

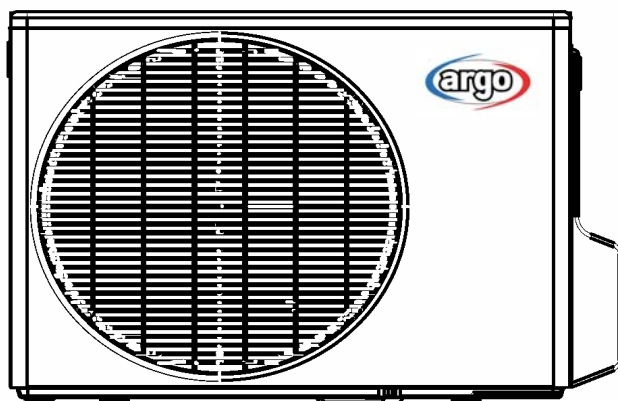
TECHNICAL DATA & SERVICE MANUAL

Euro-Line®

**OUTDOOR UNIT: AE22AC/ACL/AH
AE28AC/ACL/AH
AE38AC/ACL/AH
AE42AC/ACL/AH**

SPLIT SYSTEM AIR CONDITIONER

Model No.	Product Code No.
AE22AH	387031006
AE28AH	387031007
AE38AH	387031008
AE22AC	387031009
AE28AC	387031010
AE38AC	387031011
AE42AC	387031043
AE42AH	387031048
AE22ACL	387031053
AE28ACL	387031054
AE38ACL	387031055
AE42ACL	387031056



IMPORTANT!

Please read before installation

This air conditioning system meets strict safety and operating standards.

For the installer or service person, it is important to install or service the system so that it operates safely and efficiently.

For safe installation and trouble-free operation, you must:

- Carefully read this instruction booklet before beginning.
- Follow each installation or repair step exactly as shown.
- Observe all local, state and national electrical codes.
- Pay close attention to all warning and caution notices given in this manual.
- The unit must be supplied with a dedicated electrical line.



WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

If necessary, get help

These instructions are all you need for most installation sites and maintenance conditions.

If you require help for a special problem, contact our sale/service outlet or your certified dealer for additional instructions.

In case of improper installation

The manufacturer shall in no way be responsible for improper installation or maintenance service, including failure to follow the instructions in this document.

SPECIAL PRECAUTIONS

- During installation, connect before the refrigerant system and then the wiring one; proceed in the reverse order when removing the units.

WARNING

When wiring



ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIANS SHOULD ATTEMPT TO WIRE THIS SYSTEM.

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked, to ensure the grounding.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause **accidental injury and death.**

- **Ground the unit** following local electrical codes.
- The Yellow/Green wire cannot be used for any connection different from the ground connection.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.
- Do not allow wiring to touch the refrigerant tubing, compressor, or any moving parts of the fan.
- Do not use multi-core cable when wiring the power supply and control lines. Use separate cables for each type of line.

When transporting

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminium fins on the air conditioner can cut your fingers.

When installing...

... In a ceiling or wall

Make sure the ceiling/wall is strong enough to hold the unit-weight. It may be necessary to build a strong wooden or metal frame to provide added support.

... In a room

Properly insulate any tubing run inside a room to prevent "sweating", which can cause dripping and water damage to walls and floors.

... In moist or uneven locations

Use a raised concrete base to provide a solid level foundation for the outdoor unit.

This prevents damage and abnormal vibrations.

... In area with strong winds

Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.

... In a snowy area (for heat pump-type systems)

Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When connecting refrigerant tubing

- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Apply refrigerant lubricant to the matching surfaces of the flare and union tubes before connecting them; screw by hand and then tighten the nut with a torque wrench for a leak-free connection.
- Check carefully for leaks before starting the test run.

NOTE:

Depending on the system type, liquid and gas lines may be either narrow or wide. Therefore, to avoid confusion, the refrigerant tubing for your particular model is specified as narrow tube for liquid, wide tube for gas.

When servicing

- Turn the power OFF at the main power board before opening the unit to check or repair electrical parts and wiring.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after the work, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.
- Ventilate the room during the installation or testing the refrigeration system; make sure that, after the installation, no gas leaks are present, because this could produce toxic gas and dangerous if in contact with flames or heat-sources.

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1. OPERATING RANGE

	Temperature	Indoor Air Intake Temp.	Outdoor Air Intake Temp.
Cooling	Maximum	32°C D.B. / 23°C W.B.	46°C D.B.
	Minimum	21°C D.B. / 15°C W.B.	10°C D.B. / -10°C D.B.(*)
Heating	Maximum	27°C D.B.	24°C D.B. / 18°C W.B.
	Minimum	-	-9°C D.B. / -10°C W.B.

(*) Only for models:
 AE22ACL
 AE28ACL
 AE38ACL
 AE42ACL

2. SPECIFICATIONS

2-1 Unit Specifications

AE22AC/ACL/AH

Power source	220 - 240V ~ 50Hz
--------------	-------------------

Voltage rating	230V
----------------	------

Performance *	AW22AL	Cooling	Heating
Capacity	kW	2,32	2,44
	BTU/h	7920	8330
Air circulation (High)	m³/h	380	
Moisture removal (High)	Liters/h	0,8	-

Electrical Rating		Cooling	Heating
Available voltage range	V	198 ~ 264	
Running amperes	A	3,1	2,95
Power input	W	680	665
Power factor	%	95	98
C.O.P.	W/W	3,41	3,7
Compressor locked rotor amperes	A	15	

Features			
Fan speed		1(Hi)	
Compressor		Rotary (Hermetic)	
Refrigerant / Amount charged at shipment	g	R410A / 0,77	R410A / 0,89
Refrigerant control		Capillary tube	
Power sound level	Hi	dB-A	56
Refrigerant tubing connections		Flare type	
Max. allowable tubing length at shipment	m	7,5	
Refrigerant tube diameter	Narrow tube	mm(in.)	6,35 (1/4")
	Wide tube	mm(in.)	9,52(3/8")

Dimensions & Weight			
Unit dimensions	Height	mm	610
	Width	mm	795
	Depth	mm	290
Package dimensions	Height	mm	655
	Width	mm	945
	Depth	mm	395
Weight	Net	kg	31
	Shipping	kg	35
Shipping volume		m³	0,24

DATA SUBJECT TO CHANGE WITHOUT NOTICE

Remarks:

Rating conditions are:

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating: Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

* For other INDOOR UNITS' MODELS, please refer to catalogue

AE28AC/ACL/AH

Power source	220 - 240V ~ 50Hz
--------------	-------------------

Voltage rating	230V
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Performance *	AW28AL	Cooling	Heating
Capacity	kW	2,75	2,85
	BTU/h	9380	9720
Air circulation (High)	m³/h	450	
Moisture removal (High)	Liters/h	1,1	-

Electrical Rating		Cooling	Heating
Available voltage range	V	198 ~ 264	
Running amperes	A	3,6	4
Power input	W	800	890
Power factor	%	97	97
C.O.P.	W/W	3,44	3,20
Compressor locked rotor amperes	A	18,7	

Features			
Fan speed		1(Hi)	
Compressor		Rotary (Hermetic)	
Refrigerant / Amount charged at shipment	g	R410A / 0,96	R410A / 1,0
Refrigerant control		Capillary tube	
Operation Sound	Hi	dB-A	58
Refrigerant tubing connections		Flare type	
Max. allowable tubing length at shipment	m	7,5	
Refrigerant tube diameter	Narrow tube	mm(in.)	6,35 (1/4")
	Wide tube	mm(in.)	9,52(3/8")

Dimensions & Weight			
Unit dimensions	Height	mm	610
	Width	mm	795
	Depth	mm	290
Package dimensions	Height	mm	655
	Width	mm	945
	Depth	mm	395
Weight	Net	kg	34
	Shipping	kg	38
Shipping volume		m³	0,24

DATA SUBJECT TO CHANGE WITHOUT NOTICE

Remarks:

Rating conditions are:

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating: Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

* For other INDOOR UNITS' MODELS, please refer to catalogue

AE38AC/ACL/AH

Power source	220 - 240V ~ 50Hz
--------------	-------------------

Voltage rating	230V
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Performance *	AW38AL	Cooling	Heating
Capacity	kW	3,63	4,00
	BTU/h	12380	13640
Air circulation (High)	m³/h	635	
Moisture removal (High)	Liters/h	1,5	-

Electrical Rating		Cooling	Heating
Available voltage range	V	198 ~ 264	
Running amperes	A	5,00	5,1
Power input	W	1115	1140
Power factor	%	97	97
C.O.P.	W/W	3,26	3,51
Compressor locked rotor amperes	A	25	

Features			
Fan speed		1(Hi)	
Compressor		Rotary (Hermetic)	
Refrigerant / Amount charged at shipment	g	R410A / 1,15	
Refrigerant control		Capillary tube	
Operation Sound	Hi	dB-A	62
Refrigerant tubing connections		Flare type	
Max. allowable tubing length at shipment	m	7,5	
Refrigerant tube diameter	Narrow tube	mm(in.)	6,35 (1/4")
	Wide tube	mm(in.)	9,52(3/8")

Dimensions & Weight			
Unit dimensions	Height	mm	610
	Width	mm	795
	Depth	mm	290
Package dimensions	Height	mm	655
	Width	mm	945
	Depth	mm	395
Weight	Net	kg	35
	Shipping	kg	39
Shipping volume		m³	0,24

DATA SUBJECT TO CHANGE WITHOUT NOTICE

Remarks:

Rating conditions are:

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating: Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

* For other INDOOR UNITS' MODELS, please refer to catalogue

AE42AC/ACL/AH

Power source	220 - 240V ~ 50Hz
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Voltage rating	230V
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Performance *	AW42AL	Cooling	Heating
Capacity	kW	4,00	4,48
	BTU/h	13640	15280
Air circulation (High)	m³/h	660	
Moisture removal (High)	Liters/h	1,5	-

Electrical Rating		Cooling	Heating
Available voltage range	V	198 ~ 264	
Running amperes	A	6,1	6,5
Power input	W	1330	1395
Power factor	%	95	93
C.O.P.	W/W	3,01	3,21
Compressor locked rotor amperes	A	30	

Features			
Fan speed		1(Hi)	
Compressor		Rotary (Hermetic)	
Refrigerant / Amount charged at shipment	g	R410A / 1,34	
Refrigerant control		Capillary tube	
Operation Sound	Hi	dB-A	63
Refrigerant tubing connections		Flare type	
Max. allowable tubing length at shipment	m	7,5	
Refrigerant tube diameter	Narrow tube	mm(in.)	6,35 (1/4")
	Wide tube	mm(in.)	12,7(1/2")

Dimensions & Weight			
Unit dimensions	Height	mm	610
	Width	mm	795
	Depth	mm	290
Package dimensions	Height	mm	655
	Width	mm	945
	Depth	mm	395
Weight	Net	kg	41,5
	Shipping	kg	45,5
Shipping volume		m³	0,24

DATA SUBJECT TO CHANGE WITHOUT NOTICE

Remarks:

Rating conditions are:

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating: Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

* For other INDOOR UNITS' MODELS, please refer to catalogue

2-2 Major Component Specifications

Outdoor Unit: AE22AC/ACL/AH

Compressor			
Type			Rotary (Hermetic)
Compressor model			GK086PAE
Nominal output	W		2022 (at 220V)
Compressor oil...Amount	cc.		FVC68D...330±10
Coil resistance (Ambient temp. 25°C)	Ω		C-R: 4,8 C-S: 4,76
Safety devices	Type		External protector
	Overload relay		MRA98854-12026
	Operating Temp. Open	°C	150±5
	Close	°C	75±9
Run capacitor		μF	25
		VAC	370

Fan & Fan Motor			
Type			Propeller
Q'ty Dia.			1.... Ø 400
Fan motor model...Q'ty			YYK30Z-6...1
No. Of poles...rpm (230 V, High)			6...680
Nominal output	W		16
Coil resistance (Ambient temp. 20 °C)	Ω		-
	Ω		-
	Ω		-
Safety devices	Type		Internal thermal protector
	Operating temp. Open	°C	130
	Close	°C	-
Run capacitor		μF	1,5
		VAC	400

Heat Exch. Coil	
Coil	Aluminium plate fin / Copper tube
Rows	1
Fin pitch	mm 1,4
Face area	m ² 0,454

External Finish	Acrylic baked-on enamel finish
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Outdoor Unit: AE28AC/ACL/AH

Compressor			
Type			Rotary
Compressor model			GK113PAG
Nominal output	W		2637 (at 220V)
Compressor oil...Amount	cc.		FVC68D...330±10
Coil resistance (Ambient temp. 20°C)	Ω		C-R:4.02
			C-S:4.19
Safety devices	Type		External - MRA12130-12026
	Operating Temp. Open	°C	150±5
	Close	°C	69±9
Run capacitor		μF	30
		VAC	370

Fan & Fan Motor			
Type			Propeller
Q'ty Dia.			1.... Ø 400
Fan motor model...Q'ty			YDK30-6V...1
No. Of poles...rpm (230 V, High)			6...780
Nominal output	W		23
Coil resistance (Ambient temp. 20 °C)	Ω		-
	Ω		-
	Ω		-
Safety devices	Type		Internal thermal protector
	Operating temp. Open	°C	130
	Close	°C	-
Run capacitor		μF	2
		VAC	400

Heat Exch. Coil			
Coil			Aluminium plate fin / Copper tube
Rows			2
Fin pitch	mm		1,7
Face area	m ²		0,452

External Finish	Acrylic baked-on enamel finish
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DATA SUBJECT TO CHANGE WITHOUT NOTICE

Outdoor Unit: AE38AC/ACL/AH

Compressor			
Type	Rotary		
Compressor model	PA145X2C-4FT		
Nominal output	W	3520 (at 220V)	
Compressor oil...Amount	cc.	RB68AF/T68/α68TF...480	
Coil resistance (Ambient temp. 20°C)	Ω	C-R:2,35	
		C-S:3,22	
		Internal - UP3RE0591-T56	
Safety devices	Type		
	Operating Temp. Open	°C	-
	Close	°C	-
Operating current (at 25°C)		A	29,9
Run capacitor	μF	35	
	VAC	370	

Fan & Fan Motor			
Type	Propeller		
Q'ty Dia.	1.... Ø 400		
Fan motor model...Q'ty	YDK24-6V...1		
No. Of poles...rpm (230 V, High)	6...810		
Nominal output	W	25	
Coil resistance (Ambient temp. 20 °C)	Ω	-	
	Ω	-	
	Ω	-	
Safety devices	Type	Internal thermal protector	
	Operating temp. Open	°C	130
	Close	°C	-
Run capacitor	μF	2	
	VAC	400	

Heat Exch. Coil			
Coil	Aluminium plate fin / Copper tube		
Rows	2		
Fin pitch	mm	1,7	
Face area	m ²	0,452	

External Finish	Acrylic baked-on enamel finish
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DATA SUBJECT TO CHANGE WITHOUT NOTICE

Outdoor Unit: AE42AC/ACL/AH

Compressor			
Type		Rotary	
Compressor model		RN 165 VHSMT	
Nominal output	W	4070 (at 220V)	
Compressor oil...Amount	cc.	MEL56...520	
Coil resistance (Ambient temp. 20°C)	Ω	C-R:2,23	
		C-S:4,07	
		Internal - UP3QF0501-T56	
Safety devices	Type		
	Operating Temp. Open	°C	150±5
	Close	°C	90±10
Operating current (at 25°C)		A	Trip in 3 to 10 s at 36A
Run capacitor	μ F	30	
	VAC	400	

Fan & Fan Motor			
Type		Propeller	
Q'ty Dia.		1.... Ø 400	
Fan motor model...Q'ty		YDK-030S62213-03...1	
No. Of poles...rpm (230 V, High)		6...910	
Nominal output	W	30	
Coil resistance (Ambient temp. 20 °C)	Ω	-	
	Ω	-	
	Ω	-	
Safety devices	Type	Internal thermal protector	
	Operating temp. Open	°C	130
	Close	°C	-
Run capacitor	μ F	2	
	VAC	400	

Heat Exch. Coil			
Coil		Aluminium plate fin / Copper tube	
Rows		3	
Fin pitch	mm	1,6	
Face area	m ²	0,436	

External Finish	Acrylic baked-on enamel finish
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DATA SUBJECT TO CHANGE WITHOUT NOTICE

2-3 Other Component Specifications

Outdoor Unit: **AE22AC/ACL/AH**
AE28AC/ACL/AH

4-way Valve (20S)		SQ-213(Coil) SHF-4H-23U(Valve)
Coil rating		AC 220/240V,50Hz,6W
Coil resistance	Ω (at 20°C)	-

Outdoor sensor		
Resistance	Ω (at 25°C)	10K $\pm$ 2%

AE38AC/ACL/AH

4-way Valve (20S)		SQ-213(Coil) SHF-7H-34U(Valve)
Coil rating		AC 220/240V,50Hz,6W
Coil resistance	Ω (at 20°C)	-

Outdoor sensor		
Resistance	Ω (at 25°C)	10K $\pm$ 2%

AE42AC/ACL/AH

4-way Valve (20S)		SQ-213(Coil) SHF-7H-34U(Valve)
Coil rating		AC 220/240V,50Hz,6W
Coil resistance	Ω (at 20°C)	-

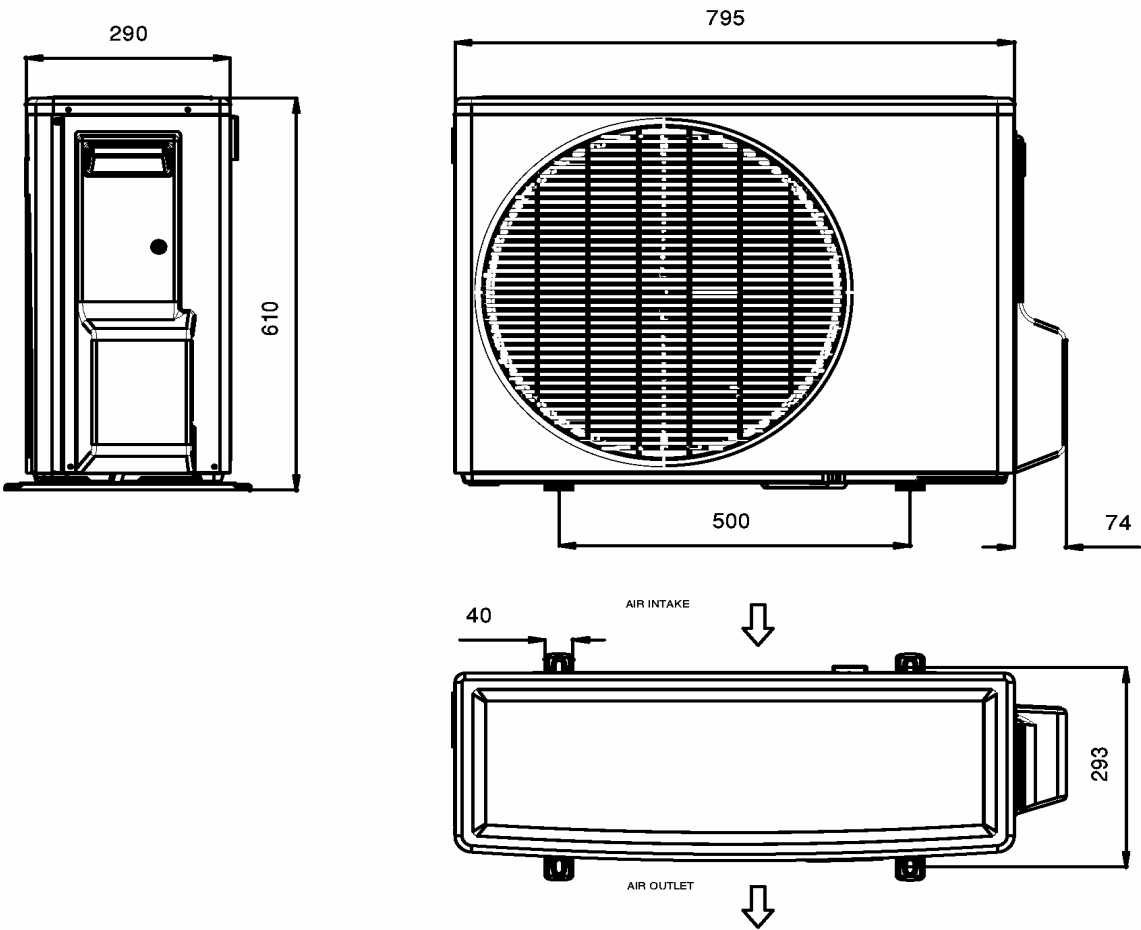
Power Relay		
Type		CJX9B-25S/01TH
Coil Rating		AC 220/230V,50Hz/60Hz
Coil resistance	Ω (at 20°C)	1100 Ω $\pm$ 10%
Contact Rating		25A

Outdoor sensor		
Resistance	Ω (at 25°C)	10K $\pm$ 2%

AE22ACL
AE28ACL
AE38ACL
AE42ACL

Low ambient kit		RGE-Z1L6-5B
Rating		AC 230V 50 Hz
Setpoint	MPa	2.4 $\pm$ 0.05

3. DIMENSIONAL DATA



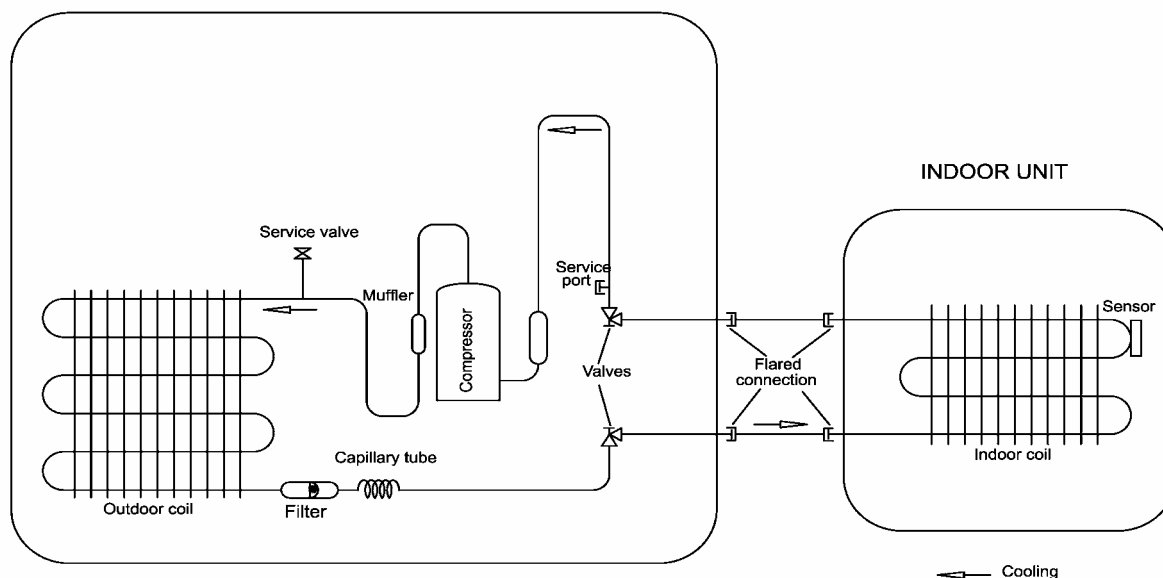
4. REFRIGERANT FLOW DIAGRAM

Indoor Unit: AW22AL

Outdoor Unit: AE22AC/ACL/AH

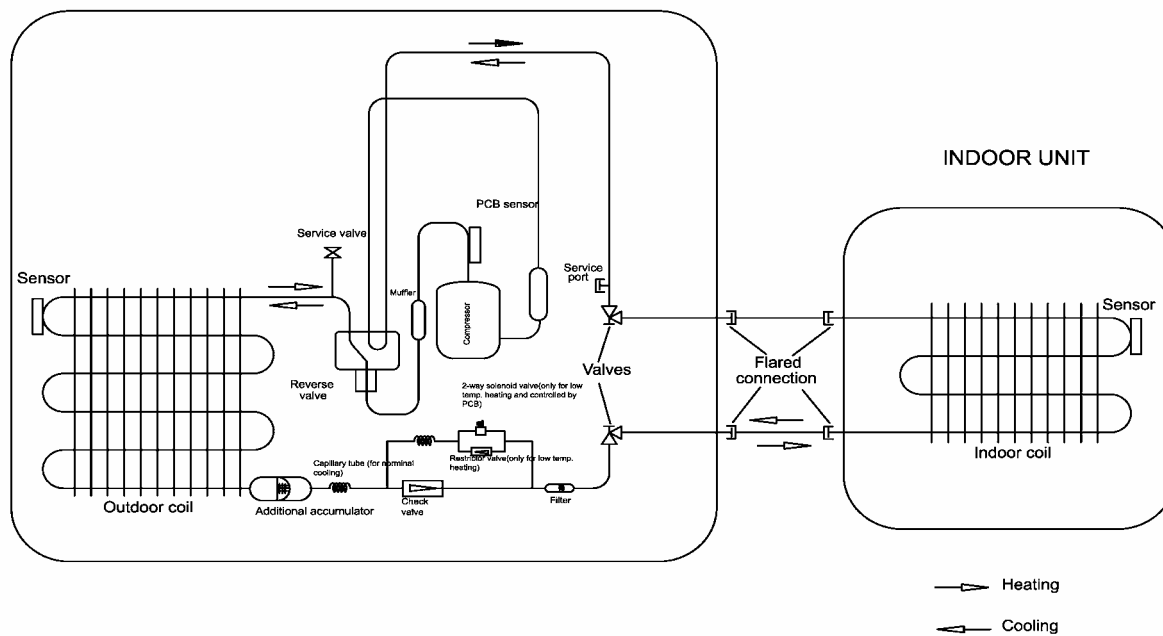
OUTDOOR UNIT

INDOOR UNIT



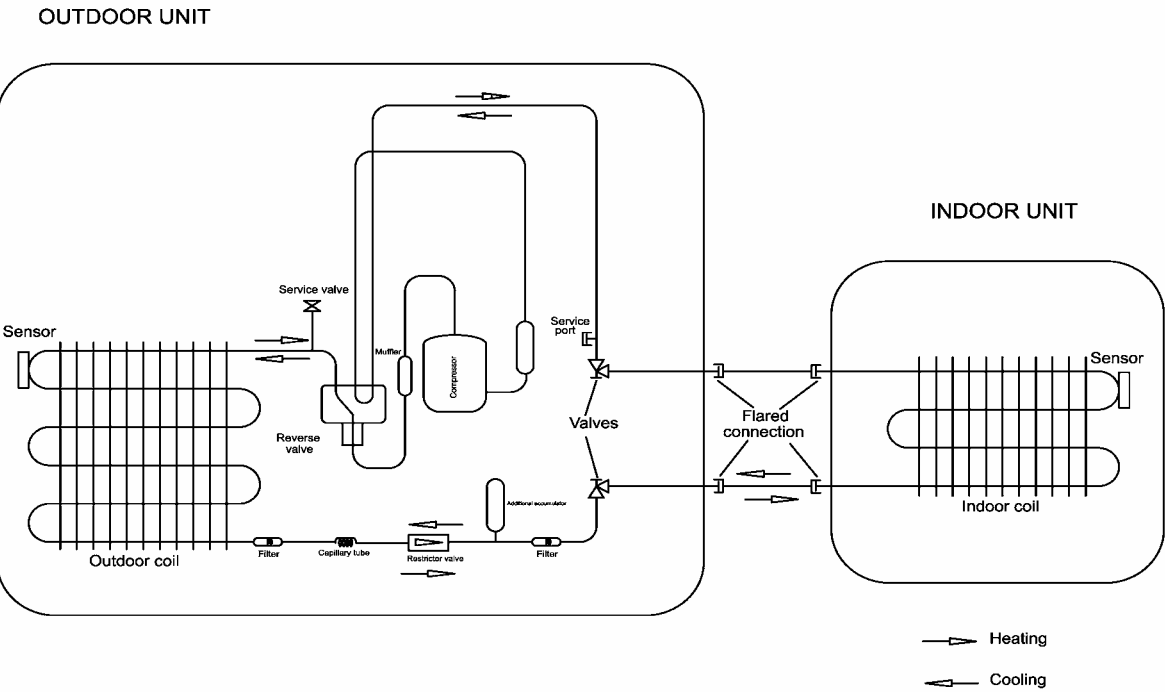
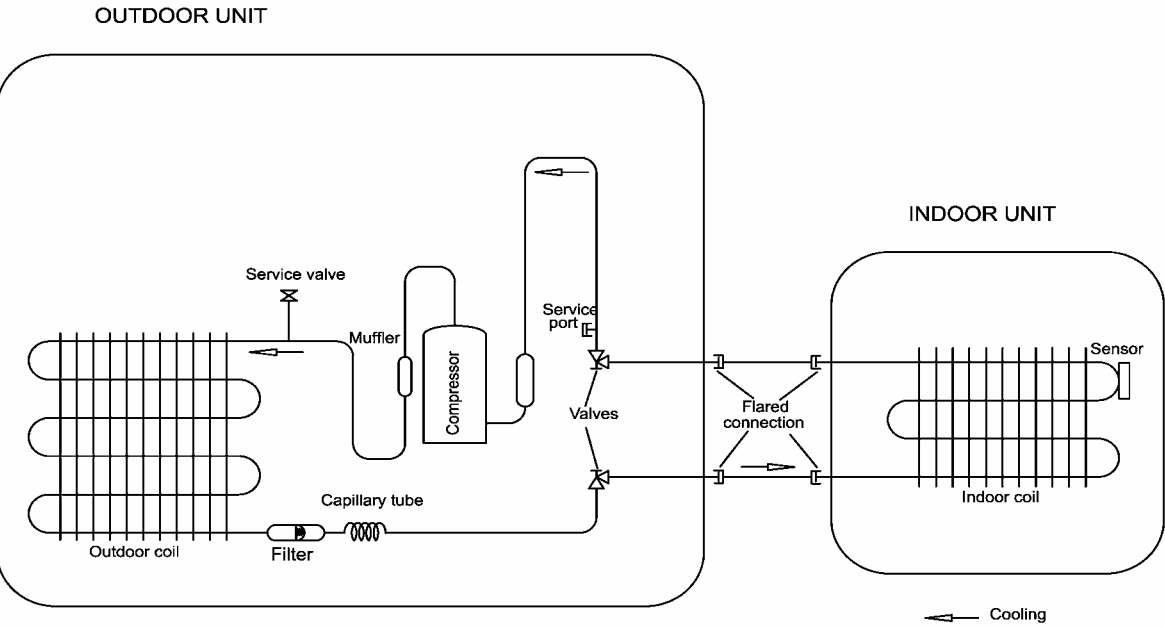
OUTDOOR UNIT

INDOOR UNIT



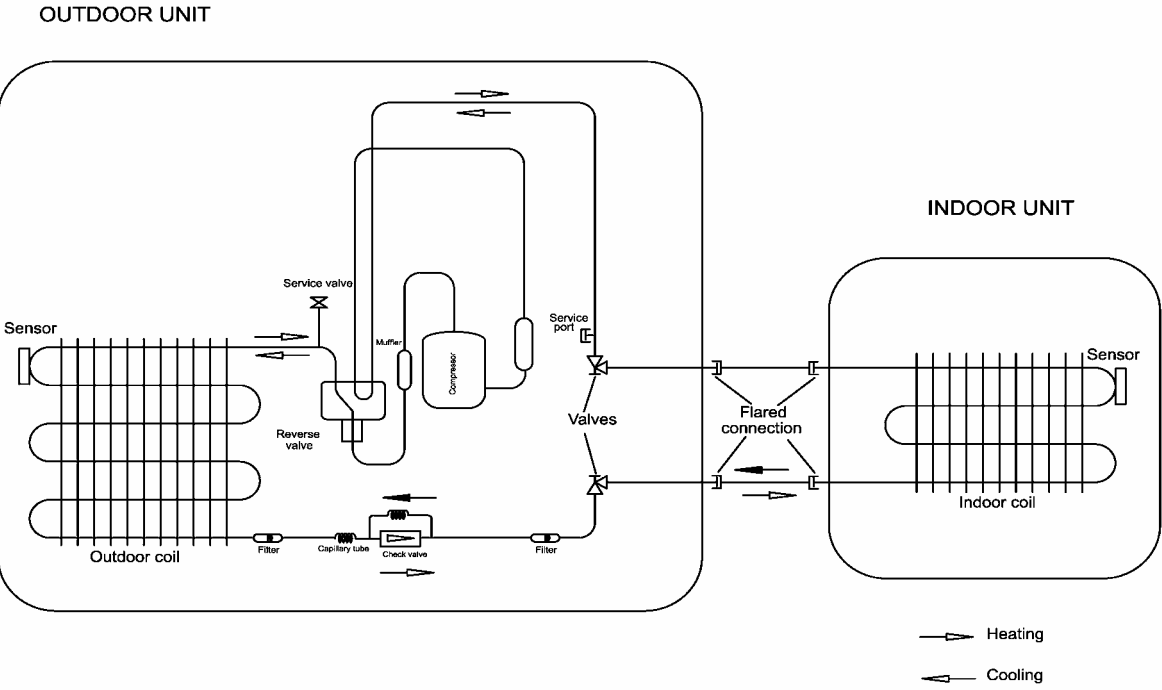
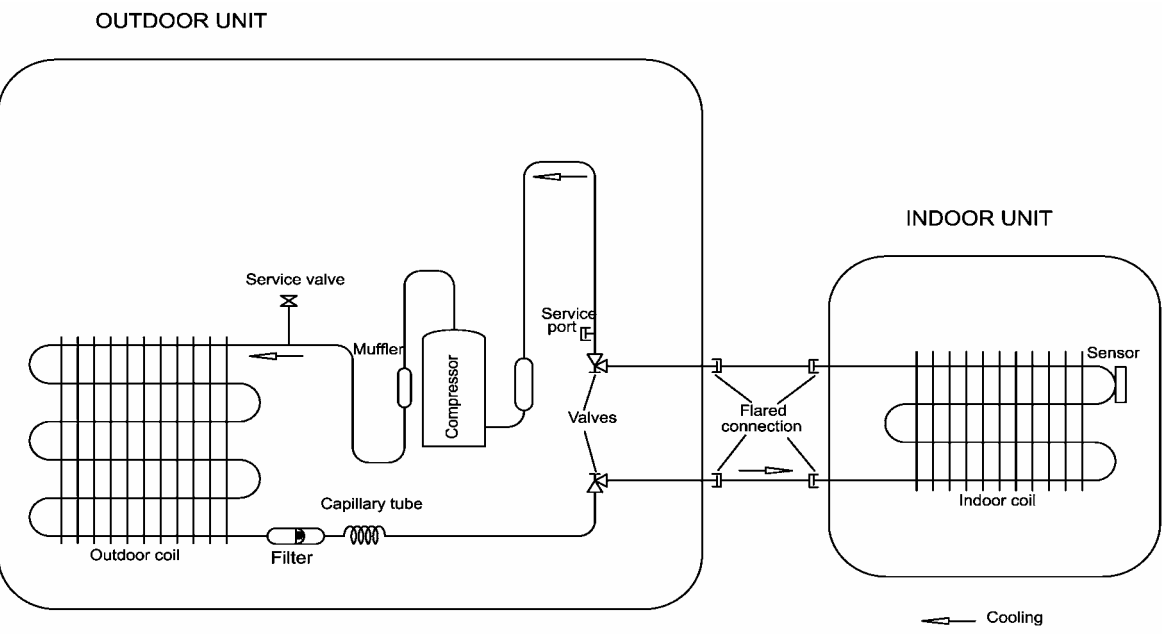
Indoor Unit: **AW28AL**

Outdoor Unit: **AE28AC/ACL/AH**



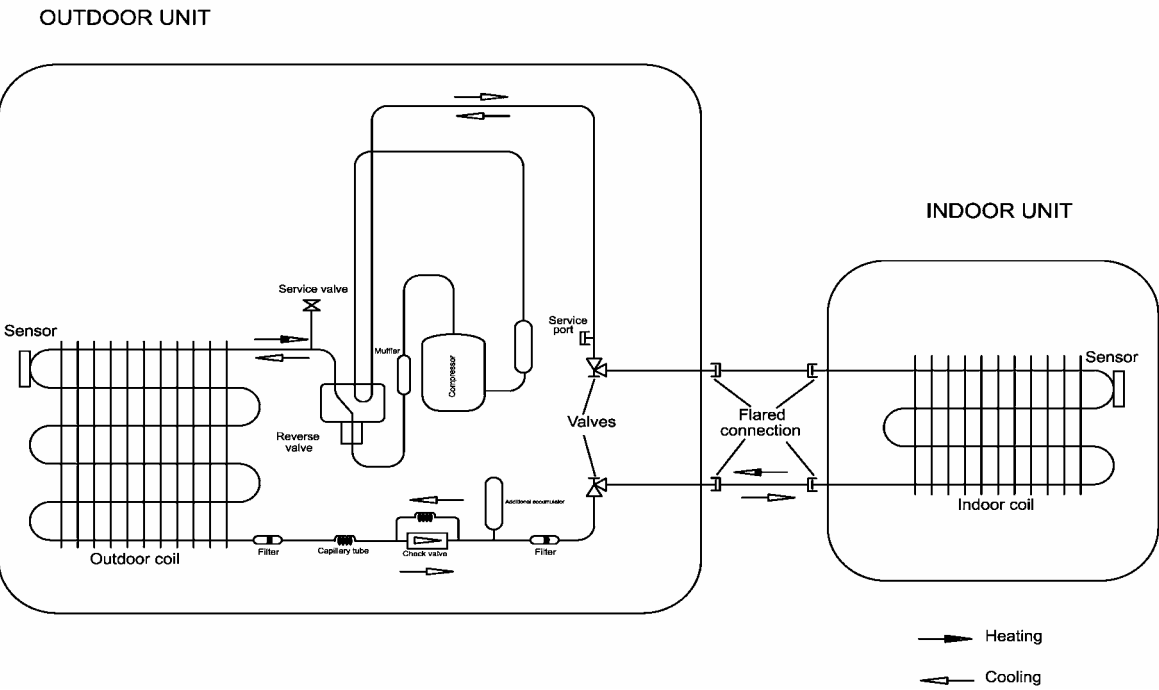
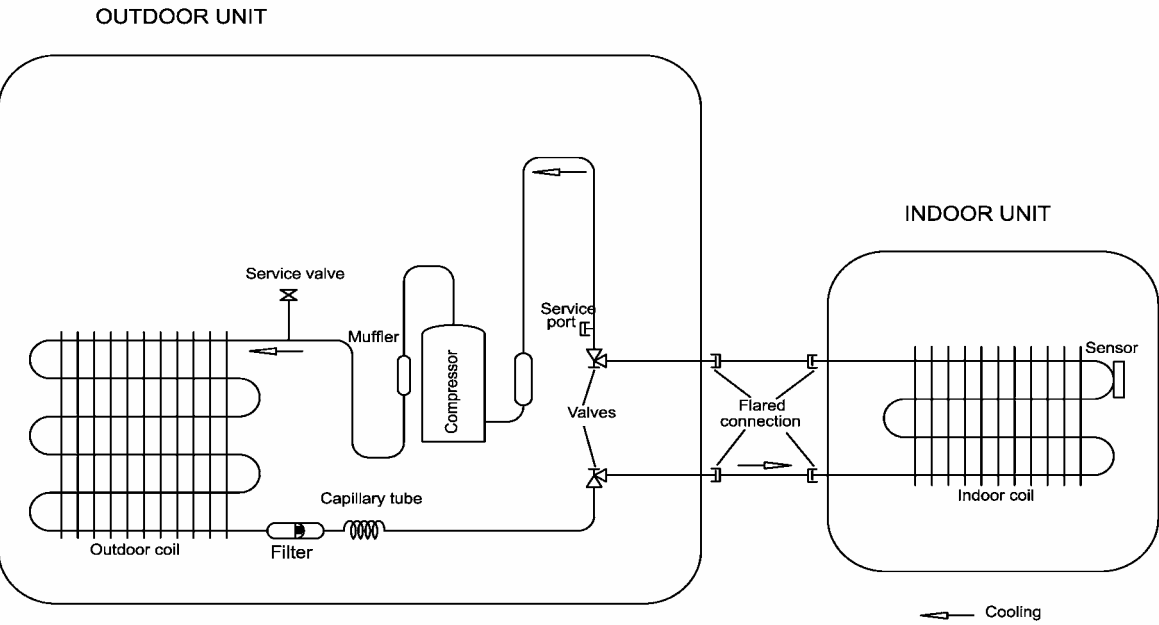
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Outdoor Unit: **AE38AC/ACL/AH**



Indoor Unit: **AW42AL**

Outdoor Unit: **AE42AC/ACL/AH**

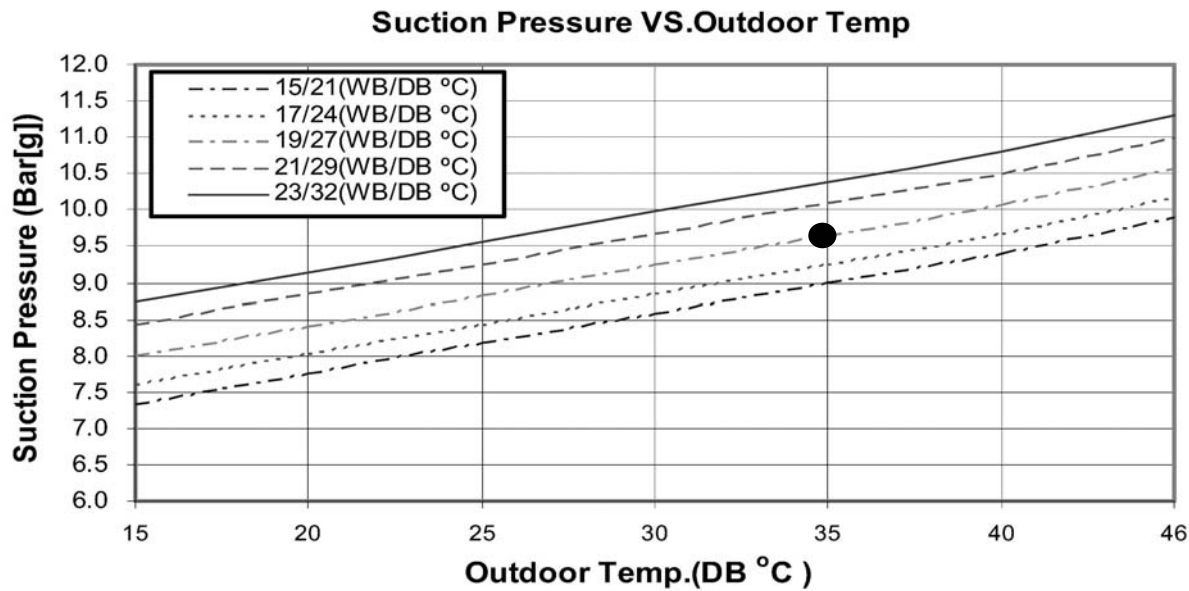


5. PERFORMANCE DATA

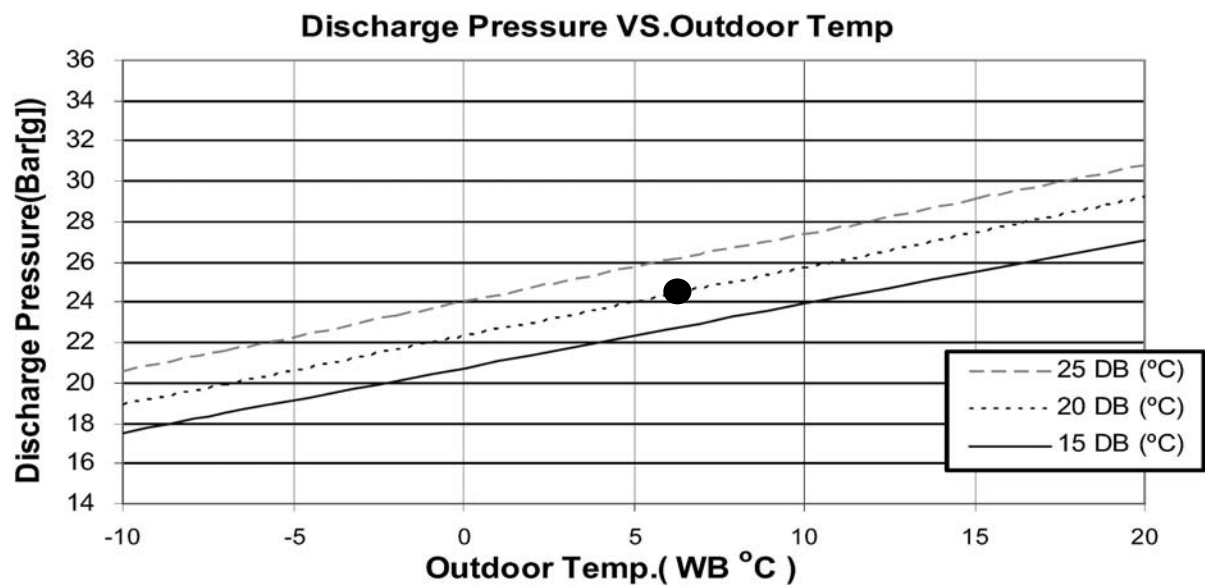
5-1 Performance charts

AE22AC/ACL/AH

■ Cooling Characteristics



■ Heating Characteristics



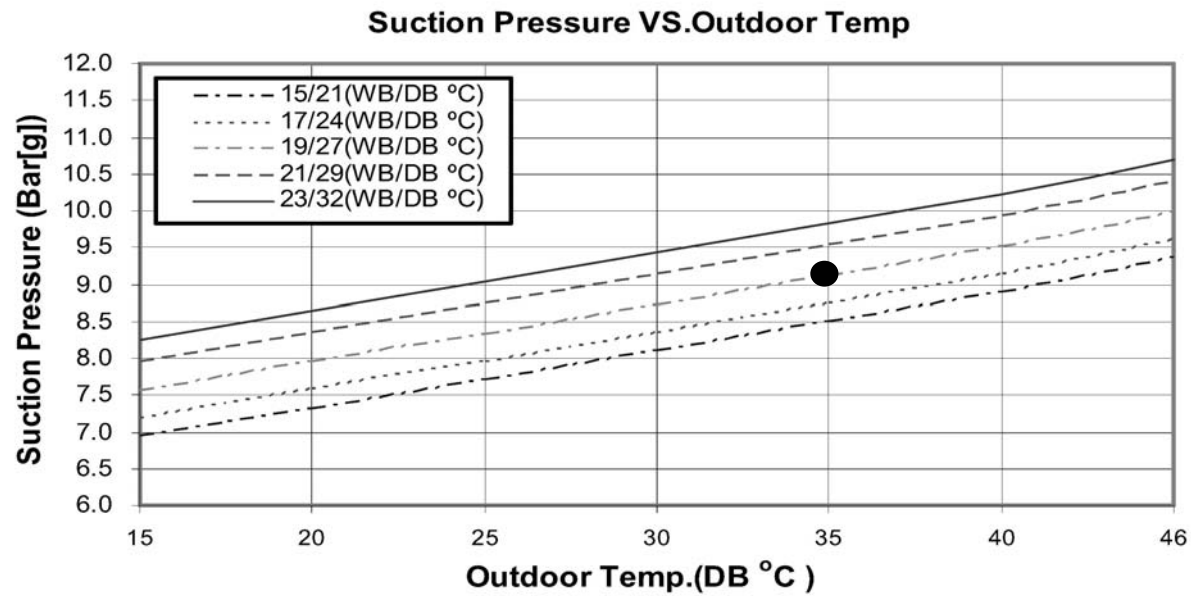
Notes:

● Points of Rating condition

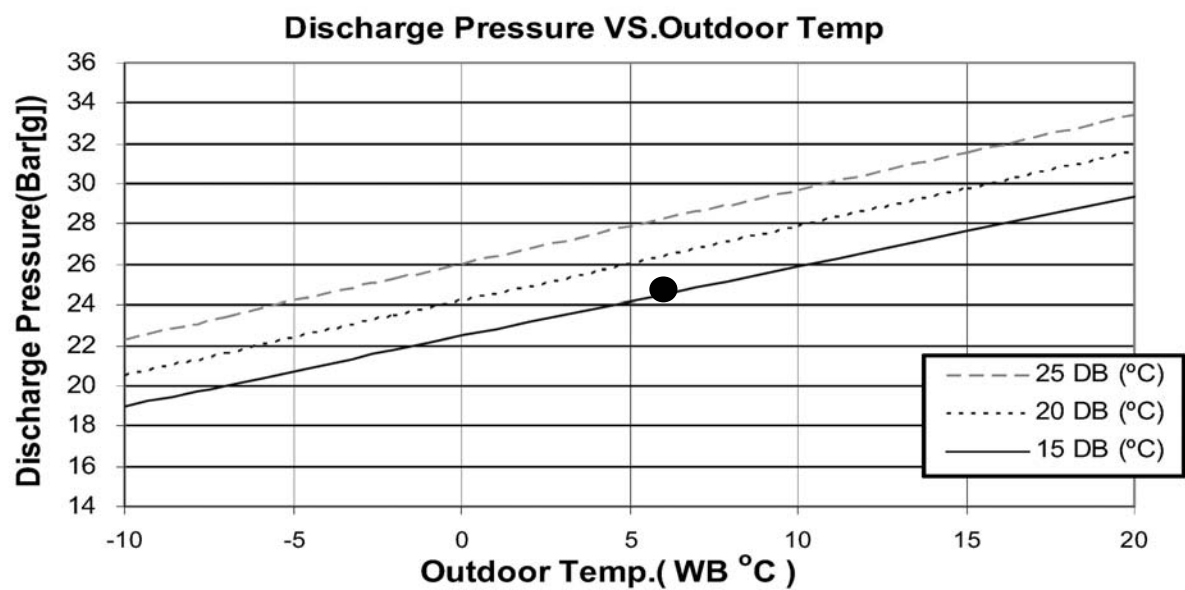
Data related to matching with AW22AL

AE28AC/ACL/AH

■ Cooling Characteristics



■ Heating Characteristics



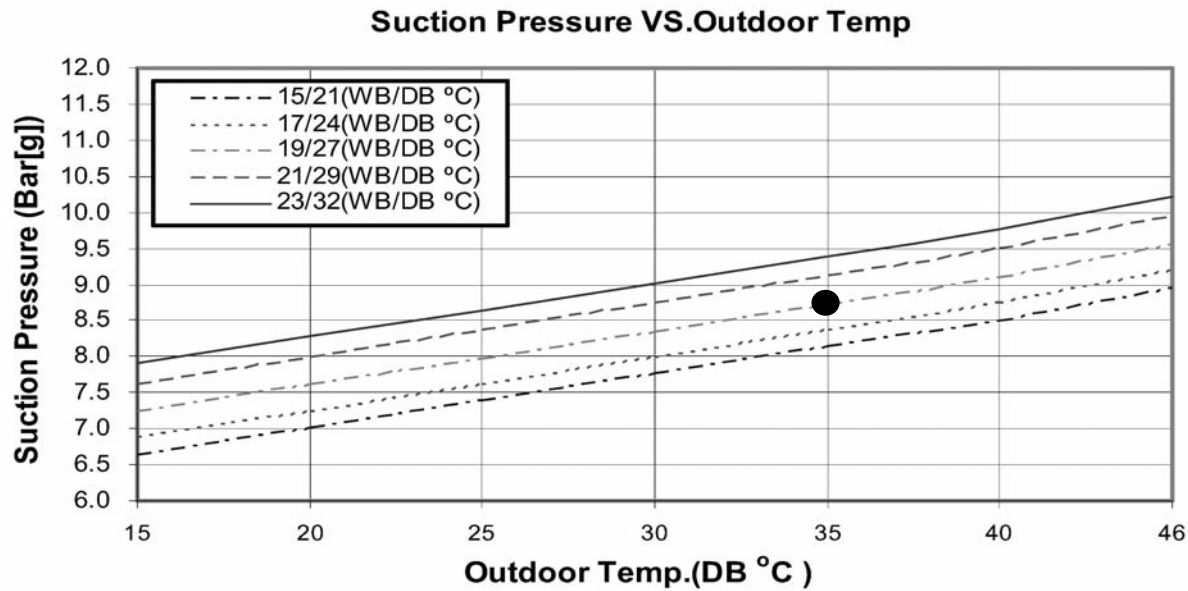
Notes:

● Points of Rating condition

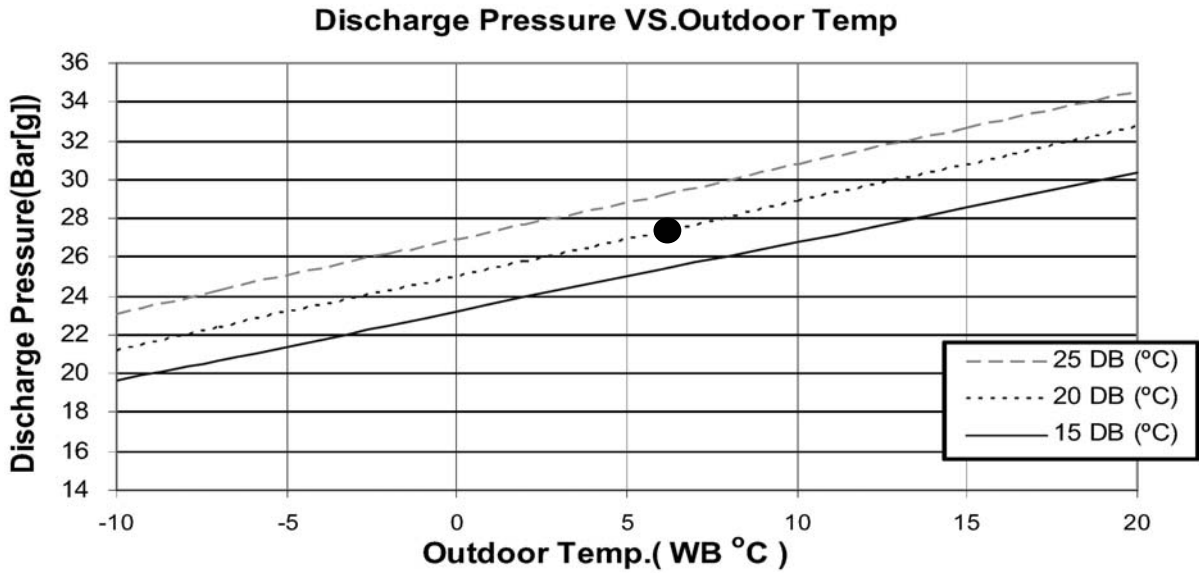
Data related to matching with AW28AL

AE38AC/ACL/AH

■ Cooling Characteristics



■ Heating Characteristics



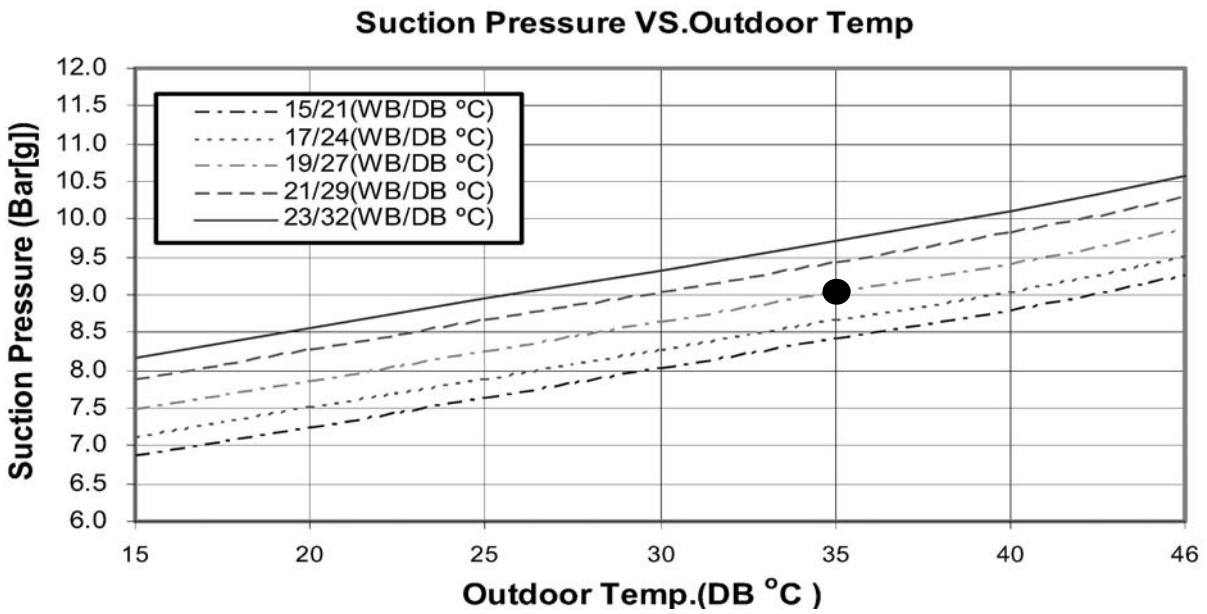
Notes:

- Points of Rating condition

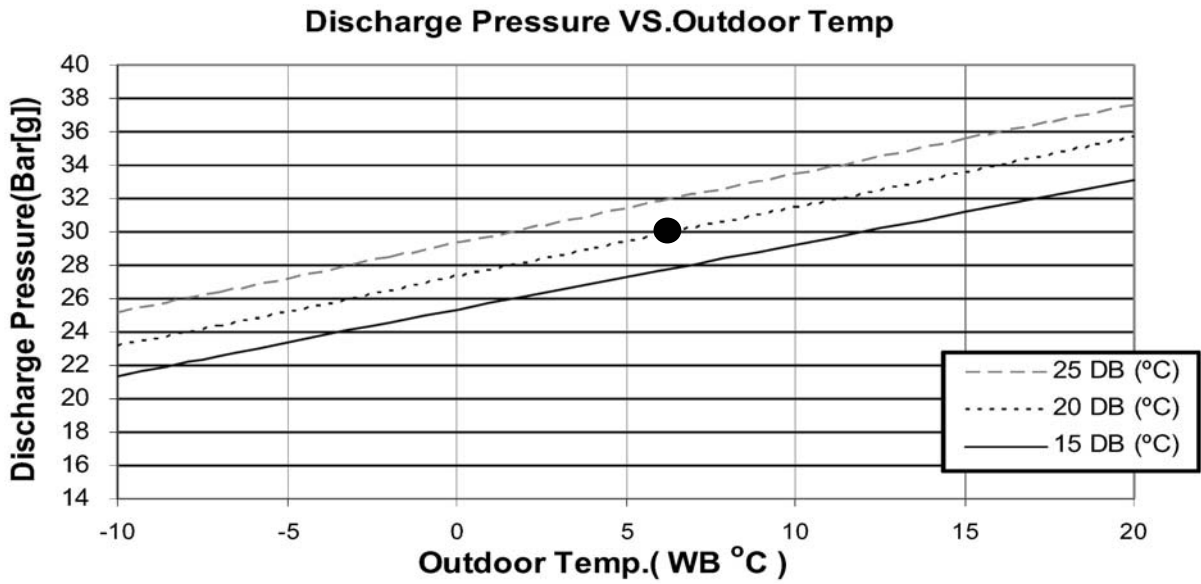
Data related to matching with AW38AL

AE42AC/ACL/AH

■ Cooling Characteristics



■ Heating Characteristics



Notes:

- Points of Rating condition

Data related to matching with AW42AL

5-2 Cooling Capacity

OUTDOOR UNIT: AE22AC/ACL/AH

INDOOR UNIT: AW22AL

220 - 240V ~ 50Hz

RATING CAPACITY	2,32 kW	moisture removal	0,8 l/h
POWER INPUT	0,68 kW	max power input	0,8 kW
AIR FLOW RATE	380 m³/h		

ENTERING AIR DB OU COIL (°C)	DATA	ENTERING AIR WB/DB ID COIL (°C)				
		15/21	17/24	19/27	21/29	23/32
15	TC	2.37	2.51	2.62	2.74	2.83
	SC	1.69	1.79	1.89	1.85	1.88
	PI	0.48	0.48	0.48	0.49	0.49
20	TC	2.34	2.48	2.60	2.71	2.81
	SC	1.67	1.77	1.88	1.82	1.86
	PI	0.52	0.52	0.53	0.53	0.53
25	TC	2.25	2.41	2.55	2.67	2.76
	SC	1.65	1.76	1.86	1.83	1.88
	PI	0.56	0.57	0.57	0.58	0.58
30	TC	2.11	2.27	2.46	2.55	2.64
	SC	1.56	1.69	1.82	1.79	1.86
	PI	0.61	0.62	0.62	0.63	0.63
35	TC	1.95	2.11	2.32	2.44	2.53
	SC	1.47	1.60	1.75	1.73	1.80
	PI	0.66	0.67	0.68	0.69	0.69
40	TC	1.76	1.93	2.13	2.25	2.34
	SC	1.37	1.50	1.66	1.63	1.71
	PI	0.71	0.72	0.73	0.74	0.75
46	TC	1.53	1.69	1.90	2.02	2.11
	SC	1.24	1.38	1.55	1.52	1.59
	PI	0.78	0.79	0.81	0.82	0.82

LEGEND

TC – Total Cooling Capacity, kW
 SC – Sensible Capacity, kW
 PI – Power Input, kW
 WB – Wet Bulb Temp., (°C)
 DB – Dry Bulb Temp., (°C)
 ID – Indoor
 OU – Outdoor

RATING CONDITIONS

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

NOTE: Data related to matching with AW22AL

OUTDOOR UNIT: **AE28AC/ACL/AH**

INDOOR UNIT: **AW28AL**

220 - 240V ~ 50Hz

RATING CAPACITY	2,75 kW	moisture removal	1,1 l/h
POWER INPUT	0,8 kW	max power input	1 kW
AIR FLOW RATE	450 m³/h		

ENTERING AIR DB OU COIL (°C)	DATA	ENTERING AIR WB/DB ID COIL (°C)				
		15/21	17/24	19/27	21/29	23/32
15	TC	2.81	2.97	3.11	3.25	3.36
	SC	1.99	2.11	2.23	2.17	2.21
	PI	0.57	0.57	0.57	0.57	0.57
20	TC	2.78	2.94	3.08	3.22	3.33
	SC	1.98	2.10	2.22	2.16	2.21
	PI	0.61	0.62	0.62	0.62	0.63
25	TC	2.67	2.86	3.03	3.16	3.27
	SC	1.94	2.07	2.19	2.15	2.21
	PI	0.66	0.67	0.67	0.68	0.68
30	TC	2.50	2.70	2.92	3.03	3.14
	SC	1.84	1.99	2.15	2.10	2.19
	PI	0.72	0.73	0.74	0.74	0.74
35	TC	2.31	2.50	2.75	2.89	3.00
	SC	1.73	1.88	2.06	2.04	2.12
	PI	0.78	0.79	0.80	0.81	0.81
40	TC	2.09	2.28	2.53	2.67	2.78
	SC	1.61	1.77	1.95	1.92	2.01
	PI	0.84	0.85	0.86	0.87	0.88
46	TC	1.82	2.01	2.26	2.39	2.50
	SC	1.46	1.62	1.83	1.79	1.88
	PI	0.92	0.93	0.95	0.96	0.97

LEGEND

TC – Total Cooling Capacity, kW
 SC – Sensible Capacity, kW
 PI – Power Input, kW
 WB – Wet Bulb Temp., (°C)
 DB – Dry Bulb Temp., (°C)
 ID – Indoor
 OU – Outdoor

RATING CONDITIONS

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

NOTE: Data related to matching with AW28AL

OUTDOOR UNIT: **AE38AC/ACL/AH**

INDOOR UNIT: **AW38AL**

220 - 240V ~ 50Hz

RATING CAPACITY	3,63 kW	moisture removal	1,5 l/h
POWER INPUT	1,115 kW	max power input	1,5 kW
AIR FLOW RATE	635 m³/h		

ENTERING AIR DB OU COIL (°C)	DATA	ENTERING AIR WB/DB ID COIL (°C)				
		15/21	17/24	19/27	21/29	23/32
15	TC	3.70	3.92	4.10	4.28	4.43
	SC	2.64	2.80	2.95	2.88	2.93
	PI	0.79	0.79	0.79	0.80	0.80
20	TC	3.67	3.88	4.07	4.25	4.39
	SC	2.61	2.78	2.94	2.85	2.91
	PI	0.86	0.86	0.86	0.87	0.87
25	TC	3.52	3.78	3.99	4.17	4.32
	SC	2.57	2.75	2.91	2.85	2.93
	PI	0.92	0.93	0.94	0.95	0.95
30	TC	3.30	3.56	3.85	3.99	4.14
	SC	2.44	2.63	2.84	2.79	2.90
	PI	1.00	1.01	1.02	1.03	1.04
35	TC	3.05	3.30	3.63	3.81	3.96
	SC	2.30	2.50	2.73	2.70	2.81
	PI	1.08	1.10	1.12	1.12	1.13
40	TC	2.76	3.01	3.34	3.52	3.67
	SC	2.13	2.35	2.58	2.54	2.67
	PI	1.16	1.18	1.20	1.22	1.22
46	TC	2.40	2.65	2.98	3.16	3.30
	SC	1.94	2.15	2.42	2.38	2.49
	PI	1.28	1.30	1.32	1.34	1.35

LEGEND

TC – Total Cooling Capacity, kW
 SC – Sensible Capacity, kW
 PI – Power Input, kW
 WB – Wet Bulb Temp., (°C)
 DB – Dry Bulb Temp., (°C)
 ID – Indoor
 OU – Outdoor

RATING CONDITIONS

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

NOTE: Data related to matching with AW38AL

OUTDOOR UNIT: **AE42AC/ACL/AH**

INDOOR UNIT: **AW42AL**

220 - 240V ~ 50Hz

RATING CAPACITY	4,00 kW	moisture removal	1,5 l/h
POWER INPUT	1,33 kW	max power input	1,8 kW
AIR FLOW RATE	660 m³/h		

ENTERING AIR DB OU COIL (°C)	DATA	ENTERING AIR WB/DB ID COIL (°C)				
		15/21	17/24	19/27	21/29	23/32
15	TC	4.08	4.32	4.52	4.72	4.88
	SC	2.69	2.85	3.00	2.93	2.98
	PI	0.94	0.95	0.95	0.95	0.95
20	TC	4.04	4.28	4.48	4.68	4.84
	SC	2.88	3.06	3.23	3.14	3.21
	PI	1.02	1.03	1.03	1.04	1.04
25	TC	3.88	4.16	4.40	4.60	4.76
	SC	2.61	2.80	2.96	2.91	2.98
	PI	1.10	1.11	1.12	1.13	1.13
30	TC	3.64	3.92	4.24	4.40	4.56
	SC	2.48	2.68	2.90	2.84	2.95
	PI	1.19	1.21	1.22	1.23	1.24
35	TC	3.36	3.64	4.00	4.20	4.36
	SC	2.34	2.54	2.78	2.75	2.86
	PI	1.29	1.31	1.33	1.34	1.35
40	TC	3.04	3.32	3.68	3.88	4.04
	SC	2.17	2.39	2.63	2.59	2.71
	PI	1.39	1.41	1.44	1.45	1.46
46	TC	2.64	2.92	3.28	3.48	3.64
	SC	1.97	2.19	2.47	2.42	2.53
	PI	1.52	1.55	1.57	1.60	1.61

LEGEND

TC – Total Cooling Capacity, kW
 SC – Sensible Capacity, kW
 PI – Power Input, kW
 WB – Wet Bulb Temp., (°C)
 DB – Dry Bulb Temp., (°C)
 ID – Indoor
 OU – Outdoor

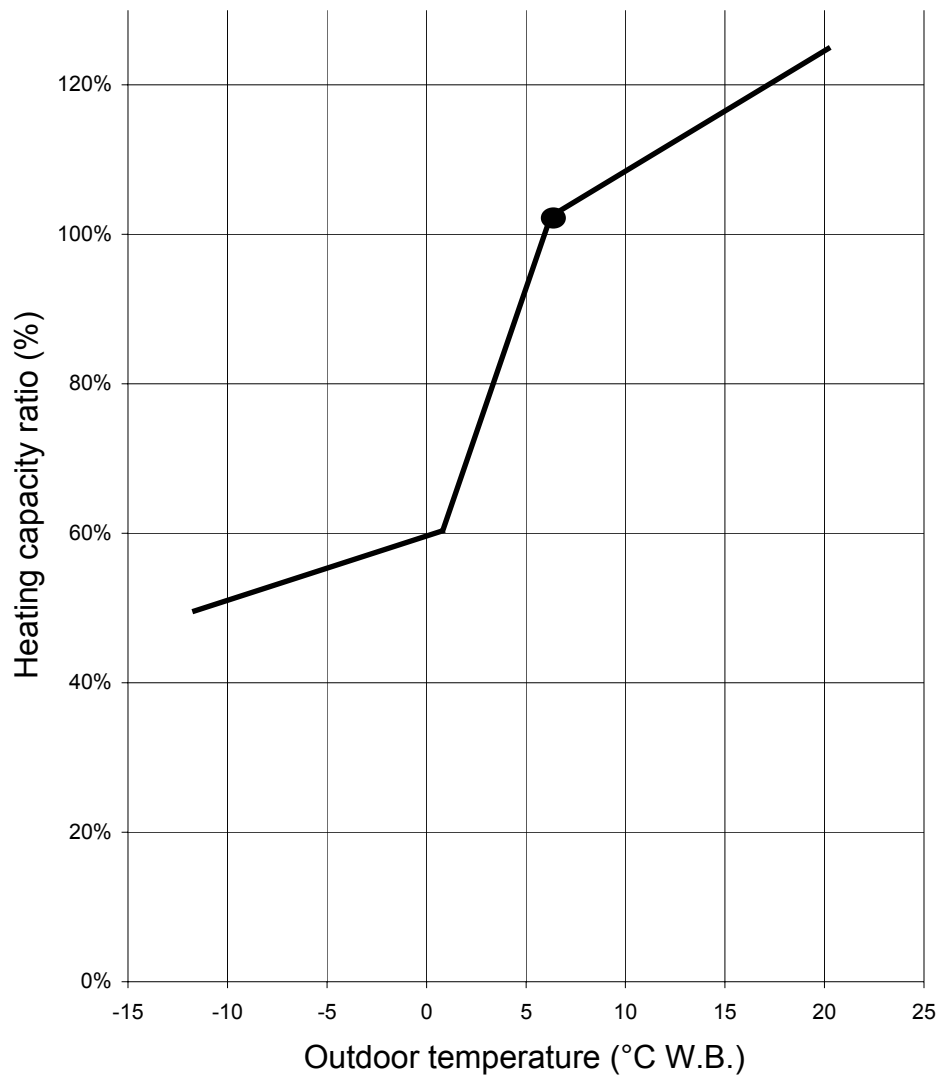
RATING CONDITIONS

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

NOTE: Data related to matching with AW42AL

5-3 Heating Capacity



NOTE

- 1- Black dot in the chart indicates the following rating condition.

Indoor: 20°C D.B.

Outdoor: 7°C D.B. / 6°C W.B.

- 2- The above chart includes the weighted deicing influence

6. ELECTRICAL DATA

6-1 Electrical characteristics

OUTDOOR UNIT: **AE22AC/ACL/AH**

COOLING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	3,10
	Power input	Kw	0,680

Rating Conditions: Indoor Air Temperature 27°C D.B. / 19°C W.B.
Outdoor Air Temperature 35°C D.B.

HEATING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	2,95
	Power input	Kw	0,665

Rating Conditions: Indoor Air Temperature 20°C D.B.
Outdoor Air Temperature 7°C D.B. / 6°C W.B.

Full load conditions	Running Amps.	A	3,8
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OUTDOOR UNIT: AE28AC/ACL/AH

COOLING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	3,60
	Power input	Kw	0,800

Rating Conditions: Indoor Air Temperature 27°C D.B. / 19°C W.B.
Outdoor Air Temperature 35°C D.B.

HEATING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	4,00
	Power input	Kw	0,890

Rating Conditions: Indoor Air Temperature 20°C D.B.
Outdoor Air Temperature 7°C D.B. / 6°C W.B.

Full load conditions	Running Amps.	A	5,8
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OUTDOOR UNIT: AE38AC/ACL/AH**COOLING**

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	5,00
	Power input	Kw	1,115

Rating Conditions: Indoor Air Temperature 27°C D.B. / 19°C W.B.
Outdoor Air Temperature 35°C D.B.

HEATING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	5,10
	Power input	Kw	1,140

Rating Conditions: Indoor Air Temperature 20°C D.B.
Outdoor Air Temperature 7°C D.B. / 6°C W.B.

Full load conditions	Running Amps.	A	7,4
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OUTDOOR UNIT: AE42AC/ACL/AH**COOLING**

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	6,10
	Power input	Kw	1,330

Rating Conditions: Indoor Air Temperature 27°C D.B. / 19°C W.B.
Outdoor Air Temperature 35°C D.B.

HEATING

			Complete Unit
performance at			230V 1-Phase 50 Hz
Rating conditions	Running Amps.	A	6,50
	Power input	Kw	1,395

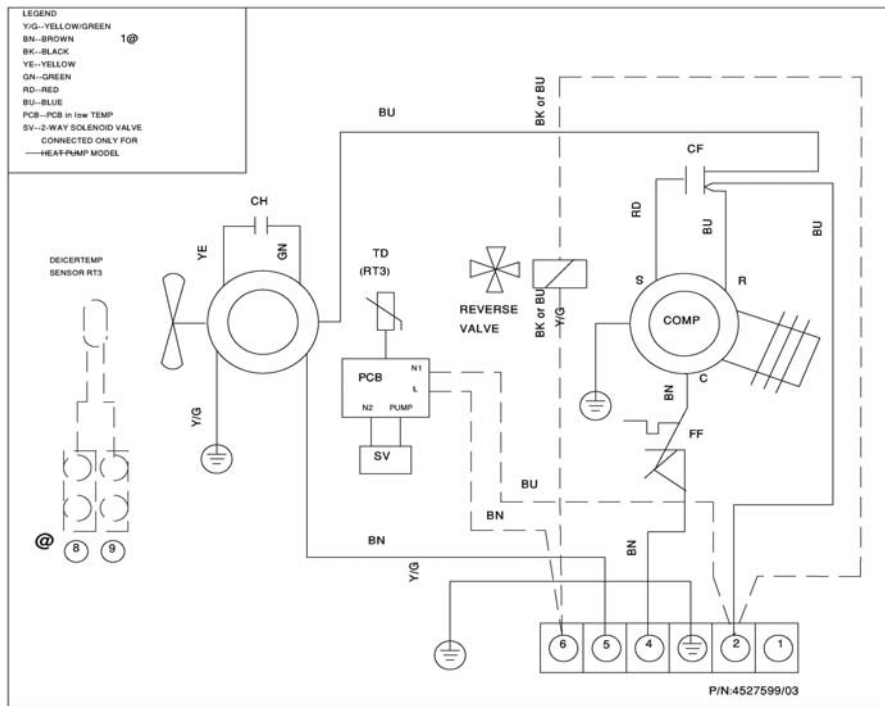
Rating Conditions: Indoor Air Temperature 20°C D.B.
Outdoor Air Temperature 7°C D.B. / 6°C W.B.

Full load conditions	Running Amps.	A	8,5
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6-2 Electric Wiring Diagram

OUTDOOR UNIT:

AE22AH

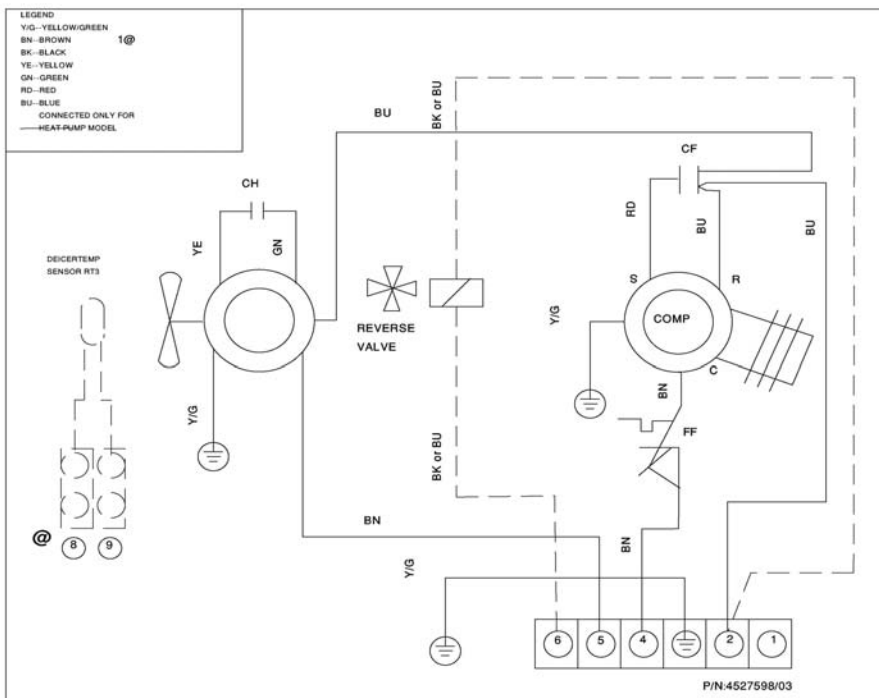


OUTDOOR UNIT:

**AE22AC
AE28AC**

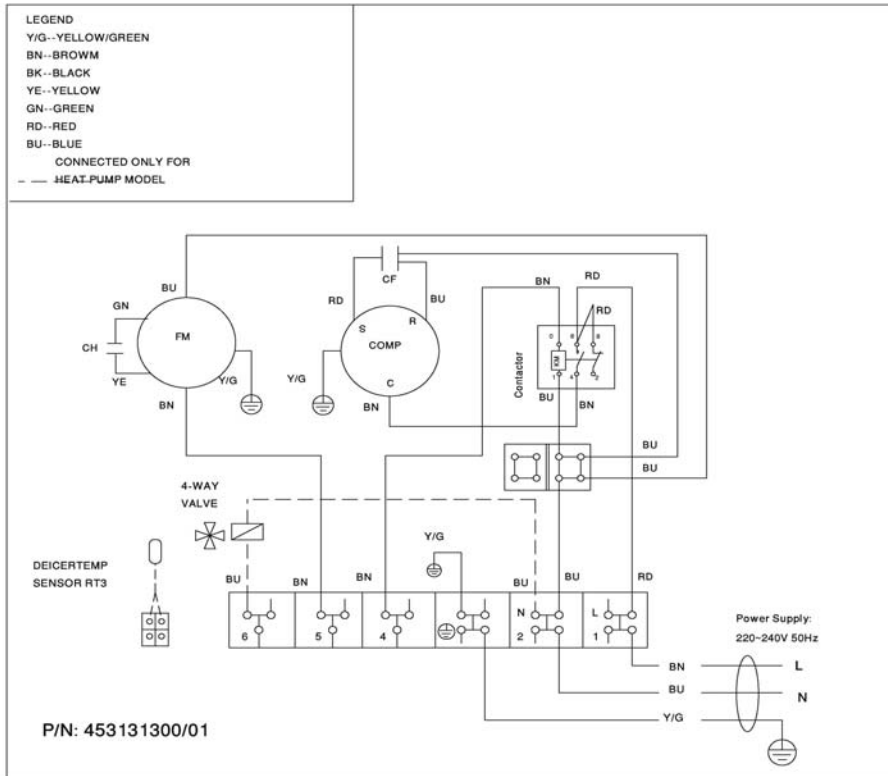
**AE28AH
AE38AH**

AE38AC



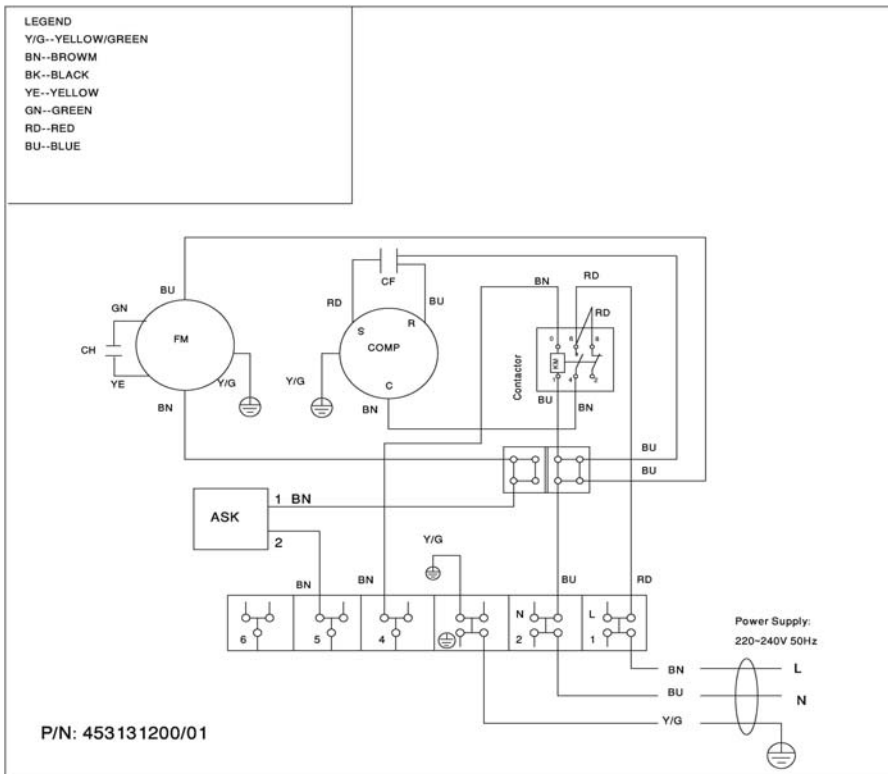
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AE42AC AE42AH



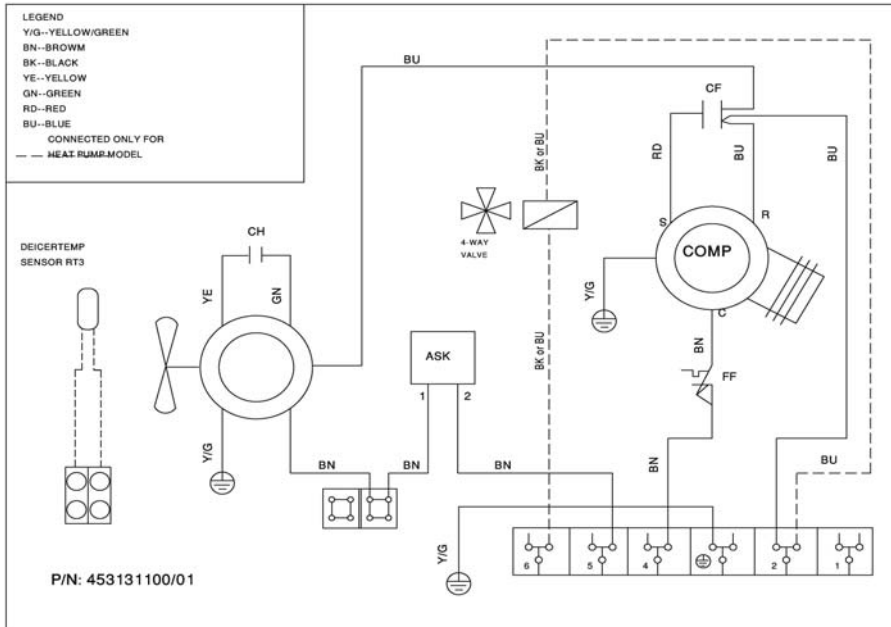
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AE42ACL



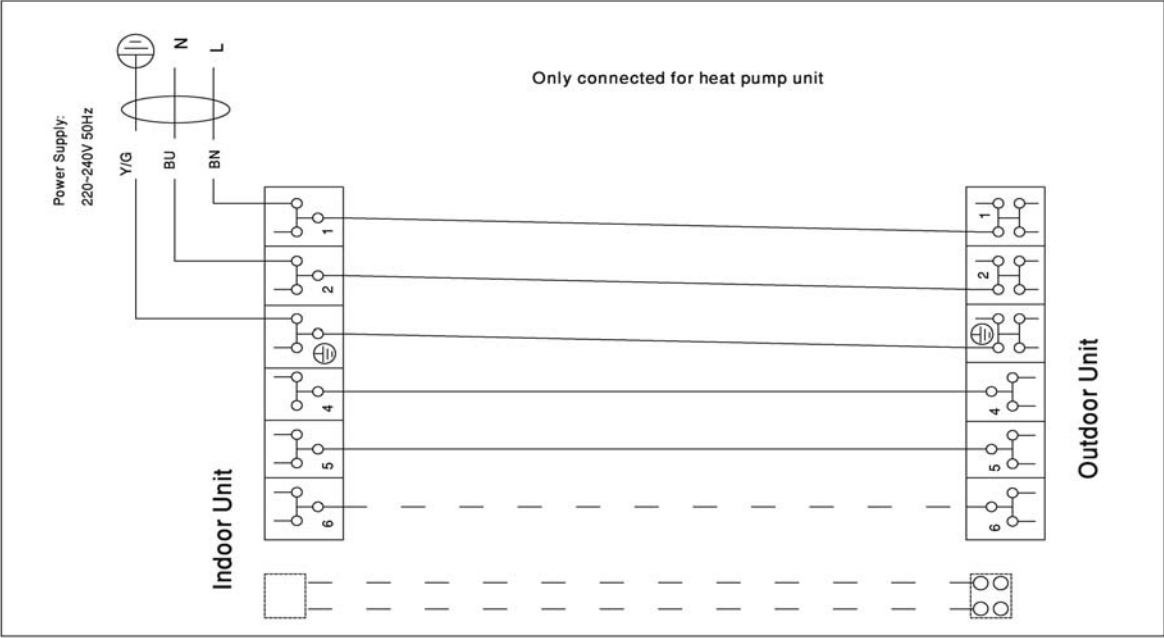
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AE22ACL
AE28ACL
AE38ACL

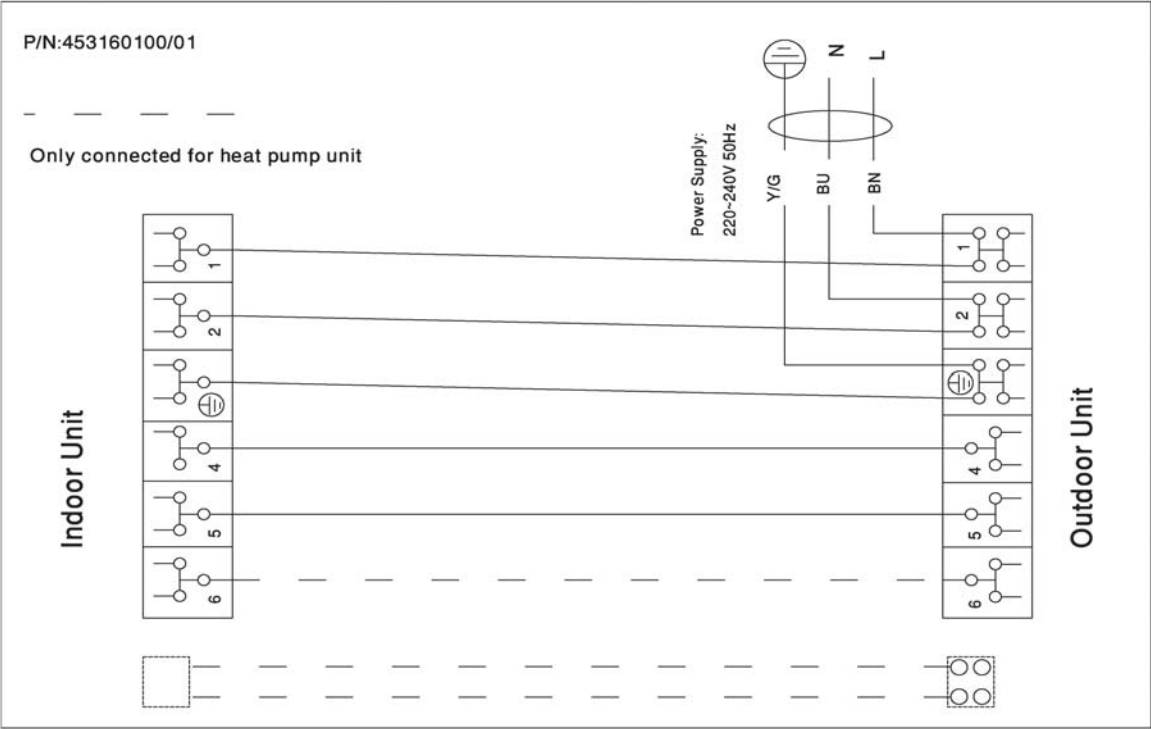


6-3 System Wiring Diagram

OUTDOOR UNIT: **AE22AC/ACL/AH**
 AE28AC/ACL/AH
 AE38AC/ACL/AH



AE42AC/ACL/AH



argoclima s.p.a.

Via Varese, 90 - 21013 Gallarate - Va - Italy
Tel. +39 0331 755111 - Fax +39 0331 776240
www.argoclima.it