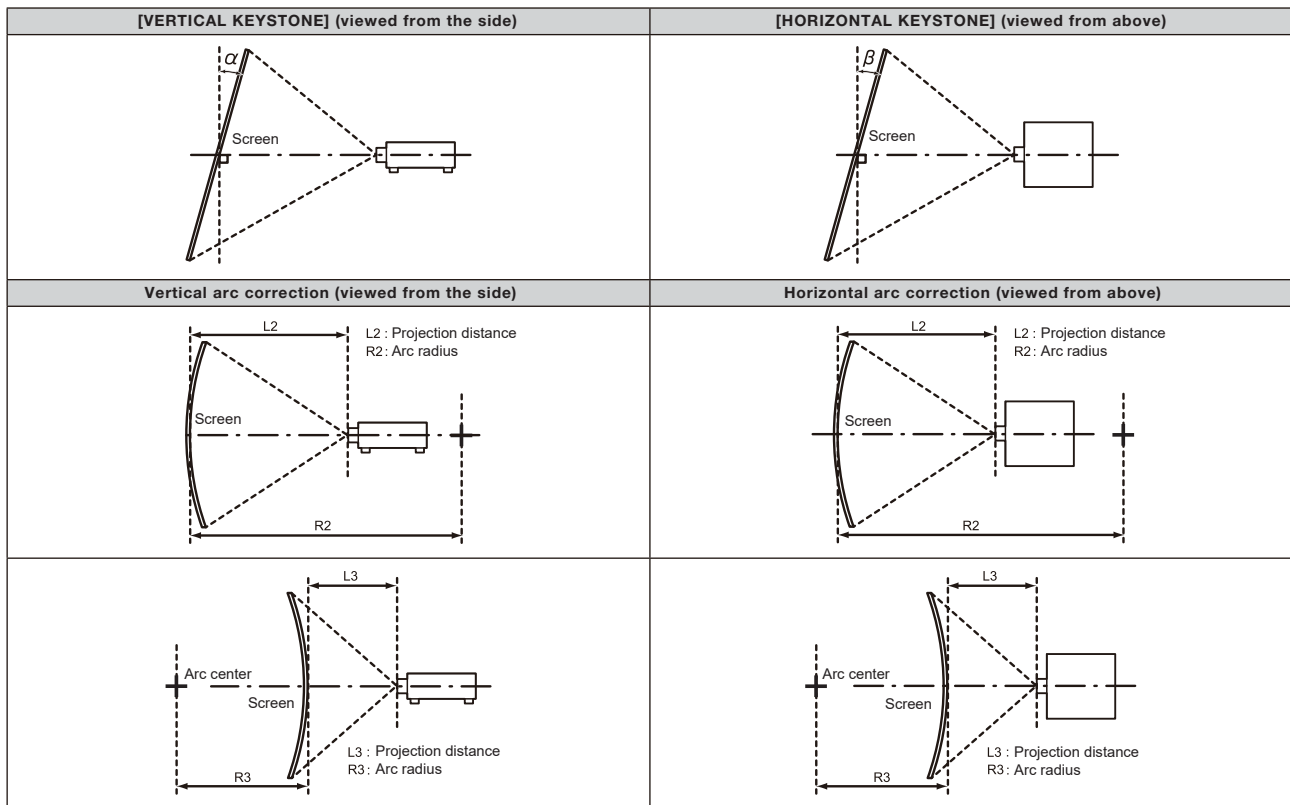
PT-RQ32K/RQ22K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0635 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1235 - 0.1892$
PT-RZ31K/RZ21K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0593 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1153 - 0.1892$
PT-RS30K/RS20K	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0535 - 0.1261$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.1040 - 0.1892$

Shift range

Optical axis shift function allows to shift the position of a projected image as shown below.



Keystone correction range



Standard status

Projector Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of 3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-RQ32K/RQ22K	± 40	± 15	± 20	± 10	0.6	1.2	0.4	0.7
PT-RZ31K/RZ21K RS30K/RS20K	± 40	± 15	± 20	± 15	0.6	1.2	0.4	0.7

When using the optional upgrade kit (ET-UK20)

Projector Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of 3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-RQ32K/RQ22K	± 45	± 25	± 20	± 10	0.5	0.9	0.3	0.5
PT-RZ31K/RZ21K RS30K/RS20K	± 45	± 40	± 20	± 15	0.5	0.9	0.3	0.5