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50YZ 40BZ/38BZ

Nominal cooling capacity 6.20-22.20 kW

Nominal heating capacity 6.52-25.00 kW

The compact low profile 50YZ air-to-air heat pumps are designed for installation in the void above false ceilings. They have a maximum height of 630 mm. They consist of the indoor unit 40BZ and the outdoor unit 38BZ.

Features

- The unit cabinet is made of prepainted sheet steel. All units include internal thermal and sound insulation.
- Interchangeable unit panels permit alternative supply and return air paths on all models.
- All models are easily transformed from packaged to split units by simply separating the two cabinet sections.
- Quiet, centrifugal fans with single-phase motors (except for sizes 072 and 084 which are three-phase) are statically and dynamically balanced for vibration-free operation.
- Reliable hermetic compressors for R-407C include overcurrent and overtemperature protection as well as internal and external vibration isolators.
- The heat exchangers are made of high-quality staggered copper tubing, mechanically bonded into pretreated aluminium corrugated fins, with a high level of corrosion protection.
- The hermetically-sealed refrigerant circuit uses only deoxidized and dehydrated copper tubes, is leak-tested and includes a high/low pressure switch and a minimum pressure switch to detect refrigerant losses.

Master Link II

The control system consists of an electronic main board, which is standard for all unit sizes. It can read eight digital inputs and six analogue inputs.

The functions of the main board are:

- Running the application program
- Supervising the internal communications
- Controlling all other system elements
- Communication with the service network
- Reading the digital and analogue inputs
- Controlling the output relays
- Signalling the alarm codes
- Selecting the optional functions

The board includes various signalling LEDs that give information about system and unit operation. The status of these LEDs shows what maintenance and service operations are needed.

Physical data

50YZ Packaged unit		024		036		042		048		060		072		084	
Nominal cooling capacity*	kW	6.20		8.90		10.10		11.56		14.34		19.10		22.20	
Nominal heating capacity**	kW	6.52		9.50		11.30		12.50		16.84		21.80		25.00	
Weight	kg														
50YZ		170		196		214		244		270		332		385	
40BZ		58		63		71		76		87		116		120	
38YZ		112		133		143		168		183		216		265	
Compressor		Hermetic reciprocating compressor													
Oil charge	l	1.18		1.50		1.65		1.65		1.65		1.65		2.84	
Oil type		Mobil 22BC POE													
Refrigerant		R-407C													
Refrigerant charge***	kg	2.07		2.73		3.32		3.43		4.87		5.57		7.44	
Indoor unit section (40BZ)		Copper tubes, pre-treated aluminium fins													
Face area	m ²	0.20		0.30		0.36		0.40		0.41		0.61		0.61	
Rows ... fin spacing	mm	3 ... 1.82		3 ... 2.12		3 ... 2.12		3 ... 2.12		3 ... 2.12		3 ... 2.12		4 ... 2.12	
Test pressure	bar	30		30		30		30		30		30		30	
Indoor unit fan (40BZ)		One double-inlet ... centrifugal													
Nominal air flow	l/s	400		565		670		670		950		1320		1365	
Nominal flow range	l/s	340-460		480-650		570-770		570-770		760-1090		1050-1520		1100-1570	
Nominal static pressure (dry/wet)	Pa	50-40		60-50		60-50		60-50		90-80		120-110		120-110	
Outdoor unit section (38BZ)		Copper tubes, pre-treated aluminium fins													
Face area	m ²	0.31		0.38		0.46		0.54		0.60		0.70		0.77	
Rows ... fin spacing	mm	4 ... 1.82		4 ... 1.82		4 ... 1.82		5 ... 1.82		5 ... 1.59		5 ... 2.12		6 ... 2.12	
Test pressure	bar	30		30		30		30		30		30		30	
Outdoor unit fan (38BZ)		One double-inlet ... centrifugal													
Nominal air flow	l/s	530		800		865		865		1350		1650		1875	
Nominal flow range	l/s	450-610		680-920		730-940		730-970		1085-1475		1320-1800		1500-2130	
Nominal static pressure	Pa	30		30		30		40		50		50		50	
Air filter		Filter class M1. thickness 7 mm													
Qty. ... width x height	mm	1 ... 312 x 336		1 ... 353 x 378		1 ... 387 x 394		1 ... 387 x 394		1 ... 397 x 434		1 ... 542 x 524		1 ... 542 x 524	

Notes:

* Based on an outdoor air dry bulb temperature of 35°C and an indoor air wet bulb temperature of 19°C.

** Based on an outdoor air wet bulb temperature of 6°C and an indoor air dry bulb temperature of 20°C.

*** The refrigerant charge given is for the complete system, and excludes the connection lines.

Electrical data

50YZ (40BZ + 38BZ)		024		036		042		048		060		072		084	
Nominal voltage (±10%)*	V	230	400	230	400	230	400	230	400	230	400	230	400	230	400
Nominal power input															
Cooling **	kW	2.74	2.74	4.20	4.20	4.70	4.70	5.04	5.04	7.57	7.57	10.10	10.10	10.92	10.92
Heating ***	kW	2.35	2.35	3.51	3.51	4.00	4.00	4.55	4.55	6.97	6.97	9.07	9.07	9.58	9.58
Nominal current drawn															
Cooling **	A	12.77	6.04	13.89	10.06	15.79	11.40	17.10	12.43	25.29	18.06	30.00	17.34	33.65	19.45
Heating ***	A	11.21	5.30	12.00	8.87	14.14	10.60	15.76	11.65	24.09	17.57	27.59	15.95	30.79	17.80
Effective power input															
Cooling	kW	2.74	2.74	4.10	4.10	4.56	4.56	4.90	4.90	7.16	7.16	9.41	9.41	10.16	10.16
Heating	kW	2.35	2.35	3.41	3.41	3.86	3.86	4.41	4.41	6.56	6.56	8.38	8.38	8.82	8.82
Effective current drawn															
Cooling	A	12.76	6.04	13.56	9.82	15.32	11.06	16.63	12.09	23.92	17.08	27.96	16.16	31.14	18.00
Heating	A	11.20	5.30	11.66	8.62	13.65	10.23	15.28	11.30	22.68	16.54	25.50	14.74	28.28	16.35
Starting current	A	86	46	99	60	117	72	134	81	159	105	170	90	162	105
Maximum power input															
Cooling ****	kW	3.08	3.08	4.65	4.65	5.22	5.22	5.66	5.66	8.26	8.26	11.06	11.06	12.04	12.04
Heating *****	kW	2.78	2.78	4.07	4.07	4.63	4.63	5.09	5.09	7.70	7.70	10.54	10.54	11.87	11.87
Maximum current drawn															
Cooling ****	A	14.17	6.70	14.86	10.54	17.24	12.28	18.23	12.91	27.10	19.03	32.87	19.00	35.94	20.78
Heating *****	A	12.79	6.05	13.01	9.23	15.29	10.89	16.39	11.61	25.26	17.74	31.32	18.11	35.44	20.48

Notes:

* The unit power supply is three-phase (except size 024, 230 V which is single-phase). The fan power supply is single-phase, except for sizes 072 and 084 which are three-phase.

** Based on an outdoor air dry bulb temperature of 35°C and an indoor air wet bulb temperature of 19°C.

*** Based on an outdoor air wet bulb temperature of 6°C and an indoor air dry bulb temperature of 20°C.

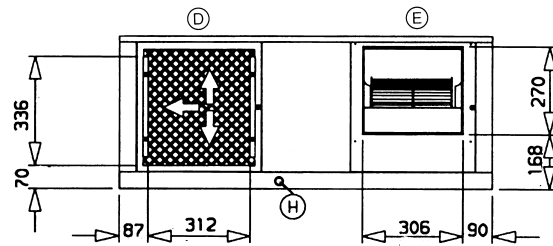
+ Based on an outdoor air dry bulb temperature of 46°C and an indoor air wet bulb temperature of 21°C.

++ Based on an outdoor air wet bulb temperature of 18°C.

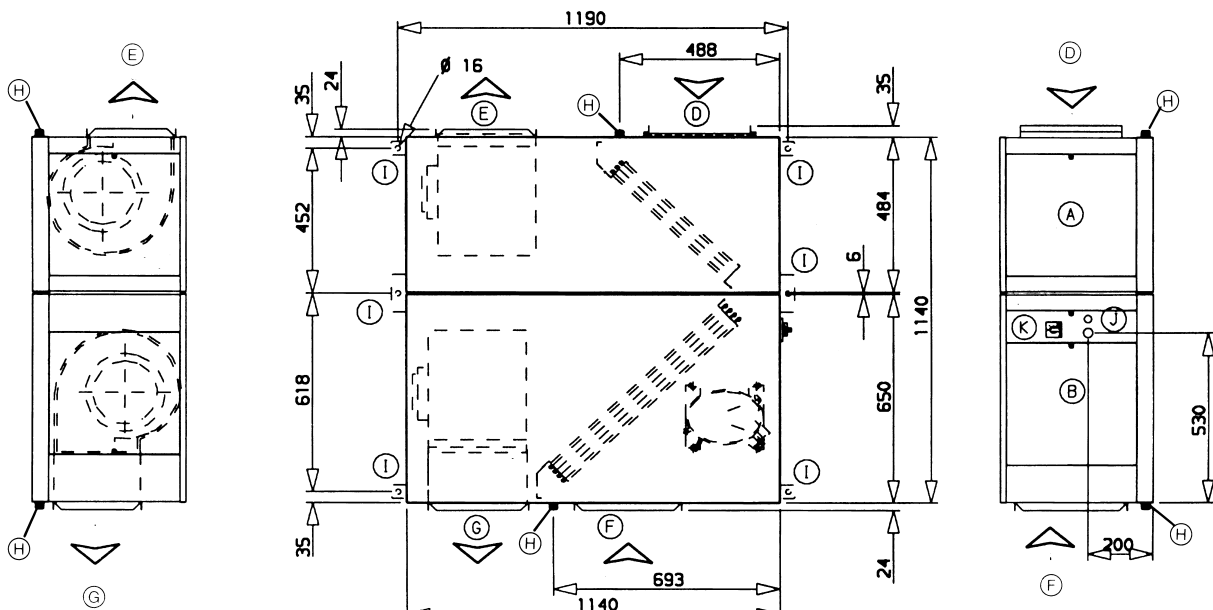
Effective power input in accordance with EUROVENT.

Dimensions, mm

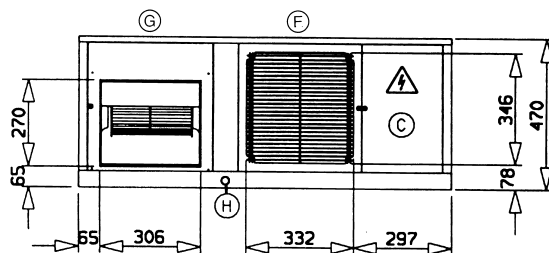
50YZ 024



View of indoor air inlet/outlet



Plan view



View of outdoor air inlet/outlet

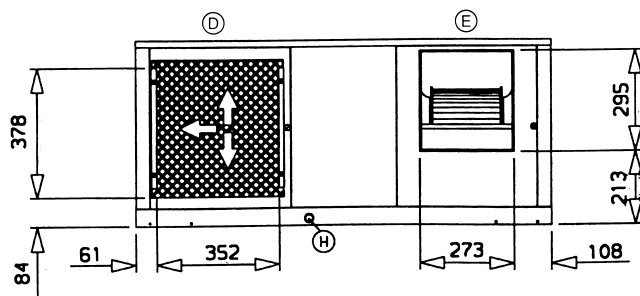
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|-----|-----------------------------|-----|----------------------------|
| (A) | Indoor section access panel | (G) | Outdoor section air outlet |
| (B) | Compressor access panel | (H) | Drain 3/4" MPT |
| (C) | Control box access panel | (I) | Unit supports |
| (D) | Indoor section air inlet | (J) | Cable entry |
| (E) | Indoor section air outlet | (K) | Main disconnect switch |
| (F) | Outdoor section air inlet | | |

Nota: Standard supply/return air arrangement

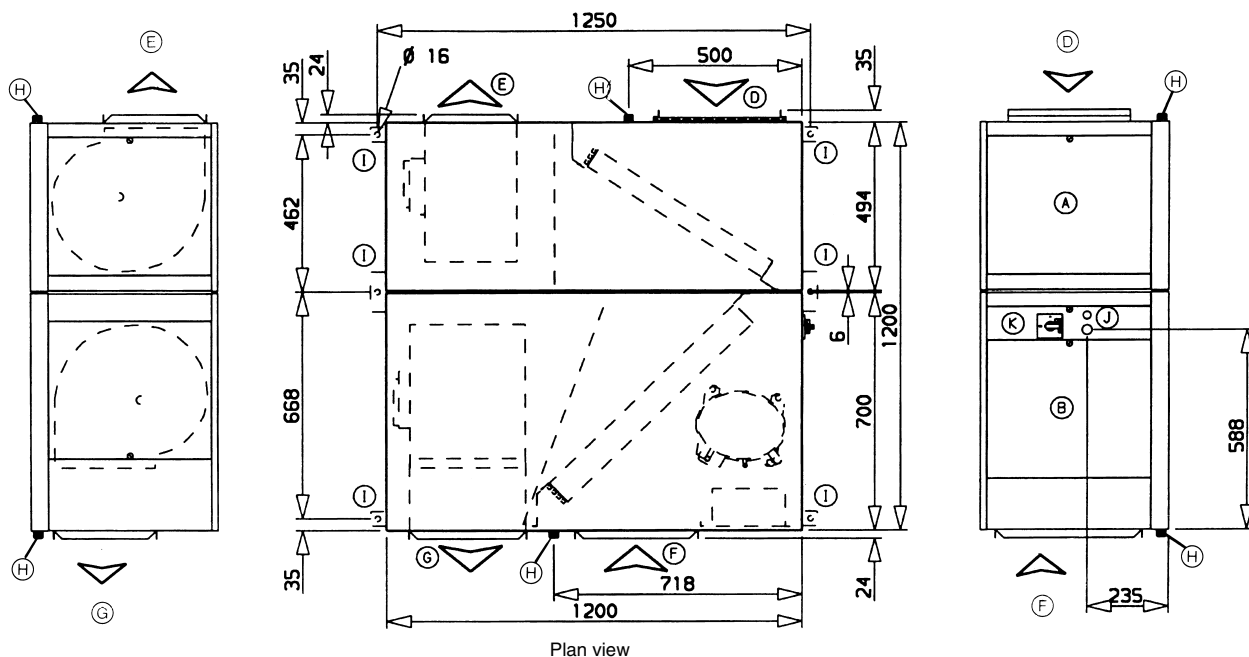
When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

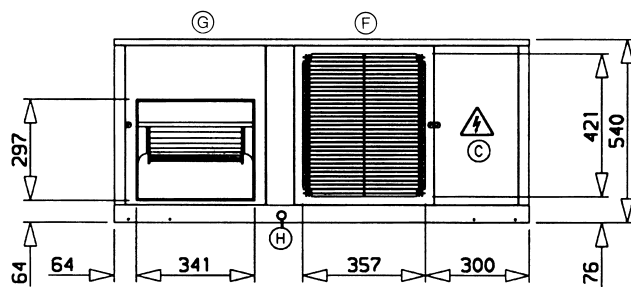
50YZ 036



View of indoor air inlet/outlet



Plan view



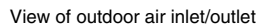
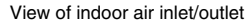
View of outdoor air inlet/outlet

- | | |
|---------------------------------|--------------------------------|
| (A) Indoor section access panel | (G) Outdoor section air outlet |
| (B) Compressor access panel | (H) Drain 3/4" MPT |
| (C) Control box access panel | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |
| (E) Indoor section air outlet | (K) Main disconnect switch |
| (F) Outdoor section air inlet | |

Nota: Standard supply/return air arrangement

When designing an installation, always use up-to-date drawings, available from your local Carrier office.

50YZ 042

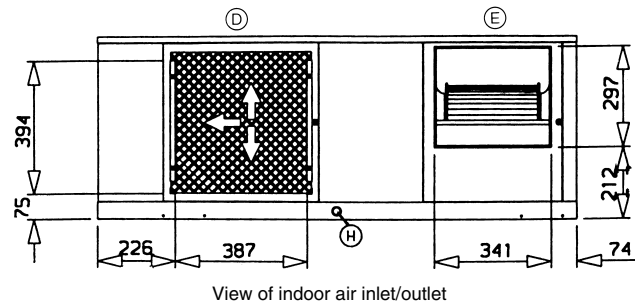


- Nota: Standard supply/return air arrangement

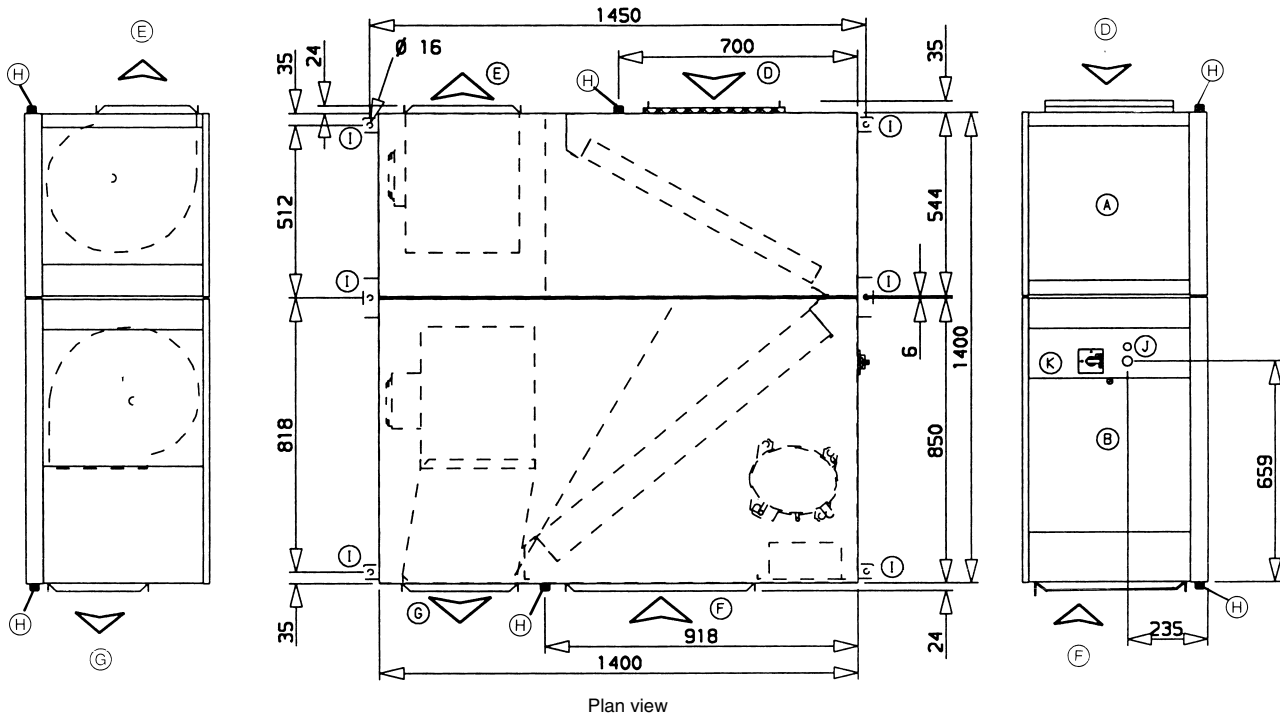
When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

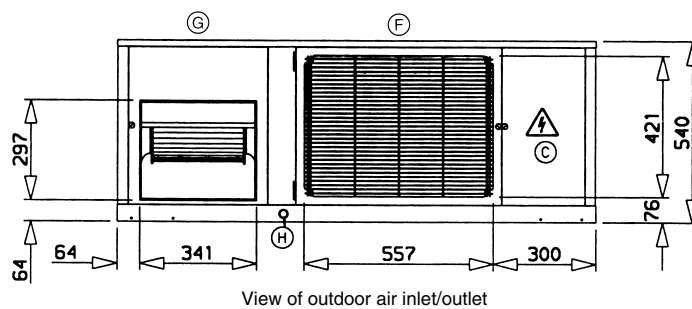
50YZ 048



View of indoor air inlet/outlet



Plan view



View of outdoor air inlet/outlet

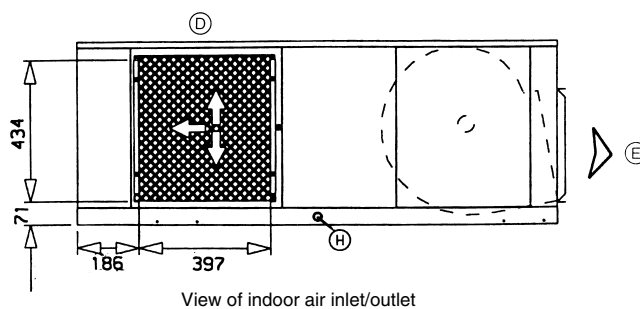
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|---------------------------------|--------------------------------|
| (A) Indoor section access panel | (G) Outdoor section air outlet |
| (B) Compressor access panel | (H) Drain 3/4" MPT |
| (C) Control box access panel | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |
| (E) Indoor section air outlet | (K) Main disconnect switch |
| (F) Outdoor section air inlet | |

Nota: Standard supply/return air arrangement

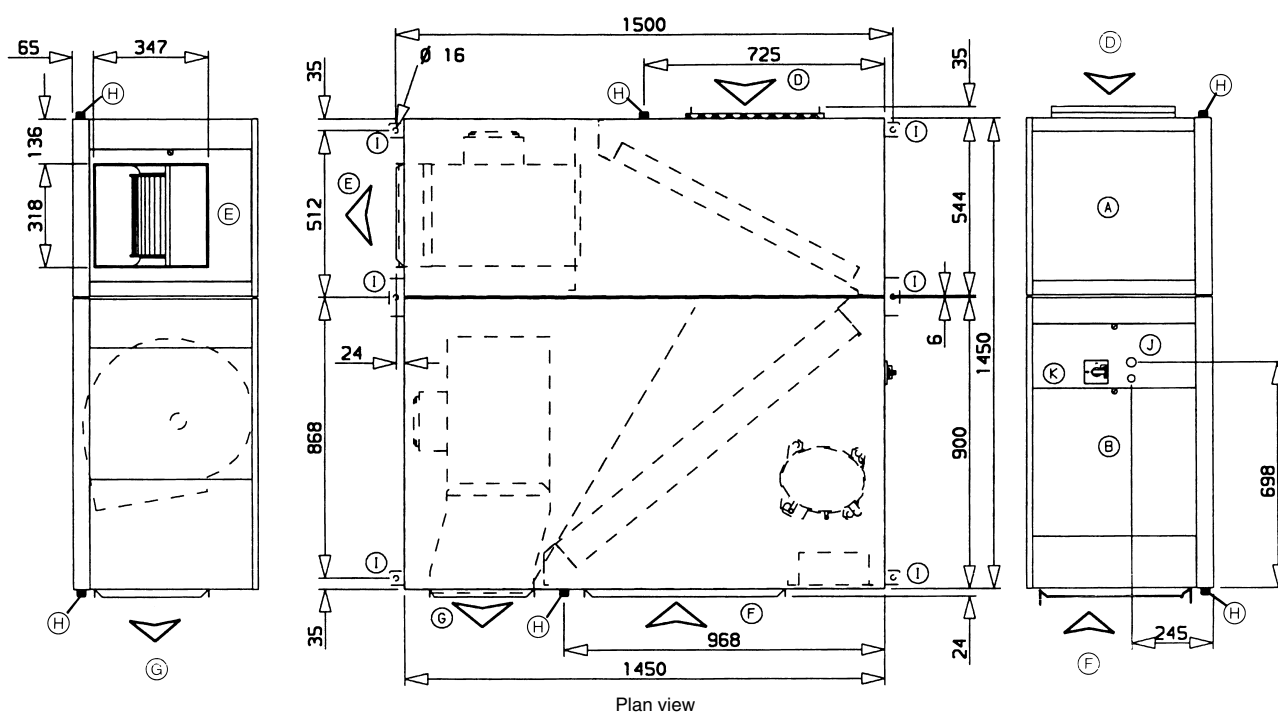
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Dimensions, mm

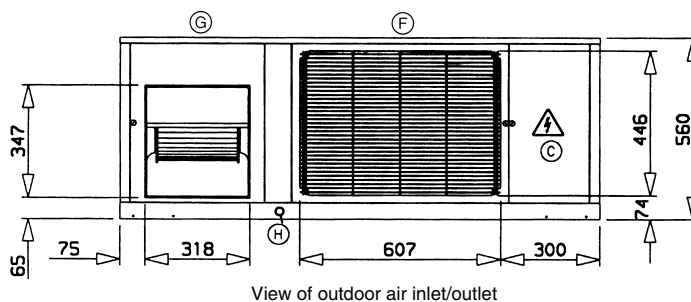
50YZ 060



View of indoor air inlet/outlet



Plan view



View of outdoor air inlet/outlet

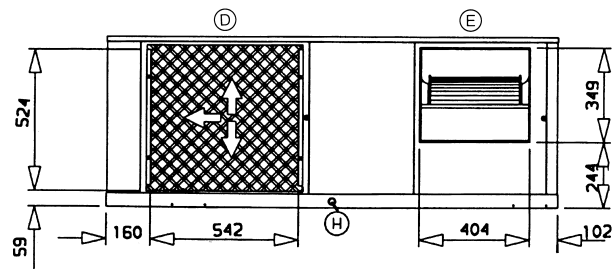
- | | |
|---------------------------------|--------------------------------|
| (A) Indoor section access panel | (G) Outdoor section air outlet |
| (B) Compressor access panel | (H) Drain 3/4" MPT |
| (C) Control box access panel | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |
| (E) Indoor section air outlet | (K) Main disconnect switch |
| (F) Outdoor section air inlet | |

Nota: Standard supply/return air arrangement

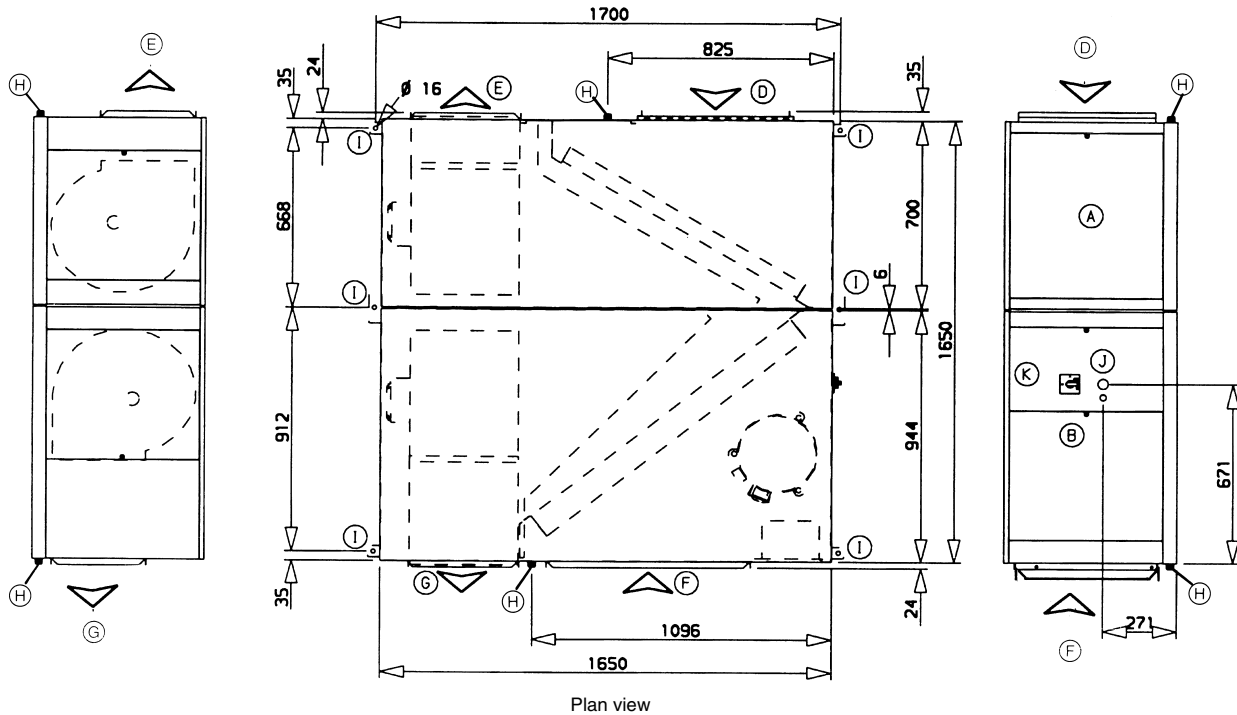
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Dimensions, mm

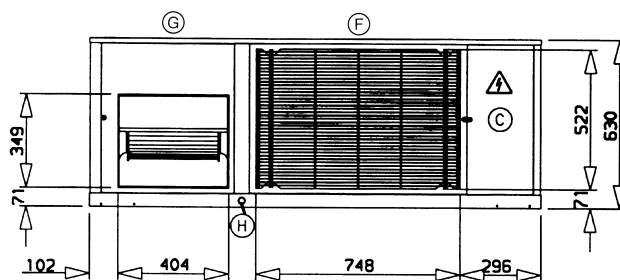
50YZ 072



View of indoor air inlet/outlet



Plan view



View of outdoor air inlet/outlet

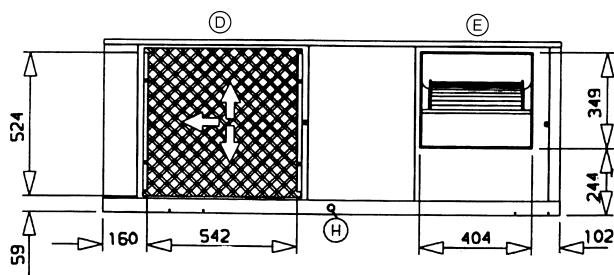
- | | |
|---------------------------------|--------------------------------|
| (A) Indoor section access panel | (G) Outdoor section air outlet |
| (B) Compressor access panel | (H) Drain 3/4" MPT |
| (C) Control box access panel | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |
| (E) Indoor section air outlet | (K) Main disconnect switch |
| (F) Outdoor section air inlet | |

Nota: Standard supply/return air arrangement

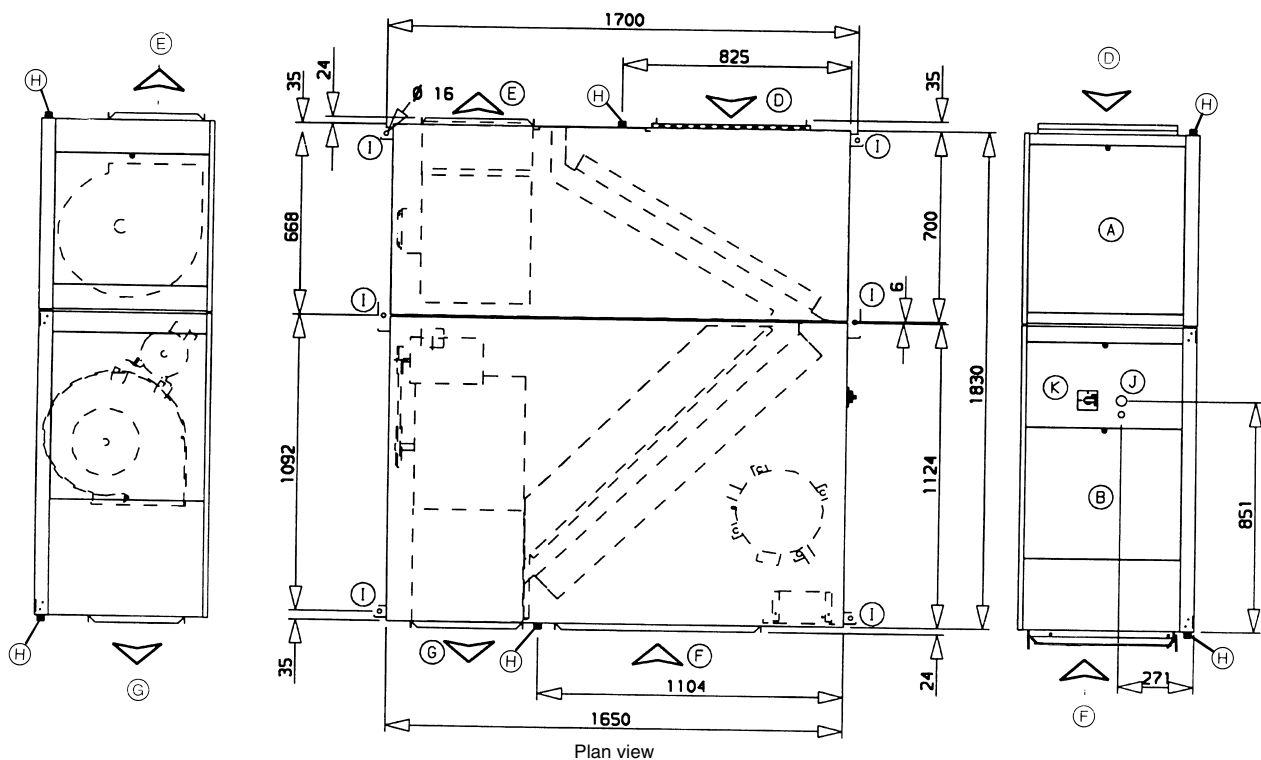
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Dimensions, mm

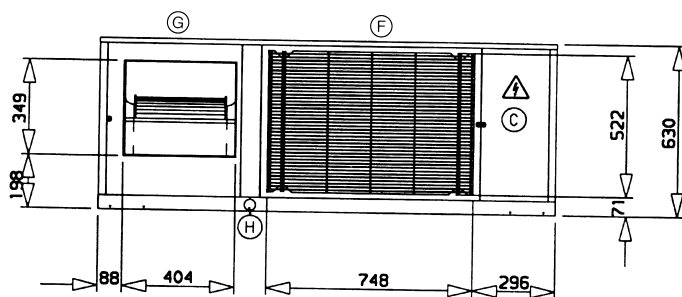
50YZ 084



View of indoor air inlet/outlet



Plan view



View of outdoor air inlet/outlet

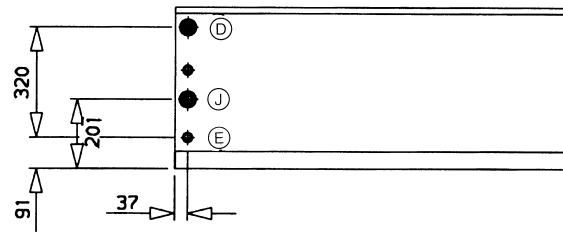
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|---------------------------------|--------------------------------|
| (A) Indoor section access panel | (G) Outdoor section air outlet |
| (B) Compressor access panel | (H) Drain 3/4" MPT |
| (C) Control box access panel | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |
| (E) Indoor section air outlet | (K) Main disconnect switch |
| (F) Outdoor section air inlet | |

Nota: Standard supply/return air arrangement

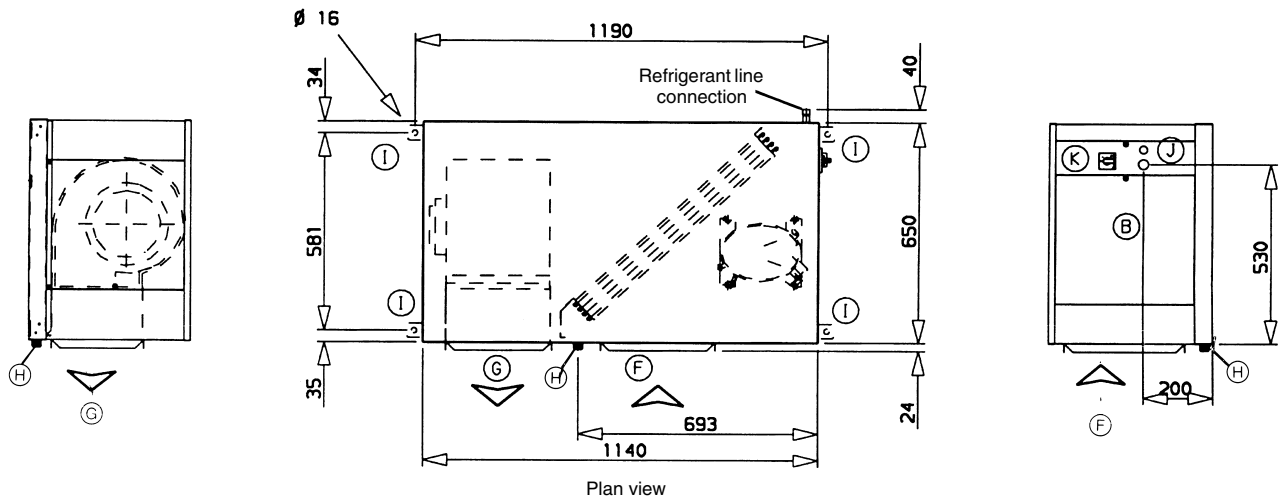
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Dimensions, mm

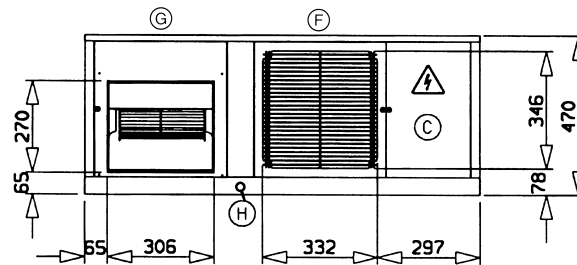
38BZ 024



View of refrigerant line connections side



Plan view



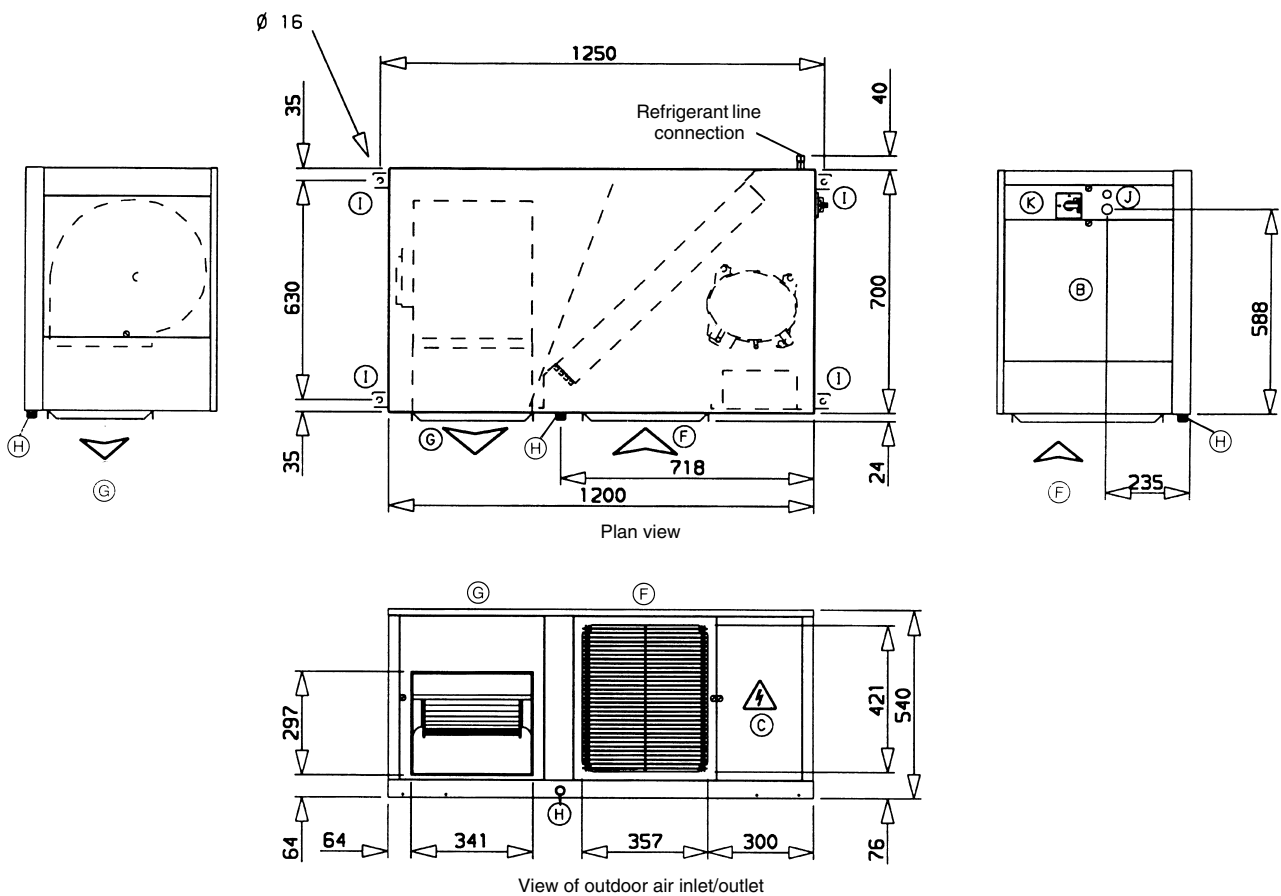
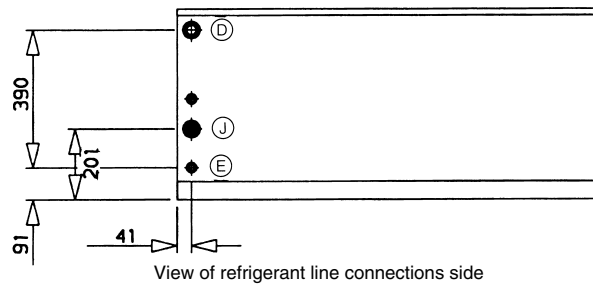
View of outdoor air inlet/outlet

- | | |
|-------------------------------------|--------------------------------|
| (B) Compressor access panel | (G) Outdoor section air outlet |
| (C) Control box access panel | (H) Drain 3/4" MPT |
| (D) Suction line $\varnothing$ 5/8" | (I) Unit supports |
| (E) Liquid line $\varnothing$ 3/8" | (J) Cable entry |
| (F) Outdoor section air inlet | (K) Main disconnect switch |

Nota: Standard supply/return air arrangement

Dimensions, mm

38BZ 036

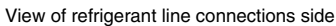


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|-------------------------------------|--------------------------------|
| (B) Compressor access panel | (G) Outdoor section air outlet |
| (C) Control box access panel | (H) Drain 3/4" MPT |
| (D) Suction line $\varnothing$ 3/4" | (I) Unit supports |
| (E) Liquid line $\varnothing$ 3/8" | (J) Cable entry |
| (F) Outdoor section air inlet | (K) Main disconnect switch |

Nota: Standard supply/return air arrangement

When designing an installation, always use up-to-date drawings, available from your local Carrier office.

38BZ 042



- (B) Compressor access panel
- (C) Control box access panel
- (D) Suction line $\varnothing$ 3/4"
- (E) Liquid line $\varnothing$ 3/8"
- (F) Outdoor section air inlet

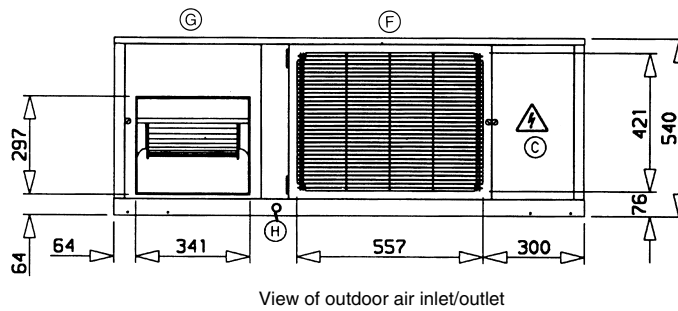
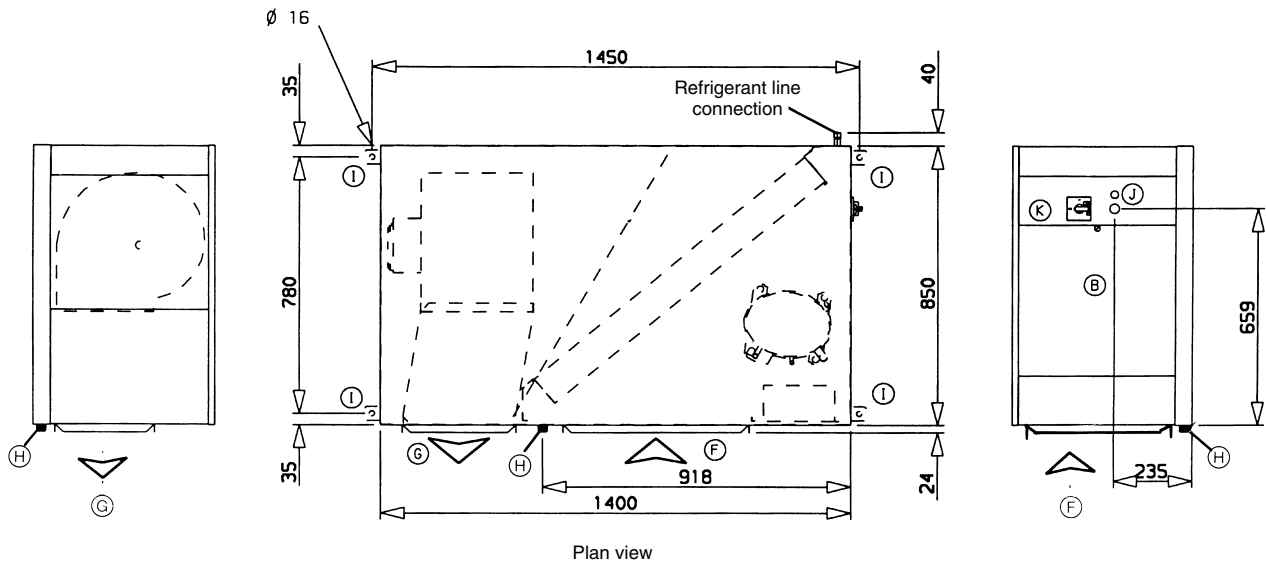
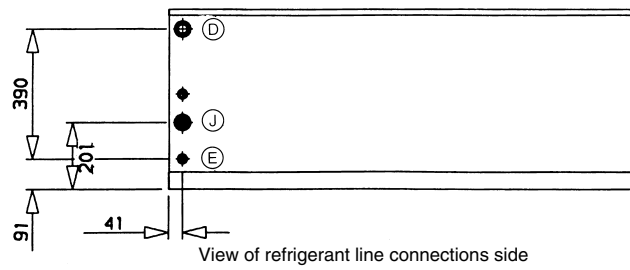
- (G) Outdoor section air outlet
- (H) Drain 3/4" MPT
- (I) Unit supports
- (J) Cable entry
- (K) Main disconnect switch

Nota: Standard supply/return air arrangement

When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

38BZ 048



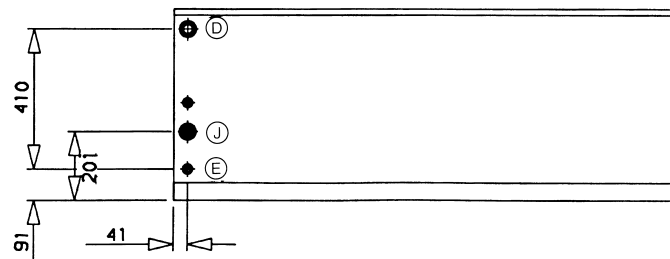
- | | |
|-------------------------------------|--------------------------------|
| (B) Compressor access panel | (G) Outdoor section air outlet |
| (C) Control box access panel | (H) Drain 3/4" MPT |
| (D) Suction line $\varnothing$ 7/8" | (I) Unit supports |
| (E) Liquid line $\varnothing$ 3/8" | (J) Cable entry |
| (F) Outdoor section air inlet | (K) Main disconnect switch |

Nota: Standard supply/return air arrangement

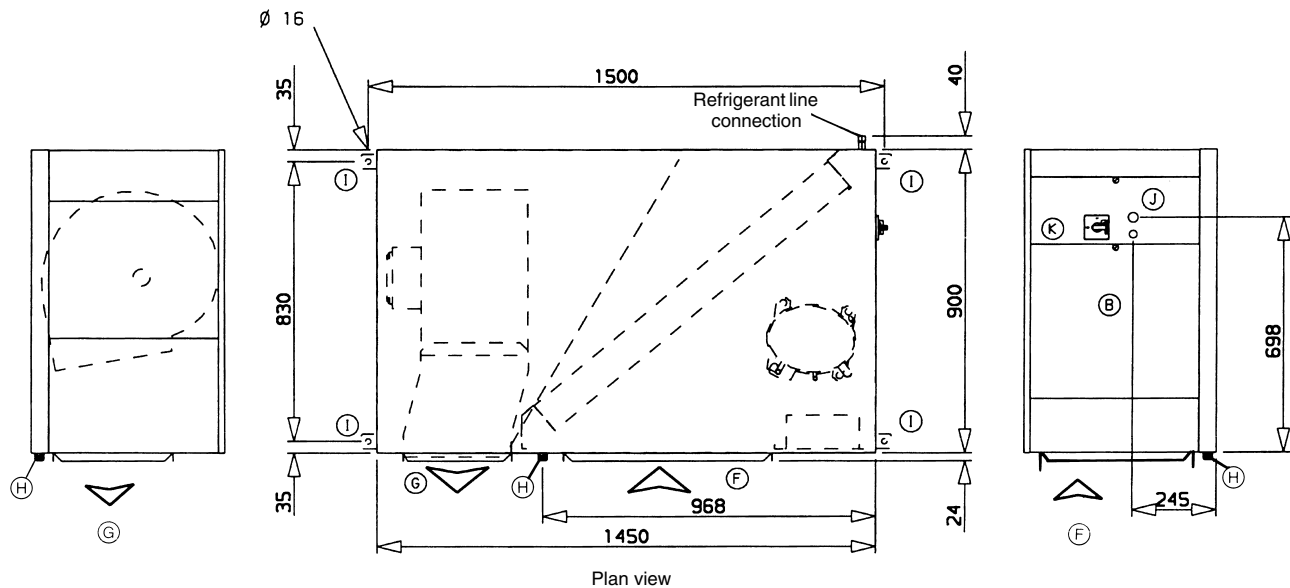
When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

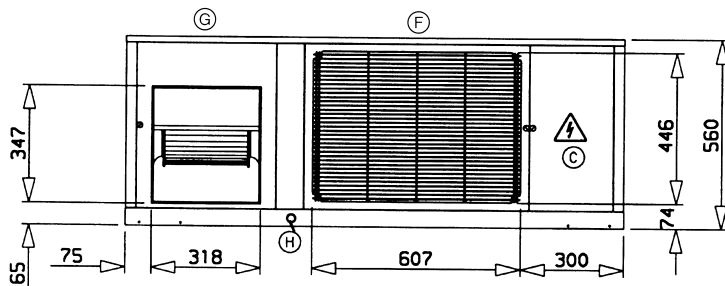
38BZ 060



View of refrigerant line connections side



Plan view



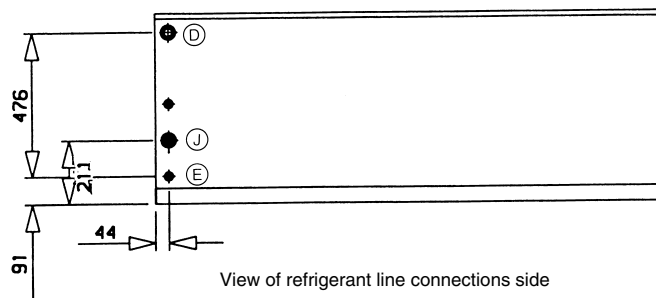
View of outdoor air inlet/outlet

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|-------------------------------|--------------------------------|
| (B) Compressor access panel | (G) Outdoor section air outlet |
| (C) Control box access panel | (H) Drain 3/4" MPT |
| (D) Suction line ø 7/8" | (I) Unit supports |
| (E) Liquid line ø 3/8" | (J) Cable entry |
| (F) Outdoor section air inlet | (K) Main disconnect switch |

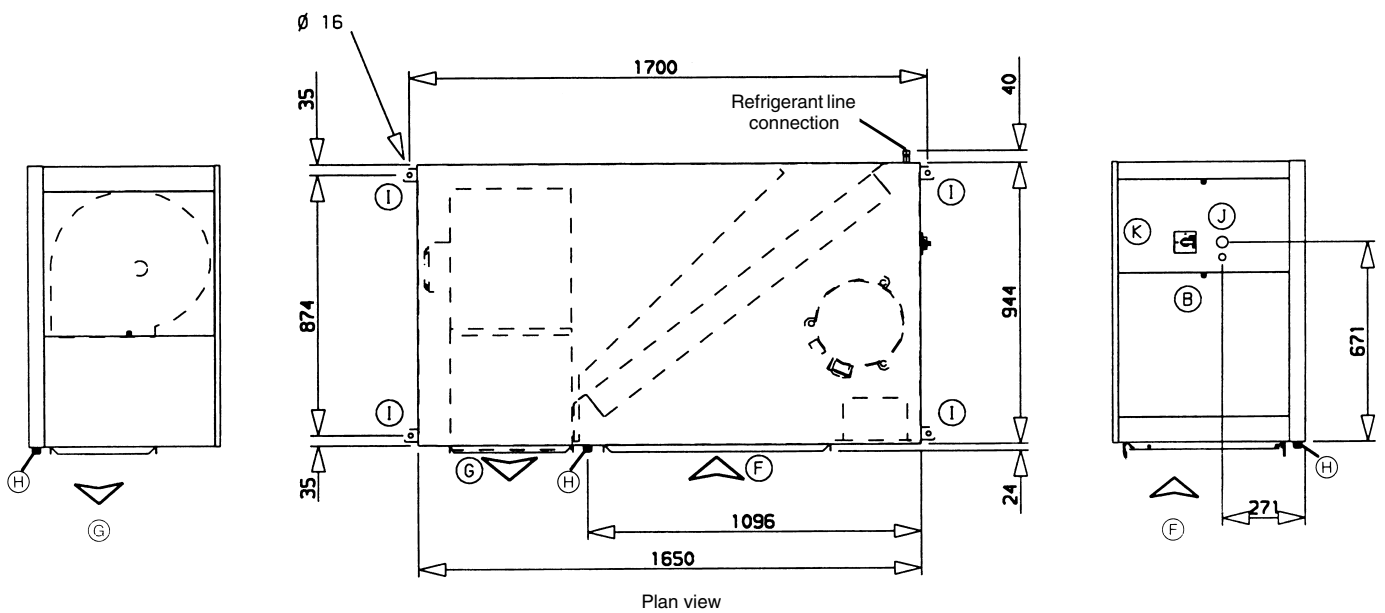
Nota: Standard supply/return air arrangement

Dimensions, mm

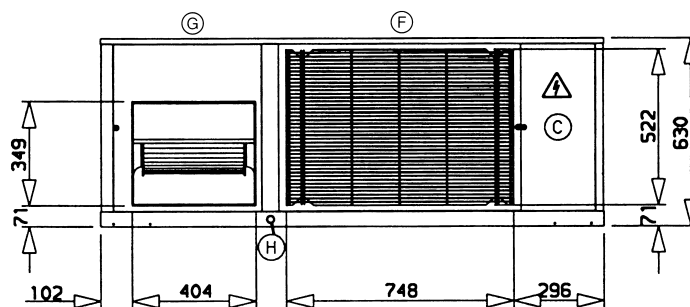
38BZ 072



View of refrigerant line connections side



Plan view



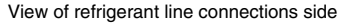
View of outdoor air inlet/outlet

- | | |
|---------------------------------------|--------------------------------|
| (B) Compressor access panel | (G) Outdoor section air outlet |
| (C) Control box access panel | (H) Drain 3/4" MPT |
| (D) Suction line $\varnothing$ 1-1/8" | (I) Unit supports |
| (E) Liquid line $\varnothing$ 5/8" | (J) Cable entry |
| (F) Outdoor section air inlet | (K) Main disconnect switch |

Nota: Standard supply/return air arrangement

When designing an installation, always use up-to-date drawings, available from your local Carrier office.

38BZ 084



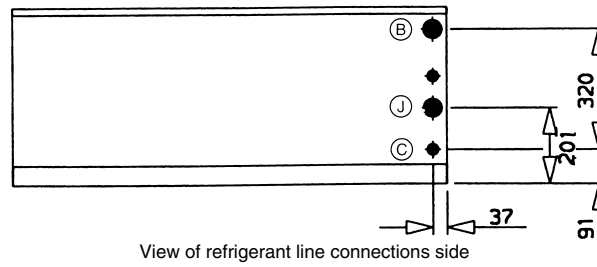
- (B) Compressor access panel
- (C) Control box access panel
- (D) Suction line $\varnothing$ 1-1/8"
- (E) Liquid line $\varnothing$ 5/8"
- (F) Outdoor section air inlet

- (G) Outdoor section air outlet
- (H) Drain 3/4" MPT
- (I) Unit supports
- (J) Cable entry
- (K) Main disconnect switch

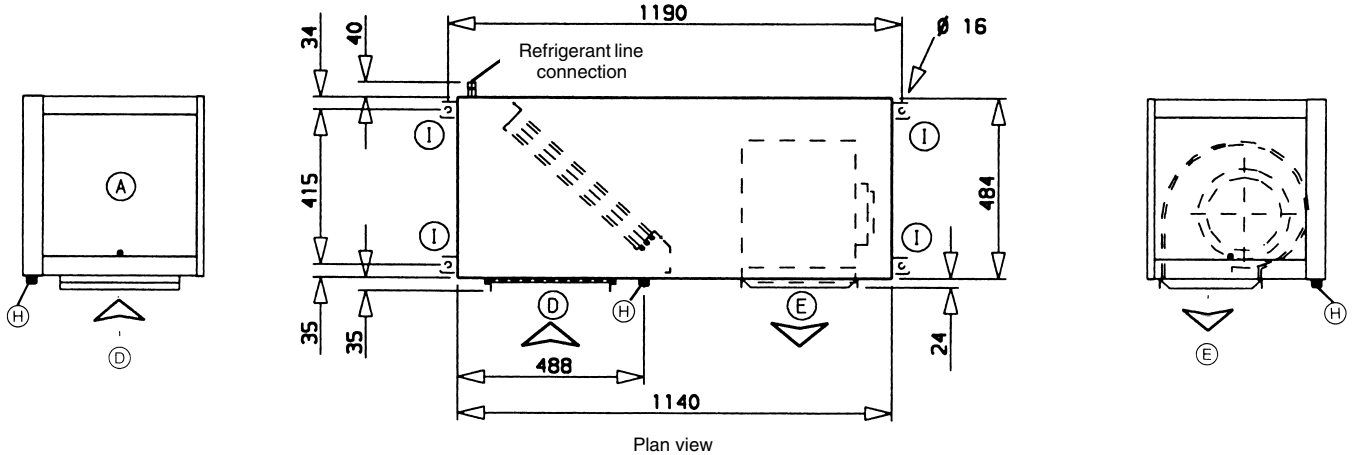
When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

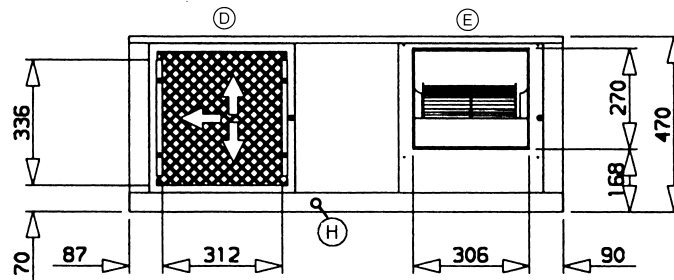
40BZ 024



View of refrigerant line connections side



Plan view



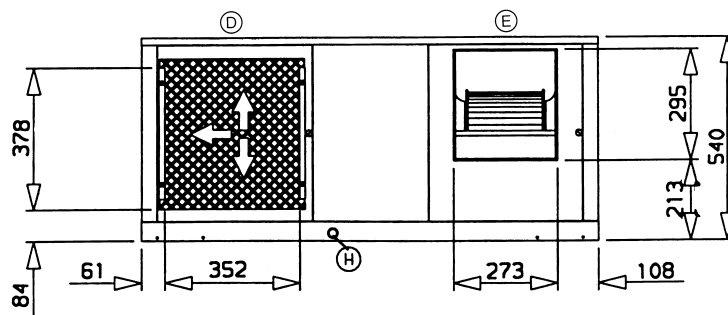
View of outdoor air inlet/outlet

- | | |
|-------------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line $\varnothing$ 5/8" | (H) Drain 3/4" MPT |
| (C) Liquid line $\varnothing$ 3/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

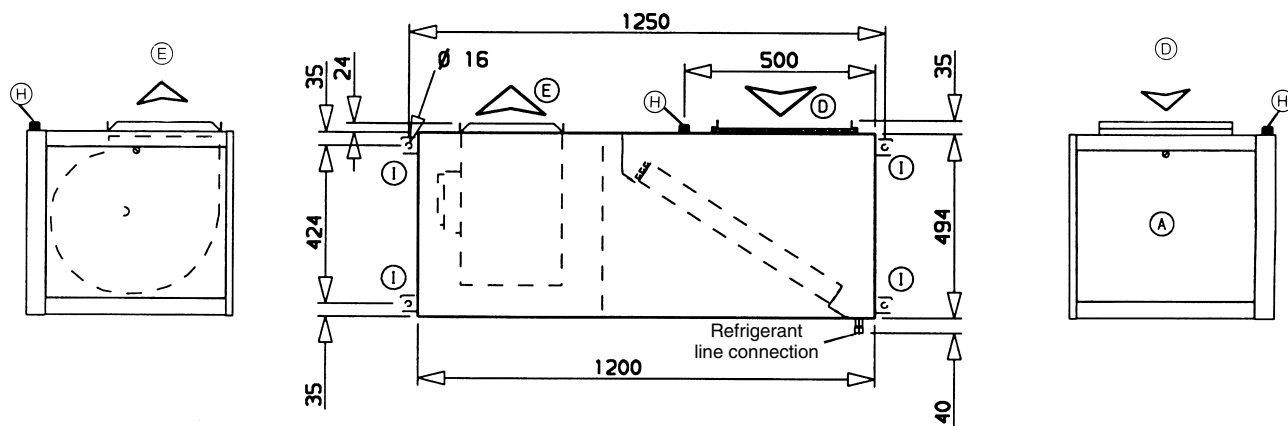
Nota: Standard supply/return air arrangement

Dimensions, mm

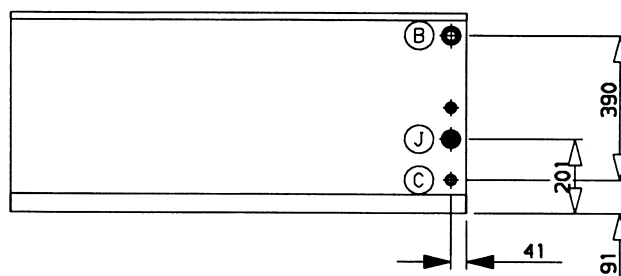
40BZ 036



View of outdoor air inlet/outlet



Plan view



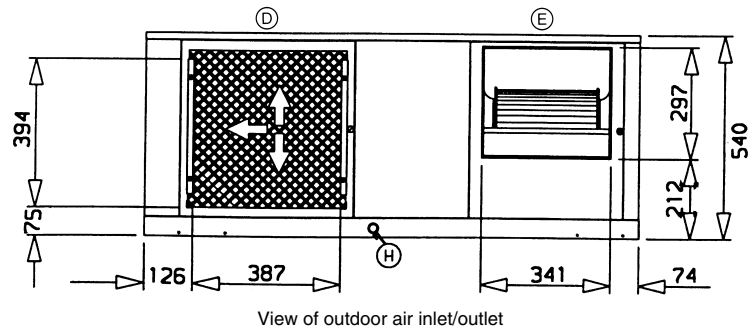
View of refrigerant line connections side

- | | |
|-------------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line $\varnothing$ 3/4" | (H) Drain 3/4" MPT |
| (C) Liquid line $\varnothing$ 3/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

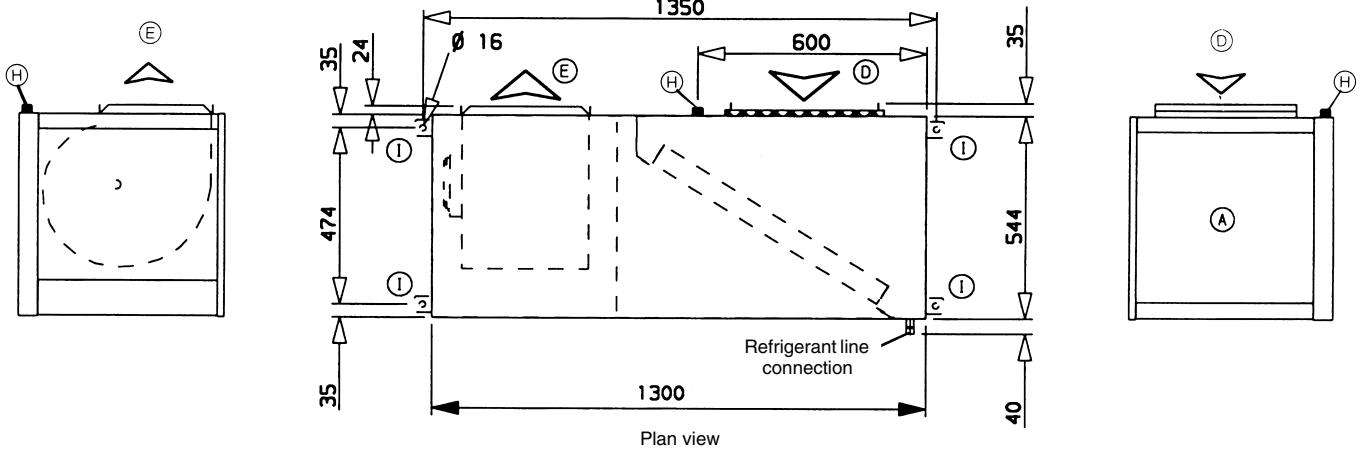
Nota: Standard supply/return air arrangement

Dimensions, mm

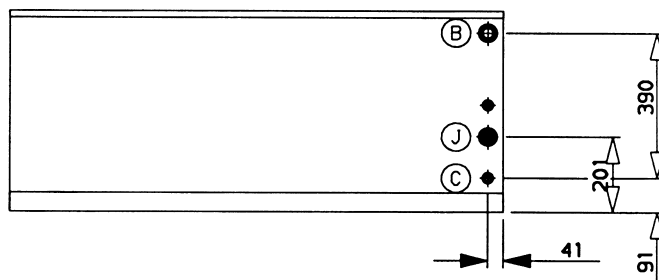
40BZ 042



View of outdoor air inlet/outlet



Plan view



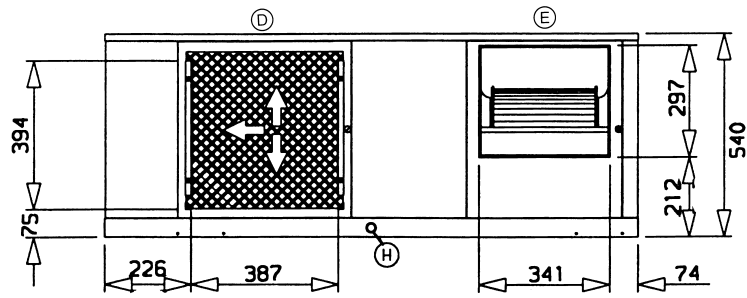
View of refrigerant line connections side

- | | |
|-------------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line $\varnothing$ 3/4" | (H) Drain 3/4" MPT |
| (C) Liquid line $\varnothing$ 3/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

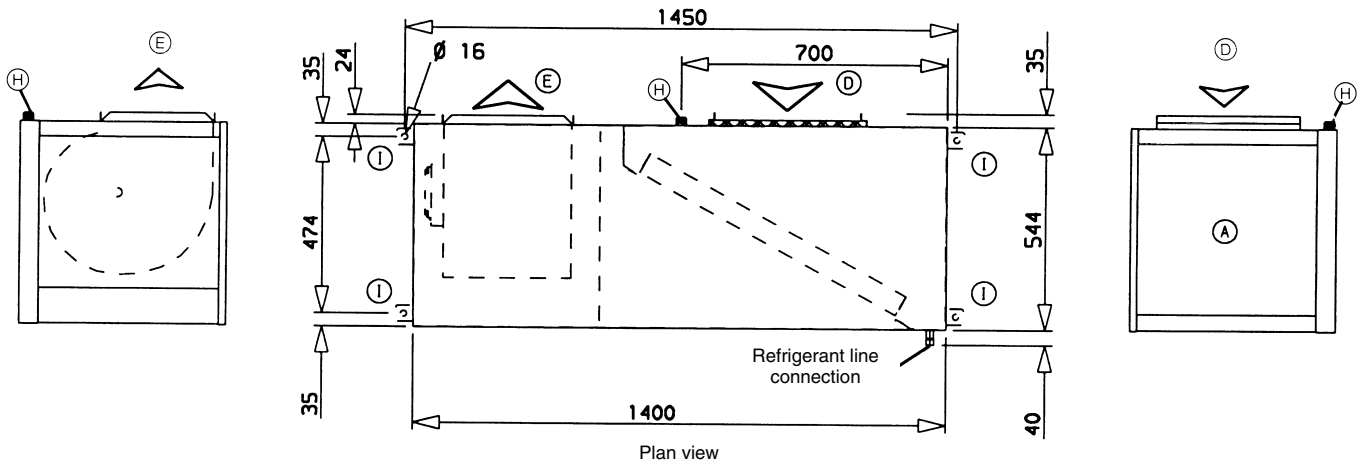
Nota: Standard supply/return air arrangement

Dimensions, mm

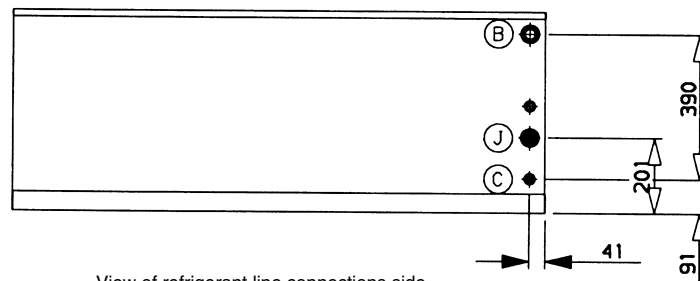
40BZ 048



View of outdoor air inlet/outlet



Plan view



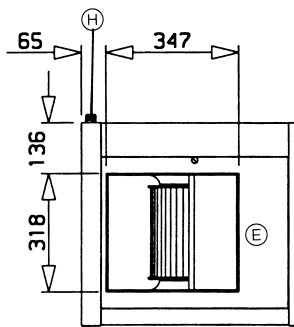
View of refrigerant line connections side

- | | |
|-------------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line $\varnothing$ 7/8" | (H) Drain 3/4" MPT |
| (C) Liquid line $\varnothing$ 3/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

Nota: Standard supply/return air arrangement

40BZ 060

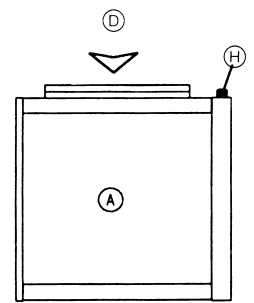
View of outdoor air inlet/outlet



Plan view

The plan view shows a rectangular layout with overall dimensions of 1500 mm in width and 544 mm in depth. The width is divided into a 725 mm section on the right and a 1450 mm section on the left. The depth is divided into a 35 mm top section, a 474 mm central section, and a 35 mm bottom section. A 24 mm wide area is indicated at the bottom left. Key components and features include:

- A circular hole with a diameter of $\varnothing 16$ located in the top left corner.
- A triangular symbol labeled (E) in the central left area.
- A dashed rectangular outline in the central left area.
- A dashed diagonal line extending from the top right towards the bottom right.
- A label "Refrigerant line connection" pointing to a small rectangular feature on the bottom right.
- Various callouts and labels: (H) near the top center, (D) near the top right, (I) in the top right corner, (I) in the bottom right corner, and (I) in the bottom left corner.



View of refrigerant line connections side

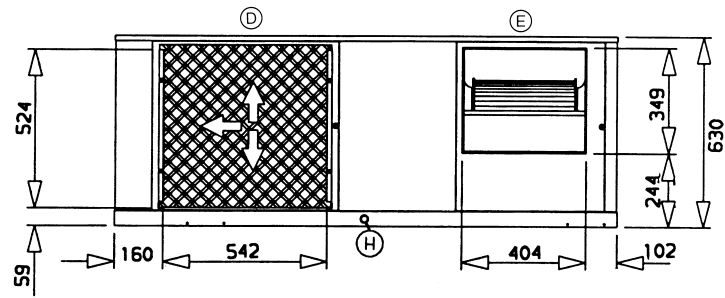
- | | |
|---------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line ø 7/8" | (H) Drain 3/4" MPT |
| (C) Liquid line ø 3/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

Nota: Standard supply/return air arrangement

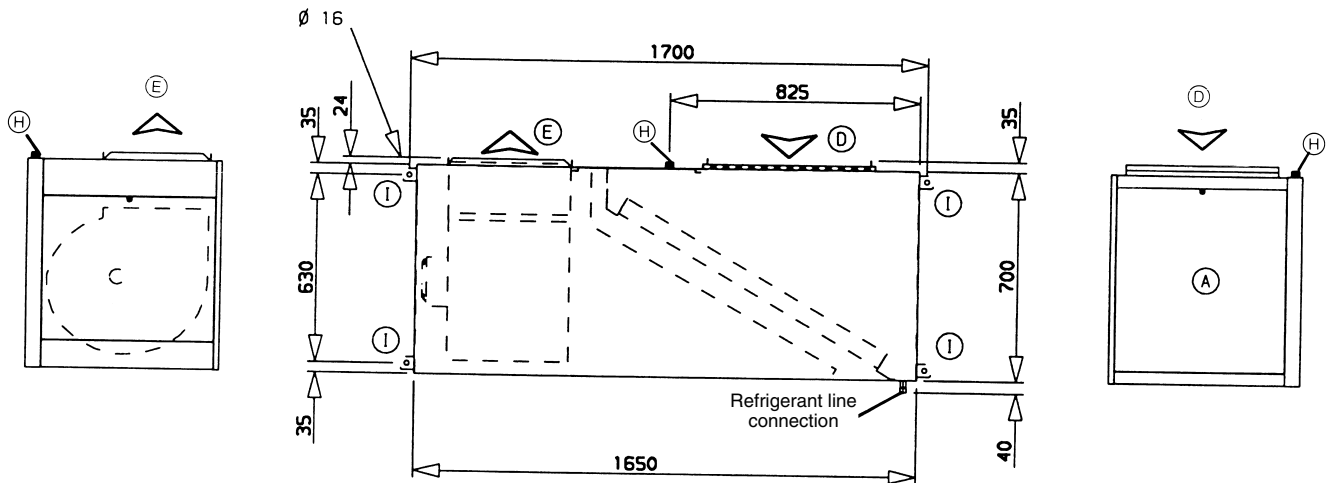
When designing an installation, always use up-to-date drawings, available from your local Carrier office.

Dimensions, mm

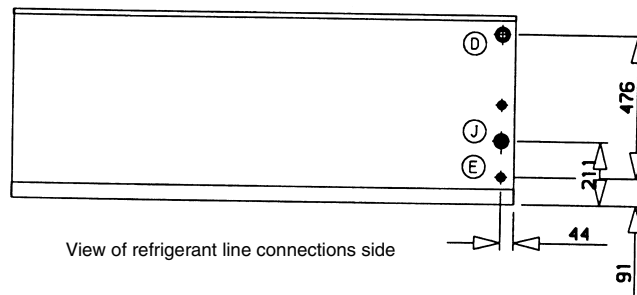
40BZ 072



View of outdoor air inlet/outlet



Plan view



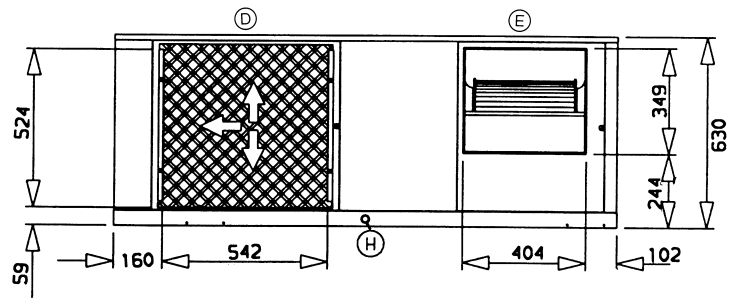
View of refrigerant line connections side

- | | |
|---------------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line $\varnothing$ 1-1/8" | (H) Drain 3/4" MPT |
| (C) Liquid line $\varnothing$ 5/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

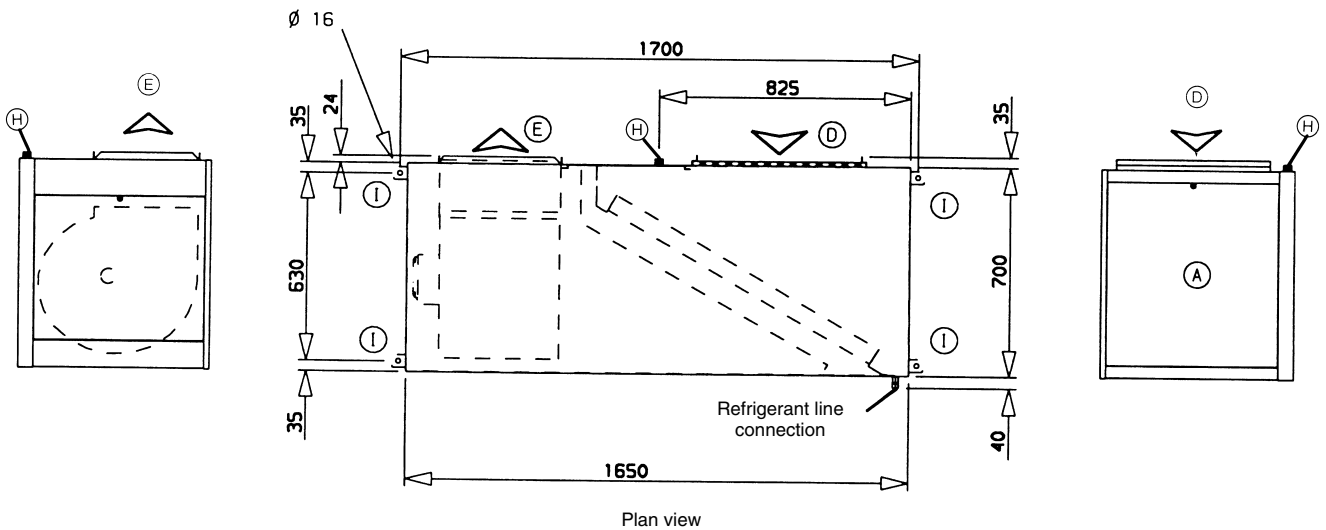
Nota: Standard supply/return air arrangement

Dimensions, mm

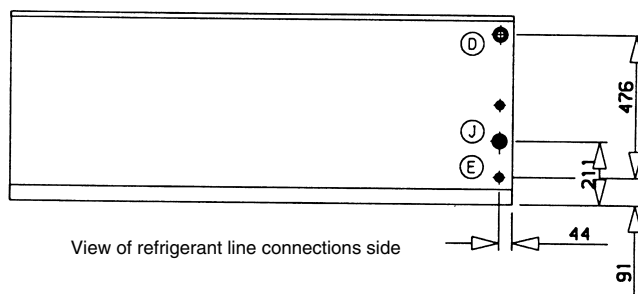
40BZ 084



View of outdoor air inlet/outlet



Plan view



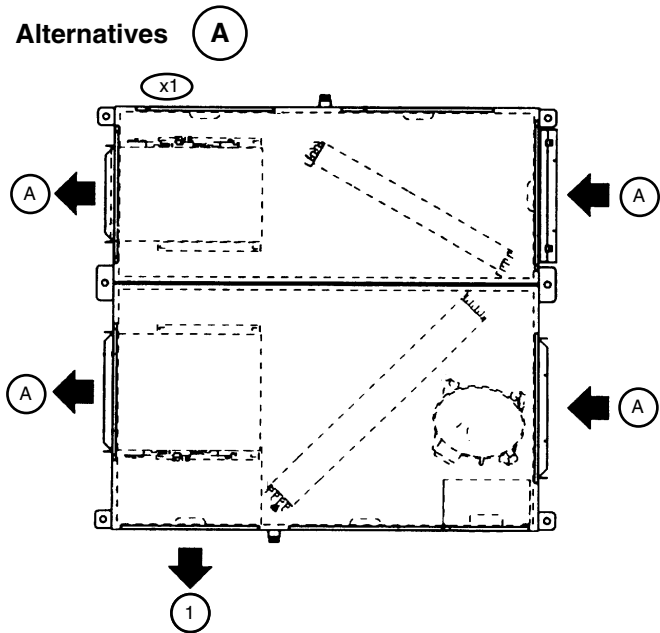
View of refrigerant line connections side

- | | |
|---------------------------------|-------------------------------|
| (A) Indoor section access panel | (E) Indoor section air outlet |
| (B) Suction line ϕ 1-1/8" | (H) Drain 3/4" MPT |
| (C) Liquid line ϕ 5/8" | (I) Unit supports |
| (D) Indoor section air inlet | (J) Cable entry |

Nota: Standard supply/return air arrangement

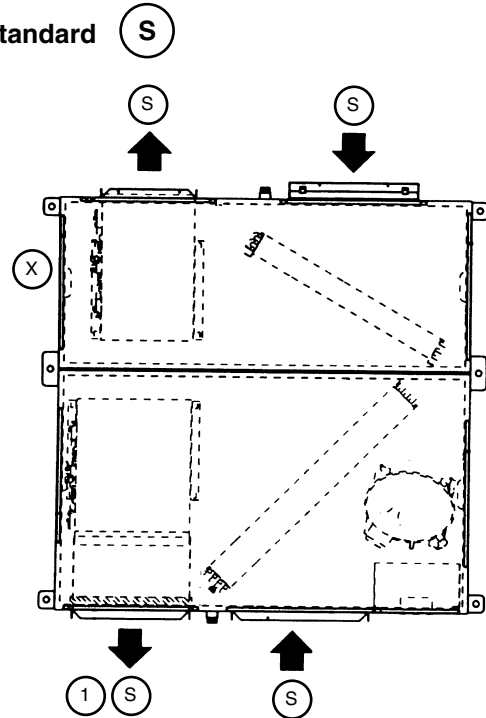
Air flow arrangements

Alternatives



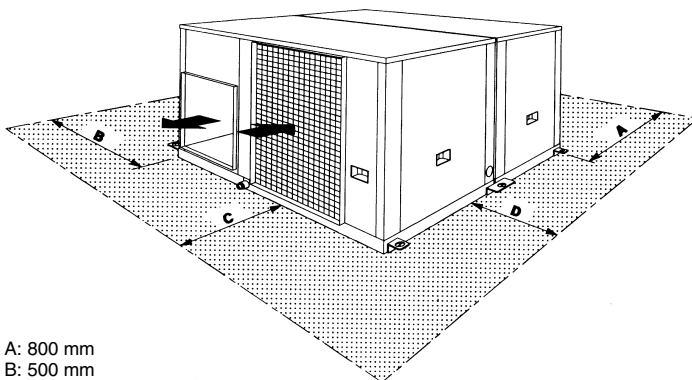
- Notes:**
- (X) For unit sizes 50YZ 060 and 40BZ 060 the standard indoor air outlet is through this panel. Use alternative (x1)
 - (1) For unit sizes 50YZ 084 and 38BZ 084 there is no outdoor supply air alternative. The air can only enter via this panel.

Standard



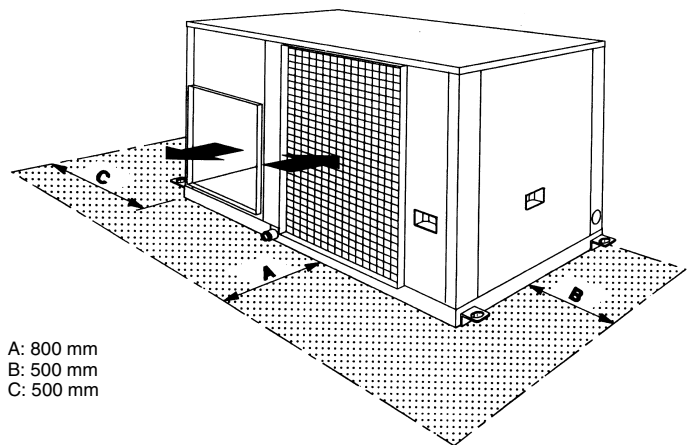
Clearances, mm

50YZ (all sizes)



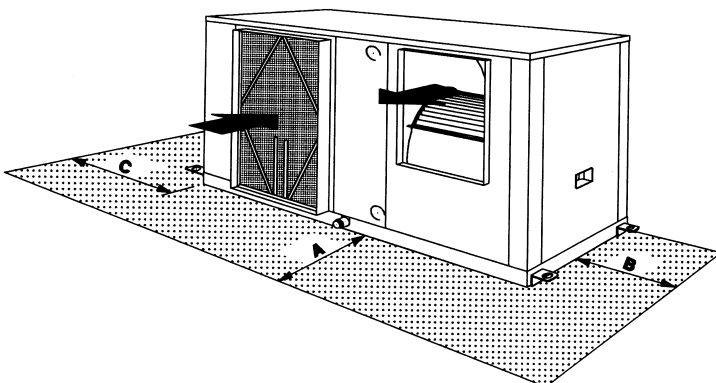
- A: 800 mm
- B: 500 mm
- C: 600 mm
- *D: 500 mm
- *For size 50YZ 060: D = 600 mm

38BZ (all sizes)



- A: 800 mm
- B: 500 mm
- C: 500 mm

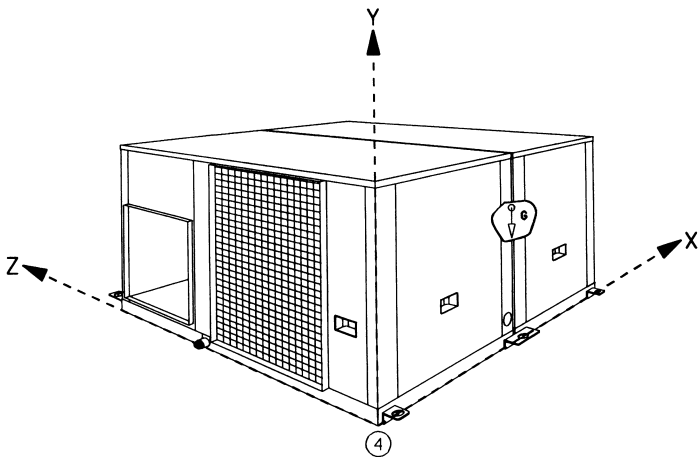
40BZ (all sizes)



- A: 600 mm
- *B: 500 mm
- C: 500 mm
- *NOTE: For size 40BZ 060: B = 600 mm

Centre of gravity (approx. mm)

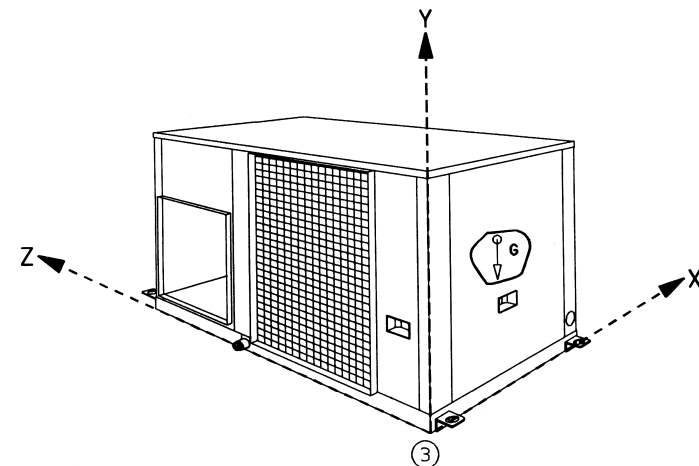
50YZ (all sizes)



	50YZ						
	024	036	042	048	060	072	084
XG*	443	461	522	559	595	695	710
YG*	200	213	210	217	223	290	290
ZG*	428	438	484	519	563	667	702

* Measured from point ④

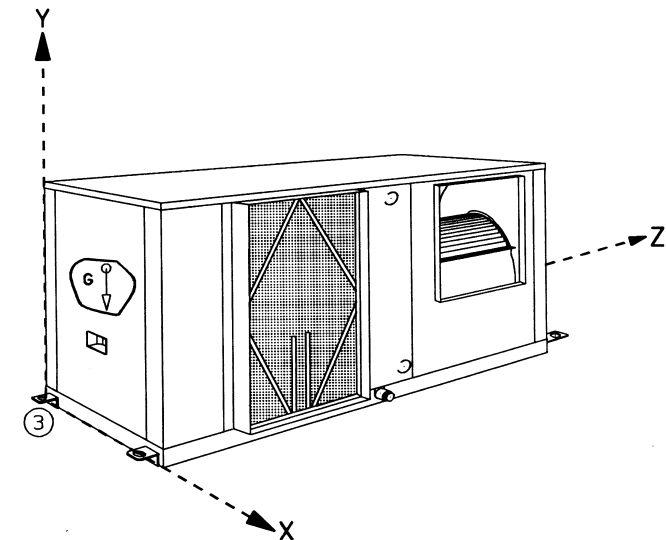
38BZ (all sizes)



	38BZ						
	024	036	042	048	060	072	084
XG*	302	310	322	348	372	460	490
YG*	199	211	210	212	218	283	283
ZG*	340	357	424	458	500	600	610

* Measured from point ③

40BZ (all sizes)

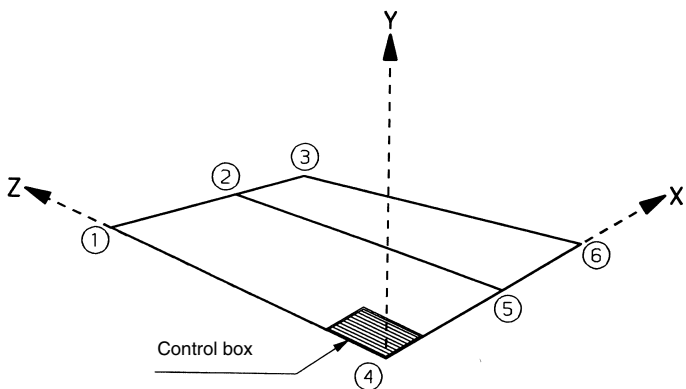


	40BZ						
	024	036	042	048	060	072	084
XG*	290	300	308	310	310	430	460
YG*	223	238	240	232	235	275	277
ZG*	495	586	633	682	725	758	786

* Measured from point ③

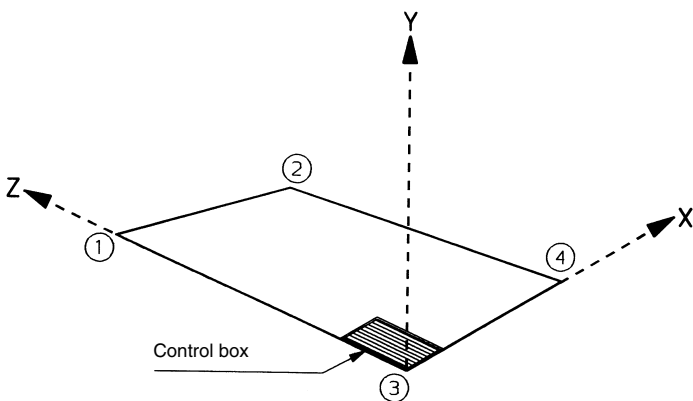
Weight distribution (kg, approx.)

50YZ (all sizes)



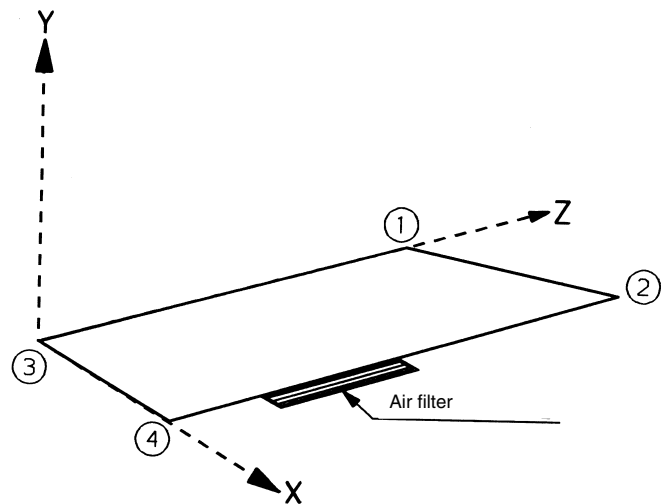
Support points	50YZ						
	024	036	042	048	060	072	084
①	20	22	26	28	33	42	49
②	27	31	36	49	46	57	66
③	18	21	20	25	28	39	47
④	42	47	53	61	66	76	87
⑤	50	60	62	70	74	85	96
⑥	13	15	17	21	23	33	40

38BZ (all sizes)



Support points	38BZ						
	024	036	042	048	060	072	084
①	18	23	27	33	37	44	55
②	16	19	20	23	27	37	49
③	44	51	55	66	70	78	92
④	34	40	41	46	49	57	69

40BZ (all sizes)



Support points	40BZ						
	024	036	042	048	060	072	084
①	11	12	14	15	18	25	25
②	17	18	19	21	25	32	34
③	18	20	21	22	25	25	25
④	12	13	17	18	19	34	36

Cooling capacities

50YZ 024 y 40BZ 024/38BZ 024 - Air flow 400 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	6.11	5.68	5.10	4.63	3.91
		kW	1.85	1.91	1.99	2.07	2.28
	19	SHC	3.05	2.67	2.29	2.19	1.81
	21	SHC	3.86	3.48	3.10	2.72	2.53
	23	SHC	4.77	4.39	4.01	3.63	3.43
	25	SHC	5.63	5.29	4.91	4.53	3.86
17		CAP	6.53	6.11	5.63	5.15	4.39
		kW	1.93	1.99	2.07	2.15	2.35
	21	SHC	3.34	2.96	2.58	2.43	2.00
	23	SHC	4.15	3.77	3.39	3.01	2.72
	25	SHC	5.06	4.67	4.29	3.91	3.63
	27	SHC	5.91	5.58	5.20	4.82	4.34
19		CAP	7.01	6.58	6.20	5.53	4.87
		kW	2.01	2.07	2.16	2.32	2.44
	23	SHC	3.63	3.24	2.86	2.62	2.19
	25	SHC	4.44	4.05	3.67	3.29	2.91
	27	SHC	5.34	4.96	4.58	4.20	3.82
	29	SHC	6.25	5.87	5.49	5.10	4.72
21		CAP	7.44	7.11	6.63	6.20	5.53
		kW	2.09	2.16	2.24	2.40	2.51
	25	SHC	3.91	3.63	3.01	2.81	2.39
	27	SHC	4.72	4.34	3.96	3.58	3.20
	29	SHC	5.63	5.25	4.87	4.48	4.10
	31	SHC	6.53	6.15	5.77	5.44	5.01

50YZ 042 y 40BZ 042/38BZ 042 - Air flow 670 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	9.48	9.29	8.67	7.86	7.05
		kW	3.15	3.27	3.35	3.50	3.65
	19	SHC	4.72	4.48	4.38	4.34	4.00
	21	SHC	7.24	6.91	6.62	6.53	6.43
	23	SHC	8.58	8.34	7.67	7.53	6.72
	25	SHC	9.43	9.24	8.62	7.81	7.00
17		CAP	9.96	9.82	9.63	8.86	7.96
		kW	3.30	3.40	3.49	3.65	3.80
	21	SHC	4.81	4.57	4.48	4.43	4.10
	23	SHC	7.34	7.00	6.72	6.62	6.53
	25	SHC	8.67	8.43	7.77	7.62	6.81
	27	SHC	9.91	9.67	8.86	8.05	7.20
19		CAP	10.44	10.29	10.10	9.63	8.86
		kW	3.40	3.54	3.60	3.80	3.95
	23	SHC	4.91	4.67	4.57	4.53	4.29
	25	SHC	7.43	7.10	6.81	6.72	6.62
	27	SHC	8.77	8.53	7.86	7.72	6.91
	29	SHC	10.05	9.77	8.96	8.15	7.29
21		CAP	10.86	10.63	10.39	10.05	9.39
		kW	3.50	3.64	3.70	3.95	4.20
	25	SHC	5.00	4.77	4.67	4.62	4.38
	27	SHC	7.53	7.20	6.91	6.81	6.72
	29	SHC	8.86	8.62	7.96	7.81	7.00
	31	SHC	10.15	9.86	9.05	8.24	7.39

50YZ 036 y 40BZ 036/38BZ 036 - Air flow 565 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	8.24	8.10	7.67	6.91	6.72
		kW	2.81	2.91	3.00	3.10	3.24
	19	SHC	4.50	4.42	4.36	4.31	3.98
	21	SHC	5.78	5.68	5.59	5.49	5.16
	23	SHC	6.91	6.82	6.72	6.63	6.39
	25	SHC	8.19	8.05	7.58	6.82	6.68
17		CAP	8.76	8.57	8.38	8.10	7.39
		kW	2.92	3.02	3.09	3.24	3.38
	21	SHC	4.64	4.55	4.50	4.40	4.07
	23	SHC	5.92	5.82	5.73	5.59	5.26
	25	SHC	7.01	6.91	6.82	6.72	6.49
	27	SHC	8.33	8.24	8.14	8.05	7.24
19		CAP	9.28	9.09	8.90	8.62	7.86
		kW	3.05	3.14	3.20	3.39	3.52
	23	SHC	4.78	4.69	4.59	4.50	4.17
	25	SHC	6.01	5.92	5.82	5.68	5.35
	27	SHC	7.10	7.01	6.91	6.82	6.58
	29	SHC	8.43	8.33	8.24	8.14	7.81
21		CAP	9.71	9.56	9.42	9.09	8.38
		kW	3.10	3.23	3.31	3.48	3.68
	25	SHC	4.88	4.78	4.69	4.59	4.26
	27	SHC	6.11	6.01	5.92	5.78	5.45
	29	SHC	7.20	7.10	7.01	6.91	6.68
	31	SHC	8.52	8.43	8.33	8.24	7.91

50YZ 048 y 40BZ 048/38BZ 048 - Air flow 670 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	10.89	10.51	9.84	8.99	7.94
		kW	3.30	3.42	3.65	3.83	4.25
	19	SHC	6.23	5.94	5.75	5.47	5.14
	21	SHC	7.70	7.37	7.13	6.80	6.47
	23	SHC	9.08	8.75	8.42	8.23	7.66
	25	SHC	10.56	10.13	9.51	8.94	7.89
17		CAP	11.55	11.27	10.70	9.89	8.80
		kW	3.51	3.60	3.79	3.97	4.39
	21	SHC	6.32	6.04	5.85	5.56	5.23
	23	SHC	7.80	7.47	7.23	6.89	6.56
	25	SHC	9.18	8.84	8.51	8.32	7.75
	27	SHC	10.65	10.22	9.61	9.32	8.23
19		CAP	12.51	12.17	11.55	10.84	9.80
		kW	3.60	3.69	3.89	4.11	4.49
	23	SHC	6.42	6.13	5.94	5.66	5.33
	25	SHC	7.89	7.56	7.32	6.99	6.66
	27	SHC	9.27	8.94	8.61	8.42	7.85
	29	SHC	10.75	10.32	9.70	9.41	8.32
21		CAP	13.27	13.03	12.51	11.70	10.70
		kW	3.74	3.83	4.02	4.25	4.58
	25	SHC	6.51	6.23	6.04	5.75	5.42
	27	SHC	7.99	7.66	7.42	7.08	6.75
	29	SHC	9.37	9.03	8.70	8.51	7.94
	31	SHC	10.84	10.41	9.80	9.51	8.42

Capacidades frigoríficas

50YZ 060 y 40BZ 060/38BZ 060 - Air flow 950 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	12.77	12.43	11.85	11.02	9.60
		kW	4.55	4.71	4.97	5.24	5.76
	19	SHC	8.04	7.80	7.70	7.31	6.92
	21	SHC	9.80	9.65	9.46	9.17	8.78
	23	SHC	11.60	11.41	11.31	10.73	9.46
	25	SHC	12.68	12.33	11.80	10.97	9.56
17		CAP	14.09	13.94	13.11	12.38	10.77
		kW	4.87	4.97	5.18	5.50	5.97
	21	SHC	8.14	7.95	7.80	7.41	7.02
	23	SHC	9.90	9.75	9.56	9.26	8.87
	25	SHC	11.70	11.51	11.41	10.92	9.56
	27	SHC	12.97	12.43	11.94	11.21	9.80
19		CAP	15.60	15.36	14.33	13.85	12.33
		kW	4.92	5.03	5.38	5.65	6.02
	23	SHC	8.24	8.04	7.90	7.51	7.12
	25	SHC	9.99	9.85	9.65	9.36	8.97
	27	SHC	11.80	11.60	11.51	11.02	9.65
	29	SHC	13.07	12.53	12.04	11.31	9.90
21		CAP	17.11	16.82	15.99	15.11	13.75
		kW	5.08	5.24	5.50	5.81	6.07
	25	SHC	8.34	8.14	8.00	7.61	7.22
	27	SHC	10.09	9.95	9.75	9.46	9.07
	29	SHC	11.90	11.70	11.60	11.12	9.75
	31	SHC	13.16	12.63	12.14	11.41	9.99

50YZ 084 y 40BZ 084/38BZ 084 - Air flow 1365 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	22.19	20.74	19.12	17.45	15.16
		kW	7.10	7.36	7.58	7.85	8.17
	19	SHC	15.47	14.22	12.97	11.72	10.47
	21	SHC	17.61	16.36	15.06	13.65	12.61
	23	SHC	19.69	18.44	17.19	15.94	14.59
	25	SHC	21.83	20.53	19.07	17.40	15.11
17		CAP	23.60	22.14	20.58	18.81	16.67
		kW	7.31	7.47	7.79	8.12	8.44
	21	SHC	15.68	14.43	13.18	11.93	10.68
	23	SHC	17.82	16.57	15.27	13.86	12.82
	25	SHC	19.90	18.65	17.40	16.15	14.90
	27	SHC	22.04	20.74	19.49	18.24	16.57
19		CAP	25.11	23.60	22.19	20.53	18.29
		kW	7.47	7.74	8.01	8.33	8.76
	23	SHC	15.89	14.64	13.39	12.14	10.89
	25	SHC	18.03	16.78	15.47	14.07	13.03
	27	SHC	20.11	18.86	17.61	16.36	15.11
	29	SHC	22.25	20.94	19.69	18.44	17.19
21		CAP	26.52	25.11	23.60	22.04	19.80
		kW	7.74	8.01	8.33	8.76	9.08
	25	SHC	16.10	14.85	13.60	12.35	11.10
	27	SHC	18.24	16.98	15.68	14.28	13.23
	29	SHC	20.32	19.07	17.82	16.57	15.32
	31	SHC	22.46	21.15	19.90	18.65	17.40

Legend:

Edb - Indoor unit entering air dry bulb temperature °C

Ewb - Indoor unit entering air wet bulb temperature °C

kW - Compressor power input kW

SHC - Sensible heat capacity kW

CAP - Total cooling capacity kW

50YZ 072 y 40BZ 072/38BZ 072 - Air flow 1320 l/s

Ewb °C	Edb °C		Outdoor air dry bulb temperature, °C				
			25	30	35	40	46
15		CAP	18.41	17.51	16.55	15.07	13.26
		kW	6.07	6.38	6.79	7.30	7.76
	19	SHC	12.25	11.72	11.19	10.72	10.08
	21	SHC	14.43	13.90	13.37	12.84	12.25
	23	SHC	16.60	16.13	15.60	14.85	12.73
	25	SHC	18.36	17.45	16.50	15.01	13.21
17		CAP	19.68	18.78	17.82	16.34	14.59
		kW	6.28	6.59	6.99	7.40	8.01
	21	SHC	12.36	11.83	11.30	10.82	10.19
	23	SHC	14.54	14.01	13.47	12.94	12.36
	25	SHC	16.71	16.23	15.70	15.17	13.90
	27	SHC	18.94	18.41	17.77	17.35	14.54
19		CAP	20.90	20.11	19.10	17.61	15.86
		kW	6.38	6.79	7.20	7.61	8.22
	23	SHC	12.47	11.94	11.41	10.93	10.29
	25	SHC	14.64	14.11	13.58	13.05	12.47
	27	SHC	16.82	16.34	15.81	15.28	14.64
	29	SHC	19.04	18.51	17.98	17.45	15.81
21		CAP	22.17	21.49	20.48	18.99	17.24
		kW	6.48	6.89	7.30	7.71	8.27
	25	SHC	12.57	12.04	11.51	11.03	10.40
	27	SHC	14.75	14.22	13.69	13.16	12.57
	29	SHC	16.92	16.45	15.92	15.38	14.75
	31	SHC	19.15	18.62	18.09	17.56	15.92

Correction factors, cooling

50YZ 40BZ+38BZ	Multiplier	Nominal air flow		
		80%	90%	110%
024	CAP	0.95	0.97	1.02
	SHC	0.89	0.95	1.05
	kW	0.98	0.99	1.02
036	CAP	0.95	0.97	1.02
	SHC	0.88	0.94	1.06
	kW	0.97	0.99	1.02
042	CAP	0.96	0.98	1.03
	SHC	0.89	0.95	1.08
	kW	0.98	0.99	1.02
048	CAP	0.94	0.98	1.03
	SHC	0.89	0.95	1.05
	kW	0.96	0.98	1.01
060	CAP	0.96	0.96	1.02
	SHC	0.86	0.91	1.04
	kW	0.97	0.98	1.01
072	CAP	0.94	0.97	1.02
	SHC	0.87	0.94	1.04
	kW	0.96	0.98	1.01
084	CAP	0.95	0.97	1.02
	SHC	0.87	0.94	1.05
	kW	0.97	0.98	1.02

CAP - Total capacity

SHC - Sensible capacity

kW - Compressor power input

Instantaneous heating capacities

50YZ 40BZ + 38BZ	l/s	Edb °C	Outdoor air wet bulb temperature, °C																				
			-15			-10			-5			0			6			12			18		
			CAP	kW	COP	CAP	kW	COP	CAP	kW	COP	CAP	kW	COP	CAP	kW	COP	CAP	kW	COP	CAP	kW	COP
024	400	18	3.26	1.75	1.87	3.70	1.82	2.03	4.48	1.99	2.25	5.00	2.00	2.50	6.61	2.28	2.90	7.83	2.51	3.12	8.79	2.66	3.31
		20	3.13	1.80	1.74	3.52	1.89	1.86	4.35	2.72	1.60	4.87	2.03	2.40	6.53	2.35	2.78	7.74	2.56	3.02	8.66	2.73	3.17
		24	2.91	2.44	1.20	3.35	2.54	1.32	4.13	2.05	2.01	4.65	2.25	2.07	6.26	2.38	2.64	7.48	2.59	2.89	8.44	2.76	3.05
036	565	18	3.81	2.78	1.37	4.80	2.90	1.65	6.44	2.96	2.18	8.09	3.11	2.60	9.64	3.38	2.85	10.91	3.68	2.96	12.37	3.80	3.25
		20	3.62	2.83	1.28	4.61	2.95	1.56	6.25	2.95	2.12	7.90	3.13	2.52	9.50	3.40	2.79	10.77	3.65	2.95	12.43	3.86	3.22
		24	3.39	2.93	1.16	4.37	3.04	1.44	5.93	3.06	1.94	7.57	3.15	2.40	9.17	3.42	2.68	10.49	3.73	2.81	11.99	3.92	3.06
042	670	18	5.70	3.15	1.81	6.70	3.30	2.03	8.32	3.36	2.47	10.04	3.51	2.86	11.45	3.84	2.98	12.91	4.14	3.12	14.53	4.35	3.34
		20	5.40	3.23	1.67	6.41	3.37	1.90	8.07	3.38	2.39	9.79	3.54	2.77	11.30	3.86	2.92	12.76	4.17	3.06	14.33	4.37	3.28
		24	5.09	3.33	1.53	6.10	3.46	1.76	7.68	3.46	2.22	9.38	3.59	2.62	11.00	3.89	2.83	12.36	4.23	2.92	14.02	4.44	3.16
048	670	18	6.39	3.43	1.86	7.32	3.55	2.06	8.58	3.70	2.32	10.07	3.85	2.62	12.78	4.39	2.91	14.51	4.72	3.07	15.44	4.78	3.23
		20	6.20	3.47	1.79	7.18	3.61	1.99	8.40	3.75	2.24	9.79	3.87	2.53	12.50	4.41	2.83	14.41	4.76	3.03	15.34	4.83	3.18
		24	5.92	3.57	1.66	6.90	3.70	1.86	8.08	3.83	2.11	9.42	3.98	2.37	12.08	4.48	2.70	14.04	4.83	2.91	14.88	4.90	3.04
060	950	18	9.70	5.11	1.90	10.84	5.28	2.05	12.21	5.48	2.23	14.04	5.72	2.45	17.09	6.50	2.63	19.16	6.98	2.74	21.03	7.10	2.96
		20	9.36	5.18	1.81	10.59	5.36	1.97	11.92	5.54	2.15	13.74	5.77	2.38	16.84	6.53	2.58	18.96	7.07	2.68	20.73	7.17	2.89
		24	8.91	5.31	1.68	10.10	5.46	1.85	11.43	5.67	2.01	13.20	5.89	2.24	16.25	6.62	2.46	18.37	7.16	2.56	20.39	7.24	2.82
072	1320	18	12.41	6.11	2.03	14.28	6.63	2.15	16.14	7.10	2.27	18.46	7.56	2.44	22.00	8.18	2.69	25.43	8.74	2.91	27.80	9.13	3.04
		20	12.16	6.19	1.96	14.03	6.72	2.09	15.89	7.15	2.22	18.06	7.62	2.37	21.79	8.34	2.61	25.17	8.94	2.81	27.50	9.31	2.95
		24	11.91	6.34	1.88	13.67	6.95	1.97	15.44	7.31	2.11	17.61	7.84	2.25	21.24	8.62	2.46	24.67	9.29	2.65	26.99	9.62	2.81
084	1365	18	16.09	6.14	2.62	17.63	6.45	2.73	19.35	7.00	2.77	21.60	7.54	2.86	25.43	8.39	3.03	29.75	9.29	3.20	34.20	10.09	3.39
		20	15.76	6.57	2.40	17.20	6.93	2.48	18.92	7.47	2.53	21.08	8.06	2.62	25.00	8.82	2.83	29.41	9.90	2.97	33.87	10.59	3.20
		24	14.94	7.24	2.07	16.29	7.65	2.13	18.20	8.21	2.22	19.54	8.81	2.22	23.95	9.78	2.45	28.21	10.30	2.74	32.67	10.89	3.00

CAP - Total heating capacity kW
COP - Coefficient of performance W/W
Edb - Indoor air dry bulb temperature, °C
kW - Total power input

Integrated heating capacities

For integrated heating capacities multiply the instantaneous heating capacities from the table above with the following correction factors:

	Outdoor air wet bulb temperature °C						
	-15	-10	-5	0	6	12	18
CAP x	0.91	0.91	0.91	0.897	1.00	1.00	1.00
COP x	0.955	0.955	0.955	0.955	1.00	1.00	1.00

Correction factors, heating

50YZ 40BZ + 38BZ	Multiplier	Nominal air flow		
		80%	90%	110%
024	CAP	0.95	0.98	1.02
	COP	0.93	0.97	1.03
	kW	1.02	1.01	0.99
036	CAP	0.95	0.98	1.02
	COP	0.93	0.97	1.06
	kW	1.02	1.01	0.99
042	CAP	0.96	0.97	1.02
	COP	0.94	0.96	1.03
	kW	1.02	1.01	0.99
048	CAP	0.94	0.97	1.01
	COP	0.92	0.96	1.02
	kW	1.02	1.01	0.99
060	CAP	0.95	0.98	1.04
	COP	0.93	0.96	1.03
	kW	1.02	1.01	0.99
072	CAP	0.95	0.98	1.02
	COP	0.93	0.97	1.03
	kW	1.02	1.01	0.99
084	CAP	0.95	0.98	1.02
	COP	0.93	0.97	1.03
	kW	1.02	1.01	0.99

CAP - Total capacity
COP - Coefficient of performance W/W
kW - Compressor power input

Operating limits

Zone	Cooling		Heating	
	Dry bulb	Wet bulb	Dry bulb	Wet bulb
Indoor air temperature °C				
Maximum	35	21	27	-
Minimum	19	14	-	-
Outdoor air temperature °C				
Maximum	46	-	24	18
Minimum	19*	-	-15	-

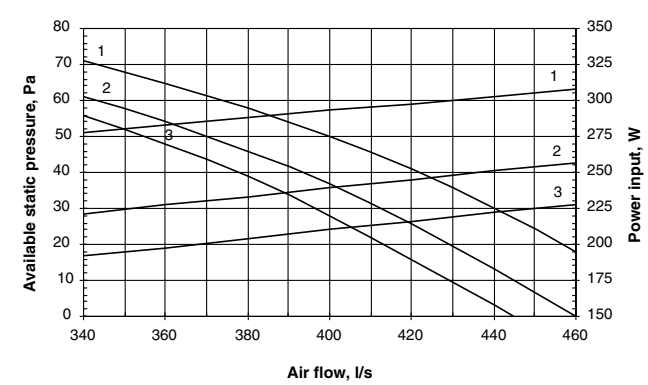
* With optional head pressure control, the unit will operate at temperatures below 19°C.

Options/accessories

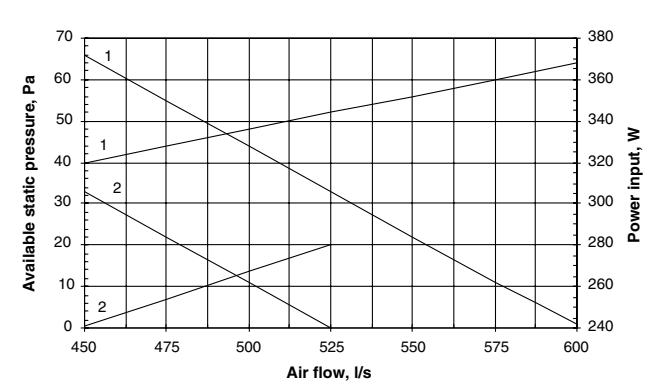
	Option	Accessory
Head pressure control	x	x
Electric heaters	x	x
Hot water coil	x	x
Flare connections	x	
Outdoor air filter	x	x

Fan curves

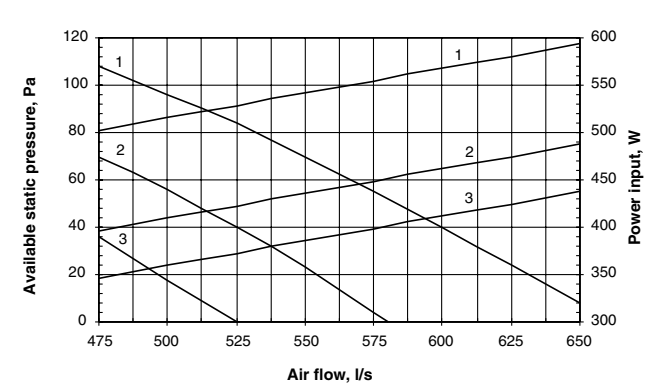
50YZ 024 indoor fan (40BZ 024)



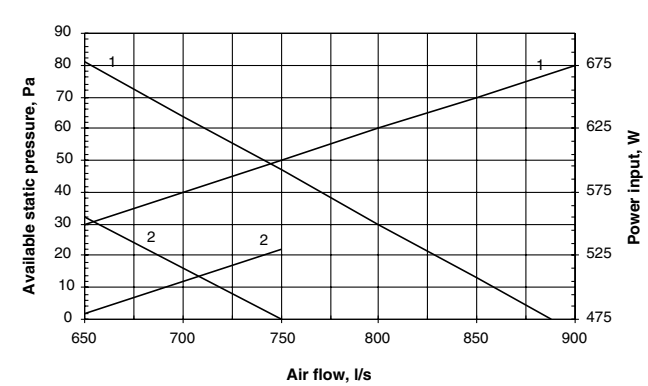
50YZ 024 outdoor fan (38BZ 024)



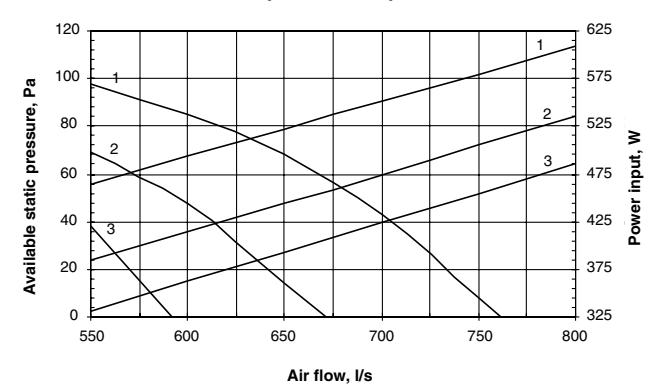
50YZ 036 indoor fan (40BZ 036)



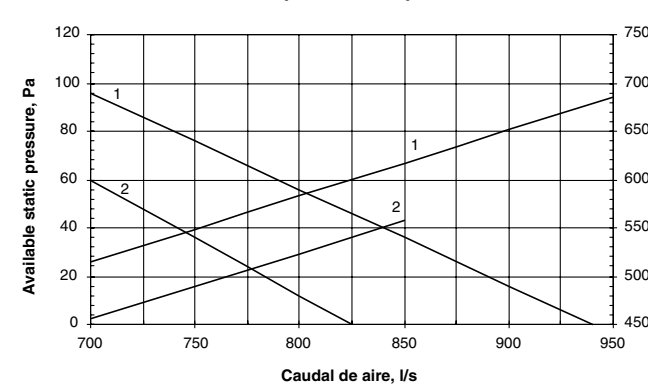
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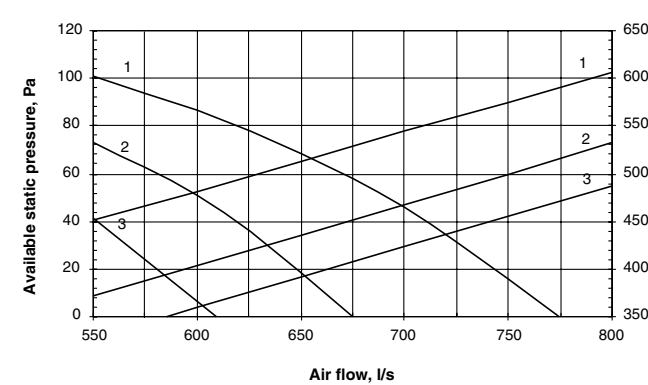
50YZ 042 indoor fan (40BZ 042)



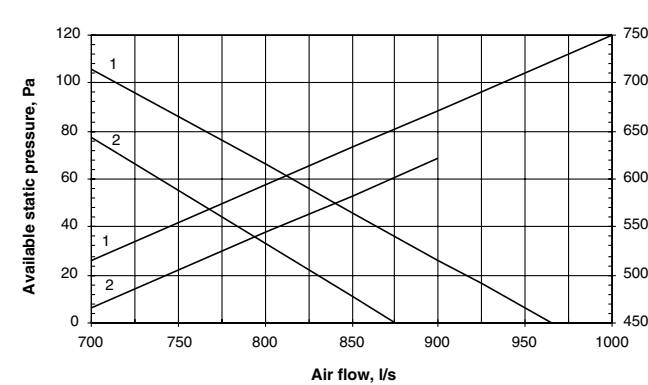
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50YZ 048 indoor fan (40BZ 048)

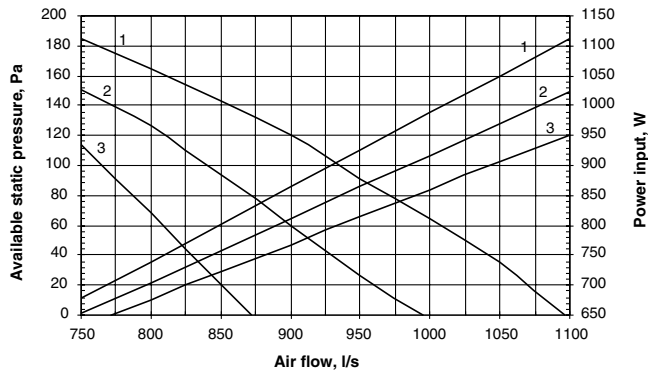


50YZ 048 outdoor fan (38BZ 048)

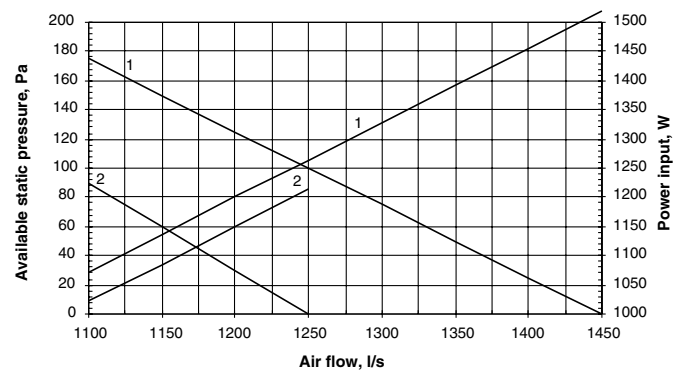


Fan curves

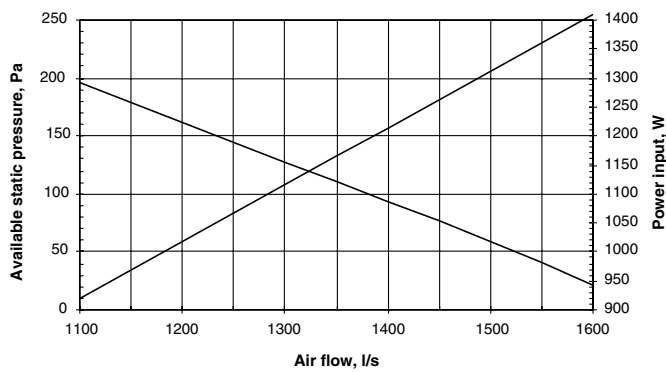
50YZ 060 indoor fan (40BZ 060)



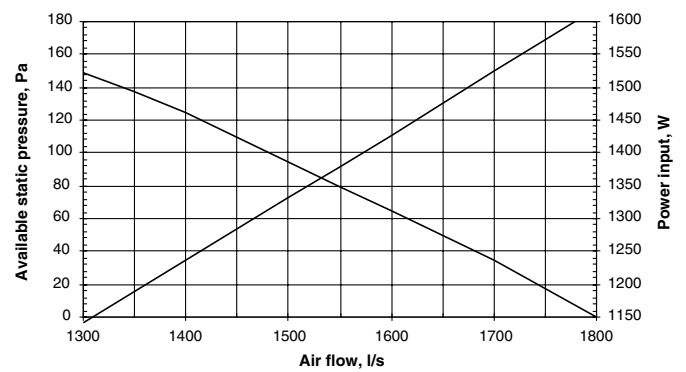
50YZ 060 outdoor fan (38BZ 060)



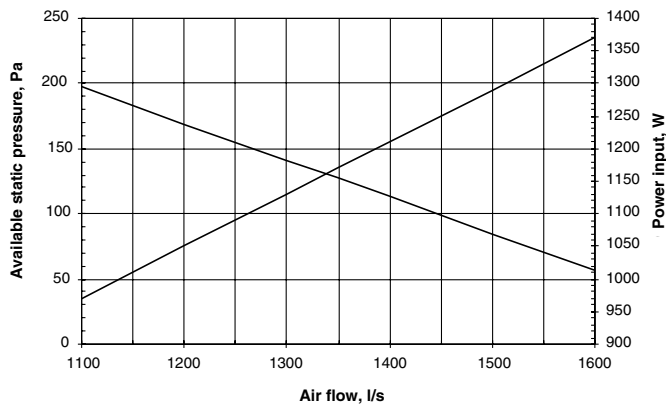
50YZ 072 indoor fan (40BZ 072)



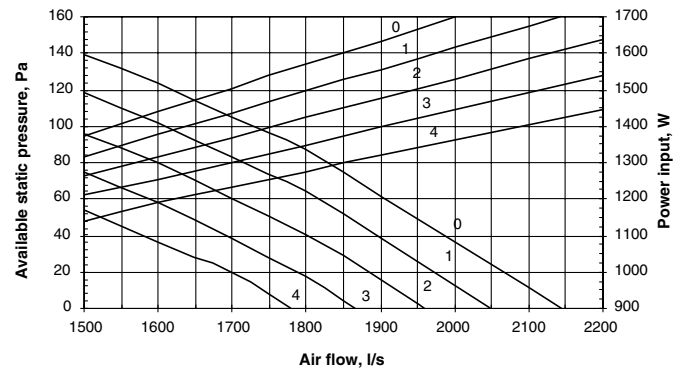
50YZ 072 outdoor fan (38BZ 072)



50YZ 084 indoor fan (40BZ 084)



50YZ 084 outdoor fan (38BZ 084)



Models 024 to 060	
Curve	Fan speed
1	High
2	Medium
3	Low

Model 50YZ 084 (38BZ 084)		
Curve	Pulley opening	r/s
0	Closed	15.33
1	1 turn	14.83
2	2 turns	14.33
3	3 turns	13.83
4	4 turns	13.33
Factory setting	1 turn	14.83



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Manufacturer reserves the right to change any product specifications without notice.

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