

OUTDOOR UNITS

MULTI VARIABLE SERIES

MODEL			MV-E14BI2	MV-E18BI2	MV-E21BI2	MV-E24BI2	MV-E28BI2
Qty of connectable indoor units			1-2	1-2	2-3	2-3	2-4
Capacity cooling/heating 1)	Nominal (min-max)	kW	4,1 (2,1-4,4) / 4,4(2,5-5,4)	5,3 (2,1-5,8) / 5,6 (2,6-6,0)	6,1 (2,2-7,3) / 6,5 (3,6-8,5)	7,1 (2,3-8,5) / 8,6 (3,7-8,8)	8,0 (2,3-10,3) / 9,5 (3,7-10,3)
Power supply		Hz / V	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240
Power input cooling/heating 1)		W	1100 / 970	1480 / 1250	1480 / 1430	1880 / 2230	2120 / 2200
Maximal power input 2)		W	2250	2500	2900	3400	3600
Power current cooling/heating		A	4,88 / 4,44	6,56 / 5,55	6,57 / 6,33	8,35 / 9,89	9,41 / 9,77
Maximal power current 2)		A	10,0	11,0	12,9	14,6	15,9
Energy class cooling 3)		-	-	-	-	-	-
Airflow of OD	H	m³ / h	2300	2300	3800	3800	3800
Sound pressure level of OD at 1m 4)	H	dB(A)	52	54	58	58	58
Sound power of OD 4)	H	dB(A)	62	64	68	68	68
Refrigerant type/charge		Type / kg / t eq. CO ₂	R32 / 0,75 / 0,51	R32 / 0,90 / 0,60	R32 / 1,60 / 1,08	R32 / 1,70 / 1,14	R32 / 1,80 / 1,21
Additional refrigerant		g / m	20	20	20	20	20
Pipe diameter - liquid side 5)		qty x mm	2 x 6,0	2 x 6,0	3 x 6,0	3 x 6,0	4 x 6,0
Pipe diameter - gas side 5)		qty x mm	2 x 9,5	2 x 9,5	3 x 9,5	3 x 9,5	4 x 9,5
Max pipe length without additional refrigerant 6)		m	10	10	30	30	40
Maximal pipe length to 1 indoor unit 9)		m	20	20	20	20	20
Maximal total pipe length 7)		m	40	40	60	60	70
Max. elevation/ Drop height		m	15	15	15	15	15
Dimension of OD	w x h x d	mm	822 x 550 x 352	822 x 550 x 352	964 x 660 x 402	964 x 660 x 402	964 x 660 x 402
Package dimension of OD	w x h x d	mm	872 x 620 x 398	872 x 620 x 398	1032 x 737 x 456	1032 x 737 x 456	1032 x 737 x 456
Weight of OD	net / gross	kg	30,0 / 32,5	32,0 / 34,5	47,5 / 52,0	47,5 / 52,0	51,0 / 55,5
Operating temperature range 8)	Cooling	°C	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43
	Heating	°C	-22 ~ 24	-22 ~ 24	-22 ~ 24	-22 ~ 24	-22 ~ 24
ADDITIONAL TECHNICAL INFORMATION							
Screw holes distance of OD	w x d	mm	512 x 332	512 x 332	570 x 371	570 x 371	570 x 371
Communication cable		mm²			4 x 1,5		
Recommended power cable		mm²	3 x 1,5	3 x 1,5	3 x 2,5	3 x 2,5	3 x 4,0
Recommended air switch		A	13	16	16	16	20
EQUIPMENT							
Throttling method			EXV	EXV	EXV	EXV	EXV
Bottom chassis heater			Heating belt	Heating belt	Heating belt	Heating belt	Heating belt
Crankcase heater			✓	✓	✓	✓	✓
Bottom plugs for OD			✓	✓	✓	✓	✓
Drain pipe connector			✓	✓	✓	✓	✓
Pipe reduction			✓	✓	✓	✓	✓

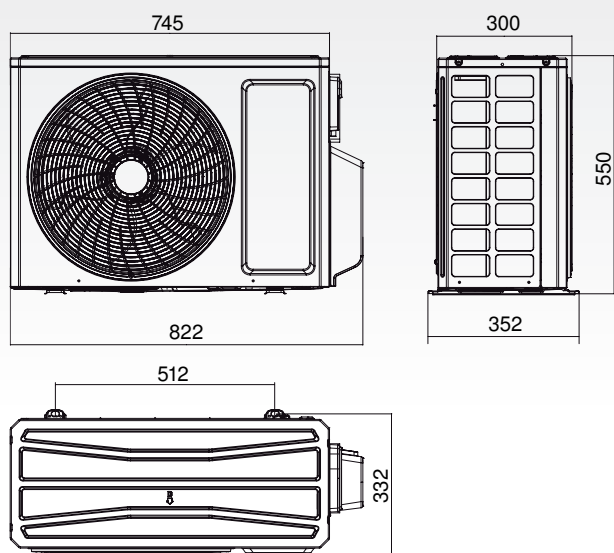
The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label.

R32 (single component refrigerant HFC), GWP of refrigerant used: 675. Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

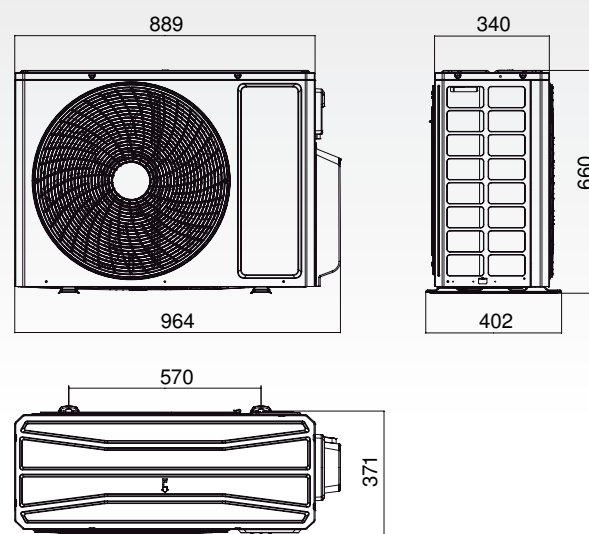
Explanatory notes on the very last page of the catalogue. May not be used separately, must be combined with indoor units from Multi Variable (MV) series.

APPEARANCE AND DIMENSIONS OF INDOOR UNIT

MV-E14BI2, MV-E18BI2



MV-E21BI2, MV-E24BI2, MV-E28BI2



units: mm

OUTDOOR UNITS

MULTI VARIABLE SERIES

MODEL			MV-E14BI	MV-E18BI	MV-E21BI	MV-E24BI	
Qty of connectable indoor units			1-2	1-2	2-3	2-3	
Capacity cooling/heating 1)	Nominal (min-max)	kW	4,1 (2,1-4,4) / 4,4 (2,5-5,4)	5,2 (2,1-5,8) / 5,4 (2,6-5,9)	6,1 (2,2-7,3) / 6,5 (3,6-8,5)	7,1 (2,3-8,5) / 8,5 (3,7-8,8)	
Power supply		Hz / V	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	
Power input cooling/heating 1)		W	1200 / 1180	1450 / 1300	1740 / 1600	2180 / 2280	
Maximal power input 2)		W	1780	1780	2870	2870	
Power current cooling/heating		A	5,32 / 4,53	6,43 / 5,77	7,72 / 7,10	9,67 / 10,12	
Maximal power current 2)		A	7,9	7,9	12,7	12,7	
Energy class cooling 3)		-	See table below	See table below	See table below	See table below	
Airflow of OD	H	m³ / h	2600	2600	3200	4000	
Sound pressure level of OD at 1m 4)	H	dB(A)	55	55	58	58	
Sound power of OD 4)	H	dB(A)	65	65	68	68	
Refrigerant type/charge		Type / kg / t eq. CO ₂	R32 / 1,05 / 0,71	R32 / 1,05 / 0,71	R32 / 1,60 / 1,08	R32 / 1,80 / 1,22	
Additional refrigerant		g / m	20	20	20	20	
Pipe diameter - liquid side 5)		qty x mm	2 x 6,0	2 x 6,0	3 x 6,0	3 x 6,0	
Pipe diameter - gas side 5)		qty x mm	2 x 9,5	2 x 9,5	3 x 9,5	3 x 9,5	
Max pipe length without additional refrigerant 6)		m	10	10	30	30	
Maximal pipe length to 1 indoor unit 9)		m	10	10	20	20	
Maximal total pipe length 7)		m	20	20	60	60	
Max. elevation/ Drop height		m	5	5	10	10	
Dimension of OD	w x h x d	mm	899 x 596 x 378	899 x 596 x 378	963 x 700 x 396	1001 x 790 x 427	
Package dimension of OD	w x h x d	mm	948 x 645 x 420	948 x 645 x 420	1029 x 750 x 458	1038 x 855 x 488	
Weight of OD	net / gross	kg	43,0 / 46,0	43,0 / 46,0	55,0 / 59,5	68,0 / 73,0	
Operating temperature range 8)	Cooling	°C	- 15 ~ 43	- 15 ~ 43	- 15 ~ 43	- 15 ~ 43	
	Heating	°C	- 20 ~ 24	- 20 ~ 24	- 20 ~ 24	- 20 ~ 24	
ADDITIONAL TECHNICAL INFORMATION							
Screw holes distance of OD	w x d	mm	550 x 354	550 x 354	560 x 368	610 x 399	
Communication cable		mm²	4 x 1,5				
Recommended power cable		mm²	3 x 1,5	3 x 1,5	3 x 2,5	3 x 2,5	
Recommended air switch		A	13	13	16	16	
EQUIPMENT							
Throttling method			EXV	EXV	EXV	EXV	
Bottom chassis heater			Heating belt	Heating belt	Heating belt	Heating belt	
Crankcase heater			✓	✓	✓	✓	
Bottom plugs for OD			✓	✓	✓	✓	
Drain pipe connector			✓	✓	✓	✓	
Pipe reduction			✓	✓	✓	✓	

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OUTDOOR UNITS

MULTI VARIABLE SERIES

MODEL			MV-E28BI	MV-E36BI	MV-E42BI		
Qty of connectable indoor units			2-4	2-4	2-5		
Capacity cooling/heating 1)	Nominal (min-max)	kW	8,0 (2,3-10,3) / 9,5 (3,7-10,3)	10,5 (2,1-11,0) / 12,0 (2,6-13,0)	12,1 (2,1-13,6) / 13,0 (2,6-14,0)		
Power supply		Hz / V	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240		
Power input cooling/heating 1)		W	2540 / 2490	3500 / 3750	3590 / 3550		
Maximal power input 2)		W	3580	4880	5300		
Power current cooling/heating		A	15,71 / 11,05	15,42 / 15,20	16,43 / 16,22		
Maximal power current 2)		A	15,9	20,0	20,0		
Energy class cooling 3)		-	See table below	See table below	See table below		
Airflow of OD	H	m³ / h	4000	7200	7200		
Sound pressure level of OD at 1m 4)	H	dB(A)	58	60	60		
Sound power of OD 4)	H	dB(A)	68	70	70		
Refrigerant type/charge		Type / kg / t eq. CO ₂	R32 / 2,00 / 1,35	R32 / 2,75 / 1,86	R32 / 2,75 / 1,86		
Additional refrigerant		g / m	20	20	20		
Pipe diameter - liquid side 5)		qty x mm	4 x 6,0	4 x 6,0	5 x 6,0		
Pipe diameter - gas side 5)		qty x mm	4 x 9,5	4 x 9,5	5 x 9,5		
Max pipe length without additional refrigerant 6)		m	40	40	40		
Maximal pipe length to 1 indoor unit 9)		m	20	25	25		
Maximal total pipe length 7)		m	70	75	75		
Max. elevation/ Drop height		m	10	15	15		
Dimension of OD	w x h x d	mm	1001 x 790 x 427	1098 x 1106 x 440	1098 x 1106 x 440		
Package dimension of OD	w x h x d	mm	1083 x 855 x 488	1158 x 1235 x 493	1158 x 1235 x 493		
Weight of OD	net / gross	kg	69,0 / 74,0	90,0 / 98,0	90,0 / 98,0		
Operating temperature range 8)	Cooling	°C	- 15 ~ 43	- 15 ~ 43	- 15 ~ 43		
	Heating	°C	- 20 ~ 24	- 20 ~ 24	- 20 ~ 24		
ADDITIONAL TECHNICAL INFORMATION							
Screw holes distance of OD	w x d	mm	610 x 399	631 x 401	631 x 401		
Communication cable		mm²	4 x 1,5				
Recommended power cable		mm²	3 x 4,0	3 x 4,0	3 x 4,0		
Recommended air switch		A	20	25	25		
EQUIPMENT							
Throttling method			EXV	EXV	EXV		
Bottom chassis heater			Heating belt	Heating belt	Heating belt		
Crankcase heater			✓	✓	✓		
Bottom plugs for OD			✓	✓	✓		
Drain pipe connector			✓	✓	✓		
Pipe reduction			✓	✓	✓		

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R32 (single component refrigerant HFC), GWP of refrigerant used: 675.

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	6 mm → 10 mm	10 mm → 12 mm	10 mm → 16 mm		
MV-E14,18BI	-	1 x	-		
MV-E21,24,28BI	-	2 x	-		
MV-E36BI	2 x	4 x	2 x		
MV-E42BI	2 x	4 x	3 x		

OUTDOOR UNITS

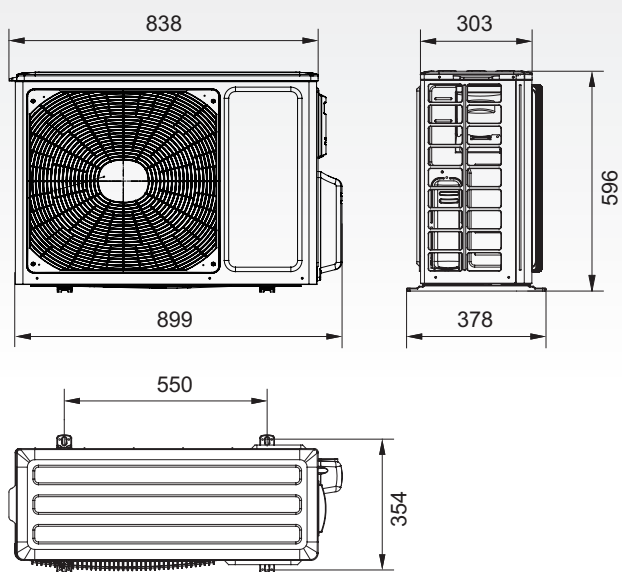
MULTI VARIABLE SERIES

ENERGY CLASS INFORMATION

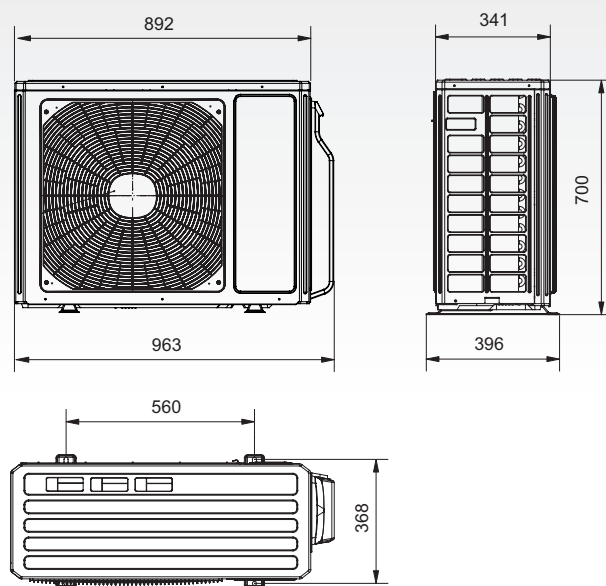
COOLING						
Outdoor unit	Indoor unit	Energy class	Pdesign cooling (kW)	SEER	Annual power consumption (kWh/a)	
MV-E14BI	2 x MV-H07BIF	A++	4,1	6,1	235	
MV-E18BI	2 x MV-H09BIF	A++	5,2	6,1	298	
MV-E21BI	3 x MV-H07BIF	A++	6,1	6,1	350	
MV-E24BI	2 x MV-H09BIF, MV-H07BIF	A++	7,1	6,1	407	
MV-E28BI	4 x MV-H07BIF	A++	8,0	6,1	459	
MV-E36BI	4 x MV-H09BIF	A++	10,5	6,1	602	
MV-E42BI	4 x MV-H09BIF, MV-H07BIF	A++	12,0	6,1	689	
HEATING-AVERAGE CLIMATE						
Outdoor unit	Indoor unit	Energy class	Pdesign heating (kW)	SCOP	Annual power consumption (kWh/a)	
MV-E14BI	2 x MV-H07BIF	A+	3,8	4,0	1330	
MV-E18BI	2 x MV-H09BIF	A+	3,8	4,0	1330	
MV-E21BI	3 x MV-H07BIF	A+	6,1	4,0	2135	
MV-E24BI	2 x MV-H09BIF, MV-H07BIF	A+	6,1	4,0	2135	
MV-E28BI	4 x MV-H07BIF	A+	7,2	4,0	2520	
MV-E36BI	4 x MV-H09BIF	A+	10,5	4,0	3675	
MV-E42BI	4 x MV-H09BIF, MV-H07BIF	A+	11,8	4,0	4130	

APPEARANCE AND DIMENSIONS OF OUTDOOR UNIT

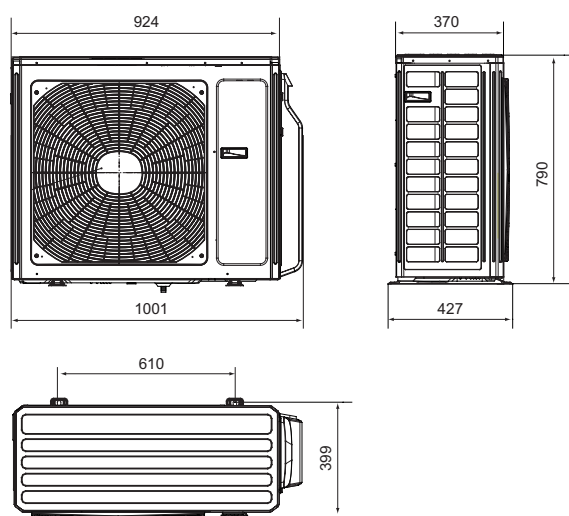
MV-E14BI, MV-E18BI



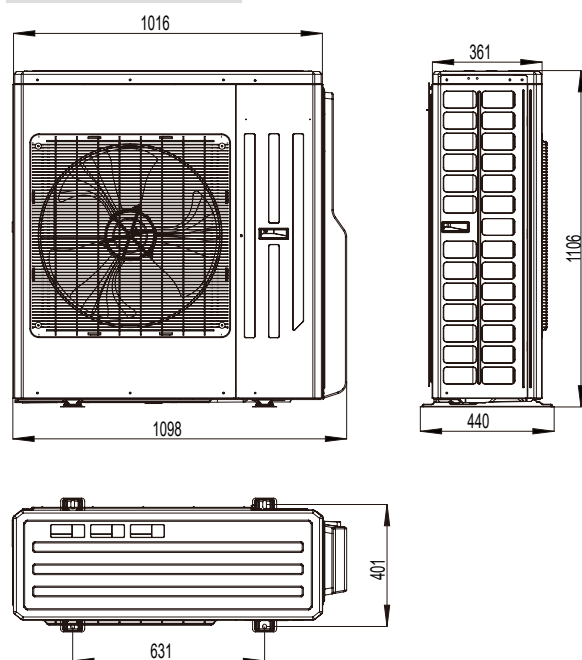
MV-E21BI



MV-E24BI, MV-E28BI



MV-E36BI, MV-E42BI

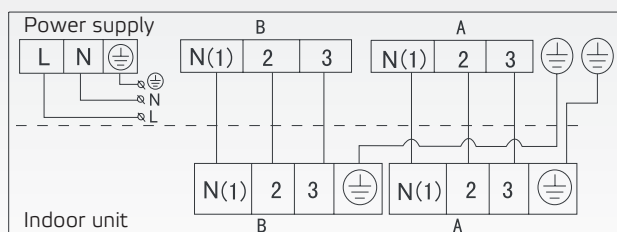


units: mm

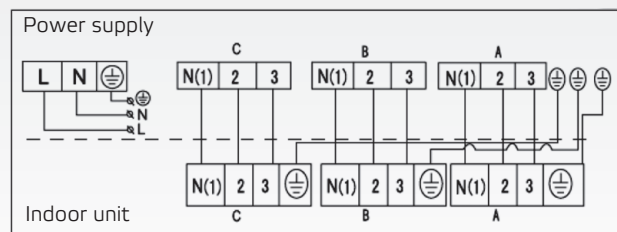
ELECTRICAL WIRING DIAGRAM

MULTI VARIABLE SERIES

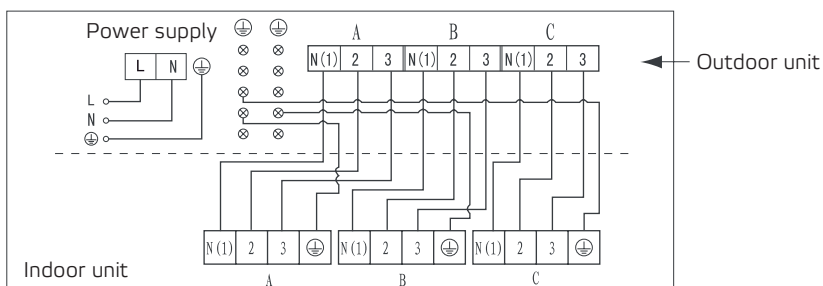
MV-E14BI, MV-E18BI



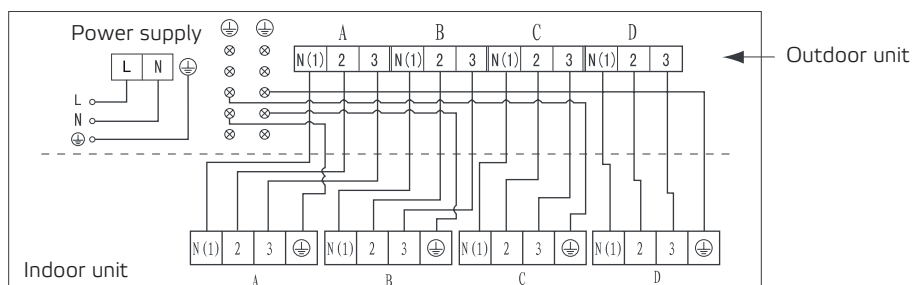
MV-E21BI



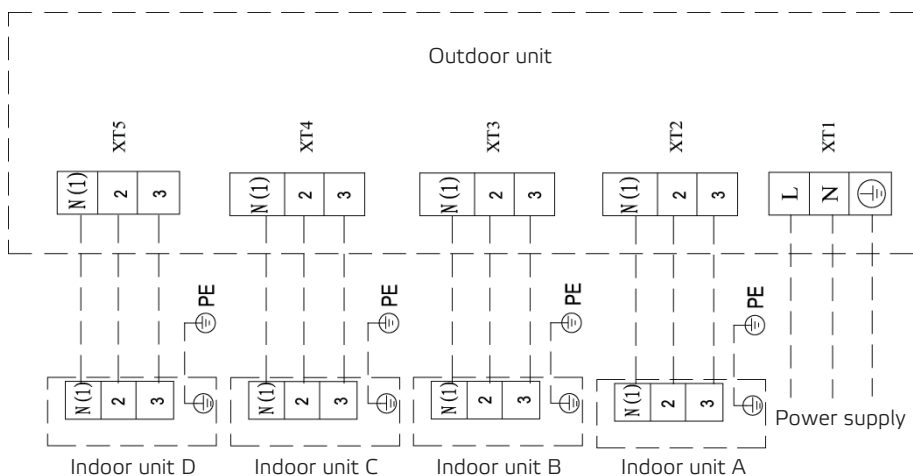
MV-E24BI

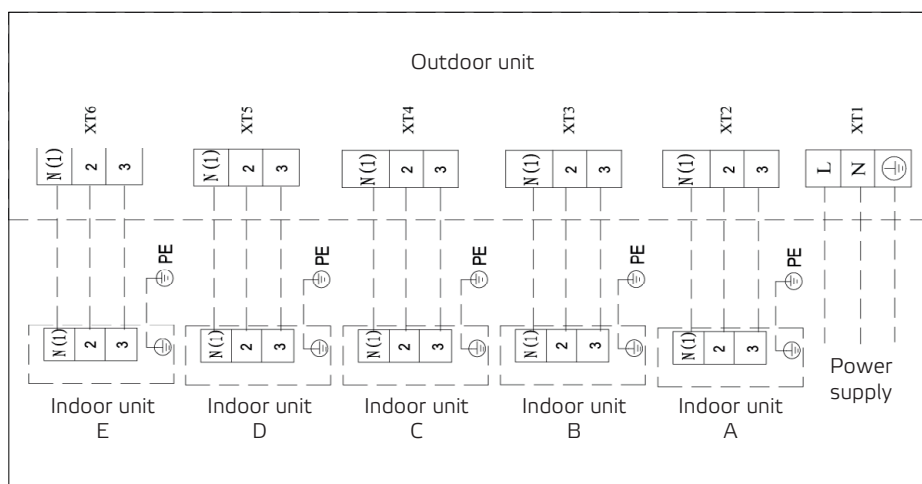


MV-E28BI



MV-E36BI





OUTDOOR UNITS

MULTI VARIABLE SERIES

COMBINATION TABLES

(unit: x1000Btu/h)

MV-E14BI		MV-E21BI		MV-E24BI			MV-E28BI
1 UNIT	2 UNITS	2 UNITS	3 UNITS	2 UNITS	3 UNITS		2 UNITS
7	7+7	7+7	7+7+7	7+7	7+7+7	7+7+18	7+7
9	7+12	7+12	7+7+12	7+12	9+9+12	7+9+18	7+12
12	7+9	9+9	7+7+9	9+9	7+7+9	12+12+12*	9+9
	9+9	7+9	7+9+9	9+18	7+9+9	7+12+12	9+18
	9+12	7+18	9+9+9	12+18	7+7+12	9+9+18*	12+18
MV-E18BI		9+12	7+9+12	7+9	7+9+12	9+12+12*	7+9
1 UNIT	2 UNITS	9+18	7+12+12	7+18	9+9+9		7+18
7	7+7	12+12	9+9+12	9+12			9+12
9	7+12	12+18	12+12+12*	12+12			12+12
12	9+12			18+18			18+18
	7+9						
	9+9						
MV-E28BI			MV-E36BI				
3 UNITS		4 UNITS	2 UNITS		3 UNITS		
7+7+7	7+12+18	7+7+7+7	7+7	9+24	7+7+7	7+12+18	9+12+18
7+7+9	9+9+9	7+7+7+9	7+9	12+12	7+7+9	7+12+24	9+12+24
7+7+12	9+9+12	7+7+9+9	7+12	12+18	7+7+12	7+18+18	9+18+18
7+7+18	9+9+18	9+9+9+9	7+18	12+24	7+7+18	7+18+24*	9+18+24*
7+9+9	9+12+18	7+7+7+12	7+24	18+18	7+7+24	9+9+9	12+12+12
7+9+12	9+12+12	7+7+9+12	9+9	18+24	7+9+9	9+9+12	12+12+18
7+9+18	12+12+12	7+9+9+9	9+12	24+24*	7+9+12	9+9+18	12+12+24
7+12+12	12+12+18	7+7+7+18	9+18		7+9+18	9+9+24	12+18+18
		7+7+9+18			7+9+24	9+12+12	18+18+18*
		7+9+9+12			7+12+12		
		9+9+12+12					
		7+7+12+12					
		9+9+9+12					
MV-E36BI			MV-E42BI				
4 UNITS		2 UNITS		3 UNITS			
7+7+7+7	7+7+18+18*	9+9+9+9	7+7	9+24	7+7+7	7+12+24	9+18+18
7+7+7+9	7+9+9+9	9+9+9+12	7+9	12+12	7+7+9	7+18+18	9+18+24
7+7+7+12	7+9+9+12	9+9+9+18	7+12	12+18	7+7+12	7+18+24	9+24+24
7+7+7+18	7+9+9+18	9+9+12+12	7+18	12+24	7+7+18	7+24+24	12+12+12
7+7+7+24	7+9+9+24*	9+12+12+12	7+24	18+18	7+7+24	9+9+9	12+12+18
7+7+9+9	7+9+12+12	9+9+12+24*	9+9	18+24	7+9+9	9+9+12	12+12+24
7+7+9+12	7+9+12+18	9+9+12+18	9+12	24+24	7+9+12	9+9+18	12+18+18
7+7+9+18	7+9+18+18*	9+9+18+18*	9+18		7+9+18	9+9+24	12+18+24
7+7+9+24	7+12+12+12	9+12+12+18*			7+9+24	9+12+12	18+18+18
7+7+12+12	7+12+12+18	12+12+12+12			7+12+12	9+12+18	12+24+24*
7+7+12+18					7+12+18	9+12+24	18+18+24
MV-E42BI							
4 UNITS				5 UNITS			
7+7+7+7	7+7+18+18	9+9+9+12	7+9+18+24	7+7+7+7+7	7+7+9+9+12	9+9+9+9+18	7+9+9+12+18
7+7+7+9	7+9+9+9	9+9+9+18	7+12+12+24	7+7+7+7+9	7+7+9+9+18	9+9+9+12+12	7+9+9+12+24*
7+7+7+12	7+9+9+12	9+9+9+24	7+12+18+18	7+7+7+7+12	7+7+9+12+12	9+9+12+12+12	7+9+9+18+18
7+7+7+18	7+9+9+18	9+9+12+12	7+12+18+24	7+7+7+7+18	7+7+9+12+18	9+9+12+12+18*	7+9+12+12+18
7+7+7+24	7+9+9+24	9+9+12+18	7+18+18+18	7+7+7+7+24	7+7+12+12+12	7+7+7+12+24	7+12+12+12+12
7+7+9+9	7+9+12+12	9+9+12+24	9+9+18+24	7+7+7+9+9	7+9+9+9+9	7+7+7+18+18	7+12+12+12+18
7+7+9+12	7+9+12+18	9+9+18+18	9+12+12+24	7+7+7+9+12	7+9+9+9+12	7+7+9+9+24	9+9+9+9+24
7+7+9+18	7+9+12+24*	9+12+12+12*	9+12+18+18	7+7+7+9+18	9+9+9+9+18	7+7+9+12+24	9+9+9+12+18
7+7+9+24	7+9+18+18	9+12+12+18	9+18+18+18	7+7+7+9+24	7+9+9+12+12	7+7+9+18+18	9+9+9+18+18*
7+7+12+12	7+12+12+12	12+12+12+12	12+12+18+18	7+7+7+12+12	7+9+12+12+12	7+7+12+12+18	9+12+12+12+12
7+7+12+18	7+12+12+18	12+12+12+18	12+12+12+24	7+7+7+12+18	9+9+9+9+9	7+7+12+18+18	9+12+12+12+18*
7+7+12+24	9+9+9+9	7+7+18+24		7+7+9+9+9	9+9+9+9+12	7+9+9+9+24	12+12+12+12+12

*This combinations of indoor units capacities exceed 130% of maximum capacity of the outdoor unit. The table is also valid for the newer outdoor units MV-ExxBI2