

Indoor Unit: High Static Pressure Ducted

Specifications of R32 Deluxe Model



Capacity			7.1kW	10.0kW	12.5kW	14.0kW	16.0kW				
Model Name	Indoor Unit		S-71PE1R5B	S-100PE1R5B	S-100PE1R5B	S-125PE1R5B	S-125PE1R5B	S-140PE1R5B	S-140PE1R5B	S-160PE1R5B	S-160PE1R5B
	Outdoor Unit		U-71PZH2R5	U-100PZH2R5	U-100PZH2R8	U-125PZH2R5	U-125PZH2R8	U-140PZH2R5	U-140PZH2R8	U-160PZH2R5	U-160PZH2R8
Cooling capacity : Heating capacity	kW		7.1 (2.2 - 9.0) 8.0 (2.0 - 9.0)	10.0 (3.1 - 12.5) 11.2 (3.1 - 14.0)	10.0 (3.1 - 12.5) 11.2 (3.1 - 14.0)	12.5 (3.2 - 14.0) 14.0 (3.2 - 16.0)	12.5 (3.2 - 14.0) 14.0 (3.2 - 16.0)	14.0 (3.3 - 16.0) 16.0 (3.3 - 18.0)	14.0 (3.3 - 16.0) 16.0 (3.3 - 18.0)	16.0 (5.5 - 18.0) 18.0 (5.5 - 20.0)	16.0 (5.5 - 18.0) 18.0 (5.5 - 20.0)
		BTU/h	24,200 (7,500 - 30,700) 27,300 (6,800 - 30,700)	34,100 (10,600 - 42,700) 38,200 (10,600 - 47,800)	34,100 (10,600 - 42,700) 38,200 (10,600 - 47,800)	42,700 (10,900 - 47,800) 47,800 (10,900 - 54,600)	42,700 (10,900 - 47,800) 47,800 (10,900 - 54,600)	47,800 (11,300 - 54,600) 54,600 (11,300 - 61,400)	47,800 (11,300 - 54,600) 54,600 (11,300 - 61,400)	54,600 (18,800 - 61,400) 61,400 (18,800 - 68,200)	54,600 (18,800 - 61,400) 61,400 (18,800 - 68,200)
EER : COP	W/W		3.38 : 3.83	3.64 : 3.65	3.64 : 3.65	3.42 : 3.71	3.42 : 3.71	3.18 : 3.64	3.18 : 3.64	3.26 : 3.50	3.26 : 3.56
Total power input	Cooling : Heating	kW	2.10 : 2.09	2.75 : 3.07	2.75 : 3.07	3.65 : 3.77	3.65 : 3.77	4.40 : 4.40	4.40 : 4.40	4.91 : 5.15	4.91 : 5.05
Indoor Unit											
Power source	Phase/Hz		1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
		V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V
Current	Cooling : Heating	A	1.24 : 1.24 1.25 : 1.25	1.72 : 1.72 1.74 : 1.74	1.72 : 1.72 1.74 : 1.74	1.82 : 1.82 1.84 : 1.84	1.82 : 1.82 1.84 : 1.84	2.62 : 2.62 2.70 : 2.70	2.62 : 2.62 2.70 : 2.70	2.62 : 2.62 2.70 : 2.70	2.62 : 2.62 2.70 : 2.70
Dimensions	H × W × D	mm	360×1,100 (+100)×700	360×1,100 (+100)×700	360×1,100 (+100)×700	430×1,100 (+100)×700	430×1,100 (+100)×700	430×1,100 (+100)×700	430×1,100 (+100)×700	430×1,100(+100) ×700	430×1,100(+100) ×700
Net weight		kg	42	44	44	48	48	53	53	53	53
Air volume	Cooling : Heating	L/s	500 : 500	666 : 666	666 : 666	833 : 833	833 : 833	1,000 : 1,000	1,000 : 1,000	1,000 : 1,000	1,000 : 1,000
External static pressure		Pa	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	45 / 44 / 43 : 45 / 44 / 43	48 / 46 / 44 : 48 / 46 / 44	48 / 46 / 44 : 48 / 46 / 44	49 / 47 / 45 : 49 / 47 / 45	49 / 47 / 45 : 49 / 47 / 45	51 / 49 / 47 : 51 / 49 / 47	51 / 49 / 47 : 51 / 49 / 47	51 / 49 / 47 : 51 / 49 / 47	51 / 49 / 47 : 51 / 49 / 47
Sound power level (H/M/L)	Cooling : Heating	dB(A)	62 / 61 / 60 : 62 / 61 / 60	70 / 68 / 66 : 70 / 68 / 66	70 / 68 / 66 : 70 / 68 / 66	71 / 69 / 67 : 71 / 69 / 67	71 / 69 / 67 : 71 / 69 / 67	73 / 71 / 69 : 73 / 71 / 69	73 / 71 / 69 : 73 / 71 / 69	73 / 71 / 69 : 73 / 71 / 69	73 / 71 / 69 : 73 / 71 / 69
Number of fan speeds			3	3	3	3	3	3	3	3	3
Drain pipe size		mm	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25
Outdoor Unit											
Power source	Phase/Hz		1 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz
		V	230V 240V	230V 240V	400V 415V	230V 240V	400V 415V	230V 240V	400V 415V	230V 240V	400V 415V
Current	Cooling : Heating	A	8.45 : 8.20 8.00 : 7.90	10.8 : 12.2 10.20 : 11.6	3.60 : 4.10 3.45 : 3.95	14.8 : 15.4 14.1 : 14.6	5.00 : 5.15 4.75 : 4.95	17.4 : 17.4 16.5 : 16.5	5.85 : 5.85 5.55 : 5.55	20.0 : 21.1 18.9 : 20.0	6.95 : 7.15 6.60 : 6.80
Dimensions	H × W × D	mm	996 × 940 × 340	1,416 × 940 × 340	1,416 × 940 × 340	1,416 × 940 × 340	1,416 × 940 × 340	1,416 × 940 × 340	1,416 × 940 × 340	1,500 × 980 × 370	1,500 × 980 × 370
Net weight		kg	68	99	99	99	99	99	99	117	115
Air volume	Cooling : Heating	L/s	1,017 : 1,000	1,967 : 1,800	1,967 : 1,800	2,083 : 1,867	2,083 : 1,867	2,150 : 1,933	2,150 : 1,933	2,733	2,733
Sound pressure level (Silent mode)	Cooling : Heating	dB(A)	48 (46) : 50 (48)	52 (50) : 52 (50)	52 (50) : 52 (50)	53 (51) : 53 (51)	53 (51) : 53 (51)	54 (52) : 54 (52)	54 (52) : 54 (52)	58 (56) : 60 (58)	58 (56) : 60 (58)
Sound power level (Silent mode)	Cooling : Heating	dB(A)	64 (62) : 66 (64)	68 (66) : 68 (66)	68 (66) : 68 (66)	69 (67) : 69 (67)	69 (67) : 69 (67)	70 (68) : 70 (68)	70 (68) : 70 (68)	76 (74) : 78 (76)	76 (74) : 78 (76)
Piping connections	Liquid / Gas	mm	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø19.05	Ø9.52 / Ø19.05
Pipe length	min. - max.	m	5 - 50	5 - 85	5 - 85	5 - 85	5 - 85	5 - 85	5 - 85	5 - 75	5 - 75
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30	15, 30	15, 30	15, 30	15, 30	30, 30	30, 30
Maximum chargeless length		m	30	30	30	30	30	30	30	30	30
Refrigerant at shipping / Additional gas amount		g	R32 1,950 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,050 / 45 (g/m)	R32 3,200 / 45 (g/m)	R32 3,200 / 45 (g/m)
Operation ranges	Cooling : Heating	°C	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

Specifications of R32 Compact Model



Capacity			6.0kW	7.1kW	10.0kW	12.5kW	14.0kW			
Model Name	Indoor Unit		S-60PE1R5B	S-71PE1R5B	S-100PE1R5B	S-100PE1R5B	S-125PE1R5B	S-125PE1R5B	S-140PE1R5B	S-140PE1R5B
	Outdoor Unit		U-60PZ2R5	U-71PZ2R5	U-100PZ2R5	U-100PZ2R8	U-125PZ2R5	U-125PZ2R8	U-140PZ2R5	U-140PZ2R8
Cooling capacity : Heating capacity		kW	6.0 (2.0 - 7.1) 6.0 (1.8 - 7.6)	7.1 (2.0 - 8.0) 7.1 (1.8 - 8.6)	10.0 (3.0 - 11.5) 10.0 (3.0 - 14.0)	10.0 (3.0 - 11.5) 10.0 (3.0 - 14.0)	12.5 (3.2 - 13.5) 12.5 (3.3 - 15.0)	12.5 (3.2 - 13.5) 12.5 (3.3 - 15.0)	14.0 (3.3 - 15.0) 14.0 (3.4 - 16.0)	14.0 (3.3 - 15.0) 14.0 (3.4 - 16.0)
		BTU/h	20,500 (6,800 - 24,200) 20,500 (6,100 - 25,900)	24,200 (6,800 - 27,300) 24,200 (6,100 - 29,300)	34,100 (10,200 - 39,200) 34,100 (10,200 - 47,800)	34,100 (10,200 - 39,200) 34,100 (10,200 - 47,800)	42,700 (10,900 - 46,100) 42,700 (11,300 - 51,200)	42,700 (10,900 - 46,100) 42,700 (11,300 - 51,200)	47,800 (11,300 - 51,200) 47,800 (11,600 - 54,600)	47,800 (11,300 - 51,200) 47,800 (11,600 - 54,600)
EER : COP		W/W	3.23 : 3.92 3.23 : 3.92	3.18 : 4.06 3.18 : 4.06	3.33 : 3.89 3.44 : 3.89	3.33 : 3.89 3.44 : 3.89	3.30 : 4.00 3.30 : 4.00	3.30 : 4.00 3.30 : 4.00	3.15 : 3.66 3.15 : 3.66	3.15 : 3.66 3.15 : 3.66
Total power input	Cooling : Heating	kW	1.86 : 1.53	2.23 : 1.75	3.00 : 2.57	3.00 : 2.57	3.79 : 3.125	3.79 : 3.125	4.44 : 3.825	4.44 : 3.825
Indoor Unit										
Power source		Phase/Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
		V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V	230V 240V
Current	Cooling : Heating	A	0.85 : 0.85 0.86 : 0.86	1.24 : 1.24 1.25 : 1.25	1.72 : 1.72 1.74 : 1.74	1.72 : 1.72 1.74 : 1.74	1.82 : 1.82 1.84 : 1.84	1.82 : 1.82 1.84 : 1.84	2.62 : 2.62 2.70 : 2.70	2.62 : 2.62 2.70 : 2.70
Dimensions	H × W × D	mm	290×1,100 (+100)×700	360×1,100 (+100)×700	360×1,100(+100)×700	360×1,100(+100)×700	430×1,100(+100)×700	430×1,100(+100)×700	430×1,100(+100)×700	430×1,100(+100)×700
Net weight		kg	35	42	44	44	48	48	53	53
Air volume	Cooling : Heating	L/s	366 : 366	500 : 500	666 : 666	666 : 666	833 : 833	833 : 833	1,000 : 1,000	1,000 : 1,000
External static pressure		Pa	70 (Max.100)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	43 / 41 / 40 : 43 / 41 / 40	45 / 44 / 43 : 45 / 44 / 43	48 / 46 / 44 : 48 / 46 / 44	48 / 46 / 44 : 48 / 46 / 44	49 / 47 / 45 : 49 / 47 / 45	49 / 47 / 45 : 49 / 47 / 45	51 / 49 / 47 : 51 / 49 / 47	51 / 49 / 47 : 51 / 49 / 47
Sound power level (H/M/L)	Cooling : Heating	dB(A)	60 / 58 / 57 : 60 / 58 / 57	62 / 61 / 60 : 62 / 61 / 60	70 / 68 / 66 : 70 / 68 / 66	70 / 68 / 66 : 70 / 68 / 66	71 / 69 / 67 : 71 / 69 / 67	71 / 69 / 67 : 71 / 69 / 67	73 / 71 / 69 : 73 / 71 / 69	73 / 71 / 69 : 73 / 71 / 69
Number of fan speeds			3	3	3	3	3	3	3	3
Drain pipe size		mm	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25	VP-25
Outdoor Unit										
Power source		Phase/Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz
		V	230V 240V	230V 240V	230V 240V	400V 415V	230V 240V	400V 415V	230V 240V	400V 415V
Current	Cooling : Heating	A	8.05 : 6.45 7.70 : 6.15	9.35 : 7.15 8.90 : 6.75	11.5 : 9.95 11.0 : 9.50	3.90 : 3.40 3.75 : 3.24	15.6 : 12.6 14.9 : 12.0	5.20 : 4.15 4.95 : 4.00	18.2 : 15.0 17.2 : 14.1	6.05 : 4.95 5.75 : 4.70
Dimensions	H × W × D	mm	695 x 875 x 320	695 x 875 x 320	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370
Net weight		kg	44	44	90	90	94	94	94	94
Air volume	Cooling : Heating	L/s	750 : 750	867 : 750	1,285 : 1,169	1,285 : 1,169	1,436 : 1,302	1,436 : 1,302	1,486 : 1,386	1,486 : 1,386
Sound pressure level (Silent mode)	Cooling : Heating	dB(A)	46 (44) : 48 (46)	49 (47) : 49 (47)	52 (50) : 52 (50)	52 (50) : 52 (50)	55 (53) : 55 (53)	55 (53) : 55 (53)	56 (54) : 56 (54)	56 (54) : 56 (54)
Sound power level (Silent mode)	Cooling : Heating	dB(A)	65 (63) : 66 (64)	67 (65) : 67 (65)	68 (66) : 67 (65)	68 (66) : 67 (65)	70 (68) : 70 (68)	70 (68) : 70 (68)	71 (69) : 71 (69)	71 (69) : 71 (69)
Piping connections	Liquid / Gas	mm	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
Pipe length	min. - max.	m	3 - 40	3 - 40	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30	15, 30	15, 30	15, 30	15, 30	15, 30
Maximum chargeless length		m	30	30	30	30	30	30	30	30
Refrigerant at shipping / Additional gas amount		g	R32, 1,450 / 35 (g/m)	R32, 1,450 / 35 (g/m)	R32, 2,600 / 45 (g/m)	R32, 2,600 / 45 (g/m)	R32, 2,980 / 45 (g/m)	R32, 2,980 / 45 (g/m)	R32, 2,980 / 45 (g/m)	R32, 2,980 / 45 (g/m)
Operation ranges	Cooling : Heating	°C	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24	-10 to 43 : -15 to 24

Notes:
The Rated Capacity, Power Input and Running Current are measured in accordance with AS/NZS 3823
• Cooling: Indoor temperature: 27°C DB/ 19°C WB, Outdoor temperature: 35°C DB/ 24°C WB
• Heating: Indoor temperature: 20°C DB/ 15°C WB, Outdoor temperature: 7°C DB/ 6°C WB

Indoor Unit

High Static Pressure

Splittable Ducted

High static and large airflow ducted for exceptional installation flexibility.



Self-diagnosing Function



Automatic Fan Operation



Mild dry



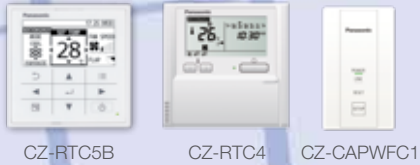
Automatic Restart Function



DC Motor



S-180PE3R5B
S-200PE3R5B
S-224PE3R5B



Technical focus

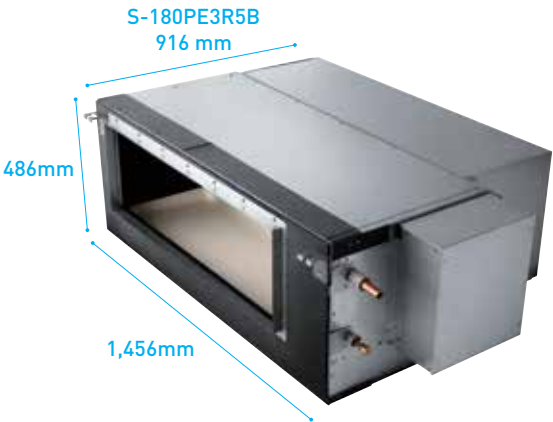
- Easy installation with splittable chassis design
 - Max. 200Pa static pressure setting*
 - Design flexibility thanks to high static pressure and large air volume
 - DC motor equipped
- Low power input
 - Accurate temperature control to reduce cold drafts during operation
 - Configurable air temperature control

* In case of S-224PE3R5B

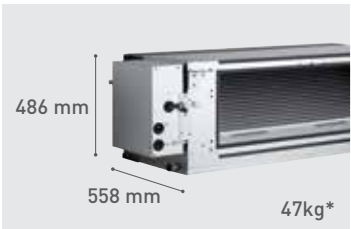
Easy Installation with Light Component

Compared to conventional models, the new Panasonic splittable ducted weighs in at approximately 10%* lighter. This notion is further emphasised by the unit's ability to split into three components, the heaviest of which totals at 48kg.

* Comparison between S-180PE3R5B and S-180PE2R5B

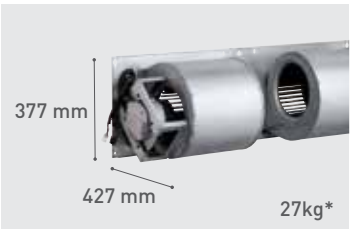


Dimensions of Each Component



Heat Exchanger

*The weight is for the 18.0kW model. (20.0/22.4kW : 48kg)



Fan

*The weight is for the 18.0/20.0kW model. (22.4kW : 29kg)



Fan Casing

Specifications of R32 Deluxe Model

Capacity		18.0kW	20.0kW	22.4kW
Model Name	Indoor Unit	S-180PE3R5B	S-200PE3R5B	S-224PE3R5B
	Outdoor Unit	U-180PZH2R8	U-200PZH2R8	U-224PZH2R8
Cooling capacity :	kW	18.0 (5.5-20.0)	20.0 (5.7-22.4)	22.4 (5.7-25.0)
	BTU/h	61,400 (18,800-68,200)	68,200 (19,400-76,400)	76,400 (19,400-85,300)
Heating capacity	BTU/h	68,200 (18,800-76,400)	76,400 (17,100-85,300)	85,300 (16,700-95,500)
EER : COP	W/W	3.20 : 3.75	3.33 : 3.67	3.09 : 3.52
Total power input	Cooling : Heating kW	5.63 : 5.33	6.00 : 6.10	7.24 : 7.10
Indoor Unit				
Power source	Phase/Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
	V	230V 240V	230V 240V	230V 240V
Current	Cooling : Heating A	3.10 : 3.10 3.00 : 3.00	3.30 : 3.30 3.20 : 3.20	4.20 : 4.20 4.10 : 4.10
Dimensions	H x W x D mm	486 x 1,456 x 916	486 x 1,456 x 916	486 x 1,456 x 916
Heat exchanger	H x W x D mm	486 x 1,456 x 558	486 x 1,456 x 558	486 x 1,456 x 558
Fan	H x W x D mm	377 x 1,150 x 427	377 x 1,150 x 427	377 x 1,150 x 427
Case	H x W x D mm	434 x 1,178 x 360	434 x 1,178 x 360	434 x 1,178 x 360
Net weight	kg	85	86	88
Air volume	Cooling : Heating L/s	1,200 / 1,050 / 883 : 1,200 / 1,050 / 883	1,200 / 1,050 / 883 : 1,200 / 1,050 / 883	1,400 / 1,200 / 983 : 1,400 / 1,200 / 983
External static pressure	Pa	60 (Max.150)	60 (Max.180)	75 (Max.200)
Sound pressure level (H/M/L)	Cooling : Heating dB(A)	46 / 44 / 41 : 46 / 44 / 41	46 / 44 / 41 : 46 / 44 / 41	47 / 45 / 42 : 47 / 45 / 42
Sound power level (H/M/L)	Cooling : Heating dB(A)	78 / 76 / 73 : 78 / 76 / 73	78 / 76 / 73 : 78 / 76 / 73	79 / 77 / 74 : 79 / 77 / 74
Number of fan speeds		3	3	3
Drain pipe size	mm	VP-25	VP-25	VP-25
Outdoor Unit				
Power source	Phase/Hz	3 Phase/ 50Hz	3 Phase/ 50Hz	3 Phase/ 50Hz
	V	400V 415V	400V 415V	400V 415V
Current	Cooling : Heating A	8.00 : 7.55 7.70 : 7.25	8.45 : 8.60 8.15 : 8.30	9.95 : 9.75 9.60 : 9.40
Dimensions	H x W x D mm	1,500 x 980 x 370	1,500 x 980 x 370	1,500 x 980 x 370
Net weight	kg	115	128	128
Air volume	Cooling : Heating L/s	2,733 : 2,733	2,667 : 2,667	2,667 : 2,667
Sound pressure level (Silent mode)	Cooling : Heating dB(A)	58 (56) : 60 (58)	58 (56) : 62 (60)	58 (56) : 62 (60)
Sound power level (Silent mode)	Cooling : Heating dB(A)	76 (74) : 78 (76)	77 (75) : 81 (79)	77 (75) : 81 (79)
Piping connections	Liquid / Gas mm	Ø9.52 / Ø19.05*	Ø12.70 / Ø19.05*	Ø12.70 / Ø19.05*
Pipe length	min. - max. m	5 - 75	5 - 60	5 - 60
Elevation difference (OU located lower, OU located higher)	m	30, 30	30, 30	30, 30
Maximum chargeless length	m	30	30	30
Refrigerant at shipping / Additional gas amount	g	R32 3,400 / 45/60** (g/m)	R32 5,200 / 80 (g/m)	R32 5,200 / 80 (g/m)
Operation ranges	Cooling : Heating °C	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

Notes:
The Rated Capacity, Power Input and Running Current are measured in accordance with AS/NZS 3823
• Cooling: Indoor temperature: 27°C DB/ 19°C WB, Outdoor temperature: 35°C DB/ 24°C WB
• Heating: Indoor temperature: 20°C DB/ 15°C WB, Outdoor temperature: 7°C DB/ 6°C WB

*Tubing size is Ø25.40 when the piping length is over 50m for U-180PZH2R8 and 30m for U-200PZH2R8 and U-224PZH2R8.
Also, joint needs to be prepared by the site for U-180PZH2R8 when the piping length is over 50m. Please refer to technical documents for more details.
**Additional gas amount is 45g/m when the piping length is under 50m and 60g/m when the piping length is over 50m.