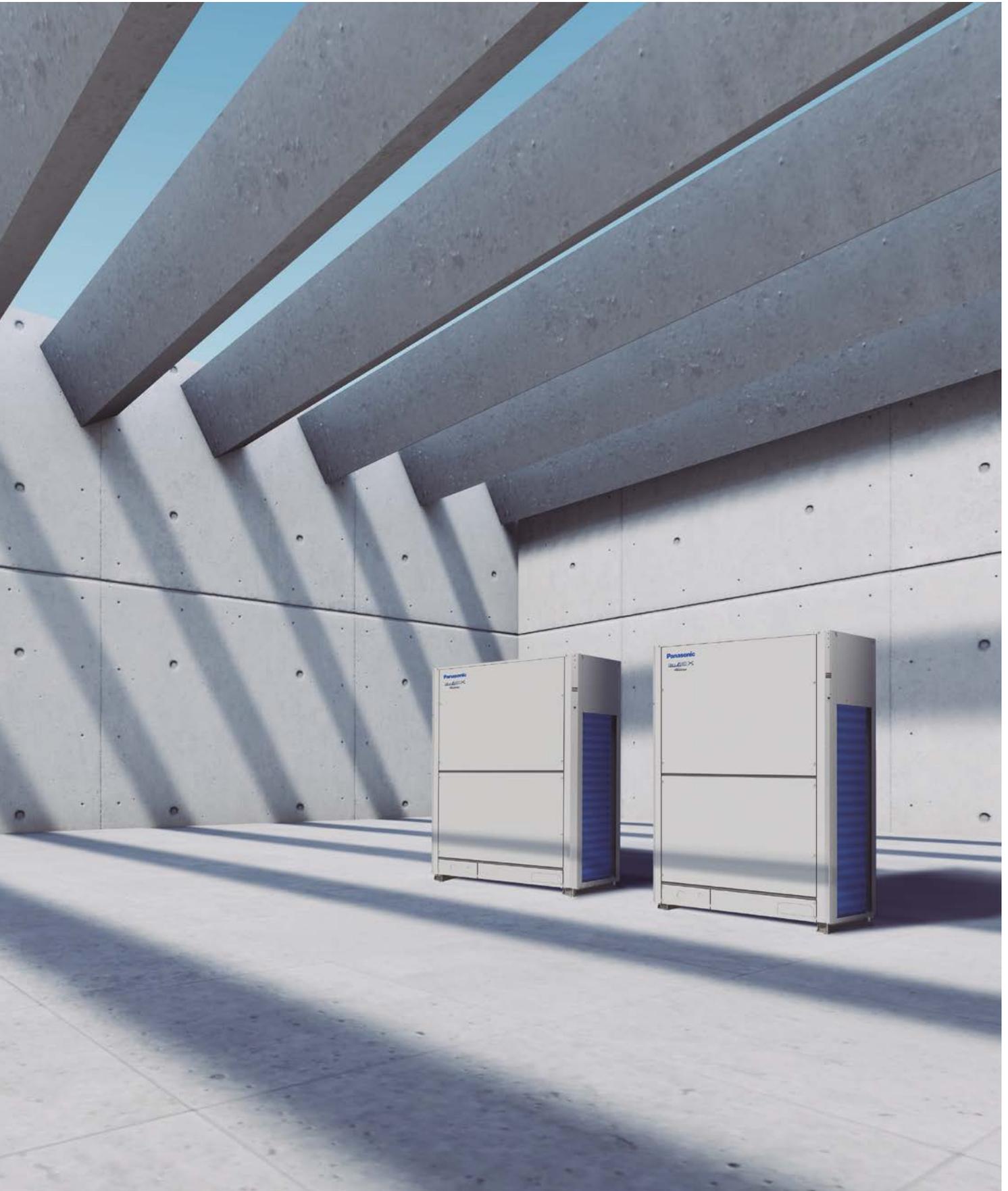


## 2-Pipe ECOi EX ME2 Series R410A

ECO*i* EX

Two independently controlled Inverter compressors achieve high efficiency. Redesigned components in the body provide performance improvement especially in the rated cooling condition and EER performance\*.

\* Applicable to ECOi EX outdoor units over 14 HP (2-compressor models).



The ECOi EX can still operate at 100% capacity when the outside temperature is as high as 43 °C. This high power capability enables reliable operation even under extremely high temperature conditions.

**SEER SCOP**

7,56 <sup>1)</sup> 4,79 <sup>1)</sup>

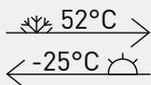
High seasonal efficiency.



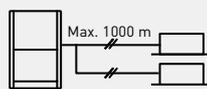
Saving installation space.



Silent operation.



Extended operation range.



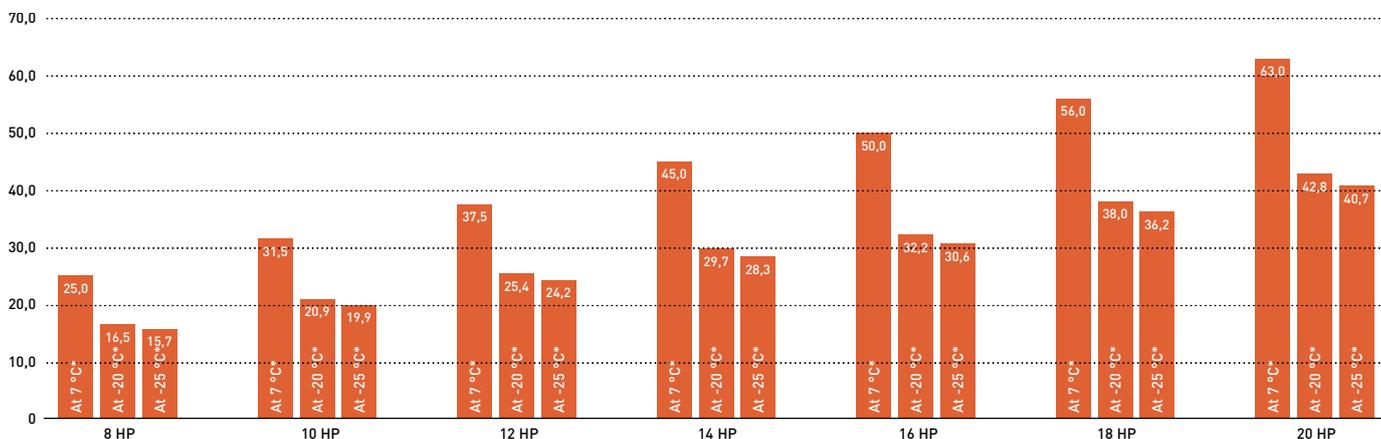
Flexible piping installation.



Maximum indoor / outdoor capacity ratio 200%.

**Extremely high capacity at -20 °C and unique heating capacity at -25 °C**

Heating capacity (kW)

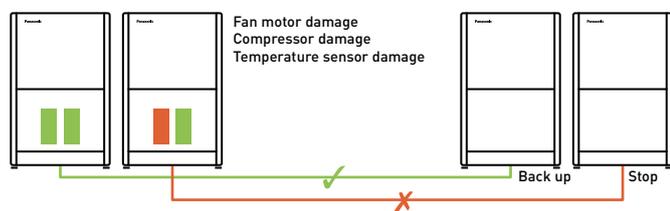


\* Outdoor air temperature (°C WB).

**High safety operation in case of breakdown!**

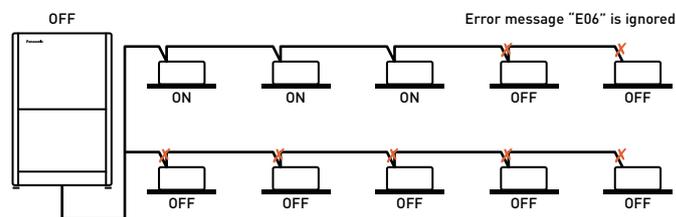
**Automatic Back-Up operation. Ensures heating and cooling.**

It is possible for the system to keep working, even if the compressors, fan motor and the temperature sensor are damaged (even when a compressor fails in single unit with 2 compressors inside).



**The system will still operate with only 25% of the connected indoor units.**

System will not stop when only 25% of indoor units have power supply and breakdown on other indoor units.



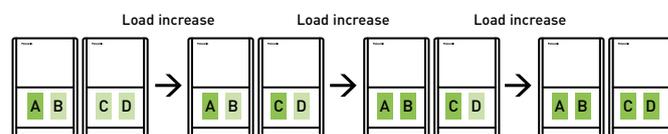
**Extended compressor life by uniform compressor operation time**

The total run-time of compressors are monitored by a built-in microcomputer, which ensures that operation times of all compressors within the same refrigerant circuit are balanced. Compressors with histories showing shorter run times are selected first, ensuring equal wear and tear across all units and extending the working life of the system.

System example.

A,C: DC Inverter compressor

B,D: Constant speed compressor



50 h 30 h 60 h 10 h

\* Depend on accumulated operation time of each compressors.

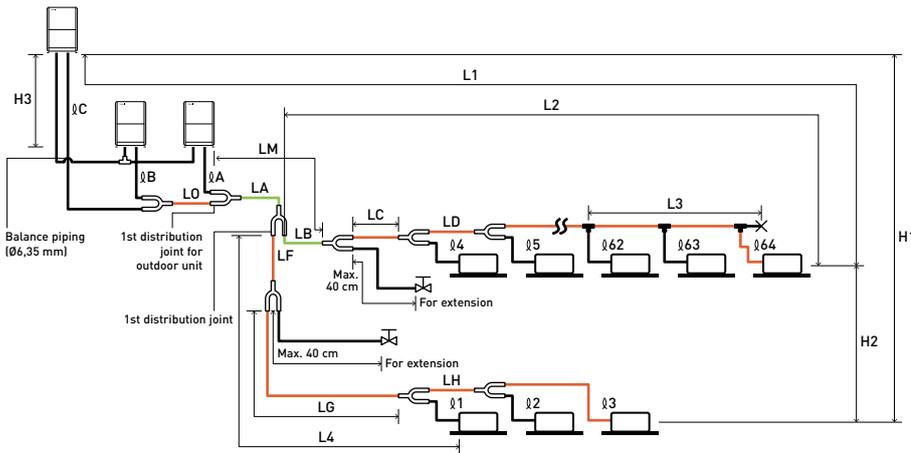
\* Compressor priority has possibility to be changed.

[e.g] Case 1: A>C>B>D, Case 2: C>A>D>B, Case 3: A>C>D>B, Case 4: C>A>B>D

\* Also other cases available.

## 2-Pipe ECOi EX ME2 Series R410A piping design.

Select installation locations so that the lengths and sizes of refrigerant piping are within the allowable ranges shown in the figure below.



The outdoor connection main piping (LO portion) is determined by the total capacity of the outdoor units that are connected to the tube ends.

Note: Be sure to use special R410A distribution joints (CZ: optional parts) for outdoor unit connections and piping branches.

**R410A distribution joint.**

- CZ-P680PH2BM (for outdoor unit)
- CZ-P1350PH2BM (for outdoor unit)
- CZ-P224BK2BM (for indoor unit)
- CZ-P680BK2BM (for indoor unit)
- CZ-P1350BK2BM (for indoor unit)

Main piping length (maximum piping size) LM= LA + LB ...

Main distribution tubes LC – LH are selected according to the capacity after the distribution joint.

Sizes of indoor unit connection piping ø1 – ø64 are determined by the connection piping sizes on the indoor units.

Distribution joint (CZ: optional parts).

Ball valve (field supply).

T-joint (field supply).

Solidly welded shut (pinch weld).

**Ranges that apply to refrigerant piping lengths and to differences in installation heights**

Items	Mark	Contents	Length (m)
Allowable piping length	L1	Maximum piping length	Actual length ≤200 <sup>1)</sup> Equivalent length ≤210 <sup>1)</sup>
	Δ L (L2-L4)	Difference between maximum length and minimum length from the 1st distribution joint	≤50 <sup>2)</sup>
	LM	Maximum length of main piping (at maximum size) * Even after 1st distribution joint, LM is allowed if at maximum piping length.	≤50 <sup>3)</sup>
	ø1, ø2- ø64	Maximum length of each distribution tube	≤50 <sup>4)</sup>
	L1+ ø1+ ø2- ø63+ øA+øB+LF+LG+LH	Total maximum piping length including length of each distribution tube (only liquid piping)	≤1000
Allowable elevation difference	øA, øB+LO, øC+LO	Maximum piping length from outdoor's 1st distribution joint to each outdoor unit	≤10
	H1	When outdoor unit is installed higher than indoor unit	≤50
	H2	When outdoor unit is installed lower than indoor unit	≤40
	H3	Maximum difference between indoor units	≤15
Allowable length of joint piping	L3	T-joint piping (field-supply); Maximum piping length between the first T-joint and solidly welded-shut end point	≤2

L = Length, H = Height

1) If the longest piping length (L1) exceeds 90 m (equivalent length), increase the sizes of the main tubes (LM) by 1 rank for gas tubes and liquid tubes. Use a field supply reducer. Select the tube size from the table of main piping sizes (Table 3) and from the table of refrigerant piping sizes (Table 8). 2) When the piping length exceeds 40 m, increase a longer liquid or gas piping by 1 rank. Refer to the Technical Data for the details. 3) If the longest main piping length (LM) exceeds 50 m, increase the main piping size at the portion before 50 m by 1 rank for the gas tubes. Use a field supply reducer. Determine the length less than the limitation of allowable maximum piping length. For the portion that exceeds 50 m, set based on the main piping size (LA) listed in Table 3. 4) If any of the piping length exceeds 30 m, increase the size of the liquid and gas tubes by 1 rank. 5) If the total distribution piping length exceeds 500 m, maximum allowable elevation difference (H2) between the indoor units is calculated by the following formula. Make sure the indoor unit's actual elevation difference should fall within the figure calculated as follows. Unit of account (meter):  $15 \times (2 - \text{total piping length (m)} \div 500)$ .

\* The outdoor connection main piping (LO portion) is determined by the total capacity of the outdoor units that are connected to the tube ends. If the size of the existing piping is already larger than the standard piping size, it is not necessary to further increase the size. \*\* If the existing piping is used, and the amount of on-site refrigerant charge exceeds the value listed below, then change the size of the piping to reduce the amount of refrigerant. Total amount of refrigerant for the system with 1 outdoor unit: 50kg. Total amount of refrigerant for the system with 2 outdoor units: 80kg. Total amount of refrigerant for the system with 3 outdoor units or 4 outdoor units: 105 kg.

**Necessary amount of additional refrigerant charge per outdoor unit.**

U-8ME2E8	U-10ME2E8	U-12ME2E8	U-14ME2E8	U-16ME2E8
5,5 kg	5,5 kg	7,0 kg	7,0 kg	7,0 kg

**System limitations.**

Maximum number allowable connected outdoor units	4 <sup>1)</sup>
Maximum capacity allowable connected outdoor units	224 kW (80 HP)
Maximum connectable indoor units	64 <sup>2)</sup>
Maximum allowable indoor / outdoor capacity ratio	50-130% <sup>3)</sup>

- 1) Up to 4 units can be connected if the system has been extended.
- 2) In the case of 38 HP or smaller units, the number is limited by the total capacity of the connected indoor units.
- 3) If the following conditions are satisfied, the effective range is above 130% and below 200%.
  - A) Obey the limited number of connectable indoor units. B) The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB (standard -25 °C WB). C) Simultaneous operation is limited to less than 130% of connectable indoor units.

**Additional refrigerant charge.**

Liquid piping size (Inch (mm))	1/4 (6,35)	3/8 (9,52)	1/2 (12,70)	5/8 (15,88)	3/4 (19,05)	7/8 (22,22)	1 (25,40)
	Amount of refrigerant charge (g/m)	26	56	128	185	259	366

**Refrigerant piping (existing piping can be used).**

Piping size (mm)				Material Temper - 1/2 H, H									
Material Temper - O													
ø6,35	t 0,8	ø12,70	t 0,8	ø19,05	t 1,2	ø22,22	t 1,0	ø28,58	t 1,0	ø38,10	over t 1,35	ø44,45	over t1,55
ø9,52	t 0,8	ø15,88	t 1,0			ø25,40	t 1,0	ø31,75	t 1,1	ø41,28	over t 1,45	ø44,45	over t1,55

\* When bending the tubes, use a bending radius that is at least 4 times the outer diameter of the tubes. In addition, take sufficient care to avoid crushing or damaging the tubes when bending them.

## 2-Pipe ECOi EX ME2 Series · R410A

**A VRF system delivering energy-saving performance, powerful operation, reliability and comfort, surpassing anything previously possible. It represents a true paradigm shift in air conditioning solutions.**

VRF with outstanding energy-saving performance and powerful operation SEER 7,56 (18 HP model).



HP			8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP
<b>Outdoor unit</b>			<b>U-8ME2E8</b>	<b>U-10ME2E8</b>	<b>U-12ME2E8</b>	<b>U-14ME2E8</b>	<b>U-16ME2E8</b>	<b>U-18ME2E8</b>	<b>U-20ME2E8</b>
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase	Three phase	Three phase				
	Frequency	Hz	50	50	50	50	50	50	50
Cooling capacity		kW	22,4	28,0	33,5	40,0	45,0	50,0	56,0
EER <sup>1)</sup>		W/W	4,70	4,37	3,96	3,88	3,52	3,52	3,35
ESEER		W/W	9,33	8,67	7,94	7,73	7,19	6,95	6,18
Current		A	7,79 - 7,40 - 7,14	10,70 - 10,20 - 9,80	13,70 - 13,00 - 12,50	17,40 - 16,50 - 15,90	21,10 - 20,10 - 19,40	23,20 - 22,00 - 21,20	26,70 - 25,40 - 24,50
Input power		kW	4,77	6,41	8,47	10,30	12,80	14,20	16,70
Heating capacity		kW	25,0	31,5	37,5	45,0	50,0	56,0	63,0
COP <sup>1)</sup>		W/W	5,13	4,76	4,73	4,56	4,42	4,38	3,94
Current		A	7,96 - 7,56 - 7,29	11,10 - 10,50 - 10,10	12,90 - 12,30 - 11,80	16,60 - 15,80 - 15,20	18,90 - 17,90 - 17,30	21,10 - 20,10 - 19,40	25,90 - 24,60 - 23,70
Input power		kW	4,87	6,62	7,92	9,86	11,30	12,80	16,00
Starting current		A	1,00	1,00	1,00	2,00	2,00	2,00	2,00
External static pressure [Max]		Pa	80	80	80	80	80	80	80
Air flow		m <sup>3</sup> /min	224	224	232	232	232	405	405
Sound pressure	Normal mode	dB(A)	54	56	59	60	61	59	60
	Silent mode	dB(A)	51	53	56	57	58	56	57
Sound power	Normal mode	dB(A)	75	77	80	81	82	80	81
Dimension	H x W x D	mm	1842 x 770 x 1000	1842 x 770 x 1000	1842 x 1180 x 1000	1842 x 1180 x 1000	1842 x 1180 x 1000	1842 x 1540 x 1000	1842 x 1540 x 1000
Net weight		kg	210	210	270	315	315	375	375
Piping diameter <sup>2)</sup>	Liquid	Inch (mm)	3/8(9,52)/1/2(12,70)	3/8(9,52)/1/2(12,70)	1/2(12,70)/5/8(15,88)	1/2(12,70)/5/8(15,88)	1/2(12,70)/5/8(15,88)	5/8(15,88)/3/4(19,05)	5/8(15,88)/3/4(19,05)
	Gas	Inch (mm)	3/4(19,05)/7/8(22,22)	7/8(22,22)/1(25,40)	1(25,40)/1-1/8(28,58)	1(25,40)/1-1/8(28,58)	1-1/8(28,58)/1-1/4(31,75)	1-1/8(28,58)/1-1/4(31,75)	1-1/8(28,58)/1-1/4(31,75)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
Refrigerant [R410A] / CO <sub>2</sub> Eq		kg/T	5,60/11,6928	5,60/11,6928	8,30/17,3304	8,30/17,3304	8,30/17,3304	9,50/19,836	9,50/19,836
Maximum allowable indoor / outdoor capacity ratio <sup>3)</sup>		%	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)
Operating range	Cool Min ~ Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min ~ Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

### ErP data<sup>4)</sup>

SEER <sup>5)</sup>	<b>7,43</b>	<b>6,96</b>	<b>6,74</b>	<b>7,23</b>	<b>6,43</b>	<b>7,56</b>	<b>7,03</b>
$\eta_{s,c}$	<b>294,3%</b>	<b>275,4%</b>	<b>266,6%</b>	<b>286,0%</b>	<b>254,3%</b>	<b>299,2%</b>	<b>278,2%</b>
SCOP <sup>5)</sup>	<b>4,79</b>	<b>4,27</b>	<b>4,72</b>	<b>4,28</b>	<b>4,05</b>	<b>4,29</b>	<b>4,09</b>
$\eta_{s,h}$	<b>188,4%</b>	<b>167,6%</b>	<b>185,8%</b>	<b>168,2%</b>	<b>159,0%</b>	<b>168,7%</b>	<b>160,4%</b>

1) EER and COP calculation is based in accordance to EN 14511. 2) Piping diameter under 90 m for ultimate indoor unit / over 90 m for ultimate indoor unit (if the longest piping equivalent length exceeds 90 m, increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes). 3) If the following conditions are satisfied, the effective range is above 130% and below 200%: A. Obey the limited number of connectable indoor units. B. The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB (standard -25 °C WB). C. Simultaneous operation is limited to less than 130% of connectable indoor units. 4) SEER / SCOP and  $\eta_{s,c}$  /  $\eta_{s,h}$  are in accordance with ErP test data for F2 type variable static pressure hide-away indoor units. 5) SEER / SCOP is calculated based on the seasonal space cooling / heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF.

### Technical focus

- Twin rotary Inverter compressor
- High performance at extreme conditions
- Outstanding efficiency and comfort
- Extraordinary partial load, SEER and SCOP
- SEER and SCOP following EN-14825
- Oil recovery intelligent control
- Top comfort
- Superior flexibility
- Bluefin full line up EX
- Extremely high capacity at -20 °C and unique heating capacity at -25 °C
- Smooth exhaust flow by bell-mouth



## 2-Pipe ECOi EX ME2 Series R410A high efficiency model combination from 18 to 64 HP

HP			18 HP	20 HP	22 HP	24 HP	26 HP	28 HP
Outdoor unit			U-8ME2E8	U-10ME2E8	U-10ME2E8	U-12ME2E8	U-10ME2E8	U-12ME2E8
			U-10ME2E8	U-10ME2E8	U-12ME2E8	U-12ME2E8	U-16ME2E8	U-16ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase					
	Frequency	Hz	50	50	50	50	50	50
Cooling capacity	kW		50,0	56,0	61,5	68,0	73,0	78,5
EER <sup>1)</sup>	W/W		4,55	4,38	4,13	3,93	3,80	3,69
Current	A		18,20-17,30-16,60	21,40-20,30-19,60	24,30-23,10-22,30	28,00-26,60-25,60	31,70-30,10-29,00	34,80-33,10-31,90
Input power	kW		11,00	12,80	14,90	17,30	19,20	21,30
Heating capacity	kW		56,0	63,0	69,0	76,5	81,5	87,5
COP <sup>1)</sup>	W/W		4,96	4,77	4,76	4,69	4,55	4,56
Current	A		18,70-17,70-17,10	22,00-20,90-20,20	23,90-22,70-21,90	26,60-25,30-24,40	29,90-28,40-27,40	31,70-30,10-29,00
Input power	kW		11,30	13,20	14,50	16,30	17,90	19,20
Starting current	A		2,00	2,00	2,00	2,00	3,00	3,00
External static pressure (Max)	Pa		80	80	80	80	80	80
Air flow	m <sup>3</sup> /min		448	448	456	464	456	464
Sound pressure	Normal	dB(A)	58,5	59,0	61,0	62,0	62,5	63,5
	Silent mode	dB(A)	55,5	56,0	58,0	59,0	59,5	60,5
Sound power	Normal mode	dB(A)	79,5	80,0	82,0	83,0	83,5	84,5
Dimension / Net weight	HxWxD	mm / kg	1842 x 1600 x 1000/420	1842 x 1600 x 1000/420	1842 x 2010 x 1000/480	1842 x 2420 x 1000/540	1842 x 2010 x 1000/535	1842 x 2420 x 1000/585
	Liquid	Inch (mm)	5/8(15,88)/3/4(19,05)	5/8(15,88)/3/4(19,05)	5/8(15,88)/3/4(19,05)	5/8(15,88)/3/4(19,05)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)
Piping diameter <sup>2)</sup>	Gas	Inch (mm)	1-1/8(28,58)/1-1/4(31,75)	1-1/8(28,58)/1-1/4(31,75)	1-1/8(28,58)/1-1/4(31,75)	1-1/8(28,58)/1-1/4(31,75)	1-1/4(31,75)/1-1/2(38,10)	1-1/4(31,75)/1-1/2(38,10)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
	Refrigerant (R410A) / CO <sub>2</sub> Eq.	kg / T	11,20/23,3856	11,20/23,3856	13,90/29,0232	16,60/34,6608	13,90/29,0232	16,60/34,6608
Maximum allowable indoor / outdoor capacity ratio <sup>3)</sup>	%		50-130(200)	50-130(200)	50-130(200)	50-130(200)	50-130(200)	50-130(200)
Operating range	Cool Min - Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min - Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

HP			30 HP	32 HP	34 HP	36 HP	38 HP	40 HP
Outdoor unit			U-14ME2E8	U-16ME2E8	U-10ME2E8	U-12ME2E8	U-10ME2E8	U-12ME2E8
			U-16ME2E8	U-16ME2E8	U-12ME2E8	U-12ME2E8	U-12ME2E8	U-16ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase					
	Frequency	Hz	50	50	50	50	50	50
Cooling capacity	kW		85,0	90,0	96,0	101,0	107,0	113,0
EER <sup>1)</sup>	W/W		3,68	3,52	4,05	3,95	3,84	3,75
Current	A		38,60-36,60-35,30	42,30-40,20-38,70	38,70-36,80-35,50	41,40-39,30-37,90	46,10-43,80-42,20	49,20-46,70-45,00
Input power	kW		23,10	25,60	23,70	25,60	27,90	30,10
Heating capacity	kW		95,0	100,0	108,0	113,0	119,0	127,0
COP <sup>1)</sup>	W/W		4,48	4,42	4,72	4,73	4,61	4,57
Current	A		35,40-33,60-32,40	37,70-35,80-34,60	37,80-35,90-34,60	39,00-37,10-35,80	42,60-40,50-39,00	45,90-43,60-42,00
Input power	kW		21,20	22,60	22,90	23,90	25,80	27,80
Starting current	A		4,00	4,00	3,00	3,00	4,00	4,00
External static pressure (Max)	Pa		80	80	80	80	80	80
Air flow	m <sup>3</sup> /min		464	464	688	696	688	696
Sound pressure	Normal	dB(A)	63,5	64,0	63,0	64,0	64,0	64,5
	Silent mode	dB(A)	60,5	61,0	60,0	61,0	61,0	61,5
Sound power	Normal mode	dB(A)	84,5	85,0	84,0	85,0	85,0	85,5
Dimension / Net weight	HxWxD	mm / kg	1842 x 2420 x 1000/630	1842 x 2420 x 1000/630	1842 x 3250 x 1000/750	1842 x 3660 x 1000/810	1842 x 3250 x 1000/795	1842 x 3660 x 1000/855
	Liquid	Inch (mm)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)
Piping diameter <sup>2)</sup>	Gas	Inch (mm)	1-1/4(31,75)/1-1/2(38,10)	1-1/4(31,75)/1-1/2(38,10)	1-1/4(31,75)/1-1/2(38,10)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
	Refrigerant (R410A) / CO <sub>2</sub> Eq.	kg / T	16,60/34,6608	16,60/34,6608	22,20/46,3536	24,90/51,9912	22,20/46,3536	24,90/46,3536
Maximum allowable indoor / outdoor capacity ratio <sup>3)</sup>	%		50-130(200)	50-130(200)	50-130(200)	50-130(200)	50-130(200)	50-130(200)
Operating range	Cool Min - Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min - Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

Data is for reference. 1) EER and COP calculation is based in accordance to EN 14511. 2) Piping diameter under 90 m for ultimate indoor unit / over 90 m for ultimate indoor unit (if the longest piping equivalent length exceeds 90 m, increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes). 3) If the following conditions are satisfied, the effective range is above 130% and below 200%: A. Obey the limited number of connectable indoor units. B. The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB (standard -25 °C WB). C. Simultaneous operation is limited to less than 130% of connectable indoor units.

HP			42 HP	44 HP	46 HP	48 HP	50 HP	52 HP
			U-10ME2E8	U-12ME2E8	U-14ME2E8	U-16ME2E8	U-10ME2E8	U-12ME2E8
	Outdoor unit		U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-12ME2E8	U-12ME2E8
			U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-12ME2E8	U-16ME2E8
Power supply	Voltage	V	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415
	Phase		Three phase					
	Frequency	Hz	50	50	50	50	50	50
Cooling capacity		kW	118,0	124,0	130,0	135,0	140,0	145,0
EER <sup>1)</sup>		W/W	3,69	3,62	3,62	3,52	3,87	3,82
Current		A	52,80 - 50,20 - 48,40	56,00 - 53,20 - 51,30	59,90 - 56,90 - 54,90	63,40 - 60,20 - 58,10	59,10 - 56,20 - 54,20	62,10 - 59,00 - 56,80
Input power		kW	32,00	34,30	35,90	38,40	36,20	38,00
Heating capacity		kW	132,0	138,0	145,0	150,0	155,0	160,0
COP <sup>1)</sup>		W/W	4,49	4,50	4,46	4,42	4,65	4,66
Current		A	49,10 - 46,60 - 44,90	50,70 - 48,20 - 46,40	54,30 - 51,50 - 49,70	56,60 - 53,80 - 51,80	55,00 - 52,20 - 50,40	56,60 - 53,80 - 51,90
Input power		kW	29,40	30,70	32,50	33,90	33,30	34,30
Starting current		A	5,00	5,00	6,00	6,00	5,00	5,00
External static pressure (Max)		Pa	80	80	80	80	80	80
Air flow		m <sup>3</sup> /min	688	696	696	696	920	928
Sound pressure	Normal	dB(A)	65,0	65,5	65,5	66,0	65,5	66,0
	Silent mode	dB(A)	62,0	62,5	62,5	63,0	62,5	63,0
Sound power	Normal mode	dB(A)	86,0	86,5	86,5	87,0	86,5	87,0
Dimension / Net weight	HxWxD	mm / kg	1842x3250 x1000/840	1842x3660 x1000/900	1842x3660 x1000/945	1842x3660 x1000/945	1842x4490 x1000/1065	1842x4900 x1000/1125
	Piping diameter <sup>2)</sup>							
Piping diameter <sup>2)</sup>	Liquid	Inch (mm)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)
	Gas	Inch (mm)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	22,20/51,9912	24,90/51,9912	24,90/51,9912	24,90/51,9912	30,50/63,6840	33,20/69,3216
Maximum allowable indoor / outdoor capacity ratio <sup>3)</sup>		%	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)
Operating range	Cool Min ~ Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min ~ Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

HP			54 HP	56 HP	58 HP	60 HP	62 HP	64 HP
			U-10ME2E8	U-12ME2E8	U-10ME2E8	U-12ME2E8	U-14ME2E8	U-16ME2E8
	Outdoor unit		U-12ME2E8	U-12ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8
			U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8
Power supply	Voltage	V	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415
	Phase		Three phase					
	Frequency	Hz	50	50	50	50	50	50
Cooling capacity		kW	151,0	156,0	162,0	168,0	174,0	180,0
EER <sup>1)</sup>		W/W	3,75	3,71	3,65	3,60	3,60	3,52
Current		A	66,60 - 63,20 - 60,90	68,80 - 65,30 - 63,00	73,30 - 69,70 - 67,10	77,10 - 73,30 - 70,60	79,80 - 75,80 - 73,00	84,60 - 80,30 - 77,40
Input power		kW	40,30	42,10	44,40	46,70	48,30	51,20
Heating capacity		kW	169,0	175,0	182,0	189,0	195,0	201,0
COP <sup>1)</sup>		W/W	4,56	4,56	4,47	4,47	4,45	4,42
Current		A	61,90 - 58,80 - 56,70	63,40 - 60,20 - 58,10	68,00 - 64,60 - 62,20	70,60 - 67,10 - 64,70	73,10 - 69,50 - 67,00	76,00 - 72,20 - 69,60
Input power		kW	37,10	38,40	40,70	42,30	43,80	45,50
Starting current		A	6,00	6,00	7,00	7,00	8,00	8,00
External static pressure (Max)		Pa	80	80	80	80	80	80
Air flow		m <sup>3</sup> /min	920	928	920	928	928	928
Sound pressure	Normal	dB(A)	66,0	66,5	66,5	67,0	67,0	67,0
	Silent mode	dB(A)	63,0	63,5	63,5	64,0	64,0	64,0
Sound power	Normal mode	dB(A)	87,0	87,5	87,5	88,0	88,0	88,0
Dimension / Net weight	HxWxD	mm / kg	1842x4490 x1000/1110	1842x4900 x1000/1170	1842x4490 x1000/1155	1842x4900 x1000/1215	1842x4900 x1000/1260	1842x4900 x1000/1260
	Piping diameter <sup>2)</sup>							
Piping diameter <sup>2)</sup>	Liquid	Inch (mm)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)
	Gas	Inch (mm)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-1/2(38,10)/ 1-5/8(41,28)	1-5/8(41,28)/ 1-3/4(44,45)	1-5/8(41,28)/ 1-3/4(44,45)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	30,50/63,6840	33,20/69,3216	30,50/63,6840	33,20/69,3216	33,20/69,3216	33,20/69,3216
Maximum allowable indoor / outdoor capacity ratio <sup>3)</sup>		%	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)	50 - 130(200)
Operating range	Cool Min ~ Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min ~ Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

Data is for reference. 1) EER and COP calculation is based in accordance to EN 14511. 2) Piping diameter under 90 m for ultimate indoor unit / over 90 m for ultimate indoor unit (if the longest piping equivalent length exceeds 90 m, increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes). 3) If the following conditions are satisfied, the effective range is above 130% and below 200%: A. Obey the limited number of connectable indoor units. B. The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB [standard -25 °C WB]. C. Simultaneous operation is limited to less than 130% of connectable indoor units.

## 2-Pipe ECOi EX ME2 Series R410A space saving model combination from 22 to 80 HP

HP			22 HP	24 HP	26 HP	28 HP	30 HP	32 HP	34 HP	
	Outdoor unit		U-10ME2E8 U-12ME2E8	U-12ME2E8 U-12ME2E8	U-10ME2E8 U-16ME2E8	U-12ME2E8 U-16ME2E8	U-14ME2E8 U-16ME2E8	U-16ME2E8 U-16ME2E8	U-16ME2E8 U-16ME2E8	U-14ME2E8 U-20ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase	Three phase						
	Frequency	Hz	50	50	50	50	50	50	50	50
Cooling capacity		kW	61,5	68,0	73,0	78,5	85,0	90,0	96,0	
EER <sup>1)</sup>		W/W	4,13	3,93	3,80	3,69	3,68	3,52	3,56	
SEER <sup>2)</sup>			<b>6,90</b>	<b>6,86</b>	<b>6,62</b>	<b>6,60</b>	<b>6,88</b>	<b>6,55</b>	<b>7,21</b>	
Current		A	24,30-23,10-22,30	28,00-26,60-25,60	31,70-30,10-29,00	34,80-33,10-31,90	38,60-36,60-35,30	42,30-40,20-38,70	44,10-41,90-40,40	
Input power		kW	14,90	17,30	19,20	21,30	23,10	25,60	27,00	
Heating capacity		kW	69,0	76,5	81,5	87,5	93,0	100,0	108,0	
COP <sup>1)</sup>		W/W	4,76	4,69	4,55	4,56	4,48	4,42	4,17	
SCOP <sup>2)</sup>			<b>4,53</b>	<b>4,78</b>	<b>4,16</b>	<b>4,29</b>	<b>4,13</b>	<b>4,09</b>	<b>4,14</b>	
Current		A	23,90-22,70-21,90	26,60-25,30-24,40	29,90-28,40-27,40	31,70-30,10-29,00	35,40-33,60-32,40	37,70-35,80-34,60	42,80-40,60-39,20	
Input power		kW	14,50	16,30	17,90	19,20	21,20	22,60	25,90	
Starting current		A	2,00	2,00	3,00	3,00	4,00	4,00	4,00	
External static pressure (Max)		Pa	80	80	80	80	80	80	80	
Air flow		m <sup>3</sup> /min	456	464	456	464	464	464	637	
Sound pressure	Normal / Silent mode	dB(A)	61,0/58,0	62,0/59,0	62,5/59,5	63,5/60,5	63,5/60,5	64,0/61,0	63,0/60,0	
Sound power	Normal mode	dB(A)	82,0	83,0	83,5	84,5	84,5	85,0	84,0	
Dimension / Net weight	HxWxD	mm / kg	1842x2010 x1000/480	1842x2420 x1000/540	1842x2010 x1000/525	1842x2420 x1000/585	1842x2420 x1000/630	1842x2420 x1000/630	1842x2780 x1000/690	
Piping diameter <sup>3)</sup>	Liquid	Inch (mm)	5/8(15,88)/ 3/4(19,05)	5/8(15,88)/ 3/4(19,05)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	3/4(19,05)/ 7/8(22,22)	
	Gas	Inch (mm)	1-1/8(28,58)/ 1-1/4(31,75)	1-1/8(28,58)/ 1-1/4(31,75)	1-1/4(31,75)/ 1-1/2(38,10)	1-1/4(31,75)/ 1-1/2(38,10)	1-1/4(31,75)/ 1-1/2(38,10)	1-1/4(31,75)/ 1-1/2(38,10)	1-1/4(31,75)/ 1-1/2(38,10)	
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	13,90/23,3856	16,60/34,6608	13,90/29,0232	16,60/34,6608	16,60/34,6608	16,60/34,6608	17,80/37,1664	
Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup>		%	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	
Operating range	Cool Min - Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	
	Heat Min - Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	

HP			36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP	
	Outdoor unit		U-16ME2E8 U-20ME2E8	U-18ME2E8 U-20ME2E8	U-20ME2E8 U-20ME2E8	U-10ME2E8 U-16ME2E8	U-12ME2E8 U-16ME2E8	U-14ME2E8 U-16ME2E8	U-16ME2E8 U-16ME2E8	U-16ME2E8 U-16ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase	Three phase						
	Frequency	Hz	50	50	50	50	50	50	50	50
Cooling capacity		kW	101,0	107,0	113,0	118,0	124,0	130,0	135,0	
EER <sup>1)</sup>		W/W	3,42	3,42	3,34	3,69	3,62	3,62	3,52	
SEER <sup>2)</sup>			<b>6,86</b>	<b>7,32</b>	<b>7,16</b>	<b>6,57</b>	<b>6,60</b>	<b>6,70</b>	<b>6,55</b>	
Current		A	47,70-45,30-43,70	50,60-48,10-46,30	54,10-51,40-49,50	52,80-50,20-48,40	56,00-53,20-51,30	59,90-56,90-54,90	63,40-60,20-58,10	
Input power		kW	25,9	31,3	33,8	32,0	34,3	35,9	38,4	
Heating capacity		kW	113,0	119,0	127,0	132,0	138,0	145,0	150,0	
COP <sup>1)</sup>		W/W	4,14	4,13	3,92	4,49	4,50	4,46	4,42	
SCOP <sup>2)</sup>			<b>4,06</b>	<b>4,14</b>	<b>4,13</b>	<b>4,11</b>	<b>4,21</b>	<b>4,12</b>	<b>4,09</b>	
Current		A	44,60-42,40-40,80	47,10-44,70-43,10	52,40-49,80-48,00	49,10-46,60-44,90	50,70-48,20-46,40	54,30-51,50-49,7	56,60-53,80-51,8	
Input power		kW	27,30	28,80	32,40	29,40	30,70	32,50	33,90	
Starting current		A	4,00	4,00	4,00	5,00	5,00	6,00	6,00	
External static pressure (Max)		Pa	80	80	80	80	80	80	80	
Air flow		m <sup>3</sup> /min	637	810	810	688	696	696	696	
Sound pressure	Normal / Silent mode	dB(A)	63,5/60,5	62,5/59,5	63,0/60,0	65,0/62,0	65,5/62,5	65,5/62,5	66,0/63,0	
Sound power	Normal mode	dB(A)	84,5	83,5	84,0	86,0	86,5	86,5	87,0	
Dimension / Net weight	HxWxD	mm / kg	1842x2780 x1000/690	1842x3140 x1000/750	1842x3140 x1000/750	1842x3250 x1000/840	1842x3660 x1000/900	1842x3660 x1000/945	1842x3660 x1000/945	
Piping diameter <sup>3)</sup>	Liquid	Inch (mm)	3/4(19,05)/ 7/8(22,22)							
	Gas	Inch (mm)	1-1/2(38,10)/ 1-5/8(41,28)							
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	17,80/37,1664	19,00/39,672	19,00/39,672	22,20/46,3536	24,90/51,9912	24,90/51,9912	24,90/51,9912	
Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup>		%	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	
Operating range	Cool Min - Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	
	Heat Min - Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	

1) EER and COP calculation is based in accordance to EN 14511. 2) SEER / SCOP is calculated based on the seasonal space cooling / heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF. 3) Piping diameter under 90 m for ultimate indoor unit / over 90 m for ultimate outdoor unit (if the longest piping equivalent length exceeds 90 m, increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes). 4) If the following conditions are satisfied, the effective range is above 130% and below 200%: A. Obey the limited number of connectable indoor units. B. The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB (standard -25 °C WB). C. Simultaneous operation is limited to less than 130% of connectable indoor units.

HP			50 HP	52 HP	54 HP	56 HP	58 HP	60 HP	62 HP	64 HP
			U-14ME2E8	U-16ME2E8	U-14ME2E8	U-16ME2E8	U-18ME2E8	U-20ME2E8	U-14ME2E8	U-16ME2E8
	Outdoor unit		U-16ME2E8	U-16ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-16ME2E8	U-16ME2E8
			U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-16ME2E8	U-16ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase							
	Frequency	Hz	50	50	50	50	50	50	50	50
Cooling capacity		kW	140,0	145,0	151,0	156,0	162,0	168,0	174,0	180,0
EER <sup>1)</sup>		W/W	3,55	3,46	3,49	3,41	3,40	3,35	3,60	3,52
SEER <sup>2)</sup>			<b>6,96</b>	<b>6,72</b>	<b>7,16</b>	<b>6,92</b>	<b>7,30</b>	<b>7,16</b>	<b>6,68</b>	<b>6,55</b>
Current		A	64,40-61,10-58,90	68,50-65,00-62,70	70,00-66,50-64,10	74,00-70,30-67,80	76,90-73,10-70,40	80,10-76,10-73,40	79,80-75,80-73,00	84,60-80,30-77,40
Input power		kW	39,40	41,90	43,30	45,80	47,60	50,10	48,30	51,20
Heating capacity		kW	155,0	160,0	169,0	175,0	182,0	189,0	195,0	201,0
COP <sup>1)</sup>		W/W	4,29	4,27	4,11	4,08	4,06	3,94	4,45	4,42
SCOP <sup>2)</sup>			<b>4,08</b>	<b>4,05</b>	<b>4,13</b>	<b>4,07</b>	<b>4,13</b>	<b>4,13</b>	<b>4,11</b>	<b>4,09</b>
Current		A	59,60-56,60-54,60	61,90-58,80-56,70	67,10-63,80-61,50	70,10-66,60-64,20	73,20-69,50-67,00	77,60-73,70-71,00	73,10-69,50-67,00	76,00-72,20-69,6
Input power		kW	36,10	37,50	41,10	42,90	44,80	48,00	43,80	45,50
Starting current		A	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00
External static pressure (Max)		Pa	80	80	80	80	80	80	80	80
Air flow		m <sup>3</sup> /min	869	869	1042	1042	1215	1215	928	928
Sound pressure	Normal / Silent mode	dB(A)	65,5/62,5	65,5/62,5	65,0/62,0	65,5/62,5	64,5/61,5	65,0/62,0	67,0/64,0	67,0/64,0
Sound power	Normal mode	dB(A)	86,5	86,5	86,0	86,5	85,5	86,0	88,0	88,0
Dimension / Net weight	H x W x D	mm / kg	1842 x 4020 x 1000/1005	1842 x 4020 x 1000/1005	1842 x 4380 x 1000/1065	1842 x 4380 x 1000/1065	1842 x 4740 x 1000/1125	1842 x 4740 x 1000/1125	1842 x 4900 x 1000/1260	1842 x 4900 x 1000/1260
	Piping diameter <sup>3)</sup>									
Piping diameter <sup>3)</sup>	Liquid	Inch (mm)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)	3/4(19,05)/7/8(22,22)
	Gas	Inch (mm)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-1/2(38,10)/1-5/8(41,28)	1-5/8(41,28)/1-3/4(44,45)	1-5/8(41,28)/1-3/4(44,45)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	26,10/54,4968	26,10/54,4968	27,30/57,0024	27,30/57,0024	28,50/59,508	28,50/59,508	33,20/69,3216	33,20/69,3216
Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup>		%	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)
Operating range	Cool Min ~ Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min ~ Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

HP			66 HP	68 HP	70 HP	72 HP	74 HP	76 HP	78 HP	80 HP
			U-10ME2E8	U-12ME2E8	U-10ME2E8	U-16ME2E8	U-16ME2E8	U-16ME2E8	U-18ME2E8	U-20ME2E8
	Outdoor unit		U-16ME2E8	U-16ME2E8	U-20ME2E8	U-16ME2E8	U-18ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8
			U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8	U-20ME2E8
Power supply	Voltage	V	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415	380-400-415
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Cooling capacity		kW	185,0	190,0	196,0	202,0	208,0	213,0	219,0	224,0
EER <sup>1)</sup>		W/W	3,52	3,49	3,47	3,42	3,42	3,39	3,38	3,35
SEER <sup>2)</sup>			<b>6,92</b>	<b>6,91</b>	<b>7,09</b>	<b>6,86</b>	<b>7,03</b>	<b>7,01</b>	<b>7,18</b>	<b>7,16</b>
Current		A	85,00-80,80-77,80	88,10-83,70-80,70	91,30-86,80-83,60	95,40-90,60-87,30	98,30-93,40-90,00	101,70-96,60-93,10	103,50-98,30-94,70	106,80-101,50-97,80
Input power		kW	52,60	54,50	56,50	59,00	60,80	62,90	64,70	66,80
Heating capacity		kW	207,0	213,0	219,0	226,0	233,0	239,0	245,0	252,0
COP <sup>1)</sup>		W/W	4,16	4,18	4,05	4,14	4,12	4,03	4,03	3,94
SCOP <sup>2)</sup>			<b>4,11</b>	<b>4,17</b>	<b>4,13</b>	<b>4,06</b>	<b>4,12</b>	<b>4,07</b>	<b>4,13</b>	<b>4,13</b>
Current		A	81,20-77,10-74,30	83,30-79,20-76,30	87,40-83,10-80,10	89,20-84,70-81,70	92,30-87,70-84,50	96,90-92,00-88,70	98,30-93,40-90,00	103,40-98,30-94,70
Input power		kW	49,70	51,00	54,10	56,60	56,50	59,30	60,80	64,00
Starting current		A	7,00	7,00	7,00	8,00	8,00	8,00	8,00	8,00
External static pressure (Max)		Pa	80	80	80	80	80	80	80	80
Air flow		m <sup>3</sup> /min	1266	1274	1439	1274	1447	1447	1620	1620
Sound pressure	Normal / Silent mode	dB(A)	66,0/63,0	66,5/63,5	65,5/62,5	66,5/63,5	66,5/63,5	66,5/63,5	66,0/63,0	66,0/63,0
Sound power	Normal mode	dB(A)	87,0	87,5	86,5	87,5	87,5	87,5	87,0	87,0
Dimension / Net weight	H x W x D	mm / kg	1842 x 5210 x 1000/1275	1842 x 5620 x 1000/1335	1842 x 5570 x 1000/1335	1842 x 5620 x 1000/1380	1842 x 5980 x 1000/1440	1842 x 5980 x 1000/1440	1842 x 6340 x 1000/1500	1842 x 6340 x 1000/1500
	Piping diameter <sup>3)</sup>									
Piping diameter <sup>3)</sup>	Liquid	Inch (mm)	3/4(19,05)/7/8(22,22)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)	7/8(22,22)/1(25,04)
	Gas	Inch (mm)	1-5/8(41,28)/1-3/4(44,45)	1-5/8(41,28)/1-3/4(44,45)	1-5/8(41,28)/1-3/4(44,45)	1-3/4(44,45)/2(50,80)	1-3/4(44,45)/2(50,80)	1-3/4(44,45)/2(50,80)	1-3/4(44,45)/2(50,80)	1-3/4(44,45)/2(50,80)
	Balance	Inch (mm)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)	1/4(6,35)
Refrigerant (R410A) / CO <sub>2</sub> Eq.		kg / T	32,90/68,6952	35,60/74,3328	34,10/19,836	35,80/68,6952	36,80/76,8384	36,80/76,8384	38,00/79,344	38,00/79,344
Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup>		%	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)	50 ~ 130(200)
Operating range	Cool Min ~ Max	°C	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52	-10 ~ +52
	Heat Min ~ Max	°C	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18	-25 ~ +18

1) EER and COP calculation is based in accordance to EN 14511. 2) SEER / SCOP is calculated based on the seasonal space cooling / heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF. 3) Piping diameter under 90 m for ultimate indoor unit / over 90 m for ultimate indoor unit (if the longest piping equivalent length exceeds 90 m, increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes). 4) If the following conditions are satisfied, the effective range is above 130% and below 200%: A. Obey the limited number of connectable indoor units. B. The lower limit of operating range for heating outdoor temperature is limited to -10 °C WB (standard -25 °C WB). C. Simultaneous operation is limited to less than 130% of connectable indoor units.

Rating conditions: Cooling indoor 27 °C DB / 19 °C WB. Cooling outdoor 35 °C DB / 24 °C WB. Heating indoor 20 °C DB. Heating outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb, WB: Wet Bulb). Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.