PRODUCT SELECTION DATA

AIR HEATERS DESTRATIFIER

The best solution for heating and/or cooling large spaces

Ensures buildings warm up ultra fast

Excellent diffusion via patented JET+ double deflection technology

Available with low consumption EC motor

Destratifier version for better air mixing in heating mode

42AM
42AMA

In wall-mounted or ceiling-mounted versions, the **air heater** is the simple, affordable heating/cooling solution for all your applications: for your premises in the tertiary sector (sales area, gym, multi-purpose rooms etc.) or in industry (workshop, garage, storage unit, logistics platform, etc.).

The air heater may have associated **destratifiers** (42AMA-) to promote mixing of the building air. (Anti-stratification solution).

The 42AM range meets APSAD and NFPA guidelines on unit peripheral air speeds.

All are less than 5 m/s at 0.5 m from the diffuser and thus do not interfere with sprinkler systems.

RANGE

Heating version

Heating/cooling medium	LP water	HP superheated water - Oil	HP steam
AC motor	THREE-PHASE 2-speed – SINGLE-PHASE 1 variable speed IP 44 (42AM-AC35) and IP54 (42AM-AC40 to 42AM-AC63)		
Reinforced variant	CORROBLOC version – IP 55/65 – 700-hour salt spray test		
Coil (tubing/row)	Copper/Alu	316L stainless steel/Alu	316L stainless steel/Alu
Reinforced versions	316L stainless steel pipes/HERESITE coating	HERESITE coating	
Casing	Precoated off-white (RAL 7035) galvanised steel		
Reinforced versions	304L stainless steel		
ATEX versions	LCIE 13 ATEX 1015 X – Zone 2 – IIB or IIC – T4 or T6		

Heating or Cooling version

Heating/cooling medium	LP water
EC motor	Variable speed single-phase with 0-10 V signal IP 54 (42AM-EC30 and 42AM-EC35) and IP55 (42AM-EC40 to 42AM-EC63)
Coil (tubing/row)	Copper/Alu
Reinforced versions	316L stainless steel pipes/HERESITE coating
Casing	Off-white precoated galvanised steel (RAL 7035) Built-in condensate pan + quick-release fitting for cooling
Reinforced versions	304L stainless steel

CODES

	Range							Series		Size				Model	Coil	Thermal function	Sp. option	Modif. index
Product ref.	**4**	**2**	**A**	**M**	**-**	**A**	**C**	**3**	**5**	**1**	**M**	**0**	**-**	**s**	**0**	**H**	**I**	**A**
Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Digits 1 to 7
42AM-AC: AC motor air heater- Digit 16 = H, C, P or S
42AM-EC: EC motor air heater - Digit 16 = H or C
42AM-EX: ATEX air heater - Digit 16 = H, C, P or S
42AMAAC: AC motor destratifier - Digit 16 = -
42AMAEC: EC motor destratifier - Digit 16 = -

Digits 8&9
30*
35
40
45**
50
63***
64****

Digit 14
S = Suspended-Digit 16 = H or -
M = Wall-mounted only

Digit 15
- = NONE (for 42AMAAC and 42AMAEC)
0 = 2 standard pipes
1 = 2 stainless steel pipes

Digit 17
- = NONE
I = Stainless steel casing
C = Corrobloc FMA - If 42AM-AC
H = Heresite-coated coil - Digit 16 = H,C,P or S
A = Altena-coated coil - Digit 16 = H,C,P or S
J = I+C
K = I+H
L = C+H
M = I+A
N = C+A
O = I+C+H
P = I+C+A

Digit 16
H = Hot Water only
C = Cold water only
R = Hot water/cold water
P = Superheated water
S = Steam
- = NONE (42AMAAC or 42AMAEC)

	Digits 10 to 13
42AM-AC	1M0- = 1 row 1-ph/230 V FMA with AC motor - Digit 16 = H, P or S
	3M0H = 3 rows 1-ph/230 V FMA with AC motor - Heating - Digit 16 = H
	1T0- = 1 row 3-ph/400 V FMA with AC motor - Digit 16 = H, P or S
	3T0- = 3 rows 3-ph/400 V FMA with AC motor - Digit 16 = H
42AM-EC	1M9- = 1 row 1-ph/230 V FMA with EC motor- Digit 16 = H
	2M9H = 2 rows 1-ph/230 V FMA with EC motor - Digit 8&9 =30 and Digit 16 = H
	2M9C = 2 rows 1-ph/230 V FMA with EC motor - Digit 8&9 =30 and Digit 16 = C or R
	3M9H = 3 rows 1-ph/230 V FMA with EC motor - HEATING - Digit 16 = H
	3M9C = 3 rows 1-ph/230 V FMA with EC motor - Cooling or Heating/Cooling - Digit 16 = C
42AM-EX (Gaseous atmospheres and Zone 2 only)	1T1- = 1 row 380 V/3-ph - ATEX IIBT4 motor (gas) - Digit 16 = H, P or S
	3T1H = 3 rows 380 V/3-ph - ATEX IIBT4 motor (gas) - Digit 16 = H
	3T1C = 3 rows 380 V/3-ph - ATEX IIBT4 motor (gas)- Cooling or Heating/Cooling-Digit 16 = C
	1T2- = 1 row 380 V/3-ph - ATEX IIBT5 motor (gas) - Digit 16 = H, P or S
	3T2H= 3 rows 380 V/3-ph - ATEX IIBT5 motor (gas) - Heating - Digit 16 = H
	3T2C= 3 rows 380 V/3-ph - ATEX IIBT5 motor (gas)- Cooling or Heating/Cooling-Digit 16 = C
	1T3- = 1 row 380 V/3-ph - ATEX IICT4 motor (gas) - Digit 16 = H, P or S
	3T3H= 3 rows 380 V/3-ph - ATEX IICT4 motor (gas) - Heating - Digit 16 = H
	3T3C= 3 rows 380 V/3-ph - ATEX IICT4 motor (gas)- Cooling or Heating/Cooling-Digit 16 = C
	1T4- = 1 row 380 V/3-ph - ATEX IICT6 motor (gas) - Digit 16 = H, P or S
	3T4H= 3 rows 380 V/3-ph - ATEX IICT6 motor (gas) - Heating - Digit 16 = H
	3T4C= 3 rows 380 V/3-ph - ATEX IICT6 motor (gas)- Cooling or Heating/Cooling-Digit 16 = C
42AMAAC	-M0- = 1-ph/230 V FMA with AC motor- Cooling or Heating/Cooling-Digit 16 = -
	-T0- = 3-ph/400 V FMA with AC motor- Cooling or Heating/Cooling-Digit 16 = -
42AMAEC	-M9- = 1-ph/230 V FMA with EC motor- Cooling or Heating/Cooling-Digit 16 = -

* If 42AM-EC
** If Digit 16 = H, C or -
*** 42AM-AC: If Digit 16 = H, P or S
*** 42AM-EC: If Digit 16 = H or C
*** 42AM-EX: Not available
**** 42AM-AC: If Digit 16 = H

Units in Hot Water only, Superheated Water or Steam versions are delivered as standard with left-hand connection (opposite the air heater). Right-hand connection is possible simply by reversing the unit.

Units in Cold Water only or Hot Water/Cold Water versions are delivered as standard with left-hand connection. To request right-hand connection, please consult us.

ATEX versions are only available with left-hand connection.

TECHNICAL DESCRIPTION

High-efficiency fan motor assembly

Silent FMA with an epoxy polyester-coated aluminium airfoil propeller to ensure the best compromise between air flow efficiency and acoustic comfort.

The ROTOREX design with windings inserted in the fan hub, keeps the motor cool to ensure that it operates at optimum efficiency.

Available versions:

- THREE-PHASE 2 speeds (accessory: LS/HS switch)
- SINGLE-PHASE 1 variable speed (accessory: 5-speed autotransformer)

Low consumption EC FMA

Fan motor assembly equipped with a powerful high-efficiency EC (electronically commutated) motor. These EC motors (single-phase 230 V drive) will be progressively controlled by the 0-10 V signal, to ensure acoustic comfort and air flow efficiency and to optimise consumption of electricity. A shunt can be used to operate the air heater at maximum speed.

Casing

- Elegant galvanised steel casing, pre-painted in RAL 7035 (light grey).
- Built-in condensate drain pan for cooling applications, featuring an antibacterial design (perforated bottom) and quick-release fitting.
- Inlet cone optimised for improved air flow performance and acoustic comfort level.
- Advantages:
  - Its classic design means that it can easily blend into the architecture of the installation site.
  - No need to add an unsightly condensate drain pan.
  - Condensate pipes quick and extremely simple to connect, without any need for a clamp.

Diffuser

Double deflection diffuser made from rigid aluminium sections, based on the BERNOULLI fluid flow principle and on NACA0012 airfoils, creating a high induction rate on the primary air, in order to increase the air streams, limit the stratification phenomenon and thereby reduce energy consumption.

Basic version on request for a minimum quantity of 15 units (one size available only: 42AM-AC641T0-M0H):

- Single-deflection diffuser with directional louvre
- Light-grey galvanised steel louvre

JET+ version (fitted as standard):

- Double-deflection diffuser
- JET+ aluminium louvre with NACA0012 airfoil design
- Each louvre is directional
- Advantages:
  - Air flows adjustable in 4 directions for optimum coverage of the area to be handled, while limiting draughts.
  - Laminar flow of the airstream for improved acoustic comfort (no turbulence at the diffuser outlet).
  - Increased velocity of the air streams thanks to the aerodynamics of the curved airfoil (low pressure on the underside of the wing) increases the coverage of the air streams and the induction rate.
  - Limits stratification.
  - Reduced building warm-up time:
  - Recorded energy savings of 15 to 20%.

Heat exchanger

HIGH EFFICIENCY heat exchanger coil with tapered intake baffles to help pressurise the finned casing, available in the following versions:

LP hot or cold water version – Available with 1 or 3 rows:

- Copper pipe Ø 9.52 mm
- Embossed aluminium fins – Thickness 10/100 mm
- Fin spacing 2.1 mm
- Equilateral geometry 32 mm
- Advantage: Excellent thermal yield (dry transfer coefficient > 50 W/m².k)

HP superheated water version- Oil – Available with 1 row:

- 316L stainless steel Ø 16 mm thick pipe
- Embossed aluminium fins – Thickness 28.5/100 mm
- Fin spacing 2.5 mm
- Can be used with heat transfer oils
- Advantage: robust aluminium finned casing for industrial environments (polluted air) compatible with high-pressure jet washing.

HP steam version – Available with 1 row:

- 316L stainless steel Ø 16 mm thick pipe
- Embossed aluminium fins – Thickness 28.5/100 mm
- Fin spacing 2.5 mm
- Advantage: excellent corrosion resistance thanks to chemical treatments injected into the steam installation pipe networks.

TECHNICAL DESCRIPTION

Control

A range of "Plug & Play" proportional air-source/water-source controllers with heat exchanger (or electric heater) are used to control the air flow of the fan motor assembly and the heating capacity required for the room, according to the occupancy periods (built-in timer).

Single-phase EC FMA + LP water application:

- The single-phase EC BOX can control:
  - 6 H4000 single-phase ECs
  - 6 TPL 4000 single-phase ECs
  - 3 H4000 single-phase ECs + 3 TPL single-phase ECs
  - 4 H4000 single-phase ECs + 2 TPL single-phase ECs

Options and accessories

- Wall bracket, ceiling bracket, IPN additional kit
- Filter box
- Specific diffuser (on door, high-level etc.)
- Room thermostat for THREE-PHASE or SINGLE-PHASE installation
- LS/HS switch for 3-PH fan motor assembly
- 5-speed autotransformer for single-phase AC FMAs
- Proximity switch
- Circuit breaker unit

By special request:

- ATEX air heater

42AM PERFORMANCE SUPERHEATED WATER AND STEAM 230 V/1-PH/50 HZ MOTOR - AC AND EC

HEATING operation - 230 V/1-ph/50 Hz motor - AC and EC									
Model	No. rows	Supply air speed SINGLE-PHASE	Flow rate m³/h	Air speed m/s	Range (metres)		Heating capacity (kW)		Sound pressure
					Wall-mounted	Suspended	SW	HPS	dB(A)
30	2	Direct	1 420	3.16 m/s	15	3			45
35	1	Direct	2 600	3.92 m/s	22	6	29	32	48
		R3*	2 360	3.56 m/s	18	4	27	29	46
	3	Direct	2 075	3.13 m/s	15	2,5			50
		R3*	1 780	2.68 m/s	14	2			48
40	1	Direct	4 200	4.57 m/s	26	8,5	43	46	54
		R3*	3 914	4.26 m/s	24	7,5	39	42	52
	3	Direct	3 450	3.75 m/s	23	7			56
		R3*	3 220	3.50 m/s	20	5,5			54
45	1	Direct	5 200	4.20 m/s	27	8,5			56
		R3*	4 100	3.31 m/s	24	6			49
	3	Direct	4 550	3.68 m/s	18	3,5			59
		R3*	3 650	2.95 m/s	17	3			52
50	1	Direct	7 100	4.22 m/s	28	9	79	77	56
		R3*	5 700	3.39 m/s	26	7	66	70	50
	3	Direct	6 200	3.69 m/s	24	6,5			58
		R3*	5 055	3.01 m/s	23	5,5			52
63	1	Direct	10 450	4.19 m/s	28	10,5	103	107	54
		R3*	8 900	3.57 m/s	22	8	93	98	47
	3	Direct	8 280	3.32 m/s	21	6,5			56
		R3*	6 270	2.52 m/s	19	5			44

HEATING - COOLING operation - 230 V/1-ph/50 Hz motor - EC						
Model	No. rows	Supply air speed	Air flow rate	Air speed	Range (metres)	Sound pressure
			m³/h	m/s	Wall-mounted	dB(A)
30M9 (EC)	2	Direct	1200	2.67 m/s	12	43
35M9 (EC)	3	Direct	1640	2.47 m/s	23	30
40M9 (EC)			2160	2.35 m/s	26	48
45M9 (EC)			3025	2.44 m/s	24	45
50M9 (EC)			4060	2.41 m/s	23	54
63M9 (EC)			5960	2.39 m/s	21	53

Specifications determined using the following information:

- **Superheated water (ES HP):** temperature: 180 - 120 °C / TR=15 °C – RH 50 %
- **Steam (VAP HP):** temperature 175 °C – 8 bar / TR=15 °C – RH 50 %
- **Cooling:** temperature 7 - 12 °C / TR=27 °C – RH 50 %
- **Air stream:** * with JET+ diffuser for a residual speed of 0.1 m/s

* defined with a Δt TS/TR of 15 °C (heating) and 7 °C (cooling)
* for LP water operation

- **Air speed:** JET+ diffuser outlet
- **Sound pressure:** 5 metres from the unit, directivity 2, attenuation of 22 dB
- **Direct:** speed obtained when wired directly to single-phase motor.
- **R3*** (version with AC motor): supply air speed obtained with an autotransformer at 3. Other operation points (5 in total) can be supplied on request by your agent using our technical selection software.

42AM PERFORMANCE SUPERHEATED WATER AND STEAM 400 V/3-PH/50 HZ MOTOR

HEATING operation - 400 V/3-ph/50 Hz motor - AC									
Model	No. rows	Supply air speed THREE-PHASE	Flow rate m^3/h	Air speed m/s	Range (metres)		Heating capacity (kW)		Sound pressure
					Wall-mounted	Suspended	SW	HPS	dB(A)
35	1	HS	2 600	3.92 m/s	22	6	29	32	48
		LS	2 210	3.33 m/s	17	3,5	27	29	44
	3	HS	2 165	3.26 m/s	18	4,5			50
		LS	1 775	2.67 m/s	14	2			46
40	1	HS	4 000	4.35 m/s	25	8	42,7	45,7	55
		LS	3 480	3.79 m/s	21	5	38	41	51
	3	HS	3 400	3.70 m/s	22	6,5			56
		LS	2 960	3.22 m/s	17	3,5			52
45	1	HS	5 400	4.36 m/s	28	9			56
		LS	3 910	3.16 m/s	23	5,5			49
	3	HS	5 000	4.04 m/s	24	7,5			59
		LS	3 910	3.16 m/s	20	4			52
50	1	HS	7 500	4.46 m/s	30	10	79,4	77,4	56
		LS	5 740	3.41 m/s	26	7	66,2	70,1	50
	3	HS	6 500	3.86 m/s	26	8,5			58
		LS	5 020	2.98 m/s	23	5,5			52
63	1	HS	11 140	4.47 m/s	29	11,5	110	115	55
		LS	9 635	3.87 m/s	24	8,5	100	105	48
	3	HS	9 175	3.68 m/s	25	10			57
		LS	7 545	3.03 m/s	21	7			49

Specifications determined using the following information:

- **Superheated water (ES HP):** temperature: 180 - 120 °C / TR=15 °C – RH 50 %
- **Steam (VAP HP):** temperature 175 °C – 8 bar / TR=15 °C – RH 50 %
- **Air stream:** * with **JET**+ diffuser for a residual speed of 0.1 m/s

* defined with a Δt TS/TR of 15 °C

* for LP water operation

- **Air speed: JET**+ diffuser outlet
- **Sound pressure:** 5 metres from the unit, directivity 2, attenuation of 22 dB

DESTRATIFIER DETERMINATION AND SELECTION EXAMPLE (42AMA)

The use of 42AMA units is recommended for buildings between 5 and 15 metres high.
S = Supply (released at the top of the building)
TR = Temperature under roof
TW = Temperature setpoint in the work area

$$\text{Calculated flow rate for destratifiers} = \frac{A}{0.3 \times (TR-TW)}$$

Selection example:

Supply under building roof = S = 45,000 kcal (52,200 Watts)
Temperature under roof = TR = 30°C
Temperature setpoint in the work area = TW = 16°C

$$\text{Calculated flow rate for destratifiers} = \frac{45\,000}{0.3 \times (30-16)} = 10714\ m^3/h$$

Either: 2 X 42AMA-50---T0 at HS or 1 x 42AMA-63---T0 at HS.

42AMA AIR FLOW & ACOUSTIC PERFORMANCE

42AMA-		40		45		50		63	
THREE-PHASE motor (3-phase 400 V coupling)		HS	LS	HS	LS	HS	LS	HS	LS
		△	★	△	★	△	★	△	★
SINGLE-PHASE AC and SINGLE-PHASE EC motor		Direct	-	Direct	-	Direct	-	Direct	-
Flow rate	m³/h	4400	3000	6000	4100	8000	5500	11500	8800
Air stream	m	15	8	14	9	16	10	19	14
Sound pressure	dB(A)	51	43	54	46	57	47	55	50

Specifications determined using the following information:

Air stream: * with JET+ diffuser for a residual speed of 0.1 m/s
Sound pressure:* measured 8 metres from unit, directivity 2, attenuation of 26 dB

42AM - HOT WATER - 230 V/1-PH/50 HZ MOTOR - AC AND EC

Inlet/Outlet water temperature, °C		42AM--302*				42AM--351							
		Air flow rate (m³/h) Direct				Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*			
		1420				2600				2360			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	17,1	15,8	14,8	13,9	11,9	11	10,3	9,62	11,5	10,6	9,93	9,28
	PD	42,7	36,8	32,7	28,9	7,91	6,95	6,11	5,4	7,41	6,42	5,73	5,07
60-40	Hc	10,7	9,4	8,46	7,52	7,12	6,19	5,49	4,77	6,87	5,97	5,29	4,6
	PD	18,4	14,6	12	9,65	3,37	2,63	2,12	1,65	3,17	2,46	1,99	1,55
45-40	Hc					7,08	6,17	5,49	4,81	6,83	5,95	5,29	4,65
	PD					40,4	31,7	25,7	20,3	37,9	29,5	24	19,1
50-42	Hc					7,52	6,62	5,94	5,27	7,26	6,38	5,74	5,09
	PD					19,3	15,3	12,6	10,1	18,1	14,4	11,9	9,52

Inlet/Outlet water temperature, °C		42AM--353								42AM--401							
		Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*				Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*			
		2075				1780				4200				3914			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	25,9	23,9	22,3	20,8	23,7	21,8	20,4	19	17,2	15,9	14,9	13,9	16,8	15,5	14,5	13,5
	PD	7,65	6,53	5,77	5,03	6,43	5,5	4,87	4,24	7,24	6,25	5,55	4,9	6,91	5,96	5,3	4,68
60-40	Hc	15,5	13,4	11,9	10,4	14,1	12,3	10,8	9,45	10,2	8,81	7,78	6,72	9,93	8,58	7,58	6,55
	PD	3	2,29	1,82	1,43	2,51	1,93	1,54	1,21	2,99	2,3	1,85	1,42	2,86	2,2	1,76	1,36
45-40	Hc	15,2	13,2	11,7	10,3	13,8	12	10,7	9,35	10,3	8,97	7,98	6,99	10	8,74	7,77	6,81
	PD	40	30,3	24,4	18,9	33,5	25,6	20,4	15,8	38,1	29,5	23,8	18,7	36,3	28,1	22,6	17,9
50-42	Hc	16,3	14,3	12,8	11,3	14,8	13	11,7	10,3	10,9	9,6	8,61	7,62	10,6	9,35	8,39	7,43
	PD	18,5	14,4	11,7	9,29	15,5	12,1	9,81	7,81	17,9	14	11,5	9,22	17,1	13,4	11	8,79

42AM - HOT WATER - 230 V/1-PH/50 HZ MOTOR - AC AND EC

Inlet/Outlet water temperature, °C		42AM--403								42AM--451							
		Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*				Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*			
		3450				3220				5200				4100			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	40,1	36,9	34,6	32,3	38,6	35,5	33,2	31	23,4	21,6	20,3	19	21,3	19,7	18,5	17,3
	PD	13,3	11,4	10,1	8,9	12,3	10,6	9,37	8,26	14,6	12,7	11,3	10	12,4	10,7	9,55	8,46
60-40	Hc	24,2	20,9	18,5	16,1	23,2	20,1	17,8	15,5	14,3	12,5	11,2	9,92	13,1	11,5	10,2	9,01
	PD	5,47	4,22	3,36	2,63	5,09	3,93	3,13	2,45	6,43	5,12	4,2	3,37	5,5	4,34	3,57	2,83
45-40	Hc	23,5	20,4	18,2	15,9	22,6	19,6	17,4	15,3	13,7	12	10,7	9,38	12,5	10,9	9,71	8,53
	PD	67,9	52,4	42,2	32,9	63,2	48,7	39	30,6	72,4	56,8	45,9	36,5	61,3	48	38,9	30,8
50-42	Hc	25,2	22,1	19,8	17,5	24,2	21,2	19	16,8	14,7	12,9	11,6	10,3	13,4	11,8	10,6	9,42
	PD	32,1	25,1	20,5	16,4	29,8	23,3	19	15,2	34,9	27,8	23	18,6	29,5	23,6	19,5	15,8

Inlet/Outlet water temperature, °C		42AM--453								42AM--501							
		Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*				Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*			
		4550				3650				7100				5700			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	54,4	50,2	47	43,8	47,8	44	41,2	38,5	31	28,6	26,9	25,1	28,5	26,3	24,7	23,1
	PD	13,5	11,6	10,3	9,02	10,6	9,08	8,04	7,06	7,9	6,84	6,1	5,4	6,8	5,89	5,25	4,65
60-40	Hc	33,5	29,3	26,1	22,9	29,4	25,6	22,8	20	18,6	16,2	14,3	12,5	17,1	14,8	13,1	11,4
	PD	5,69	4,44	3,57	2,81	4,47	3,46	2,8	2,18	3,39	2,65	2,13	1,66	2,92	2,27	1,83	1,42
45-40	Hc	31,6	27,5	24,4	21,4	27,6	24	21,3	18,7	18,4	16,1	14,3	12,5	16,9	14,7	13,1	11,5
	PD	68,6	53	42,4	33,2	53,5	41	33	25,7	40,3	31,4	25,5	20,2	34,5	26,9	21,8	17,3
50-42	Hc	34	29,8	26,8	23,7	29,7	26,1	23,4	20,8	19,6	17,2	15,5	13,7	18	15,8	14,2	12,6
	PD	32,5	25,4	20,8	16,6	25,3	19,9	16,2	12,9	19,2	15,2	12,6	10,1	16,6	13,1	10,9	8,69

Inlet/Outlet water temperature, °C		42AM--503								42AM--631							
		Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*				Air flow rate (m³/h) Direct				Air flow rate (m³/h) R3*			
		6200				5055				10450				8900			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	74,3	68,4	64,1	59,8	65,9	60,8	56,9	53,1	45,4	41,9	39,3	36,7	42,7	39,4	37	34,5
	PD	12,8	11	9,74	8,56	10,3	8,81	7,8	6,87	6,89	5,94	5,28	4,65	6,16	5,32	4,72	4,16
60-40	Hc	45,8	40,1	35,7	31,3	40,7	35,5	31,7	27,8	26,9	23,3	20,6	17,8	25,3	21,9	19,3	16,7
	PD	5,46	4,27	3,44	2,71	4,39	3,42	2,77	2,17	2,79	2,14	1,71	1,32	2,5	1,91	1,53	1,19
45-40	Hc	43,1	37,5	33,3	29,2	38,2	33,2	29,5	25,9	27,2	23,7	21	18,5	25,5	22,2	19,8	17,3
	PD	64,8	49,9	39,9	31,4	51,6	39,9	32	25	36,3	28,1	22,7	17,9	32,4	25,1	20,3	15,9
50-42	Hc	46,3	40,7	36,5	32,4	41,1	36,1	32,4	28,8	28,8	25,3	22,7	20,1	27,1	23,8	21,4	18,9
	PD	30,7	24,1	19,7	15,7	24,5	19,3	15,7	12,6	17	13,4	11	8,75	15,1	12	9,77	7,81

Inlet/Outlet water temperature, °C		42AM--633							
		Air flow rate (m³/h)Direct				Air flow rate (m³/h) R3*			
		8280				6270			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18
80-60	Hc	106	97,5	91,4	85,4	89,1	82,2	77	72
	PD	21,5	18,3	16,2	14,3	15,5	13,3	11,8	10,4
60-40	Hc	66,1	58,2	52,3	46,3	56	49,2	44	38,9
	PD	9,2	7,26	5,94	4,76	6,74	5,31	4,31	3,43
45-40	Hc	/	53,1	47,3	41,5	51,1	44,5	39,7	34,9
	PD	/	82,5	66,5	52,2	76,9	59,2	47,7	37,6
50-42	Hc	65,8	57,9	52,1	46,3	55,3	48,7	43,8	38,9
	PD	50,9	40,1	32,8	26,3	36,8	28,9	23,8	19

Hc Heating capacity (kW)
PD Water pressure drop (kPa)
* Only available in EC version

42AM - CHILLED WATER & HOT WATER - 230 V/1-PH/50 HZ MOTOR - EC

Inlet/Outlet water temperature, °C		42AM--302*				42AM--353				42AM--403				42AM--453				42AM--503				42AM--633*			
		Air flow rate (m³/h) - Direct				Air flow rate (m³/h) - Direct				Air flow rate (m³/h) - Direct				Air flow rate (m³/h) - Direct				Air flow rate (m³/h) - Direct				Air flow rate (m³/h) - Direct			
		1200				1640				2160				3025				4060				4060			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	17,1	15,8	14,8	13,9	21,4	19,7	18,5	17,2	28,9	26,6	24,9	23,2	40,6	37,4	35,1	32,8	54,9	50,6	47,4	44,3	82	75,7	71	66,4
	PD	42,7	36,8	32,7	28,9	5,32	4,5	4	3,5	7,2	6,2	5,5	4,8	7,8	6,7	6	5,2	7,3	6,3	5,6	4,9	13,2	11,4	10,1	8,9
60-40	Hc	10,7	9,4	8,46	7,52	12,8	11,1	9,8	8,6	17,3	15	13,3	11,7	25	21,9	19,5	17,1	33,9	29,6	26,4	23,2	51,6	45,4	40,6	35,9
	PD	18,4	14,6	12	9,65	2,1	1,6	1,3	1	3	2,3	1,9	1,5	3,3	2,6	2,1	1,7	3,1	2,4	2	1,6	5,8	4,6	3,7	3
45-40	Hc					12,5	10,9	9,7	8,5	16,8	14,6	13	11,4	23,5	20,5	18,2	16	31,7	27,6	24,6	21,6	46	41,1	36,6	32,2
	PD					27,6	21,3	16,9	13,1	36,6	28,4	22,7	17,8	39,4	30,6	24,5	19,2	36,5	28,3	22,8	17,9	44,9	51,1	41,2	32,4

Inlet/Outlet water temperature, °C		42AM--302*			42AM--353			42AM--403			42AM--453			42AM--503			42AM--633*		
		Relative humidity 50%			Relative humidity 50%			Relative humidity 50%			Relative humidity 50%			Relative humidity 50%			Relative humidity 50%		
		Air flow rate (m³/h) Direct			Air flow rate (m³/h) Direct			Air flow rate (m³/h) Direct			Air flow rate (m³/h) Direct			Air flow rate (m³/h) Direct			Air flow rate (m³/h) Direct		
		1200			1640			2160			3025			4060			5960		
		Air inlet dry-bulb temperature (°C)			Air inlet dry-bulb temperature (°C)			Air inlet dry-bulb temperature (°C)			Air inlet dry-bulb temperature (°C)			Air inlet dry-bulb temperature (°C)			Air inlet dry-bulb temperature (°C)		
		23	25	27	23	25	27	23	25	27	23	25	27	23	25	27	23	25	27
7-12	TCC	2,95	3,65	4,59	3,38	4,28	5,6	4,6	5,91	7,64	7,13	8,87	11,6	9,66	12,1	15,7	15,2	19,3	24,4
	SCC	2,95	3,5	3,99	3,38	4,28	5,17	4,6	5,85	6,98	7,13	8,67	10,2	9,66	11,8	13,7	15,2	18,2	20,8
	PD	24,4	36,1	55	2,34	3,69	6,22	3,46	5,55	9,08	4,44	6,75	11,3	4,22	6,55	10,7	8,46	13,3	20,6
8-13	8-13	2,69	3,28	4,06	2,96	3,9	4,93	4,04	5,3	6,71	6,39	8,08	10,2	8,66	10,9	13,9	13,8	17,1	21,7
	SCC	2,69	3,24	3,75	2,96	3,9	4,78	4,04	5,3	6,46	6,39	8,02	9,47	8,66	10,9	12,9	13,8	16,8	19,6
	PD	20,4	29,5	43,8	1,82	3,1	4,86	2,68	4,53	7,06	3,6	5,65	8,76	3,43	5,37	8,52	6,98	10,6	16,5
10-15	TCC	2,15	2,71	3,31	2,16	3,1	3,99	2,92	4,22	5,43	4,84	6,54	8,19	6,55	8,86	11,1	10,8	14	17,3
	SCC	2,15	2,71	3,26	2,16	3,1	3,99	2,92	4,22	5,43	4,84	6,54	8,12	6,55	8,86	11	10,8	14	16,9
	PD	13,4	20,6	29,7	0,993	1,98	3,22	1,43	2,92	4,74	2,11	3,75	5,79	2,01	3,57	5,5	4,38	7,11	10,7

Hc Heating capacity (kW)
TCC Total cooling capacity
SCC Sensible cooling capacity (kW)
PD Water pressure drop (kPa)
* Only available in EC version

42AM - HOT WATER - 400 V/3-PH/50 HZ MOTOR - AC

Inlet/Outlet water temperature, °C		42AM--351								42AM--353							
		Air flow rate (m³/h) HS				Air flow rate (m³/h) LS				Air flow rate (m³/h) HS				Air flow rate (m³/h) LS			
		2600				2210				2165				1775			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	11,9	11	10,3	9,62	11,2	10,3	9,69	9,05	26,6	24,5	22,9	21,4	23,7	21,8	20,4	19
	PD	7,92	6,86	6,12	5,41	7,09	6,14	5,48	4,84	8,04	6,86	6,07	5,3	6,42	5,49	4,86	4,24
60-40	Hc	7,13	6,2	5,5	4,78	6,71	5,83	5,17	4,49	15,9	13,8	12,2	10,7	14,1	12,3	10,8	9,47
	PD	3,38	2,63	2,13	1,66	3,03	2,36	1,9	1,48	3,15	2,4	1,91	1,5	2,51	1,93	1,55	1,21
45-40	Hc	7,08	6,18	5,5	4,82	6,66	5,8	5,16	4,53	15,6	13,6	12,1	10,6	13,8	12	10,7	9,36
	PD	40,5	31,7	25,7	20,3	36,3	28,3	22,9	18,3	42	32,4	25,7	20	33,5	25,6	20,4	15,8
50-42	Hc	7,53	6,63	5,95	5,28	7,08	6,23	5,59	4,96	16,7	14,7	13,1	11,6	14,8	13	11,7	10,3
	PD	19,3	15,3	12,7	10,2	17,3	13,7	11,3	9,11	19,5	15,2	12,3	9,79	15,5	12,1	9,82	7,82

Inlet/Outlet water temperature, °C		42AM--401								42AM--403							
		Air flow rate (m³/h) HS				Air flow rate (m³/h) LS				Air flow rate (m³/h) HS				Air flow rate (m³/h) LS			
		4000				3480				3400				2960			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	16,9	15,6	14,6	13,6	16,1	14,8	13,9	13	39,8	36,6	34,3	32	36,8	33,8	31,7	29,5
	PD	7,01	6,04	5,37	4,74	6,38	5,51	4,9	4,33	13,1	11,2	9,92	8,76	11,3	9,69	8,63	7,55
60-40	Hc	10	8,65	7,64	6,6	9,51	8,21	7,26	6,29	24	20,8	18,4	16	22,1	19,2	17	14,8
	PD	2,9	2,23	1,79	1,37	2,65	2,03	1,63	1,27	5,39	4,16	3,31	2,59	4,66	3,58	2,88	2,26
45-40	Hc	10,1	8,81	7,83	6,86	9,61	8,37	7,44	6,52	23,3	20,3	18	15,8	21,5	18,7	16,6	14,6
	PD	36,8	28,5	23	18,1	33,5	26	21	16,4	66,9	51,6	41,6	32,4	57,6	44,5	35,7	28
50-42	Hc	10,7	9,42	8,45	7,48	10,2	8,96	8,03	7,11	25	21,9	19,6	17,4	23,1	20,2	18,1	16,1
	PD	17,3	13,6	11,1	8,91	15,7	12,4	10,1	8,13	31,6	24,7	20,2	16,1	27,4	21,3	7,4	13,9

Inlet/Outlet water temperature, °C		42AM--451								42AM--453							
		Air flow rate (m³/h) HS				Air flow rate (m³/h) LS				Air flow rate (m³/h) HS				Air flow rate (m³/h) LS			
		5400				3910				5000				3910			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	23,7	21,9	20,6	19,2	21	19,4	18,2	17	57,4	52,9	49,6	46,2	49,8	45,9	43	40,1
	PD	14,9	13	11,6	10,2	12	10,4	9,24	8,19	15	12,8	11,3	9,97	11,5	9,84	8,71	7,65
60-40	Hc	14,5	12,7	11,4	10,1	12,8	11,3	10,1	8,84	35,3	30,9	27,5	24,1	30,7	26,8	23,9	20,9
	PD	6,58	5,24	4,31	3,45	5,32	4,23	3,46	2,74	6,27	4,89	3,95	3,1	4,84	3,76	3,03	2,37
45-40	Hc	13,9	12,1	10,8	9,5	12,3	10,7	9,54	8,38	33,4	29	25,8	22,6	28,9	25,1	22,3	19,6
	PD	74,2	58,2	47,3	37,4	59,3	46,4	37,7	29,9	76,5	58,7	47	36,7	58,1	44,7	35,9	28
50-42	Hc	14,9	13,1	11,8	10,5	13,1	11,6	10,4	9,25	35,8	31,5	28,3	25,1	31,1	27,3	24,5	21,7
	PD	35,7	28,5	23,6	19,1	28,6	22,8	18,8	15,3	35,9	28,1	23	18,3	27,4	21,6	17,6	14

Inlet/Outlet water temperature, °C		42AM--501								42AM--503							
		Air flow rate (m³/h) HS				Air flow rate (m³/h) LS				Air flow rate (m³/h) HS				Air flow rate (m³/h) LS			
		7500				5740				6500				5020			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	Hc	31,7	29,2	27,4	25,6	28,6	26,4	24,8	23,2	76,4	70,4	65,9	61,6	65,7	60,6	56,7	53
	PD	8,2	7,1	6,33	5,6	6,84	5,93	5,29	4,68	13,5	11,6	10,3	9,03	10,2	8,76	7,16	6,83
60-40	Hc	19	16,5	14,6	12,7	17,2	14,9	13,2	11,5	47,1	41,2	36,8	32,3	40,6	35,5	31,6	27,7
	PD	3,51	2,75	2,21	1,73	2,94	2,28	1,84	1,43	5,75	4,49	3,67	2,86	4,37	3,4	2,76	2,16
45-40	Hc	18,8	16,4	14,6	12,8	17	14,8	13,2	11,6	44,4	38,6	34,3	30,1	38,1	33,1	29,5	25,8
	PD	41,9	32,6	26,4	20,9	34,8	27,1	22	17,5	68,5	52,7	42,3	33,1	51,3	39,7	31,8	24,9
50-42	Hc	20	17,6	15,8	14	18,1	15,9	14,3	12,7	47,7	41,9	37,6	33,4	41	36	32,3	28,7
	PD	19,9	15,8	13	10,5	16,7	13,2	10,9	8,77	32,4	25,4	20,8	16,6	24,4	19,2	15,7	12,5

Hc Heating capacity (kW)
PD ¨Water pressure drop (kPa)

42AM - HOT WATER - 400 V/3-PH/50 HZ MOTOR - AC

Inlet/Outlet water temperature, °C		42AM--631								42AM--633							
		Air flow rate (m³/h) HS				Air flow rate (m³/h) LS				Air flow rate (m³/h) HS				Air flow rate (m³/h) LS			
		11140				9635				9175				7545			
		Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)				Air inlet dry-bulb temperature (°C)			
		8	12	15	18	8	12	15	18	8	12	15	18	8	12	15	18
80-60	**Hc**	46,5	42,9	40,2	37,5	44,1	40,7	38,1	35,6	112	103	97	90,6	100	92,2	86,5	80,8
	PD	7,19	6,2	5,5	4,85	6,51	5,62	4,99	4,4	24	20,5	18,2	16	19,2	16,5	14,6	12,9
60-40	**Hc**	27,6	23,9	21	18,2	26,1	22,6	19,9	17,2	70	61,7	55,4	49,1	62,7	55,1	49,5	43,7
	PD	2,91	2,24	1,78	1,38	2,64	2,02	1,61	1,25	10,2	8,1	6,6	5,3	8,36	6,56	2,17	4,26
45-40	**Hc**	27,8	24,2	21,5	18,9	26,3	22,9	20,4	17,9	/	56,4	50,2	44,1	57,6	50,1	44,6	39,2
	PD	37,9	29,4	23,7	18,6	34,3	26,6	21,5	16,9	/	92,9	74,5	58,3	96,6	74,2	59,5	46,7
50-42	**Hc**	15,7	25,9	23,3	20,6	16,4	24,6	22	19,5	29,9	61,5	55,3	49,1	31,6	54,7	49,2	43,8
	PD	17,7	13,9	11,5	9,12	16	12,6	10,3	8,26	56,9	44,8	36,8	29,4	45,6	36,1	29,5	23,8

Hc Heating capacity (kW)
PD ¨Water pressure drop (kPa)

ELECTRIC MOTOR SPECIFICATIONS

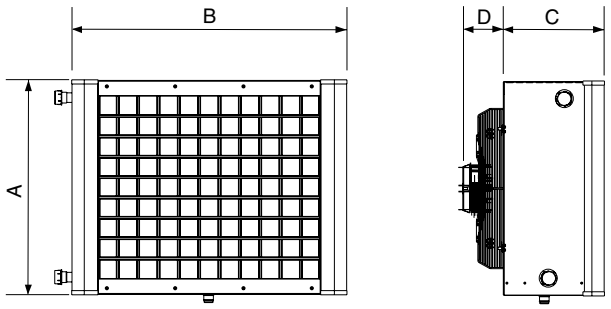
Use	Family	Size	Motor	Speed of rotation (rpm)	Nom. current A	P. Abs W	IP	Thermal cut-out	Class	Operating T°
HEATING	42AM--	35H	**THREE-PHASE 230/400 V – 50 Hz**	HS -△ 1385	0,35	110	44	NO	F	-40°C / +60°C
				LS - ✶ **1175**	0,15	70				-40 °C / +70 °C
	42AM--/ 42AMA-	40H/40-		HS - △ 1404	0,5	260	54	YES 6.3 A - 165 °C		
				LS - ✶ **1176**	0,3	170				
	42AM--/ 42AMA-	45H/45-		HS - △ 1385	1,13	550				
				LS - ✶ **1040**	0,64	380				
	42AM--/ 42AMA-	50H/50-		HS - △ 1391	1,51	770				
				LS - ✶ **1176**	0,9	520				
	42AM--/ 42AMA-	63H/63-		HS - △ 1000	1,3	590				
				LS - ✶ **750**	0,63	250				
	42AMS-	63H		HS - △ 1000	1,3	590				
				LS - ✶ **750**	0,63	250				
HEATING	42AM--	35H	**SINGLE-PHASE 230 V – 50 Hz**	Direct **1330**	0,7	150	44	NO	F	-40°C / +60°C
	42AM--/42AMA-	40H/40-		Direct **1400**	1,3	300	54	YES 6.3 A - 165 °C		-40 °C / +70 °C
	42AM--/42AMA-	45H/45-		Direct **1380**	2,01	480				
	42AM--/42AMA-	50H/50-		Direct **1403**	2,78	630				
	42AM--/42AMA-	63H/63-		Direct **913**	2,6	580				
EC FMA										
HEATING	42AM--	30H	**SINGLE-PHASE 230 V 50/60 Hz**	**1530**	0,8	85	54	PTC	B	-25 °C/+55 °C
	42AM--	35H		**1480**	1,35	165	54	PTC	B	-25 °C/+50 °C
	42AM--/42AMA-	40H/40-		**1760**	2,2	500	55	Thermal cut-out	B	-25°C/+60°C
	42AM--/42AMA-	45H/45-		**1500**	2,2	500	55	Thermal cut-out	B	-25°C/+60°C
	42AM--/42AMA-	50H/50-		**1440**	3,25	740	55	Thermal cut-out	B	-40°C/+60°C
	42AM--/42AMA-	63H/63-		**1020**	3,2	730	55	Thermal cut-out	B	-40°C/+60°C
COOLING	42AM--	30C		**1530**	0,8	85	54	PTC	B	-25 °C/+55 °C
	42AM--	35C		**1040**	0,65	73	54	PTC	B	-25°C/+60°C
	42AM--	40C		**1760**	2,2	500	55	Thermal cut-out	B	-25°C/+60°C
	42AM--	45C		**1500**	2,2	500	55	Thermal cut-out	B	-25°C/+60°C
	42AM--	50C		**970**	1,1	250	55	Thermal cut-out	B	-25°C/+60°C
	42AM--	63C		**770**	1,1	250	55	Thermal cut-out	B	-25°C/+60°C

COIL SPECIFICATIONS

		30	35		40		45		50		63	
HOT WATER/COLD WATER COIL	Number of heating rows	2	1	3	1	3	1	3	1	3	1	3
	Number of cooling rows	2	3									
	Coil capacity (L)	0,8	0,68	1,66	0,96	2,28	1,38	3,22	2,18	4,55	2,97	6,4
	Connection diameter	1/2”	¾"				1"		1’’ ¼			
	Connection type	Threaded unions 243 GCU F/M										
	Maximum operating pressure	13 bar										
	Test pressure	24 bar										
	Max T°	110°C										
SUPERHEATED WATER COIL	Number of heating rows	1										
	Coil capacity (L)		1,19		1,69		-		2,66		3,69	
	Connection diameter		33.7 mm		42.4 mm		-		42.4 mm			
	Connection type		Smooth 316L stainless steel tube (to be welded)									
	Maximum operating pressure		16 bar									
	Test pressure		24 bar									
	Max T°		200°C									
STEAM COIL	Number of heating rows	1										
	Coil capacity (L)		0,97		1,22		-		1,95		2,86	
	Connection diameter		26,9		33,7		-		48,3			
	Connection type		Smooth 316L stainless steel tube (to be welded)									
	Maximum operating pressure		16 bar									
	Test pressure		24 bar									
	Max T°		200°C									

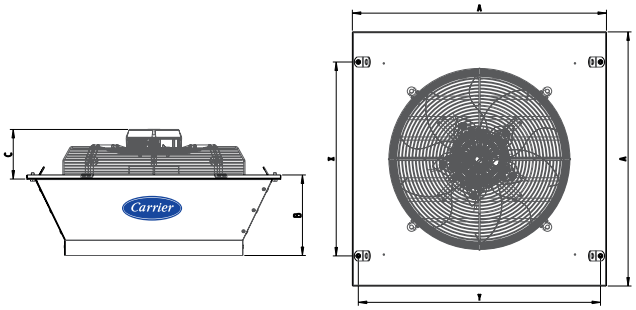
DIMENSIONS

42AM air heater



Size	A	B	C	D		Weight (kg)		
				STD	EC			
	mm					1 row	2 rows	3 rows
30	395	600	286	115	115	-	18	-
35	460	646	286	101	126	21	-	26
40	557	700	286	142	143	30	-	34
45	620	813	286	142	143	40	-	44
50	716	918	336	142	188	50	-	56
63	876	1050	336	142	200	62	-	72
63S	872	1050	295	126		60	-	-

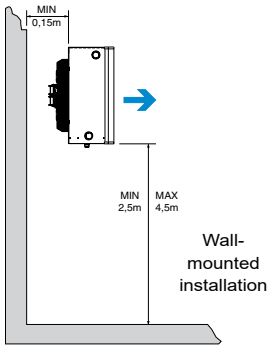
42AMA destratifier

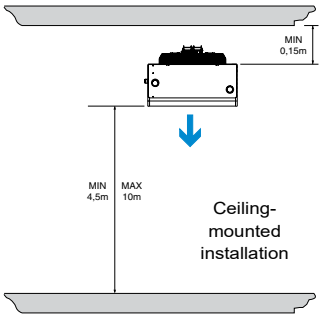


Size	A	B	C		X	Y	Weight kg
			STD	EC			
40	586	183	143	143	370	552	17
45	666	212	143	143	470	632	22
50	747	225	143	188	570	712	25
63	907	273	143	200	705	872	33

INSTALLATION

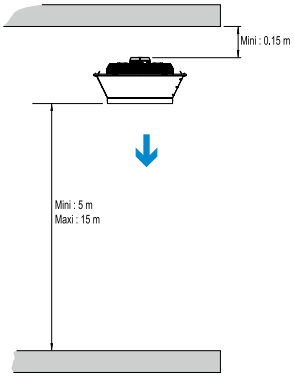
42AM air heater





42AMA destratifier

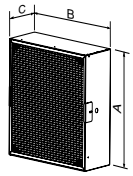
Recommended for buildings between 5 and 15 metres high.



ASSEMBLY ACCESSORIES

A different assembly for each use.

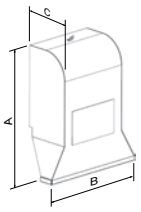
RETURN AIR ACCESSORIES



Size	A	B	C	Codes
35	440		220	7185105
40	520			7185106
45	600			7185107
50	680			7185108
63/63S	840			7185110

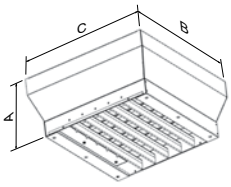
Filter box (G1 filter in accordance with EN 779)
Prevents premature clogging of exchanger coils
Not ductable

DIFFUSION ACCESSORIES



Size	A	B	C	Codes
35	750	700	300	7185133
40	850	750	325	7185134
45	970	850	350	7185135
50	1100	970	375	7185136
63/63S	1250	1170	400	7185137

Diffuser on door
Create an air curtain that limits energy loss when doors are opened.



Size	A	B	C	Codes
35	_	_	_	_
40	178	555	522	7185138
45	136	637	618	7185139
50	132	740	714	7185140
63/63S	282	872	814	7185141

Diffuser for large spaces
Reduction cone for increasing the air throws.

ASSEMBLY SUPPORT ACCESSORIES

Size	Codes
All	7181226
35 to 45	7181228
50 to 63/63S	7181230

Wall bracket

Additional kit for fastening on an IPN

Size	Codes
All	7282116

Suspension support for ceiling mounting

ELECTRICAL ACCESSORIES

ELECTRICAL & USER SAFETY

Codes	**Padlockable proximity switch** Available in a 1 or 2-speed version, this accessory must be placed at least 2 metres from any rotating part, to comply with French standard IT 246, Art. 4-7-3, and EC requirements.
0596142	
0596147	

Use	Circuit breaker unit - FMA SINGLE-PHASE AC heating	Circuit breaker unit - FMA SINGLE-PHASE EC heating	Circuit breaker unit - FMA SINGLE-PHASE EC cooling	Circuit breaker unit THREE-PHASE AC
42AM--30		7252526	7252526	
42AM--35	7252526	7252527	7252526	7252523
42AM--40	7252527	7252528	7252528	7252525
42AM--45	7252528	7252528	7252528	7252527
42AM--50	7252529	7252529	7252527	72525227
42AM--63	7252529	7252529	7252527	7252527
42AMS-63				7252527
42AMA-40	7252527	7252528		7252525
42AMA-45	7252528	7252528		7252527
42AMA-50	7252529	7252529		7252527
42AMA-63	7252529	7252529		7252527

THERMOSTATS

Codes	**Manual/auto room thermostat - SINGLE-PHASE / SINGLE-PHASE EC installation**
7486653	"3-speed EC thermostat kit (for EC SINGLE-PHASE FMA) - Heating and cooling with manual toggle switch - Inductive breaking capacity 3.53A"
7486654	"1-speed AC thermostat kit (for AC SINGLE-PHASE FMA) - Heating and cooling with manual toggle switch - Inductive breaking capacity 3.53A"

5201027	Summer or Winter thermostat - SINGLE-PHASE AC FMA

Codes	**IP54 industrial environment thermostat - THREE-PHASE AC installation**
7113335	Summer or Winter thermostat - 3-PH AC FMA - 1 Stage
7113336	Summer or Winter thermostat - 3-PH AC FMA - 2 Stages

SUPPLY AIR SPEED SELECTION

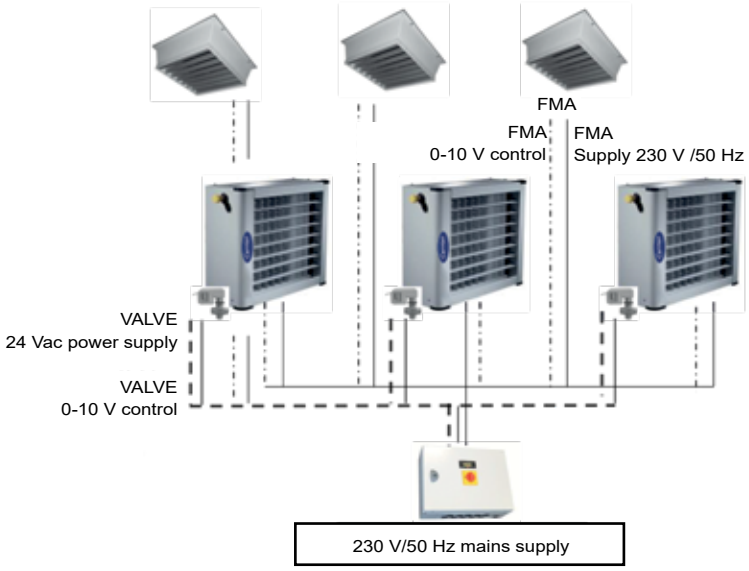
Codes	**LS/HS switch** For 3-phase motor, selects two motor rotation speeds and stop.
7169961	

Codes	**Autotransformer with selector switch (3.5 A)** Used to obtain 5 supply air speeds by varying the voltage on the variable speed AC 1 single-phase motors.
7166982	

42AM SINGLE-PHASE EC AIR HEATER CONTROL

Single-phase EC FMA + LP water application:

- The single-phase EC BOX can control:
  - 6 H4000 single-phase ECs
  - 6 TPL 4000 single-phase ECs
  - 3 H4000 single-phase ECs + 3 TPL single-phase ECs
  - 4 H4000 single-phase ECs + 2 TPL single-phase ECs



Description

- Complete "PLUG & PLAY" control solution for air-source (0-10 V SINGLE-PHASE EC FMA) and/or water-source (0-10 V three-way valve) for 42AM air heaters equipped with SINGLE-PHASE EC FMAs.
- Proportional control system adjusts the supply air velocity and coil water supply based on the difference between the indoor temperature (measured by the built-in sensor) and the programmed temperature setpoint (summer or winter).
- Built-in timer featuring 3 operating modes: COMFORT, ECO and FROST PROTECTION (weekly setting).
- Electrical components (circuit breaker, padlockable proximity switch, contactor, thermostat, timer, etc.) included. Remote control On/Off function, with two fault summaries. Communication possible via ModBus/JBUS protocols or BACnet IP (optional expansion card).

Advantages

- All your air heaters will be controlled centrally via an EC MONO BOX master controller
- You can adjust the heating or cooling to meet your needs as water is supplied to one or more heat exchangers in proportion to your building's heating demand (available with the optional valve kit).
- Supply air temperatures are controlled to maintain the necessary air streams. You can choose between fresh air only or mix with frost protection via the actuator to be installed on the 2-channel mixing box with built-in filter (available with the fresh air kit + damper actuator + frost protection thermostat kit) or 100% recirculated air.
- You will bring the fresh air rate of your building in line with current regulations or according to the space occupancy (via the built-in timer) thanks to an internal timer which can be configured on a weekly basis using 3 operating modes (Comfort, Eco, Frost protection). Fresh air damper controlled via the EC MONO BOX (On/off) depending on optional fresh air kit (Antifreeze thermostat + servomotor).
- Your building's heating requirement will depend on its occupancy and be serviced by centralised management of 42AM air heaters via the controller (a SINGLE-PHASE EC BOX controls 6 42AMs- or 6 42AMAs- or 3 42AMs- + 3 42AMAs- or 4 42AMs- + 2 42AMAs-).
- The display shows the operating status of each individual 42AM heater (fresh air or return air, motor fault, risk of frost, etc.)
- No need to size and wire the electrical components (circuit breaker, padlockable proximity switch, contactor, thermostat, timer, etc.) as this all-in-one control solution makes for faster installation:.
- Two user levels: USER (restricted access) and INSTALLER (full access) for greater simplicity, ease of use and security.
- Option to use a remote control On/Off function with two fault summaries. Communication possible via ModBus/JBUS protocols or BACnet IP (optional expansion card).

Electrical data

- Single-phase EC BOX unit supply: Single-phase 230 V
- Index of Protection: IP54
- Built-in motor overload and user protections as required by French standard NF C 15-100

42AM FOR EXPLOSIVE ATMOSPHERES

THE 42AM also meets the requirements of ATEX directives

Ex II 2 G
II c 65 °C - 105 °C or 120 to 220 °C
EEx d/de IIB or IIC T4 to T6

This special series of ATEX-certified 42AM air heaters is the result of CARRIER's extensive expertise and experience. This approval, issued by an independent external body, is your guarantee of complete compliance with the ATEX directives.

The 42AM-EX range is certified for your applications:

- In the presence of explosive gas agents
- In Zone 2 only
- For explosion groups IIB or IIC
- With T4 to T6 gas self-ignition temperatures
- Low pressure water, superheated water, steam, oil, compressed air...

What is ATEX?

ATEX or explosive atmosphere can be caused in atmospheric conditions by flammable gases, vapours or mists or by combustible dusts mixed with air. After ignition, combustion spreads through the whole of the unburned mixture.

How is an ATEX zone defined?

ATEX zones are determined based on the probability and duration of the occurrence of an explosive atmosphere. This risk analysis is used to define zones, explosion groups and maximum surface temperature classes. These atmospheres are mainly found in painting workshops, metal processing workshops, waste recycling, wood processing, etc.

Who defines ATEX zones?

Any operator of a production facility where an explosive atmosphere may occur must define the relevant ATEX zones, explosion groups and temperature classes. By doing so, the operator will also be able to set up the necessary means of prevention (communication, documentation, recommendations, etc.).

"Directive 94/9/EC divides the equipment and protective systems which it covers into equipment groups and categories; this Directive (1999/92/EC) provides for a classification by the employer of the places where explosive atmospheres may occur in terms of zones and determines which equipment and protective systems groups and categories should be used in each zone."

ZONE		Category	The explosive agent is:
Gas (G)	Dust (D)		
0	20	0	Present continuously, frequently or over a long period: NO CARRIER PRODUCT
1	21	1	Present occasionally under normal use: NO CARRIER PRODUCT
2	22	2	Rarely or briefly present

GAS - EXPLOSION GROUP AND TEMPERATURE CLASS						
Temperature class	**T1**	**T2**	**T3**	**T4**	**T5**	**T6**
Max surface temp	450°C	300°C	200°C	135°C	100°C	85°C
Explosion group						
IIA	Acetone Ammonia Benzene Acetic acid Ethane Ethyl acetate Ethyl chloride Methanol Naphthalene Phenol Propane	i-Amyl acetate Butane Butyl alcohol	Petrol Diesel Hot oil Hexane	Acetaldehyde		
II B	Town gas	Ethylene	Hydrogen sulphide	Ethyl ether		
II C	Hydrogen	Acetylene				Carbon disulphide

OPERATING LIMITS

	Cooling mode	heating mode	Steam mode	Superheated water mode
Water circuit	Min. water inlet temp.: 5 °C Max. operating pressure: 13 bar	Max. water inlet temp.: 110 °C Max. operating pressure: 13 bar	Max. steam temp.: 200 °C Max. operating pressure: 16 bar	Max. water inlet temp.: 200 °C Max. operating pressure: 16 bar
Indoor temperature	Tmax: 60 °C and Tmin -15 °C			
1-PH AC motor	-	Nominal voltage: **230 V** (+/-6 %) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**	Nominal voltage: **230 V** (+/-6 %) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**	Nominal voltage: **230 V** (+/-6 %) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**
3-PH AC motor	-	Nominal voltage: **400 V** (+/-6%) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**	Nominal voltage: **400 V** (+/-6%) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**	Nominal voltage: **400 V** (+/-6%) Frequency: **50 Hz** **Size 35:** Index of Protection: **IP44** **Sizes: 40 - 45-50-63:** Index of Protection: **IP54**
SINGLE-PHASE EC motor	"Frequency: **50/60 Hz** **Sizes 30 and 35:** Nominal voltage: 230 V (Range 200..240) Index of Protection: **IP54** **Sizes 40 - 45-50-63:** Nominal voltage: 230 V (Range 200..277) Index of Protection: **IP55**	Frequency: **50/60 Hz** **Sizes 30 and 35:** Nominal voltage: 230 V (Range 200..240) Index of Protection: **IP54** **Sizes 40 - 45-50-63:** Nominal voltage: 230 V (Range 200..277) Index of Protection: **IP55**	-	-

Quality and Environment
Management Systems
Approval

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