

2. Outdoor Units

2-1. Specifications

Model Name	Indoor Unit			AE160ANYDEH/EU	AE160ANYDEH/EU		
	Outdoor Unit			AE120AXEDEH/EU	AE160AXEDEH/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	11.70	16.90	
			Cooling		14.00	18.60	
	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	28.0	
		MFA			A	35.0	
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"			
		Outlet	Φ, inch	BSPP male 1 1/4"			
	Leaving Water	Heating	°C	15~55			
		Cooling	°C	5~25			
Refrigerant Connections	Liquid Pipe	Quantity	EA	1			
		Type	-	Flare connection			
			Φ, mm	9.52			
		Φ, inch	3/8				
	Gas Pipe	Quantity	EA	1			
		Type	-	Flare connection			
			Φ, mm	15.88			
		Φ, inch	5/8				
	Installation Limitation	Max. Length	m	50			
		Max. Height	m	30			
Chargeless Length		m	15				
Operating Temp. Range	Heating (A2W) ⁻⁷		°C	-25~35			
	Cooling (A2W)		°C	10~46			
	DHW (A2W) ⁻⁸		°C	-25~43			
Outdoor Unit	Power Supply			V, Hz, Φ	220~240, 50, 1	220~240, 50, 1	
	Compressor	Type		-	BLDC Twin Rotary		
		Model		-	UG5TK5450FJX		
		Oil Type		-	PVE/1700		
		Quantity		EA	1		
		Output		W	3423		
		Starting method		-	Inverter driven		
	Heat exchanger	Motor Output	Crankcase heater	W	55		
		Length		mm	950		
		Rows	Quantity	EA	2		
		Fin pitch			mm	1.5	
		Passes	Quantity	EA	10		
		Face area			m ²	1.32	
		Stages	Quantity	EA	66		
		Tube type			-	Φ7.94	
		Fin	Type			-	G-Fin
Treatment					-	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			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			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			100.5	100.5
		Shipping Weight			110.0	110.0
Net Dimensions (WxHxD)				940 x 1,420 x 330	940 x 1,420 x 330	
Shipping Dimensions				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

