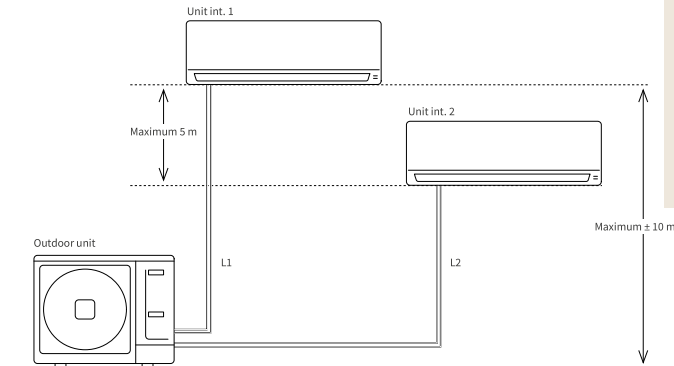


RAM-E40N2HAE - Installation

Piping length RAM-E40N2HAE:

Indoor unit 1 + Indoor unit 2 =
Max. 35 m



Installation features of the outdoor unit RAM-E40N2HAE

- Pre-loaded for **35 m**.
- Always connect the largest Indoor unit to lowest piping connection. No additional load is required.

Specific Installation requirements for Units

- Max. length of pipeline between Indoor unit and outdoor unit: **25 m**.
- Maximum height difference between 2 IUs is **5 m**.

Combinations of Indoor units

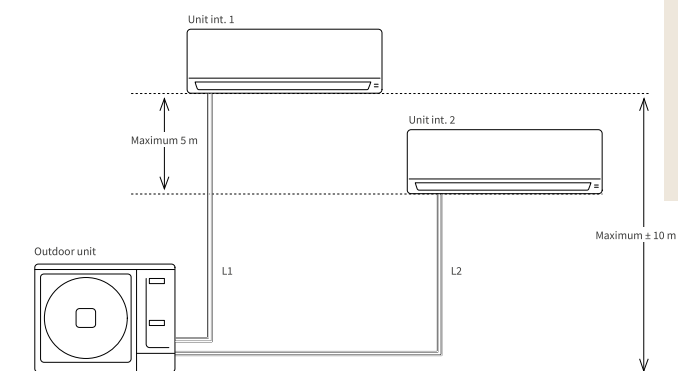
RAM-E40N2HAE		COOLING MODE				HEATING MODE			
		IU capacity (kW)	Total capacity (kW)	Total power input (W)	EER	IU capacity (kW)	Total capacity (kW)	Total power input (W)	COP
1 Unit*	1.5	1.5	1.5 (1.50-1.70)	410 (350-480)	3.66	2.0	2.0 (1.50-2.20)	790 (500-970)	2.53
	1.8	2.0	2.0 (1.70-2.00)	485 (350-750)	3.71	2.5	2.5 (2.00-3.00)	750 (500-970)	3.33
	2.5	2.5	2.5 (1.70-2.80)	650 (350-880)	3.85	3.4	3.4 (2.00-4.00)	1050 (500-1120)	3.24
	3.5	3.5	3.5 (1.70-3.90)	870 (350-1150)	4.02	4.3	4.3 (2.00-5.20)	1295 (500-1300)	3.32
2 Unit	1.5 + 1.5	1.5 + 1.5	3.0 (2.40-3.50)	860 (350-780)	3.49	2.0 + 2.0	4.0 (2.70-4.50)	930 (500-950)	4.30
	1.5 + 1.8	1.5 + 1.8	3.3 (2.40-3.80)	930 (350-930)	3.55	2.0 + 2.5	4.5 (2.70-5.00)	1010 (500-1020)	4.46
	1.5 + 2.5	1.5 + 2.5	4.0 (2.40-4.40)	1090 (500-1150)	3.67	1.9 + 3.3	5.2 (2.70-5.50)	1330 (500-1700)	3.91
	1.5 + 3.5	1.2 + 2.8	4.0 (2.40-4.40)	1230 (500-1270)	3.25	1.7 + 3.5	5.2 (2.70-5.50)	1335 (500-1700)	3.90
	1.8 + 1.8	1.8 + 1.8	3.6 (2.40-4.00)	1050 (500-1050)	3.43	2.5 + 2.5	5.2 (2.70-5.5)	1390 (500-1700)	3.74
	1.8 + 2.5	1.7 + 2.3	4.0 (2.40-4.40)	1230 (500-1270)	3.25	2.2 + 3.0	5.2 (2.7-5.5)	1390 (500-1700)	3.74
	1.8 + 3.5	1.4 + 2.6	4.0 (2.40-4.40)	1230 (500-1270)	3.25	1.9 + 3.3	5.2 (2.7-5.5)	1390 (500-1700)	3.74
	2.5 + 2.5	2.0 + 2.0	4.0 (2.40-4.40)	1230 (500-1270)	3.25	2.6 + 2.6	5.2 (2.7-5.5)	1390 (500-1700)	3.74
	2.5 + 3.5	1.7 + 2.3	4.0 (2.40-4.40)	1270 (500-1270)	3.15	2.3 + 2.9	5.2 (2.7-5.5)	1390 (500-1700)	3.74

* Note: these are the performance when only one Unit is in operation. However, at least 2 Units must be connected to the Outdoor Unit. The total capacity in Cooling cannot be more than 6.0 kW

RAM-E53N2HAE - Installation

Piping lengths RAM-E53N2HAE:

Indoor unit 1 + Indoor unit 2 =
Max. 35 m



Installation features of the outdoor unit RAM-E53N2HAE

- Pre-loaded for **35 m**.
- Always connect the largest indoor unit to lowest piping connection. No additional load is required.

Specific Installation requirements for Units

- Max. length of pipeline between Indoor unit and outdoor unit: **25 m**.
- Maximum height difference between 2 IUs is **5 m**.

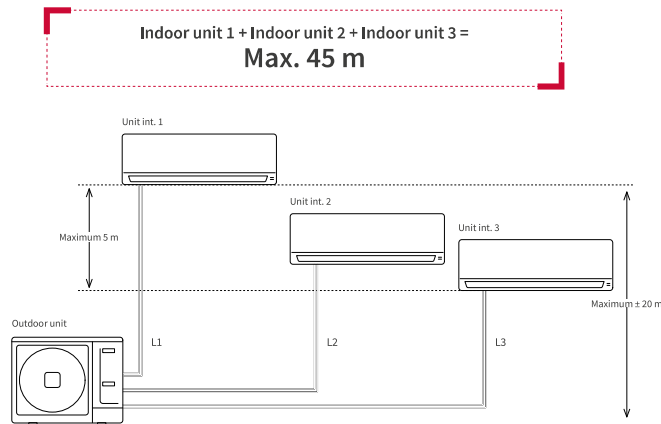
Combinations of Indoor units

RAM-E53N2HAE		COOLING MODE					HEATING MODE				
		IU capacity (kW)		Total capacity (kW)	Total power input (W)	EER	IU capacity (kW)		Total capacity (kW)	Total power input (W)	COP
1 Unit*	1.5	1.5	1.5	1.5 (1.50-1.70)	430 (400-480)	3.49	2.0	2.0 (1.50-2.20)	850 (350-850)	2.35	
	1.8	1.8	2.0	1.8 (1.70-2.00)	495 (400-750)	3.64	2.5	2.5 (2.00-3.00)	1000 (350-1100)	2.50	
	2.5	2.5	2.5	2.5 (1.70-2.80)	700 (400-980)	3.57	3.4	3.4 (2.00-4.00)	1350 (350-1600)	2.52	
	3.5	3.5	3.5	3.5 (1.70-3.90)	1080 (400-1280)	3.24	4.3	4.3 (2.00-5.20)	1680 (350-1820)	2.56	
	5.0	5.0	5.0	5.0 (1.70-5.50)	1510 (400-1660)	3.31	6.5	6.3 (2.00-7.20)	1690 (550-2010)	3.73	
2 Unit	3.0	1.5 + 1.5	1.5 + 1.5	3.0 (2.40-3.50)	920 (400-1000)	3.26	2.0 + 2.0	4.0 (2.70-4.50)	1170 (550-1380)	3.42	
	3.3	1.5 + 1.8	1.5 + 1.8	3.3 (2.40-3.80)	1000 (400-1300)	3.30	2.0 + 2.5	4.5 (2.70-5.00)	1380 (550-1870)	3.26	
	4.0	1.5 + 2.5	1.5 + 2.5	4.0 (2.40-4.50)	1210 (400-1250)	3.31	2.0 + 3.4	5.4 (2.70-5.90)	1630 (550-2010)	3.31	
	5.0	1.5 + 3.5	1.5 + 3.5	5.0 (2.40-5.50)	1520 (400-1660)	3.29	2.0 + 4.3	6.3 (2.70-6.80)	1630 (550-2010)	3.87	
	6.5	1.5 + 5.0	1.3 + 4.2	5.3 (2.40-6.60)	1610 (400-1800)	3.29	1.6 + 5.2	6.3 (2.70-7.2)	1690 (550-2010)	3.73	
	3.6	1.8 + 1.8	1.8 + 1.8	3.6 (2.40-4.00)	1030 (400-1300)	3.50	2.5 + 2.5	6.3 (2.70-6.90)	1450 (550-1550)	3.45	
	4.3	1.8 + 2.5	1.8 + 2.5	4.3 (2.40-4.70)	1310 (400-1450)	3.28	2.5 + 3.4	6.3 (2.7-7.2)	1780 (550-1920)	3.31	
	5.3	1.8 + 3.5	1.8 + 3.5	5.3 (2.40-5.80)	1600 (400-1660)	3.31	2.5 + 4.3	6.3 (2.70-7.2)	1690 (550-2010)	3.73	
	6.8	1.8 + 5.0	1.5 + 4.0	5.5 (2.40-6.60)	1630 (400-1800)	3.25	1.9 + 4.9	6.3 (2.70-7.2)	1690 (550-2010)	3.73	
	5.0	2.5 + 2.5	2.5 + 2.5	5.0 (2.40-5.50)	1520 (400-1660)	3.29	3.4 + 3.4	6.3 (2.70-7.2)	1820 (550-2250)	3.46	
	6.0	2.5 + 3.5	2.3 + 3.2	5.5 (2.40-6.60)	1630 (400-1660)	3.25	3.0 + 3.8	6.3 (2.70-7.2)	1690 (550-2250)	3.73	
	7.5	2.5 + 5.0	1.8 + 3.7	5.5 (2.40-6.60)	1630 (400-1800)	3.25	2.3 + 4.5	6.3 (2.70-7.2)	1690 (550-2250)	3.73	
	7.0	3.5 + 3.5	2.8 + 2.8	5.5 (2.40-6.60)	1630 (400-1800)	3.25	3.4 + 3.4	6.3 (2.70-7.2)	1690 (550-2250)	3.73	
	8.5	3.5 + 5.0	2.3 + 3.2	5.5 (2.40-6.60)	1630 (400-1800)	3.25	2.7 + 4.1	6.3 (2.70-7.2)	1690 (550-2250)	3.73	

* Note: performance when only one Unit is in operation. However, at least 2 Units must be connected to the Outdoor Unit. The total capacity in Cooling cannot be more than 8.5kW

RAM-E53N3HAE - Installation

Piping lengths RAM-RAM-E53N3HAE:



Installation features of the outdoor unit RAM-E53N3HAE

- Pre-loaded for **35 m**.
- Charge additional 20 g/m of refrigerant for piping lengths above **35 m**.
- Always connect the largest indoor unit to lowest piping connection.

Specific Installation requirements for units

- Max. length of pipeline between an Indoor unit and the outdoor unit: **25 m**.
- Maximum height difference between 2 IUs is **5 m**.

Combinations of Indoor units

RAM-E53N3HAE			COOLING MODE				HEATING MODE			
			IU capacity (kW)	Total capacity (kW)	Total power input (W)	EER	IU capacity (kW)	Total capacity (kW)	Total power input (W)	COP
1 Unit*	1.5	1.5	1.5	1.5 (1.50-1.70)	430 (400-480)	3.49	2.0	2.0 (1.50-2.20)	610 (550-850)	2.35
	1.8	1.8	2.0	2.0 (1.70-2.00)	495 (400-750)	3.64	2.5	2.5 (2.00-3.00)	1000 (550-1100)	2.50
	2.5	2.5	2.5	2.5 (1.70-2.80)	700 (400-980)	3.57	3.4	3.4 (2.00-4.00)	1430 (550-1600)	2.52
	3.5	3.5	3.5	3.5 (1.70-3.90)	1080 (400-1280)	3.24	4.3	4.3 (2.00-5.20)	1620 (550-1820)	2.56
	5.0	5.0	5.0	5.0 (1.70-5.50)	1510 (400-1660)	3.31	6.5	6.3 (2.00-7.20)	1850 (550-2250)	3.73
2 Unit	3.0	1.5 + 1.5	1.5 + 1.5	3.0 (2.40-3.50)	920 (400-1000)	3.26	2.0 + 2.0	4.0 (2.70-4.50)	1060 (550-1380)	3.42
	3.3	1.5 + 1.8	1.5 + 1.8	3.3 (2.40-3.80)	1000 (400-1300)	3.30	2.0 + 2.5	4.5 (2.70-5.00)	1250 (550-1870)	3.26
	4.0	1.5 + 2.5	1.5 + 2.5	4.0 (2.40-4.50)	1210 (400-1250)	3.31	2.0 + 3.4	5.4 (2.70-5.90)	1550 (550-2010)	3.31
	5.0	1.5 + 3.5	1.5 + 3.5	5.0 (2.40-5.50)	1520 (400-1660)	3.29	2.0 + 4.3	6.3 (2.70-6.80)	1590 (550-2010)	3.87
	6.5	1.5 + 5.0	1.2 + 4.1	5.3 (2.40-6.60)	1610 (400-1800)	3.29	1.5 + 4.8	6.3 (2.70-7.2)	1820 (550-2010)	3.73
	3.6	1.8 + 1.8	1.8 + 1.8	3.6 (2.40-4.00)	1030 (400-1300)	3.50	2.5 + 2.5	6.3 (2.70-6.90)	1290 (550-1550)	3.45
	4.3	1.8 + 2.5	1.8 + 2.5	4.3 (2.40-4.70)	1310 (400-1450)	3.28	2.5 + 3.4	6.3 (2.7-7.2)	1530 (550-1920)	3.31
	5.3	1.8 + 3.5	1.8 + 3.5	5.3 (2.40-5.80)	1600 (400-1660)	3.31	2.3 + 4.0	6.3 (2.70-7.2)	1615 (550-2010)	3.73
	6.8	1.8 + 5.0	1.4 + 3.9	5.5 (2.40-6.60)	1630 (400-1660)	3.25	1.8 + 4.6	6.3 (2.70-7.2)	1820 (550-2250)	3.73
	5.0	2.5 + 2.5	2.5 + 2.5	5.0 (2.40-5.50)	1520 (400-1800)	3.29	3.2 + 3.2	6.3 (2.70-7.2)	2010 (550-2250)	3.46
	6.0	2.5 + 3.5	2.1 + 3.1	5.5 (2.40-6.60)	1630 (400-1800)	3.25	2.8 + 3.5	6.3 (2.70-7.2)	1820 (550-2250)	3.73
	7.5	2.5 + 5.0	1.8 + 3.5	5.5 (2.40-6.60)	1630 (400-2250)	3.25	2.2 + 4.1	6.3 (2.70-7.2)	2010 (550-2250)	3.73
	7.0	3.5 + 3.5	2.7 + 2.7	5.5 (2.40-6.60)	1630 (400-1800)	3.25	3.2 + 3.2	6.3 (2.70-7.2)	1600 (520-1848)	3.73
3 Unit	8.5	3.5 + 5.0	2.2 + 3.1	5.5 (2.40-6.60)	1630 (400-2250)	3.25	2.5 + 3.8	6.3 (2.70-7.2)	1600 (520-2010)	3.73
	4.5	1.5 + 1.5 + 1.5	1.5 + 1.5	4.5 (2.70-5.00)	1320 (460-1680)	3.41	2.0 + 2.0 + 2.0	6.0 (2.90-6.5)	1650 (520-2250)	3.75
	4.8	1.5 + 1.5 + 1.8	1.5 + 1.5	4.8 (2.70-5.30)	1320 (460-1660)	3.64	1.9 + 1.9 + 2.4	6.3 (2.90-7.0)	1650 (520-2250)	3.94
	5.5	1.5 + 1.5 + 2.5	1.4 + 1.4	5.3 (2.70-6.00)	1600 (460-1660)	3.31	1.7 + 1.7 + 2.9	6.3 (2.90-7.0)	1680 (520-2250)	3.82
	6.5	1.5 + 1.5 + 3.5	1.2 + 1.2	5.3 (2.70-6.0)	1600 (460-1660)	3.31	1.5 + 1.5 + 3.3	6.3 (2.90-7.0)	1650 (520-2250)	3.82
	8.0	1.5 + 1.5 + 5.0	1.0 + 1.0	5.3 (2.70-6.0)	1630 (460-2250)	3.25	1.2 + 1.2 + 3.9	6.3 (2.90-7.0)	1680 (520-2250)	3.75
	5.1	1.5 + 1.8 + 1.8	1.5 + 1.8	5.1 (2.70-5.60)	1550 (460-1660)	3.29	1.8 + 2.3 + 2.3	6.3 (2.90-7.0)	1650 (520-2010)	3.82
	5.8	1.5 + 1.8 + 2.5	1.4 + 1.6	5.3 (2.70-6.30)	1600 (460-1660)	3.31	1.6 + 2.0 + 2.7	6.3 (2.90-7.0)	1690 (520-2250)	3.73
	6.8	1.5 + 1.8 + 3.5	1.2 + 1.4	5.3 (2.70-6.0)	1600 (460-2100)	3.31	1.4 + 1.8 + 3.1	6.3 (2.90-7.0)	1680 (520-2250)	3.75
	8.3	1.5 + 1.8 + 5.0	1.0 + 1.1	5.3 (2.70-6.0)	1630 (460-2250)	3.25	1.1 + 1.4 + 3.7	6.3 (2.90-7.0)	1680 (520-2250)	3.75
	6.5	1.5 + 2.5 + 2.5	1.2 + 2.0	5.3 (2.70-6.0)	1600 (460-1800)	3.31	1.4 + 2.4 + 2.4	6.3 (2.90-7.0)	1630 (520-2250)	3.87
	7.5	1.5 + 2.5 + 3.5	1.1 + 1.8	5.3 (2.40-6.0)	1600 (460-1800)	3.31	1.3 + 2.2 + 2.8	6.3 (2.90-7.0)	1680 (520-2250)	3.75
	8.5	1.5 + 3.5 + 3.5	0.9 + 2.2	5.3 (2.70-6.0)	1630 (460-2250)	3.25	1.2 + 2.6 + 2.6	6.3 (2.90-7.0)	1735 (520-2250)	3.63
	5.4	1.8 + 1.8 + 1.8	1.8 + 1.8	5.3 (2.70-5.90)	1600 (460-1800)	3.31	2.1 + 2.1 + 2.1	6.3 (2.90-7.0)	1650 (520-2250)	3.82
	6.1	1.8 + 1.8 + 2.5	1.6 + 1.6	5.3 (2.70-6.0)	1600 (460-1800)	3.31	1.9 + 1.9 + 2.6	6.3 (2.90-7.0)	1670 (520-2250)	3.77
	7.1	1.8 + 1.8 + 3.5	1.3 + 1.3	5.3 (2.70-6.0)	1630 (460-1660)	3.25	1.7 + 1.7 + 2.9	6.3 (2.90-7.0)	1690 (520-2250)	3.73
	8.6	1.8 + 1.8 + 5.0	1.1 + 1.1	5.3 (2.70-6.0)	1710 (460-2250)	3.10	1.4 + 1.4 + 3.6	6.3 (2.90-7.0)	1730 (520-2250)	3.64
	6.8	1.8 + 2.5 + 2.5	1.4 + 1.9	5.3 (2.70-6.0)	1600 (460-1800)	3.31	1.7 + 2.3 + 2.3	6.3 (2.90-7.0)	1690 (520-2250)	3.73
	7.8	1.8 + 2.5 + 3.5	1.2 + 1.7	5.3 (2.70-6.0)	1610 (460-2250)	3.29	1.5 + 2.1 2.7	6.3 (2.90-7.0)	1690 (520-2250)	3.73
	7.5	1.8 + 2.5 + 2.5	1.8 + 1.8	5.3 (2.40-6.0)	1580 (460-2250)	3.35	2.1 + 2.1 + 2.1	6.3 (2.90-7.0)	1650 (520-2250)	3.82
	8.5	2.5 + 2.5 + 3.5	1.6 + 1.6	5.3 (2.70-6.0)	1730 (460-2250)	3.06	1.9 + 1.9 + 2.4	6.3 (2.90-7.0)	1730 (520-2250)	3.64

* Note: performance when only one Unit is in operation. However, at least 2 Units must be connected to the Outdoor Unit.
The total capacity in Cooling cannot be more than 8.5kW