



Practical installation guide DX



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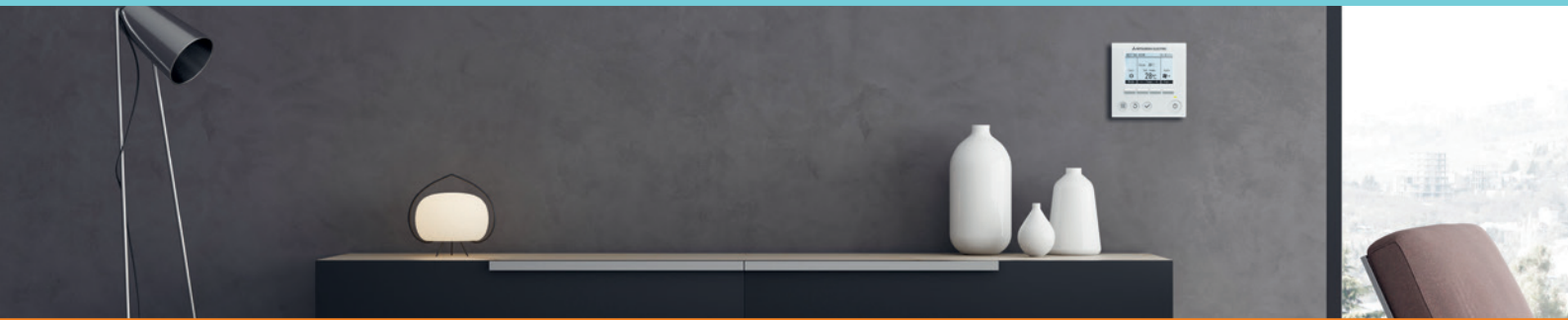
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Residential

M Series

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Multi Split Series

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M SERIES

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SMALL Y COMPACT LINES

RESIDENTIAL MULTI SPLIT

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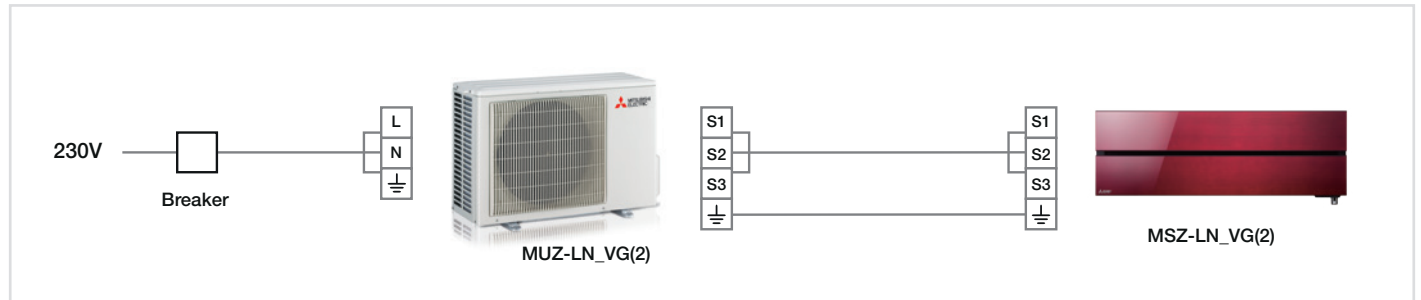
Residential

KIRIGAMINE LINE



MSZ-LN Kirigamine Style

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

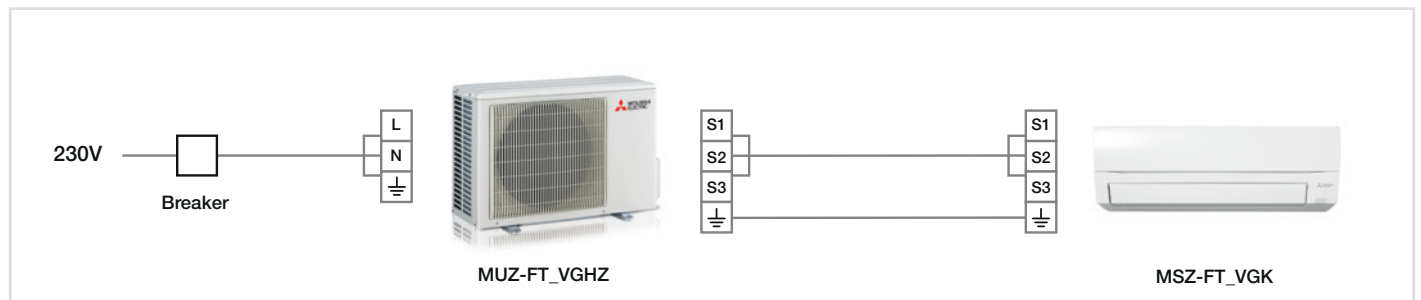


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	1,00 (0,80)	7	20	0,68 (0,54)	0,85 (0,72)	6,8 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	1,00 (0,85)			0,68 (0,58)	0,85 (0,75)	9,6 A	10 A
50	6,35 (1/4")	9,52 (3/8")	12	20 (30)	10	1,25			0,84	1,02	13,5 A	16 A

* VG2 only data

MSZ-FT

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

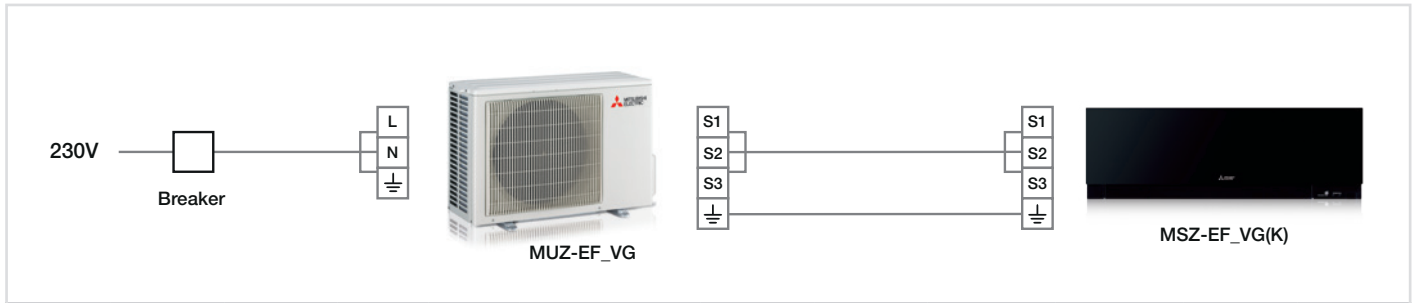


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,85	7,5	20	0,57	0,74	10,0 A	12 A
35	6,35 (1/4")	9,52 (3/8")	15	30	10	0,95			0,64	0,95	13,9 A	16 A
50	6,35 (1/4")	9,52 (3/8")	15	30	10	0,95			0,64	0,95	13,9 A	16 A



MSZ-EF

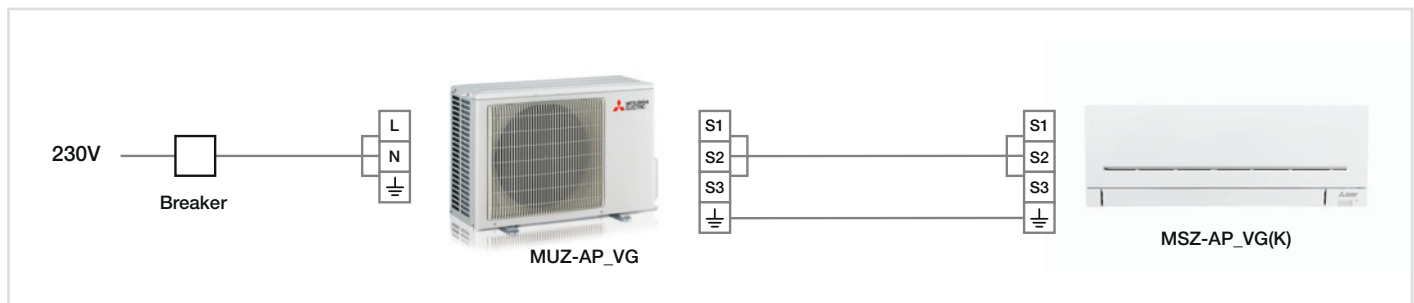
M SERIES - WALL-MOUNTED - DC Inverter/Heat pump



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,55	7	20	0,37	0,55	7,1 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,55			0,37	0,55	7,1 A	10 A
42	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70			0,47	0,65	10 A	10 A
50	6,35 (1/4")	9,52 (3/8")	12	30	10	1,00			0,68	0,99	14 A	16 A

MSZ-AP

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

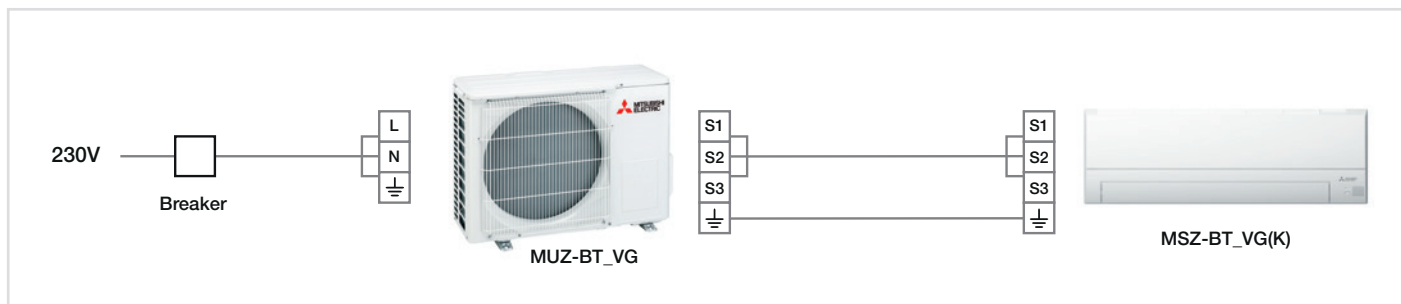


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
15	6,35 (1/4")	9,52 (3/8")	12	20	10	0,19	7	20	0,33	0,50	6,8 A	10 A
20	6,35 (1/4")	9,52 (3/8")	12	20	10	0,55			0,37	0,55	6,8 A	10 A
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,55			0,37	0,55	7,6 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,55			0,37	0,55	8,46 A	10 A
42	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70			0,47	0,65	9,92 A	10 A
50	6,35 (1/4")	9,52 (3/8")	12	20	10	1,00			0,68	0,85	13,6 A	16 A
60	6,35 (1/4")	12,7 (1/2")	15	30	10	1,05	15		0,71	0,91	14,1 A	20 A
71	6,35 (1/4")	12,7 (1/2")	15	30	10	1,50			1,01	1,22	16,4 A	20 A

MSZ-BT

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

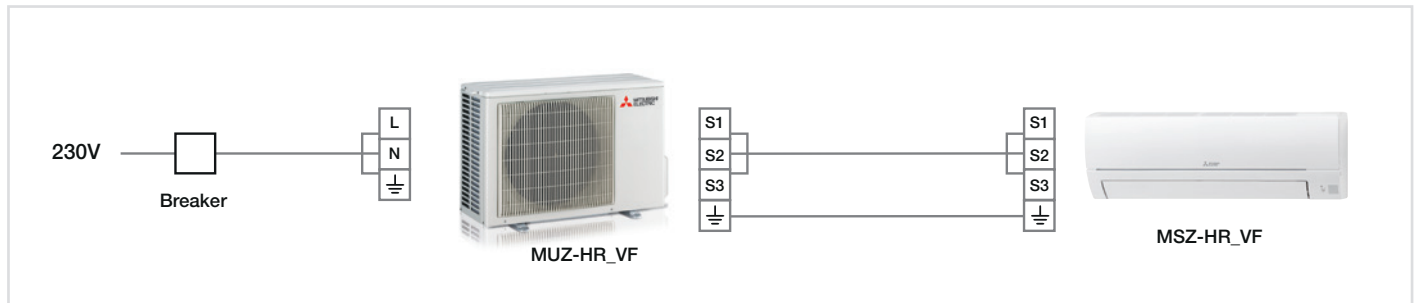
R32



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
20	6,35 (1/4")	9,52 (3/8")	12	20	10	0,45	7	20	0,30	0,30	5,6 A	10 A
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,50			0,34	0,34	7,0 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,50			0,34	0,34	7,0 A	10 A
50	6,35 (1/4")	12,7 (3/8")	12	20	10	0,70			0,47	0,47	10,0 A	12 A

MSZ-HR

M SERIES - WALL MOUNTED UNIT - DC Inverter/Heat Pump



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,40	7	20	0,270	0,446	5,0 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,45			0,304	0,479	6,7 A	10 A
42	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70			0,473	0,648	8,5 A	10 A
50	6,35 (1/4")	9,52 (3/8")	12	20	10	0,80			0,540	0,716	10,0 A	12 A
60	6,35 (1/4")	12,7 (1/2")	15	30	10	1,05			0,709	1,019	13,6 A	16 A
71	6,35 (1/4")	12,7 (1/2")	15	30	10	1,05			0,709	1,019	13,6 A	16 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Indoor/Outdoor unit = MSZ-HR25VF / MUZ-HR25VF

Total pipes length (inlet piping only) = 10 m

Length with additional charge (as tab) = 7 m

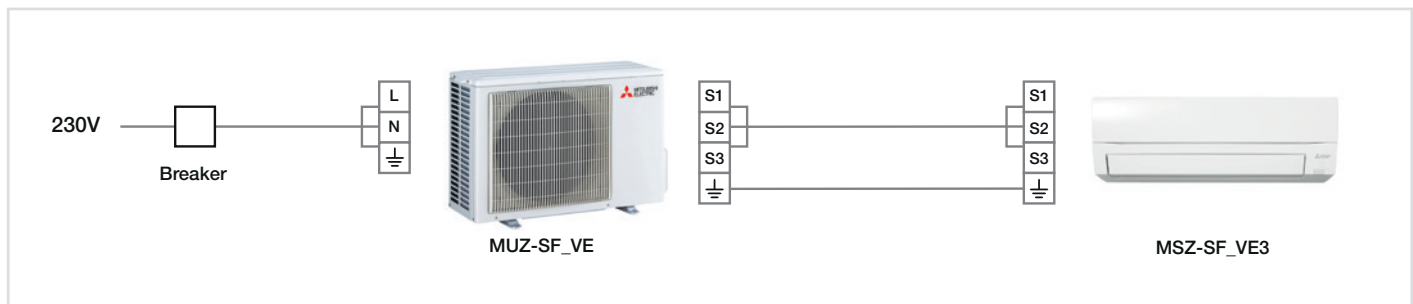
Additional charge = 20 g/m

Calculation: $\Delta W(g) = [10 - 7] \times 20 = 60 \text{ g}$

MSZ-SF

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

R410A

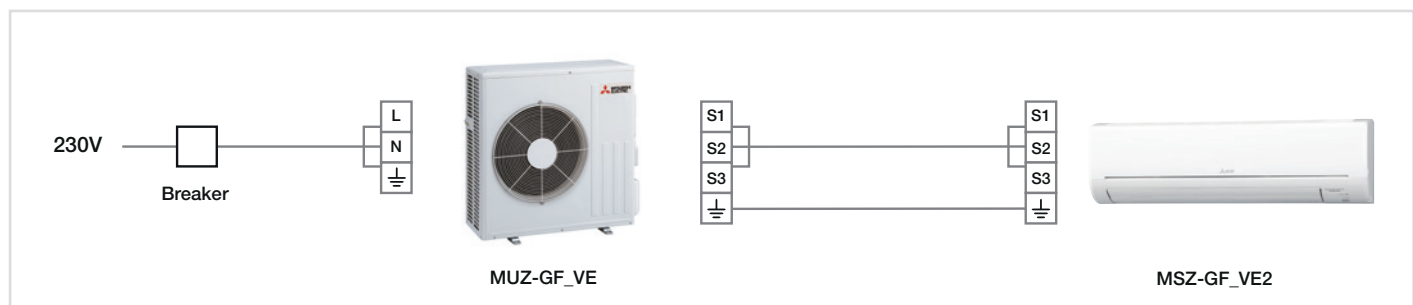


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70	7	20	1,46	2,00	8,4 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,80			1,67	2,21	8,5 A	10 A
42	6,35 (1/4")	9,52 (3/8")	12	20	10	1,15			2,40	2,94	9,5 A	10 A
50	6,35 (1/4")	12,7 (1/2")	15	30	10	1,55			3,24	4,20	12,3 A	16 A

MSZ-GF

M SERIES - WALL-MOUNTED - DC Inverter/Heat pump

R410A

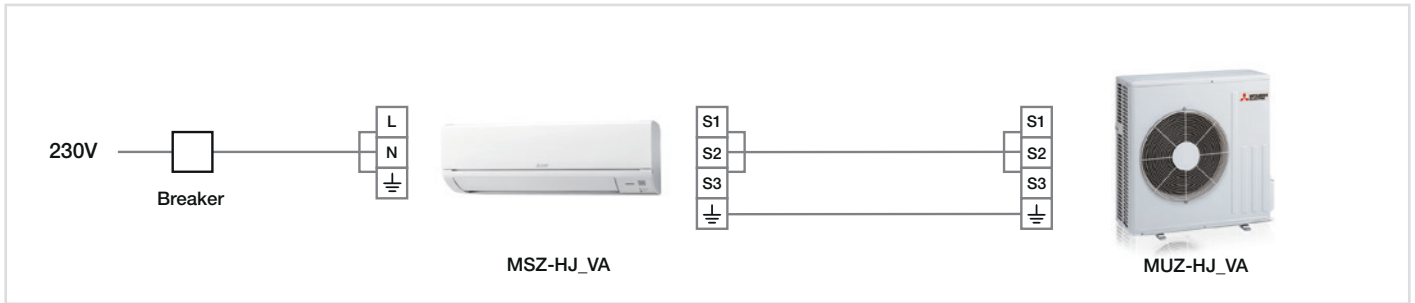


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
60	6,35 (1/4")	15,88 (5/8")	15	30	10	1,55	15	20	3,24	3,86	14,5 A	20 A
71	6,35 (1/4")	15,88 (5/8")	15	30	10	1,90			3,97	4,59	16,6 A	20 A

MSZ-HJ

M SERIES - WALL MOUNTED - DC Inverter/Heat Pump

R410A

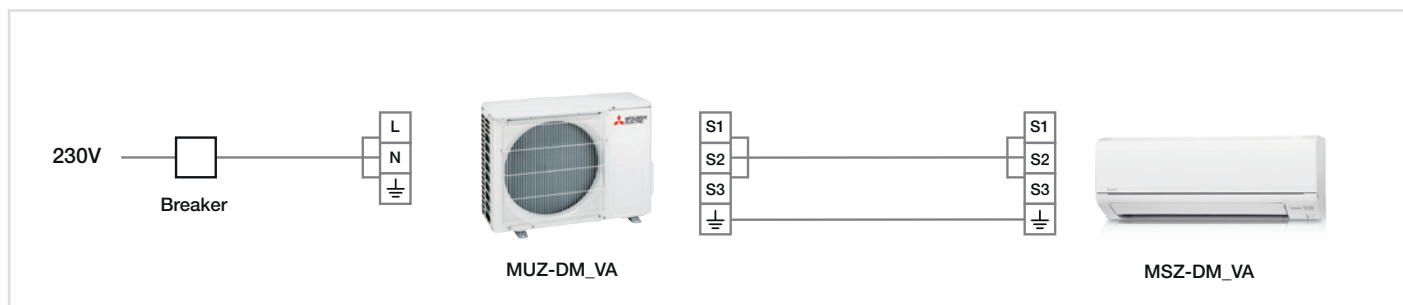


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70	7	20	1,462	2,004	5,8 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,72			1,503	2,046	6,5 A	10 A
50	6,35 (1/4")	12,7 (1/2")	12	20	10	1,15			2,401	2,944	9,8 A	12 A
60	6,35 (1/4")	15,88 (5/8")	15	30	10	1,80			3,758	4,719	12,5 A	16 A
71	6,35 (1/4")	15,88 (5/8")	15	30	10	1,80			3,758	4,719	12,5 A	16 A

MSZ-DM

M SERIES - WALL MOUNTED - DC Inverter/Heat Pump

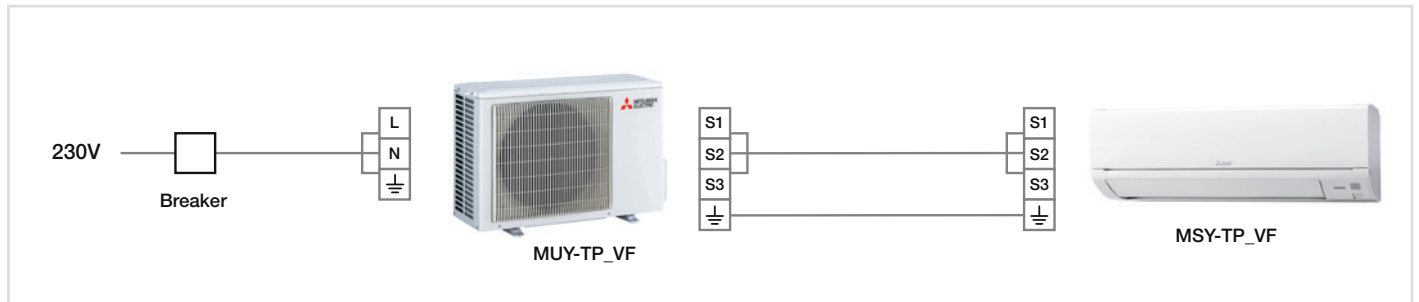
R410A



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,70	7	20	1,462	2,004	5,8 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,72			1,503	2,046	6,5 A	10 A

MSY-TP

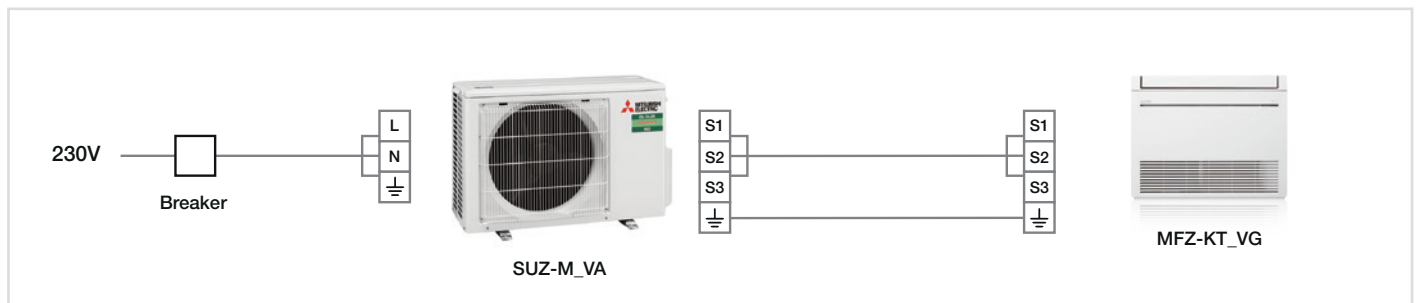
M SERIES - WALL-MOUNTED - Cooling only



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,85	7	20	0,57	0,75	9,6 A	10 A
50	6,35 (1/4")	9,52 (3/8")	12	20	10	0,85			0,57	0,75	9,6 A	10 A

MFZ-KT

M SERIES - FLOOR STANDING - DC Inverter/Heat Pump

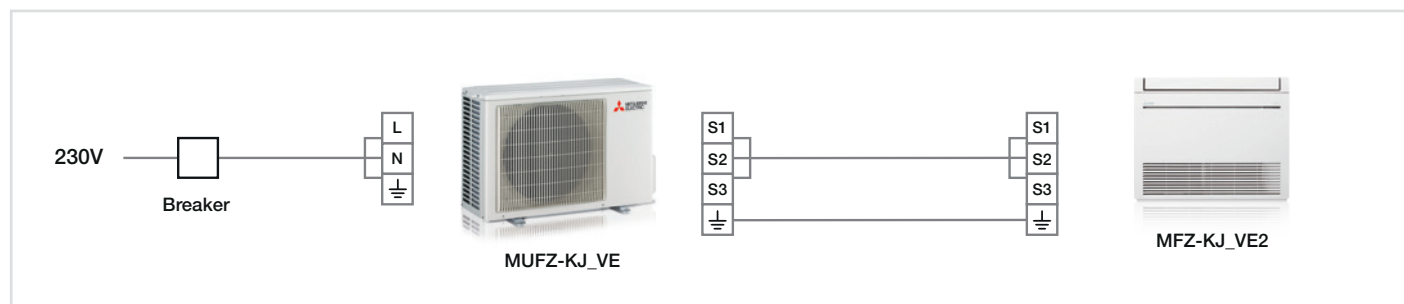


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,65	7	20	0,44	0,61	7,0 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,90			0,61	0,78	8,7 A	10 A
50	6,35 (1/4")	12,7 (1/2")	30	30	10	1,20			0,81	1,12	14,0 A	20 A

MFZ-KJ

M SERIES - FLOOR STANDING - DC Inverter/Heat Pump

R410A

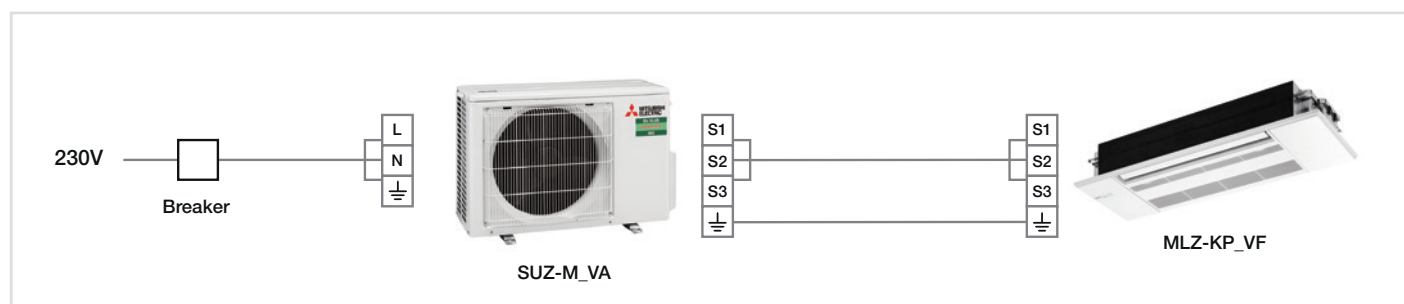


SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	1,10	7	30	2,29	3,11	9,4 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	1,10			2,29	3,11	9,4 A	10 A
50	6,35 (1/4")	12,7 (1/2")	15	30	10	1,50		20	3,13	4,09	14,0 A	16 A

MLZ-KP

M SERIES - CEILING SUSPENDED UNIT - DC Inverter/Heat Pump

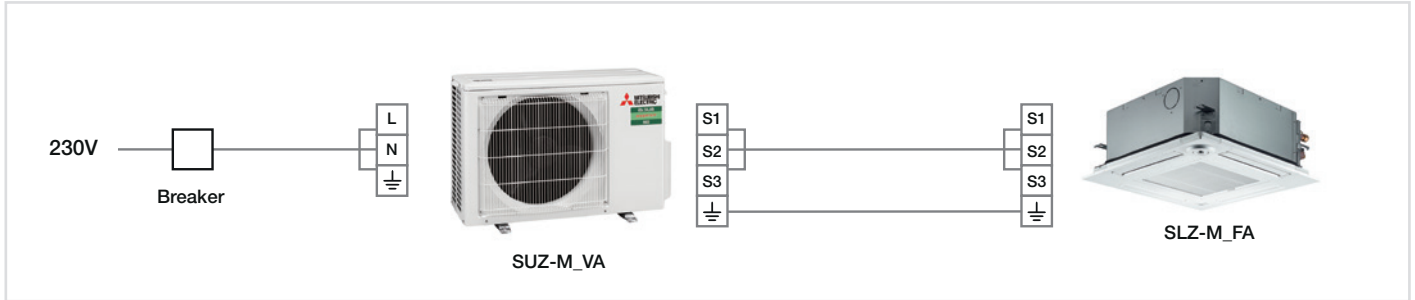
R32



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,65	7	20	0,44	0,61	7,2 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,90			0,61	0,78	8,9 A	10 A
50	6,35 (1/4")	12,7 (1/2")	30	30	10	1,20			0,81	1,12	13,9 A	20 A

SLZ-M

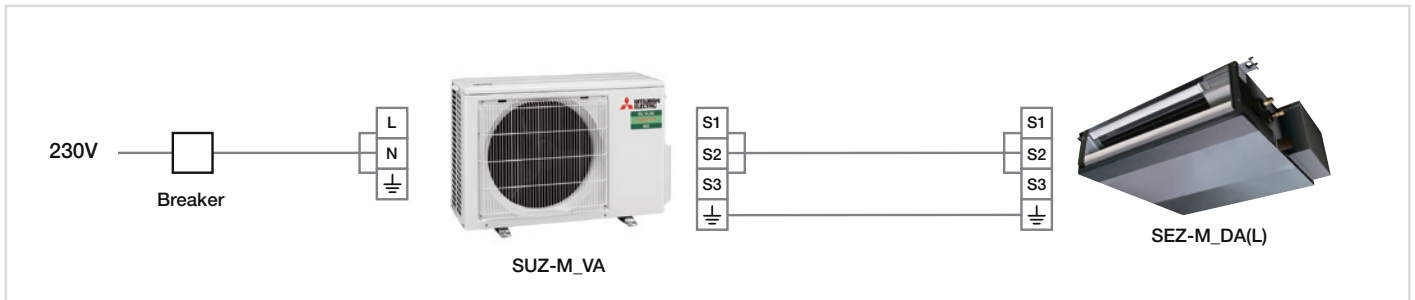
S SERIES - 4 WAY CASSETTE 60X60 - DC Inverter/Heat Pump



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,65	7	20	0,44	0,61	7,0 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,90			0,61	0,78	8,7 A	10 A
50	6,35 (1/4")	12,7 (1/2")	30	30	10	1,20			0,81	1,12	13,7 A	20 A
60	6,35 (1/4")	15,88 (5/8")	30	30	10	1,25			0,84	1,15	15,1 A	20 A

SEZ-M

S SERIES - COMPACT DUCTED UNIT - DC Inverter/Heat Pump



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge*	Operating current max	Breaker
25	6,35 (1/4")	9,52 (3/8")	12	20	10	0,65	7	20	0,44	0,61	7,2 A	10 A
35	6,35 (1/4")	9,52 (3/8")	12	20	10	0,90			0,61	0,78	9,0 A	10 A
50	6,35 (1/4")	12,7 (1/2")	30	30	10	1,20			0,81	1,12	14,2 A	20 A
60	6,35 (1/4")	15,88 (5/8")	30	30	10	1,25			0,84	1,15	15,5 A	20 A
71	9,52 (3/8")	15,88 (5/8")	30	30	10	1,45		40	0,98	1,60	15,7 A	25 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor/indoor unit = MSZ-LN50VG2 / MUZ-LN50VG2

Total pipes length (inlet piping only) = 25 m

Length with additional charge (as tab) = 7 m

Additional charge = 20 g/m

Calculation: $\Delta W(g) = [25 - 7] \times 20 = 360 g$

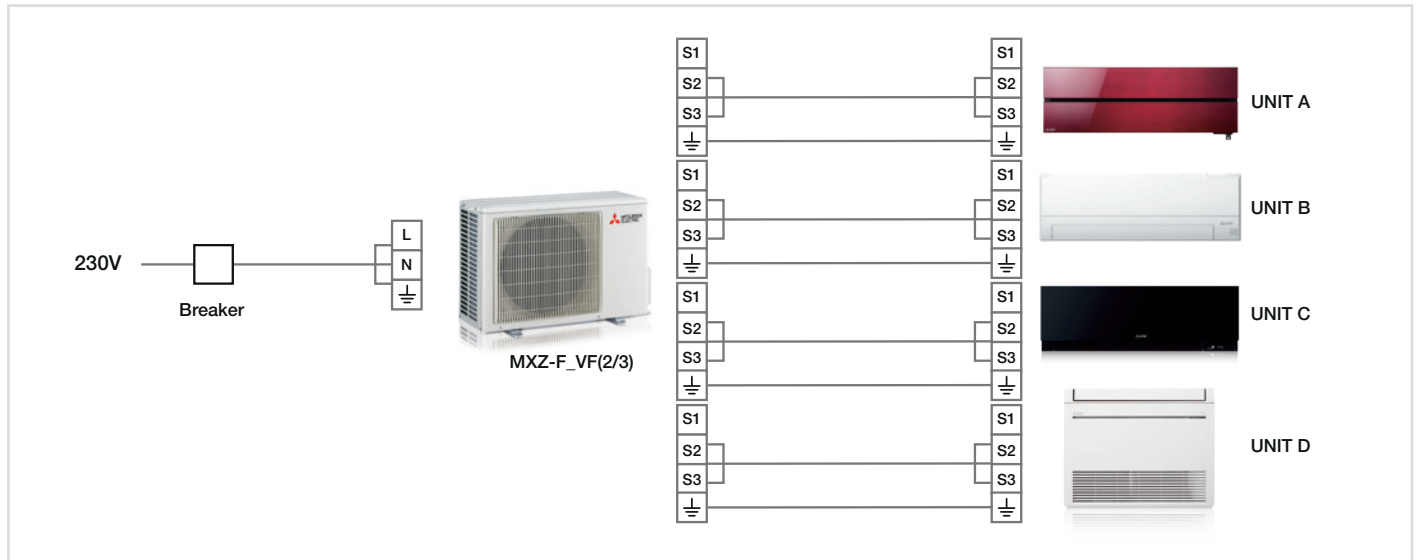
MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT			
UNIT		Max charge (kg)	Min Area (m²)
INDOOR	OUTDOOR		
MSZ HR VF	25	0,66	0,41
	35	0,71	0,48
	42	0,96	0,87
	50	1,06	1,06
	60	1,31	1,62
	71	1,31	1,62

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT			
UNIT		Max charge (kg)	Min Area (m²)
INDOOR	OUTDOOR		
MSZ LN VG	25	1,26	no limitation
	35	1,26	no limitation
	50	1,51	no limitation
MSZ LN VG2	25	1,06	no limitation
	35	1,06	no limitation
	50	1,51	no limitation
MSZ-FT VGK	25	1,11	no limitation
	35	1,41	no limitation
	50	1,41	no limitation
MYZ-TP	35	1,11	no limitation
	50	1,11	no limitation
MSZ-EF VG(K)	25	0,81	no limitation
	35	0,81	no limitation
	42	0,96	no limitation
	50	1,26	no limitation
MSZ-AP VG(K)	20	0,81	no limitation
	25	0,81	no limitation
	35	0,81	no limitation
	42	0,96	no limitation
	50	1,26	no limitation
	60	1,31	no limitation
	71	1,76	no limitation
MSZ BT VG(K)	20	0,71	no limitation
	25	0,76	no limitation
	35	0,76	no limitation
MFZ KT VG	25	0,91	no limitation*
	35	1,16	no limitation*
	50	1,46	no limitation*
MLZ KP VF	25	0,91	no limitation
	35	1,16	no limitation
	50	1,46	no limitation
SLZ M FA	25	0,91	no limitation
	35	1,16	no limitation
	50	1,46	no limitation
	60	1,51	no limitation
SEZ M DA	25	0,91	no limitation
	35	1,16	no limitation
	50	1,46	no limitation
	60	1,51	no limitation
	71	1,97	2,46

* Leakage sensor

MXZ-F

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat Pump - 2 to 6 ports



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE				ELECTRICAL DATA		
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length	Max Pipe Bends	Pre-charge Kg	Pre-charge length mt.	Additional charge g/mt	tonCO ₂ eq max charge	Operating current max	Breaker	
MXZ-2F33VF2(3)	TAB.		10	15/20	15/20	1	20	-	0,68	10,00	15 A	
MXZ-2F42VF2(3)			15	20/30	20/30	1,2	30	-	0,81	12,20	15 A	
MXZ-2F53VF2(3)			15	20/30	20/30	1,2	30	-	0,81	18,00	15 A	
MXZ-2F53VFHZ			15	20/30	20/30	2,4	30	-	1,62	18,00	16 A	
MXZ-3F54VF			15	25/50	25/50	1,4	TAB.			0,95	18,00	25 A
MXZ-3F68VF			15	25/60	25/60	1,4				0,95	18,00	25 A
MXZ-4F72VF			15	25/60	25/60	1,4				0,95	18,00	25 A
MXZ-3F54VF2(3)			15	25/50	25/50	2,4	50	-	1,62	18,00	25 A	
MXZ-3F68VF2(3)			15	25/60	25/60	2,4	60	-	1,62	18,00	25 A	
MXZ-4F72VF2(3)			15	25/60	25/60	2,4	60	-	1,62	18,00	25 A	
MXZ-4F80VF2(3)			15	25/60	25/60	2,4	60	-	1,62	18,00	25 A	
MXZ-4F83VFHZ			15	25/70	25/70	2,4	70	-	1,62	21,4	30 A	
MXZ-4F83VF			15	25/60	25/70	2,4	70	-	1,62	21,4	25 A	
MXZ-5F102VF			15	25/80	25/80	2,4	80	-	1,62	21,4	25 A	
MXZ-6F122VF			15	25/80	25/80	2,4	80	-	1,62	29,8	32 A	

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT																
UNIT	2F33 VF(2)		2F42/2F53 VF(2)		2F33 VF3		2F42/2F53 VF3		2F53_VFHZ/3F54/3F68		4F72/4F80		4F83 VF/VFHZ		5F102/6F122	
Indoor Type	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)	Max charge (kg)	Min Area (m ²)
WALL MOUNTED	1	no limitation	1,20	no limitation	0,8	no limitation	1,00	no limitation	2,40	5,45	2,40	5,45	2,40	5,45	2,40	5,45
FLOOR STANDING	1	no limitation*	1,20	no limitation*	0,8	no limitation*	1,00	no limitation*	2,40	4,74*	2,40	4,74*	2,40	4,74*	2,40	4,74*
CEILING - DUCTED	1	no limitation	1,20	no limitation	0,8	no limitation	1,00	no limitation	2,40	3,65	2,40	3,65	2,40	3,65	2,40	3,65

* Leakage sensor

MXZ-F

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat pump - 2 to 6 ports



External piping diameter

CONNECTIONS		MXZ-2F	MXZ-3F	MXZ-4F	MXZ-5F	MXZ-6F
Unit A	Liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Unit B	Liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit C	Liquid	-	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	-	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit D	Liquid	-	-	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	-	-	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit E	Liquid	-	-	-	6,35 (1/4")	6,35 (1/4")
	Gas	-	-	-	9,52 (3/8")	9,52 (3/8")
Unit F	Liquid	-	-	-	-	6,35 (1/4")
	Gas	-	-	-	-	9,52 (3/8")

M Series

Internal piping diameter

SIZE	DIAMETER	
15/20/22/25/35/42	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
50	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
60	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")
71	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")

S Series

Internal piping diameter

SIZE	DIAMETER	
15/20/22/25/35/42	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
50	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")
60	Liquid	6,35 (1/4")
	Gas	15,88 (5/8")
71	Liquid	9,52 (3/8")
	Gas	15,88 (5/8")

P Series

Internal piping diameter

SIZE	DIAMETER	
60	Liquid	6,35 (1/4")
	Gas	15,88 (5/8")
71	Liquid	9,52 (3/8")
	Gas	15,88 (5/8")

Refrigerant additional precharge*

OUTDOOR UNIT	PRECHARGE	NUMBER OF CONNECTED INDOOR UNITS	NUMBER OF INDOOR SPECIAL UNITS CONNECTED	ADDITIONAL CHARGE
MXZ-3F53VF MXZ-3F68VF MXZ-4F72VF	1,4 kg	2	0	0 kg
			1	0,17 kg
			2	0,34 kg
		3	0	0,50 kg
			1	0,67 kg
			2	0,84 kg
MXZ-4F72VF	1,4 kg	4	3	1 kg
			0	0,5 kg
			1	0,67 kg
			2	0,84 kg
			3	1 kg
		4	1 kg	

SPECIAL UNITS
MSZ-LN25/35VG
MLZ-KP25/35/50VF
SEZ-M50/60/71DAL
PCA-M50/60KA
PEAD-M50/60JA

* VF2 e VF3 series units don't need additional charge

MXZ-F

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat pump - 2 to 6 ports



Indoor units connection table

			Wall-mounted														Ceiling cassette			Floor standing			4 Way Cassette			Ceiling concealed						Ceiling susp.									
Max connectable capacity	OUTDOOR UNIT	Kirigamine Style	Kirigamine Zen					Plus line														60x60			Compact						PEAD-M JA*		PCA-M KA								
			MSZ-LN			MSZ-EF					MSZ-AP						MSZ-BT			MLZ-KP			MFZ-KT			SLZ-M			SEZ-M												
			25	35	50*	18	22	25	35	42	50	15	20	25	35	42	50	60	71	20	25	35	25	35	50	25	35	50	25	35	50	25	35	50	60	71	50	60	50	60	
2	50	MXZ-2F33VF2(3)	•			•	•	•									•	•	•	•			•			•			•			•									
	60	MXZ-2F42VF2(3)	•	•		•	•	•	•								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	75	MXZ-2F53VF2(3)	•	•	•	•	•	•	•	•							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	75	MXZ-2F53VFHZ	•*	•*	•*	•	•	•	•	•	•						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
3	100	MXZ-3F54VF2(3)	•	•	•	•	•	•	•	•	•						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	120	MXZ-3F68VF2(3)	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
4	125	MXZ-4F72VF2(3)	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	125	MXZ-4F80VF2(3)	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	145	MXZ-4F83VF	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	145	MXZ-4F83VFHZ	•*	•*	•*	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
5	172	MXZ-5F102VF	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
6	180	MXZ-6F122VF	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								

* VG2 only
 ** See the following tab.

Connectability between PEAD-M ceiling concealed indoor units and MXZ multi split outdoor units

Total amount of indoor units electrical input must be lower than 3A.

Max electrical input of indoor units connectable to MXZ multi split outdoor units:

INDOOR UNIT MODEL	15	18	20	22	25	35	42	50	60	71
MSZ-LN	-	-	-	-	0,30	0,30	-	0,40	-	-
MSZ-EF	-	0,30	-	0,30	0,30	0,30	0,40	0,40	-	-
MSZ-AP	0,17	-	0,19	-	0,30	0,30	0,30	0,30	0,43	0,40
MSZ-BT	-	-	0,25	-	0,25	0,31	-	-	-	-
MFZ-KT	-	-	-	-	0,20	0,20	-	0,45	-	-
MLZ-KP	-	-	-	-	0,40	0,40	-	0,40	-	-
SLZ-M	-	-	-	-	0,17	0,20	-	0,24	0,32	-
SEZ-M	-	-	-	-	0,40	0,50	-	0,70	0,70	0,90
PCA-M	-	-	-	-	-	-	-	0,37	0,39	-
PEAD-M	-	-	-	-	-	-	-	1,39	1,62	1,97

Example

MXZ-3F54VF2 maximum connectable capacity	100
Indoor units conncted	MSZ-AP20VG
	MSZ-AP25VG
	PEAD-M50JA
Connected indoor units capacity	(20+25+50) = 95 < 100
Electrical input	MSZ-AP20VG =0,19A
	MSZ-AP25VG =0,30A
	PEAD-M50JA =1,39A
Total input of connected indoor units	0,19+0,30+1,39 = 1,88 < 3

MXZ-F

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat pump - 2 to 6 ports



LOW STANDBY MODE POWER

Outdoor unit			LOW STANDBY MODE?
Ports number	Size	Series	
2 ports	MXZ-2F33	VF	DEACTIVATED
	MXZ-2F42	VF2	DEACTIVATED
	MXZ-2F53	VF3	DEACTIVATED
3/4 ports	MXZ-3F54	VF	ACTIVATED
	MXZ-3F68	VF2	ACTIVATED
	MXZ-4F72	VF3	DEACTIVATED
4 ports	MXZ-4F80	VF2	ACTIVATED
		VF3	DEACTIVATED
	MXZ-4F83	VF	DEACTIVATED
5 ports	MXZ-5F102	VF	DEACTIVATED
6 ports	MXZ-6F122	VF	DEACTIVATED

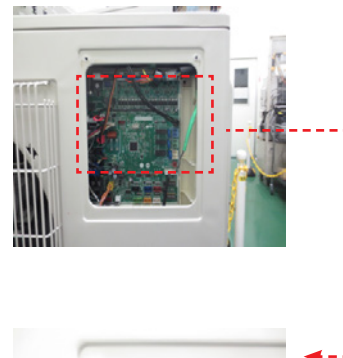
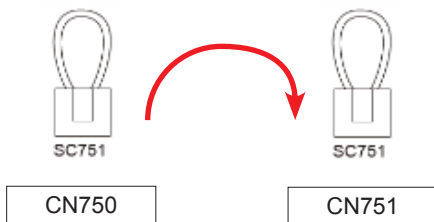
If LOW STANDBY MODE is ACTIVATED it's necessary to deactivate it when following indoor units are connected

MSZ-AP15/20VF
MLZ-KP25/35/50VF
SLZ- 25/35/50FA
PEAD50JA
SEZ-M25/35/50/60DAL
PCA-M50/60KA

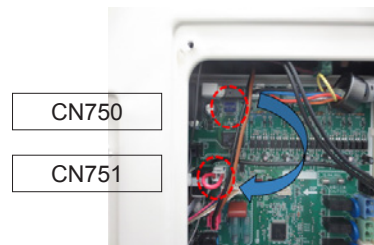
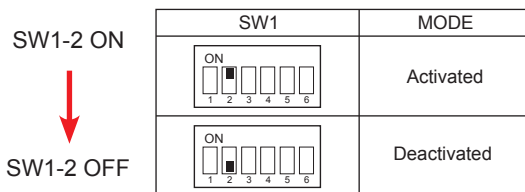
If LOW STANDBY MODE is ACTIVATED while this kind of units are connected, the system doesn't work (LED blinking)

Low Standby Mode Power deactivation procedure:

1. Reach the outdoor unit's PC board (without voltage).
2. Move the jumper SC751 from CN750 to CN751

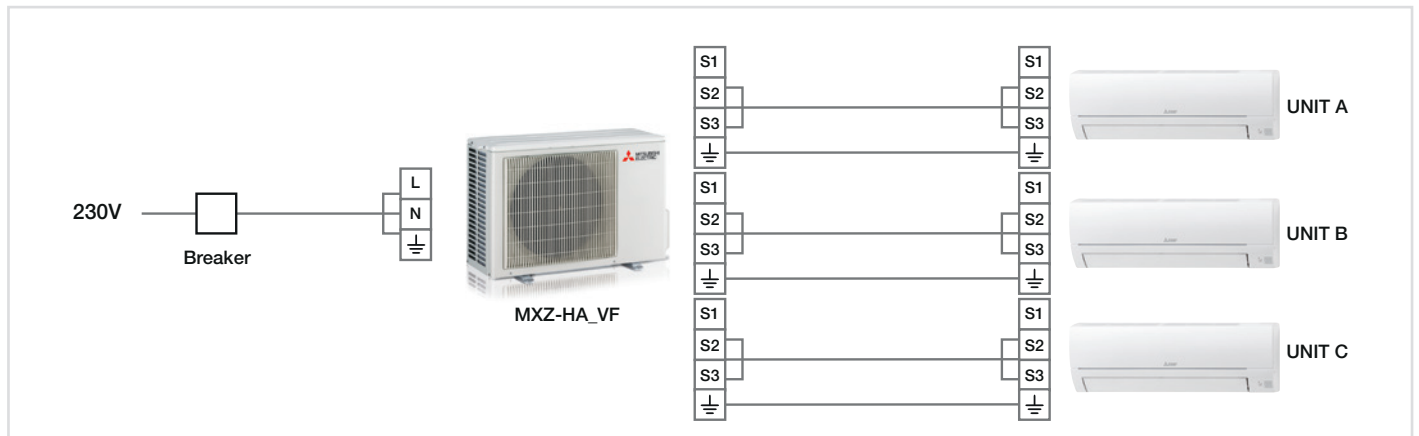


3. Switch SW1-2 from ON to OFF



MXZ-HA

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat Pump



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					BREAKER
	Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	
MXZ-2HA40VF	Vedi tabella		15	20/30	20/20	0,9	30	-	0,61	0,61	15 A
MXZ-2HA50VF			15	20/30	20/30	0,9	30	-	0,61	0,61	15 A
MXZ-3HA50VF			15	25/50	25/50	1,4	7	20	0,95	1,53	25 A

External piping diameter

CONNECTIONS		MXZ-2HA	MXZ-3HA
Unit A	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit B	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit C	Liquid	-	6,35 (1/4")
	Gas	-	9,52 (3/8")

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = MXZ-3HA50VA

Total pipes length (inlet piping only) = 20 m

Length with additional charge (as tab) = 7 m

Additional charge = 20 g/m

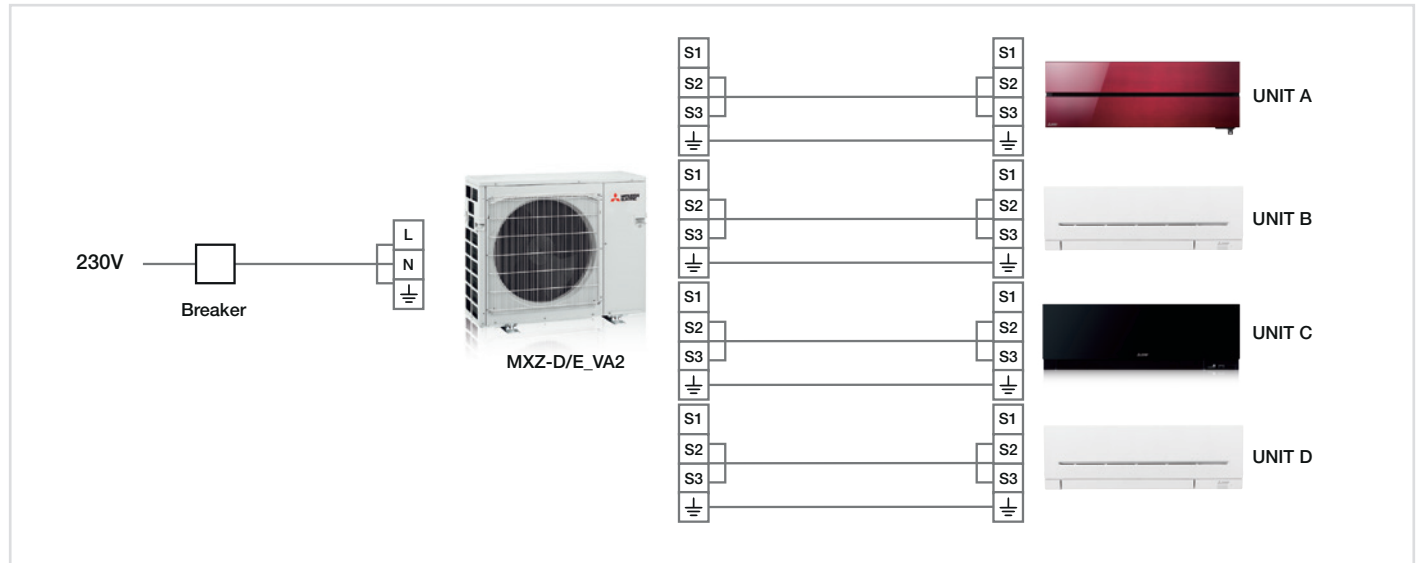
Calculation: $\Delta W(g) = [20 - 7] \times 20 = 260 \text{ g}$

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT		
UNIT	Max charge (kg)	Min Area (m ²)
INDOOR		
MXZ-2HA40VF	0,90	0,77
MXZ-2HA50VF	0,90	0,77
MXZ-3HA50VF	2,26	4,83

MXZ-D/E

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat Pump - 2 to 6 ports

R410A



SIZE	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					BREAKER
	Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length	Max Pipe Bends	Precharge Kg	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge	tonCO ₂ eq max charge	
MXZ-2D33VA	TAB.		10	15/20	15/20	1,15	20	20	0,78	0,78	15 A
MXZ-2D42VA			15	20/30	20/30	1,30	20		0,88	1,01	15 A
MXZ-2D53VA			15	20/30	20/30	1,30	20		0,88	1,01	15 A
MXZ-3E54VA			15	25/50	25/50	2,70	40		1,82	1,96	25 A
MXZ-3E68VA			15	25/60	25/60	2,70	40		1,82	2,09	25 A
MXZ-4E72VA			15	25/60	25/60	2,70	40		1,82	2,09	25 A
MXZ-4E83VA			15	25/70	25/70	2,99	25		2,02	2,63	25 A
MXZ-5E102VA			15	25/80	25/80	2,99	0		2,02	3,10	25 A
MXZ-6D122VA2			15	25/80	25/80	4,00	30		2,70	3,38	25 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = MXZ-3E68VA

Total pipes length (inlet piping only) = 45 m

Length with additional charge (as tab) = 40 m

Additional charge = 20 g/m

Calculation: $\Delta W(g) = [45 - 40] \times 20 = 100 \text{ g}$

MXZ-D/E

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat Pump - 2 to 6 ports

R410A

External piping diameter

CONNECTIONS		MXZ-2D	MXZ-3E	MXZ-4E	MXZ-5E	MXZ-6D
Unit A	Liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Unit B	Liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit C	Liquid	-	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	-	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit D	Liquid	-	-	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Gas	-	-	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Unit E	Liquid	-	-	-	6,35 (1/4")	6,35 (1/4")
	Gas	-	-	-	9,52 (3/8")	9,52 (3/8")
Unit F	Liquid	-	-	-	-	6,35 (1/4")
	Gas	-	-	-	-	9,52 (3/8")

M Series

Internal piping diameter

SIZE	DIAMETER	
15/20/22/25/35/42	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
50	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
60	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")
71	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")

S Series

Internal piping diameter

SIZE	DIAMETER	
15/20/22/25/35/42	Liquid	6,35 (1/4")
	Gas	9,52 (3/8")
50	Liquid	6,35 (1/4")
	Gas	12,7 (1/2")
60	Liquid	6,35 (1/4")
	Gas	15,88 (5/8")
71	Liquid	9,52 (3/8")
	Gas	15,88 (5/8")

P Series

Internal piping diameter

SIZE	DIAMETER	
60	Liquid	6,35 (1/4")
	Gas	15,88 (5/8")
71	Liquid	9,52 (3/8")
	Gas	15,88 (5/8")

MXZ-D/E

MXZ SERIES - MULTI SPLIT - DC Inverter/Heat Pump - 2 to 6 ports

R410A

Indoor units combination

		Wall-mounted																		Ceiling cassette			Floor standing			4 Way Cassette						Ceiling concealed						Ceiling susp.											
Max connectable capacity	MODEL	Kirigamine Style			Kirigamine Zen						Linea Plus												60 x 60			90 x 90			Compact						PEAD-M JA**			PCA-M KA											
		MSZ-LN			MSZ-EF_VG						MSZ-SF						MSZ-AP						MSZ-GF			MFZ-KJ			MLZ-KA(P)			SLZ-KF(M)			PLA-RP EA			SEZ-KD(M)											
		25	35		18	22	25	35	42	50	15	20	25	35	42	50	15	20	25	35	42	50	60	71	25	35	50	25	35	50	25	35	50	50	60	71	25	35	50	60	71	50	60	71	50	60	71		
2	50	MXZ-2D33VA	•							•	•	•				•	•	•							•												•												
	60	MXZ-2D42VA2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•										
	75	MXZ-2D53VA2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•										
3	100	MXZ-3E54VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							
	120	MXZ-3E68VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							
4	125	MXZ-4E72VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							
	145	MXZ-4E83VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							
5	172	MXZ-5E102VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							
6	180	MXZ-6D122VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•							•	•	•	•	•	•							

* VG2 only

** See the following tab.

Compatibility between PEAD-M ducted indoor units and MXZ multi split outdoor units

The sum of the absorption of the indoor units must always be less than 3 A.

List of the maximum electrical absorption of the indoor units that can be connected to the MXZ multi split:

MODEL	15	18	20	22	25	35	42	50	60	71
MSZ-LN	-	-	-	-	0,30	0,30	-	0,40	-	-
MSZ-EF	-	0,30	-	0,30	0,30	0,30	0,40	0,40	-	-
MSZ-AP	0,17	-	0,19	-	0,30	0,30	0,30	0,30	-	-
MFZ-KJ	-	-	-	-	0,17	0,17	-	0,34	-	-
MLZ-KP	-	-	-	-	0,40	0,40	-	0,40	-	-
SLZ-M	-	-	-	-	0,17	0,20	-	0,24	0,32	-
SEZ-M	-	-	-	-	0,40	0,50	-	0,70	0,70	0,90
PCA-M	-	-	-	-	-	-	-	0,37	0,39	-
PEAD-M	-	-	-	-	-	-	-	1,39	1,62	1,97

Example

MXZ-3E54VA maximum connectable capacity	100
Indoor units connected	MSZ-AP20VG
	MSZ-AP25VG
	PEAD-M50JA
Connected indoor unit capacity	$(20+25+50) = 95 < 100$
Electrical consumption	MSZ-AP20VG =0,19A
	MSZ-AP25VG =0,30A
	PEAD-M50JA =1,39A
Total consumption	$0,19+0,30+1,39 = 1,88 < 3$

PUMY-P

Y SERIES- DC Inverter/Heat Pump

R410A

SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					BREAKER
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	
112	PUMY-P	9,52 (3/8")	15,88 (5/8")	TAB.			4,80	0	TAB.	10,02	47,61	32 A / 16 A
125							4,80			10,02	47,61	32 A / 16 A
140							4,80			10,02	47,61	32 A / 16 A
200			7,30				15,24			47,61	25 A	
			19,05(3/4")									

Refrigerant piping diameter in section from branch box to indoor unit

INDOOR UNIT SERIES	MODEL NUMBER	A LIQUID PIPE	B GAS PIPE
M series or S series	15 to 42	Ø6.35	Ø9.52
	50	Ø6.35	Ø12.7
	60	Ø6.35	Ø15.88
	71	Ø9.52	Ø15.88
P series	35,50	Ø6.35	Ø12.7
	60 to 100	Ø9.52	Ø15.88

Refrigerant piping diameter in section from branch box to branch box

LIQUID LINE	GAS LINE
9,52 (3/8")	15,88 (5/8")

PUMY-P 112/125/140

LIQUID PIPES SECTION 6,35 (1/4")	+	LIQUID PIPES SECTION 9,52 (3/8")	+	INDOOR CONNECTED CONNECTED TOTAL POWER	AMOUNT OF REFRIGERANT TO ADD
meters x 19 g/m		meters x 50 g/m		up to 8 kW	1,5 kg
				8,1 kW to 16,0 kW	2,5 kg
				over 16,1 kW	3,0 kg

PUMY-P 200

LIQUID PIPES SECTION 6,35 (1/4")	+	LIQUID PIPES SECTION 9,52 (3/8")	+	LIQUID PIPES SECTION 12,7 (1/2")	+	INDOOR CONNECTED CONNECTED TOTAL POWER	AMOUNT OF REFRIGERANT TO ADD
meters x 19 g/m		meters x 50 g/m		meters x 92 g/m		up to 16 kW	2,5 kg
						16,1 kW to 25,0 kW	3,0 kg
						over 25,1 kW	3,5 kg

Branch box connection section*

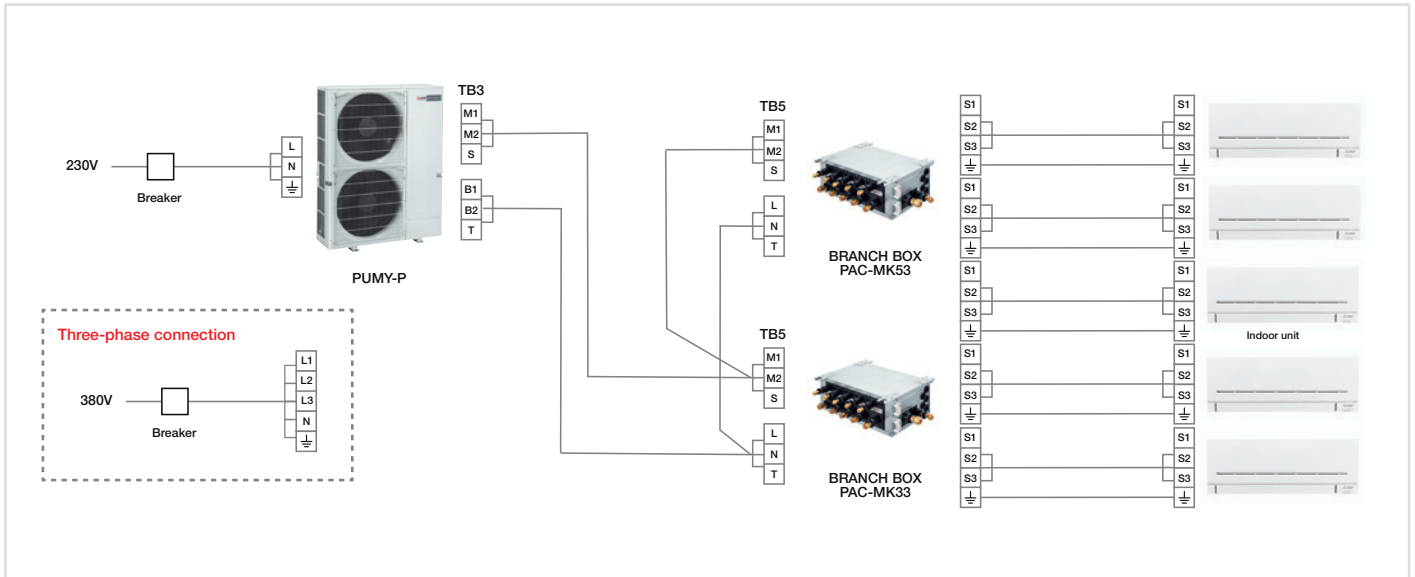
Connection		PAC-MK53BC	PAC-MK33BC
Unit A	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit B	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit C	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit D	Liquid	6,35 (1/4")	-
	Gas	9,52 (3/8")	-
Unit E	Liquid	6,35 (1/4")	-
	Gas	12,7 (1/2")	-

*Pipes diameter have to coincide with the indoor units pipes diameter.. Any reduction will be made on the Branch Box.

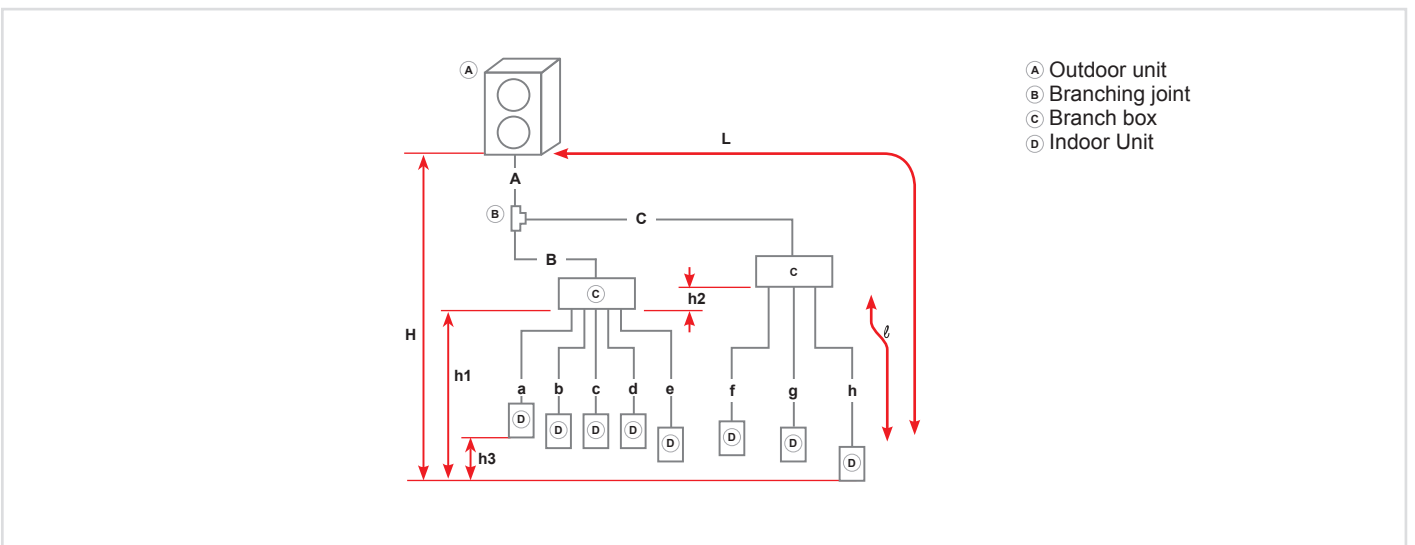
PUMY-P

Y SERIES - DC Inverter/Heat Pump

R410A



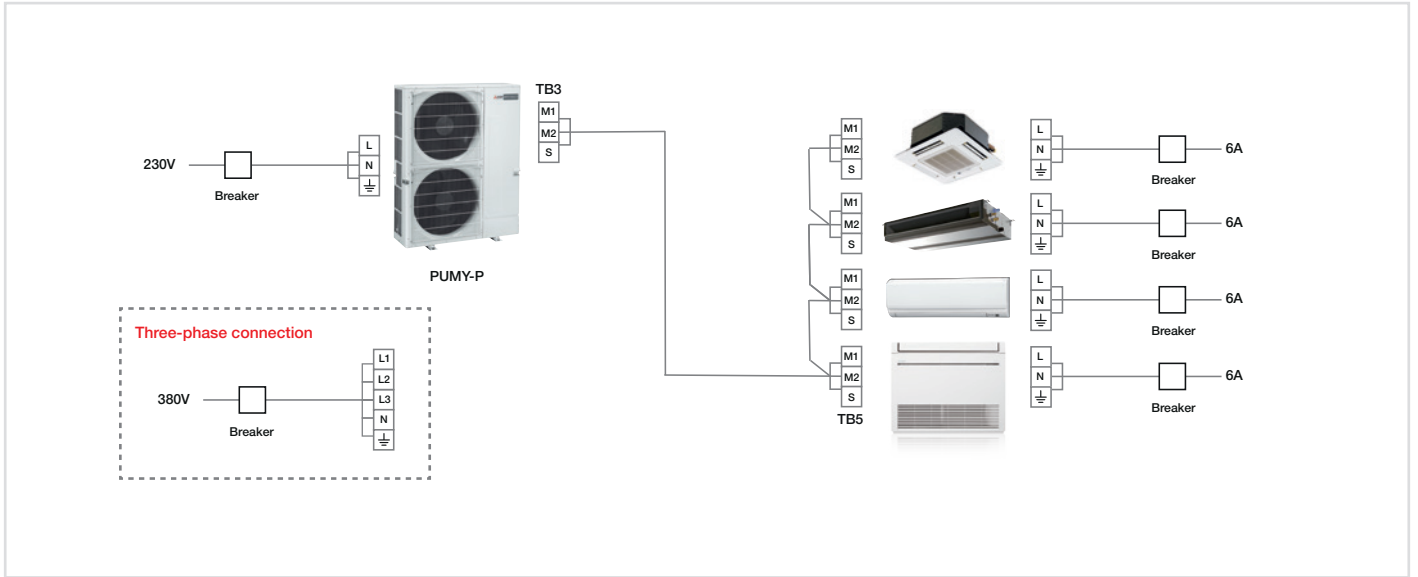
Permissible length (One-way)	Total piping length	$A + B + C + a + b + c + d + e + f + g + h \leq 150 \text{ m}$
	Farthest piping length (L)	$A + C + h \leq 80 \text{ m}$
	Piping length between outdoor unit branch boxes	$A + B + C \leq 55 \text{ m}$
	Farthest piping length after branch box (ℓ)	$\ell \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a + b + c + d + e + f + g + h \leq 95 \text{ m}$
Permissible height difference	In indoor/outdoor unit section (H) ¹	$H \leq 50 \text{ m}$ (In case of that outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of that outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h_1)	$h_1 + h_2 \leq 15 \text{ m}$
	In each branch unit (h_2)	$h_2 \leq 15 \text{ m}$
	In each indoor unit (h_3)	$h_3 \leq 12 \text{ m}$
Number of bends		$\leq 15 \text{ m}$



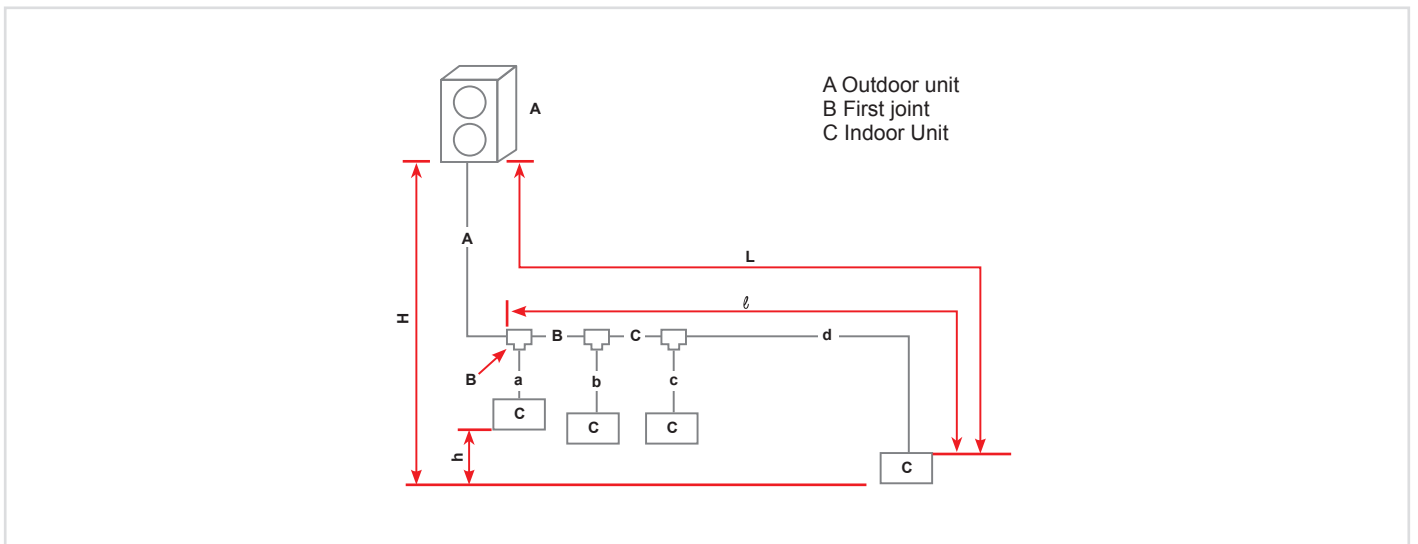
PUMY-P

Y SERIES - DC Inverter/Heat Pump

R410A



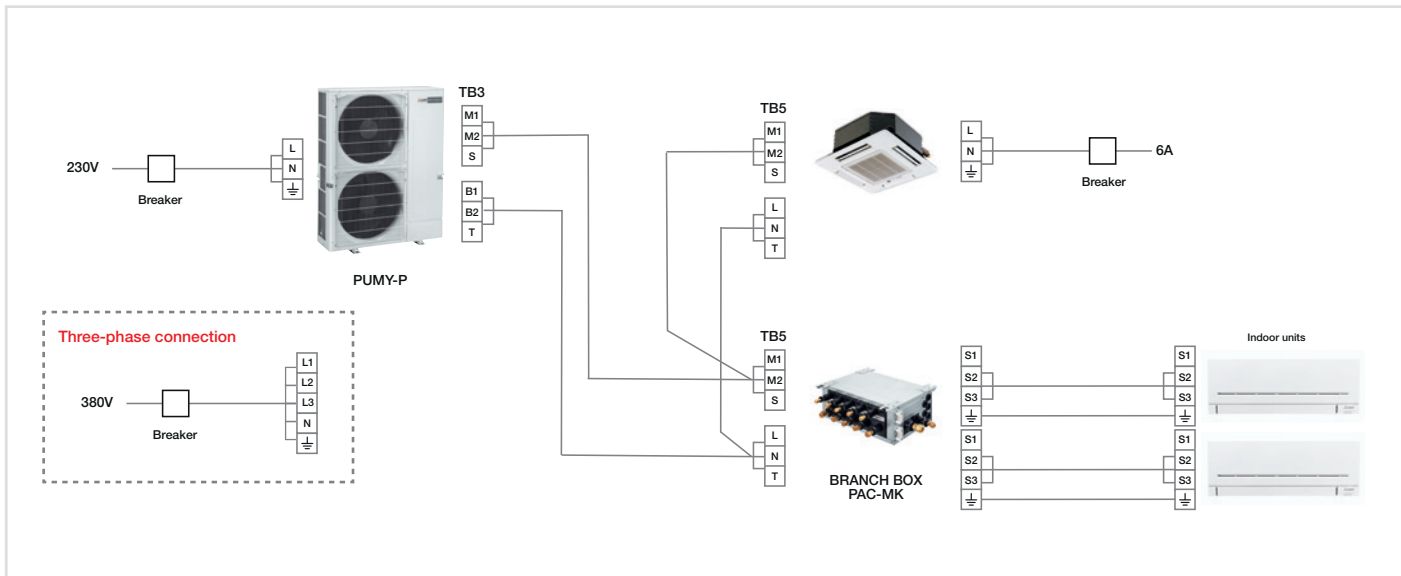
Permissible length	Total piping length	$A + B + C + a + b + c + d \leq 300 \text{ m}$
	Farthest piping length (L)	$A + B + C + d \leq 150 \text{ m}$
	Farthest piping length after first branch (ℓ)	$B + C + d \leq 30 \text{ m}$
Permissible High/Low difference	High/low difference in indoor/outdoor section (H)	The outdoor unit is upper: 50 meters or less The outdoor unit is lower: 40 meters or less (30 meters or less if PKFY-P VBM, PFFY-P VKM, PFFY-P VL type of indoor units are included.)
	High/low difference in indoor/indoor section (h)	15 metri o meno



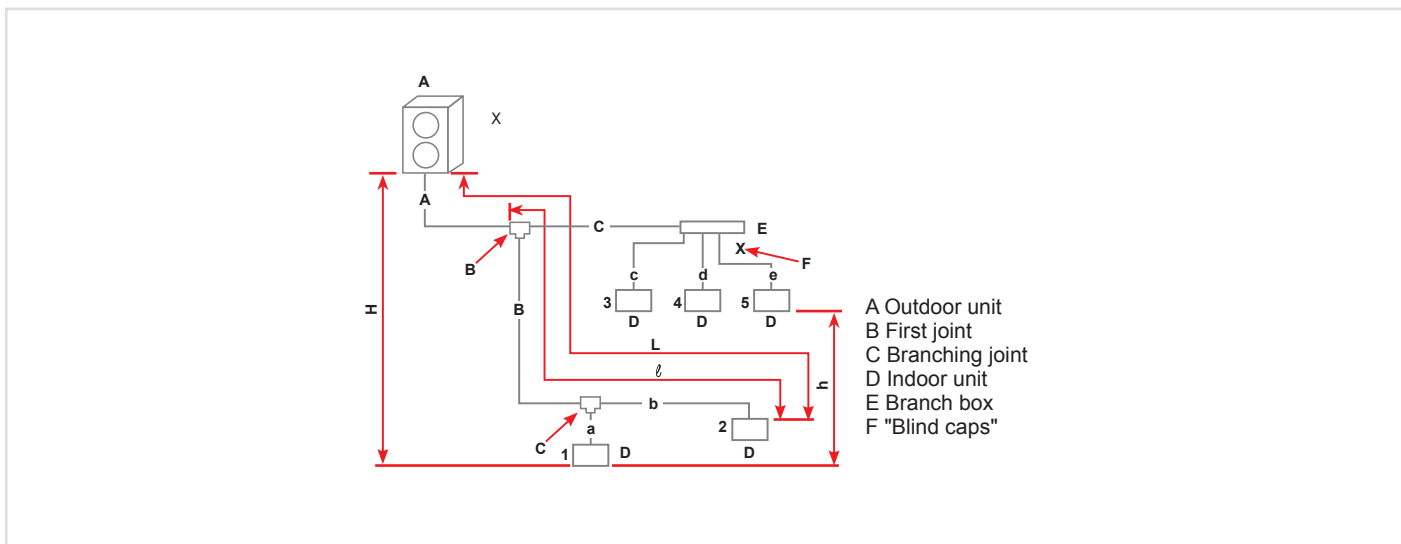
PUMY-P

Y SERIES - DC Inverter/Heat Pump

R410A



Permissible length	Total piping length	$A + B + C + a + b + c + d \leq 300 \text{ m}$
	Farthest piping length (L)	$A + B + C + d \leq 150 \text{ m}$
	Farthest piping length after first branch (ℓ)	$B + C + d \leq 30 \text{ m}$
Permissible High/Low difference	High/low difference in indoor/outdoor section (H)	The outdoor unit is upper: 50 meters or less The outdoor unit is lower: 40 meters or less (30 meters or less if PKFY-P VBM, PFFY-P VKM, PFFY-P VL type of indoor units are included.)
	High/low difference in indoor/indoor section (h)	15 meters or less



- A Outdoor unit
- B First joint
- C Branching joint
- D Indoor unit
- E Branch box
- F "Blind caps"

PUMY-SP

Y SERIES - DC Inverter/Heat Pump

R410A

SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					BREAKER
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	
112	PUMY-SP	9,52 (3/8")	15,88 (5/8")	TAB.			3,50	0	TAB.	7,31	26,10	32 A / 16 A
125							3,50			7,31	26,10	32 A / 16 A
140							3,50			7,31	26,10	32 A / 16 A

Refrigerant piping diameter in section from branch box to indoor unit

INDOOR UNIT SERIES	MODEL NUMBER	A LIQUID PIPE	B GAS PIPE
M series or S series	15 to 42	Ø6.35	Ø9.52
	50	Ø6.35	Ø12.7
	60	Ø6.35	Ø15.88
	71	Ø9.52	Ø15.88
P series	35,50	Ø6.35	Ø12.7
	60 to 100	Ø9.52	Ø15.88

Refrigerant piping diameter in section from branch box to branch box

LIQUID LINE	GAS LINE
9,52 (3/8")	15,88 (5/8")

LIQUID PIPES SECTION 6,35 (1/4")	+	LIQUID PIPES SECTION 9,52 (3/8")	+	INDOOR CONNECTED CONNECTED TOTAL POWER	AMOUNT OF REFRIGERANT TO ADD
meters x 19 g/m		meters x 50 g/m		up to 8 kW	1,5 kg
				8,1 kW to 16,0 kW	2,5 kg
				over 16,1 kW	3,0 kg

Branch box connection section*

ATTACCHI		PAC-MK53BC	PAC-MK33BC
Unit A	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit B	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit C	Liquid	6,35 (1/4")	6,35 (1/4")
	Gas	9,52 (3/8")	9,52 (3/8")
Unit D	Liquid	6,35 (1/4")	-
	Gas	9,52 (3/8")	-
Unit E	Liquid	6,35 (1/4")	-
	Gas	12,7 (1/2")	-

*Pipes diameter have to coincide with the indoor units pipes diameter. Any reduction will be made on the Branch Box.

PUMY-SP

Y SERIES - DC Inverter/Heat Pump

R410A

System Design

Outdoor unit		4.5 HP	5 HP	6 HP
		PUMY-SP112VKM PUMY-SP112YKM	PUMY-SP125VKM PUMY-SP125YKM	PUMY-SP112VKM PUMY-SP112YKM
Indoor Unit	Size	15 to 140		
	Number of units	1 to 9 units	1 to 10 units	1 to 12
	System total power	50% to 130% of the outdoor power		

Branch Box system design

Outdoor unit		4.5 HP	5 HP	6 HP
		PUMY-SP112VKM PUMY-SP112YKM	PUMY-SP125VKM PUMY-SP125YKM	PUMY-SP112VKM PUMY-SP112YKM
Indoor Unit	Size	15 to 100		
	Number of units	2 to 8 units		
	System total power	50% to 130% of the outdoor power (6,3 to 16,2 kW)	50% to 130% of the outdoor power (7,1 to 18,2 kW)	50% to 130% of the outdoor power (8 to 20,2 kW)
Numero Branch Box connettibili		1 to 2 units		

Combination chart indoor unit branch box connection

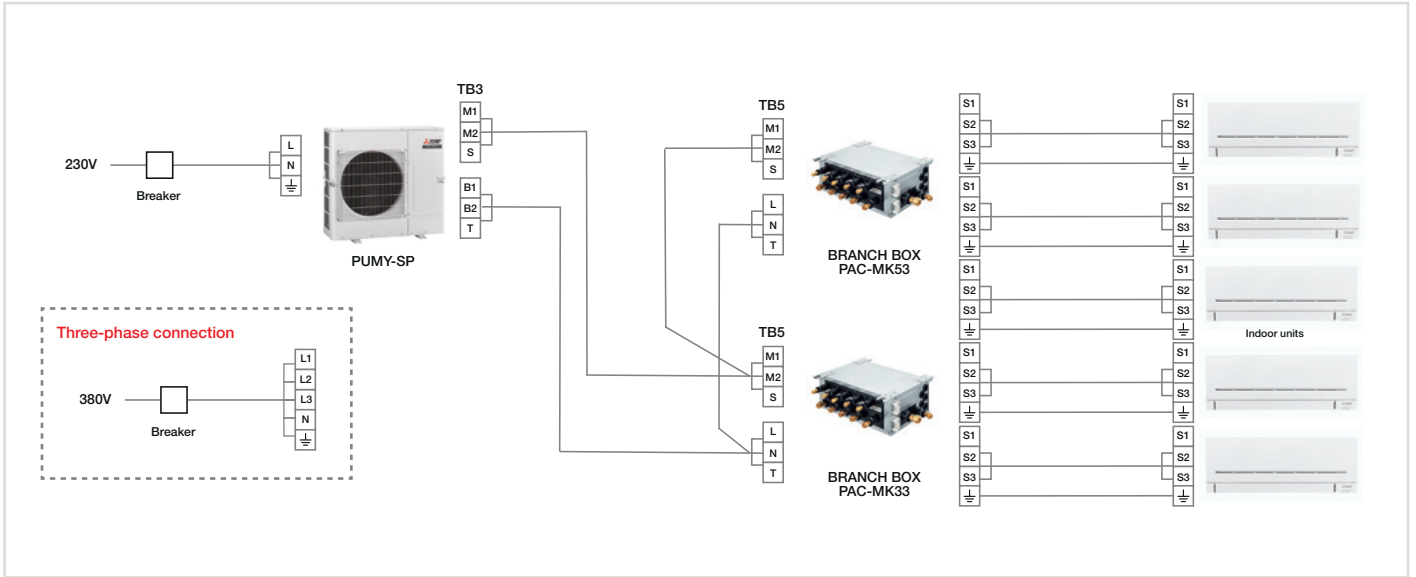
			Wall-Mounted										Floor Standing	1 Way cassette	4 Way Cassette				Ducted						Ceiling suspended																	
No. of connectable units	Min/max Connectable capacity (kW) x 10	MODEL	Kirigamine Style		Kirigamine Zen					Plus Line					60 x 60		90 x 90		Compact																							
			MSZ-LN		MSZ-EF			MSZ-AP			MFZ-KT		MLZ-KP		SLZ-M		PLA-M EA		SEZ-M			PEAD-M JA			PCA-M KA																	
			25	35	50*	18	22	25	35	42	50	15	20	25	35	42	50	25	35	50	25	35	50	35	50	60	71	100	25	35	50	60	71	35	50	60	71	100	50	60	71	
8	30/162	PUMY-SP112	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	30/182	PUMY-SP125	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	30/202	PUMY-SP140	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

*1 only VG2

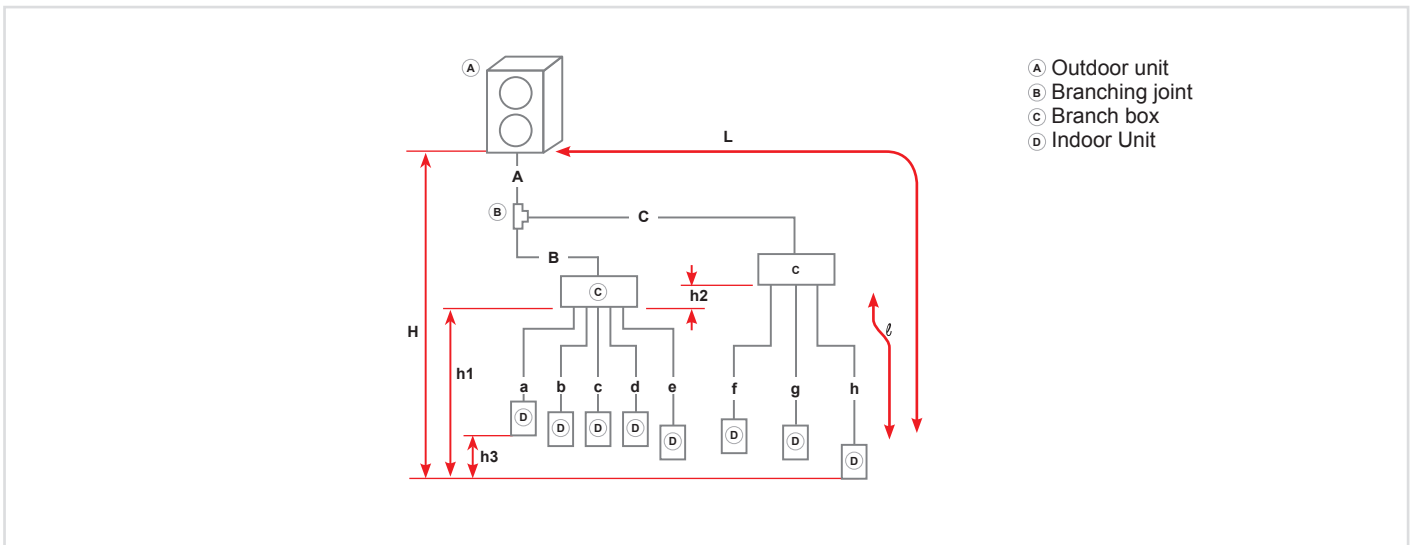
PUMY-SP

Y SERIES - DC Inverter/Heat Pump

R410A



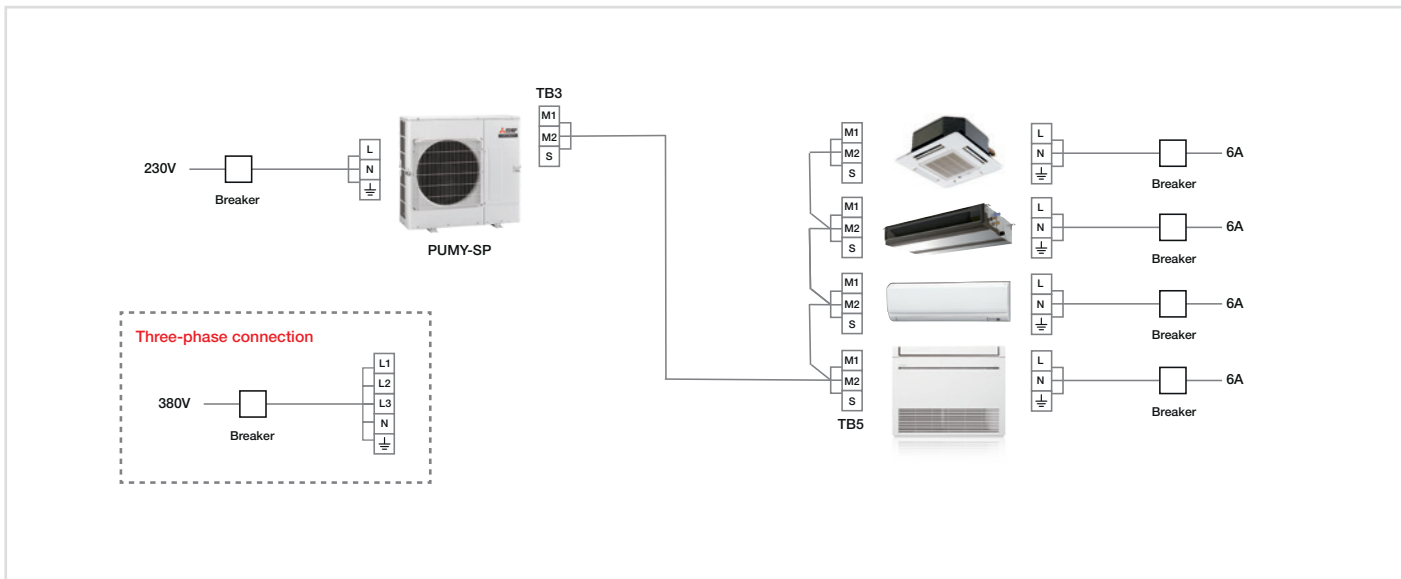
Permissible length (One-way)	Total piping length	$A + B + C + a + b + c + d + e + f + g + h \leq 152 \text{ m}$
	Farthest piping length (L)	$A + C + h \leq 80 \text{ m}$ ($A + C \leq 55 \text{ m}$, $h \leq 25 \text{ m}$)
	Piping length between outdoor unit branch boxes	$A + B + C \leq 55 \text{ m}$
	Farthest piping length after branch box (l)	$l \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a + b + c + d + e + f + g + h \leq 95 \text{ m}$
Permissible height difference	In indoor/outdoor unit section (H) ¹	$H \leq 50 \text{ m}$ (In case of that outdoor unit is set higher than indoor unit) $H \leq 30 \text{ m}$ (In case of that outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section ($h1$)	$h1 + h2 \leq 15 \text{ m}$
	In each branch unit ($h2$)	$h2 \leq 15 \text{ m}$
	In each indoor unit ($h3$)	$h3 \leq 12 \text{ m}$
Number of bends		≤ 15



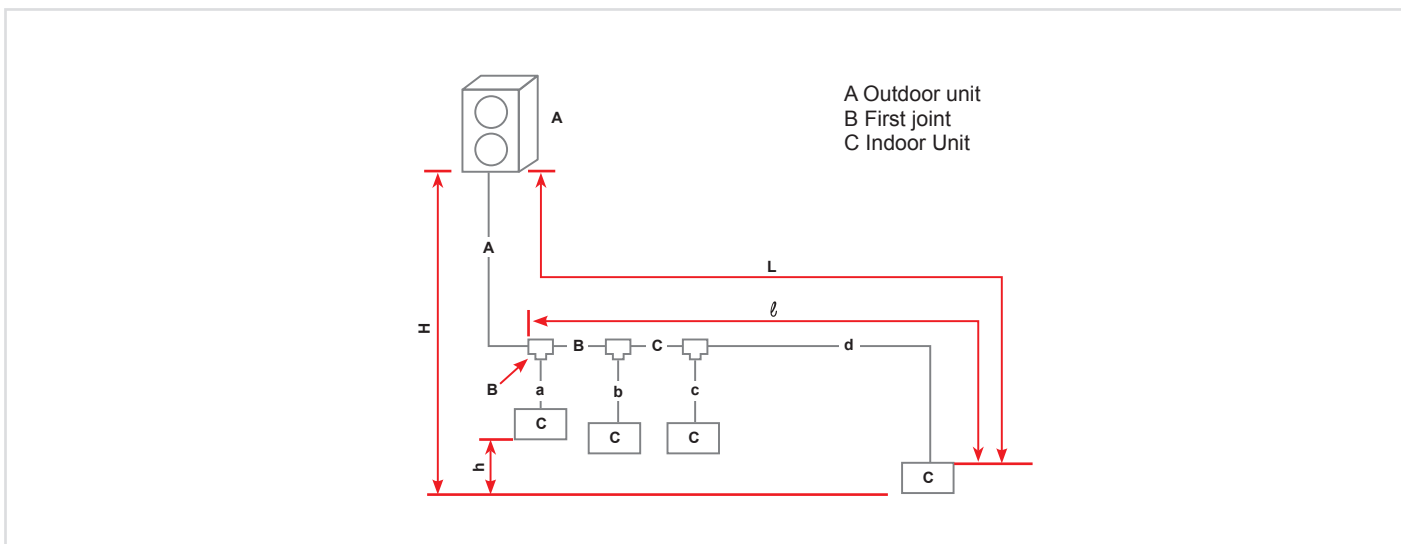
PUMY-SP

Y SERIES - DC Inverter/Heat Pump

R410A



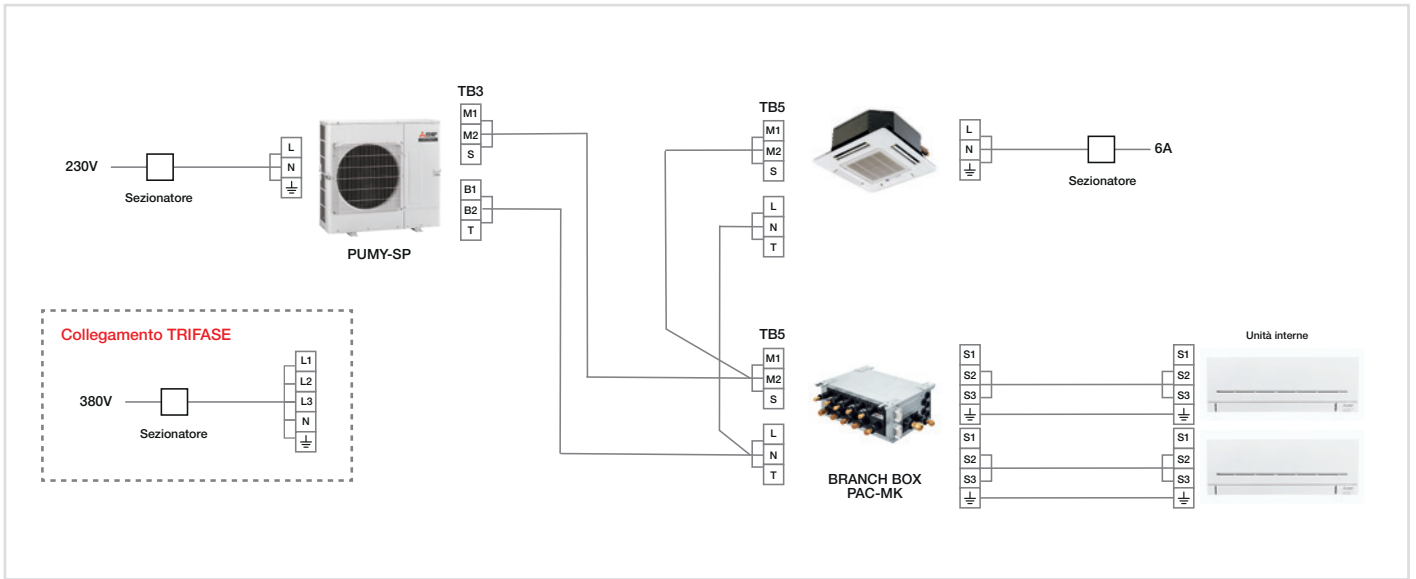
Permissible length	Total piping length	$A + B + C + a + b + c + d \leq 120 \text{ m}$
	Farthest piping length (L)	$A + B + C + d \leq 70 \text{ m}$
	Farthest piping length after first branch (ℓ)	$B + C + d \leq 50 \text{ m}$
Permissible High/Low difference	High/low difference in indoor/outdoor section (H)	50 meters or less (If the outdoor unit is lower, 30 meter or less)
	High/low difference in indoor/indoor section (h)	15 meters or less



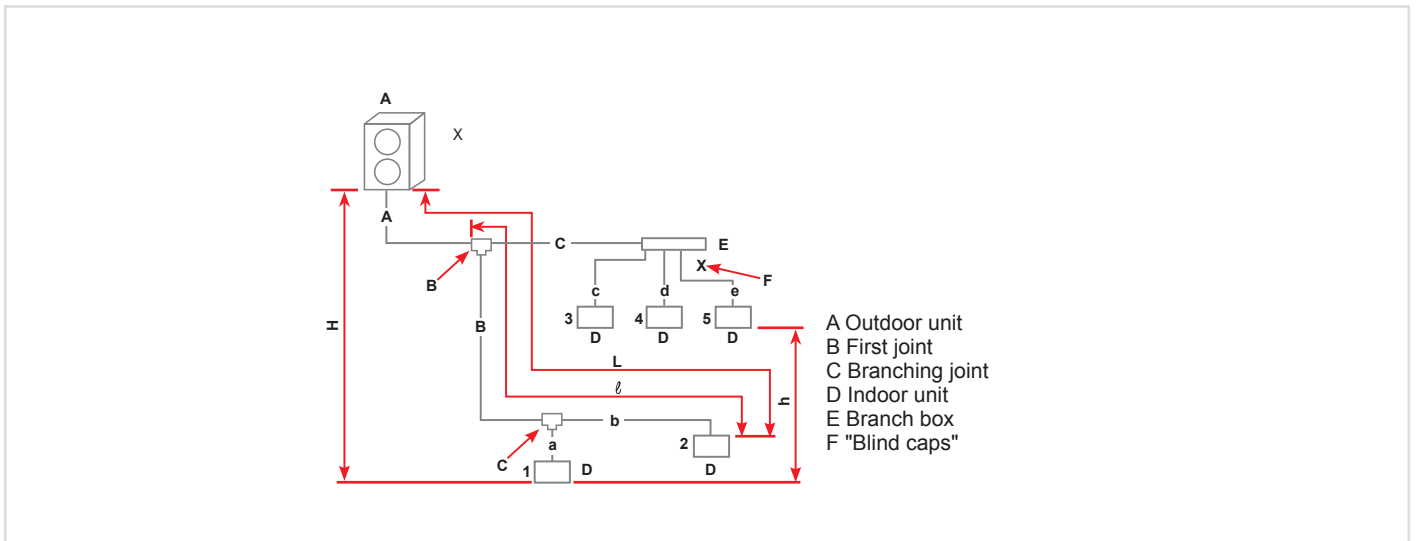
PUMY-SP

Y SERIES - DC Inverter/Heat Pump

R410A



Permissible length	Total piping length	$A + B + C + a + b + c + d + e$ is 120 meters or less
	Farthest piping length (L)	$A + B + b$ is 70 meters or less
	Farthest piping length after first branch (ℓ)	$B + b$ is 50 meters or less
Permissible High/Low difference	High/low difference in indoor/outdoor section (H)	50 meters or less (If the outdoor unit is lower, 30 meter or less)
	High/low difference in indoor/indoor section (h)	15 meters or less



Commercial

S/P Series

S/P Series

POWER INVERTER	R32	38
STANDARD INVERTER	R32	39
SIZE 200 TO 250	R32	40
SMART	R32	40

POWER INVERTER - UP TO SIZE 140	R410A	44
STANDARD INVERTER	R410A	45
SIZE 200 TO 250	R410A	46

Free Compo

P SERIES - FREE COMPO	R32	50
P SERIES - FREE COMPO	R410A	54

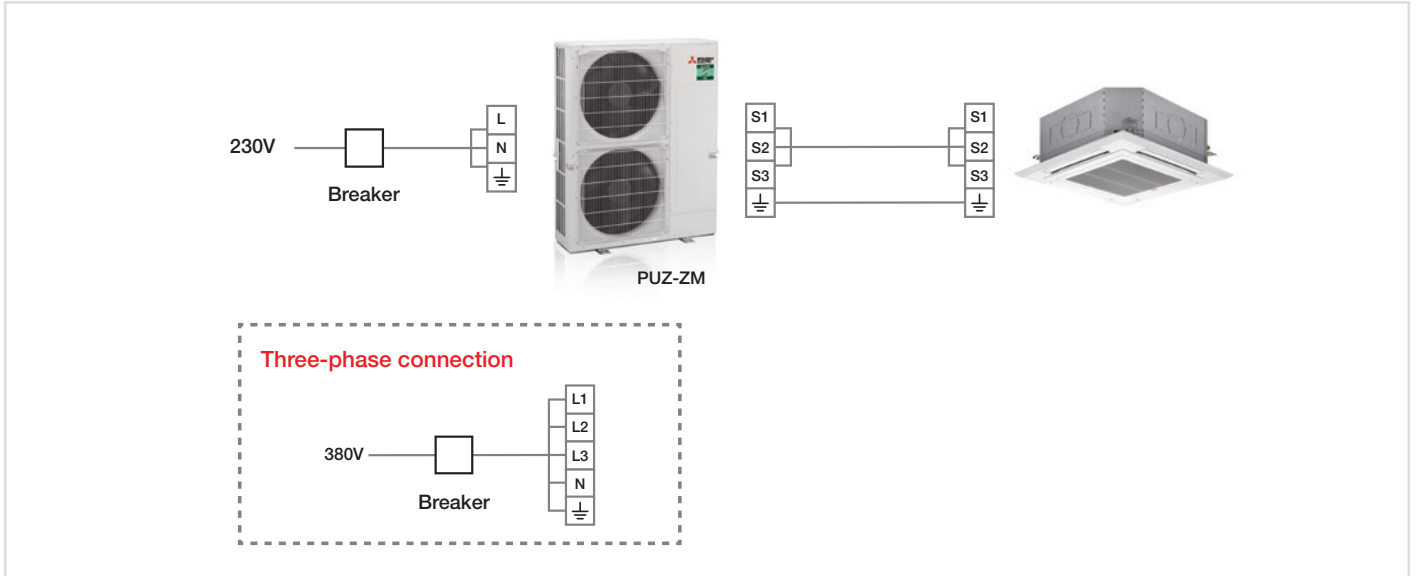


Commercial

PUZ-ZM

P SERIES - OUTDOOR UNIT - Power Inverter

R32



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE				ELECTRICAL DATA		
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
35	PUZ-ZM	6,35 (1/4")	12,7 (1/2")	30	50	15	2,00	30	15	1,35	1,55	1	16 A
50		6,35 (1/4")	12,7 (1/2")	30	50	15	2,00			1,35	1,86	1	16 A
60		9,52 (3/8")	15,88 (5/8")	30	55	15	2,80		40	1,89	3,38	1	25 A
71		9,52 (3/8")	15,88 (5/8")	30	55	15	2,80			1,89	3,38	1	25 A
100		9,52 (3/8")	15,88 (5/8")	30	100	15	4,00		2,70	5,40	1 / 3	32 A / 16 A	
125		9,52 (3/8")	15,88 (5/8")	30	100	15	4,00		2,70	5,40	1 / 3	32 A / 16 A	
140		9,52 (3/8")	15,88 (5/8")	30	100	15	4,00		2,70	5,40	1 / 3	40 A / 16 A	

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = PUZ-ZM100YKA

Total pipes length (inlet piping only) = 90 m

Length with additional charge (as tab) = 30 m

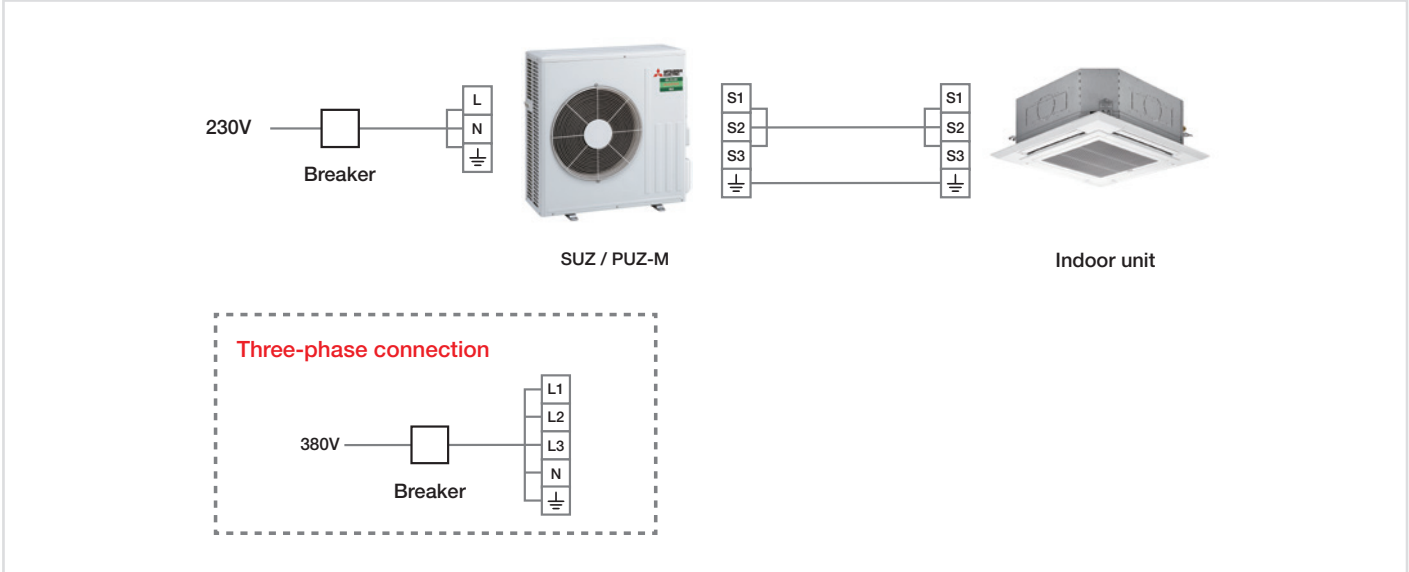
Additional charge = 40 g/m

Calculation: $\Delta W(g) = [90 - 30] \times 40 = 2400 \text{ g}$

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT				
UNIT	UNIT		Min Area (m ²)	
	INDOOR	OUTDOOR		Max charge (kg)
WALL MOUNTED		35	2,30	5,00
		50	2,30	5,00
		60	3,80	13,66
		71	3,80	13,66
		100	6,80	43,73
		125	6,80	43,73
CEILING - DUCTED		140	6,80	43,73
		35	2,30	3,35
		50	2,30	3,35
		60	3,80	9,14
		71	3,80	9,14
		100	6,80	29,27
	125	6,80	29,27	
	140	6,80	29,27	

SUZ-M / PUZ-M

S/P SERIES - OUTDOOR UNIT - Standard Inverter



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE				ELECTRICAL DATA		
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
35	SUZ-M	6,35 (1/4")	9,52 (3/8")	12	20	10	0,90	7	20	0,61	0,78	1	16 A
50		6,35 (1/4")	12,7 (1/2")	30	30	10	1,20			0,81	1,22	1	16 A
60		6,35 (1/4")	15,88 (5/8")	30	30	10	1,25			0,84	1,25	1	25 A
71		9,52 (3/8")	15,88 (5/8")	30	30	10	1,45			0,98	1,60	1	25 A
100	PUZ-M	9,52 (3/8")	15,88 (5/8")	30	55	15	3,10	30	40	2,09	2,77	1 / 3	32 A / 16 A
125		9,52 (3/8")	15,88 (5/8")	30	65	15	3,10			2,09	3,85	1 / 3	32 A / 16 A
140		9,52 (3/8")	15,88 (5/8")	30	65	15	3,60			2,43	4,19	1 / 3	40 A / 16 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

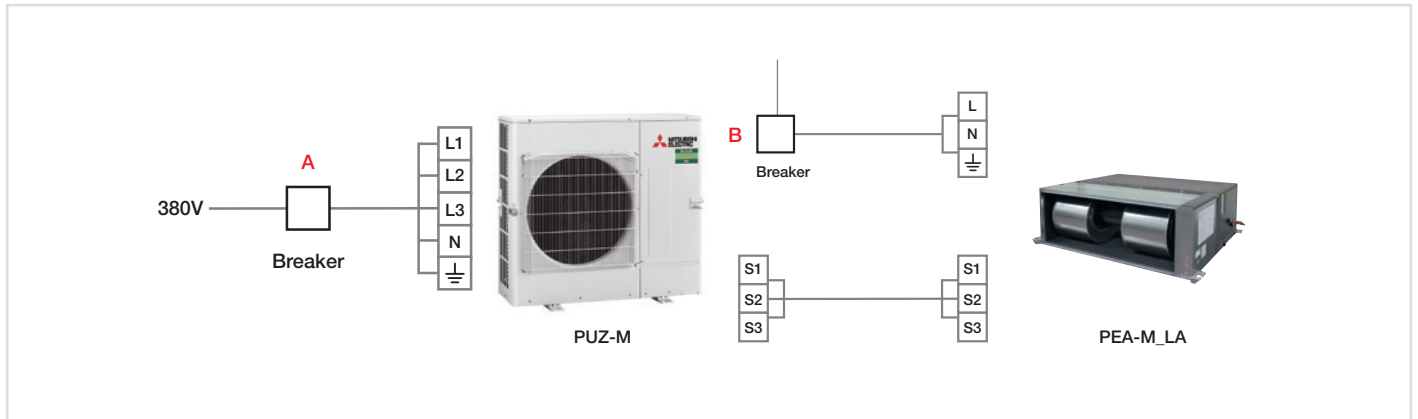
Example
Outdoor unit = SUZ-M60VA
Total pipes length (inlet piping only) = 30 m
Length with additional charge (as tab) = 7 m
 Additional charge = 20 g/m

Calculation: $\Delta W(g) = [30 - 7] \times 20 = 460 \text{ g}$

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT				
UNIT	UNIT		Max charge (kg)	Min Area (m ²)
	INDOOR	OUTDOOR		
WALL MOUNTED	35		1,16	1,27
	50		1,66	2,61
	60		1,71	2,77
	71		2,37	5,31
	100		4,10	15,90
	125		4,10	15,90
	140		4,60	20,01
CEILING - DUCTED	35		1,16	0,85
	50		1,66	1,74
	60		1,71	1,85
	71		2,37	3,56
	100		4,10	10,64
	125		4,10	10,64
	140		4,60	13,40

PUZ-ZM / PUZ-M

P SERIES - OUTDOOR UNIT - Size 200 to 250



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA		
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker A	Breaker B
200	PUZ-ZM	9,52 (3/8")	25,40 (1")	30	100	15	6,30	30	40	4,25	6,14	3	32 A	5 A
250		12,70 (1/2")	25,40 (1")	30	100	15	6,80		60	4,59	7,42	3	32 A	5 A
200	PUZ-M	9,52 (3/8")	25,40 (1")	30	70	15	5,60		40	3,78	4,86	3	32 A	5 A
250		12,70 (1/2")	25,40 (1")	30	70	15	6,80		60	4,59	6,21	3	32 A	5 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = PUZ-ZM200YKA

Total pipes length (inlet piping only) = 55 m

Length with additional charge (as tab) = 30 m

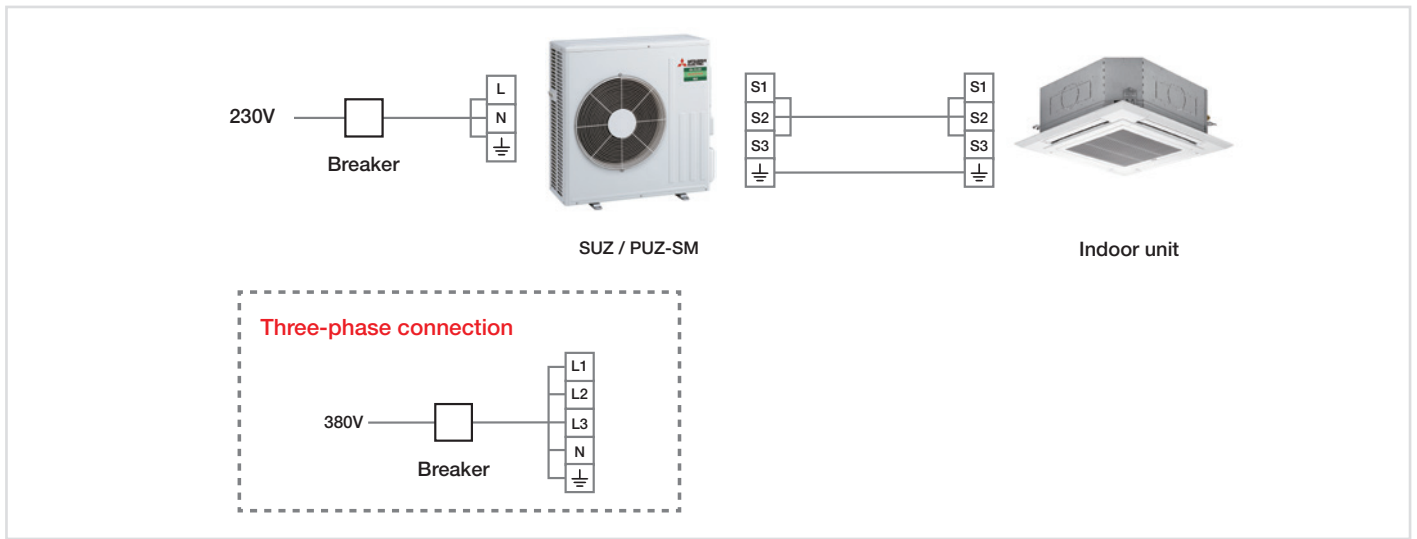
Additional charge = 40 g/m

Calculation: $\Delta W(g) = [55 - 30] \times 40 = 1000 \text{ g}$

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT			
UNIT		Max charge (kg)	Min Area (m ²)
INDOOR	OUTDOOR		
DUCTED	ZM-200	8,40	44,67
	ZM-250	8,90	50,14
	M-200	6,80	29,27
	M-250	8,00	40,51

SUZ-SM / PUZ-SM

S/P SERIES - OUTDOOR UNIT - Smart



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
71	SUZ-SM	9,52 (3/8")	15,88 (5/8")	30	30	10	1,45	7	40	0,98	1,60	1	25 A
100	PUZ-SM	9,52 (3/8")	15,88 (5/8")	30	30	15	3,10	30		2,09	2,09	1 / 3	32 A / 16 A
125		9,52 (3/8")	15,88 (5/8")	30	40	15	3,60			2,43	3,51	1 / 3	32 A / 16 A
140		9,52 (3/8")	15,88 (5/8")	30	40	15	3,60			2,43	3,51	1 / 3	40 A / 16 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = PUZ-SM125VA

Total pipes length (inlet piping only) = 35 m

Length with additional charge (as tab) = 30 m

Additional charge = 40 g/m

Calculation: $\Delta W(g) = [35 - 30] \times 20 = 100 \text{ g}$

MIN AREA according to standard CEI EN 60335-2-40 ED6 R32 - HUMAN COMFORT			
UNIT		Max charge (kg)	Min Area (m ²)
INDOOR	OUTDOOR		
WALL MOUNTED	71	2,37	5,31
	100	3,10	9,09
	125	4,00	15,13
	140	4,00	15,13
CEILING - DUCTED	71	2,37	3,56
	100	3,10	6,08
	125	4,00	10,13
	140	4,00	10,13

Operating current max.

P SERIES - ELECTRICAL ABSORPTION - Power & Standard

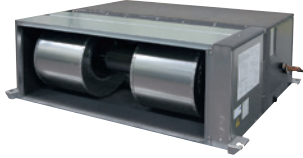


R32

Outdoor Unit				Indoor unit					
									
Technology	Typology	Size	Ph.	PLA-ZM	PLA-M	PEAD-M	PKA-M	PCA-M_HA	PCA-M_KA
	PUZ-ZM	35	1	13,2 A		14,1 A	13,4 A	-	-
		50	1	13,2 A		14,4 A	13,4 A	-	13,4 A
		60	1	19,2 A		20,6 A	19,4 A	-	19,4 A
		71	1	19,3 A		21,0 A	19,4 A	19,4 A	19,4 A
		100	1	27,0 A		29,2 A	27,1 A	-	27,2 A
			3	8,5 A		10,7 A	8,6 A	-	8,7 A
		125	1	27,0 A		29,3 A	-	-	27,3 A
			3	10,0 A		12,3 A	-	-	10,3 A
		140	1	28,7 A		30,8 A	-	-	28,9 A
			3	13,7 A		15,8 A	-	-	13,9 A
	SUZ-M	35	1	-	8,7 A	9,6 A	-	-	-
		50	1	-	13,7 A	14,9 A	-	-	13,9 A
		60	1	-	15,0 A	16,4 A	-	-	15,2 A
		71	1	-	15,1 A	16,8 A	-	-	15,2 A
	100	1	-	20,5 A	22,7 A	20,6 A	-	20,7 A	
		3	-	12,0 A	14,2 A	12,6 A	-	12,2 A	
	125	1	-	27,2 A	29,3 A	-	-	27,3 A	
		3	-	12,2 A	14,3 A	-	-	12,3 A	
	140	1	-	30,7 A	32,8 A	-	-	30,9 A	
		3	-	12,2 A	14,3 A	-	-	12,4 A	

Operating current max.

P SERIES - ELECTRICAL ABSORPTION - Power & Standard



R32

Outdoor unit					Indoor unit
					
					Ducted
					PEA-M
Technology	Typology	Size		Phase	
	PUZ-ZM	200	INT	1	2,2 A
			EST	3	22,5 A
		250	INT	1	3,2 A
			EST	3	22,5 A
	PUZ-M	200	INT	1	2,2 A
			EST	3	22,5 A
		250	INT	1	3,2 A
			EST	3	22,5 A

Operating current max.

P SERIES - ELECTRICAL ABSORPTION - Smart

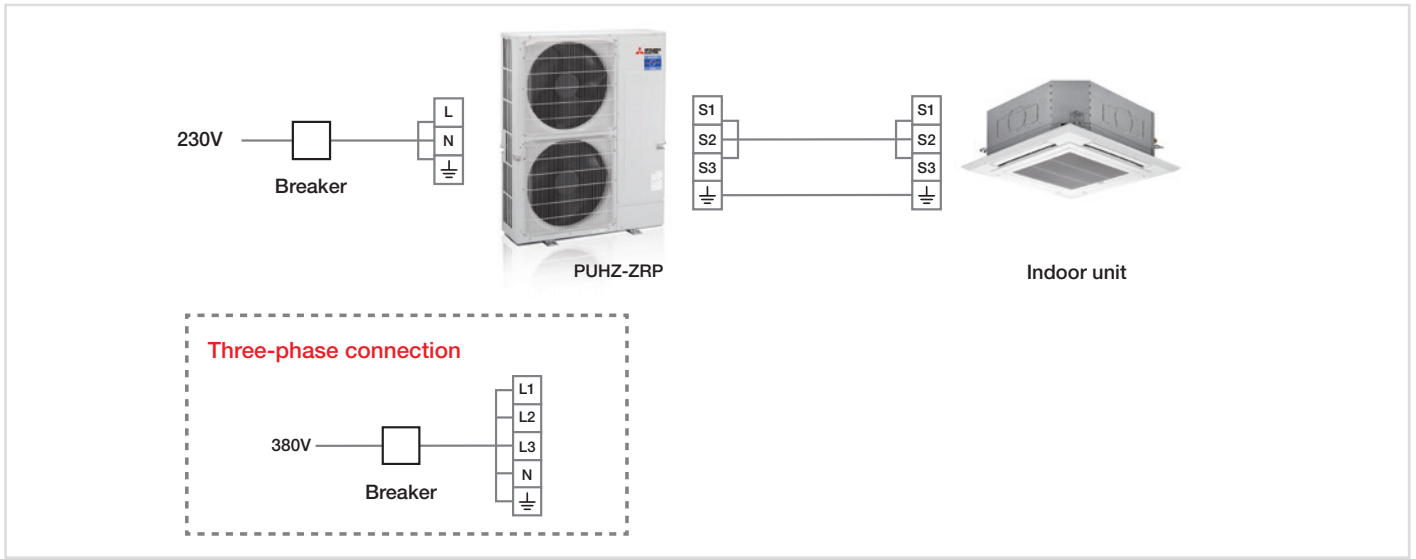
R32

Outdoor unit				Indoor unit	
					
				4 way cassette	Ducted
Technology	Typology	Size	Ph.	PLA-SM	PEAD-SM
	SUZ-SM	71	1	15,1 A	16,8 A
	PUZ-SM		100	1	20,5 A
		3		12,5 A	14,2 A
		125		1	27,2 A
			3	12,2 A	14,3 A
			140	1	30,7 A
		3		12,2 A	14,3 A

PUHZ-ZRP

P SERIES - OUTDOOR UNIT - Power Inverter - Up to 140

R410A



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE				ELECTRICAL DATA		
		Liquid mm (Inches)	Gas mm (Inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
35	PUHZ-ZRP	6,35 (1/4")	12,7 (1/2")	30	50	15	2,20	30	20	1,49	1,76	1	16 A
50		6,35 (1/4")	12,7 (1/2")	30	50	15	2,40			1,62	2,30	1	16 A
60		9,52 (3/8")	15,88 (5/8")	30	55	15	3,50		60	2,36	4,59	1	25 A
71		9,52 (3/8")	15,88 (5/8")	30	55	15	3,50			2,36	4,59	1	25 A
100		9,52 (3/8")	15,88 (5/8")	30	100	15	5,00		3,38	7,43	1 / 3	32 A / 16 A	
125		9,52 (3/8")	15,88 (5/8")	30	100	15	5,00		3,38	7,43	1 / 3	32 A / 16 A	
140		9,52 (3/8")	15,88 (5/8")	30	100	15	5,00		3,38	7,43	1 / 3	40 A / 16 A	

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = PUZ-ZRP35VKA2

Total pipes length (inlet piping only)= 40 m

Length with additional charge (as tab)= 30 m

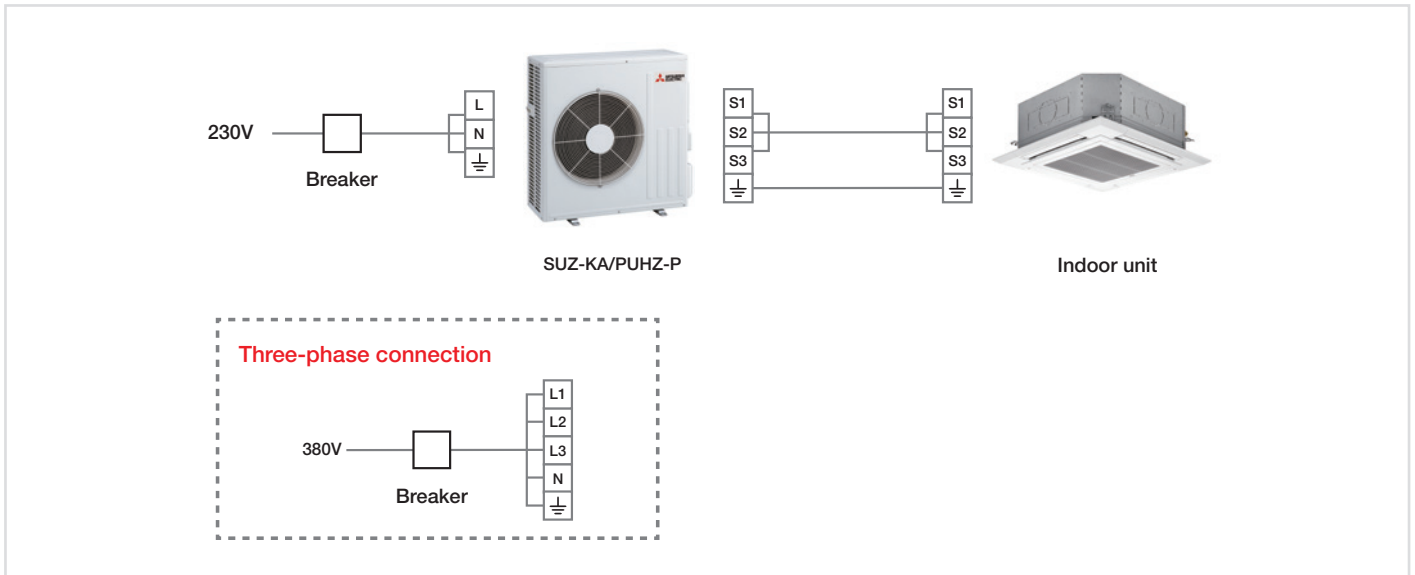
Additional charge = 40 g/m

Calculation: $\Delta W(g) = [40 - 30] \times 20 = 200 \text{ g}$

SUZ-KA/PUHZ-P

S/P SERIES - OUTDOOR UNIT - Standard Inverter

R410A



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE					ELECTRICAL DATA	
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker
35	SUZ-KA	6,35 (1/4")	9,52 (3/8")	12	20	10	1,15	7	30	2,40	1,04	1	10 A
50		6,35 (1/4")	12,7 (1/2")	30	30	10	1,60		20	3,34	1,39	1	20 A
60		6,35 (1/4")	15,88 (5/8")	30	30	10	1,60		55	3,34	2,19	1	20 A
71		9,52 (3/8")	15,88 (5/8")	30	30	10	1,80		3,76	2,15	1	20 A	
100	PUHZ-P	9,52 (3/8")	15,88 (5/8")	30	50	15	3,30	30	60	6,89	3,04	1 / 3	32 A / 16 A
125		9,52 (3/8")	15,88 (5/8")	30	50	15	3,80			7,93	4,59	1 / 3	32 A / 16 A
140		9,52 (3/8")	15,88 (5/8")	30	50	15	3,80			7,93	4,59	1 / 3	40 A / 16 A

Exemple of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Lenght of pipes (m)} - \text{Precharge lenght (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = SUZ-KA50VA6

Total pipes lenght (inlet piping only) = 30 m

Lenght with additional charge (as tab) = 7 m

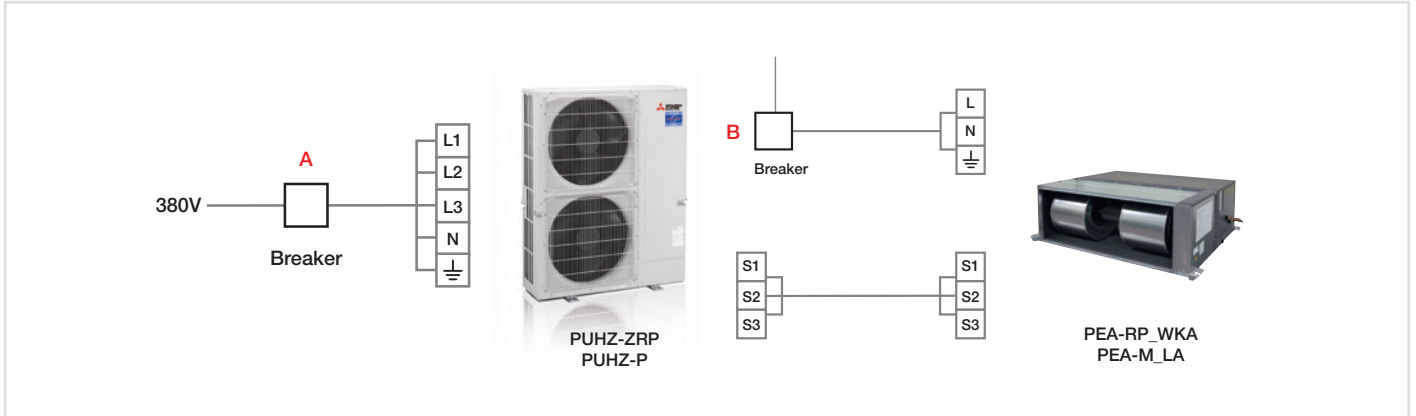
Additional charge= 20 g/m

Calculation: $\Delta W(g) = [30 - 7] \times 20 = 460 \text{ g}$

PUHZ-ZRP / PUHZ-P

P SERIES - OUTDOOR UNIT - Size 200 to 250

R410A



SIZE	MODEL	DIAMETER		EXTERNAL PIPING			REFRIGERANT CHARGE				ELECTRICAL DATA			
		Liquid mm (inches)	Gas mm (inches)	Max Height	Max Length*	Max Pipe Bends	Precharge Kg*	Precharge length mt.	Additional charge g/mt	tonCO ₂ eq precharge*	tonCO ₂ eq max charge*	Operating current max	Breaker A	Breaker B
200	PUHZ-ZRP	9,52 (3/8")	25,40 (1")	30	100	15	7,10	30	90	4,79	9,05	3	32 A	5 A
250		12,70 (1/2")	25,40 (1")	30	100	15	7,70		120	5,20	11,27	3	32 A	5 A
200	PUHZ-P	9,52 (3/8")	25,40 (1")	30	70	15	6,50		90	4,39	8,64	3	32 A	5 A
250		12,70 (1/2")	25,40 (1")	30	70	15	7,70		120	5,20	9,45	3	32 A	5 A

Example of total additional charge calculation	
Formula	$\Delta W(g) = [\text{Length of pipes (m)} - \text{Precharge length (m)}] \times \text{additional charge (g/m)}$

Example

Outdoor unit = PUZ-ZRP200YKA2

Total pipes length (inlet piping only) = 55 m

Length with additional charge (as tab) = 30 m

Additional charge = 120 g/m

Calculation: $\Delta W(g) = [55 - 30] \times 120 = 3000 \text{ g}$



Operating current max.

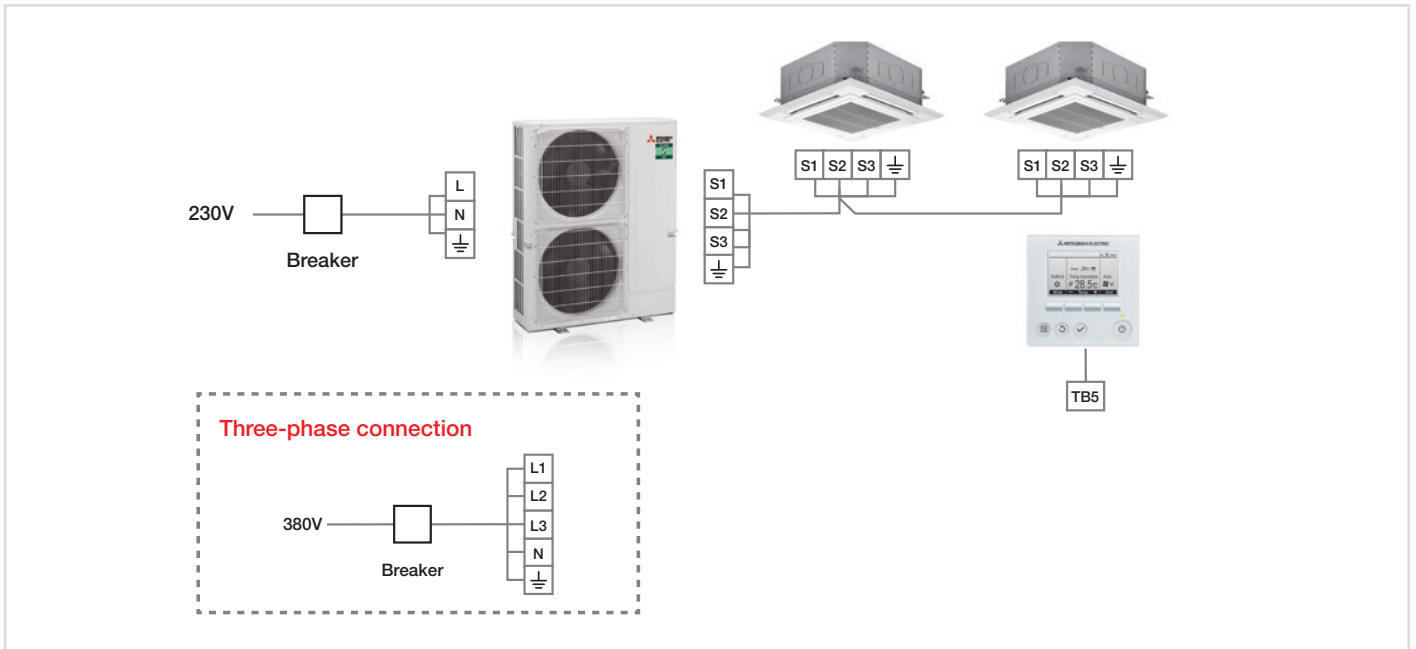
P SERIES - ELECTRICAL ABSORPTION

Outdoor unit				Indoor unit						
				4 way cassette		Concealed	Wall mounted			
Technology	Typology	Size	Ph.	PLA-ZM	PLA-M	PEAD-M	PKA-M			
	PUHZ-ZRP	35	1	13,2 A	13,2 A	14,1 A	13,4 A			
		50	1	13,2 A	13,2 A	14,4 A	13,4 A			
		60	1	19,2 A	19,2 A	20,6 A	19,4 A			
		71	1	19,3 A	19,3 A	21,0 A	19,4 A			
		100	1	27,0 A	27,0 A	29,2 A	27,1 A			
			3	8,5 A	8,5 A	10,7 A	8,6 A			
		125	1	27,0 A	27,0 A	26,5 A	-			
			3	10,0 A	10,0 A	9,5 A	-			
		140	1	28,7 A	28,7 A	28,0 A	-			
			3	13,7 A	13,7 A	13,0 A	-			
		200	IN	1	-	-	-	-		
			OUT	3	-	-	-	-		
		250	IN	1	-	-	-	-		
			OUT	3	-	-	-	-		
	SUZ-KA	35	1	-	8,4 A	9,3 A	-			
		50	1	-	12,2 A	13,4 A	-			
		60	1	-	14,2 A	15,6 A	-			
		71	1	-	16,4 A	18,1 A	-			
	PUHZ-P	100	1	-	20,5 A	22,7 A	22,7 A	20,6 A		
			3	-	12,0 A	14,2 A	14,2 A	12,1 A		
		125	1	-	27,7 A	29,3 A	29,3 A	-		
			3	-	12,2 A	14,3 A	14,3 A	-		
		140	1	-	30,7 A	32,8 A	32,8 A	-		
			3	-	12,2 A	14,3 A	14,3 A	-		
		200	IN	1	-	-	-	-	-	
			OUT	3	-	-	-	-	-	
	250	IN	1	-	-	-	-	-		
		OUT	3	-	-	-	-	-		

Indoor unit

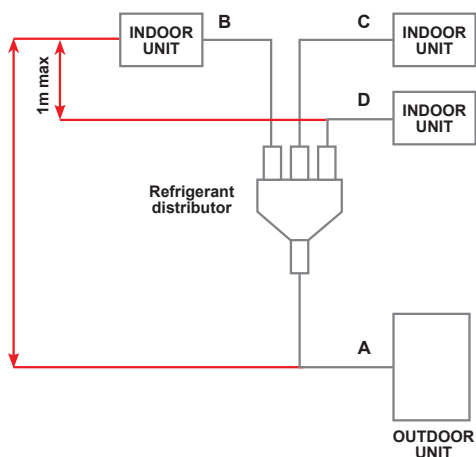
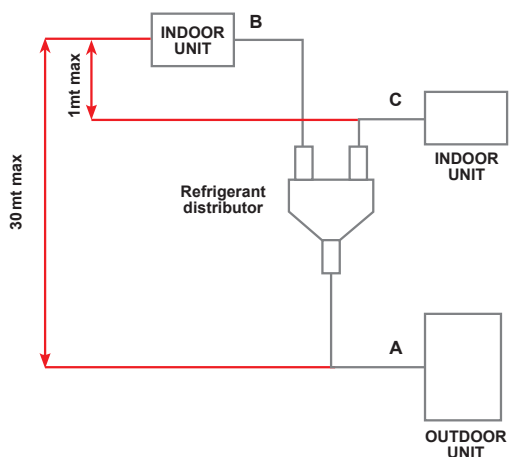
				
	Ceiling	Ceiling	Floor Standing	Ducted
	PCA-M	PCA-M	PSA-RP	PEA-RP
	-	M	-	-
	13,4 A	-	-	-
	19,4 A	-	-	-
	19,4 A	19,4 A	19,4 A	-
	27,2 A	-	27,2 A	-
	8,7 A	-	8,7 A	-
	27,3 A	-	27,2 A	-
	10,3 A	-	10,2 A	-
	28,9 A	-	28,7 A	-
	13,9 A	-	13,7 A	-
	-	-	-	4,3 A
	-	-	-	19,0 A
	-	-	-	5,5 A
	-	-	-	21,0 A
	8,5A	-	-	-
	12,4 A	-	-	-
	14,4 A	-	-	-
	16,5 A	-	-	-
	20,7 A	-	20,7 A	-
	12,2 A	-	12,2 A	-
	27,3 A	-	27,2 A	-
	12,3 A	-	12,2 A	-
	30,9 A	-	30,7 A	-
	12,4 A	-	12,2 A	-
	-	-	-	4,3 A
	-	-	-	19,0 A
	-	-	-	5,5 A
	-	-	-	21,0 A

P Series - Free Compo








SIZE	MODEL	Phase Nr.	Breaker	DIAMETER		MAX LENGHT						Max High		Max Bend Nr.
				Liquid line mm (Inches)	Gas line mm (Inches)	DUAL			TRIAL			U.E - U.I	U.I - U.I	
						O.U. - Branch	A+B+C	B;C	Diff. B-C	A+B+C+D	B;C;D			
71	PUZ-ZM	1	25 A	9,52 (3/8")	15,88 (5/8")	55	-	8	-	-	-	30	1	15
100	PUZ-ZM	1/3	32 A / 16 A	9,52 (3/8")	15,88 (5/8")	100	-	8	-	-	-	30	1	15
	PUZ-M	1/3	32 A / 16 A	9,52 (3/8")	15,88 (5/8")	65	20	8	-	-	-	30	1	15
125	PUZ-ZM	1/3	32 A / 16 A	9,52 (3/8")	15,88 (5/8")	100	-	8	-	-	-	30	1	15
	PUZ-M	1/3	32 A / 16 A	9,52 (3/8")	15,88 (5/8")	65	20	8	-	-	-	30	1	15
140	PUZ-ZM	1/3	40 A / 16 A	9,52 (3/8")	15,88 (5/8")	100	-	8	100	-	8	30	1	15
	PUZ-M	1/3	40 A / 16 A	9,52 (3/8")	15,88 (5/8")	65	20	8	65	20	8	30	1	15
	PUZ-SM	1/3	40 A / 16 A	9,52 (3/8")	15,88 (5/8")	40	20	8	-	-	-	30	1	15


	MODEL	OU CAPACITY
TWIN	MSDD-50TR2-E	71 ~ 140
	MSDD-50WR-E	200 ~ 250
TRIPLE	MSDT-111R2	140 ~ 250
QUADRUPLE	MSDF-1111R-E	200 ~ 250



P Series - Free Compo

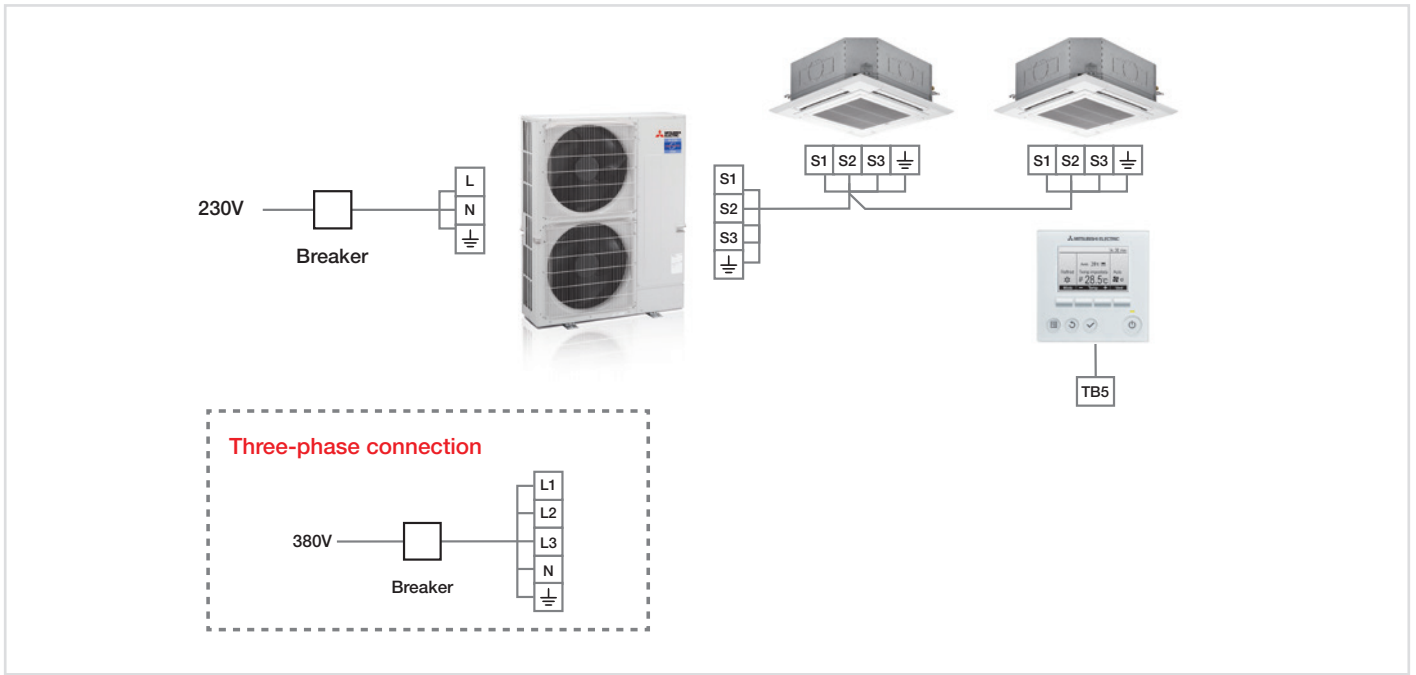
Outdoor unit		Indoor unit		
	Size			
		4 way cassette 90x90	4 way cassette 60x60	Ducted
		PLA-M	SLZ-M	PEAD-M
 Power Inverter PUZ-ZM	71	2 x 35	2 x 35	2 x 35
	100	2 x 50	2 x 50	2 x 50
		-	3 x 35	-
	125	2 x 60	2 x 60	2 x 60
		-	3 x 50	-
	140	-	4 x 35	-
		2 x 71	3 x 50	2 x 71
	200	3 x 50	4 x 35	3 x 50
		2 x 100	-	2 x 100
		3 x 60	-	3 x 60
	250	4 x 50	-	4 x 50
		2 x 125	-	2 x 125
3 x 71		-	3 x 71	
 Standard Inverter PUZ-M	100	2 x 50	-	2 x 50
	125	2 x 60	-	2 x 60
	140	2 x 71	-	2 x 71
		3 x 50	-	3 x 50
	200	2 x 100	-	2 x 100
		3 x 60	-	3 x 60
		4 x 50	-	4 x 50
	250	2 x 125	-	2 x 125
3 x 71		-	3 x 71	
4 x 60		-	4 x 60	

* Only with R1/R2 series outdoor units

Outdoor unit		Indoor unit
	Size	
		4 way cassette 90x90
		PLA-SM
Smart PUZ-SM	140	2 x 71

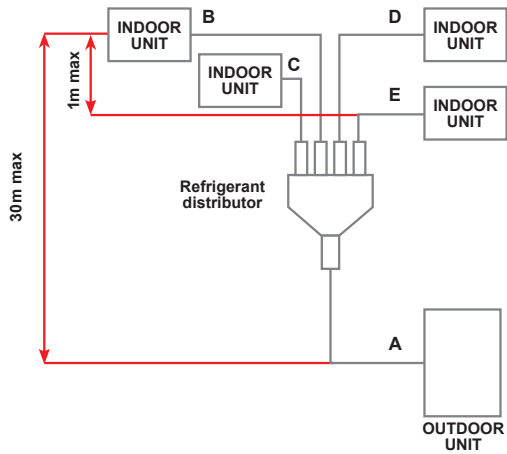
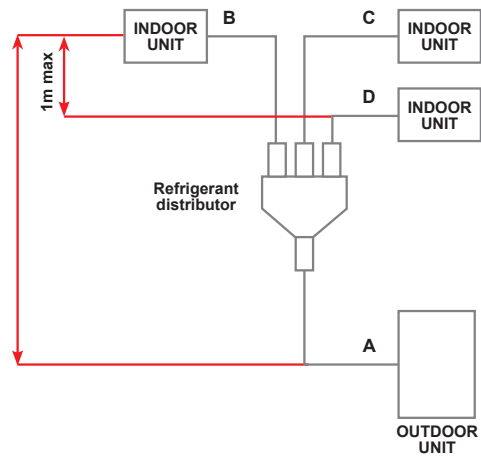
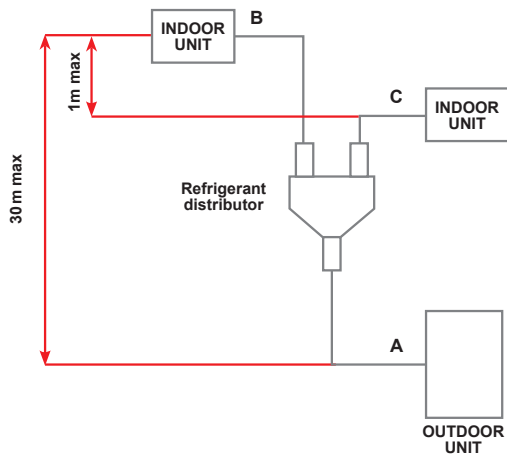
Indoor unit				
				
	Wall mounted	Ceiling	Ceiling	Floor standing
	PKA-M	PCA-M_KA	PCA-M_HA	PSA-RP
	2 x 35	2 x 35	-	-
	2 x 50	2 x 50	-	-
	-	-	-	-
	2 x 60	2 x 60	-	-
	-	-	-	-
	-	-	-	-
	2 x 71	2 x 71	-	-
	3 x 50	3 x 50	2 x 71	-
	2 x 100	2 x 100	-	-
	3 x 60	3 x 60	-	-
	4 x 50	4 x 50	-	-
	-	2 x 125	-	-
	3 x 71	3 x 71	3 x 71	-
	4 x 60	4 x 60	-	-
	2 x 50	2 x 50	-	-
	2 x 60	2 x 60	-	-
	2 x 71	2 x 71	-	-
	3 x 50	3 x 50	2 x 71	-
	2 x 100	2 x 100	-	-
	3 x 60	3 x 60	-	-
	4 x 50	4 x 50	-	-
	-	2 x 125	-	-
	3 x 71	3 x 71	3 x 71	-
	4 x 60	4 x 60	-	-

P Series - Free Compo



SIZE	MODEL	Phase Nr.	Breaker	DIAMETER		MAX LENGTH										Max High		Max Bend Nr.
				Liquid line mm (inches)	Gas line mm (inches)	DUAL			TRIAL			QUADRI			U.E - U.I	U.I - U.I		
						O.U. - Branch	A+B+C	B;C	Diff. B-C	A+B+C+D	B;C;D	Diff. B-C; C-D; B-D	A+B+C+D+E	B;C;D;E			Diff. B-C; C-D; B-D; B-E;C-E;D-E;	
71	PUHZ-ZRP	1	25 A	9,52 (3/8")	15,88 (5/8")	50	20	8	-	-	-	-	-	-	30	1	15	
100	PUHZ-ZRP	1/3	32 A /16A	9,52 (3/8")	15,88 (5/8")	75	20	8	-	-	-	-	-	-	30	1	15	
	PUHZ-P	1/3	32 A /16A	9,52 (3/8")	15,88 (5/8")	50	20	8	-	-	-	-	-	-	30	1	15	
125	PUHZ-ZRP	1/3	32 A /16A	9,52 (3/8")	15,88 (5/8")	75	20	8	-	-	-	-	-	-	30	1	15	
	PUHZ-P	1/3	32 A /16A	9,52 (3/8")	15,88 (5/8")	50	20	8	-	-	-	-	-	-	30	1	15	
140	PUHZ-ZRP	1/3	40 A / 16A	9,52 (3/8")	15,88 (5/8")	75	20	8	75	20	8	-	-	-	30	1	15	
	PUHZ-P	1/3	40 A / 16A	9,52 (3/8")	15,88 (5/8")	50	20	8	50	20	8	-	-	-	30	1	15	
200	PUHZ-ZRP	3	32 A	9,52 (3/8")	25,40 (1")	100	30	8	100	30	8	100	30	8	30	1	15	
	PUHZ-P	3	32 A	9,52 (3/8")	25,40 (1")	70	30	8	70	30	8	70	30	8	30	1	15	
250	PUHZ-ZRP	3	32 A	12,70 (1/2")	25,40 (1")	100	30	8	100	30	8	100	30	8	30	1	15	
	PUHZ-P	3	32 A	12,70 (1/2")	25,40 (1")	70	30	8	70	30	8	70	30	8	30	1	15	

	MODEL	OU CAPACITY
TWIN	MSDD-50TR2-E	71 ~ 140
	MSDD-50WR-E	200 ~ 250
TRIPLE	MSDT-111R2	140 ~ 250
QUADRUPLE	MSDF-1111R-E	200 ~ 250



P Series - Free Compo

Outdoor unit		Indoor unit				
	Size					
		4 way cassette 90x90	4 way cassette 60x60	Ducted		
		PLA-M	SLZ-M	PEAD-M		
	Power Inverter PUHZ-ZRP	71	2 x 35	2 x 35	2 x 35	
		100	2 x 50	2 x 50	2 x 50	
				3 x 35	-	
		125	2 x 60	2 x 60	2 x 60	2 x 60
				3 x 50	-	-
				4 x 35	-	-
		140	2 x 71	3 x 50	2 x 71	
			3 x 50	4 x 35	3 x 50	
		200	2 x 100	-	2 x 100	
			3 x 60	-	3 x 60	
4 x 50	-		4 x 50			
250	2 x 125	-	2 x 125			
	3 x 71	-	3 x 71			
	4 x 60	-	4 x 60			
	Standard Inverter R410A PUHZ-P	100	2 x 50	2 x 50	2 x 50	
					3 x 35	
		125	2 x 60	2 x 60	2 x 60	
					3 x 50	
					4 x 35	
		140	2 x 71	2 x 71	3 x 50	
			3 x 50	3 x 50	4 x 35	
		200	-	2 x 100	-	
			-	3 x 60	-	
			-	4 x 50	-	
250	-	2 x 125	-			
	-	3 x 71	-			
	-	4 x 60	-			



Indoor unit				
				
	Wall mounted	Ceiling	Ceiling	Floor standing
	PKA-M	PCA-M_KA	PCA-M_HA	PSA-RP
	2 x 35	2 x 35	-	-
	2 x 50	2 x 50	-	-
	-	-	-	-
	2 x 60	2 x 60	-	-
	-	-	-	-
	-	-	-	-
	2 x 71	2 x 71	2 x 71	2 x 71
	3 x 50	3 x 50	-	-
	2 x 100	2 x 100	-	2 x 100
	3 x 60	3 x 60	-	-
	4 x 50	4 x 50	-	-
	-	2 x 125	-	2 x 125
	3 x 71	3 x 71	3 x 71	3 x 71
	4 x 60	4 x 60	-	-
	2 x 50	2 x 50	2 x 50	-
	-	-	-	-
	2 x 60	2 x 60	2 x 60	-
	-	-	-	-
	-	-	-	-
	2 x 71	2 x 71	2 x 71	2 x 71
	3 x 50	3 x 50	3 x 50	-
	2 x 100	2 x 100	2 x 100	-
	3 x 60	3 x 60	3 x 60	-
	4 x 50	4 x 50	4 x 50	-
	2 x 125	-	2 x 125	-
	3 x 71	3 x 71	3 x 71	-
	4 x 60	4 x 60	4 x 60	-

Replace Technology

Residential Line

M SERIES - MXZ	R32	58
M SERIES - MXZ	R410A	60

Commercial Line

POWER INVERTER	R32	62
STANDARD INVERTER	R32	63
POWER INVERTER	R410A	65
STANDARD INVERTER	R410A	69



Replace Technology

Residential line

M SERIES, MXZ



1:1 (Single split) For these indoor units, it is only possible to use gas pipes Ø12.7 mm diameter instead of the standard Ø9.52 mm diameter.

2:1 (Dual Split)

Pipes dimensions	Installed line				2F33/ 2F42	2F53	3F54/ 3F68/ 4F72/ 4F80	5F102/ 6F122	
	External diameter liquid line, mm	ø6.35	ø6.35	ø6.35					ø9.52
	External diameter gas line, mm	ø9.52	ø12.7	ø15.88					ø15.88
Combination	I	2	/	/	/	○	○	○	
Combination	II	1	1	/	/	—	○	○	
Combination	III	1	/	1	/	—	—	□	
Combination	IV	1	/	/	1	—	—	□	
Combination	V	/	2	/	/	—	○	○	
Combination	VI	/	1	1	/	—	—	□	
Combination	VII	/	1	/	1	—	—	□	
Combination	VIII	/	/	2	/	—	—	□	
Combination	IX	/	/	1	1	—	—	□	
Combination	X	/	/	/	2	—	—	□	

3:1 (Trial Split)

Pipes dimensions	Installed line				3F54/ 3F68/ 4F72/ 4F80	5F102/ 6F122	
	External diameter liquid line, mm	ø6.35	ø6.35	ø6.35			ø9.52
	External diameter gas line, mm	ø9.52	ø12.7	ø15.88			ø15.88
Combination	I	3	/	/	/	○	○
Combination	II	2	1	/	/	○	○
Combination	III	2	/	1	/	—	□
Combination	IV	2	/	/	1	—	□
Combination	V	1	2	/	/	○	○
Combination	VI	1	1	1	/	—	□
Combination	VII	1	1	/	1	—	□
Combination	VIII	/	3	/	/	○	○
Combination	IX	/	2	1	/	—	□
Combination	X	/	2	/	1	—	□

— : Not Compatible

○ : Compatible

□ : 15.88 mm diameter gas line is compatible only with (at least) 50 size indoor unit.

* MXZ-*D models information are true even for MXZ-*A models.

Residential line

M SERIES, MXZ



4:1 (Quadri Split)

Pipes dimensions		Installed line				4F72/ 4F80	5F105/ 6F122	
		External diameter liquid line, mm	ø6.35	ø6.35	ø6.35			ø9.52
		External diameter gas line, mm	ø9.52	ø12.7	ø15.88			ø15.88
Combination	I	4				○	○	
Combination	II	3	1			○	○	
Combination	III	3		1		—	□	
Combination	IV	3			1	—	□	
Combination	V	2	2			○	○	
Combination	VI	2	1	1		—	□	
Combination	VII	2	1		1	—	□	
Combination	VIII	1	3			○	○	
Combination	IX	1	2	1		—	□	
Combination	X	1	2		1	—	□	
Combination	XI		4			○	○	
Combination	XII		3	1		—	□	
Combination	XIII		3		1	—	□	

5:1 (Penta Split)

Pipes dimensions		Installed line				5F102 6F122	
		External diameter liquid line, mm	ø6.35	ø6.35	ø6.35		ø9.52
		External diameter gas line, mm	ø9.52	ø12.7	ø15.88		ø15.88
Combination	I	5				○	
Combination	II	4	1			○	
Combination	III	4		1		□	
Combination	IV	4			1	□	
Combination	V	3	2			○	
Combination	VI	2	3			□	

Conversion Table for line diameter

(mm)	Inches
ø 6.35	1/4
ø 9.52	3/8
ø 12.70	1/2
ø 15.88	5/8
ø 19.05	3/4
ø 22.20	7/8
ø 25.40	1
ø 28.58	1+1/8
ø 31.75	1+1/4

— : Not Compatible

○ : Compatible

□ : 15.88 mm diameter gas line is compatible only with (at least) 50 size indoor unit.

* MXZ-*D models information are true even for MXZ-*A models.

Residential line

M SERIES, MXZ



1:1 (Single split) For these indoor units, it is only possible to use gas pipes Ø12.7 mm diameter instead of the standard Ø9.52 mm diameter.

2:1 (Dual Split)

Pipes dimensions	Installed line				2D33/ 2D42	2D53	3D54/ 3D68/ 4D72	4D83/ 4E83/ 5D102/ 5E102	
	External diameter liquid line, mm	ø6.35	ø6.35	ø6.35					ø9.52
	External diameter gas line, mm	ø9.52	ø12.7	ø15.88					ø15.88
Combination	I	2				○	○	○	
Combination	II	1	1			—	○	○	
Combination	III	1		1		—	—	□	
Combination	IV	1			1	—	—	□	
Combination	V		2			—	○	○	
Combination	VI		1	1		—	—	□	
Combination	VII		1		1	—	—	□	
Combination	VIII			2		—	—	□	
Combination	IX			1	1	—	—	□	
Combination	X				2	—	—	□	

3:1 (Trial Split)

Pipes dimensions	Installed line				3D54/ 3D68/ 4D72	4D83/ 4E83/ 5D102/ 5E102	
	External diameter liquid line, mm	ø6.35	ø6.35	ø6.35			ø9.52
	External diameter gas line, mm	ø9.52	ø12.7	ø15.88			ø15.88
Combination	I	3				○	○
Combination	II	2	1			○	○
Combination	III	2		1		—	□
Combination	IV	2			1	—	□
Combination	V	1	2			○	○
Combination	VI	1	1	1		—	□
Combination	VII	1	1		1	—	□
Combination	VIII		3			○	○
Combination	IX		2	1		—	□
Combination	X		2		1	—	□

— : Not Compatible

○ : Compatible

□ : 15.88 mm diameter gas line is compatible only with (at least) 50 size indoor unit.

* MXZ-*D models information are true even for MXZ-*A models.

Residential line

M SERIES, MXZ



4:1 (Quadri Split)

Pipes dimensions		Installed line				4D72	4D83/ 4E83/ 5D102/ 5E102
		External diameter liquid line, mm	ø6.35	ø6.35	ø6.35		
		External diameter gas line, mm	ø9.52	ø12.7	ø15.88	ø15.88	
Combination	I	4				○	○
Combination	II	3	1			○	○
Combination	III	3		1		—	□
Combination	IV	3			1	—	□
Combination	V	2	2			○	○
Combination	VI	2	1	1		—	□
Combination	VII	2	1		1	—	□
Combination	VIII	1	3			○	○
Combination	IX	1	2	1		—	□
Combination	X	1	2		1	—	□
Combination	XI		4			○	○
Combination	XII		3	1		—	□
Combination	XIII		3		1	—	□

5:1 (Penta Split)

Pipes dimensions		Installed line				5D102/ 5E102
		External diameter liquid line, mm	ø6.35	ø6.35	ø6.35	
		External diameter gas line, mm	ø9.52	ø12.7	ø15.88	ø15.88
Combination	I	5				○
Combination	II	4	1			○
Combination	III	4		1		□
Combination	IV	4			1	□
Combination	V	3	2			○
Combination	VI	2	3			□

Conversion Table for line diameter

(mm)	Inches
ø 6.35	1/4
ø 9.52	3/8
ø 12.70	1/2
ø 15.88	5/8
ø 19.05	3/4
ø 22.20	7/8
ø 25.40	1
ø 28.58	1+1/8
ø 31.75	1+1/4

— : Not Compatible

○ : Compatible

□ : 15.88 mm diameter gas line is compatible only with (at least) 50 size indoor unit.

* MXZ-*D models information are true even for MXZ-*A models.

Commercial line

P SERIES - PUZ-ZM



(1) MONOSPLIT SYSTEM

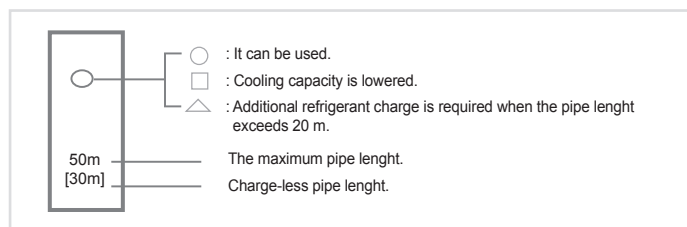
		Maximum pipe length (ZM35-140)							
Liquid pipe (mm)	OD	ø6.35			ø9.52			ø12.7	
	Thickness	t0.8			t0.8			t0.8	
Gas pipe (mm)	OD	ø9.52	ø12.7	ø15.88	ø12.7	ø15.88	ø19.05	ø15.88	ø19.05
	Thickness	t0.8	t0.8	t1.0	t0.8	t1.0	t1.0	t1.0	t1.0
ZM35,50		□ 30m ^{*1} [30m]	Standard size 50m [30m]	○ ^{*2} 30m [30m]	△ 30m [20m]	△ ^{*2} 30m [20m]			
ZM60,71			□ 10m [10m]	○ 10m [10m]	□ 30m [30m]	Standard size 55m [30m]		△ 30m [20m]	
ZM100,125,140						Standard size 100m ^{*3} [30m]	○ 50m [30m]	△ 50m [20m]	△ 50m [20m]

*1 ZM50: maximum pipe length is 10m

*2 Change the SW8-1 on the outdoor controller circuit board from OFF to ON.

*3 The maximum length is 100 m in case of new pipes.

Marks in the table



(2) TWIN SYSTEM

		<Table 2> Maximum pipe length (ZM71-140)							
		ZM71(35x2)		ZM100(50x2)			ZM125(60x2) + ZM140(71x2)		
Main pipe (mm) [A]	Liquid pipe	ø6.35	ø9.52	ø9.52	ø9.52	ø12.7	ø9.52	ø9.52	ø12.7
	Gas pipe	ø12.7	ø15.88	ø15.88	ø19.05	ø19.05	ø15.88	ø19.05	ø19.05
Branch pipe (mm) [B, C]	Liquid pipe	ø6.35	Standard size 55m [30m]	Standard size 100m* [30m]	○ 50m [30m]	△ 50m [20m]			
	Gas pipe	ø12.7							
	Liquid pipe	ø9.52	○ 50m [30m]	○ 50m [30m]	○ 50m [30m]	△ 50m [20m]	Standard size 100m* [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø15.88							
	Liquid pipe	ø12.7							
	Gas pipe	ø19.05							

* The maximum length is 100 m in case of new pipes.

(3) TRIPLE SYSTEM

		<Table 3> Maximum pipe length (ZM140)			
		ZM140(50x3)			
Main pipe (mm) [A]	Liquid pipe	ø9.52	ø9.52	ø12.7	
	Gas pipe	ø15.88	ø19.05	ø19.05	
Branch pipe (mm) [B, C, D]	Liquid pipe	ø6.35	Standard size 100m* [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø12.7			
	Liquid pipe	ø9.52	○ 50m [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø15.88			
	Liquid pipe	ø12.7			
	Gas pipe	ø19.05			

* The maximum length is 100 m in case of new pipes.

Commercial line

P SERIES - PUZ-M

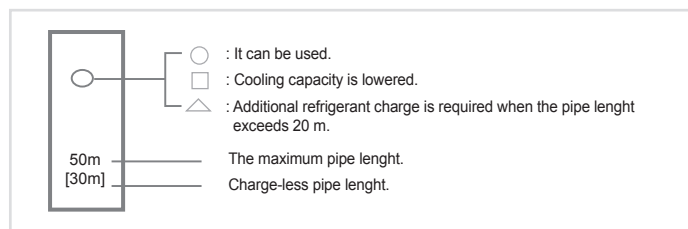


(1) MONOSPLIT SYSTEM

<Table 1> Maximum pipe length (M100, M125, M140)

Liquid pipe (mm)	OD	ø9.52			ø12.7	
	Thickness	t0.8			t0.8	
Gas pipe (mm)	OD	ø12.7	ø15.88	ø19.05	ø15.88	ø19.05
	Thickness	t0.8	t1.0	t1.0	t1.0	t1.0
M100		Standard size 55m [30m]	○	△	△	△
			50m [30m]	25m [15m]	25m [15m]	
M125, M140		Standard size 65m [30m]	○	△	△	△
			50m [30m]	30m [15m]	30m [15m]	

Marks in the table



(2) TWIN SYSTEM

<Table 2> Maximum pipe length (M100, M125, M140)

		M100(50x2)			M125(60x2) + M140(71x2)			
Main pipe (mm) [A]	Liquid pipe	ø9.52	ø9.52	ø12.7	ø9.52	ø9.52	ø12.7	
	Gas pipe	ø15.88	ø19.05	ø19.05	ø15.88	ø19.05	ø19.05	
Branch pipe (mm) [B, C]	Liquid pipe	ø6.35	Standard size 55m [30m]	○	△	Standard size 65m [30m]	○	△
	Gas pipe	ø12.7		50m [30m]	30m [10m]		50m [30m]	30m [15m]
	Liquid pipe	ø9.52	○	○	△	○	△	
	Gas pipe	ø15.88	50m [30m]	50m [30m]	50m [30m]	50m [30m]	30m [15m]	

(3) TRIPLE SYSTEM

<Table 3> Maximum pipe length

		ZM140(50x3)			
Main pipe (mm) [A]	Liquid pipe	ø9.52	ø9.52	ø12.7	
	Gas pipe	ø15.88	ø19.05	ø19.05	
Branch pipe (mm) [B, C, D]	Liquid pipe	ø6.35	Standard size 65m [30m]	○	△
	Gas pipe	ø12.7		50m [30m]	30m [15m]
	Liquid pipe	ø9.52	○	○	△
	Gas pipe	ø15.88	50m [30m]	50m [30m]	30m [15m]

Commercial line

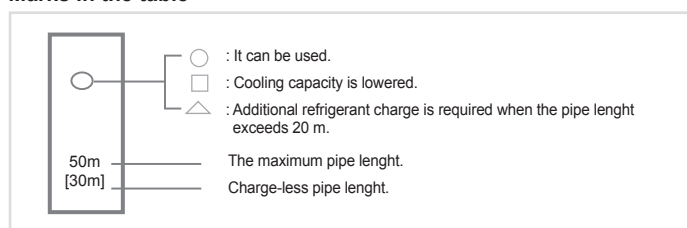
P SERIES - PUZ-SM

(1) MONOSPLIT SYSTEM

<Table 1> Maximum pipe length (M100, M125, M140)

Liquid pipe (mm)	OD	ø9.52			ø12.7	
	Thickness	t0.8			t0.8	
Gas pipe (mm)	OD	ø12.7	ø15.88	ø19.05	ø15.88	ø19.05
	Thickness	t0.8	t1.0	t1.0	t1.0	t1.0
SM100		/	Standard size 30m [30m]	○ 30m [30m]	△ 25m [15m]	△ 25m [15m]
SM125, SM140			Standard size 40m [30m]	○ 40m [30m]	△ 30m [15m]	△ 30m [15m]

Marks in the table



(2) TWIN SYSTEM

<Table 2> Maximum pipe length

		SM140(71x2)			
Main pipe (mm) [A]	Liquid pipe	ø9.52	ø9.52	ø12.7	
	Gas pipe	ø15.88	ø19.05	ø19.05	
Branch pipe (mm) [B, C]	Liquid pipe	ø6.35	Standard size 40m [30m]	○ 40m [30m]	△ 30m [15m]
	Gas pipe	ø12.7			
	Liquid pipe	ø9.52	○ 40m [30m]	○ 40m [30m]	△ 30m [15m]
	Gas pipe	ø15.88			

Commercial line

P SERIES - PUHZ-ZRP/PUHZ-SHW



(1) MONOSPLIT SYSTEM

<Table 1> Maximum pipe length (ZRP35-140/SHW80-140)

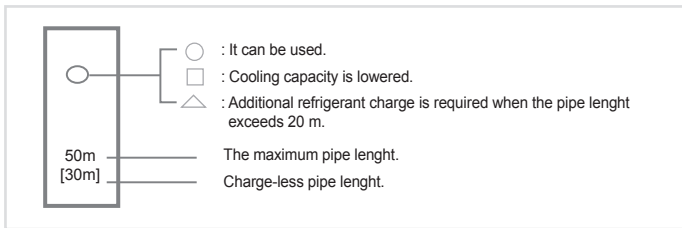
Liquid pipe (mm)	OD	ø6.35			ø9.52			ø12.7	
	Thickness	t0.8			t0.8			t0.8	
Gas pipe (mm)	OD	ø9.52	ø12.7	ø15.88	ø12.7	ø15.88	ø19.05	ø15.88	ø19.05
	Thickness	t0.8	t0.8	t1.0	t0.8	t1.0	t1.0	t1.0	t1.0
ZRP35-50		□ 30m ^{*1} [30m]	Standard size 50m [30m]	○ ^{*2} 30m [30m]	△ 30m [20m]	△ ^{*2} 30m [20m]			
ZRP60-71			□ 10m [10m]	○ 10m [10m]	□ 30m [30m]	Standard size 50m [30m]		△ 30m [20m]	
ZRP100-140 SHW80-140						Standard size 50m*3 [30m]	○ 50m [30m]	△ 50m [20m]	△ 50m [20m]

*1. ZRP50: maximum pipe length is 50 m.
 *2. Change the SW8-1 on the outdoor controller circuit board from OFF to ON.
 *3. The maximum length is 75 m in case of new pipes.

<Table 2> Maximum pipe length (ZRP200 · ZRP250)

Liquid pipe (mm)	OD	ø9.52				ø12.7				ø15.88			
	Thickness	t0.8				t0.8				t0.8			
Gas pipe (mm)	OD	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
	Thickness	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.1
ZRP200		□ 20m [20m]	□ 50m [30m]	Standard size 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
ZRP250		□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	Standard size 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]

Marks in the table



Diameter and thickness of pipes

OD (mm)	ø6.35	ø9.52	ø12.7	ø15.88	ø19.05	ø22.2	ø25.4	ø28.58	ø31.75
Thickness (mm)	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.1

*Use rigid pipes when the OD exceeds 19,05 mm (RP250) / 22.2 mm (RP200).

1 Indoor Unit
 2 Outdoor Unit
 3 Main Line
 4 Secondary Line
 5 Branch (optional)

Commercial line

P SERIES - PUHZ-ZRP/PUHZ-SHW



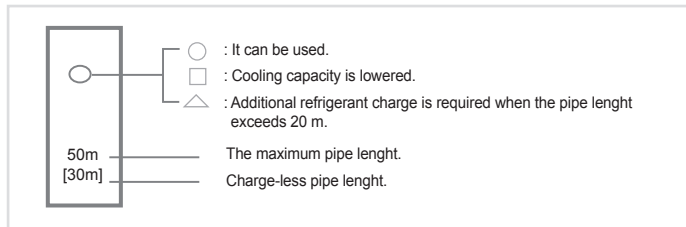
(2) TWIN SYSTEM

<Table 3> Maximum pipe length (ZRP71 - 140)

		ZRP71 (RP35×2)			ZRP100 (RP50×2)			ZRP125 (RP60×2) / ZRP140 (RP71×2)				
Main pipe (mm) [A]	Liquid pipe	ø6.35	ø9.52	ø9.52	ø9.52	ø12.7	ø9.52	ø9.52	ø12.7			
	Gas pipe	ø12.7	ø15.88	ø15.88	ø19.05	ø19.05	ø15.88	ø19.05	ø19.05			
Branch pipe (mm) [B, C]	Liquid pipe	ø6.35	Standard size 50m [30m]	Standard size 50m [30m]	○ 50m [30m]	△ 50m [20m]	/	/	/			
	Gas pipe	ø12.7										
	Liquid pipe	ø9.52	○ 50m [30m]	○ 50m [30m]	○ 50m [30m]	△ 50m [20m]				Standard size 50m [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø15.88										
	Liquid pipe	ø12.7										
	Gas pipe	ø19.05										

The maximum length is 75 m in case of new pipes.

Marks in the table



<Table 4> Maximum pipe length (Main pipe [A] + Branch pipe [B, C e D]) (ZRP200, 250)

		ZRP200 dual (RP100×2)											
		ø9.52				ø12.7				ø15.88			
Main pipe (mm) [A]		ø12.7	ø15.88	ø12.7	ø15.88	ø15.88	ø19.05	ø19.05	ø19.05	ø15.88	ø19.05	ø19.05	ø19.05
Branch pipe (mm) [B, C]	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ Standard size 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]

<Table 4> Maximum pipe length (Main pipe [A] + Branch pipe [B, C e D]) (ZRP200, 250)

		ZRP250 dual (RP125×2)											
		ø9.52				ø12.7				ø15.88			
Main pipe (mm) [A]		ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C]	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ Diam. standard 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]

Commercial line

P SERIES - PUHZ-ZRP/PUHZ-SHW

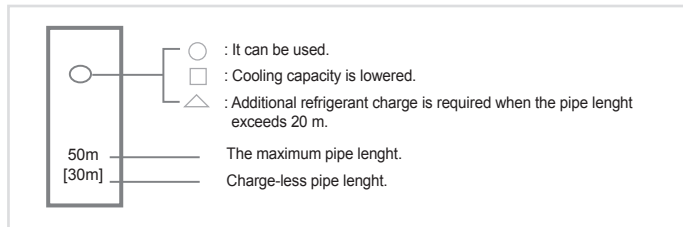


(3) TRIPLE SYSTEM

<Table 5> Maximum pipe length (ZRP140)

		ZRP140(RP50×3)			
Main pipe (mm) [A]	Liquid pipe	ø9.52	ø9.52	ø12.7	
	Gas pipe	ø15.88	ø19.05	ø19.05	
Branch pipe (mm) [B, C]	Liquid pipe	ø6.35	Standard size 50m [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø12.7			
	Liquid pipe	ø9.52	○ 50m [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ø15.88			
	Liquid pipe	ø12.7	/	/	/
	Gas pipe	ø19.05			

Marks in the table



<Table 6> Maximum pipe length (Main pipe [A] + Branch pipe [B, C e D]) (ZRP200, 250)

		ZRP200 triple (RP60×3)												
Linea Principale (mm)[A]	Liquid pipe	ø9.52				ø12.7				ø15.88				
		ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75	
Linee secondarie (mm) [B, C, D]	Liquid pipe	ø6.35	□ 20m [20m]	□ 50m [30m]	Standard size 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
Linee secondarie (mm) [B, C, D]	Liquid pipe	ø9.52	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø15.88	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø19.05	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]

<Table 6> Maximum pipe length (Main pipe [A] + Branch pipe [B, C e D]) (ZRP200, 250)

		ZRP250 triple (RP71×3)												
Linea Principale (mm)[A]	Liquid pipe	ø9.52				ø12.7				ø15.88				
		ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75	
Linee secondarie (mm) [B, C, D]	Liquid pipe	ø6.35	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	Diam. standard 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
Linee secondarie (mm) [B, C, D]	Liquid pipe	ø9.52	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø15.88	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Liquid pipe	ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe	ø19.05	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]

Commercial line

P SERIES - PUHZ-ZRP/PUHZ-SHW



(4) QUADRUPLE SYSTEM

		<Table 7> Maximum pipe length (Main pipe [A] + Branch pipe [B, C, D e E])											
		ZRP200 quadruple (RP50×4)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D, E]	Liquid pipe ø6.35	□ 20m [20m]	□ 50m [30m]	Standard size 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø12.7												
	Liquid pipe ø9.52	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø15.88												
	Liquid pipe ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø19.05												
	Liquid pipe ø12.7												
	Gas pipe ø19.05												

		<Table 7> Maximum pipe length (Main pipe [A] + Branch pipe [B, C, D e E])											
		ZRP250 quadruple (RP60×4)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D, E]	Liquid pipe ø6.35												
	Gas pipe ø12.7												
	Liquid pipe ø9.52	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	Standard size 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø15.88												
	Liquid pipe ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø19.05												
	Liquid pipe ø12.7	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	□ 20m [20m]	□ 50m [30m]	○ 120m [30m]	○ 120m [30m]	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△ 50m [20m]
	Gas pipe ø19.05												

<Table 8="">Effective cooling capacity in the case of smaller diameter</tabella>				
Pipes length	Effective cooling capacity (ZRP35-140)		Effective cooling capacity (RP200-250)	
	one size smaller diameter		Gas line ø22.2	Gas line ø19.05
≤5 m	100%		100%	100%
6-10m	100-90%		100-95%	100-88%
11-20m	90-85%		95-88%	88-77%
21-30m	90-85%		88-83%	-
31-40m	-		83-79%	-
41-50m	-		79-75%	-

Commercial line

P SERIES - PUHZ-P/PUHZ-P YHA

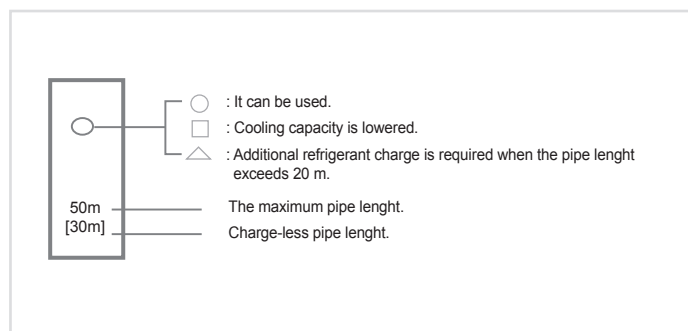


(1) 1:1 MONOSPLIT SYSTEM

<Table 1> Maximum pipe length (P200 · P250)

Liquid pipe (mm)	OD	ø9.52				ø12.7				ø15.88			
	Thickness	t0.8				t0.8				t1.0			
Gas pipe (mm)	OD	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
	Thickness	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.0	t1.1
P200		/	□ 50m [30m]	○ Standard size 70m [30m]	○ 70m [30m]	/	△□ 50m [20m]	○ 50m [20m]	○ 50m [20m]	△□ 40m [20m]	△ 40m [20m]	△ 40m [20m]	△ 40m [20m]
P250		/	□ 50m [30m]	○ 70m [30m]	○ 120m [30m]	/	□ 50m [30m]	○ Standard size 70m [30m]	○ 70m [30m]	△□ 45m [20m]	△ 45m [20m]	△ 45m [20m]	△ 45m [20m]

Marks in the table



Diameter and thickness of pipes

OD (mm)	ø6.35	ø9.52	ø12.7	ø15.88	ø19.05	ø22.2	ø25.4	ø28.58	ø31.75
Thickness (mm)	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.1

Utilizzare tubi rigidi quando il De supera i 22.2 mm. Non usare tubi ricotti resi in rotoli

1 Indoor Unit
 2 Outdoor Unit
 3 Main Line
 4 Secondary Line
 5 Branch (optional)

(2) TWIN SYSTEM

<Table 2> Maximum pipe length (P200, 250)

P200 dual (RP100×2)

Main pipe (mm)[A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C]	Liquid pipe	ø9.52	□ 50m [30m]	○ Standard size 70m [30m]	○ 70m [30m]	/	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△□ 40m [20m]	△ 40m [20m]	△ 40m [20m]	△ 40m [20m]
	Gas pipe	ø15.88	/	/	/	/	/	/	/	/	/	/	/

<Table 2> Maximum pipe length (P200, 250)

P250 dual (RP125×2)

Main pipe (mm)[A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C]	Liquid pipe	ø9.52	□ 50m [30m]	○ 70m [30m]	/	□ 50m [30m]	□ 50m [30m]	Diam. standard 70m [30m]	○ 70m [30m]	△□ 45m [20m]	△ 45m [20m]	△ 45m [20m]	△ 45m [20m]
	Gas pipe	ø15.88	/	/	/	/	/	/	/	/	/	/	/

Commercial line

P SERIES - PUHZ-P/PUHZ-P YHA



(3) TRIPLE SYSTEM

<Table 3> Maximum pipe length (P200, 250)

		P200 (RP60×3)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D]	Liquid pipe	/	□ 50m [30m]	Standard size 70m [30m]	○ 70m [30m]	/	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△□ 40m [20m]	△ 40m [20m]	△ 40m [20m]	△ 40m [20m]
	Gas pipe		ø15.88										

<Table 3> Maximum pipe length (P200, 250)

		P250 (RP71×3)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D]	Liquid pipe	/	□ 50m [30m]	○ 70m [30m]	○ 70m [30m]	/	□ 50m [30m]	Standard size 70m [30m]	○ 70m [30m]	△□ 45m [20m]	△ 45m [20m]	△ 45m [20m]	△ 45m [20m]
	Gas pipe		ø15.88										

(4) QUADRUPLE SYSTEM

<Table 4> Maximum pipe length (P200, 250)

		P200 (RP60×3)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D, E]	Liquid pipe	/	□ 50m [30m]	Standard size 70m [30m]	○ 70m [30m]	/	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△□ 40m [20m]	△ 40m [20m]	△ 40m [20m]	△ 40m [20m]
	Gas pipe		ø12.7										
	Liquid pipe	ø9.52	□ 50m [30m]	○ 70m [30m]	○ 70m [30m]	/	△□ 50m [20m]	△ 50m [20m]	△ 50m [20m]	△□ 40m [20m]	△ 40m [20m]	△ 40m [20m]	△ 40m [20m]
	Gas pipe	ø15.88				/							

<Table 4> Maximum pipe length (P200, 250)

		P250 (RP71×3)											
Main pipe (mm) [A]	Liquid pipe	ø9.52				ø12.7				ø15.88			
	Gas pipe	ø19.05	ø22.2	ø25.4	ø28.58	ø19.05	ø22.2	ø25.4	ø28.58	ø22.2	ø25.4	ø28.58	ø31.75
Branch pipe (mm) [B, C, D, E]	Liquid pipe	/	/	/	/	/	/	/	/	/	/	/	/
	Gas pipe		ø12.7										
	Liquid pipe	ø9.52	□ 50m [30m]	○ 70m [30m]	○ 70m [30m]	/	□ 50m [30m]	Standard size 70m [30m]	○ 70m [30m]	△□ 45m [20m]	△ 45m [20m]	△ 45m [20m]	△ 45m [20m]
	Gas pipe	ø15.88				/							

<Table 5> Effective cooling capacity in the case of smaller diameter</table>

Pipes length	Effective cooling capacity (P200-250)	
	Gas line ø22.2	
≤5 m	100%	
6-10m	100-95%	
11-20m	95-88%	
21-30m	88-83%	
31-40m	83-79%	
41-50m	79-75%	





Ventilation

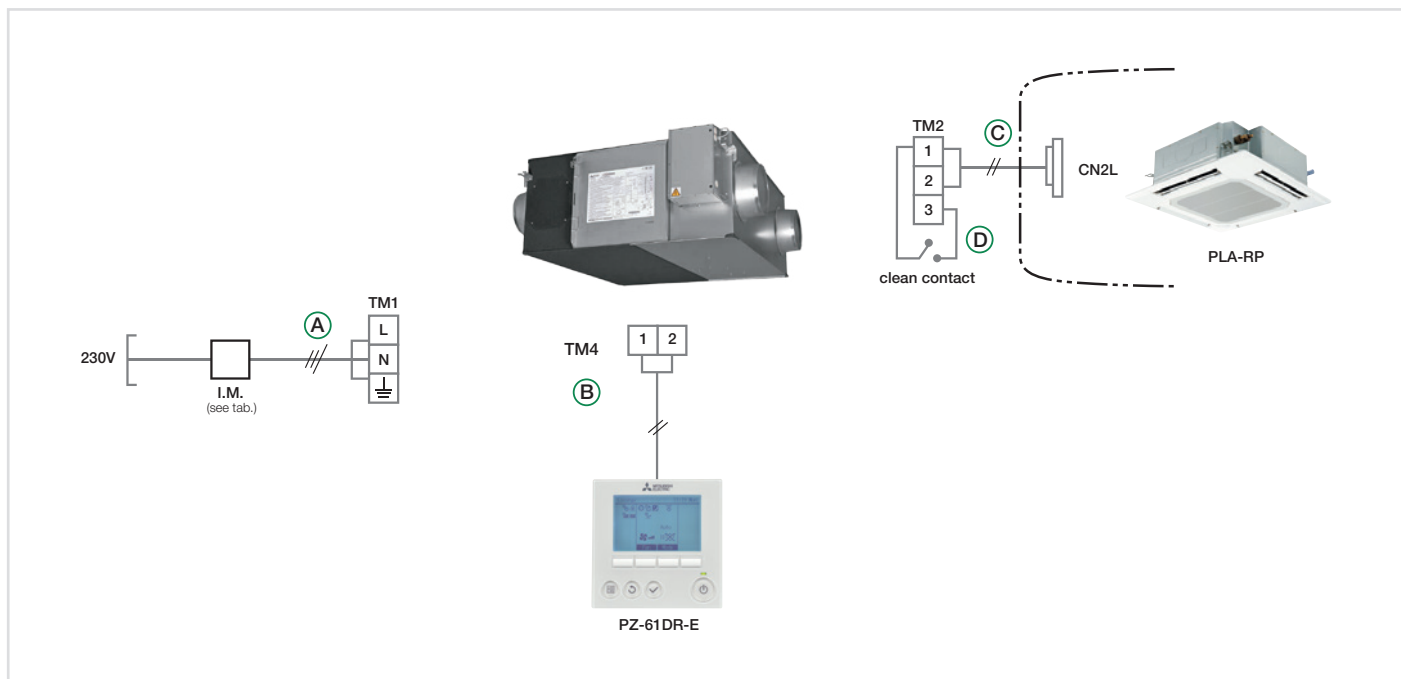




Ventilation



LGH-RVX TOTAL HEAT EXCHANGE VENTILATION SYSTEM



Installation Data*

MODEL	Section A	Breaker	Connection B		Connection C		Connection D	
			Section	Max Length	Section	Max Length	Section	Max Length
LGH-RVX	2x1,5 +T	10 A	2x1	500 m	2x1	500 m	2x1	500 m

Pay attention

1. It is not possible to connect the PZ-61DR-E remote control (connection "B") or an external ON-OFF switch (connection "D") simultaneously with the Lossnay operating interlock to a Mr. Slim unit (connection "C");
2. The simultaneous connection of the PZ-61DR-E remote control and an external ON-OFF switch is possible;
3. To interlock the Lossnay operation to a Mr. Slim A control (connection "C") it is necessary to configure the specific function on the latter (see following pages). The connector for connecting to the Mr. Slim unit is supplied with the Lossnay.
4. Shielded cable maximum length 200 m.

Conditions of the Mr. SLIM series compatible with the Lossnay ventilation system

TYPE	MODEL
4 way cassette	PLA-BA / SLZ-KA
Ducted	PEAD-JA / PEA-GA / SEZ-KD

* Horizontal installation only.

TYPE	MODEL
Ceiling	PCA-KA / HA
Wall mounted	PKA-HA / KA
Floor standing	PSA-KA



VL-100EU₅-E

WALL MOUNTED DECENTRALIZED VENTILATION

A control switch is required for operating.
Prepare a control switch and connect the cables as shown. Use suitable cables from 0.5 to 2.0 mm in diameter.

Installation Data*

MODEL	Section A	Breaker	Section B	Section C	Section D
VL 100EU ₅ -E	2x1,5 +T	10 A	-	-	-

GK

AIR CURTAIN BARRIERS

SPEED SETTING

High speed operating

Low speed operating

Installation Data*

MODEL	Section A
GK-3009AS1	3x1,5 +T
GK-3012AS1	3x1,5 +T

Control System

Connectors

CONNECTORS	78
------------	----

Optional Parts

FUNCTIONS	80
PAC-SH29TC	80
MAC-397IF	81
MAC-334IF	84
MAC-1702RA	87
PAC-SE55RA	88
PAC-SA88HA	89
MAC-567IF - MELCloud Wi-Fi	91
BMS	91



Remote Controller

	92
--	----

Diagnostic

SELF DIAGNOSIS - M SERIES	94
FAILURE MODE RECALL - M SERIES	96
SELF DIAGNOSIS - S SERIES	105

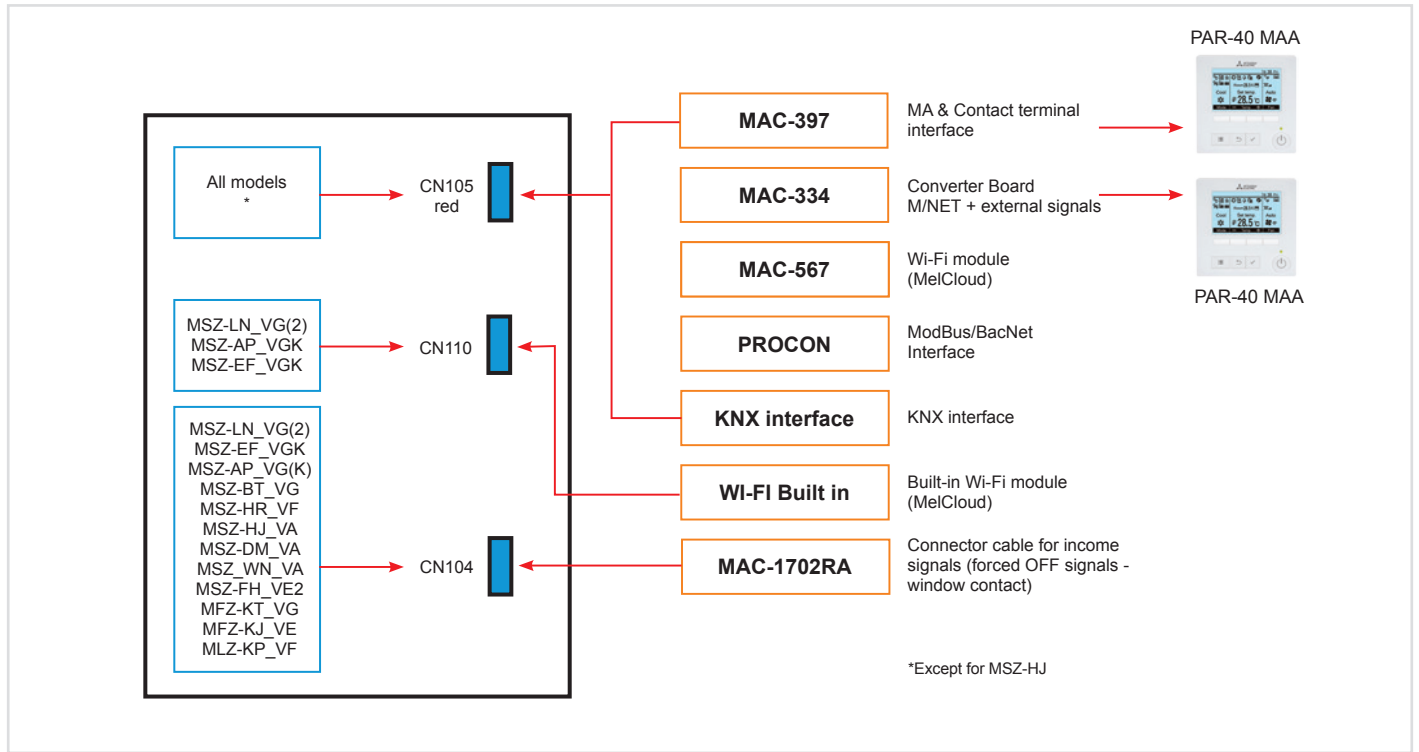
Settings and functions

A CONTROL	108
SILENT MODE	113

Connectors

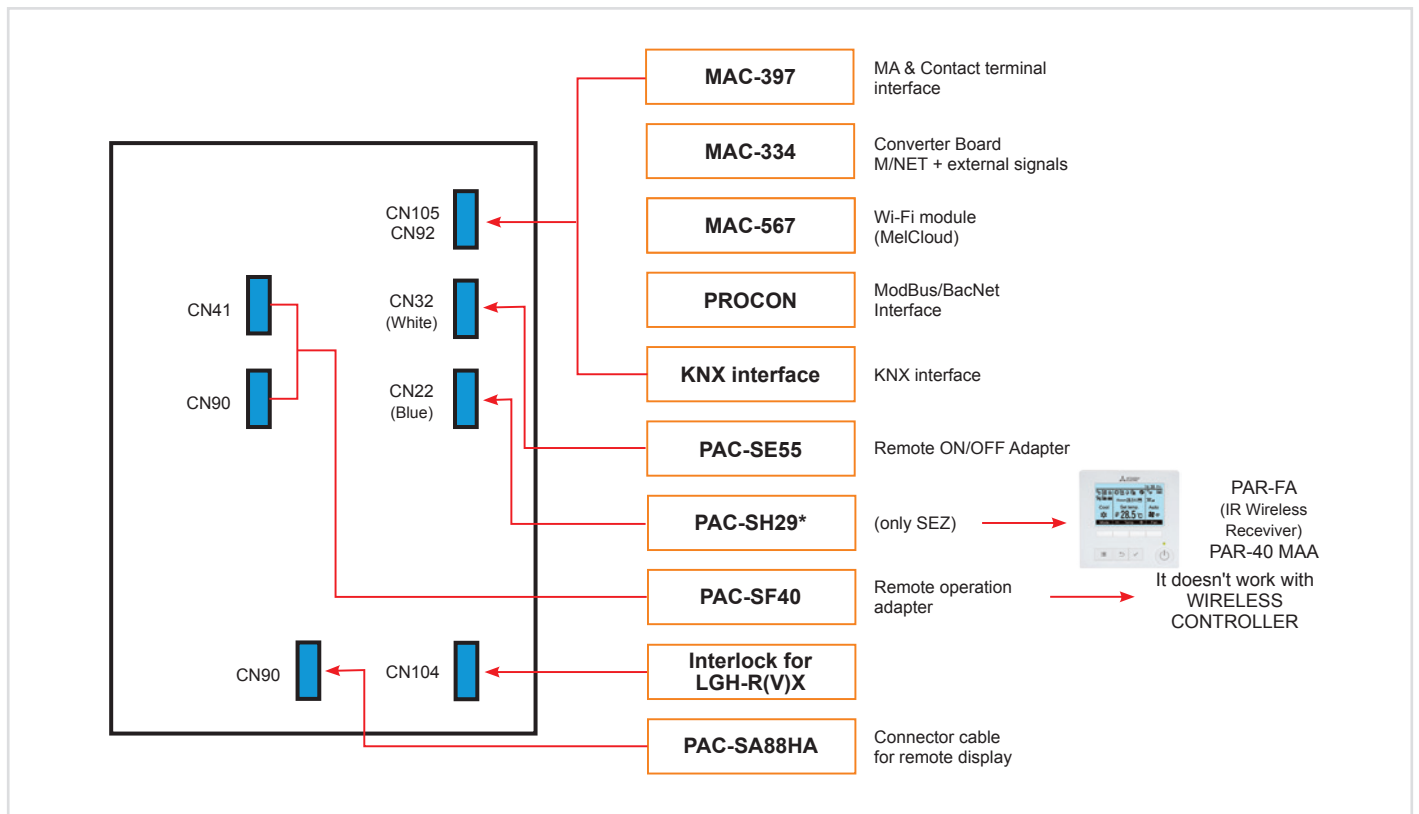
M SERIES - INDOOR UNIT

CONNECTORS



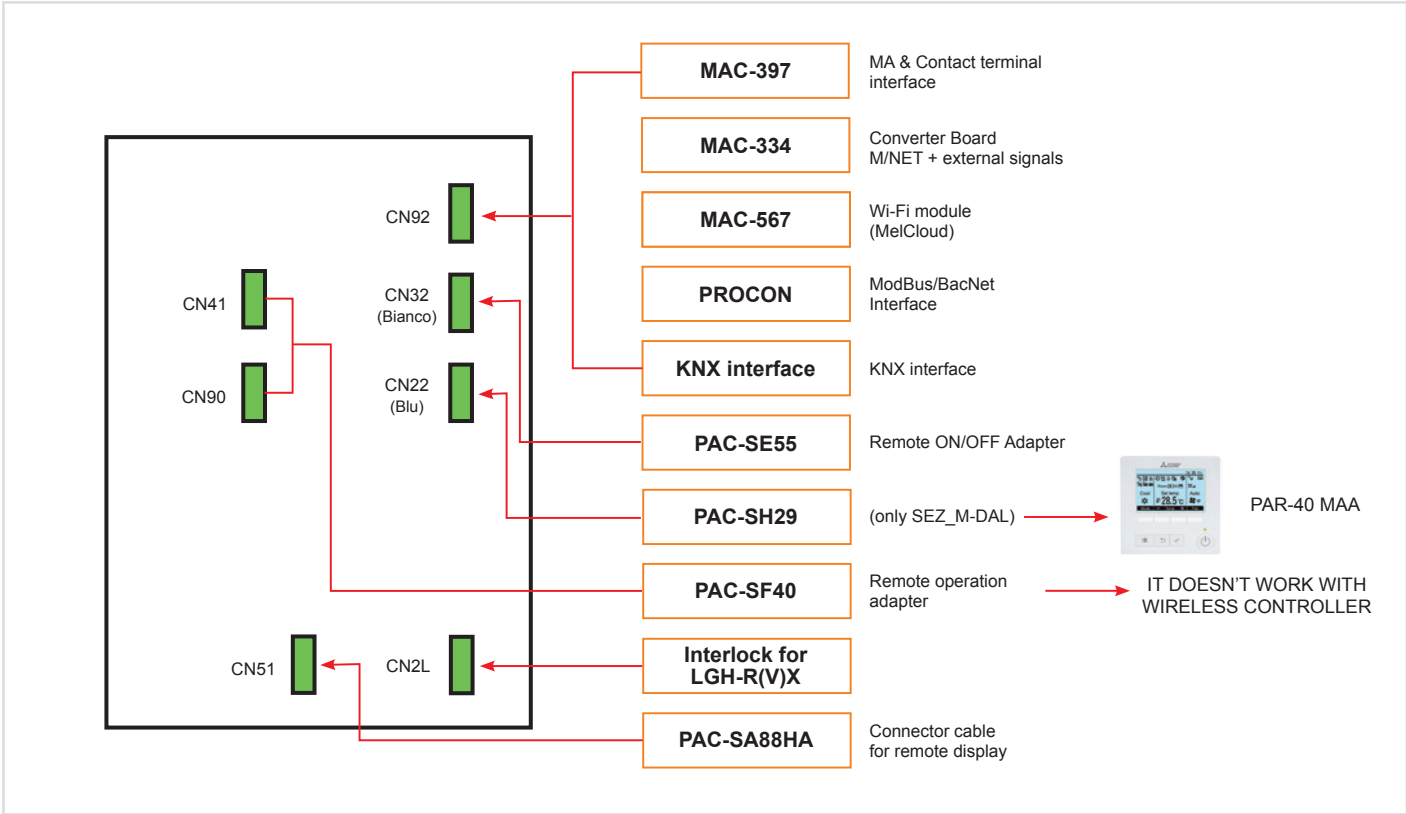
S SERIES - INDOOR UNIT

CONNECTORS



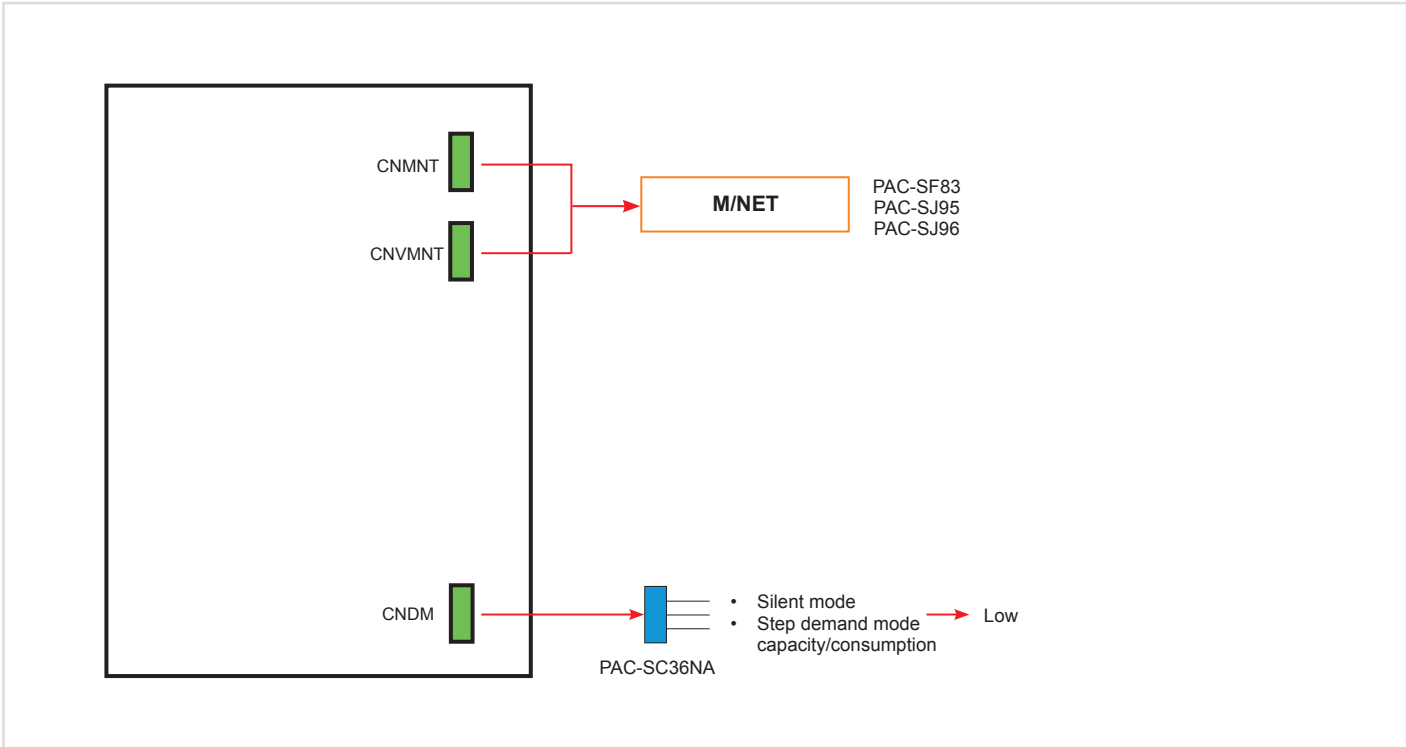
P SERIES - INDOOR UNIT

CONNECTORS



P SERIES - OUTDOOR UNIT

CONNECTORS



Optional Parts

Functions

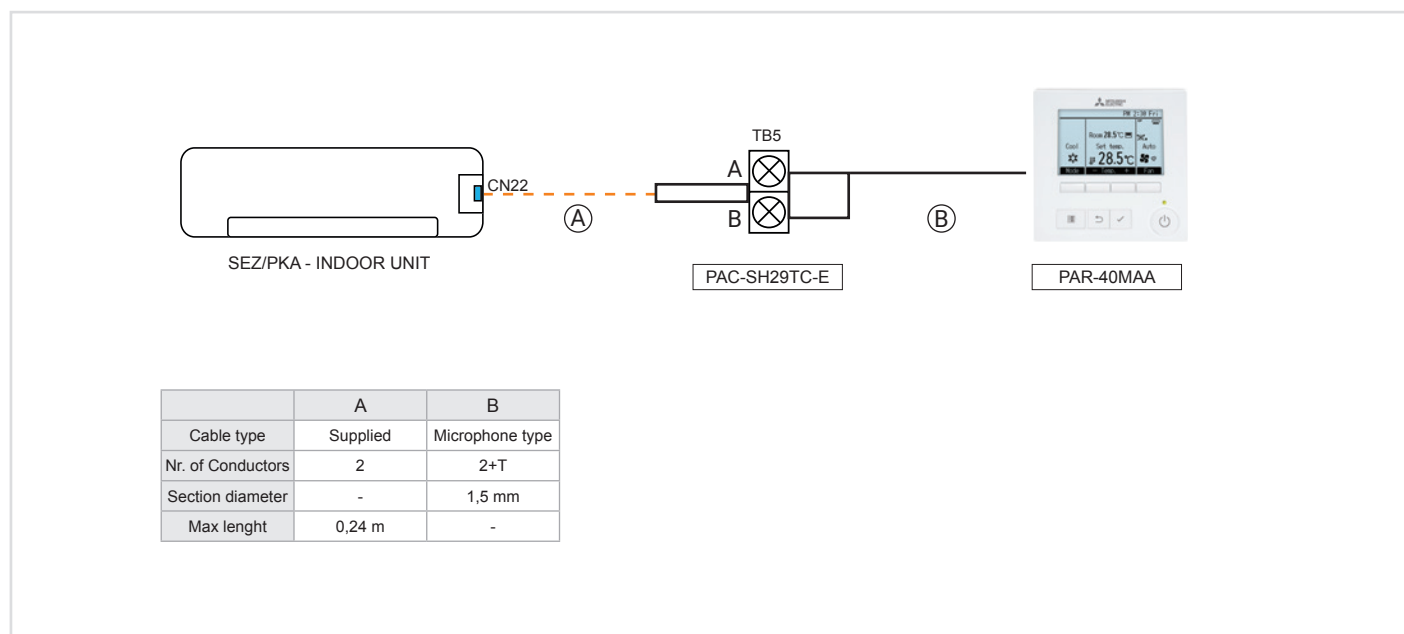
		Wired controller Connection	Window contact*	remote ON/OFF	Group control	M/NET	ON/OFF OK/Error
M Series	All models**	MAC-397 MAC-334	MAC-397 MAC-334 MAC-1702RA ***	MAC-397 MAC-334	MAC-397 MAC-334	MAC-334	MAC-397 MAC-334
S Series	SLZ-M	Direct connection	MAC-397 MAC-334 PAC-SA88HA	MAC-397 MAC-334 PAC-SE55RA PAC-SA88HA	MAC-397 MAC-334	MAC-334	MAC-397 MAC-334 PAC-SF40RM PAC-SA88HA
	SEZ-M	PAC-SH29					
P Series	PKA-M	PAC-SH29	PAC-SE55RA PAC-SA88HA	PAC-SE55RA PAC-SA88HA	Direct connection	MAC-334 PAC-SJ95MA PAC-SJ96MA	MAC-397 MAC-334 PAC-SF40RM PAC-SA88HA
	Other models	Direct connection					

* PAY ATTENTION check recovery option (ON of indoor unit)

** current models. For previous models, please refer to Mitsubishi Electric back office

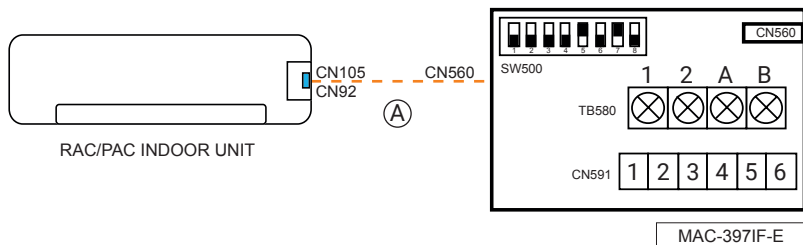
*** refer to compatibility list

PAC-SH29TC



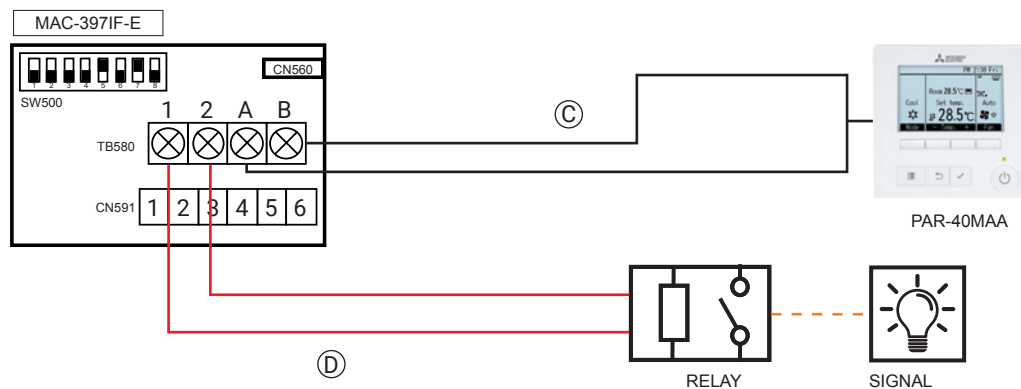
MAC-397IF

Wiring



	A
Cable type	Supplied
Nr. of Conductors	5
Section diameter	-
Max lenght	2 m

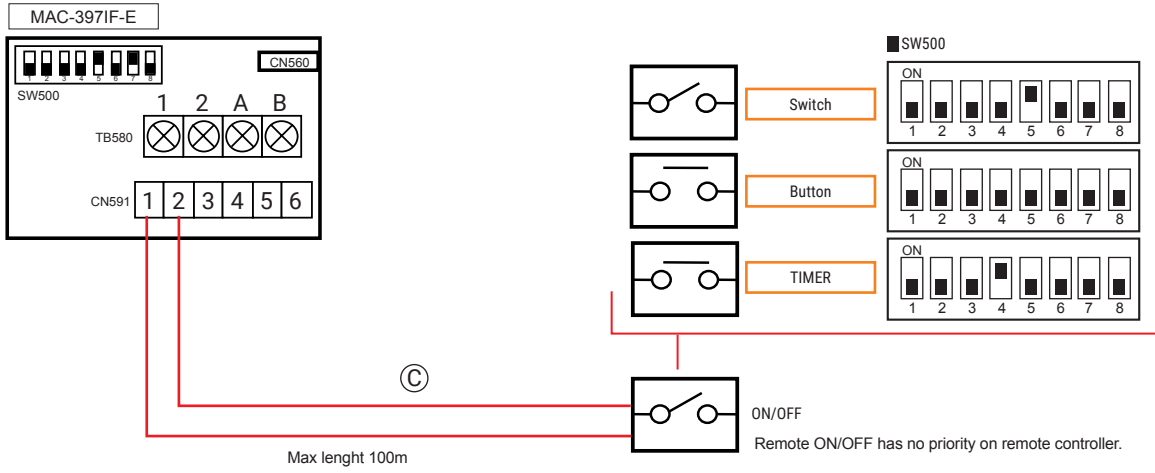
Output signals



	C	D
Cable type	Microphone type	Microphone type
Nr. of Conductors	2+T	2
Section diameter	1,5 mm	0,75 mm o sup.
Max lenght	-	100 m

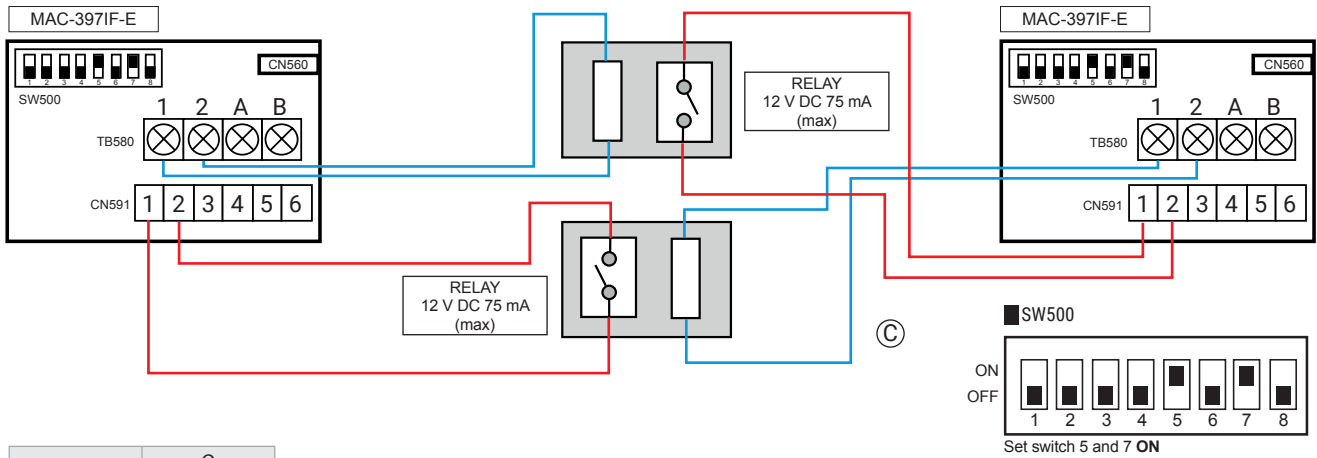
MAC-397IF

Incoming Signals - On/Off



	C
Cable type	Microphone type
Nr. of Conductors	2
Section diameter	0,75 mm o sup.
Max lenght	100 m

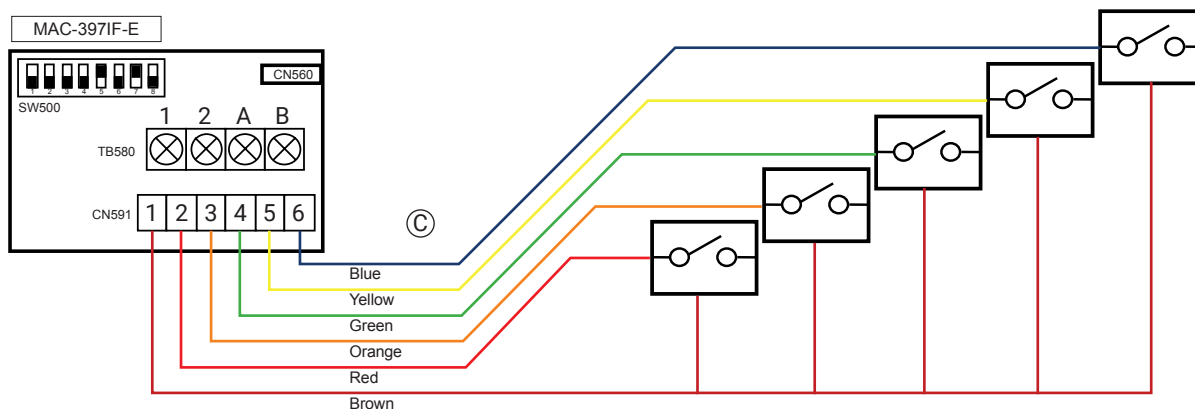
Back-up connection



	C
Cable type	Microphone type
Nr. of Conductors	2
Section diameter	0,75 mm o sup.
Max lenght	100 m

MAC-397IF

Advanced function



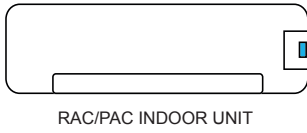
	C
Cable type	Microphone type
Nr. of Conductors	2
Section diameter	0,75 mm o sup.
Max lenght	100 m

FUNCTIONS	Nr.	TIPOLOGY	SW500			Operation details on CN 591
			Nr. 4	Nr. 5	Nr. 6	
NOT IN OPERATION	-	-	OFF	OFF	OFF	-
WINDOW CONTACT ON/OFF PROHIBITED/ALLOWED	1	-	OFF	OFF	ON	1 e 2: closed --> ON open--> OFF 1 e 3: closed --> prohibited operation open--> allowed operation
	2	Level input	OFF	ON	OFF	1 e 2: closed --> ON open--> OFF 1 e 3: closed --> prohibited operation open--> allowed operation
	3	Pulse input	OFF	ON	ON	1 e 2: closed --> ON 1 e 3: closed --> OFF 1 e 4: closed --> prohibited operation 1 e 5: closed --> allowed operation
COIN TIMER MODE	1	No voltage contact point A	ON	OFF	OFF	1 e 2: closed --> OFF and prohibited operation open--> ON and allowed operation
	2	No voltage contact point B	ON	OFF	ON	1 e 2: chiusi --> OFF and prohibited operation open--> ON and allowed operation
COOLING HEATING TEMPERATURE	1	3 temperature patterns	ON	ON	OFF	1 e 2: closed --> ON open--> OFF 1 e 3: closed --> 20°C 1 e 4: closed --> 24°C 1 e 5: closed --> 28°C 1 e 6: closed --> HEATING open--> COOLING
	2	8 temperature patterns	ON	ON	ON	1 e 2: closed --> ON open--> OFF 1 e 6: closed --> HEATING open--> COOLING TEMPERATURE--> Check tab

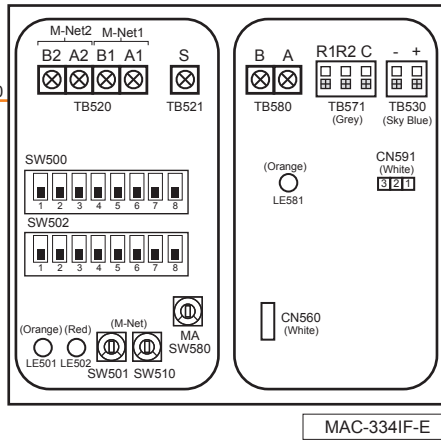
TEMPERATURE SETTINGS			
N° 1 e N°3	N°4	N°5	Temperature
Open	Open	Open	16 °C
Close	Open	Open	18 °C
Open	Close	Open	20 °C
Close	Close	Open	22 °C
Open	Open	Close	24 °C
Close	Open	Close	26 °C
Open	Close	Close	28 °C
Chiuso	Close	Close	30 °C

MAC-334IF

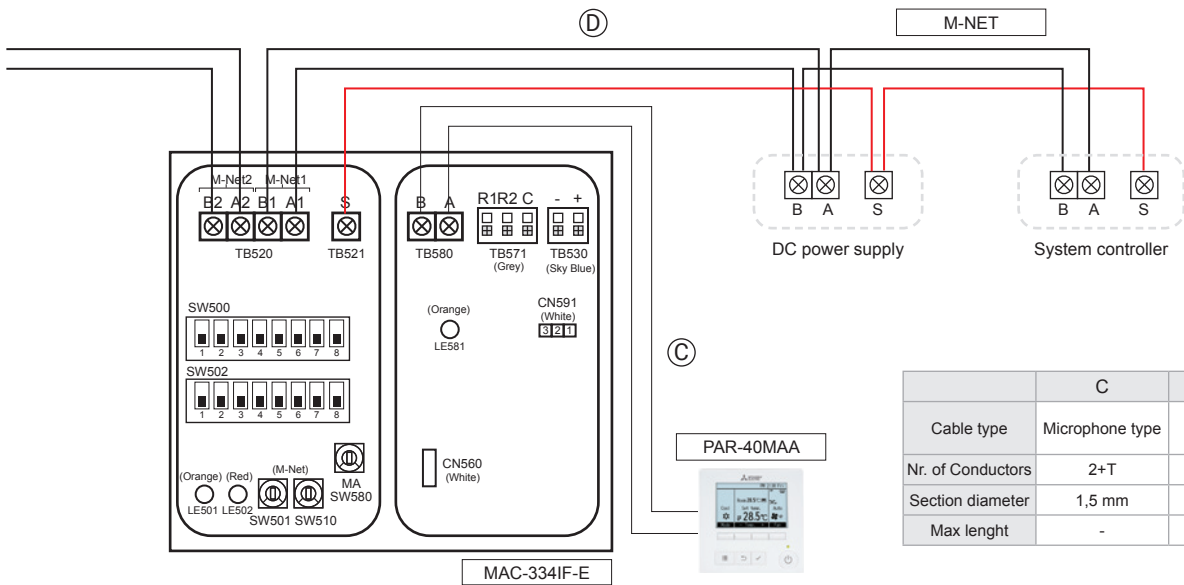
Wiring



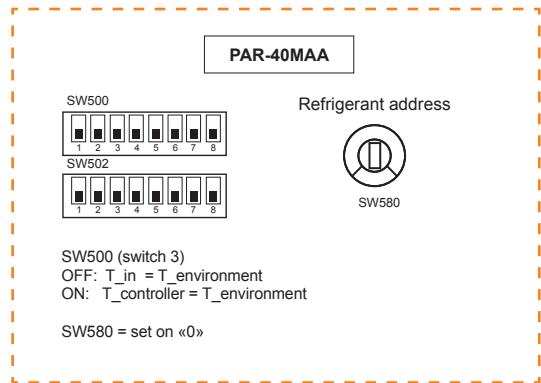
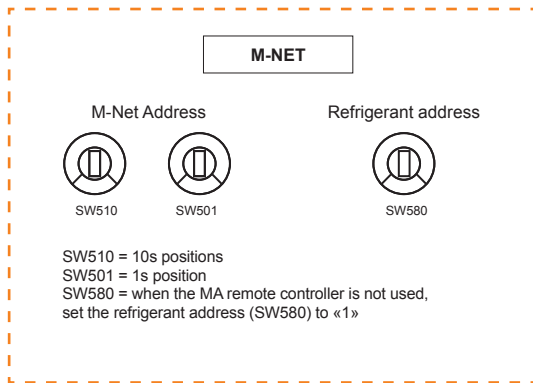
	A
Cable type	Supplied
Nr. of Conductors	5
Section diameter	-
Max lenght	2 m



Remote connections/M-NET

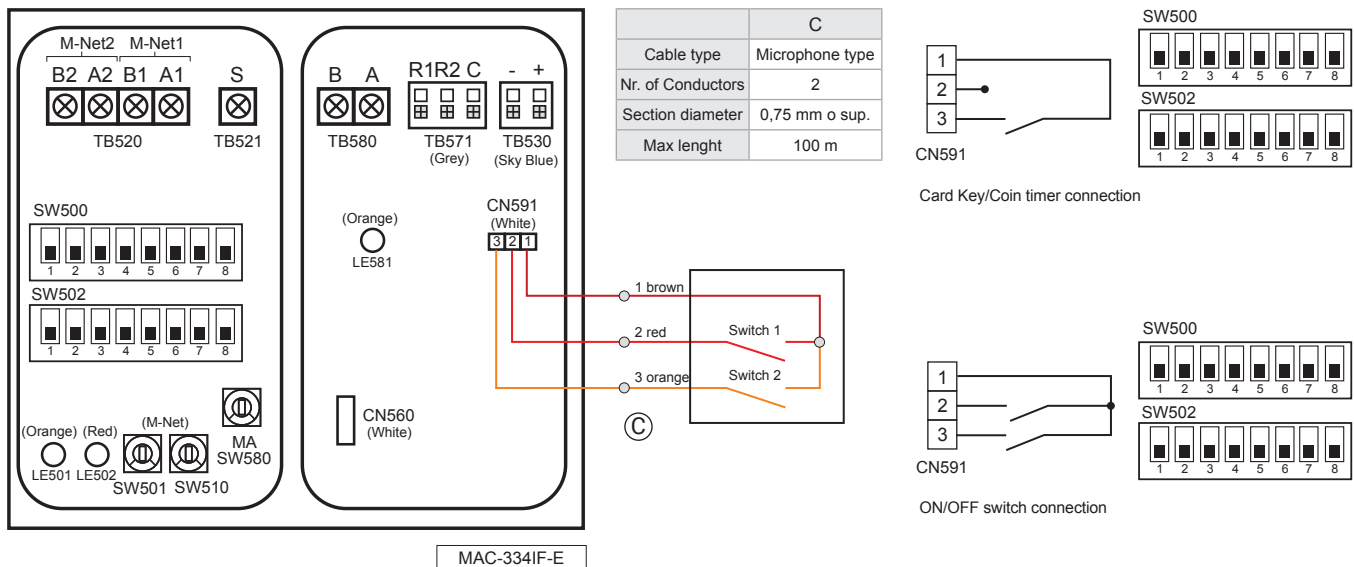


	C	D
Cable type	Microphone type	FR0HR/FG7 Shielded
Nr. of Conductors	2+T	2+ shielding
Section diameter	1,5 mm	1,5 mm
Max lenght	-	<200 m



MAC-334IF

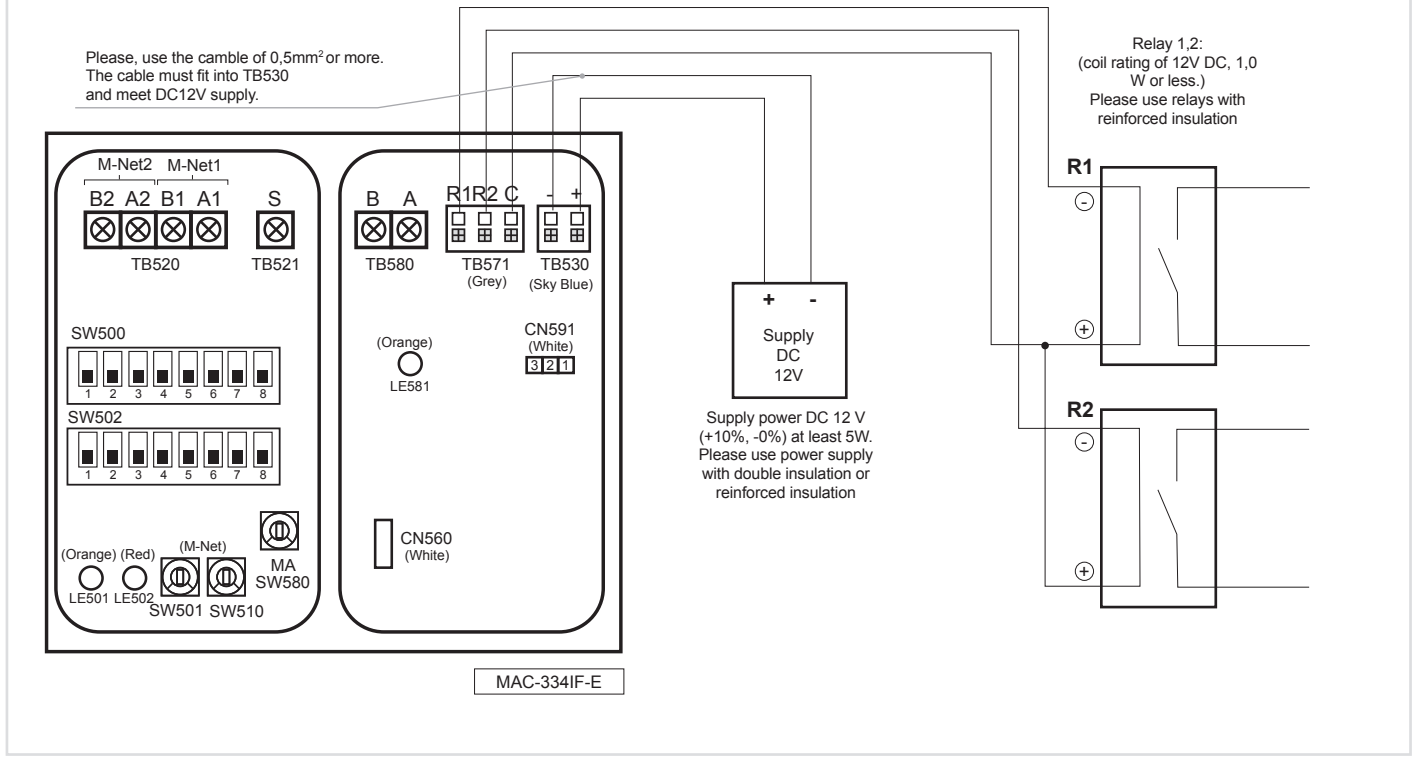
Input signals



No.	FUNCTIONS	SW No.	How to use	
1	ON/OFF Manual operation prohibited/allowed (Level contact)			Switch 1: ON/OFF Switch 2: Manual operation prohibited/allowed
2	ON/OFF Manual operation prohibited/allowed (Pulse contact)			Switch 1: ON/OFF Switch 2: Manual operation prohibited/allowed
3	ON/OFF Remote operation/ Manual operation (Level contact)			Switch 1: ON/OFF Switch 2: Remote operation/ Manual operation
4	ON, OFF (Pulse contact)			Switch 1: ON Switch 2: OFF
5	Heating/cooling input (Level contact)			Switch 1: ON/OFF Switch 2: Heating/cooling
No.	FUNCTIONS	SW No.	How to use	Operational details
6	Behavior when operation is prohibited		Operational status of room air conditioner when manual operation is prohibited can be set	SW502-5: OFF • When manual operations are prohibited using Switch 2, the operating status remains that prior to the prohibition of manual operations. SW502-5: ON • When manual operations are prohibited using Switch 2, air conditioner turns off.
7	Behavior when prohibition of operation is canceled		Operational status of room air conditioner when prohibition of manual operation is canceled can be set	SW502-6: OFF • When the prohibition of manual operations is canceled using Switch 2, the operating state remains the one before the cancellation. SW502-6: ON • When the prohibition of manual operations is canceled using Switch 2, the room air conditioner turns on.

MAC-334IF

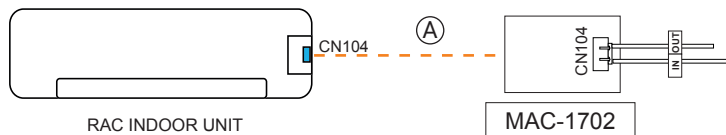
Output signals



No.	FUNCTIONS	SW No.	Operating details
1	ON/OFF, Error/ Normal output		SW502-1: OFF • Relay 1 is on when room air conditioner is on, and off when room air conditioner is off • Relay 2 is on when room air conditioner is in error, and off when room air conditioner is operating normally SW502-1: ON • Relay 1 and 2 behavior are opposite of those above
2	ON/OFF, Heater control output		SW502-1: OFF • Relay 1 is on when room air conditioner is on, and off when room air conditioner is off • When the air conditioner runs in the heating (automatic heating) mode and room temperature becomes the set temperature - 2.5 °C (4.5 °F) or lower, the Relay 2 (heater) turns on. When the air conditioner runs in a mode other than the heating (automatic heating) or it is OFF, or when room temperature becomes the set temperature or higher, the Relay 2 (heater) turns off SW502-1: ON • Relay 1 and 2 behavior are opposite of those above
3	ON/OFF, Humidifier control output		SW502-1: OFF • Relay 1 is on when room air conditioner is on, and off when room air conditioner is off • When the air conditioner runs in the heating (automatic heating) mode, Relay 2 (humidifier) turns on. When the air conditioner runs in a mode other than heating (automatic heating) or it is OFF, Relay 2 (humidifier) turns off SW502-1: ON • Relay 1 and 2 behavior are opposite of those above
4	Heater control, Humidifier control output		SW502-1: OFF • When the air conditioner runs in the heating (automatic heating) mode and room temperature becomes the set temperature - 2.5 °C (4.5 °F) or lower, Relay 1 (heater) turns on. When the air conditioner runs in a mode other than the heating (automatic heating) or it is OFF, or then room temperature becomes the set temperature or higher, Relay 1 (heater) turns off • When the air conditioner runs in the heating (automatic heating) mode, Relay 2 (humidifier) turns on. When the air conditioner runs in a mode other than heating (automatic heating) or OFF, Relay 2 (humidifier) turns off SW502-1: ON • Relay 1 and 2 behavior are opposite of those above
5	ON/OFF, Humidifier control (single operation output)*		Relay 1 is on when ON is set by System controller, ME remote controller or MA remote controller, and off when OFF is set by these controllers. When room temperature becomes the set temperature or lower in the heating (automatic heating) mode, the Relay 2 (heater) turns on. When a mode other than heating (automatic heating) or OFF is set by System controller, ME remote controller or MA remote controller, or when room temperature becomes higher than the set temperature +1 °C (2 °F), the Relay 2 (heater) turns off. * This function is to run the heater instead of the air conditioner in the heating mode. The air conditioner stops in the heating mode. Do not use the remote controller attached to the air conditioner. If you use it, the operation may not reflect the setting. The position of detecting the room temperature is where MA remote controller is put, so make sure to connect it to the interface unit.

MAC-1702RA

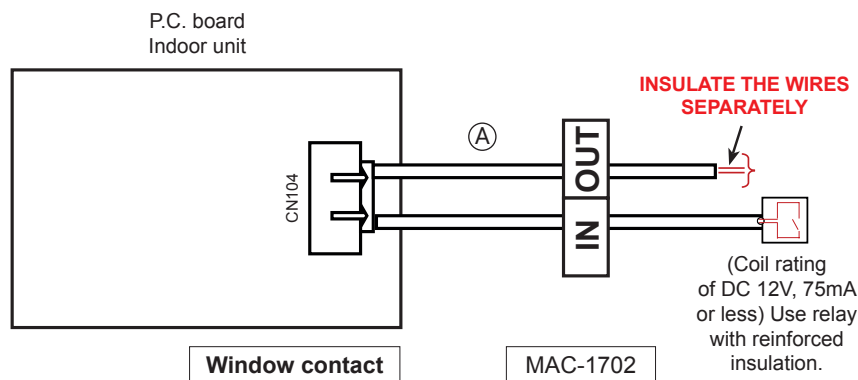
Wiring



	A
Cable type	Supplied
Nr. of Conductors	4
Section diameter	-
Max lenght	2 m

Remote controller works even if connection is OFF.
 In order to block the remote controller, cut JR88 on indoor unit PC board.

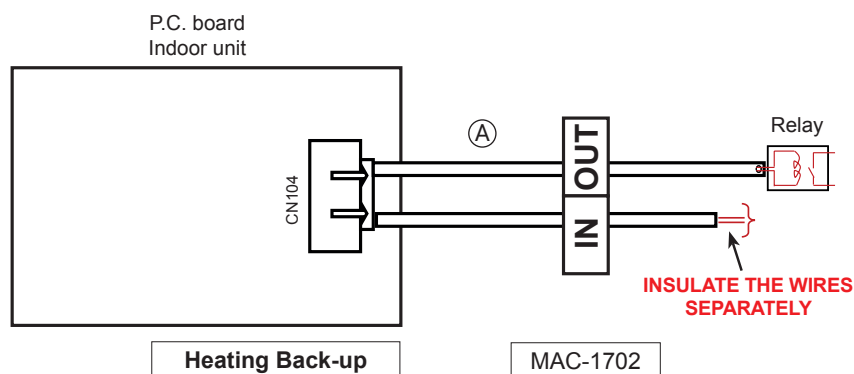
Incoming Signals - Window contact



When the contact is open, indoor unit can be turned ON; when the contact is closed, indoor unit is OFF.
 Pay Attention: the indoor unit does not automatically restart when the contact is open.

	A
Cable type	Supplied
Nr. of Conductors	4
Section diameter	-
Max lenght	2 m

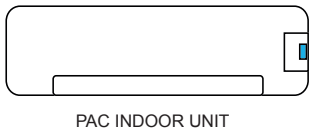
OUTPUT signals - Heating Back-up



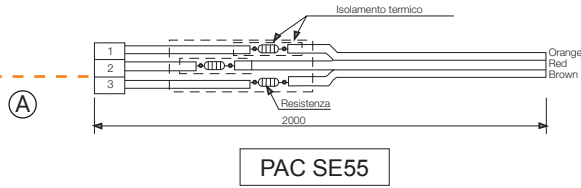
Compatibility list	
MSZ-LN25/35/42/50VG(2)	MFZ-KJ25/35/50VE2
MSZ-EF18/22/25/35/42/50VGK	MFZ-KT25/35/50VG
MSZ-AP15/20/25/35/42/50/60/71VG(K)	MLZ-KP25/35/50VF
MSZ-BT20/25/35VG	MSZ-HJ25/35/50/60/71VA
MSZ-HR25/35/42/50/60/71VF	MSZ-DM25/35VA
	MSZ-WN25/35VA

PAC-SE55RA

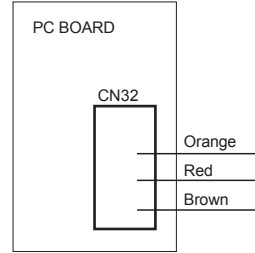
Wiring



PAC INDOOR UNIT



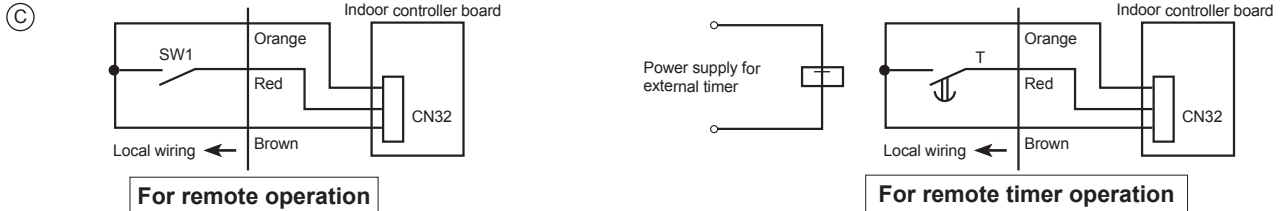
PAC SE55



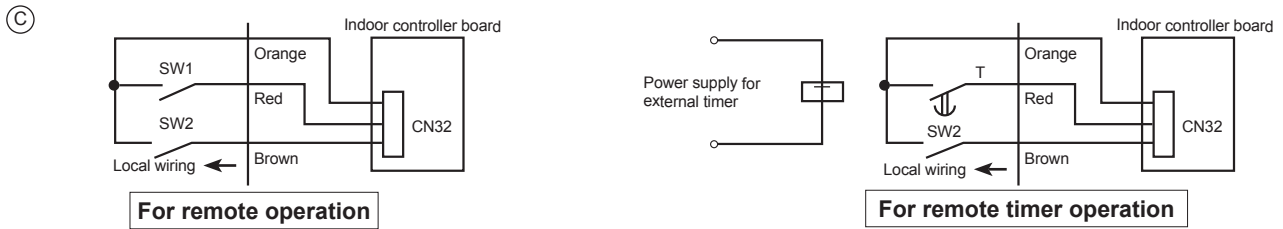
	A
Cable type	Microphone type
Nr. of Conductors	3
Section diameter	-
Max lenght	2 m

Incoming Signals - ON/OFF

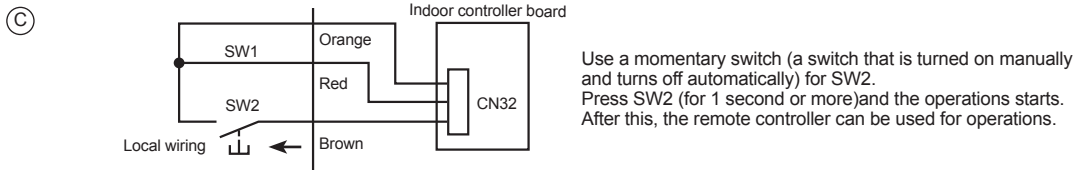
1. To perform operation/stopping by only remote operation or external timer and to prohibit operation/stopping by the remote controller, use the following circuits.



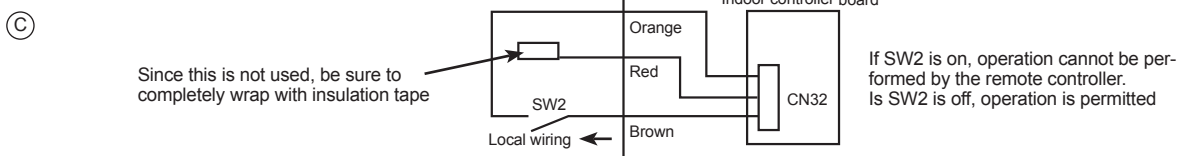
2. To perform operation/stopping by remote operation or external timer and allow operation/stopping in the remote controller, use the following circuits.



3. To start operation by remote operation and then freely use remote controller, use the following circuit.



4. To permit/prohibit the use of remote controller by an external circuit.



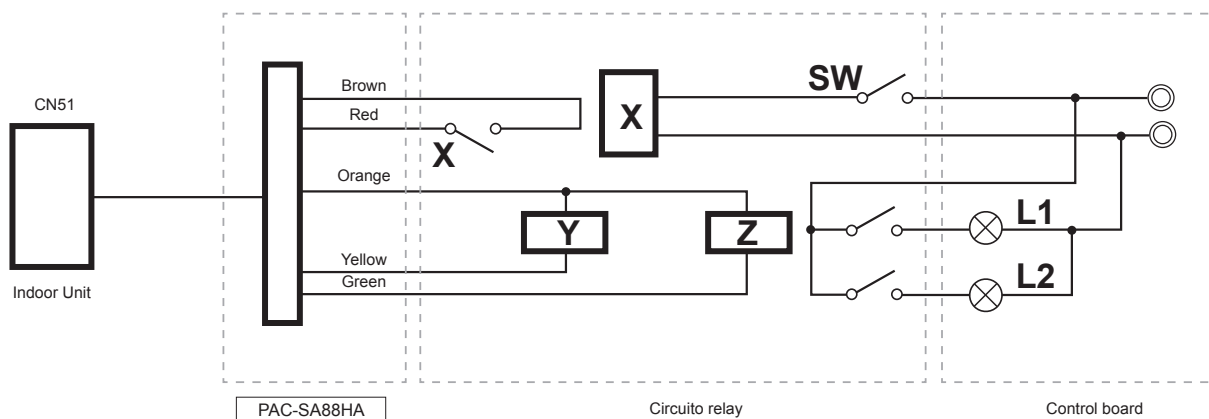
	C
Cable type	Microphone type
Nr. of Conductors	2
Section diameter	0,75 mm o sup.
Max lenght	100 m

PAC-SA88HA

Wiring



Input and output signals - ON/OFF - Status/Error



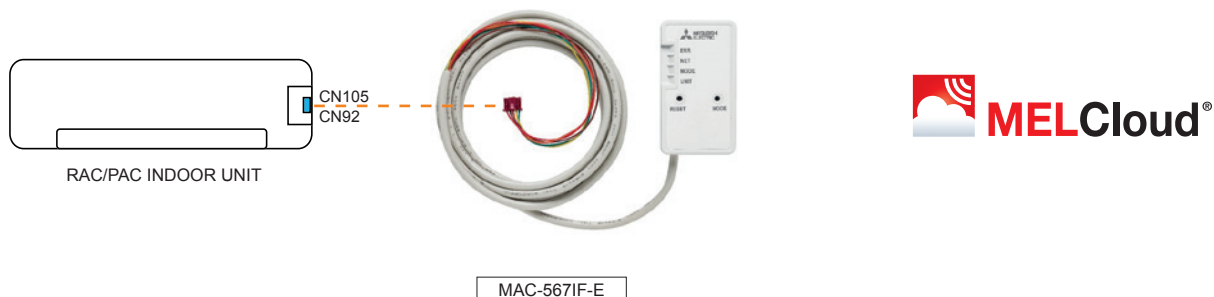
No.	Color	CN51
1	Brown	
2	Red	
3	Orange	+
4	Yellow	-
5	Green	-

KEY
 SW = Switch ON/OFF
 L1 = status lamp
 L2 = error lamp
 X = Relay a point of contact, fixed DC 1 mA
 Y, Z = Relay contact rating voltage \geq 15 VDC and contact rating current \geq 0,1 A; minimum applicable load \leq DC 1mA

Item	Description
Input signal	Pulse sign (normally open)
Standard of pulse	

MAC-567IF - MELCloud Wi-Fi interface

OUTPUT signals



SERIES	Compatible indoor units	
M SERIES	MSZ-SF15/20/25/35/42/50VE, MSZ-GF60/71VE, MSZ-WN25/35 MSZ-EF18/22/25/35/42/50VE(2)S/W/B MSZ-FH25/35/50VE, MSZ-FD25/35/50VA, MSZ-FA25/35VA, MSZ-DM25/35 MSZ-GE22/25/35/50/60/71VA, MSZ-GC22/25/35VA, MSZ-CGE25/35/50VA MSZ-GB50VA, MSZ-GA22/25/35/50/60/71VA, MSZ-CB25/35/50VA MFZ-KA25/35/50VA, MLZ-KA25/35/50VA, MFZ-KJ25/35/50VE	MSZ-EF18/22/25/35/42/50VG MSZ-AP15/20/25/35/42/50/60/71VG MSZ-BT20/25/35VG MSZ-HR25/35/42/50/60/71VG MFZ-KT25/35/50VG MLZ-KP25/35/50VF
P SERIES	PCA-M(RP)35/50/60/71/100/125/140 PEAD-M(RP)35/50/60/71/100/125/140JA(L) PLA-RP35/50/60/71/100/125/140EA PEA-RP200/250GA PKA-M(RP)35/50HAL, PKA-M(RP)60/71/100KAL PLA-ZRP35/50/60/71/100/125/140BA/BA2 PLA-RP/ZM35/50/60/71/100/125/140EA PLA-RP35/50/60/71/100/125/140BA/BA2/BA3 PLA-RP35/50/60/71/100/125/140AA/AA2 PSA-RP71/100/125/140KA, PSA-RP71/100/125/140GA	PLA-M35/50/60/71/100/125/140EA PLA-ZM35/50/60/71/100/125/140EA PLA-SM71/100/125/140EA PEAD-SM71/100/125/140JAL
S SERIES	SEZ-KD25/35/50/60/71VA(L)Q SEZ-KA35/50/60/71VA SLZ-KA25/35/50VA(L)Q SLZ-KF25/35/50/60	SEZ-M25/35/50/60/71DAL SLZ-M25/35/50/60FA

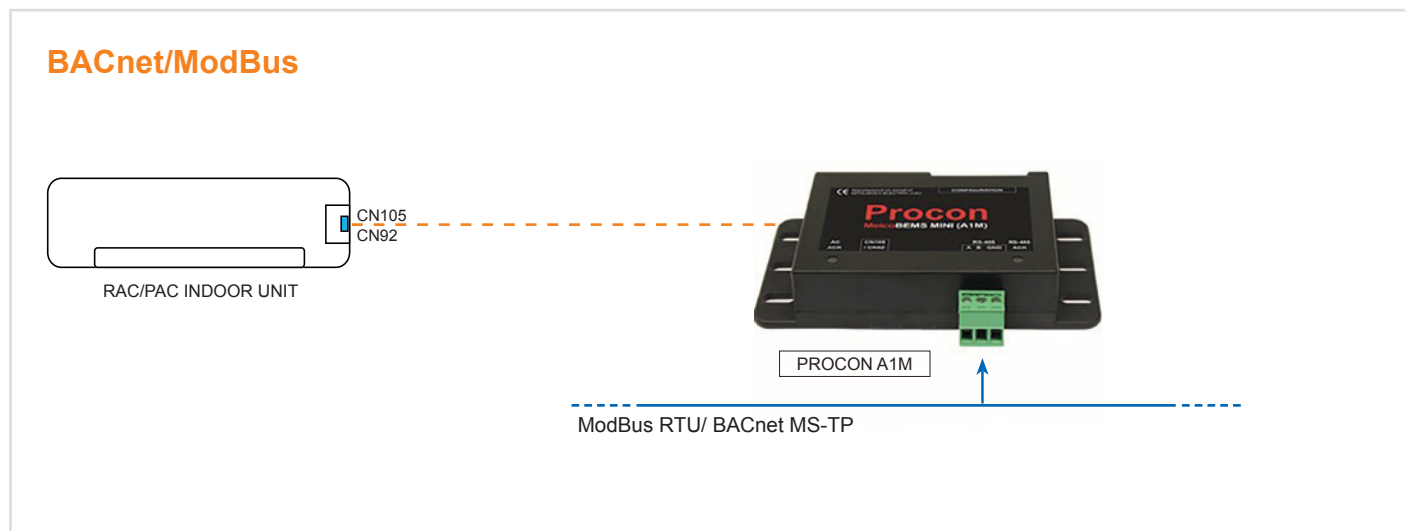
MELCloud

MELCloud is an APP that allows system management via Smartphone, Tablet and PC, on local Wi-Fi and remotely. MELCloud is compatible with Amazon Alexa.

Scan the QR Code for the video tutorial about Installation and Configuration

Scan the QR Code for the Video Tutorial about Functions and Controls

BMS interface



PROCON A1M

PROCON A1M is a point-to-point interface for ModBus RTU and BACNet MS/TP protocols (max 1 unit for interface).

PROCON A1M is used for monitoring and control, acting as gateway between a single indoor unit and external third party equipment.

Variables	PROCON A1M
On/Off	•
Mode	•
Set-Point	Single
Fan speed	•
Ambient temperature	•
Allarm presence	•
Allarm code	•
Variable addresses	Fixed scheme

Remote Controller

Frequency change

M SERIES - WALL MOUNTED

MSZ-LN / MSZ-FT / MSZ-EF / MSZ-AP / MSZ-SF / MSZ-GF



This setting can be set only when all the following conditions are met:

- The remote controller is powered OFF.
- Weekly timer is not set.
- Weekly timer is not being edited.

- (1) Hold down [1~4] button on the remote controller for 2 seconds to enter the pairing mode.
- (2) Press [1~4] button again and assign a number to each remote controller.
- (3) Each press of [1~4] button advances the number in the following order: 1 * 2 * 3 * 4.
- (4) Press [EDIT/SEND SET] button to complete the pairing setting.

After you turn the breaker ON, the remote controller that first sends a signal to an indoor unit will be regarded as the remote controller for the indoor unit.

Once they are set, the indoor unit will only receive the signal from the assigned remote controller afterwards.

MSZ-BT



- (1) Turn the breaker OFF for the unit.
- (2) With the remote controller powered OFF, hold down UNIT button on the remote controller for 2 seconds to enter the pairing mode.
- (3) Press UNIT button again and assign a number to each remote controller: Each press of UNIT button advances the number in the following order: 1 * 2 * 3 * 4
- (4) Press to OPERATION SELECT (MODE) button complete the pairing setting.

SMART SERIES - WALL MOUNTED

MSZ-HR



- (1) Take out the batteries.
- (2) Cut jumpers JR2 - JR4 on the PC board as shown in the tab.
- (3) Keeping OFF the remote controller, press [1~4] for 2 seconds, until the indoor unit number appear.
- (4) Set the number as shown in tab. pressing [1~4], until the right number is visualized.
- (5) Press [EDIT/SEND SET] to confirm, the remote controller will shutdown.

Nr.	J2	J4
0	No Modification	No Modification
1	Solder J2	No Modification
2	No Modification	Solder J4
3-9	Solder J2	Solder J4

MSZ-HJ / MSZ-DM



- (1) Take out the batteries.
- (2) Cut jumpers JR1 - JR2 on the PC board as shown in the tab.
- (3) Keeping OFF the remote controller, press [1~4] for 2 seconds, until the indoor unit number appear.
- (4) Set the number as shown in tab. pressing [1~4], until the right number is visualized.
- (5) Press [EDIT/SEND SET] to confirm, the remote controller will shutdown.

For MSZ-HJ model

Nr.	J1	J2
0	No Modification	No Modification
1	Solder J1	No Modification
2	No Modification	Solder J2
3-9	Solder J1	Solder J2

For MSZ-DM model

Nr.	J1	J2
0	No Modification	No Modification
1	Cut J1	No Modification
2	No Modification	Solder J2
3-9	Cut J1	Solder J2

M SERIES - WALL MOUNTED

MFZ-KT / MFZ-KJ



- (1) Take out the batteries.
- (2) Cut jumpers JR05 - JR06 on the PC board as shown in the tab.
- (3) Keeping OFF the remote controller, press [1~4] for 2 seconds, until the indoor unit number appear.
- (4) Set the number as shown in tab. pressing [1~4], until the right number is visualized.
- (5) Press **STOP/SEND** **SET** to confirm, the remote controller will shutdown.

Nr.	JR05	JR06
0	No Modification	No Modification
1	Cut JR05	No Modification
2	No Modification	Cut JR06
3-9	Cut JR05	Cut JR06

S SERIES

SLZ-M / SEZ-M



- (1) Push SET button with an object that has a narrow end.
(MODEL SELECT) blink and number of model appears.
- (2) Push twice mean button, number "0" now blink.
- (3) Use **UP** **DOWN** button, to set the pair number.
- (4) Push SET button with an object that has a narrow end.

Nr.	J41	J42
0	No Modification	No Modification
1	Cut J41	No Modification
2	No Modification	Cut J42
3-9	Cut J41	Cut J42

P SERIES

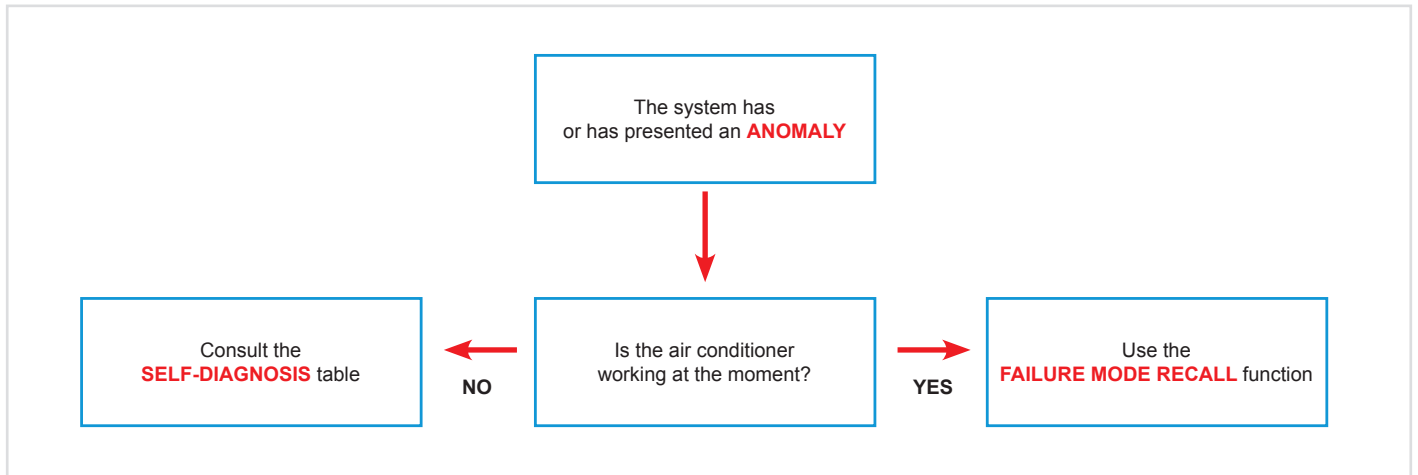
PKA-M



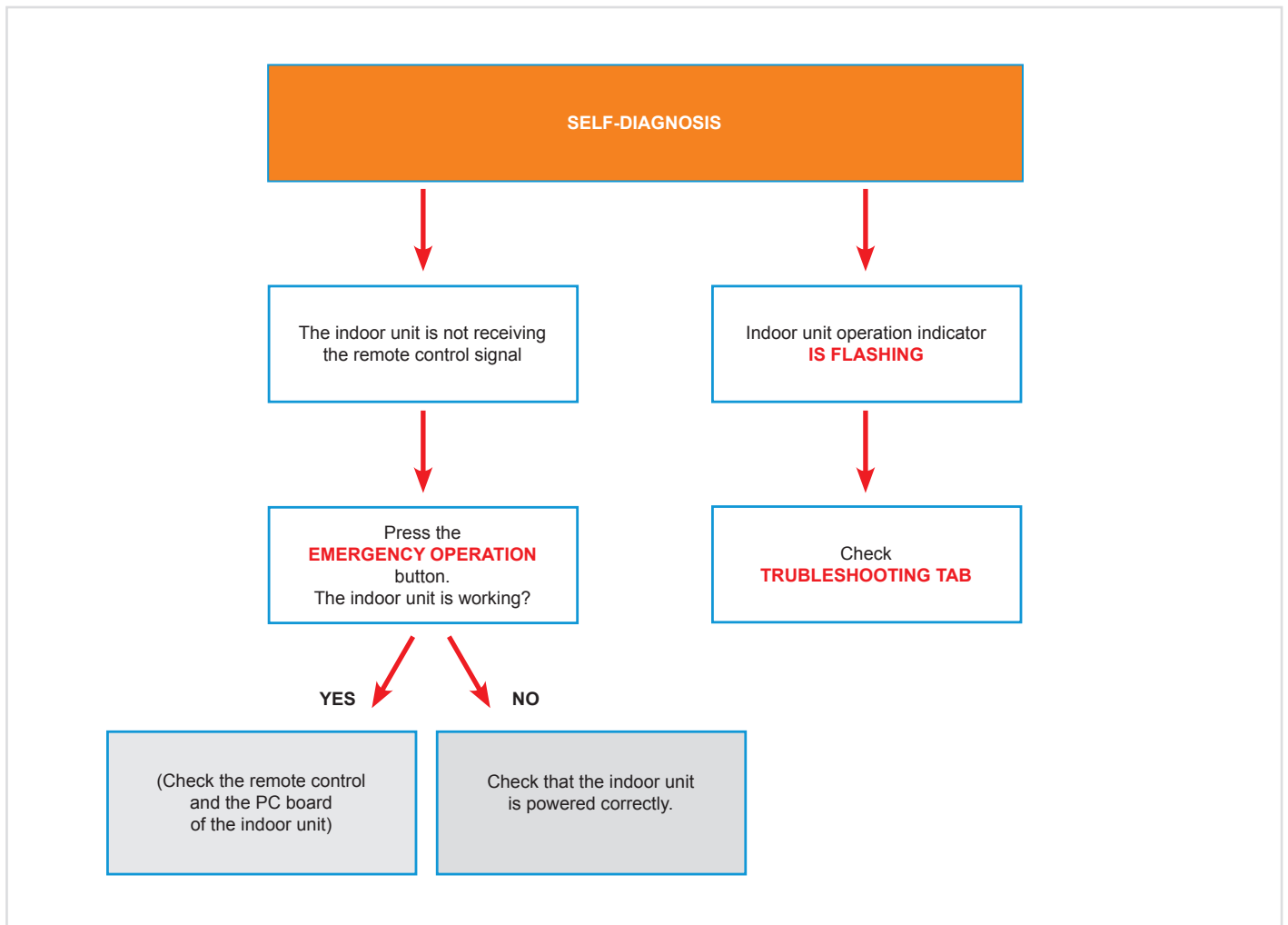
- (1) Push SET button with an object that has a narrow end.
(MODEL SELECT) blink and number of model appears.
- (2) Push twice mean button, number "0" now blink.
- (3) Use **UP** **DOWN** button, to set the pair number.
- (4) Push SET button with an object that has a narrow end.

Nr.	J41	J42
0	No Modification	No Modification
1	Cut J41	No Modification
2	No Modification	Cut J42
3-9	Cut J41	Cut J42










Diagnostic



M SERIES SELF-DIAGNOSIS - INDOOR UNIT



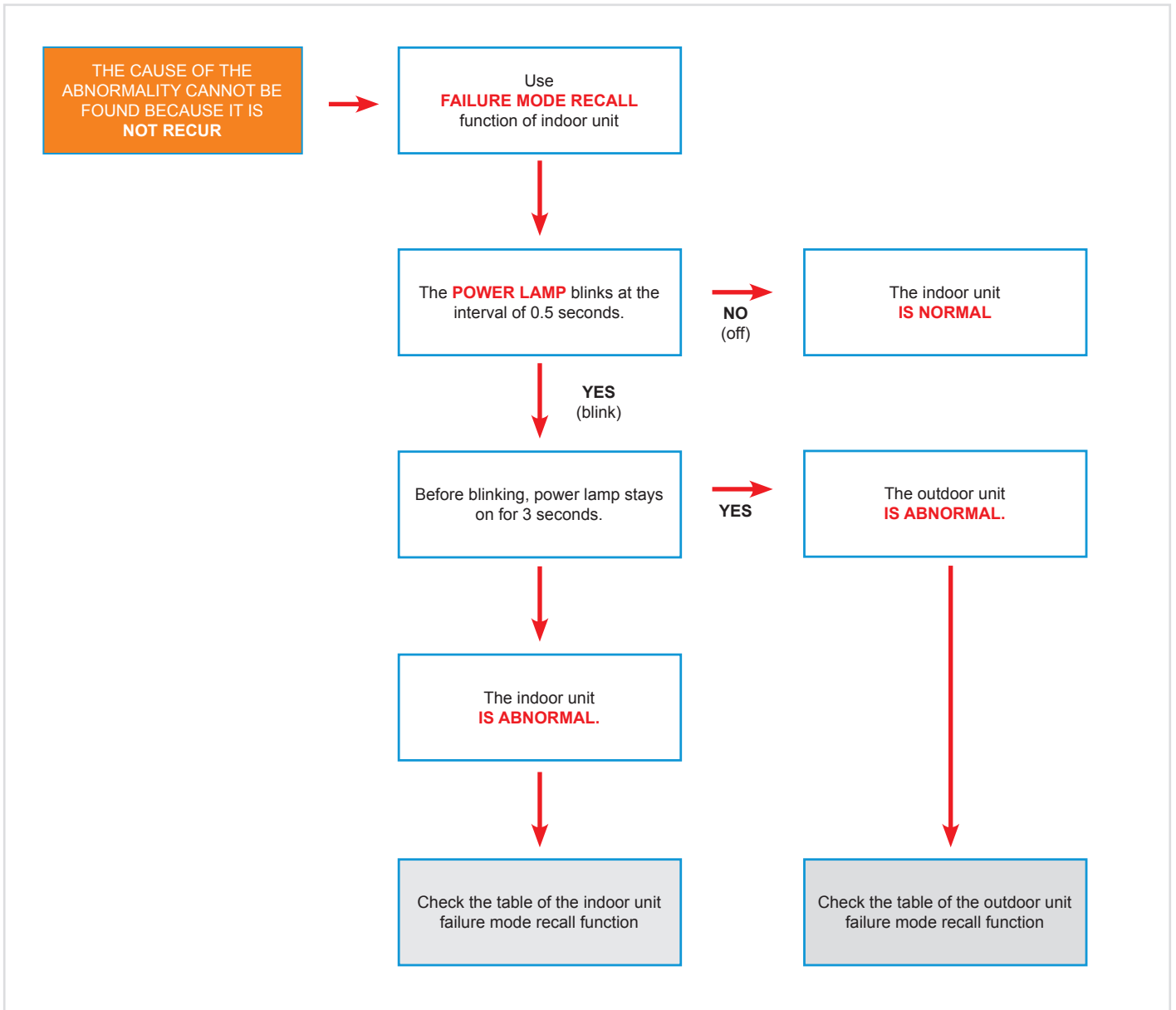
TROUBLESHOOTING TAB

NO.	ABNORMAL POINT	OPERATION INDICATOR LAMP	SYMPTOM	CONDITION	REMEDY
1	Connection error or serial signal	<p>Left lamp blinks. 0.5-second ON  0.5-second OFF</p>	Indoor unit and outdoor unit do not operate	The serial signal from the outdoor unit is not received for 6 minutes. The indoor unit is connected to a low-stand-by-power model after once connected to a mom-low-standby-power model.	Refer to 10-6. "How to check miswiring and serial signal error"
2	Indoor coil thermistor Room temperature thermistor	<p>Left lamp blinks. 2-time blink  2.5-second OFF</p>		The indoor coil or the room temperature thermistor is short or open circuit.	Refer to the characteristics of indoor coil thermistor, and the room temperature thermistor (10-7.).
3	Indoor fan motor	<p>Left lamp blinks. 3-time blink  2.5-second OFF</p>		The rotational frequency feedback signal is not emitted during the indoor fan operation.	Refer to 10-6. "Check of indoor fan motor".
4	Indoor control system	<p>Left lamp blinks. 4-time blink  2.5-second OFF</p>		Is cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.	Replace the indoor electronic control P.C. board.
5	Outdoor power system	<p>Left lamp blinks. 5-time blink  2.5-second OFF</p>		It consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.	Refer to "How to check of inverter/compressor". Refer to outdoor unit service manual Check the stop valve
6	Outdoor thermistors	<p>Left lamp blinks. 6-time blink  2.5-second OFF</p>		The outdoor thermistors short or open circuit during the compressor operation.	Refer to "Check of outdoor thermistor". Refer to outdoor unit service manual.
7	Outdoor control system	<p>Left lamp blinks. 7-time blink  2.5-second OFF</p>		It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.	Replace the inverter P.C. board or the outdoor electronic control P.C. board. Refer to outdoor unit servicemanual.
8	Other abnormality	<p>Left lamp blinks. 14-time blink or more  2.5-second OFF</p>		An abnormality other than above mentioned is detected.	Check the stop valve. Check the 4-way valve. Confirm the abnormality in detail using the failure mode recall function for outdoor unit.
9	Outdoor control system	<p>Left lamp lights up </p>		Outdoor unit does not operate	It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.

LEGENDA

-  Lit
-  Blinking
-  Not lit

FAILURE MODE RECALL M SERIES - MONOSPLIT



FAILURE MODE RECALL M SERIES - INDOOR UNIT - MONOSPLIT

MSZ-LN / MSZ-EF / MSZ-AP / MSZ-BT



Turn ON the power supply.

<Preparation of the remote controller>

- (1) While pressing both **OPERATION SELECT** button and **TEMP +** button on remote controller at the same time, press **RESET** button.
- (2) First, release **RESET** button. Hold down the other two buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.
- (3) The set temperature is displayed to 24°C
- (4) Press **STOP/OPERATE (OFF/ON)** button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.

MSZ-HR / MSZ-HJ



Turn ON the power supply.

<Preparation of the remote controller>

- (1) While pressing both **OPERATION SELECT** button and **Too Cold** button on remote controller at the same time, press **RESET** button.
- (2) First, release **RESET** button. Hold down the other two buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.
- (3) The set temperature is displayed to 24°C
- (4) Press **STOP/OPERATE (OFF/ON)** button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.

FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MONOSPLIT

MSZ-LN / MSZ-EF / MSZ-AP / MSZ-BT



Turn ON the power supply.

<Preparation of the remote controller>

- (1) While pressing both **OPERATION SELECT** button and **TEMP +** button on remote controller at the same time, press **RESET** button.
- (2) First, release **RESET** button. Hold down the other two buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.
- (3) The set temperature is displayed to 24°C
- (4) Press **STOP/OPERATE (OFF/ON)** button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.

MSZ-HR / MSZ-HJ



Turn ON the power supply.

<Preparation of the remote controller>

- (1) While pressing both **OPERATION SELECT** button and **Too Cold** button on remote controller at the same time, press **RESET** button.
- (2) First, release **RESET** button. Hold down the other two buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.
- (3) The set temperature is displayed to 24°C
- (4) Press **STOP/OPERATE (OFF/ON)** button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.

FAILURE MODE RECALL M SERIES - INDOOR UNIT - MONOSPLIT

THE UPPER LAMP OF OPERATION INDICATOR LAMP	ABNORMAL POINT (FAILURE MODE)	CONDITION	REMEDY
Not lighted	Normal	-	-
1-time flash every 0.5-second	Room temperature thermistor	The room temperature thermistor short or open circuit is detected every 8 seconds during operation.	Refer to the characteristics of the room temperature thermistor (10-7.).
2-time flash every 2.5-second OFF	Indoor coil thermistor	The indoor coil thermistor short or open circuits detected every 8 seconds during operation.	Refer to the characteristics of the main indoor coil thermistor, the sub indoor coil thermistor (10-7.).
3-time flash every 2.5-second OFF	Serial signal	The serial signal from outdoor unit is not received for a maximum of 6 minutes.	Refer to 10-6. "How to check miswiring and serial signal error".
11-time flash every 2.5-second OFF	Indoor fan motor	The rotational frequency feedback signal is not emitted for 12 seconds after the indoor fan motor is operated.	Refer to 10-6. "Check of indoor fan motor".
12-time flash every 2.5-second OFF	Indoor control system	It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C.board.	Replace the indoor electronic control P.C. board.

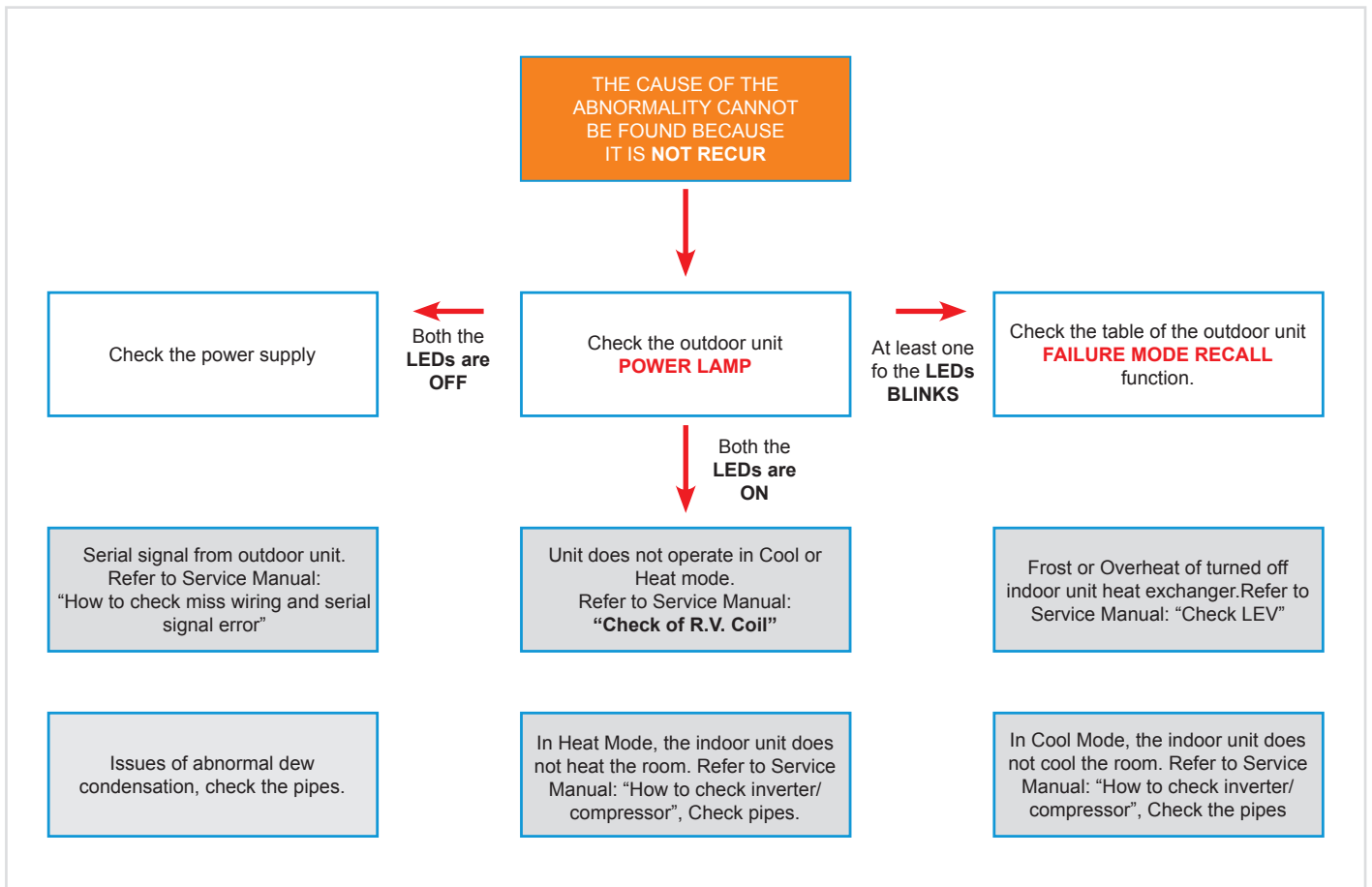
FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MONOSPLIT

UPPER LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/ PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)	CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION	OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
OFF	None (Normal)	-	-	-	-	-
1-time flash 2.5 seconds OFF	Indoor/outdoor communication, receiving error	-	Any signals from the inverter P.C. board cannot be received normally for 3 minutes.	Refer to 12-5. How to check miswiring and serial signal error.	○	○
	Indoor/outdoor communication, receiving error	-	Although the inverter P.C. board sends signal "0", signal "1" has been received 30 consecutive times.	Refer to 12-5. How to check miswiring and serial signal error.		
2-time flash 2.5 seconds OFF	Outdoor power system	-	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started.	Reconnect connectors. Refer to 12-5. "How to check inverter/compressor". Check stop valve.	○	○
3-time flash 2.5 seconds OFF	Discharge temperature thermistor	1-time flash every 2.5 seconds	Thermistor shorts or opens during compressor running.	Refer to 12-5. "Check of outdoor thermistors". Defective outdoor thermistors can be identified by checking the blinking pattern of LED.	○	○
	Defrost thermistor					
	Fin temperature thermistor	3-time flash 2.5 seconds OFF				
	P.C. board temperature thermistor	4-time flash 2.5 seconds OFF				
	Ambient temperature thermistor	2-time flash 2.5 seconds OFF				
	Outdoor heat exchanger temperature thermistor	-				
4-time flash 2.5 seconds OFF	Overcurrent	11-time flash 2.5 seconds OFF	Large current flows into power module (IC700).	Reconnect compressor connector. Refer to 12-5. "How to check inverter/ compressor". Check stop valve.	-	○
	Compressor synchronous abnormality (Compressor start-up failure protection)	12-time flash 2.5 seconds OFF	Waveform of compressor current is distorted.	Reconnect compressor connector. Refer to 12-5. "How to check inverter/compressor".	-	○
5-time flash 2.5 seconds OFF	Discharge temperature	-	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	Check refrigerant circuit and refrigerant amount. Refer to 12-5. "Check of LEV".	-	○
6-time flash 2.5 seconds OFF	High pressure	-	Temperature of indoor coil thermistor exceeds 70°C in HEAT mode. Temperature of defrost thermistor exceeds 70°C in COOL mode.	Check refrigerant circuit and refrigerant amount. Check stop valve.	-	○

FAILURE MODE RECALL SERIE M - OUTDOOR UNIT - MONOSPLIT

UPPER LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/ PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)	CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION	OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
7-time flash 2.5 seconds OFF	Fin temperature/P.C. board temperature	7-time flash 2.5 seconds OFF	Temperature of fin temperature thermistor on the inverter P.C. board exceeds 75~ 86°C, or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 72 ~ 85°C.	Check around outdoor unit. Check outdoor unit air passage. Refer to 12-5. "Check of outdoor fan motor".	-	○
8-time flash 2.5 seconds OFF	Outdoor fan motor	-	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan startup.	Refer to 12-5. "Check of outdoor fan motor". Refer to 12-5. "Check of inverter P.C. board".	-	○
9-time flash 2.5 seconds OFF	Nonvolatile memory data	5-time flash 2.5 seconds OFF	Nonvolatile memory data cannot be read properly.	Replace the inverter P.C. board.	○	○
	Power module (IC700)	6-time flash 2.5 seconds OFF	The interface short circuit occurs in the output of the power module (IC700). The compressor winding shorts circuit.	Refer to 12-5. "How to check inverter/compressor".	-	○
10-time flash 2.5 seconds OFF	Discharge temperature	-	Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes.	Refer to 12-5. "Check of LEV". Check refrigerant circuit and refrigerant amount.	-	○
11-time flash 2.5 seconds OFF	Bus-bar voltage (DC)	8-time flash 2.5 seconds OFF	Bus-bar voltage of inverter cannot be detected normally	Refer to 12-5. "How to check inverter/ Each phase current of compressor".	○	○
	Each phase current of compressor".	9-time flash 2.5 seconds OFF	Each phase current of compressor cannot be detected normally.			
14-time flash or more 2.5 seconds OFF	Stop valve (Closed valve)	14-time flash 2.5 seconds OFF	Closed valve is detected by compressor current.	Check stop valve.	○	○
	4-way valve/ Pipe temperature	16-time flash 2.5 seconds OFF	The 4-way valve does not work properly. The indoor coil thermistor detects an abnormal temperature.	Check the 4-way valve. Replace the inverter P.C. board.	○	○
16 lampeggi 2.5 sec. spenta	Outdoor refrigerant system abnormality	1-time flash 2.5 seconds OFF	A closed valve and air trapped in the refrigerant circuit are detected based on the temperature sensed by the indoor and outdoor thermistors and the current of the compressor.	Check for a gas leak in a connecting piping etc. Check the stop valve. Refer to 12-5. "Check of outdoor refrigerant circuit".	○	○

FAILURE MODE RECALL M SERIES - MULTISPLIT



FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MULTISPLIT - 2 PORTS

UPPER OR LEFT LAMP OF OPERATION INDICATOR LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)		CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
		LED 1	LED 2			
OFF	None (Normal)	Not lit	Not lit	-	-	-
2-time blink	Outdoor power system	Lit	Lit	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started. Compressor protection cut-out operates 24 consecutive times within 10 seconds after the compressor gets started.	<ul style="list-style-type: none"> Check the compressor connecting wire. Refer to 12-6. "How to check inverter/compressor". Check the stop valve. 	○
3-time blink	Discharge temperature thermistor	Lit	Once	Thermistor shorts or opens during compressor running.	<ul style="list-style-type: none"> Refer to 12-6. "Check of outdoor thermistors". Replace the inverter P.C. board. Refer to 12-6. "Check of outdoor thermistors". 	○
	Defrost thermistor	Lit	Once			
	Ambient temperature thermistor	Lit	Twice			
	Fin temperature thermistor	Lit	3 times			
	P.C. board temperature thermistor	Lit	4 times			
Outdoor heat exchanger temperature thermistor	Lit	9 times				
4-time blink	Overcurrent	Once	Not lit	The overcurrent flows into intelligent power module.	<ul style="list-style-type: none"> Check the compressor connecting wire. Refer to 12-6. "How to check inverter/compressor". Check the stop valve. 	-
	Compressor	Twice	Not lit	The overcurrent flows into intelligent power module within 10 seconds after the compressor gets started. (The compressor gets restarted in 15 seconds.)	<ul style="list-style-type: none"> Check the compressor connecting wire. Refer to 12-6. "How to check inverter/compressor". 	-
		9 times	Not lit	Waveform of compressor current is dis-torted.		
5-time blink	Discharge temperature	Lit	Lit	Discharge temperature exceeds 116°C during operation.	<ul style="list-style-type: none"> Check the refrigerant circuit and the refrigerant amount. Refer to 12-6. "Check of LEV". 	-
6-time blink	High pressure	Lit	Lit	The outdoor heat exchanger temperature exceeds 70°C during cooling or the indoor gas pipe temperature exceeds 70°C during heating.	<ul style="list-style-type: none"> Check the refrigerant circuit and the refrigerant amount. Check the stop valve. 	-
7-time blink	Fin temperature	3 times	Not lit	The fin temperature exceeds 90°C during operation.	<ul style="list-style-type: none"> Check the around outdoor unit. Check the outdoor unit air pas- 	-
	P.C. board temperature	4 times	Not lit	The P.C. board temperature exceeds 80°C during operation.	<ul style="list-style-type: none"> Refer to 12-6. "Check of out-door fan motor". 	-
8-time blink	Outdoor fan motor	Lit	Lit	Failure occurs 3 consecutive times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 12-6. "Check of out-door fan motor". 	-
9-time blink	Nonvolatile memory data	Lit	5 times	Nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the inverter P.C. board. 	○
	Power module	7 times	Not lit	The output of the power module that drove the compressor was shorted or the wind-ing of the compressor was shorted.	<ul style="list-style-type: none"> Refer to 12-6. "How to check inverter/compressor". 	
10-time blink	Discharge temperature	Lit	Lit	The discharge temperature is kept under 50°C (COOL mode)/40°C (HEAT mode) for more than 40 minutes.	<ul style="list-style-type: none"> Check the refrigerant circuit and the refrigerant amount. Refer to 12-6. "Check of LEV". 	-
11-time blink	Current sensor	8 times	Not lit	The sensor circuit of current of compressor shorts or opens during compressor operate.	<ul style="list-style-type: none"> Replace the inverter P.C. board. 	○
	Bus-bar voltage	6 times	Not lit	The bus-bar voltage exceeds 430 V or falls to 50 V or below during compres-sor operating.	<ul style="list-style-type: none"> Check the power supply. Replace the inverter P.C. board. 	
14-time blink	Stop valve	Lit	12 times	The current of compressor is power module is out of order.	<ul style="list-style-type: none"> Check the stop valve. Check the refrigerant circuit and the refrigerant amount. 	○
	Refrigerant leakage (Sensor detection)	Lit	Lit	1.Refrigerant leaks from the piping or the heat exchanger in the indoor unit. 2. The following items are used around the indoor unit. • Spray (LP gas including Freon, and whose main ingredient is propane and butane) • Aerosol insecticide (including ethanol) • Air spray painting (including dichlo-romethane) • Charcoal (charcoal fire) • Chemicals (such as ethanol)	<ul style="list-style-type: none"> Turn off the power after the in-door unit finishes its FAN opera-tion. (The FAN operation continues for 3 hours.) Check the indoor unit to detect the part where refrigerant leaks. Repair the part where refrigerant leaks. Turn on the power again. Replace the refrigerant sensor if the problem is not fixed. 	○

FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MULTISPLIT - 2 PORTS

UPPER OR LEFT LAMP OF OPERATION INDICATOR LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)		CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
		LED 1	LED 2			
14-time blink	Refrigerant leakage (Sensor detection)	Lit	Lit	The refrigerant sensor mounted on the indoor unit does not work. The refrigerant sensor is not connected properly or the wire is broken.	<ul style="list-style-type: none"> Connect the connector of the refrigerant sensor properly. Replace the refrigerant sensor. 	○
	Incompatible unit combination	Lit	11 times	The indoor unit which is not compatible with the outdoor unit is connected.	<ul style="list-style-type: none"> Replace the indoor unit with the one which is compatible with the outdoor unit. 	
17 time blink	Outdoor refrigerant system abnormality	Lit	17 times	A closed valve and air trapped in the refrigerant circuit are detected based on the temperature sensed by the indoor and outdoor thermistors and the current of the compressor.	<ul style="list-style-type: none"> Check for a gas leak in a connecting piping etc. Check the stop valve. Refer to 12-6. "Check of out-door refrigerant circuit". 	○

FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MULTISPLIT - 3/4/5/6 PORTS

THE LEFT LAMP OF OPERATION INDICATOR LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)		CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
		LED 1	LED 2			
OFF	None (Normal)	Lit	Lit	-	-	-
2-time blink	Outdoor power system	Lit	Lit	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started, or converter protection cut-out or bus-bar voltage protection cut-out operates 3 consecutive times within 3 minutes after startup.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. <ul style="list-style-type: none"> Refer to 12-6. "How to check inverter/compressor". Check the stop valve. 	○
3-time blink	Discharge temperature thermistor	Lit	Once	A thermistor shorts or opens during compressor running.	<ul style="list-style-type: none"> Refer to 12-6. "Check of outdoor thermistors". 	○
	Defrost thermistor	Lit	Once			
	Ambient temperature thermistor	Lit	Twice			
	Fin temperature thermistor	Lit	3 times			
	P.C. board temperature thermistor	Lit	4 times			
Outdoor heat exchanger temperature thermistor	Lit	9 times	<ul style="list-style-type: none"> Replace the outdoor control P.C. board. Refer to 12-6. "Check of outdoor thermistors". 			
4-time blink	Overcurrent	Once	Not lit	21 A current flows into power module.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 12-6. "How to check inverter/compressor". Check the stop valve. 	-
5-time blink	Discharge temperature	Lit	Lit	The discharge temperature exceeds 115°C during operation. Compressor can restart if discharge temperature thermistor reads 80°C or less 3 minutes later.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 12-6. "Check of LEV". 	-
6-time blink	High pressure	Lit	Lit	The outdoor heat exchanger temperature exceeds 70°C during cooling or the indoor gas pipe temperature exceeds 70°C during heating.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Check the stop valve. 	-
7-time blink	Fin temperature	3 times	Not lit	The fin temperature exceeds 88°C during operation.	<ul style="list-style-type: none"> Check around outdoor unit. Check outdoor unit air passage. 	-
	P.C. board temperature	4 times	Not lit	The P.C. board temperature exceeds 67°C during operation.	<ul style="list-style-type: none"> Refer to 12-6. "Check of outdoor fan motor". 	
8-time blink	Outdoor fan motor	Lit	Lit	A failure occurs 3 consecutive times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 12-6. "Check of outdoor fan motor". 	-
9-time blink	Outdoor control system	Lit	5 times	Nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the outdoor control P.C. board. 	○
10-time blink	Low discharge temperature protection	Lit	Lit	The frequency of the compressor is kept 80 Hz or more and the discharge temperature is kept under 39°C for more than 20 minutes.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 12-6. "Check of LEV". 	-

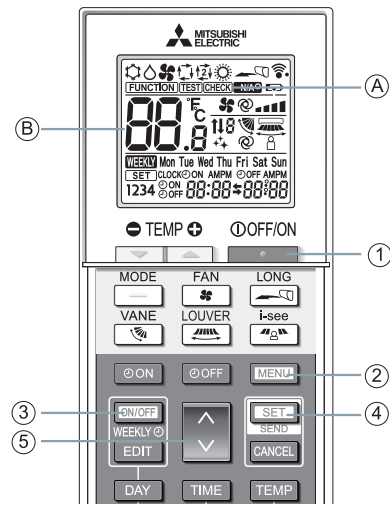
FAILURE MODE RECALL M SERIES - OUTDOOR UNIT - MULTISPLIT - 3/4/5/6 PORTS

THE LEFT LAMP OF OPERATION INDICATOR LAMP (INDOOR UNIT)	ABNORMAL POINT (FAILURE MODE/PROTECTION)	LED INDICATION (OUTDOOR P.C. BOARD)		CONDITION	REMEDY	INDOOR/ OUTDOOR UNIT FAILURE MODE RECALL FUNCTION
		LED 1	LED 2			
OFF	None (Normal)	Lit	Lit	-	-	-
11-time blink	Communication error between P.C. boards	Lit	6 times	Communication error occurs between the out-door control P.C. board and outdoor power P.C. board for more than 10 seconds.	<ul style="list-style-type: none"> Check the connecting wire between outdoor control P.C. board and out-door power P.C. board. 	-
				The communication between boards protec-tion cut-out operates 2 consecutive times.		○
	Current sensor	Lit	7 times	A short or open circuit is detected in the cur-rent sensor during compressor operating.	-	-
				Current sensor protection cut-out operates 2 consecutive times.		○
	Zero cross detecting circuit	5 times	Not lit	Zero cross signal cannot be detected while the compressor is operating.	<ul style="list-style-type: none"> Check the connecting wire among outdoor control P.C. board and out-door power P.C. board. 	-
				The protection cut-out of the zero cross detecting circuit operates 10 consecutive times.		○
Converter	5 times	Not lit	A failure is detected in the operation of the converter during operation.	<ul style="list-style-type: none"> Check the voltage of power supply. Replace the outdoor power P.C. board. 	-	
Bus-bar voltage	5 times	Not lit	The bus-bar voltage exceeds 400 V or falls to low level during compressor operating.	<ul style="list-style-type: none"> Check the voltage of power supply. Replace the outdoor control P.C. board. 	-	
14-time blink	Refrigerant leakage (Sensor detection)	Lit	Lit	1.Refrigerant leaks from the piping or the heat exchanger in the indoor unit. 2.The following items are used around the indoor unit. • Spray (LP gas including Freon, and whose main ingredient is propane and butane) • Aerosol insecticide (including ethanol) • Air spray painting (including dichlo-romethane) • Charcoal (charcoal fire) • Chemicals (such as ethanol)	<ul style="list-style-type: none"> Turn off the power after the indoor unit finishes its FAN operation. (The FAN operation continues for 3 hours.) Check the indoor unit to detect the part where refrigerant leaks. <ul style="list-style-type: none"> Repair the part where refrigerant leaks. Turn on the power again. Replace the refrigerant sensor if the problem is not fixed. 	○
14-time blink	Refrigerant leakage (Sensor detection)	Lit	Lit	The refrigerant sensor mounted on the indoor unit does not work. The refrigerant sensor is not connected properly or the wire is broken.	<ul style="list-style-type: none"> Connect the connector of the refrig-erant sensor properly. Replace the refrigerant sensor. 	○
	Incompatible unit combination	Lit	11 times	The indoor unit which is not compatible with the outdoor unit is connected.	<ul style="list-style-type: none"> Replace the indoor unit with the one which is compatible with the outdoor unit. 	○
15-time blink		Lit	Lit	The indoor unit detects an abnormality in the LEV and drain pump.	<ul style="list-style-type: none"> Refer to 12-6. "Check of LEV". Check the drain pump of the indoor unit. 	-

SELF-DIAGNOSIS - S SERIES

SLZ-M

- 1 Press the **STOP** button ① to stop the air conditioner. If the weekly timer is enabled (WEEKLY is on), press the **ON/OFF WEEKLY** button ③ to disable it (WEEKLY is off)
 - 2 Press the **MENU** button ② for 5 seconds.
 - **CHECK** (A) comes on and the unit enters the self-check mode.
 - 3 Press the **DOWN** button ⑤ to select the refrigerant address (M-NET address) (B) of the indoor unit for which you want to perform the self-check.
 - 4 Press the **SET** button ④.
- if an error is detected, the check code is indicated by the numbers of beeps from the indoor unit and the number of blinks of the OPERATION INDICATOR lamp.
- 1 Press the **STOP** button ①
 - **CHECK** and the refrigerant address (M-NET address) (B) go off and the self-check is completed.



[Output pattern A] Errors detected by indoor unit

Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller Check code	Symptom
1	P1	Intake sensor error
2	P2, P9	Piped (liquid or 2-phase pipe) sensor error
3	E6, E7	Indoor/outdoor unit communication error
4	P4	Float switch connector open
5	P5	Drain pump error
	PA	Forced compressor error
6	P6	Freezing (during cooling operation) Overheating protection operation (during heating operation)
7	EE	Assembly error (system error)
8	P8	Pipe temperature error
9	E4	Communication error between wired remote controller and indoor unit
10	-	-
11	PB (Pb)	Indoor unit fan motor error
12	FB (Fb)	Indoor unit control system error (memory error, etc.)
14	PL	Refrigerant circuit abnormal

[Output pattern B] Errors detected by unit other than indoor unit (outdoor unit, etc.)
Note: the supported check codes may vary depending on the connected outdoor unit

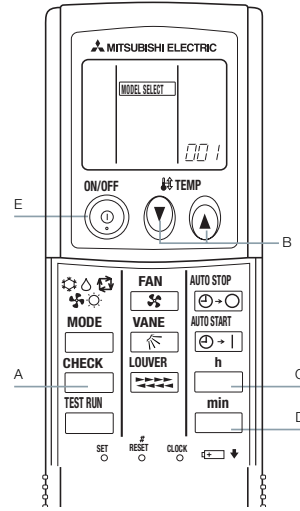
Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller Check code	Symptom	Remark
1	E9	Indoor/outdoor unit communication error	For details, check the LED display of the outdoor controller board
2	UP	Compressor overcurrent interruption	
3	U3, U4	Open/short of outdoor unit thermistors	
4	UF	Compressor overcurrent interruption (When compressor locked)	
5	U2	Abnormal high discharging temperature/49C worked/insufficient refrigerant	
6	U1, Ud	Abnormal high pressure (63H worked) Overheating protection operation	
7	U5	Abnormal temperature of heat sink	
8	U8	Outdoor unit fan protection stop	
9	U6	Compressor overcurrent interruption/Abnormal of power module	
10	U7	Abnormality of super heat due to low discharge temperature	
11	U9, UH	Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error	
12	-	-	
13	-	-	
14	Others	Other errors (Refer to the technical manual for the outdoor unit)	

SELF-DIAGNOSIS - S SERIES

SEZ-M

- Ⓐ Button TEST RUN
- Ⓑ Button MODE
- Ⓒ Button FAN
- Ⓓ Button VANE

- 1) Turn on the power to the unit at least 12 hours before the test run.
- 2) Press the TEST RUN button Ⓐ twice continuously. (Start this operation from the status of remote controller display turned off). (TEST RUN) and current operation mode are displayed.
- 3) Press the MODE button Ⓑ to activate COOL mode, then check whether cool air is blown out from the unit.
- 4) Press the MODE button Ⓑ to activate HEAT mode, then check whether warm air is blown out from the unit.
- 5) Press the FAN button Ⓒ and check whether fan speed changes.
- 6) Press the VANE button Ⓓ and check whether the auto vane operates properly.
- 7) Press the ON/OFF button to stop the test run.



[Output pattern A] Errors detected by indoor unit

Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller Check code	Symptom
1	P1	Intake sensor error
2	P2, P9	Piped (liquid or 2-phase pipe) sensor error
3	E6, E7	Indoor/outdoor unit communication error
4	P4	Float switch connector open
5	P5	Drain pump error
6	P6	Freezing (during cooling operation) Overheating protection operation (during heating operation)
7	EE	Communication error between indoor and outdoor unit
8	P8	Pipe temperature error
9	E4	Remote controller signal receiving error
10	-	-
11	-	-
12	Fb	Indoor unit control system error (memory error, etc.)
14	PL	Refrigerant circuit abnormal
No sound	--	Nessuna corrispondenza

[Output pattern B] Errors detected by unit other than indoor unit (outdoor unit, etc.)

Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller Check code	Symptom	Remark
1	E9	Indoor/outdoor unit communication error	For details, check the LED display of the outdoor controller board
2	UP	Compressor overcurrent interruption	
3	U3, U4	Open/short of outdoor unit thermistors	
4	UF	Compressor overcurrent interruption (When compressor locked)	
5	U2	Abnormal high discharging temperature/49C worked/insufficient refrigerant	
6	U1, Ud	Abnormal high pressure (63H worked) Overheating safeguard operation	
7	U5	Abnormal temperature of heat sink	
8	U8	Outdoor unit fan protection stop	
9	U6	Compressor overcurrent interruption/Abnormal of power module	
10	U7	Abnormality of super heat due to low discharge temperature	
11	U9, UH	Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error	
12	-	-	
13	-	-	
14	Others	Other errors (Refer to the technical manual for the outdoor unit)	



Function and settings

A CONTROL - MR.SLIM

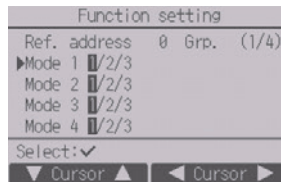
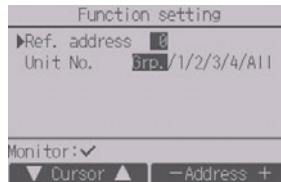
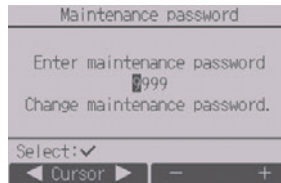
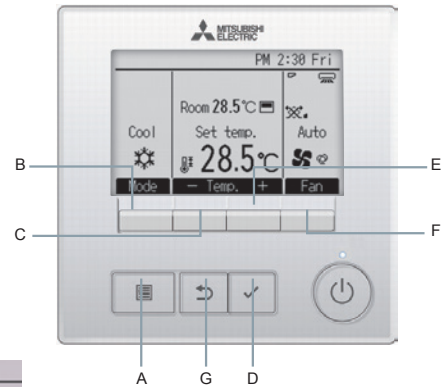
P Series Configuration. "A Control" logic allows to use following functions from wired or remote controller directly:

	Mod. nr	Function	Settings	Set.nr	Cassette PLA	Ceiling PCA	Wallmoun- ted PKA	Floor standing PSA	Ducted PEAD	
Unit Number "00"	01	Auto-Restart after power supply interruption	Not active	1						
			Active	2	•	•	•	•	•	
	02	Room temperature detection	Mean of indoor unit	1	•	•	•	•	•	
			from indoor unit connected to controller	2						
			from sensor inside wired controller	3						
	03	Lossnay unit connection	Not active	1	•	•	•	•	•	
			Active (separate from indoor unit air return)	2						
			Active (inside indoor unit air return)	3						
	04	Supply	240 V	1						
			220-230 V	2	•	•	•	•	•	
	05	Auto Mode	Active	1	•	•	•	•	•	
			Not active	2						
	Unit number from "01" to "04" o "AL" (all)	07	time after that change dirty filter is required	100h	1			•		
				2500h	2	•	•		•	
				No indication	3					•
08		Fan speed Fan air flow change	Quiet	1			-	-	-	
			Standard	2	•	•	-	-	-	
			High ceiling	3			-	-	-	
09		ways are closed	4 Ways	1	•	-	-	-	-	
			3 Ways	2		-	-	-	-	
			2 Ways	3		-	-	-	-	
10		Optional parts (High efficiency filter)	No	1	•	•	-	-	-	
			Yes	2			-	-	-	
11		Horizontal vane settings change of vane angle in cooling	No vanes	1			-	-	-	
			1 vane	2	•	•	-	-	-	
			2 vanes	3			-	-	-	
14		Differential vane settings for heat mode	Low (24°C - 28°C)	1				-	-	
			Standard (28°C - 32°C)	2	•	•	•	-	-	
			High (35°C -38°C)	3				-	-	
15		Frost prevention temperature for indoor unit	2°C	1	•	•	•	•	•	
			3°C	2						
17		Defrosting control	Standard	1	•	•	•	•	•	
			High humidity areas	2						
23		Swing	Active	1				-		
			Not active	2	•	•	•	-	•	
24		4°C degrees automatic temperature increasing in Heat mode	Active	1	•	•	•		•	
			Not active	2						
25		Fan speed when thermostat in Heat mode is off	Extra low	1	•	•	•	•		
			Low	2					•	
	Set from wired or remote controller		3							
27	Fan speed when thermostat in Cool mode is off	Set from wired or remote controller	1	•	•	•	•	•		
		Stop	2							

Unit	Mod.	Set Nr.	Static pressure						
			5 Pa	15 Pa	35 Pa	50 Pa	70 Pa	100 Pa	150 Pa
SEZ	Mod. 8	1	•	•*			-	-	-
		2			•		-	-	-
		3				•		-	-
	Mod.10	1		•*	•	•		-	-
		2	•					-	-
		3						-	-
PEAD	Mod. 8	1	-	-			•		
		2	-	-	•			•	
		3	-	-		•*			•
	Mod.10	1	-	-	•	•*			
		2	-	-			•	•	•
		3	-	-					

A CONTROL - MR.SLIM - PAR-40MAA CONFIGURATION

1. Press A button to open the Maintenance Settings.
2. Pressing B or C button select "Service Menu".
3. Press D button to confirm.
4. With B C E F buttons insert the technical password (9999).
5. Press D button to confirm.
6. Pressing B or C buttons, select «Function Setting».
7. Press D button to confirm.
8. Pressing E or F buttons, select the refrigerant address (es.0). Use B or C buttons to move the cursor to select the "mode number". With E or F button, select the unit number (es.Grup).
9. Press D button to confirm.
10. Pressing B or C button, select the desired mode (check previous tabs). With D or F button select the desired setting (check previous tabs).
11. Press D button to confirm.
12. Use G button to return to main menu.
13. Wait for 30 seconds before to restart indoor unit.

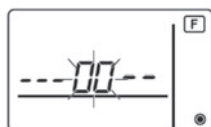


A CONTROL - MR.SLIM - PAC-YT52CRA CONFIGURATION

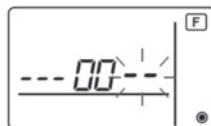
1. Press C or D button at the same time for 5 seconds to enter in "Function Setting".



2. Press B or C buttons per to set the fridge address (es.=00).



3. Press D button to confirm.



4. Press B or C button to set the unit number (es.=00).



5. Press the A button to confirm.



6. Pressing B or C button to select the mode (check previous tabs).



7. Press A button to confirm.

8. Pressing B or C button to select settings (check previous tabs).

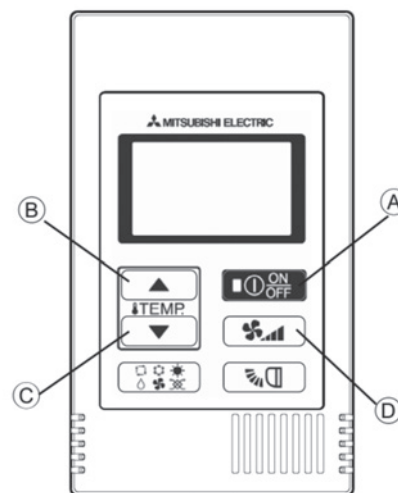


9. Press A button to confirm.

10. Exit from "Function Setting" with C and D buttons. Press both buttons for 5 seconds.

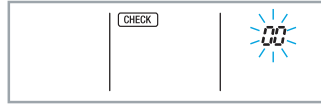


11. Wait 30 seconds before to restart the indoor unit.

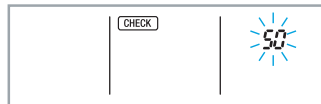


A CONTROL - MR.SLIM - PAR-FL32MA CONFIGURATION

1. Press twice A button.

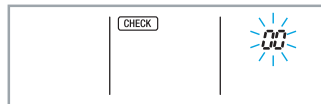


2. Press B button to set the fridge address = 50.



3. Press the C button to confirm.

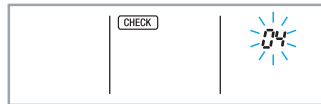
4. Press B button to set the unit number (es.=00).



5. Press D button to confirm.

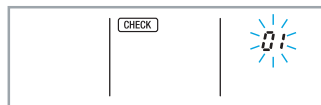
6. Press B button to select the mode (check previous tabs).

7. Press C button to confirm.



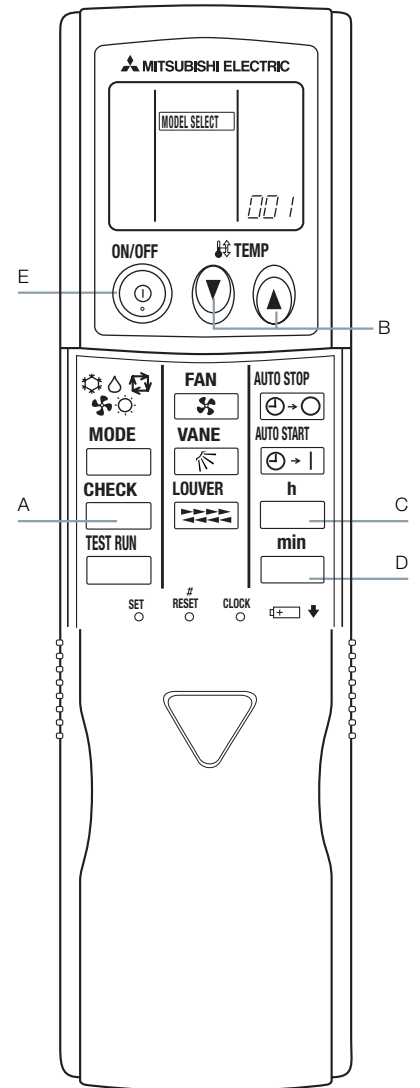
8. Press B button to select the mode (check the previous tabs).

9. Press C button to confirm.



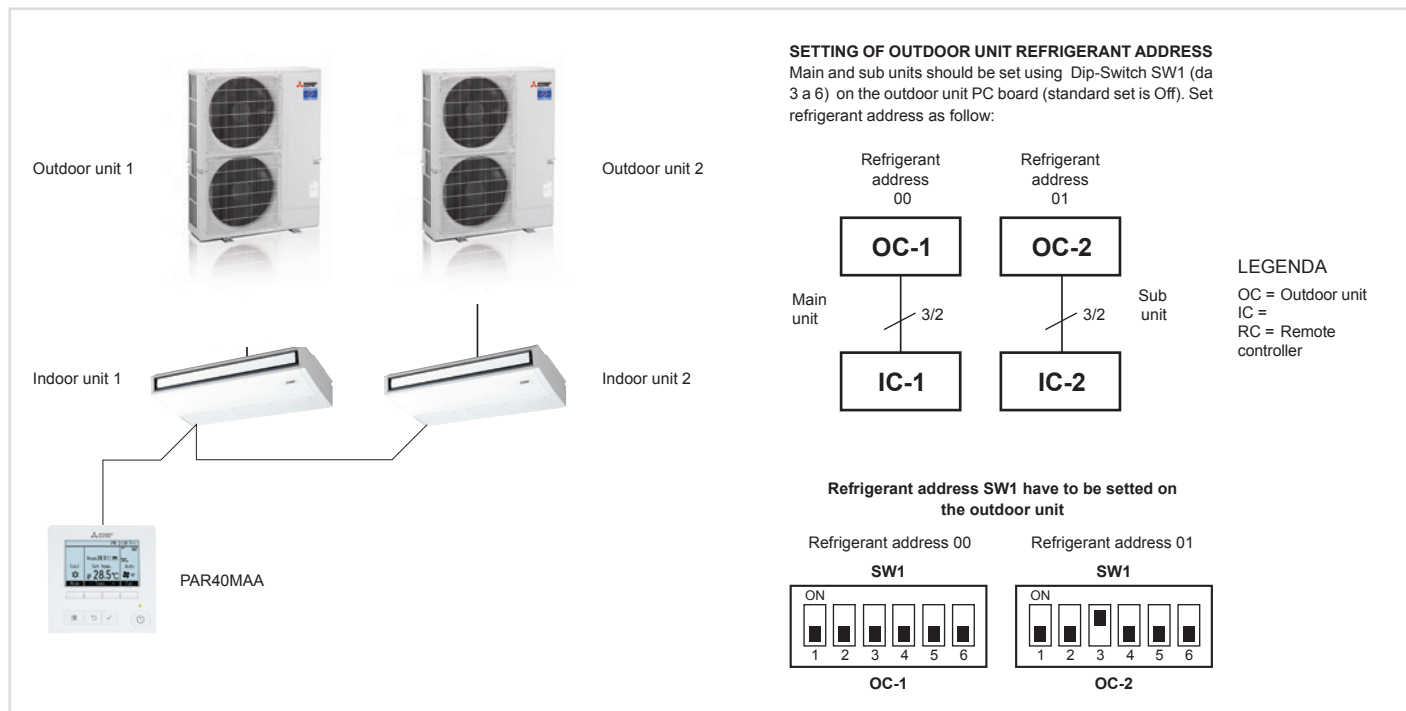
10. Press B button to exit from "Function setting".

11. Wait 30 seconds, then reset the indoor unit.



A CONTROL - MR.SLIM - ROTATION E BACKUP

Special functions PAR-40MAA / PAR-21MAA
 Rotation, Back-Up e 2nd stage

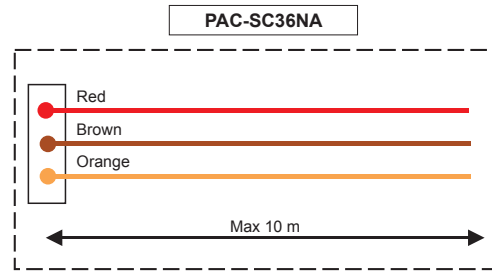
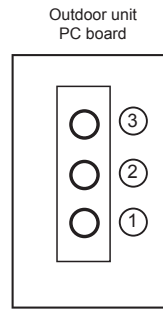


Setting mode for functions: ROTATION, BACK-UP E SET UP 2nd Stage

Rotation and Back-up		
Setting No. (Request code)	Setting contents	Initial settings
No.1 (310)	Monitoring the request code of current setting	
No.2 (311)	Rotation and Back-up OFF (Normal group control operation)	☉
No.3 (312)	Back-up function only	
No.4 (313)	Rotation ON (Alternating interval = 1day) and back-up function	
No.5 (314)	Rotation ON (Alternating interval = 3days) and back-up function	
No.6 (315)	Rotation ON (Alternating interval = 5days) and back-up function	
No.7 (316)	Rotation ON (Alternating interval = 7days) and back-up function	
No.8 (317)	Rotation ON (Alternating interval = 14days) and back-up function	
No.9 (318)	Rotation ON (Alternating interval = 21days) and back-up function	

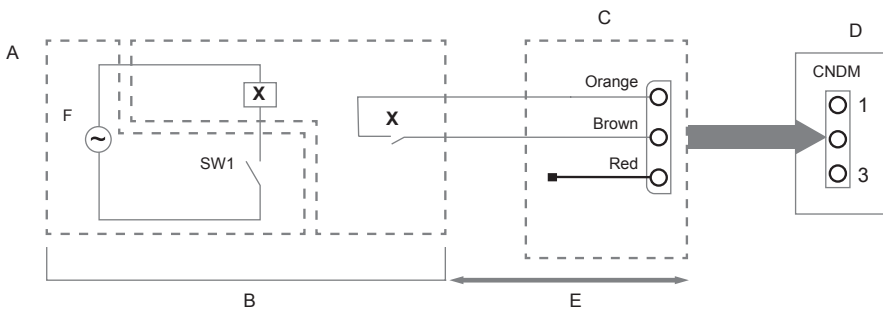
2nd Stage		
Setting No. (Request code)	Setting contents	Initial settings
No.1 (320)	Monitoring the request code of current setting	
No.2 (321)	Cut-in function OFF	☉
No.3 (322)	Cut-in function ON (Set point = Set temp.+ 4: [7.2°F])	
No.4 (323)	Cut-in function ON (Set point = Set temp.+ 6: [10.8°F])	
No.5 (324)	Cut-in function ON (Set point = Set temp.+ 8: [14.4°F])	

SILENT MODE - MR.SLIM - POWER LIMITATION



◀Circuit for activation of low noise operation▶

Connection mode



A Circuit diagram example (low noise mode)
 B On-site arrangement
 C External input adapter (PAC-SC36NA-E)
 X: Relay

D Outdoor unit control board
 E Max. 10 m
 F Power supply for relay

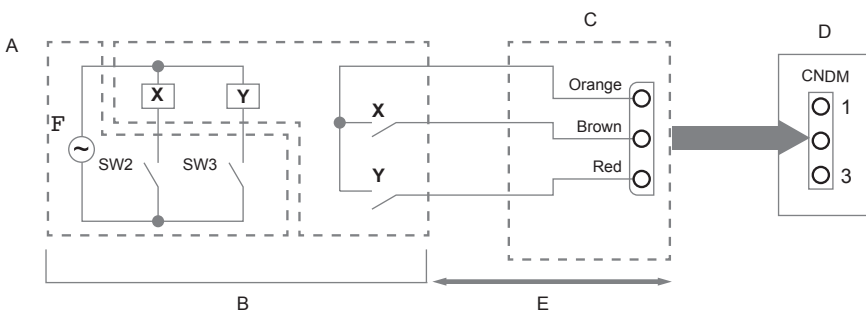
Low noise mode (on-site modification)

By performing the following modification, operation noise of the outdoor unit can be reduced by about 3-4 dB.

The low noise mode will be activated when a commercially available timer or the contact input of an ON/OFF switch is added to the CNDM connector (option) on the control board of the outdoor unit.

• The ability varies according to the outdoor temperature and conditions, etc.

- 1 Complete the circuit as shown when using the external input adapter (PAC-SC36NA-E). (Option)
- 2 SW7-1 (Outdoor unit control board): OFF
- 3 SW1 ON: Low noise mode
 SW1 OFF: Normal operation



A Circuit diagram example (Demand function)
 B On-site arrangement
 X, Y: Relay

C External input adapter (PAC-SC36NA-E)
 D Outdoor unit control board
 E Max. 10 m
 F Power supply for relay

Demand function (on-site modification)

By performing the following modification, energy consumption can be reduced to 0-100% of the normal consumption.

The demand function will be activated when a commercially available timer or the contact input of an ON/OFF switch is added to the CNDM connector (option) on the control board of the outdoor unit.

- 1 Complete the circuit as shown when using the external input adapter (PAC-SC36NA-E). (Option)
- 2 By setting SW7-1 on the control board of the outdoor unit, the energy consumption (compared to the normal consumption) can be limited as shown below.

	SW7-1	SW2	SW3	Energy consumption
Demand function	ON	OFF	OFF	100%
		ON	OFF	75%
		ON	ON	50%
		OFF	ON	0% (Stop)





LIVING ENVIRONMENTAL SYSTEMS

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The equipment described in this catalogue contain fluorinated gasses such as HFC-32 (GWP 675), HFC-410A (GWP 2088). Installation of those equipment must be executed by professional installer based on EU reg. 303/2008 and 517/2014

PRACTICAL INSTALLATION GUIDE DX
E-2103257

Specifications are subject to change without notice



E-2103257



les.mitsubishielectric.it/en/products/