

## 1 Specifications

### 1.1 Outdoor Unit

kW			4	6	8
Power supply		V/Ph/Hz	220-240/1/5		
Heating <sup>2</sup>	Capacity	kW	4.10	6.10	8.00
	Rated input	kW	0.82	1.29	1.73
	COP		5.00	4.73	4.62
Heating <sup>3</sup>	Capacity	kW	4.01	5.96	7.34
	Rated input	kW	1.13	1.68	2.13
	COP		3.55	3.55	3.45
Cooling <sup>4</sup>	Capacity	kW	4.10	6.20	8.00
	Rated input	kW	0.84	1.43	1.93
	EER		4.88	4.34	4.15
Cooling <sup>5</sup>	Capacity	kW	4.12	6.15	6.44
	Rated input	kW	1.30	2.08	2.24
	EER		3.17	2.96	2.88
Seasonal space heating energy efficiency class <sup>6</sup>	LWT at 35°C		A+++	A+++	A++
	LWT at 55°C		A++	A++	A++
SCOP <sup>6</sup>	LWT at 35°C		4.62	4.68	4.33
	LWT at 55°C		3.25	3.30	3.20
SEER <sup>6</sup>	LWT at 18°C		4.72	4.91	4.98
MOP		A	20	20	22
MCA		A	18	18	20
Compressor	Type		Twin rotary DC inverter		
	Poles		4	4	6
	Speed range	rps	10-110	10-110	12-120
	Capacity at 60rps	kW	6.94	6.94	7.65
	Input at 60rps	kW	2.15	2.15	2.08
	Max. heating	Hz	96	96	92
	Max. cooling	Hz	88	88	78
Outdoor fan	Motor type		Brushless DC motor		
	Number of fans		1	1	1
	Air flow	m <sup>3</sup> /h	3180	3180	5116
Air side heat exchanger	Type		Finned tube		
	Number of rows		2	2	2
	Number of circuits		5	5	8
Refrigerant	Type		R410A		
	Factory charge	kg	2.5	2.5	2.8
Throttle type			Electronic expansion valve		

#### Abbreviations:

MOP: Maximum overcurrent protection  
MCA: Minimum circuit amps  
OU: Outdoor unit  
DHW: Domestic hot water  
EWT: Entering water temperature  
LWT: Leaving water temperature

#### Notes:

1. Relevant EU standards and legislation: EN14511:2013; EN14825:2013; EN50564:2011; EN12102:2011; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02.
2. Outdoor air temperature 7°C DB, 85% R.H.; EWT 30°C, LWT 35°C.
3. Outdoor air temperature 7°C DB, 85% R.H.; EWT 40°C, LWT 45°C.
4. Outdoor air temperature 35°C DB; EWT 23°C, LWT 18°C.
5. Outdoor air temperature 35°C DB; EWT 12°C, LWT 7°C.
6. Seasonal space heating energy efficiency class tested in average climate conditions.
7. Sound power level tested in average climate conditions, outdoor air temperature 7°C DB, 6°C DB; EWT 47°C, LWT 55°C.

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kW			4	6	8
Piping connections	Type		Flare	Flare	Flare
	Liquid Dia.(OD)	mm	Φ9.5	Φ9.5	Φ9.5
	Gas Dia.(OD)	mm	Φ15.9	Φ15.9	Φ15.9
	Min. pipe length	m	2	2	2
	Max. pipe length	m	20	20	30
Installation height difference	OU above	m	10	20	30
	OU below	m	8	15	25
Sound power level <sup>7</sup>		dB(A)	62	66	69
Net dimensions (W×H×D)		mm	960×860×380	960×860×380	1075×965×395
Packed dimensions (W×H×D)		mm	1040×1000×430	1040×1000×430	1120×1100×435
Net/Gross weight		kg	60/72	60/72	76/88
Operating temperature range	Cooling	°C	-5 to 46		
	Heating	°C	-20 to 35		
	DHW	°C	-20 to 43		

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5. Outdoor air temperature 35°C DB; EWT 12°C, LWT 7°C.
6. Seasonal space heating energy efficiency class tested in average climate conditions.
7. Sound power level tested in average climate conditions, outdoor air temperature 7°C DB, 6°C DB; EWT 47°C, LWT 55°C.

kW			10	12	14	16
Power supply		V/Ph/Hz	220-240/1/50			
Heating <sup>2</sup>	Capacity	kW	10.00	12.10	14.00	15.50
	Rated input	kW	2.17	2.74	3.39	3.82
	COP		4.61	4.42	4.13	4.06
Heating <sup>3</sup>	Capacity	kW	10.12	11.85	14.05	16.05
	Rated input	kW	2.93	3.48	4.41	5.03
	COP		3.45	3.41	3.19	3.19
Cooling <sup>4</sup>	Capacity	kW	10.50	11.70	13.10	13.80
	Rated input	kW	2.30	2.79	3.48	3.77
	EER		4.57	4.19	3.76	3.66
Cooling <sup>5</sup>	Capacity	kW	9.39	11.02	12.49	12.85
	Rated input	kW	3.26	4.17	5.07	5.39
	EER		2.88	2.64	2.46	2.38
Seasonal space heating energy efficiency class <sup>6</sup>	LWT at 35°C		A+++	A+++	A++	A++
	LWT at 55°C		A++	A++	A++	A++
SCOP <sup>6</sup>	LWT at 35°C		4.50	4.46	4.28	4.01
	LWT at 55°C		3.12	3.24	3.24	3.20
SEER <sup>6</sup>	LWT at 18°C		4.51	4.65	4.25	3.80
MOP		A	35	35	35	35
MCA		A	30	30	32	32
Compressor	Type		Twin rotary DC inverter			
	Poles		6	6	6	6
	Speed range	rps	12-120	12-120	12-120	12-120
	Capacity at 60rps	kW	12.96	12.96	12.96	12.96
	Input at 60rps	kW	3.51	3.51	3.51	3.51
	Max. heating	Hz	92	92	92	92
	Max. cooling	Hz	78	78	78	78
Outdoor fan	Motor type		Brushless DC motor			
	Number of fans		2	2	2	2
	Air flow	m <sup>3</sup> /h	6250	6250	6250	6250
Air side heat exchanger	Type		Finned tube			
	Number of rows		2	2	2	2
	Number of circuits		9	9	9	9
Refrigerant	Type		R410A			
	Factory charge	Kg	3.9	3.9	3.9	3.9
Throttle type		Electronic expansion valve				

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4. Outdoor air temperature 35°C DB; EWT 23°C, LWT 18°C.
5. Outdoor air temperature 35°C DB; EWT 12°C, LWT 7°C.
6. Seasonal space heating energy efficiency class tested in average climate conditions.
7. Sound power level tested in average climate conditions, outdoor air temperature 7°C DB, 6°C DB; EWT 47°C, LWT 55°C.

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kW		10	12	14	16
Piping connections	Type	Flare	Flare	Flare	Flare
	Liquid Dia.(OD)	mm	Φ9.5	Φ9.5	Φ9.5
	Gas Dia.(OD)	mm	Φ15.9	Φ15.9	Φ15.9
	Min. pipe length	m	2	2	2
	Max. pipe length	m	50	50	50
Installation height difference	OU above	m	30	30	30
	OU below	m	25	25	25
Throttle type		Electronic expansion valve			
Sound power level <sup>7</sup>	dB(A)	67	68	71	72
Net dimensions (W×H×D)	mm	900×1327×400	900×1327×400	900×1327×400	900×1327×400
Packed dimensions (W×H×D)	mm	1030×1457×435	1030×1457×435	1030×1457×435	1030×1457×435
Net/Gross weight	kg	99/112	99/112	99/112	99/112
Operating temperature range	Cooling	°C	-5 to 46		
	Heating	°C	-20 to 35		
	DHW	°C	-20 to 43		

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4. Outdoor air temperature 35°C DB; EWT 23°C, LWT 18°C.
5. Outdoor air temperature 35°C DB; EWT 12°C, LWT 7°C.
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kW			12	14	16
Power supply		V/Ph/Hz	380-415/3/50		
Heating <sup>2</sup>	Capacity	kW	12.00	14.00	15.50
	Rated input	kW	2.66	3.26	3.79
	COP		4.51	4.29	4.09
Heating <sup>3</sup>	Capacity	kW	11.97	13.93	15.48
	Rated input	kW	3.50	4.21	4.87
	COP		3.42	3.31	3.18
Cooling <sup>4</sup>	Capacity	kW	12.00	13.50	14.50
	Rated input	kW	2.80	3.45	3.94
	EER		4.29	3.91	3.68
Cooling <sup>5</sup>	Capacity	kW	11.70	12.53	12.91
	Rated input	kW	4.65	5.21	5.52
	EER		2.52	2.40	2.34
Seasonal space heating energy efficiency class <sup>6</sup>	LWT at 35°C		A+++	A+++	A++
	LWT at 55°C		A++	A++	A++
SCOP <sup>6</sup>	LWT at 35°C		4.58	4.62	4.37
	LWT at 55°C		3.23	3.31	3.29
SEER <sup>6</sup>	LWT at 18°C		4.41	4.30	4.01
MOP		A	18	18	18
MCA		A	15	15	16
Compressor	Type		Twin rotary DC inverter		
	Poles		6	6	6
	Speed range	rps	12-120	12-120	12-120
	Capacity at 60rps	kW	12.96	12.96	12.96
	Input at 60rps	kW	3.51	3.51	3.51
	Max. heating	Hz	92	92	92
	Max. cooling	Hz	78	78	78
Outdoor fan	Motor type		Brushless DC motor		
	Number of fans		2	2	2
	Air flow	m <sup>3</sup> /h	6250	6250	6250
Air side heat exchanger	Type		Finned tube		
	Number of rows		2	2	2
	Number of circuits		9	9	9
Refrigerant	Type		R410A		
	Factory charge	kg	4.2	4.2	4.2
Throttle type		Electronic expansion valve			

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kW			12	14	16
Piping connections	Type		Flare	Flare	Flare
	Liquid Dia.(OD)	mm	Φ9.5	Φ9.5	Φ9.5
	Gas Dia.(OD)	mm	Φ15.9	Φ15.9	Φ15.9
	Min. pipe length	m	2	2	2
	Max. pipe length	m	50	50	50
Installation height difference	OU above	m	30	30	30
	OU below	m	25	25	25
Sound power level <sup>7</sup>		dB(A)	70	72	72
Net dimensions (W×H×D)		mm	900×1327×400	900×1327×400	900×1327×400
Packed dimensions (W×H×D)		mm	1030×1457×435	1030×1457×435	1030×1457×435
Net/Gross weight		kg	115/126	115/126	115/126
Operating temperature range	Cooling	°C	-5 to 46		
	Heating	°C	-20 to 35		
	DHW	°C	-20 to 43		

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kW				8	16	16	
Function				Heating and cooling			
LWT range	Space heating	Low	℃	25 to 55, default 35			
		High	℃	35 to 60, default 45			
	Space cooling	Low	℃	7 to 25, default 7			
		High	℃	18 to 25, default 18			
	DHW			℃	40 to 60, default 45		
Power supply			V/Ph /Hz	220-240/1/50	220-240/1/50	380-415/3/50	
MOP			A	19	19	13.0	
MCA			A	17	17	10.0	
Sound power level <sup>1</sup>			dB(A)	42	45	45	
Dimension (W×H×D)			mm	400×865×427	400×865×427	400×865×427	
Packing (W×H×D)			mm	495×1040×495	495×1040×495	495×1040×495	
Net/gross weight			kg	43/51	54/62	54/62	
Water circuit	Piping connections		inch	Φ 25 Female BSP	Φ 25 Female BSP	Φ 25 Female BSP	
	Safety valve set pressure		MPa	0.3	0.3	0.3	
	Total water volume		L	4.7	5.0	5.0	
	Drainage pipe connection		mm	Φ16	Φ16	Φ16	
	Expansion tank	Volume		L	3.0	3.0	3.0
		Max. water pressure		MPa	0.8	0.8	0.8
		Pre-pressure		MPa	0.15	0.15	0.15
	Water side exchanger	Type		Plate type			
		Volume		L	0.7	1.0	1.0
	Water pump head		m	6.0	7.5	7.5	
Refrigerant circuit	Liquid Dia. (OD)		mm	Φ9.5	Φ9.5	Φ9.5	
	Gas Dia. (OD)		mm	Φ15.9	Φ15.9	Φ15.9	
Backup electric heater	Capacity mounted		kW	3.0	3.0	4.5	
	Capacity steps			2	2	2	
	MOP		A	17	17	12.0	
	MCA		A	15	15	9.0	
	Power supply		V/Ph /Hz	220-240/1/50	220-240/1/50	380-415/3/50	

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1. Sound power level tested in average climate conditions, outdoor air temperature 7°C DB, 6°C DB; EWT 47°C, LWT 55°C.