CMB-P-V-J, CMB-P-V-JA, CMB-P-V-KA, CMB-P-V-KB

Model			CMB-P104V-J		
Number of branch			4		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.067/0.076/0.085	0.054/0.061/0.067	
	Heating	kW	0.030/0.034/0.038	0.024/0.027/0.030	
Current input	Cooling	A	0.31/0.34/0.36	0.25/0.27/0.28	
	Heating	A	0.14/0.15/0.16	0.11/0.12/0.13	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
piping		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit		Liquid pipe	Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	23 (51)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P106V-J		
Number of branch			6		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.097/0.110/0.123	0.078/0.088/0.097	
	Heating	kW	0.045/0.051/0.057	0.036/0.041/0.045	
Current input	Cooling	A	0.45/0.48/0.52	0.36/0.39/0.41	
	Heating	A	0.21/0.23/0.24	0.17/0.18/0.19	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch		*12	Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
piping		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		*13 mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit		Liquid pipe	Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	27 (60)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P108V-J		
Number of branch			8		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.127/0.144/0.161	0.102/0.115/0.127	
	Heating	kW	0.060/0.068/0.076	0.048/0.054/0.060	
Current input	Cooling	A	0.58/0.63/0.68	0.47/0.50/0.53	
	Heating	A	0.28/0.30/0.32	0.22/0.24/0.25	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
piping		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit		Liquid pipe		Gas pipe
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	31 (69)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:
1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P1012V-J		
Number of branch			12		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.186/0.211/0.236	0.150/0.168/0.186	
	Heating	kW	0.090/0.102/0.114	0.072/0.081/0.090	
Current input	Cooling	A	0.85/0.92/0.99	0.69/0.74/0.78	
	Heating	A	0.42/0.44/0.48	0.33/0.36/0.38	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch		*12	Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 911 x 639		
		in.	9-11/16 x 35-7/8 x 25-3/16		
Refrigerant	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
piping		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		*13 mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit		Liquid pipe	Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	46 (102)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P1016V-J		
Number of branch			16		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.246/0.279/0.312	0.198/0.222/0.246	
	Heating	kW	0.119/0.135/0.151	0.096/0.108/0.119	
Current input	Cooling	A	1.12/1.22/1.30	0.90/0.97/1.03	
	Heating	A	0.55/0.59/0.63	0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 1,135 x 639		
		in.	9-11/16 x 44-11/16 x 25-3/16		
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit		Liquid pipe		Gas pipe
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	56 (124)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:
1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P108V-JA			
Number of branch			8			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.127/0.144/0.161		0.102/0.115/0.127	
	Heating	kW	0.060/0.068/0.076		0.048/0.054/0.060	
Current input	Cooling	A	0.58/0.63/0.68		0.47/0.50/0.53	
	Heating	A	0.28/0.30/0.32		0.22/0.24/0.25	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 911 x 639			
		in.	9-11/16 x 35-7/8 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	45 (100)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P1012V-JA			
Number of branch			12			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.186/0.211/0.236		0.150/0.168/0.186	
	Heating	kW	0.090/0.102/0.114		0.072/0.081/0.090	
Current input	Cooling	A	0.85/0.92/0.99		0.69/0.74/0.78	
	Heating	A	0.42/0.44/0.48		0.33/0.36/0.38	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch		*12	Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
piping		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
diameter		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		*13 mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		*13 mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		*13 mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	56 (124)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P1016V-JA			
Number of branch			16			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.246/0.279/0.312		0.198/0.222/0.246	
	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119	
Current input	Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03	
	Heating	A	0.55/0.59/0.63		0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	63 (139)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P1016V-KA			
Number of branch			16			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.246/0.279/0.312		0.198/0.222/0.246	
	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119	
Current input	Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03	
	Heating	A	0.55/0.59/0.63		0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P1100			
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
	*13	mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P850 to P1000	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
		mm (in.) O.D.	P1050/P1100	34.93 (1-3/8) Brazed	41.28 (1-5/8) Brazed	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	65 (144)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P300 Outdoor/Heat source unit connected),61(P550),63(P800),66(P1100)			
	Defrost	dB <A>	73			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P300 Outdoor/Heat source unit connected),43(P550),45(P800),48(P1100)			
	Defrost	dB <A>	55			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
14. The ambient relative humidity of the BC controller needs to be kept below 80%.

Model			CMB-P104V-KB			
Number of branch			4			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.060/0.068/0.076		0.048/0.054/0.060	
	Heating	kW	0.030/0.034/0.038		0.024/0.027/0.030	
Current input	Cooling	A	0.28/0.30/0.32		0.22/0.24/0.25	
	Heating	A	0.14/0.15/0.16		0.11/0.12/0.13	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable Main BC controller			CMB-P108/1012/1016V-JA, CMB-P1016V-KA			
The maximum number of connectable Sub BC controllers			11			
The maximum connectable capacity of indoor units			P350 for each			
External dimension H x W x D		mm	246 x 596 x 495			
		in.	9-11/16 x 23-1/2 x 19-1/2			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
		mm (in.) O.D.	-	-	-	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	21 (47)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)			
	Defrost	dB <A>	71			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)			
	Defrost	dB <A>	53			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Can't use singleness. (MAIN BC CONTROLLER is necessary)
13. The ambient relative humidity of the BC controller needs to be kept below 80%.

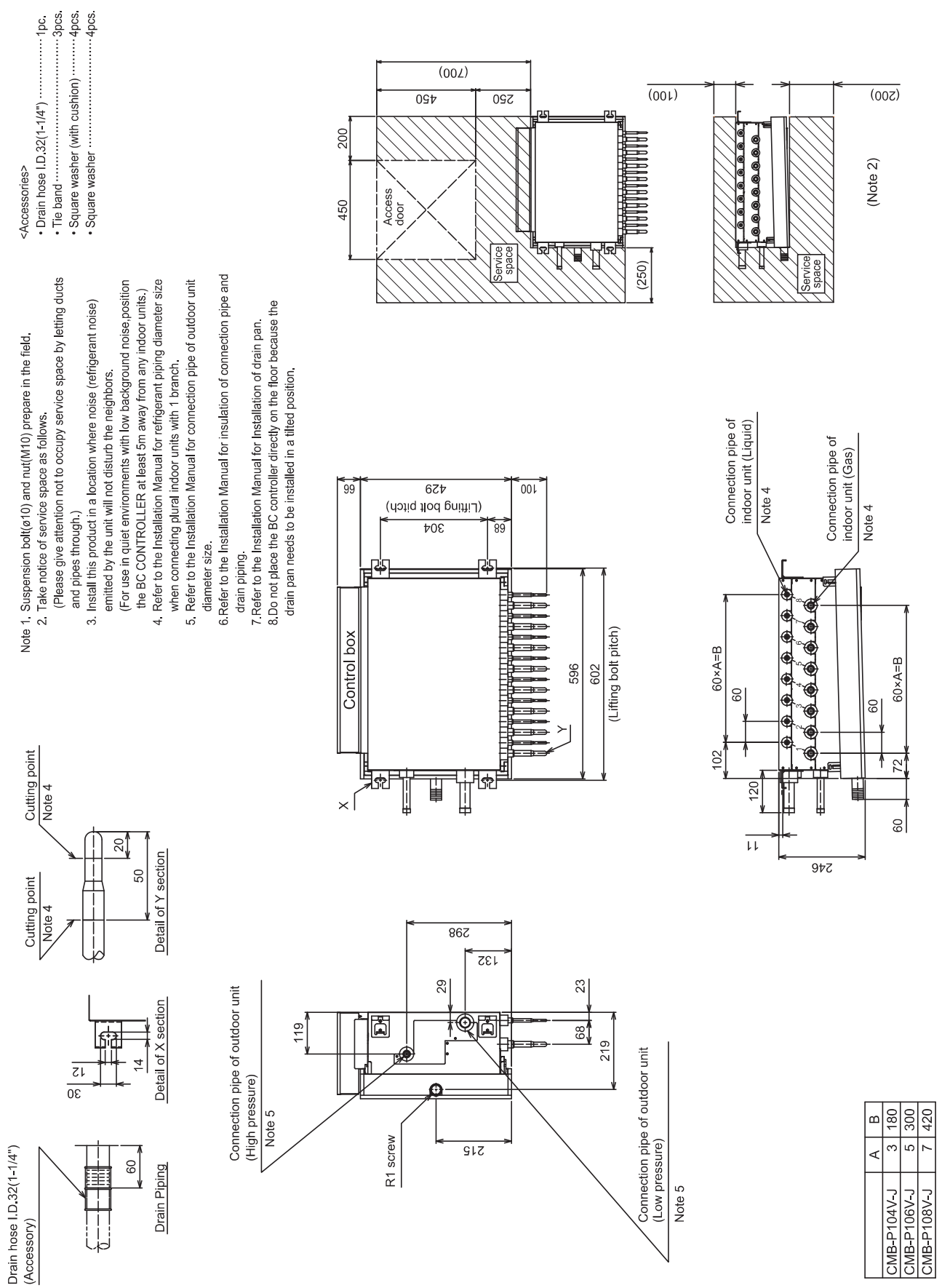
Model			CMB-P108V-KB			
Number of branch			8			
Power source			1-phase 220-230-240 V			
			50Hz		60Hz	
Power input	Cooling	kW	0.119/0.135/0.151		0.096/0.108/0.119	
	Heating	kW	0.060/0.068/0.076		0.048/0.054/0.060	
Current input	Cooling	A	0.55/0.59/0.63		0.44/0.47/0.50	
	Heating	A	0.28/0.30/0.32		0.22/0.24/0.25	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable Main BC controller			CMB-P108/1012/1016V-JA, CMB-P1016V-KA			
The maximum number of connectable Sub BC controllers			11			
The maximum connectable capacity of indoor units			P350 for each			
External dimension H x W x D		mm	246 x 596 x 495			
		in.	9-11/16 x 23-1/2 x 19-1/2			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
		mm (in.) O.D.	-	-	-	
	To indoor unit		Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	28 (62)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)			
	Defrost	dB <A>	71			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)			
	Defrost	dB <A>	53			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. Can't use singleness. (MAIN BC CONTROLLER is necessary)
13. The ambient relative humidity of the BC controller needs to be kept below 80%.

CMB-P104, 106, 108V-J

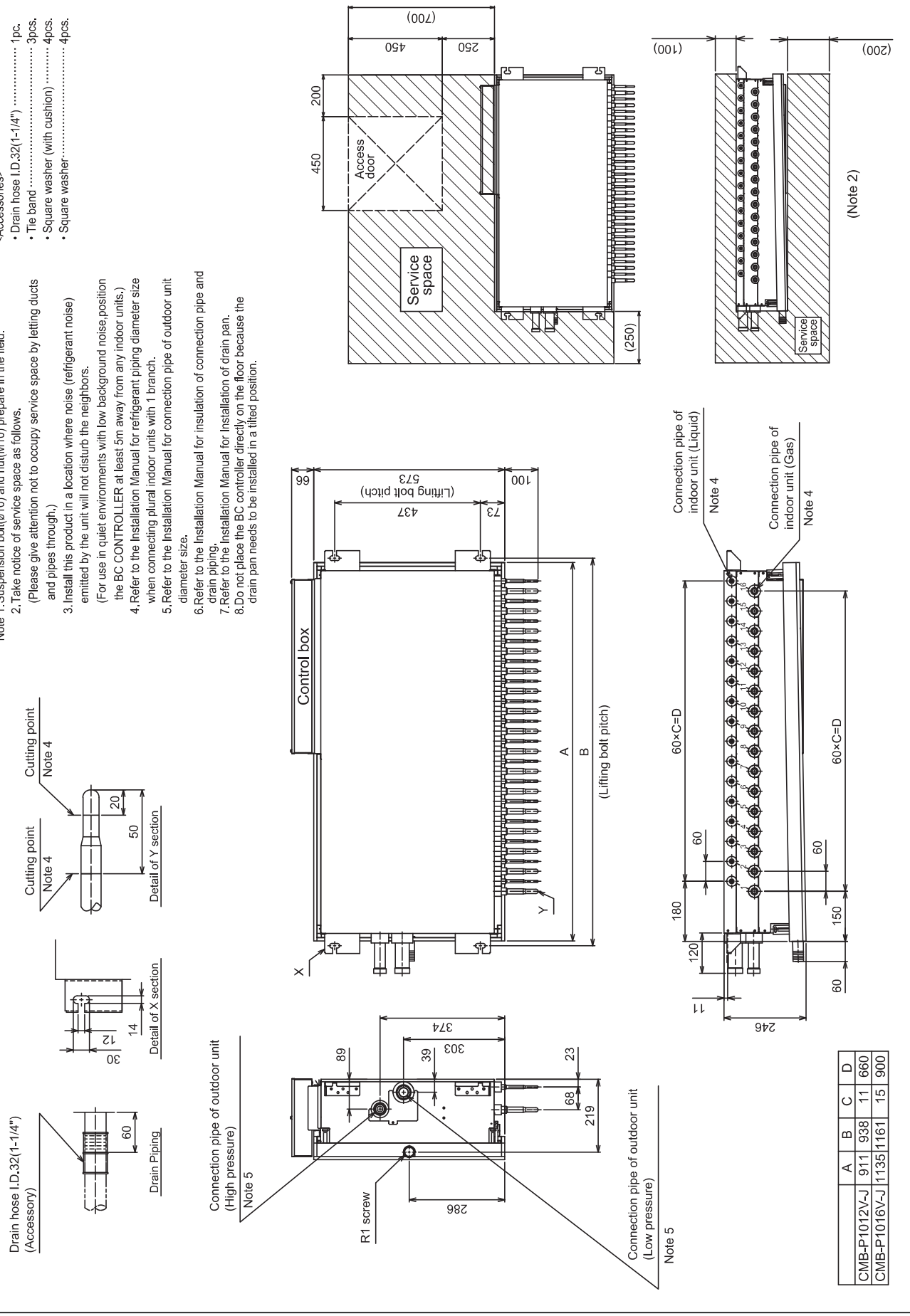
Unit: mm



	A	B
CMB-P104V-J	3	180
CMB-P106V-J	5	300
CMB-P108V-J	7	420

CMB-P1012, 1016V-J

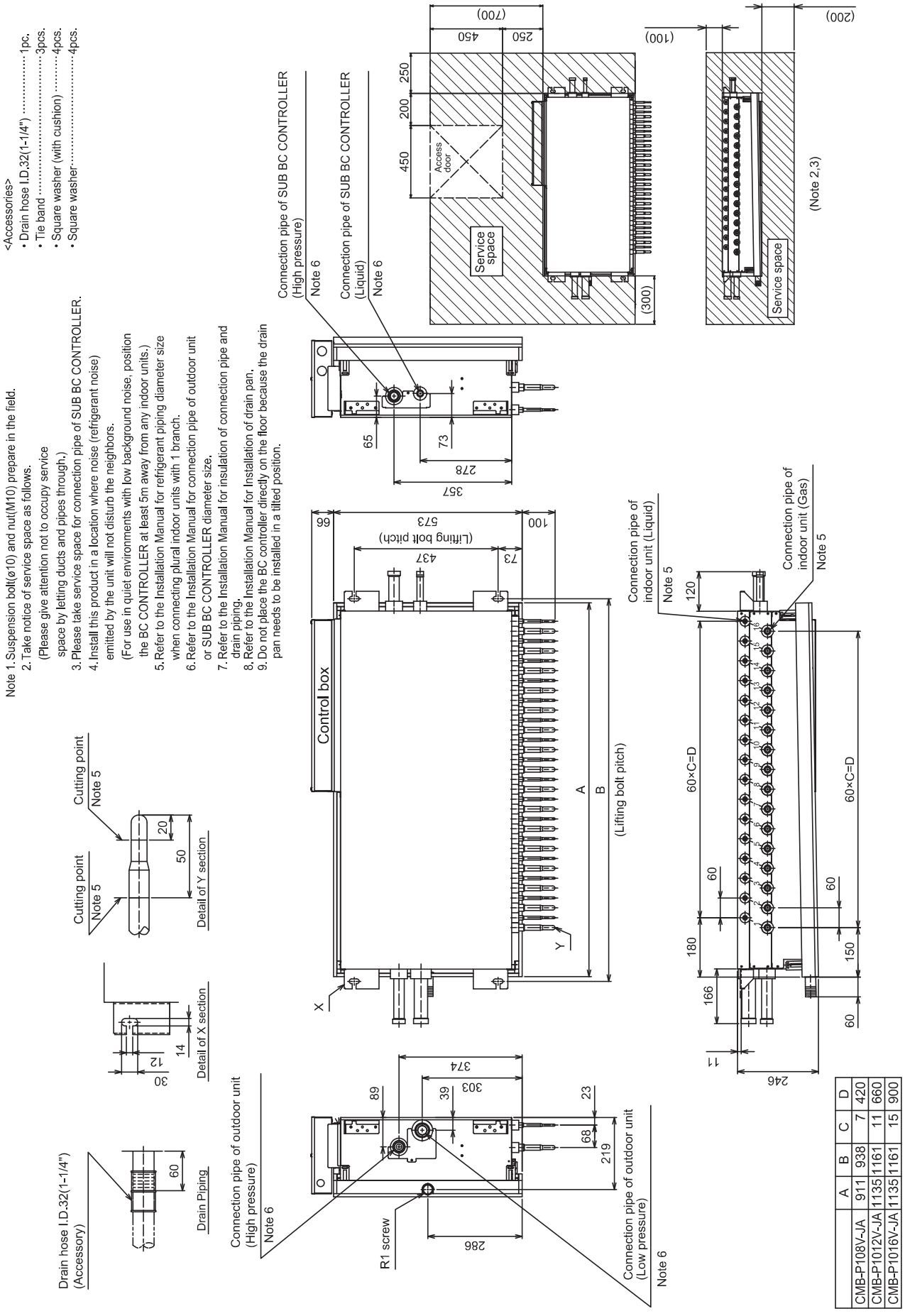
Unit: mm



	A	B	C	D
CMB-P1012V-J	911	938	11	660
CMB-P1016V-J	1135	1161	15	900

CMB-P108, 1012, 1016V-JA

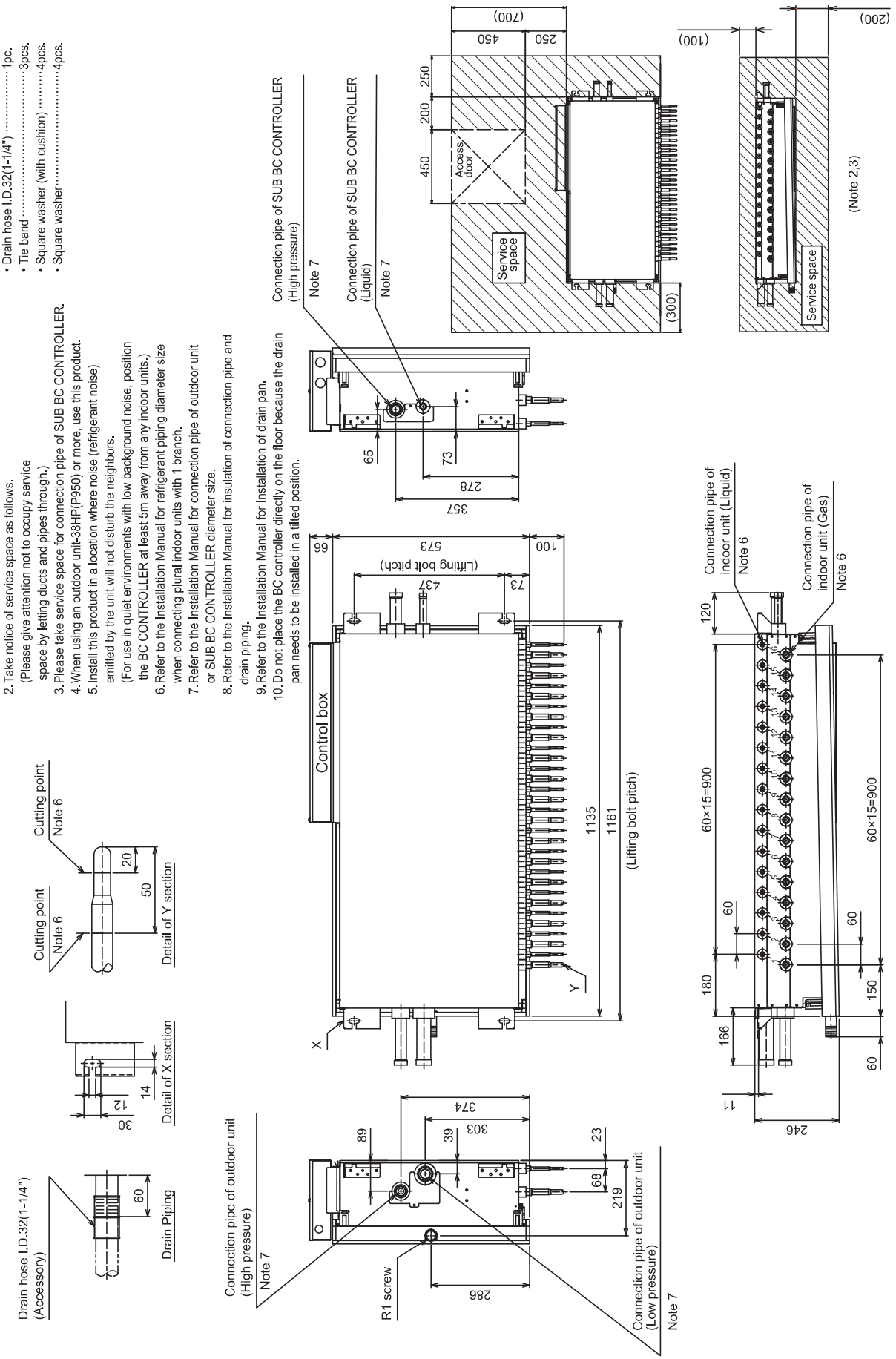
Unit: mm



	A	B	C	D
CMB-P108V-JA	911	938	7	420
CMB-P1012V-JA	1135	1161	11	660
CMB-P1016V-JA	1135	1161	15	900

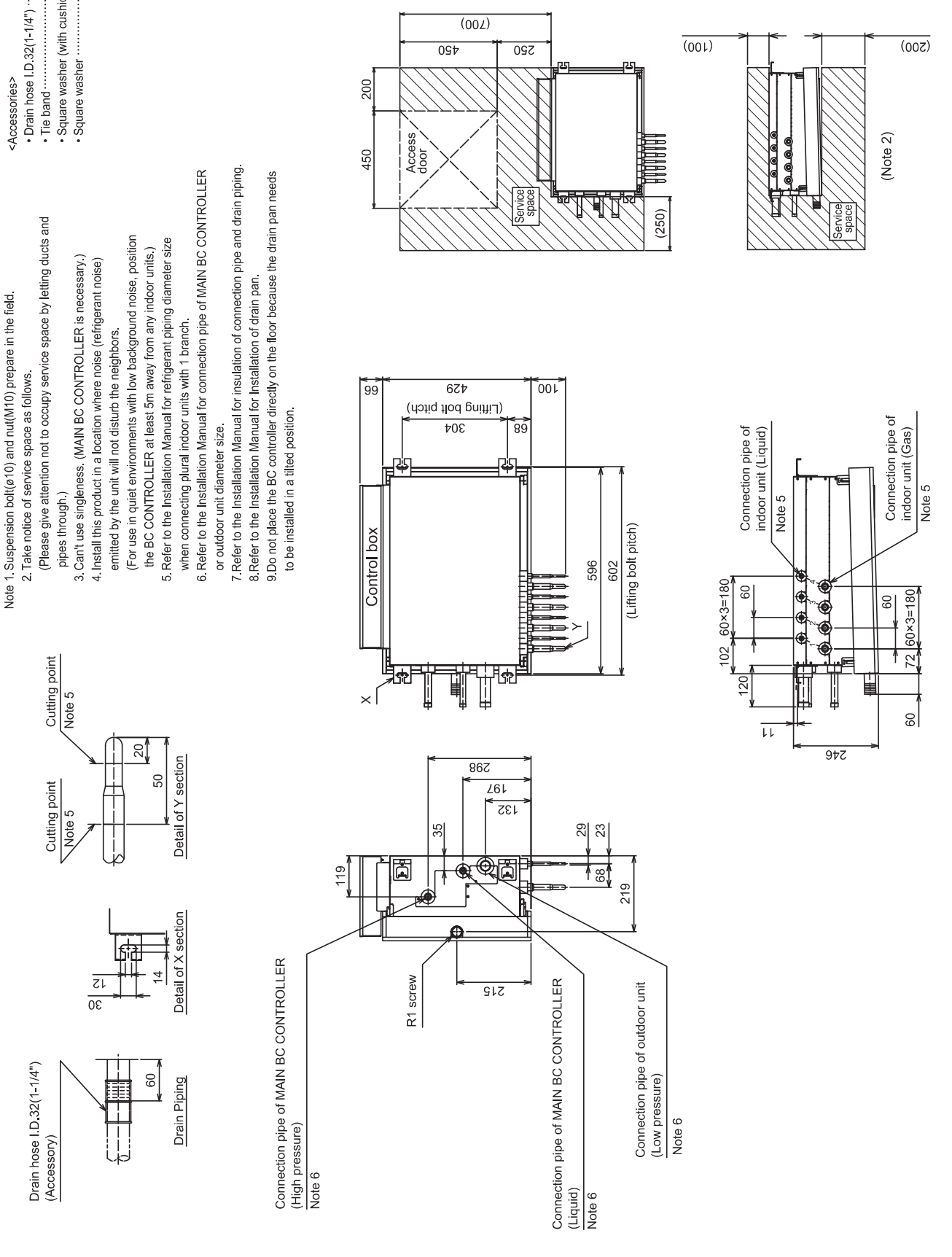
CMB-P1016V-KA

Unit: mm



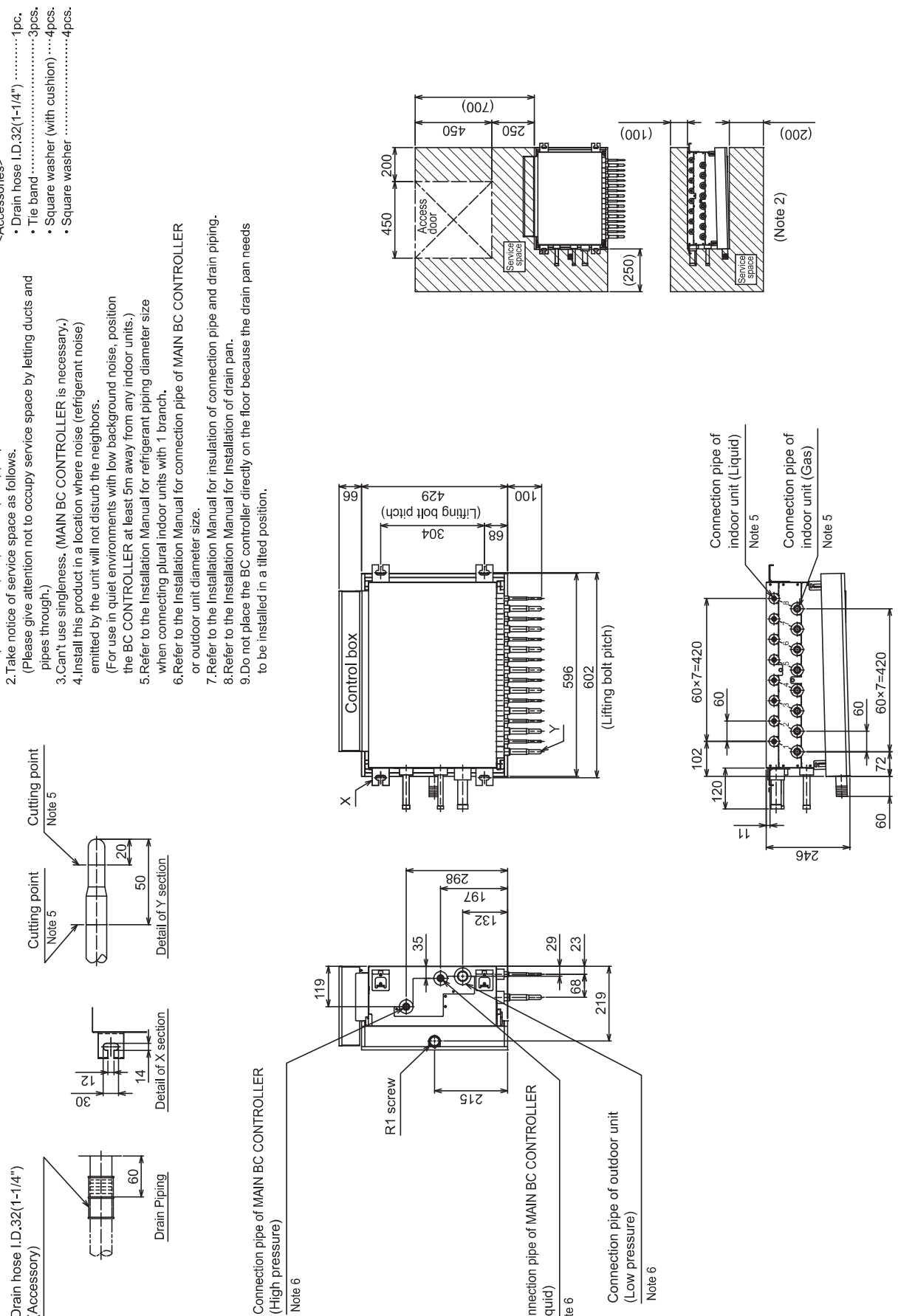
CMB-P104V-KB

Unit: mm

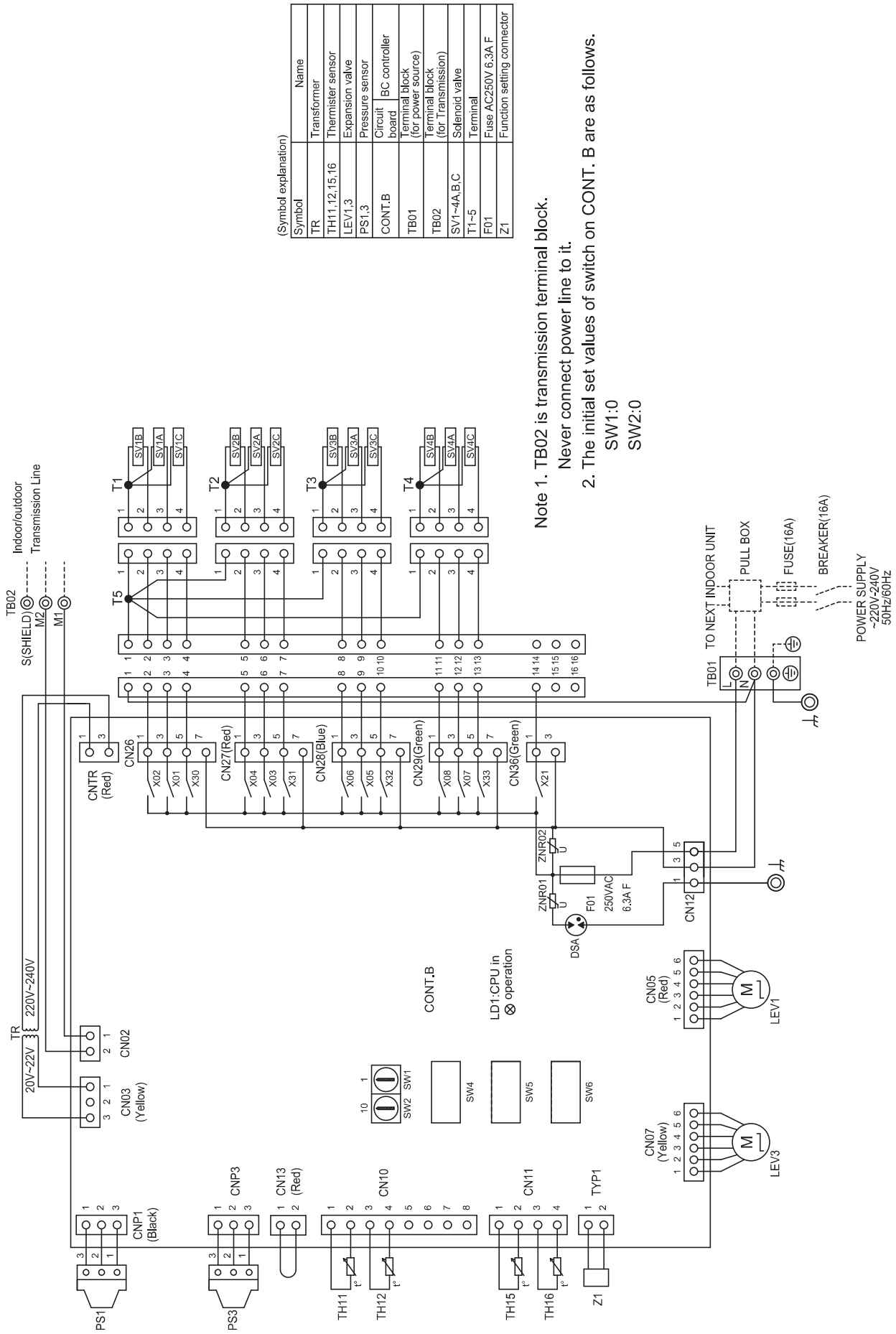


CMB-P108V-KB

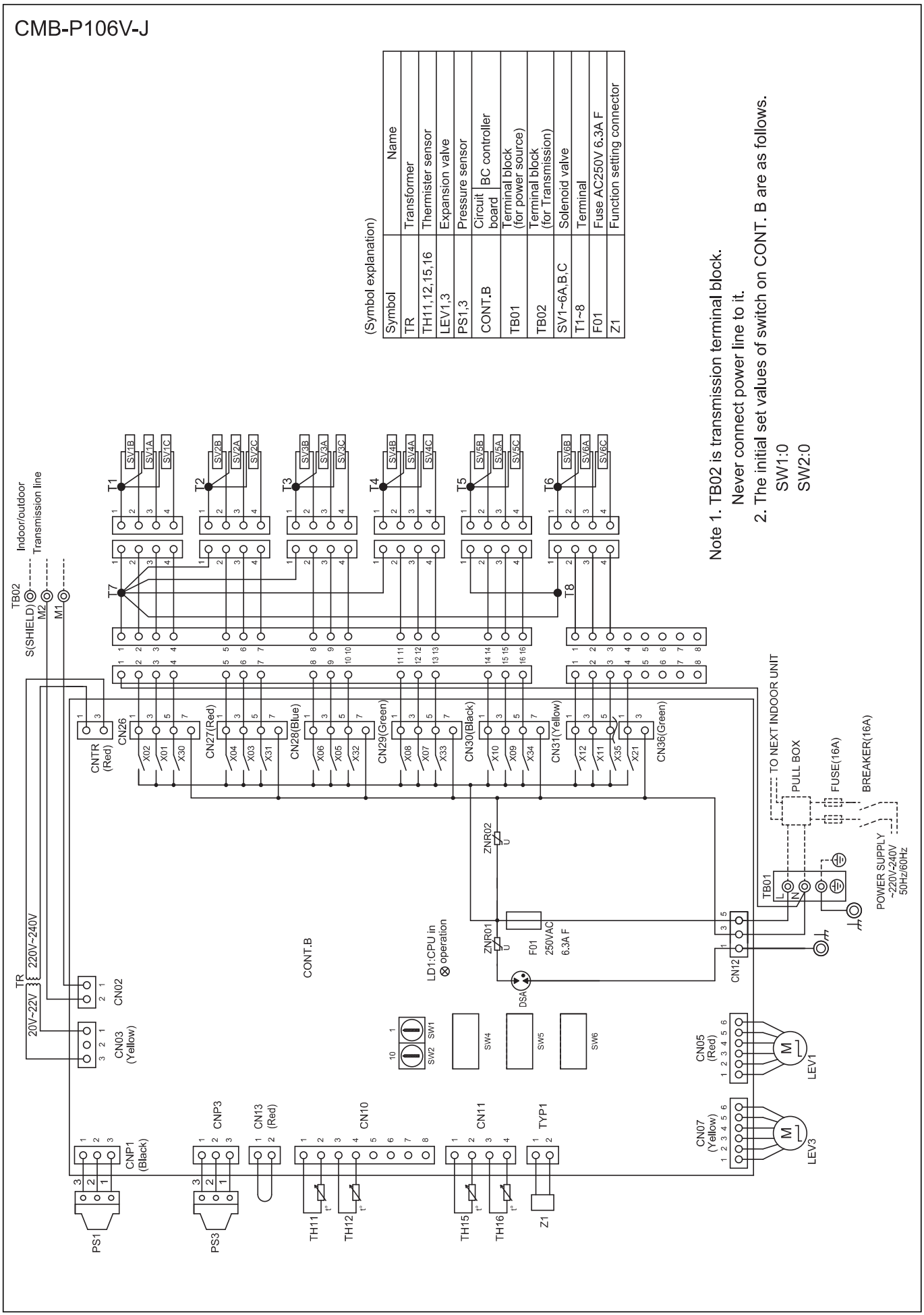
Unit: mm



CMB-P104V-J


(Symbol explanation)
Symbol | Name
TR | Transformer
TH11,12,15,16 | Thermister sensor
LEV1,3 | Expansion valve
PS1,3 | Pressure sensor
CONT.B | Circuit board | BC controller
TB01 | Terminal block (for power source)
TB02 | Terminal block (for Transmission)
SV1~4A,B,C | Solenoid valve
T1~5 | Terminal
F01 | Fuse AC250V 6.3A F
Z1 | Function setting connector
Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0
Indoor/outdoor Transmission Line
TB02
S(SHIELD)
M2
M1
T1
T2
T3
T4
T5
SV1B
SV1A
SV1C
SV2B
SV2A
SV2C
SV3B
SV3A
SV3C
SV4B
SV4A
SV4C
TO NEXT INDOOR UNIT
PULL BOX
FUSE(16A)
BREAKER(16A)
POWER SUPPLY
~220V-240V
50Hz/60Hz
TB01
L
N
CNTR (Red)
CN26
CN27(Red)
CN28(Blue)
CN29(Green)
CN36(Green)
X02
X01
X30
X04
X03
X31
X06
X05
X32
X08
X07
X33
X21
ZNR02
ZNR01
F01
250VAC
6.3A F
DSA
CN12
TR
220V~240V
20V~22V
CN02
CN03 (Yellow)
CONT.B
LD1:CPU in ⊗ operation
SW1
SW2
SW4
SW5
SW6
CN05 (Red)
CN07 (Yellow)
LEV1
LEV3
CNP1 (Black)
CNP3
CN13 (Red)
CN10
CN11
TYP1
PS1
PS3
TH11
TH12
TH15
TH16
Z1

CMB-P106V-J

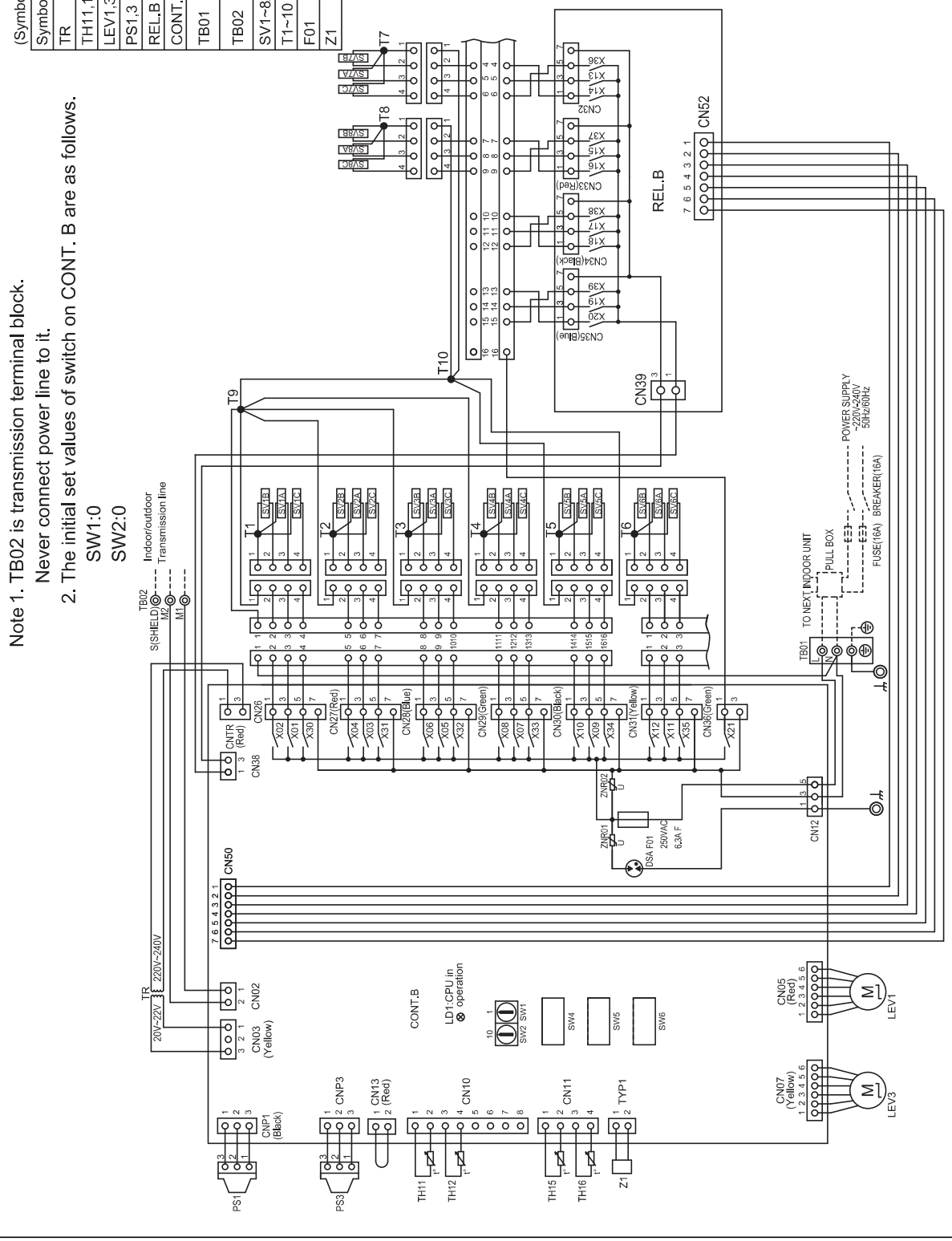

(Symbol explanation)
Symbol | Name
TR | Transformer
TH11,12,15,16 | Thermister sensor
LEV1,3 | Expansion valve
PS1,3 | Pressure sensor
CONT.B | Circuit board BC controller
TB01 | Terminal block (for power source)
TB02 | Terminal block (for Transmission)
SV1~6A,B,C | Solenoid valve
T1~8 | Terminal
F01 | Fuse AC250V 6.3A F
Z1 | Function setting connector
Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0
Indoor/outdoor Transmission line
TB02
S(SHIELD)
M2
M1
TR
220V~240V
20V~22V
CN02
CN03 (Yellow)
CNP1 (Black)
CNP3
CN13 (Red)
CN10
CN11
TYP1
PS1
PS3
TH11
TH12
TH15
TH16
Z1
CONT.B
LD1:CPU in operation
SW1
SW2
SW4
SW5
SW6
DSA
ZNR01
ZNR02
F01 250VAC 6.3A F
CN12
CN05 (Red)
CN07 (Yellow)
LEV1
LEV3
CNTR (Red)
CN26
CN27(Red)
CN28(Blue)
CN29(Green)
CN30(Black)
CN31(Yellow)
CN36(Green)
T1
T2
T3
T4
T5
T6
T7
T8
SV1B SV1A SV1C
SV2B SV2A SV2C
SV3B SV3A SV3C
SV4B SV4A SV4C
SV5B SV5A SV5C
SV6B SV6A SV6C
TO NEXT INDOOR UNIT
PULL BOX
FUSE(16A)
BREAKER(16A)
TB01
L
N
POWER SUPPLY ~220V-240V 50Hz/60Hz

CMB-P108V-J

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit board: Relay
CONT.B	Circuit board: BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~8A,B,C	Solenoid valve
T1~10	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

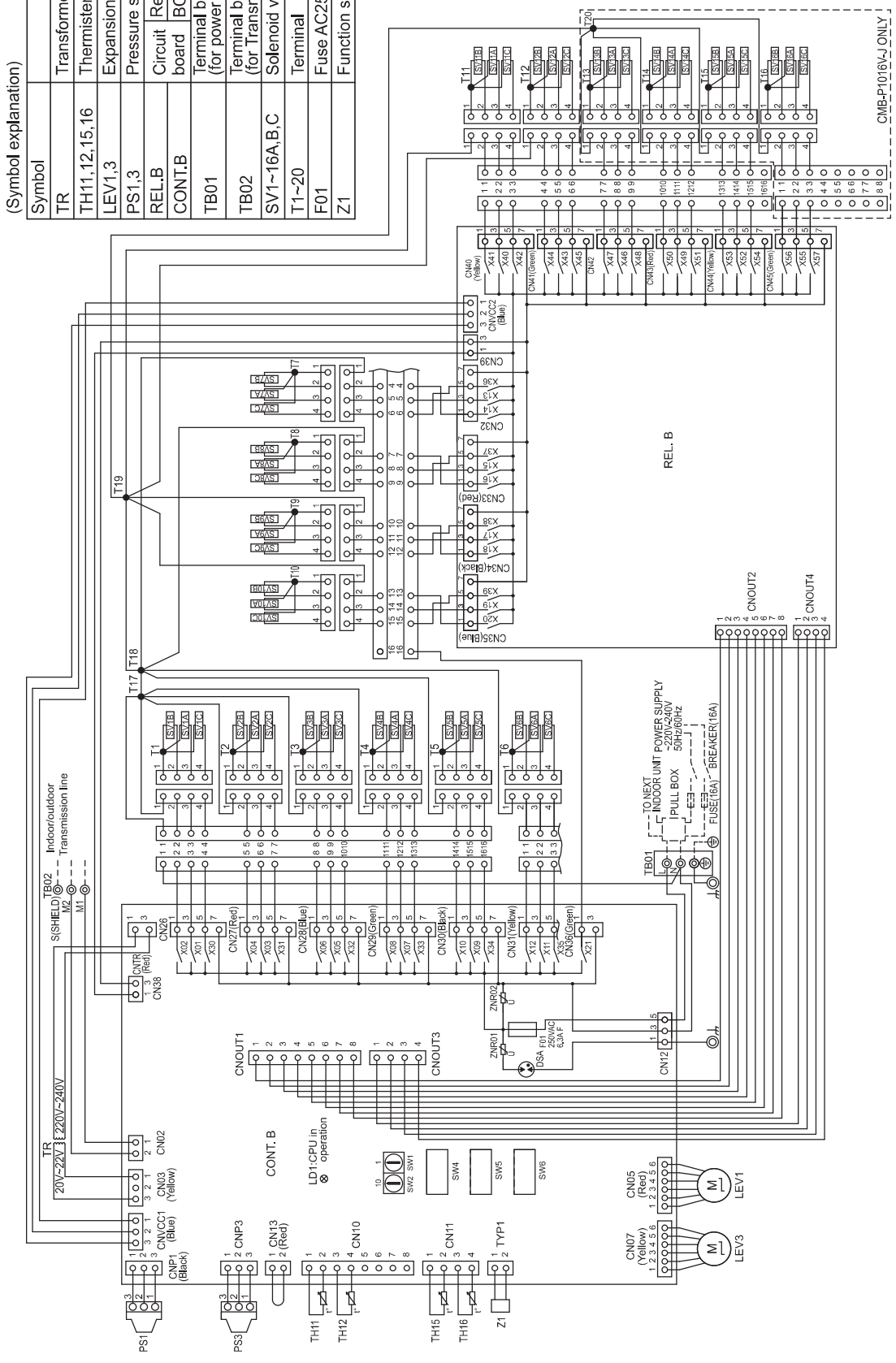


CMB-P1012,1016V-J

Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

(Symbol explanation)

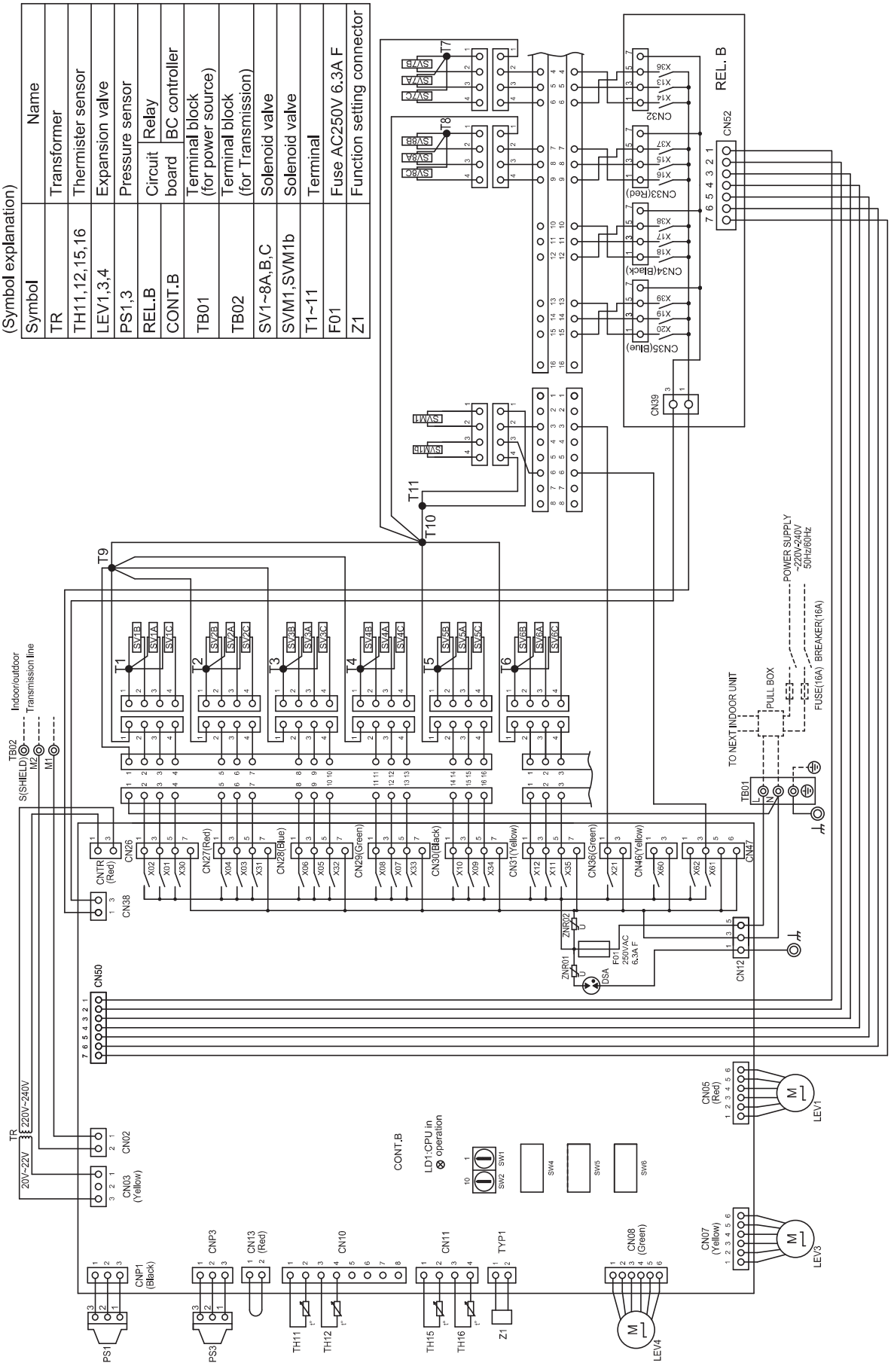
Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit board Relay
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A,B,C	Solenoid valve
T1~20	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector



CMB-P108V-JA

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3,4	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit board Relay
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~8A,B,C	Solenoid valve
SVM1,SVM1b	Solenoid valve
T1~11	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

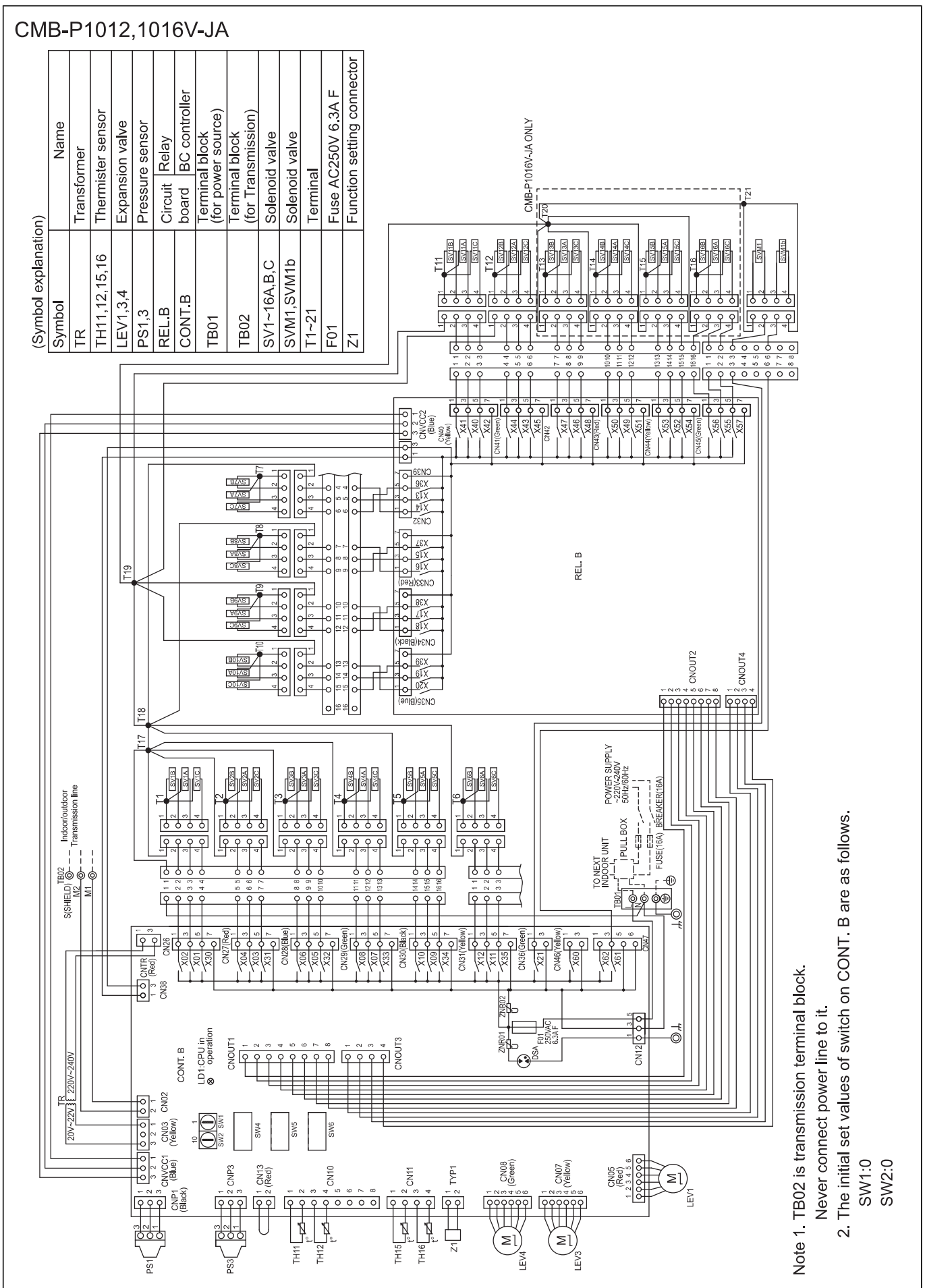


Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

CMB-P1012,1016V-JA

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3,4	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit board: Relay
CONT.B	Circuit board: BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A,B,C	Solenoid valve
SVM1,SVM1b	Solenoid valve
T1~21	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

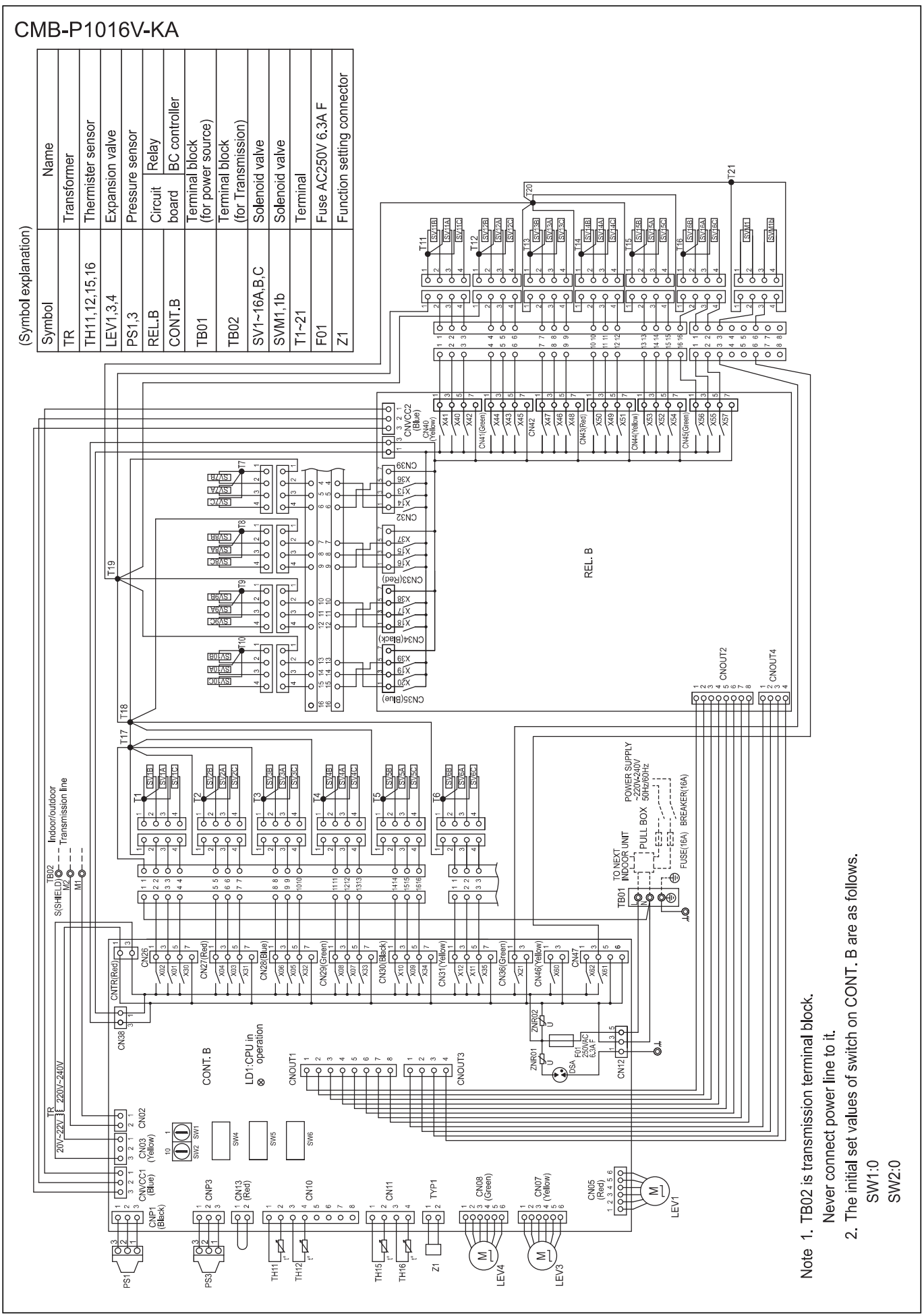


Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

CMB-P1016V-KA

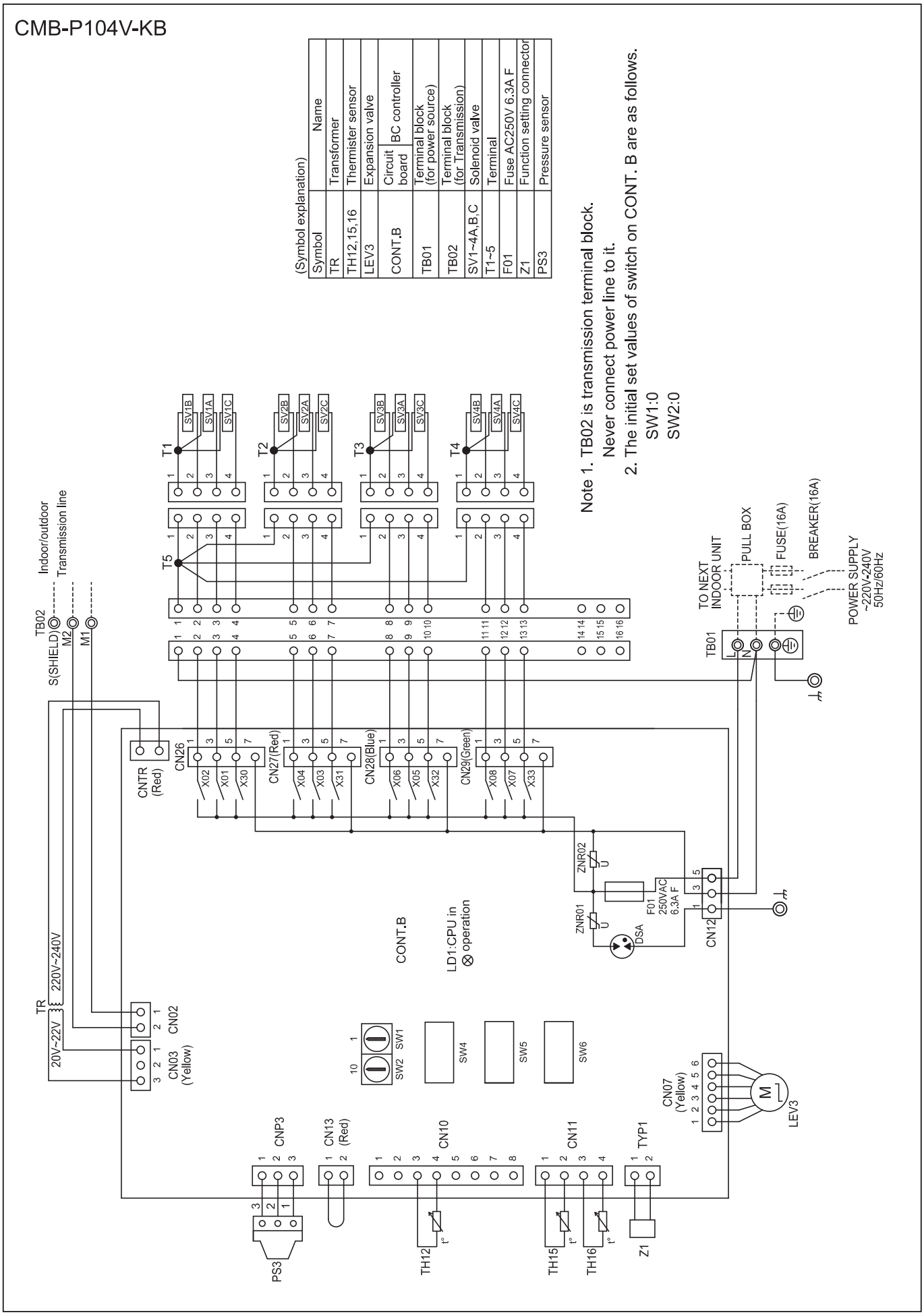
(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3,4	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit board: Relay
CONT.B	Circuit board: BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A,B,C	Solenoid valve
SVM1,1b	Solenoid valve
T1~21	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector



Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

CMB-P104V-KB

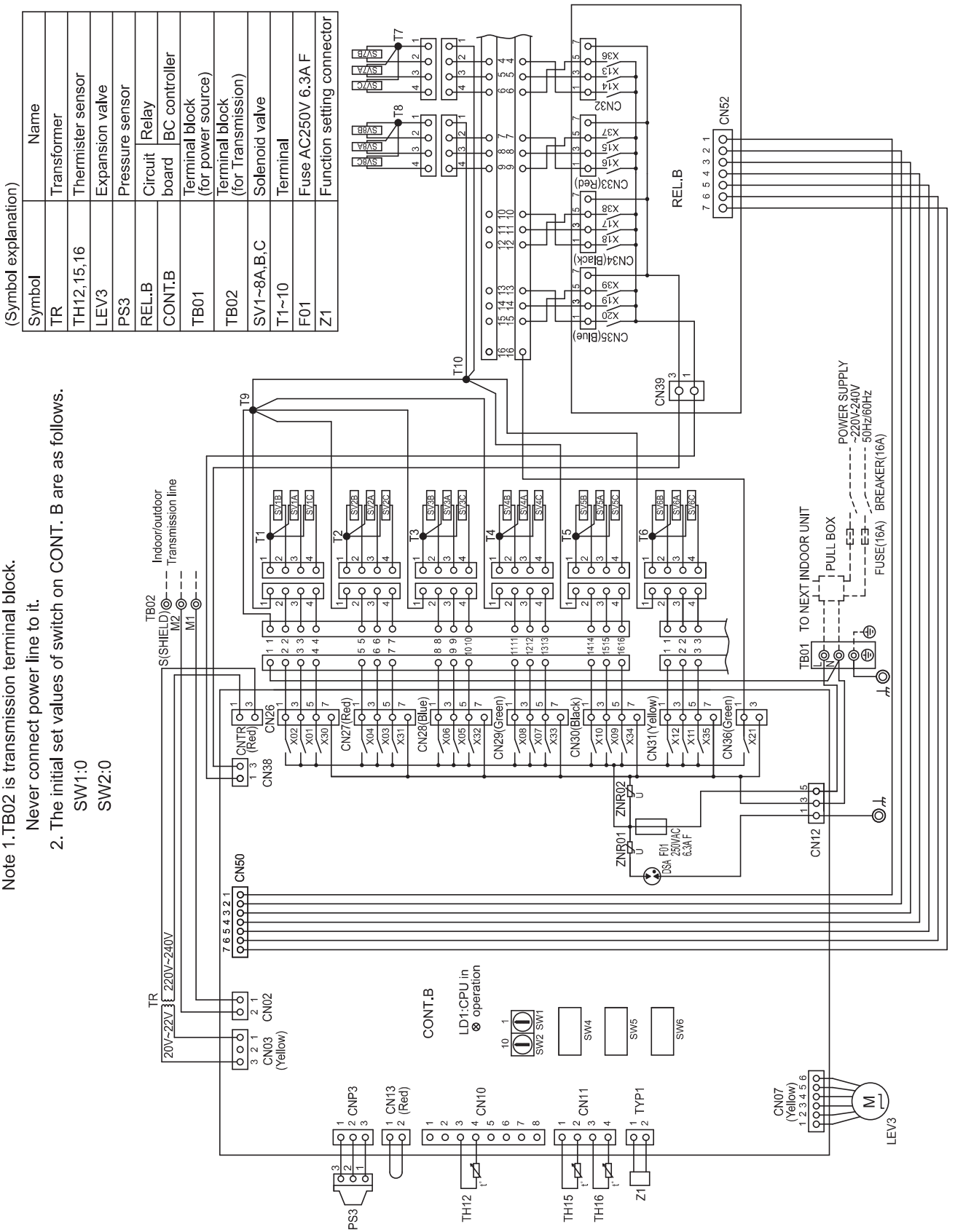

(Symbol explanation)
Symbol | Name
TR | Transformer
TH12,15,16 | Thermister sensor
LEV3 | Expansion valve
CONT.B | Circuit board | BC controller
TB01 | Terminal block (for power source)
TB02 | Terminal block (for Transmission)
SV1~4A,B,C | Solenoid valve
T1~5 | Terminal
F01 | Fuse AC250V 6.3A F
Z1 | Function setting connector
PS3 | Pressure sensor
Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0
Indoor/outdoor Transmission line
TB02
S(SHIELD)
M2
M1
T1
T2
T3
T4
T5
SV1B
SV1A
SV1C
SV2B
SV2A
SV2C
SV3B
SV3A
SV3C
SV4B
SV4A
SV4C
TO NEXT INDOOR UNIT
PULL BOX
FUSE(16A)
BREAKER(16A)
POWER SUPPLY ~220V-240V 50Hz/60Hz
TB01
CNTR (Red)
CN26
CN27(Red)
CN28(Blue)
CN29(Green)
X02
X01
X30
X04
X03
X31
X06
X05
X32
X08
X07
X33
ZNR02
ZNR01
DSA
F01 250VAC 6.3A F
CN12
CONT.B
LD1:CPU in ⊗ operation
TR
220V~240V
20V~22V
CN02
CN03 (Yellow)
SW1
SW2
SW4
SW5
SW6
CN07 (Yellow)
LEV3
CNP3
CN13 (Red)
CN10
CN11
TYP1
PS3
TH12
TH15
TH16
Z1

CMB-P108V-KB

(Symbol explanation)

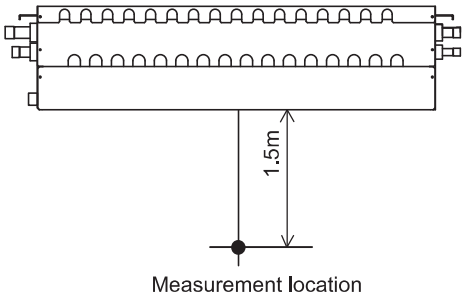
Symbol	Name
TR	Transformer
TH12,15,16	Thermister sensor
LEV3	Expansion valve
PS3	Pressure sensor
REL.B	Circuit board Relay
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~8A,B,C	Solenoid valve
T1~10	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

Note 1.TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0

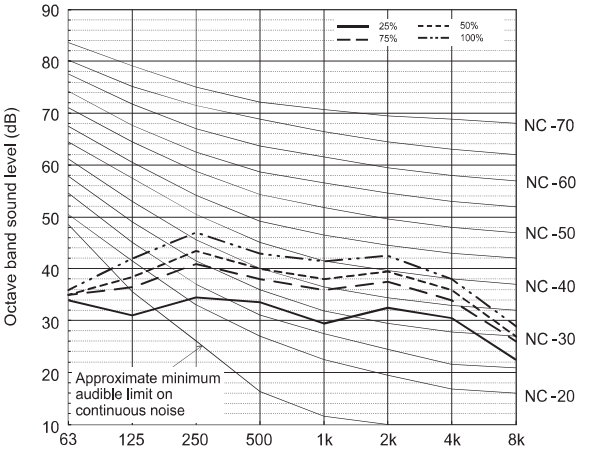


4-1. Sound levels in cooling mode

Measurement condition



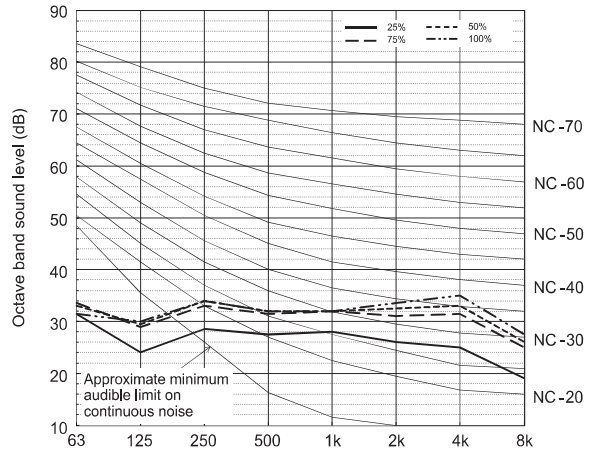
Sound level of CMB-P1016V-KA



■Cooling operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	34.0	31.0	34.5	33.5	29.5	32.5	30.5	22.5	38.0
50%	35.0	36.5	41.0	38.0	36.0	37.5	34.0	26.0	43.0
75%	35.0	38.5	43.5	40.0	38.0	39.5	36.0	27.0	45.0
100%	36.0	42.0	47.0	43.0	41.5	42.5	38.0	29.0	48.0

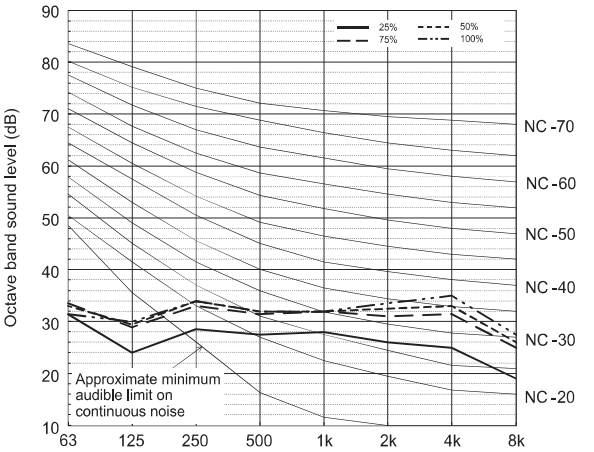
Sound level of CMB-P104-1016V-J



■Cooling operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	31.5	24.0	28.5	27.5	28.0	26.0	25.0	19.0	33.0
50%	33.5	29.0	33.0	31.5	32.0	31.0	31.5	25.0	38.0
75%	33.0	29.5	34.0	32.0	32.0	32.5	33.0	26.0	39.0
100%	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0

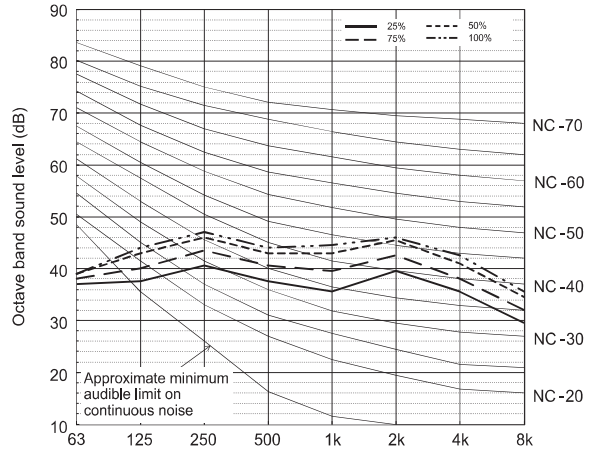
Sound level of CMB-P104,108V-KB



■Cooling operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	31.5	24.0	28.5	27.5	28.0	26.0	25.0	19.0	33.0
50%	33.5	29.0	33.0	31.5	32.0	31.0	31.5	25.0	38.0
75%	33.0	29.5	34.0	32.0	32.0	32.5	33.0	26.0	39.0
100%	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0

Sound level of CMB-P108-1016V-JA



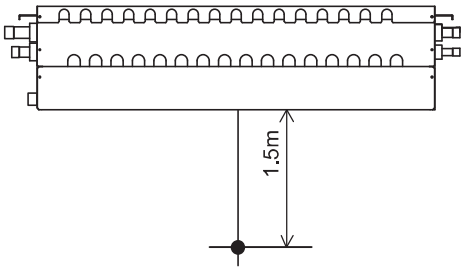
■Cooling operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	37.0	37.5	40.5	37.5	35.5	39.5	35.5	29.5	44.0
50%	38.0	40.0	43.5	40.5	39.5	42.5	38.0	32.0	47.0
75%	39.0	43.0	46.0	43.0	43.0	45.5	41.0	34.5	50.0
100%	39.0	44.0	47.0	44.0	44.5	46.0	42.5	35.5	51.0

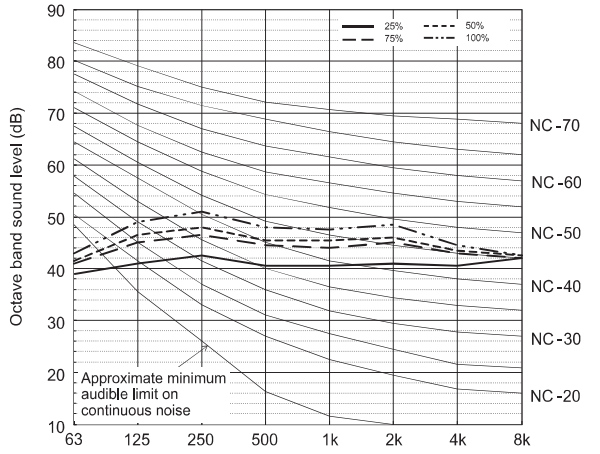
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-2. Sound levels in heating mode

Measurement condition



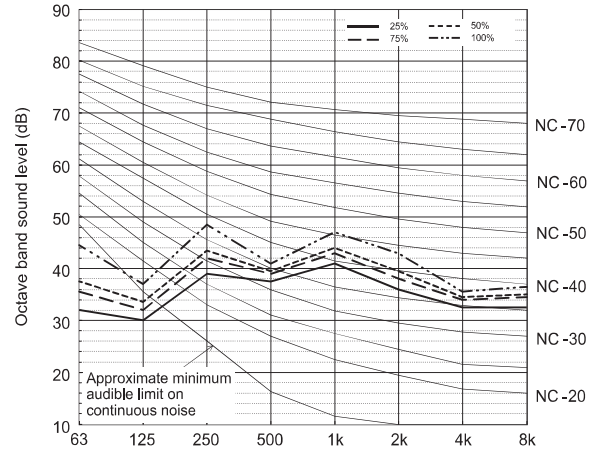
Sound level of CMB-P1016V-KA



■Heating operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	39.0	41.0	42.5	40.5	40.5	41.0	40.5	42.0	48.0
50%	41.0	45.0	46.5	44.5	44.0	45.0	43.0	42.0	51.0
75%	41.5	46.5	48.0	45.5	45.5	46.0	43.5	42.5	52.0
100%	43.0	49.0	51.0	48.0	47.5	48.5	44.5	42.5	54.0

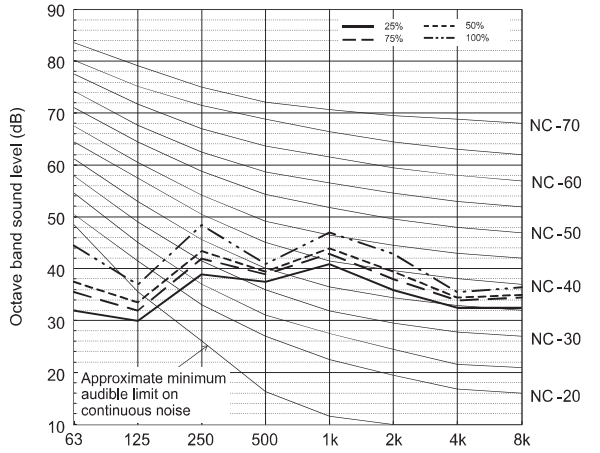
Sound level of CMB-P104-1016V-J



■Heating operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	32.0	30.0	39.0	37.5	41.0	36.0	32.5	32.5	44.0
50%	35.5	32.0	42.0	39.0	43.0	38.0	34.0	34.5	46.0
75%	37.5	33.5	43.5	39.5	44.0	39.5	34.5	35.0	47.0
100%	44.5	37.0	48.5	41.0	47.0	43.0	35.5	36.5	50.0

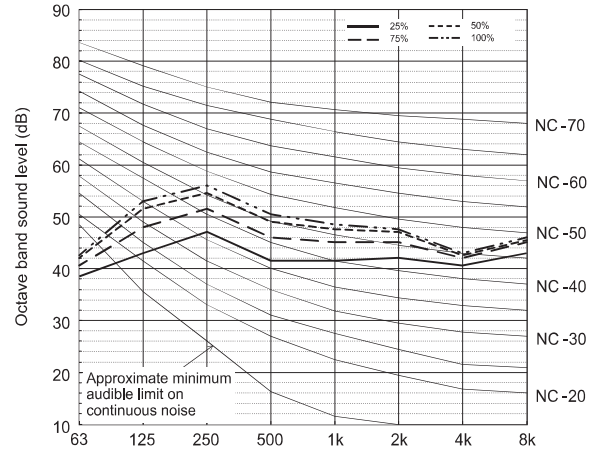
Sound level of CMB-P104,108V-KB



■Heating operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	32.0	30.0	39.0	37.5	41.0	36.0	32.5	32.5	44.0
50%	35.5	32.0	42.0	39.0	43.0	38.0	34.0	34.5	46.0
75%	37.5	33.5	43.5	39.5	44.0	39.5	34.5	35.0	47.0
100%	44.5	37.0	48.5	41.0	47.0	43.0	35.5	36.5	50.0

Sound level of CMB-P108-1016V-JA



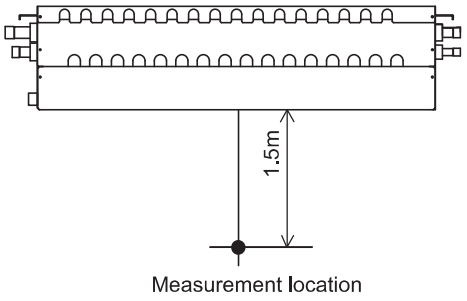
■Heating operation Octave band central frequency (Hz)

Total down-stream Indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)
25%	38.5	43.0	47.0	41.5	41.5	42.0	40.5	43.0	49.0
50%	40.5	48.0	51.5	46.0	45.0	45.0	42.0	45.0	52.0
75%	42.0	51.5	54.5	49.0	47.5	47.0	42.5	45.5	54.0
100%	42.5	53.0	56.0	50.5	48.5	47.5	43.0	46.0	55.0

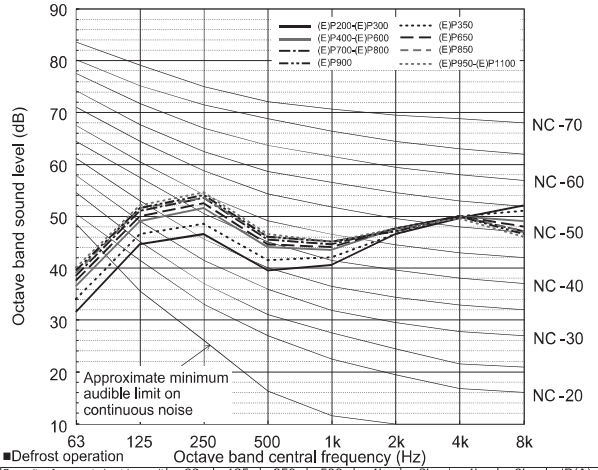
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-3. Sound levels in defrost mode

Measurement condition



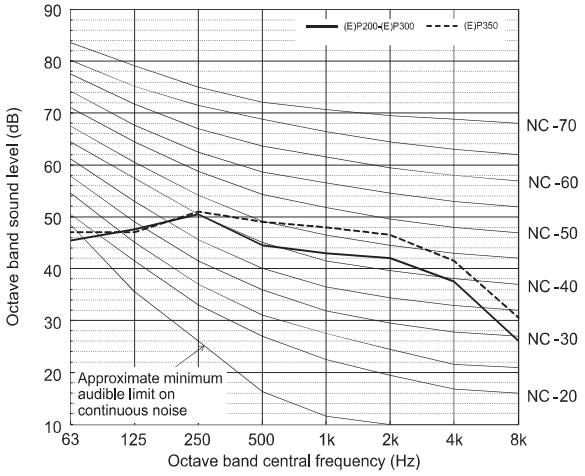
Sound level of CMB-P1016V-KA



■Defrost operation

Capacity of connected outdoor unit	63	125	250	500	1k	2k	4k	8k	dB(A)
(E)P200-(E)P300	31.5	44.5	46.5	39.5	40.5	46.5	49.5	52.0	55.0
(E)P350	34.0	46.5	48.5	41.5	42.0	46.5	50.0	51.0	55.0
(E)P400-(E)P600	36.5	49.0	51.5	44.0	43.5	47.5	50.0	49.0	55.0
(E)P650	37.5	50.0	52.5	44.5	44.0	47.5	50.0	48.0	55.0
(E)P700-(E)P800	38.5	51.0	53.5	45.5	44.5	47.5	50.0	47.0	55.0
(E)P850	39.0	51.5	53.5	46.0	45.0	47.0	50.0	47.0	55.0
(E)P900	39.5	51.5	54.0	46.0	45.0	47.0	50.0	46.5	55.0
(E)P950-(E)P1100	40.0	52.0	54.5	46.5	45.0	47.5	49.5	46.0	55.0

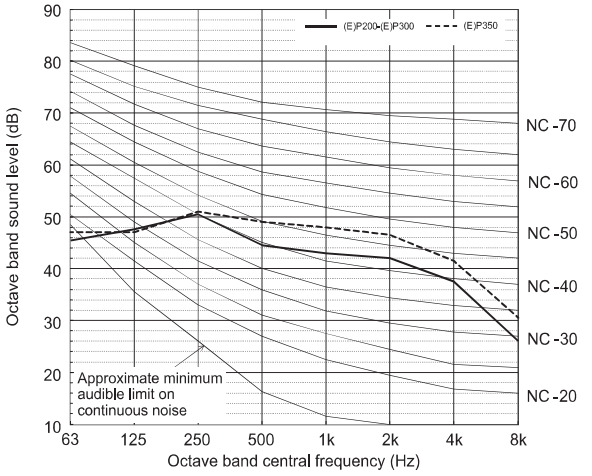
Sound level of CMB-P104-1016V-J



■Defrost operation

Capacity of connected outdoor unit	63	125	250	500	1k	2k	4k	8k	dB(A)
(E)P200-(E)P300	45.5	47.5	50.5	44.5	43.0	42.0	37.5	26.0	49.0
(E)P350	47.0	47.0	51.0	49.0	48.0	46.5	41.5	30.5	53.0

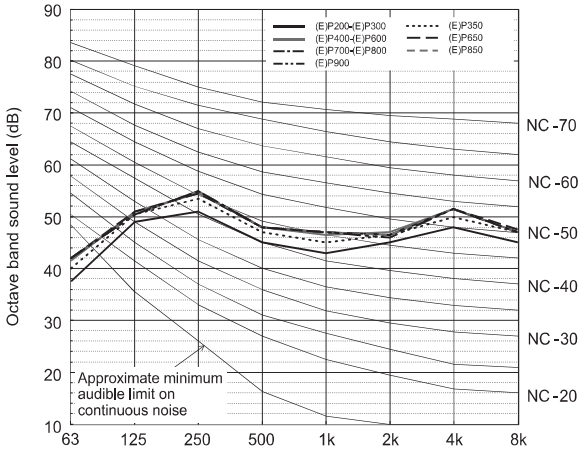
Sound level of CMB-P104,108V-KB



■Defrost operation

Capacity of connected outdoor unit	63	125	250	500	1k	2k	4k	8k	dB(A)
(E)P200-(E)P300	45.5	47.5	50.5	44.5	43.0	42.0	37.5	26.0	49.0
(E)P350	47.0	47.0	51.0	49.0	48.0	46.5	41.5	30.5	53.0

Sound level of CMB-P108-1016V-JA



■Defrost operation

Capacity of connected outdoor unit	63	125	250	500	1k	2k	4k	8k	dB(A)
(E)P200-(E)P300	37.5	49.0	51.0	45.0	43.0	45.0	48.0	45.0	53.0
(E)P350	40.0	50.5	53.5	47.0	45.0	46.5	50.0	47.0	55.0
(E)P400-(E)P600	41.5	51.0	54.5	48.0	46.5	47.0	51.5	47.0	56.0
(E)P650	42.0	51.0	54.5	48.0	47.0	46.5	51.5	47.5	56.0
(E)P700-(E)P800	42.0	50.5	55.0	48.0	47.0	46.5	51.5	47.0	56.0
(E)P850	42.0	50.5	55.0	48.0	47.0	46.5	51.5	47.0	56.0
(E)P900	42.0	50.5	55.0	48.0	47.0	46.0	51.5	47.0	56.0

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

Symbols: MCA (Max. Circuit Amps), MFA (Max. Fuse Amps), RLA (Rated Load Amps)

BC controller	Power supply					RLA(A)
	Hz	Volts	Range+-10%	MCA(A)	MFA(A)	
CMB-P104V-J	50/60	220	Max.: 264V Min.: 198V	0.45	15	0.31
		230				0.34
		240				0.36
CMB-P106V-J		220		0.65		0.45
		230				0.48
		240				0.52
CMB-P108V-J		220		0.85		0.58
		230				0.63
		240				0.68
CMB-P1012V-J		220		1.24		0.85
		230				0.92
		240				0.99
CMB-P1016V-J		220		1.63		1.12
		230				1.22
		240				1.30
CMB-P108V-JA		220		0.85		0.58
		230				0.63
		240				0.68
CMB-P1012V-JA		220		1.24		0.85
		230				0.92
		240				0.99
CMB-P1016V-JA		220		1.63		1.12
		230				1.22
		240				1.30
CMB-P1016V-KA		220		1.63		1.12
		230				1.22
		240				1.30
CMB-P104V-KB		220		0.40		0.28
		230				0.30
		240				0.32
CMB-P108V-KB		220		0.79		0.55
		230				0.59
		240				0.63

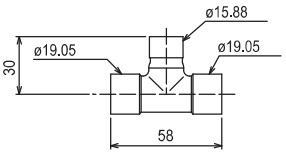
6-1. JOINT and REDUCER

CITY MULTI units can be easily connected by using Joint sets and Reducer sets provided by Mitsubishi Electric. Refer to section "Piping Design" or the Installation Manual that comes with the Joint set or Reducer set for how to install the Joint set or Reducer set.

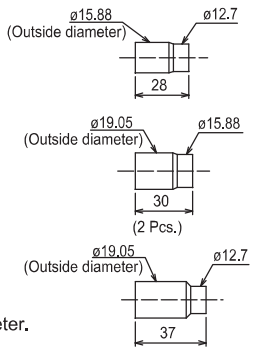
CMY-Y102SS-G2

mm

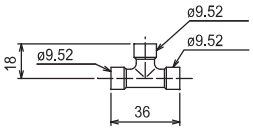
For Gas pipe:



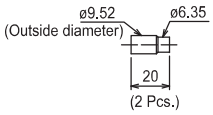
<Deformed pipe(Accessory)>



For Liquid pipe:



<Deformed pipe(Accessory)>

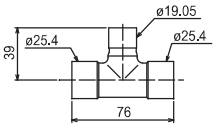


*Pipe diameter is indicated by inside diameter.

CMY-Y102LS-G2

mm

For Gas pipe:



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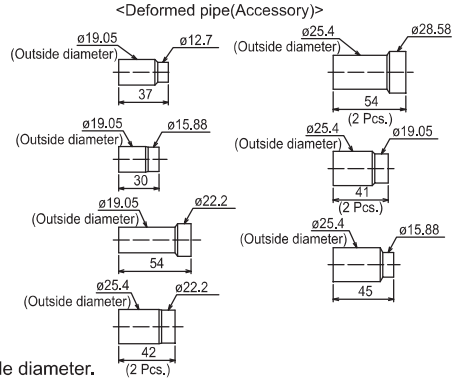
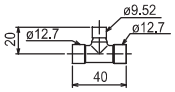
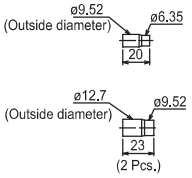


For Liquid pipe:



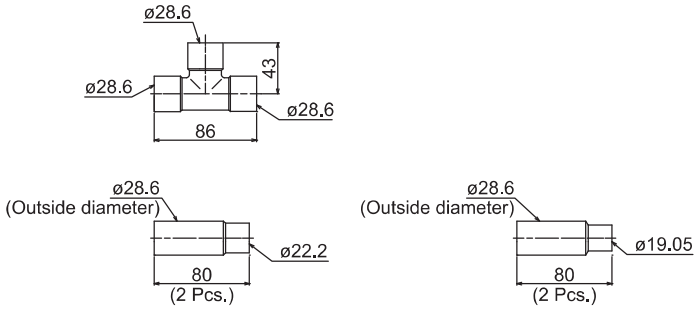
<Deformed pipe(Accessory)>



*Pipe diameter is indicated by inside diameter.

CMY-R101S-G

mm

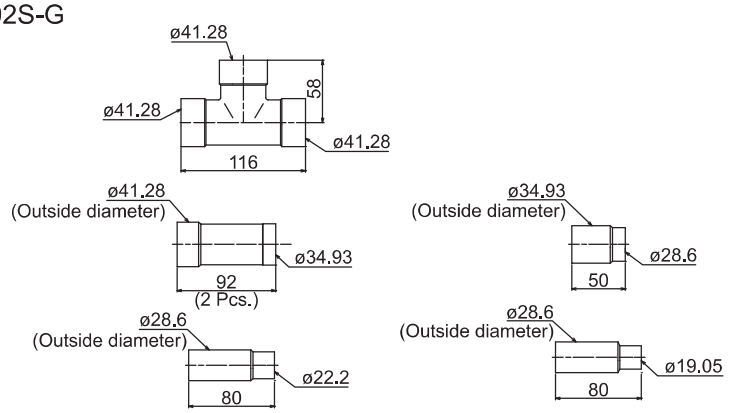


<Accessory>
- Cover ·····1 Pcs.
- Band ·····3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

CMY-R102S-G

mm

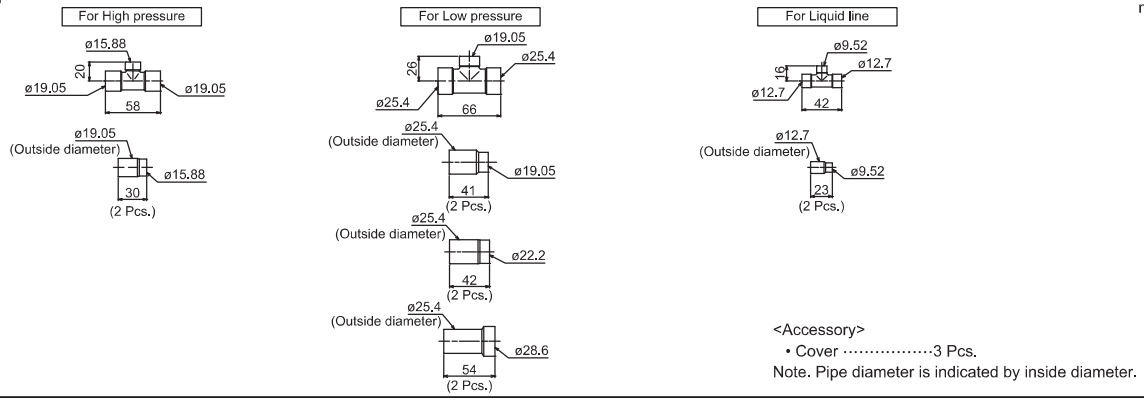


<Accessory>
- Cover ·····1 Pcs.
- Band ·····3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

CMY-R201S-G

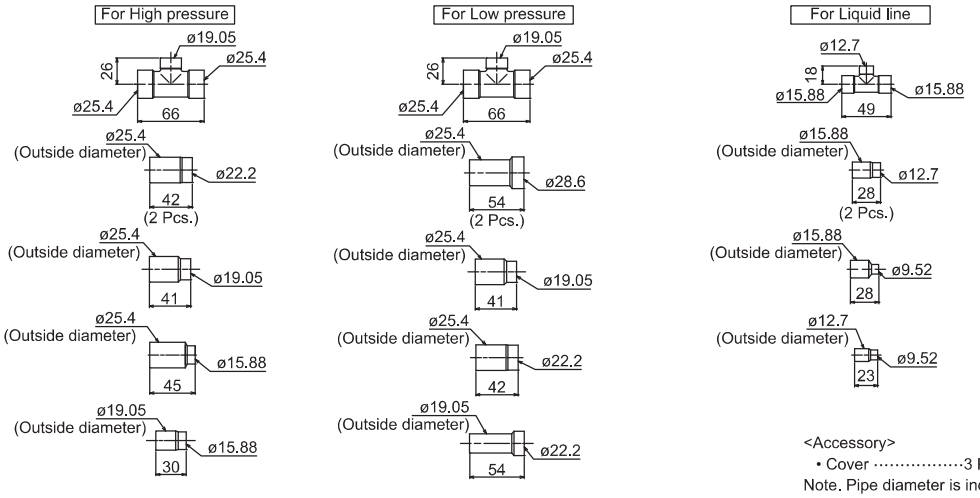
mm



<Accessory>
• Cover ·····3 Pcs.
Note. Pipe diameter is indicated by inside diameter.

CMY-R202S-G

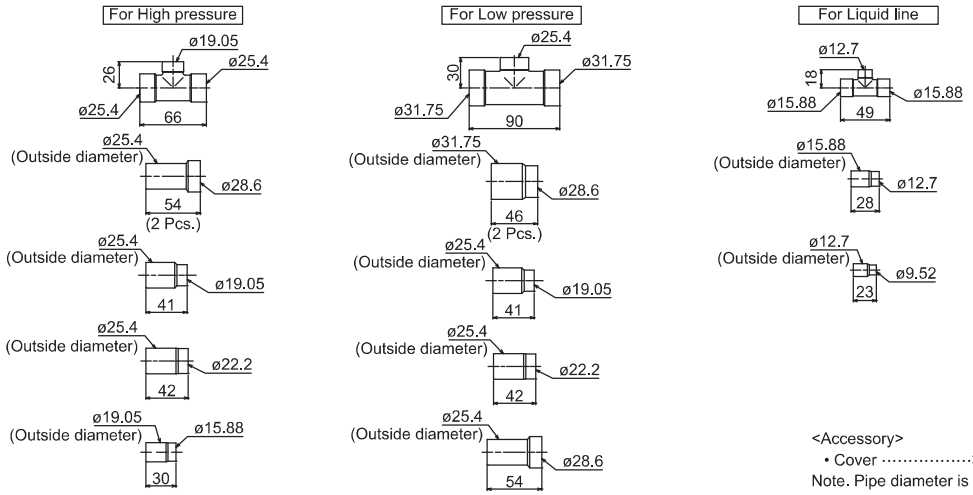
mm



<Accessory>
• Cover ·····3 Pcs.
Note. Pipe diameter is indicated by inside diameter.

CMY-R203S-G

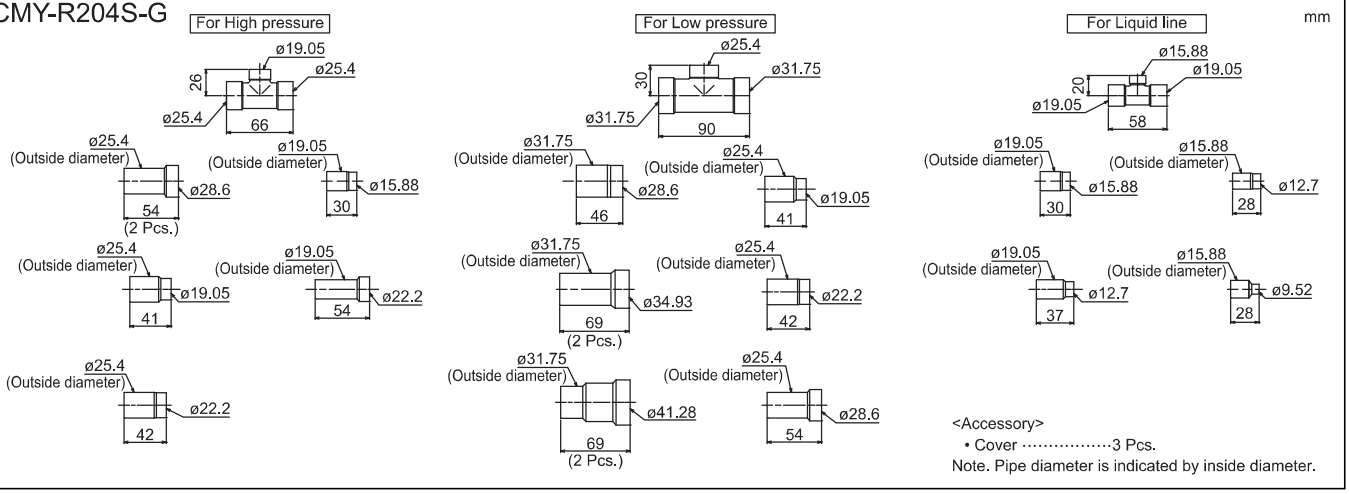
mm



<Accessory>
• Cover ·····3 Pcs.
Note. Pipe diameter is indicated by inside diameter.

CMY-R204S-G

mm

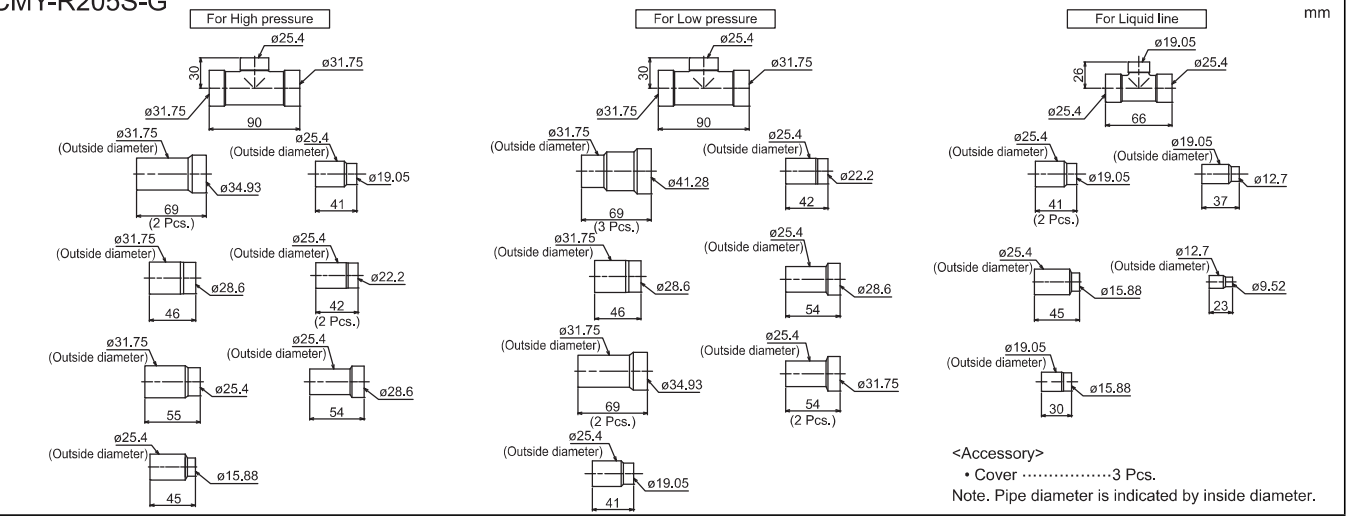


<Accessory>
• Cover ·····3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

CMY-R205S-G

mm

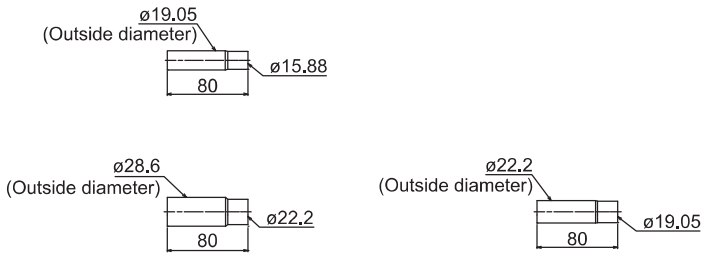


<Accessory>
• Cover ·····3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

CMY-R301S-G

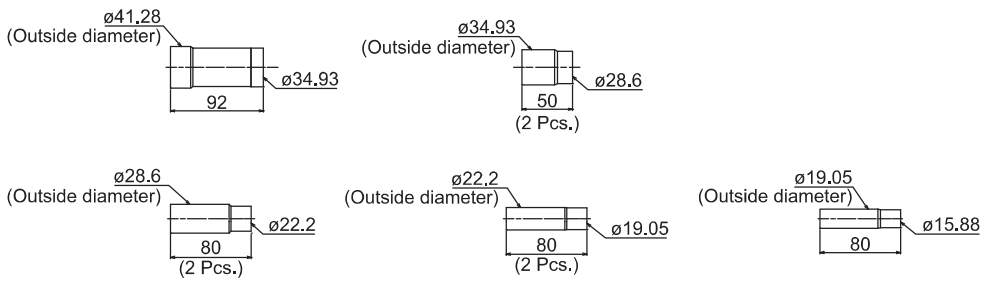
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R302S-G

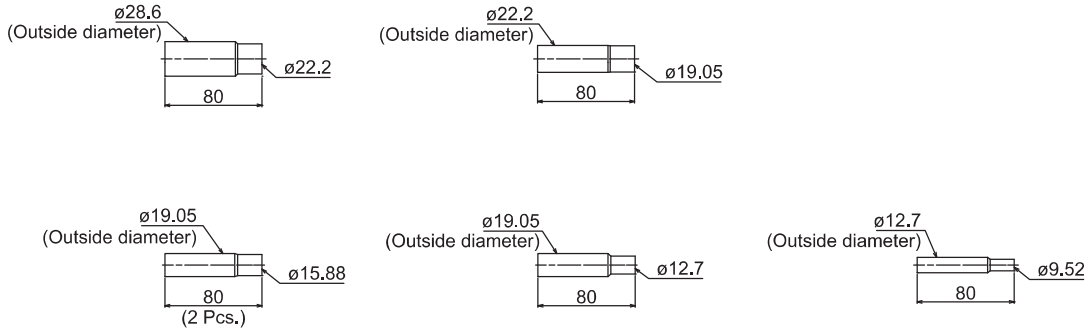
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R303S-G

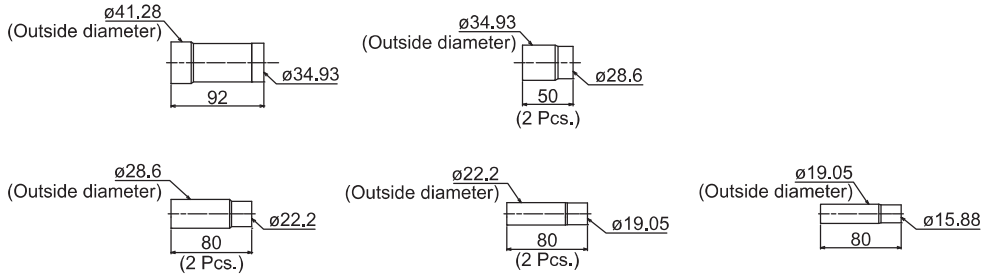
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R304S-G

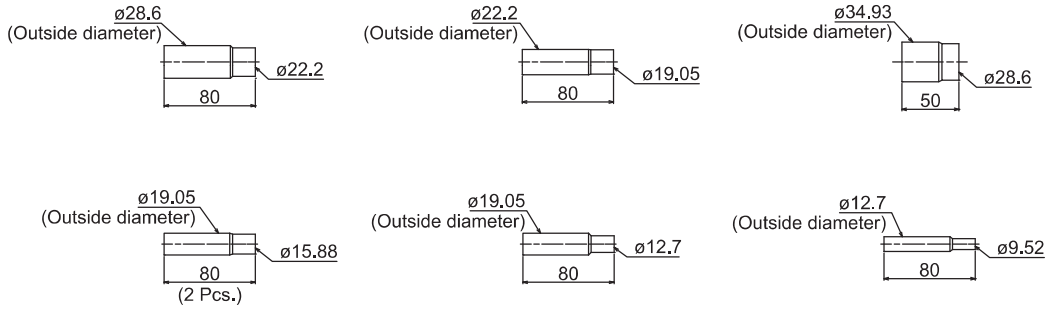
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R305S-G

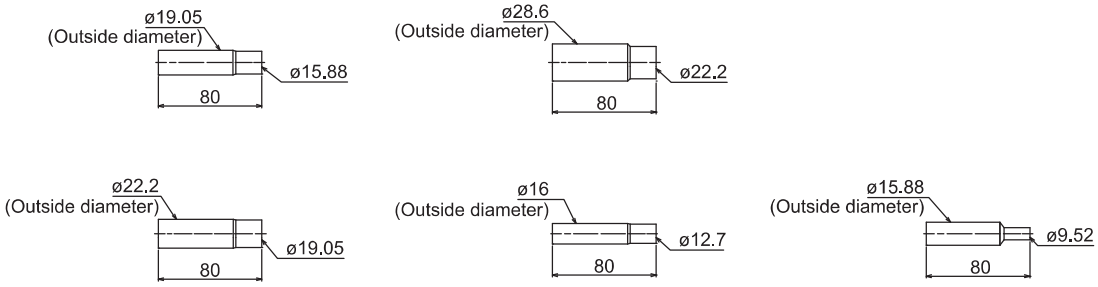
mm



Note. Pipe diameter is indicated by inside diameter.

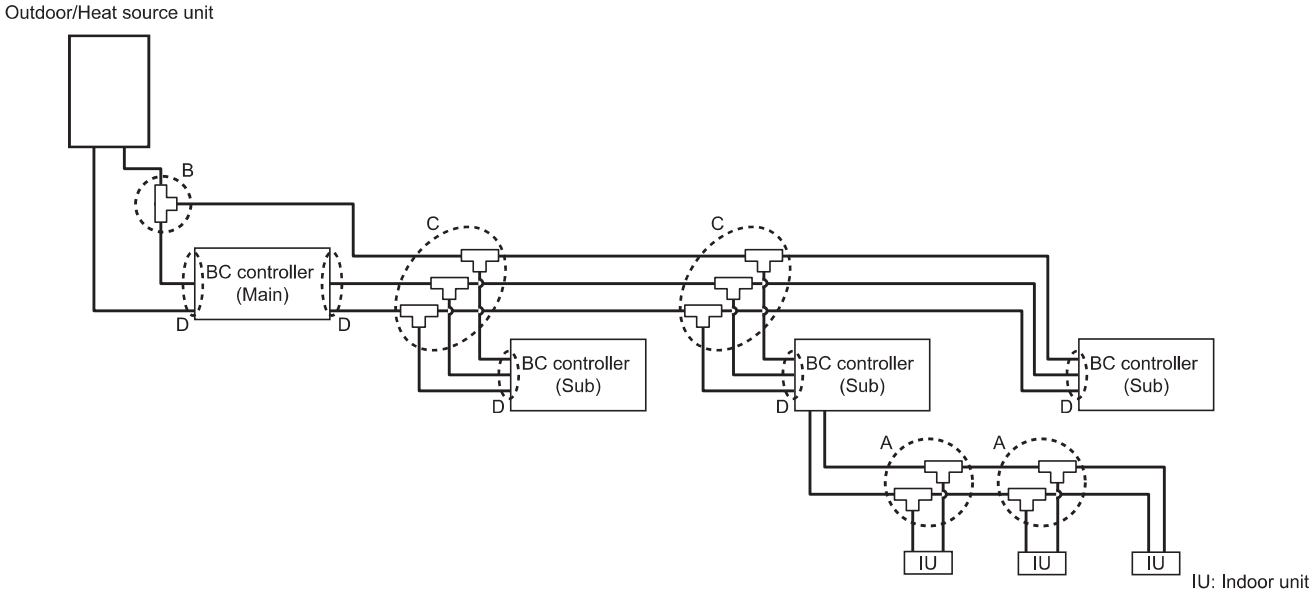
CMY-R306S-G

mm



Note. Pipe diameter is indicated by inside diameter.

How to select Joint and Reducer



A	Branch joint	Between BC and indoor units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -P200
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: P201-P250
B	Low pressure pipe joint	Between outdoor units and Sub BC	CMY-R101S-G	Outdoor unit capacity: P200-P650
			CMY-R102S-G	Outdoor unit capacity: P700-P1100
C	Branch joint	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -P350
			CMY-R202S-G	Total down-stream indoor unit capacity: P351-P600
			CMY-R203S-G	Total down-stream indoor unit capacity: P601-P650
			CMY-R204S-G	Total down-stream indoor unit capacity: P651-P1000
			CMY-R205S-G	Total down-stream indoor unit capacity: P1001-
D	Reducer	Between outdoor units and BC	CMY-R301S-G	For J type (Outdoor unit capacity: P200-P300)
			CMY-R302S-G	For JA type (Outdoor unit capacity: P200-P900)
			CMY-R304S-G	For KA type (Outdoor unit capacity: P200-P1000)
		Between Main BC and Sub BC	CMY-R303S-G	For JA type (When using the Sub BC controller)
			CMY-R305S-G	For KA type (When using the Sub BC controller)
			CMY-R306S-G	For KB type

- Main BC controller has two ports for Sub BC controller. Low pressure pipe has to be branched from the outdoor unit. ("B" in the figure)
- Items "B" and "C" are not necessary when J-type BC controller is used.

6-2. JOINT KIT "CMY-R160-J1" FOR BC CONTROLLER

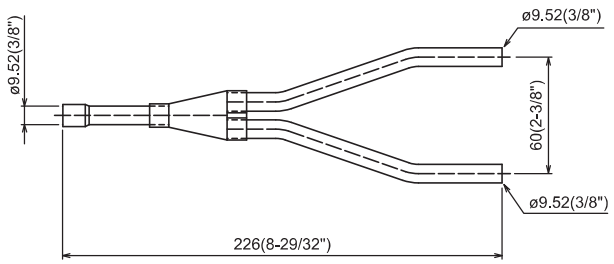
Joint kit "CMY-R160-J1" for BC controller is used to combine 2 ports of the BC controller at a PURY/PQRY system so as to enable down-stream Indoor capacity above P80 as shown in Fig. 1.

The Joint kit include following items:

①Instruction	②Joint pipe(Small)	③Joint pipe(Large)	④Cover 1	⑤Cover 2	⑥Cover 3	⑦Band	⑧Reducer 1	⑨Reducer 2
This sheet 1pc	1pc	1pc	2pcs	1pc for gas side	1pc for liquid side	8pcs	OD19.05-ID22.2 1pc	OD19.05-ID15.88 1pc

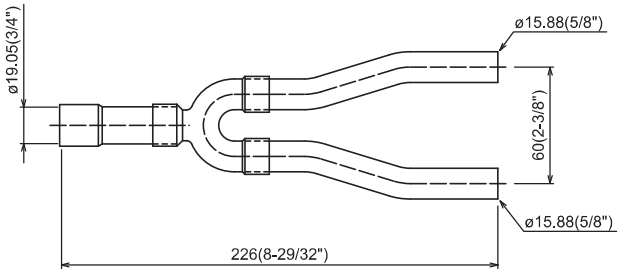
Please prepare the following items in the field. ①Tape for insulation material sealing ②Extension pipe for refrigerant circuit

②Joint pipe (for liquid side)



③Joint pipe (for gas side)

mm (in.)



1. Designing CMY-R160-J1 to a PURY/PQRY system

The maximum down-stream Indoor capacity for 1 port of BC controller is P80. When the down-stream Indoor capacity is above P80, Joint kit CMY-R160-J1 is needed to combined 2 ports of BC controller to enlarge the capacity, like Group 2 and 3 in Fig. 1.

Maximum 3 Indoor units are allowed to connect to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1.

When connecting Indoor units to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1 or CMY-Y102SS-G2 is applicable, like Group 1 and 2 in Fig. 1

Caution: Mixed cooling and heating mode at the same time for Indoor units connecting to 1 port or 2 combined ports is not available.

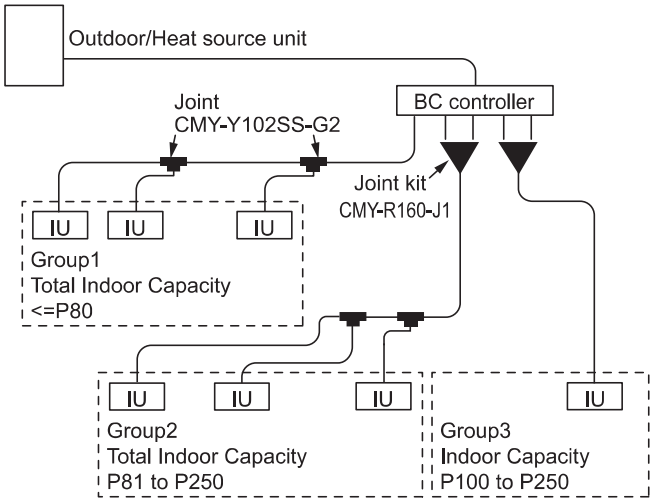
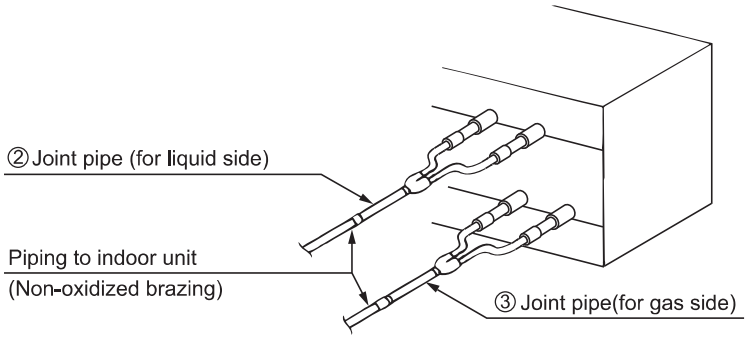


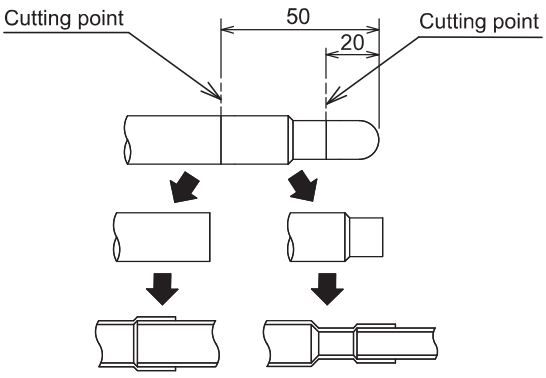
Fig.1. CMY-R160-J1 applying scheme

2. Piping at the installation site

The connection of CMY-R160-J1 to BC controller and pipe leading to Indoor units is referable to Fig. 2. Non-oxidized brazing is necessary. All piping must be careful to avoid foreign material getting inside.

After piping and air-tight testing, insulation work to the Joint and pipe should be done. Details is available at the Installation Manual.





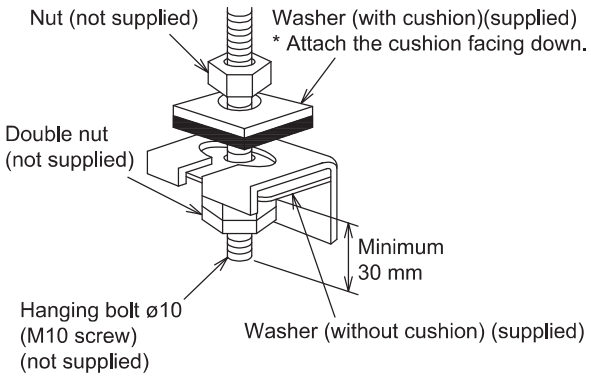
Have pipe expansion of indoor unit connecting port by cutting the piping at the cutting point.
Remove burr after cutting the piping to prevent entering the piping.
Check that there is no crack at the pipe expansion part.

Fig.2. Connecting CMY-R160-J1

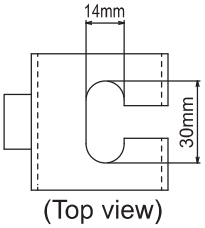
7-1. Installing BC controllers

Installing hanging bolts

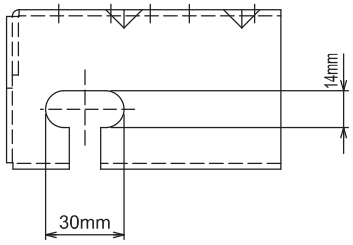
Install locally procured hanging bolts (threaded rod) following the procedure given in the figure.
The hanging bolt size is ø10 (M10 screw).
To hang the unit, use a lifting machine to lift and pass it through the hanging bolts.



CMB-P104, 106, 108V-J,
CMB-P104, 108V-KB



CMB-P1012, 1016V-J
CMB-P108, 1012, 1016V-JA
CMB-P1016V-KA



►Be sure to install the BC controller horizontally, using a level. If the controller is installed at an angle, drain water may leak out. If the controller is slanted, loosen the fixing nuts on the hanging brackets to adjust its position.
►Provide a downward pitch of 1.5º or below to the BC controller.
►Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.

8-1. Compatibility

Outdoor/Heat source unit	BC controller	Compatibility
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM PQRY-P-Y(S)LM PURY-RP-Y(S)JM PURY-(E)P-Y(S)JM	G1 type	Compatible
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later PQRY-P-Y(S)LM S/W Ver. 6.42 or later PURY-RP-Y(S)JM S/W Ver. 5.58 or later PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	J type	Compatible

Outdoor/Heat source unit	BC controller			Compatibility
	Main	Sub		
PURY-(E)P-Y(S)NW	JA/KA type	GB1/HB1 type	GB1/HB1 type	Compatible
PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later	JA/KA type	KB type	GB1/HB1 type	Not compatible
PQRY-P-Y(S)LM S/W Ver. 6.42 or later	JA/KA type	GB1/HB1 type		Compatible
PURY-RP-Y(S)JM S/W Ver. 5.58 or later	GA1/HA1 type	KB type	KB type	Compatible
PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	GA1/HA1 type	KB type	GB1/HB1 type	Not compatible
	GA1/HA1 type	KB type		Compatible

Outdoor/Heat source unit	BC controller		Compatibility
	Main	Sub	
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later PQRY-P-Y(S)LM S/W Ver. 6.42 or later PURY-RP-Y(S)JM S/W Ver. 5.58 or later PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	JA/KA type	KB type	Compatible(*)

*Up to 11 Sub BC controllers can be connected.

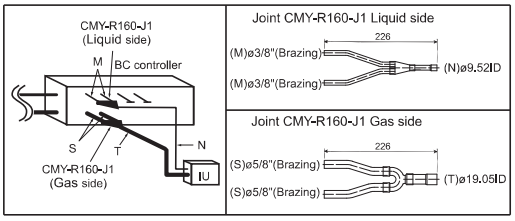
GA1/HA1/GB1/HB1 type and JA/KA/KB type can be mixed.
The only combination that is not available is mix of GB1/HB1 type and KB type.
When mixing GA1/HA1/GB1/HB1 type and JA/KA/KB type, specifications and restrictions is according to GA1/HA1/GB1/HB1type. (piping length, connectable number of Sub BC)

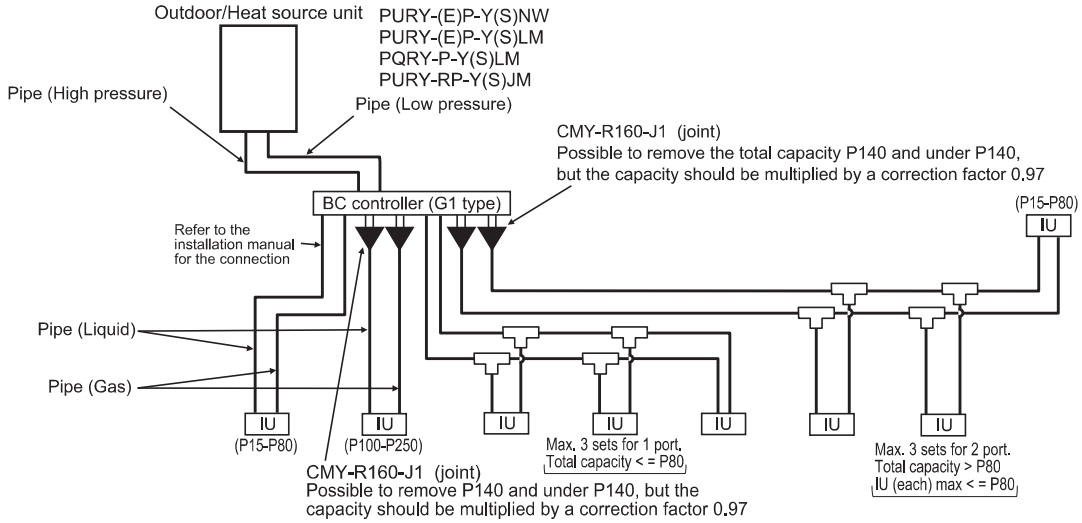
8-2. System examples

Refer to “6-1. JOINT and REDUCER” and “Piping Design of Outdoor/Heat source Units” for joint/reducer selection rules, pipe length restrictions, and pipe diameter.

8-2-1. When G1-type BC controller is used

Note1. No Header usable on PURY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little.
Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
Note8. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
Note10. To enable the continuous heating mode, set SW4 (848) to ON.

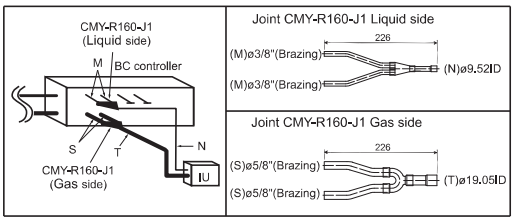


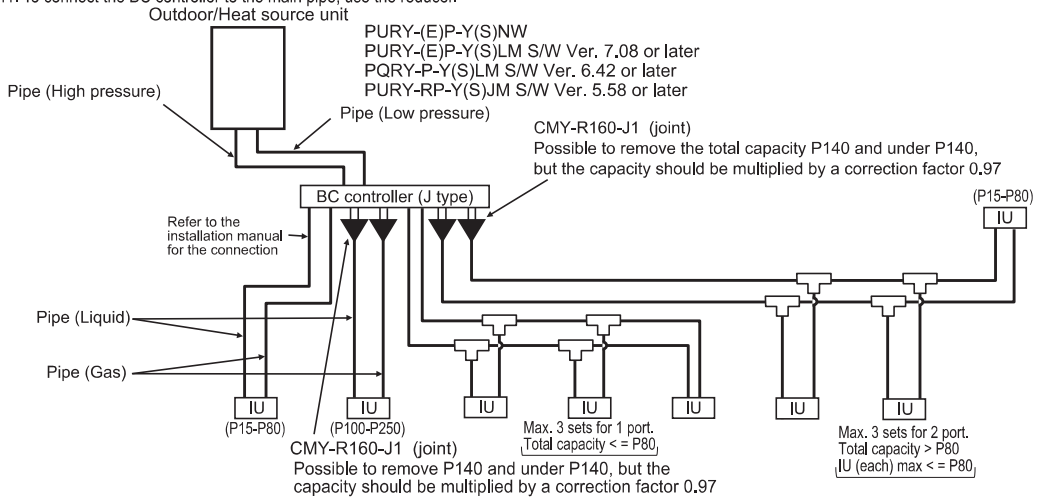


IU: Indoor unit

8-2-2. When J-type BC controller is used

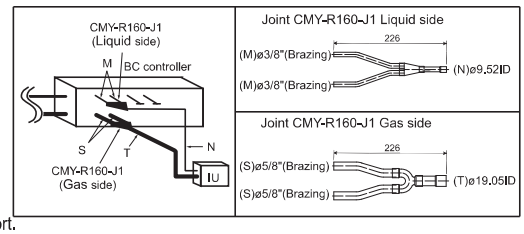
Note1. No Header usable on PURY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF).
PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port.
However, the cooling capacity decreases a little.
Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
Note8. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E: Total Indoor capacity = P63 + P32 = P95.
Note10. To enable the continuous heating mode, set SW4 (848) to ON.
Note11. To connect the BC controller to the main pipe, use the reducer.



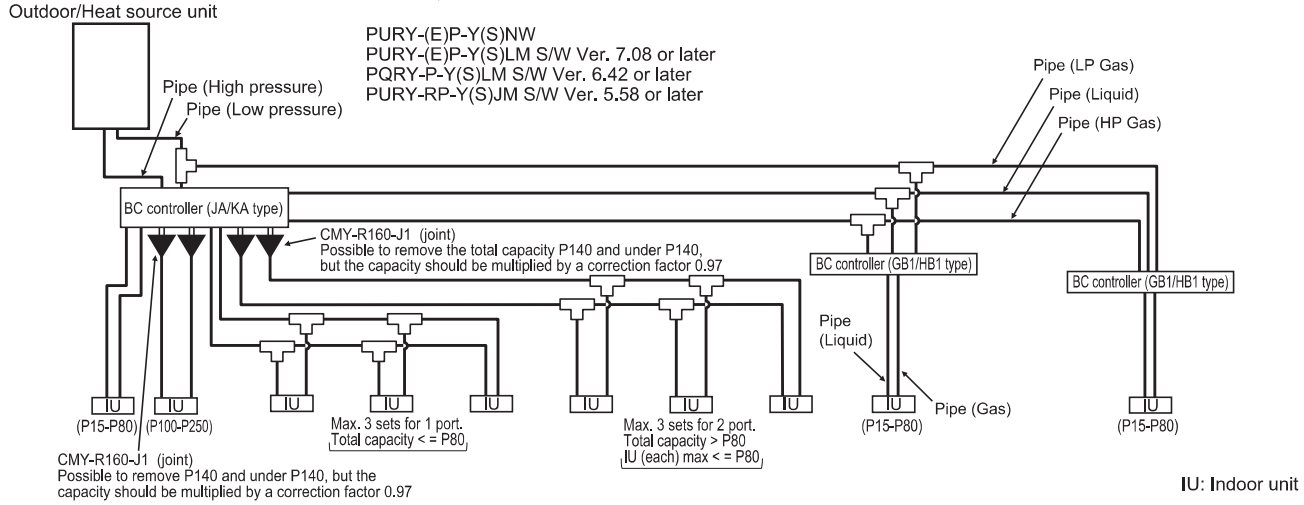


IU: Indoor unit

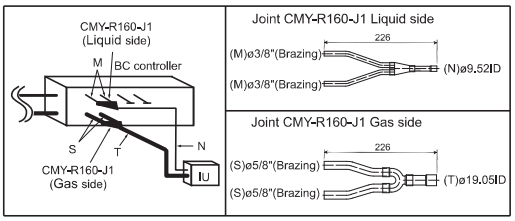
8-2-3. When JA/KA- and GB1/HB1-type BC controllers are used together



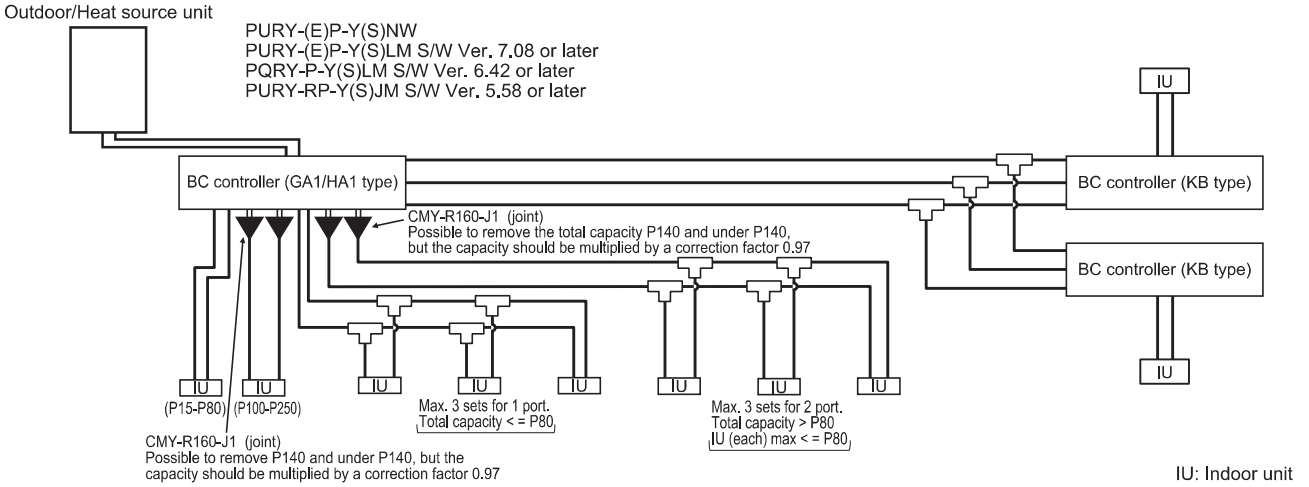
Note1. No Header usable on PURY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF).
PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port.
However, the cooling capacity decreases a little.
Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
Note8. For sub BC controller CMB-P•V-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less.
However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P350 unit.
For sub BC controller CMB-P1016V-HB1 the connectable indoor unit capacities may sum to equal that or a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P450 unit.
Note9. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example,
PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
Note11. To enable the continuous heating mode, set SW4 (848) to ON.
Note12. To connect the BC controller to the main pipe, use the reducer.
Note13. To connect the sub BC controller to the main BC controller, use the reducer.



8-2-4. When GA1/HA1- and KB-type BC controllers are used together



Note1. No Header usable on PURY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little.
Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P•V-KB is 350.
Note9. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
Note11. To enable the continuous heating mode, set SW4 (848) to ON.
Note12. To connect the sub BC controller to the main BC controller, use the reducer.



8-2-5. When JA/KA- and KB-type BC controllers are used together

Note1. No Header usable on PURY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF).
PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port.
However, the cooling capacity decreases a little.
Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P•V-KB is 350.
Note9. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example,
PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
Note11. To enable the continuous heating mode, set SW4 (848) to ON.
Note12. To connect the BC controller to the main pipe, use the reducer.
Note13. To connect the sub BC controller to the main BC controller, use the reducer.