

2. Outdoor Units

2-1. Specifications

Model Name	Indoor Unit			AE160ANYDGH/EU	AE160ANYDGH/EU	
	Outdoor Unit			AE120AXEDGH/EU	AE160AXEDGH/EU	
System	Mode			-	Heat Pump (A2W)	
	Performance (A7/W35) ¹	Nominal Capacity	Heating	W	12,000	16,000
				Btu/h	40,900	54,600
			Cooling	W	12,000	15,000
				Btu/h	40,900	51,200
		Power Input (Nominal)	Heating	W	2,590	3,760
			Cooling		3,100	4,140
		Current Input (Nominal)	Heating	A	4.10	5.70
			Cooling		4.70	6.20
	COP (Nominal Heating)			W/W	4.63	4.26
	EER (Nominal Cooling)			W/W	3.87	3.62
	Eco design	35°C	P-design H	W	13.00	14.00
			SCOP	W/W	4.59	4.46
			GRADE	-	A+++	A+++
		55°C	P-design H	W	12.50	14.00
			SCOP	W/W	3.12	3.09
			GRADE	-	A+	A+
	SEER			-	4.45	4.39
	Performance (A7/W45) ²	Capacity	Heating	W	11,500	15,300
		COP		W/W	3.56	3.37
	Performance (A7/W55) ³	Capacity	Heating	W	11,000	14,600
		COP		W/W	2.89	2.74
	Performance (A2/W35) ⁴	Capacity	Heating	W	11000	13700
		COP		W/W	3.48	3.26
	Performance (A-7/W35) ⁵	Capacity	Heating	W	11,300	13,800
		COP		W/W	2.76	2.53
	Performance (A35/W7) ⁶	Capacity	Cooling	W	9,000	11,200
		EER		W/W	2.90	2.80
	Field Wiring	MCA		A	10.0	12.0
		MFA		A	16.1	16.1
	Water Connections	Water Flow		LPM	35/35	46/44
		Water Pressure (Max)		bar	3	3
Water Pipe		Inlet	Φ, inch	BSPP male 1 1/4"	BSPP male 1 1/4"	
		Outlet	Φ, inch	BSPP male 1 1/4"	BSPP male 1 1/4"	
Leaving Water		Heating	°C	15~55	15~55	
	Cooling	°C	5~25	5~25		
Refrigerant Connections	Liquid Pipe	Quantity	EA	1	1	
		Type	-	Flare connection	Flare connection	
			Φ, mm	9.52	9.52	
		Φ, inch	3/8	3/8		
	Gas Pipe	Quantity	EA	1	1	
		Type	-	Flare connection	Flare connection	
			Φ, mm	15.88	15.88	
			Φ, inch	5/8	5/8	
	Installation Limitation	Max. Length	m	50	50	
		Max. Height	m	30	30	
Chargeless Length		m	15	15		
Operating Temp. Range	Heating (A2W) ⁷		°C	-25~35	-25~35	
	Cooling (A2W)		°C	10~46	10~46	
	DHW (A2W) ⁸		°C	-25~43	-25~43	
Outdoor Unit	Power Supply			V, Hz, Φ	380~415, 50, 3	380~415, 50, 3
	Compressor	Type		-	BLDC Twin Rotary	BLDC Twin Rotary
		Model		-	UG5TK5450FJX	UG5TK5450FJX
		Oil Type		-	PVE/1700	PVE/1700
		Quantity		EA	1	1
		Output		W	3423	3423
		Starting method		-	Inverter driven	Inverter driven
		Motor Output	Crankcase heater	W	55	55
	Heat exchanger	Length		mm	950	950
		Rows	Quantity	EA	2	2
		Fin pitch		mm	1.5	1.5
		Passes	Quantity	EA	10	10
		Face area		m ²	1.32	1.32
		Stages	Quantity	EA	66	66
		Tube type		-	Φ7.94	Φ7.94
		Fin	Type	-	G-Fin	G-Fin
			Treatment	-	Anti Salt	Anti Salt

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	Condenser	Size	-	2RX66S	2RX66S	
	Motor	Type (Model)	-	FMDC531SSA	FMDC531SSA	
		Quantity	EA	2	2	
		CODE No	-	DB31-00579A	DB31-00579A	
	Fan	Type	-	Propeller Fan	Propeller Fan	
		Discharge direction	-	Horizontal	Horizontal	
		Air Flow Rate	Heating	m ³ /min	99	108
			Cooling	m ³ /min	99	108
	Fan motor	Quantity	EA	2	2	
		Model	-	Brushless DC motor	Brushless DC motor	
		Output	W	125W x 2	125W x 2	
		Drive	-	Direct drive	Direct drive	
		Speed	Heating	rpm	650	750
			Cooling	rpm	650	750
	4-Way Valve	Type (Model)	-	SHF-20D-46	SHF-20D-46	
	Base Heater	Power Input	W	150	150	
	Sound *9	Sound Pressure	Cooling	dB(A)	50	54
			Heating	dB(A)	50	52
		Sound Power	Cooling	dB(A)	64	69
			Heating	dB(A)	64	66
	Casing	Color	-	Earth brown	Earth brown	
		Material	-	Powder coated Electro galvanized steel	Powder coated Electro galvanized steel	
	Packing	Material	-	EPS/BOX	EPS/BOX	
		Weight	kg	9.5	9.5	
	External Dimension	Net Weight	kg	99.5	99.5	
		Shipping Weight	kg	109.0	109.0	
		Net Dimensions (WxHxD)	mm	940 x 1,420 x 330	940 x 1,420 x 330	
		Shipping Dimensions	mm	995 x 1,598 x 426	995 x 1,598 x 426	
	Refrigerant	Type	-	R410A	R410A	
Control Method		-	EEV	EEV		
Factory Charging *10		g / tCO ₂ e	2,980	2,980		

NOTE

- Specifications may be subject to change without prior notice.
 - *1) A2W Condition *1 : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°CDB/6°CWB; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°CDB.
 - *2) A2W Condition *2 : (Heating) Water In/Out 40°C/45°C, Outdoor Air 7°CDB
 - *3) A2W Condition *3 : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°CDB
 - *4) A2W Condition *4 : (Heating) Water In/Out 30°C/35°C, Outdoor Air 2°CDB
 - *5) A2W Condition *5 : (Heating) Water In/Out 30°C/35°C, Outdoor Air -7°CDB
 - *6) A2W Condition *6 : (Cooling) Water In/Out 12°C/7°C, Outdoor Air 35°CDB
 - *7) The system is operated in (-25°C ≤ Outdoor temp. < -20°C) condition, but no guarantee of capacity.
 - *8) The system is operated by only Booster Heater in special condition (35 °C < Outdoor temp. ≤ 43°C).
- *9) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - Sound pressure level in Night Mode is measured 3m away from front side of outdoor unit.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20µPa

Sound power level is an absolute value that a sound source generates.

 - dBA = A-weighted Sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Select wire size based on the value of MCA
- These products contain R32 (GWP=675) which is fluorinated greenhouse gas.

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2-2. Electrical characteristics

Capacity [kW]	Model	Power Supply				Voltage Range [V]		Nominal Running Current [A]		Current [A]	
		Φ	#	Hz	Voltage	Min. (-10%)	Max. (+10%)	Cooling	Heating	MCA	MFA
4	AE040RXEDEG/EU	1	2	50	220~240	198	264	3.9	4.9	16.0	20.0
6	AE060RXEDEG/EU	1	2	50	220~240	198	264	5.6	6.7	16.0	20.0
9	AE090RXEDEG/EU	1	2	50	220~240	198	264	8.6	9.7	22.0	27.5
9	AE090RXEDGG/EU	3	4	50	380~415	342	456	3.0	3.4	10.0	16.1
12	AE120AXEDEH/EU	1	2	50	220~240	198	264	14.0	11.7	28.0	35.0
12	AE120AXEDGH/EU	3	4	50	380~415	342	456	4.7	4.1	10.0	16.1
16	AE160AXEDEH/EU	1	2	50	220~240	198	264	18.6	16.9	32.0	40.0
16	AE160AXEDGH/EU	3	4	50	380~415	342	456	6.2	5.7	12.0	16.1

NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- Select wire size based on the value of MCA

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2-3. Dimensional drawing

AE120AXEDEH/EU, AE120AXEDGH/EU, AE160AXEDEH/EU, AE160AXEDGH/EU

Unit : mm

