



## PRODUCT SELECTION DATA



- The best solution for heating large spaces
- Ensures buildings warm up ultra-fast
- Excellent diffusion via patented JET+ double deflection technology

Air heaters

42AM

# Use

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 42AM range meets APSAD and NFPA recommendations 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.

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

## Destratifier determination and selection example

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

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

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

## 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).

LP water + 1-PH HEE FMA with EC motor application:  
 1-PH EC BOX can control 3 x 42AM-- 1-PH with EC motor + 3 x 42AMA- 1-PH with EC motor or 6 x 42AM-- 1-PH with EC motor or 6 x 42AMA- 1-PH with EC motor.

## Options and accessories

- Wall bracket, ceiling bracket, IPN additional kit
- Filter box
- 2-channel mixing box with built-in filter
- Specific diffuser (on door, high-level etc.)

- Damper and outdoor kit
- Room thermostat for THREE-PHASE or SINGLE-PHASE installation
- LS/HS switch for 3-PH FMA
- 5 speed autotransformer for SINGLE-PHASE AC FMA

## Range

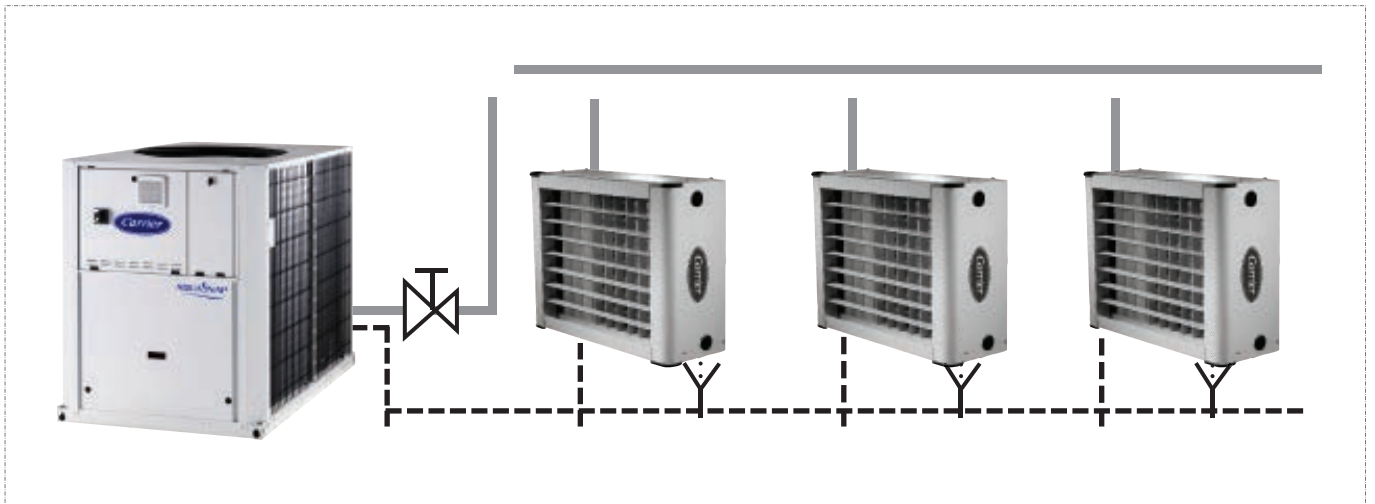
Heating/cooling medium	Water
Standard drive	THREE-PHASE 2 speeds – SINGLE-PHASE 1 variable speed IP44/54 depending on the model
Coil (tubing/row)	Copper/Alu
Casing	Precoated off-white (RAL 7035) galvanised steel <b>Condensate pan + built-in nautical coupling for cooling</b>



Standard

## Operating principle

Air heaters are installed at the end of a central heating or cooling system (boilers, air-source or water-source heat pump, reversible production unit).



# Description

## High-efficiency fan motor assembly

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

The ROTOREX design (windings inserted in the fan hub)

keeps the motor cool to ensure that it operates at optimum efficiency.



### Three versions are available :

- 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 with RAL 7035 (light grey).
- Condensate drain pan built-in for cooling applications, featuring an antibacterial design (perforated bottom) and quick-release fitting.
- Intake section 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 throws, limit the stratification phenomenon and thereby reduce energy consumption.

#### - Basic version (only for the 42AMS-631H0T0LR):

- 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 air flow for better acoustic comfort (zero turbulence at the diffuser outlet).
    - Increased air speed, thanks to the resulting aerodynamics (depression along lower surface of blade) due to the curve of the airfoil, thereby increasing the air throws and the induction rate.
    - Limited stratification phenomenon.
    - Reduced building warm-up times:
    - Recorded energy savings of 15 to 20%.

### ■ Heat exchanger

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

#### - LP hot or cold water version – Available with 1, 2 or 3 rows:

- Copper tube 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/m<sup>2</sup>.k)

Family	Size	No. of rows	Function	Coil type	Motor type	Position of hydraulic connections
42AM-	30	-	H	0	M0	LR
42AMS-	35	1	C		M9	RI
42AMA-	40	2			T0	LE
	45	3				
	50					
	63					

Family: 42AM

Size: 35 to 63

Number of rows: - = Ventilation only (42AMA), 1 = 1 row, 2 = 2 rows, 3 = 3 rows

Function: H = Hot water, C = Cold water/Hot water & cold water

Coil type: 0: STANDARD, 1 :STAINLESS STEEL (on request)

Motor type: M0 = 230V single-phase with AC motor, M9 = 230V single-phase with EC motor, T0 = 400V three-phase with AC motor

Hydraulic connection positions: LR = Left and right,

LE = Left, RI = Right

Example:

42AM--351H0M9LR

Family: 42AM--

Size: 35

Number of rows: 1

Function: H (Hot Water)

Coil type: 0 (Standard)

Motor: M9 (230V single-phase with EC motor)

Hydraulic connection positions: LR (Left and right)





# Comparative study of AC and EC FMAs

Study comparing two air heaters in heating mode, (1) an AIR HEATER fitted with an AC FMA (without JET+ diffuser) and (2) an AIR HEATER fitted with an EC FMA (with JET+ diffuser).





<b>Space volume:</b>	1240 m <sup>2</sup> under 5 metres of ceiling, i.e. 6200 m <sup>3</sup>
<b>Type of insulation:</b>	light (such as in a workshop or small distribution centre)
<b>Temperature to be maintained in occupied space:</b>	17°C
<b>Average outdoor temperature used:</b>	5°C
<b>Heating period:</b>	November to March
<b>Heating time range:</b>	from 07.00 to 19.00
<b>Necessary heating capacity:</b>	80W/m <sup>2</sup> i.e. 99.2 kW (at 5 °C)

<b>AIR HEATER WITH AC FMA</b>	<b>HELIOTHERME WITH EC FMA</b>
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## COST OF INSTALLATION

Mixing rate: <b>6</b> (or 37,200 m <sup>3</sup> /h to be provided)	Mixing rate: <b>4</b> (or 24,800 m <sup>3</sup> /h to be provided) <i>(Lower rate achieved by adjusting the air flow via the 0-10 V signal of the FMA connected to the EC BOX)</i>
Unit selected: - 6 x 42AM--503H0T0LR Total flow rate supplied = 37,200 m <sup>3</sup> /h Total heating capacity delivered = 194 kW/h	Unit selected: - 6 x 42AM--453H0M9LR Total flow rate supplied = 24,800 m <sup>3</sup> /h Total heating capacity delivered = 146 kW/h
<b>Total price of air heaters</b>	<b>Total price of air heaters</b>
  <b>€8 586</b>	  <b>€9 192</b>
<b>ECO+ 1-PH BOX control</b> + installation costs	<b>'Plug &amp; Play' EC BOX control</b>
<b>€2 781</b>	<b>€2 480</b>

## OPERATING COST

Basis for analysis: Energy price assessed according to the Pegase database for energy statistics Total number of heating days = 100 (20 per month from November to March)	
Running time needed each day to maintain 17°C in the comfort zone	Running time needed each day to maintain 17°C in the comfort zone
960 minutes a day i.e. <b>1600 hours per year</b>	760 minutes a day i.e. <b>1268 hours per year:</b> <b>423 hours at maximum power</b> <b>and 845 hours at half 1/2 flow power</b> <b>(or a saving of 332 hours of operation)</b>
	
<b>158,720 kW</b> of boiler power used	<b>125,786 kW</b> of boiler power used
<b>€9 047</b>	<b>€7 170</b>
Annual heating expenses	Annual heating expenses <b>(savings of 25%)</b>
Annual electricity expenses for AC FMA	Annual electricity expenses for EC FMA <b>(savings of 60%)</b>
<b>€605</b>	<b>€226</b>
Total annual expenses	Total annual expenses <b>(savings of 10%)</b>
<b>€21,019</b>	<b>€19,068</b>
	

# Single-phase 42AM performance

## HEATING - SINGLE-PHASE AC motor and SINGLE-PHASE EC motor

Size	No. rows	Air supply speed	Flow rate	Air speed	Throw (metres)		Sound pressure
		SINGLE PHASE	m <sup>3</sup> /h	m/s	Wall-mounted	Suspended	dB(A)
30	2	Direct	1 420	3.16 m/s	15	3	45
	1	Direct	2 600	3.92 m/s	22	6	48
35		1	R3*	2 360	3.56 m/s	18	4
	Direct		2 400	3.62 m/s	20	5	49
	2	R3*	2 030	3.06 m/s	15	2,5	47
		Direct	2 075	3.13 m/s	15	2,5	50
	3	R3*	1 780	2.68 m/s	14	2	48
		Direct	4 200	4.57 m/s	26	8,5	54
40	1	R3*	3 914	4.26 m/s	24	7,5	52
		Direct	3 800	4.13 m/s	23	7	55
	2	R3*	3 550	3.86 m/s	19	4,5	53
		Direct	3 450	3.75 m/s	23	7	56
	3	R3*	3 220	3.50 m/s	20	5,5	54
		Direct	5 200	4.20 m/s	27	8,5	56
45	1	R3*	4 100	3.31 m/s	24	6	49
		Direct	4 700	3.80 m/s	21	4,5	58
	2	R3*	3 700	2.99 m/s	18	4	51
		Direct	4 550	3.68 m/s	18	3,5	59
	3	R3*	3 650	2.95 m/s	17	3	52
		Direct	7 100	4.22 m/s	28	9	56
50	1	R3*	5 700	3.39 m/s	26	7	50
		Direct	6 600	3.92 m/s	26	7	57
	2	R3*	5 380	3.20 m/s	24	6	51
		Direct	6 200	3.69 m/s	24	6,5	58
	3	R3*	5 055	3.01 m/s	23	5,5	52
		Direct	10 450	4.19 m/s	28	10,5	54
63	1	R3*	8 900	3.57 m/s	22	8	47
		Direct	9 610	3.86 m/s	24	8,5	55
	2	R3*	7 630	3.06 m/s	20	6	46
		Direct	8 280	3.32 m/s	21	6,5	56
	3	R3*	6 270	2.52 m/s	19	5	44

## HEATING - COOLING - SINGLE-PHASE AC motor and SINGLE-PHASE EC motor

Size	No. rows	Air supply speed	Air flow rate	Air speed	Throw (metres)	Sound pressure
			m <sup>3</sup> /h	m/s	Wall-mounted	dB(A)
35M0 (AC)	3	Direct	1640	2.47 m/s	23	30
40M0 (AC)			2160	2.35 m/s	26	48
45M0 (AC)			3025	2.44 m/s	24	45
50M0 (AC)			4060	2.41 m/s	23	54
63M0 (AC)						
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 :

**Air throw:**

- \* with JET+ diffuser for a residual speed of 0.1 m/s
- \* defined with  $\Delta t$  OT/RT of 15°C (heating) and 7°C (cooling)
- \* with LP water or electric heating

**Air speed:**

JET+ diffuser outlet

**Sound pressure:**

measured 5 metres from unit, directivity 2, attenuation of 22 dB

**Direct:** speed obtained when wired directly to single-phase motor.

**R3\*:** supply air speed obtained with autotransformer set to "3". Other operation points (5 in total) can be supplied on request by your agent using our technical selection software.

# Three-phase 42AM performance

## HEATING - THREE-PHASE motor

Model	No. row(s)	Air supply speed		Flow rate	Air speed	Throw (metres)		Sound pressure
		3-PH		m <sup>3</sup> /h	m/s	Wall-mounted	Suspended	dB(A)
35	1	HS	△	2 600	3.92 m/s	22	6	48
		LS	★	2 210	3.33 m/s	17	3,5	44
	2	HS	△	2 480	3.74 m/s	20	5	49
		LS	★	2 040	3.07 m/s	15	2,5	45
	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	55
		LS	★	3 480	3.79 m/s	21	5	51
	2	HS	△	3 800	4.13 m/s	23	7	55
		LS	★	3 310	3.60 m/s	18	4	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
	2	HS	△	5 300	4.28 m/s	25	8	57
		LS	★	4 140	3.34 m/s	21	4,5	50
	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	56
		LS	★	5 740	3.41 m/s	26	7	50
	2	HS	△	6 900	4.10 m/s	28	9	57
		LS	★	5 400	3.21 m/s	24	6	51
	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	55
		LS	★	9 635	3.87 m/s	24	8,5	48
	2	HS	△	10 510	4.22 m/s	26	10,5	56
		LS	★	8 820	3.54 m/s	22	7,5	49
	3	HS	△	9 175	3.68 m/s	25	10	57
		LS	★	7 545	3.03 m/s	21	7	49
63S	1	HS	△	11 140	4.47 m/s	29	11,5	55
		LS	★	9 635	3.87 m/s	24	8,5	48

### Specifications determined using the following information :

- Air throw:** \* with JET+ diffuser for a residual speed of 0.1 m/s  
 \* defined with  $\Delta t$  OT/RT of 15°C  
 \* with LP water or electric heating
- Air speed:** JET+ diffuser outlet
- Sound pressure:** measured 5 metres from unit, directivity 2, attenuation of 22 dB

## 42AMA- air flow & acoustic performance

42AMA-		40		45		50		63	
THREE-PHASE motor (3-phase 400V coupling)		HS	LS	HS	LS	HS	LS	HS	LS
		△	★	△	★	△	★	△	★
SINGLE-PHASE AC and SINGLE-PHASE EC motor		Direct	-	Direct	-	Direct	-	Direct	-
Flow rate	m <sup>3</sup> /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 - SINGLE-PHASE motor and SINGLE-PHASE EC motor

Inlet/Outlet water temperature, °C		42AM--302*				42AM--351				42AM--352				42AM--353															
		Air flow rate (m³/h)				Air flow (m³/h)				Air flow (m³/h)				Air flow (m³/h)															
		Direct				Direct				R3*				R3*															
		1420				2600				2360				2400				2030				2075				1780			
		"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	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	21,3	19,6	18,4	17,1	19,6	18,1	16,9	15,8	25,9	23,9	22,3	20,8	23,7	21,8	20,4	19
	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	7,94	6,82	6,04	5,31	6,82	5,86	5,18	4,58	7,65	6,53	5,77	5,03	6,43	5,5	4,87	4,24
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	12,8	11,1	9,8	8,51	11,7	10,2	9	7,84	15,5	13,4	11,9	10,4	14,1	12,3	10,8	9,45
	PD	18,4	14,6	12	9,65	3,37	2,63	2,12	1,65	3,17	2,46	1,99	1,55	3,24	2,48	2	1,54	2,77	2,14	1,7	1,33	3	2,29	1,82	1,43	2,51	1,93	1,54	1,21
45-40	Hc					7,08	6,17	5,49	4,81	6,83	5,95	5,29	4,65	12,6	11	9,74	8,53	11,6	10,1	8,96	7,85	15,2	13,2	11,7	10,3	13,8	12	10,7	9,35
	PD					40,4	31,7	25,7	20,3	37,9	29,5	24	19,1	41,4	31,9	25,6	20	35,4	27,3	22	17,2	40	30,3	24,4	18,9	33,5	25,6	20,4	15,8
50-42	Hc					7,52	6,62	5,94	5,27	7,26	6,38	5,74	5,09	13,4	11,8	10,6	9,36	12,4	10,8	9,73	8,62	16,3	14,3	12,8	11,3	14,8	13	11,7	10,3
	PD					19,3	15,3	12,6	10,1	18,1	14,4	11,9	9,52	19,3	15,2	12,4	9,87	16,6	13	10,6	8,48	18,5	14,4	11,7	9,29	15,5	12,1	9,81	7,81

Inlet/Outlet water temperature, °C		42AM--401				42AM--402				42AM--403															
		Air flow (m³/h)				Air flow (m³/h)				Air flow (m³/h)				Air flow (m³/h)											
		Direct				R3*				Direct				R3*											
		4200				3914				3800				3550				3450				3220			
		"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	17,2	15,9	14,9	13,9	16,8	15,5	14,5	13,5	31,9	29,4	27,5	25,7	30,9	28,5	26,7	24,9	40,1	36,9	34,6	32,3	38,6	35,5	33,2	31
	PD	7,24	6,25	5,55	4,9	6,91	5,96	5,3	4,68	13,9	11,9	10,5	9,24	13	11,2	9,9	8,7	13,3	11,4	10,1	8,9	12,3	10,6	9,37	8,26
60-40	Hc	10,2	8,81	7,78	6,72	9,93	8,58	7,58	6,55	19,3	16,9	15	13,1	18,7	16,4	14,5	12,7	24,2	20,9	18,5	16,1	23,2	20,1	17,8	15,5
	PD	2,99	2,3	1,85	1,42	2,86	2,2	1,76	1,36	5,66	4,4	3,53	2,76	5,33	4,15	3,32	2,6	5,47	4,22	3,36	2,63	5,09	3,93	3,13	2,45
45-40	Hc	10,3	8,97	7,98	6,99	10	8,74	7,77	6,81	18,8	16,3	14,5	12,7	18,2	15,8	14,1	12,3	23,5	20,4	18,2	15,9	22,6	19,6	17,4	15,3
	PD	38,1	29,5	23,8	18,7	36,3	28,1	22,6	17,9	72,4	55,6	44,6	34,8	68	52,3	42	32,8	67,9	52,4	42,2	32,9	63,2	48,7	39	30,6
50-42	Hc	10,9	9,6	8,61	7,62	10,6	9,35	8,39	7,43	20	17,6	15,8	14	19,4	17,1	15,3	13,6	25,2	22,1	19,8	17,5	24,2	21,2	19	16,8
	PD	17,9	14	11,5	9,22	17,1	13,4	11	8,79	33,7	26,4	21,6	17,2	31,7	24,8	20,3	16,2	32,1	25,1	20,5	16,4	29,8	23,3	19	15,2

Inlet/Outlet water temperature, °C		42AM--451				42AM--452				42AM--453															
		Air flow (m³/h)				Air flow (m³/h)				Air flow (m³/h)				Air flow (m³/h)											
		Direct				R3*				Direct				R3*											
		5200				4100				4700				3700				4550				3650			
		"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	23,4	21,6	20,3	19	21,3	19,7	18,5	17,3	41,7	38,5	36,1	33,7	37	34,1	32	29,9	54,4	50,2	47	43,8	47,8	44	41,2	38,5
	PD	14,6	12,7	11,3	10	12,4	10,7	9,55	8,46	13,3	11,5	10,2	8,96	10,7	9,16	8,14	7,18	13,5	11,6	10,3	9,02	10,6	9,08	8,04	7,06
60-40	Hc	14,3	12,5	11,2	9,92	13,1	11,5	10,2	9,01	25,6	22,4	20	17,6	22,77	19,9	17,7	15,5	33,5	29,3	26,1	22,9	29,4	25,6	22,8	20
	PD	6,43	5,12	4,2	3,37	5,5	4,34	3,57	2,83	5,73	4,47	3,69	2,92	4,61	3,64	2,95	2,34	5,69	4,44	3,57	2,81	4,47	3,46	2,8	2,18
45-40	Hc	13,7	12	10,7	9,38	12,5	10,9	9,71	8,53	24,4	21,2	18,9	16,6	21,5	18,7	16,7	14,6	31,6	27,5	24,4	21,4	27,6	24	21,3	18,7
	PD	72,4	56,8	45,9	36,5	61,3	48	38,9	30,8	67,1	51,7	41,9	33	53,5	41,3	33,2	26,2	68,6	53	42,4	33,2	53,5	41	33	25,7
50-42	Hc	14,7	12,9	11,6	10,3	13,4	11,8	10,6	9,42	26,1	23	20,6	18,3	23,1	20,3	18,2	16,2	34	29,8	26,8	23,7	29,7	26,1	23,4	20,8
	PD	34,9	27,8	23	18,6	29,5	23,6	19,5	15,8	31,9	25,2	20,6	16,6	25,5	20,1	16,5	13,2	32,5	25,4	20,8	16,6	25,3	19,9	16,2	12,9

Inlet/Outlet water temperature, °C		42AM--501								42AM--502								42AM--503							
		Air flow (m³/h) Direct				Air flow (m³/h) R3*				Air flow (m³/h) Direct				Air flow (m³/h) R3*				Air flow (m³/h) Direct				Air flow (m³/h) R3*			
		7100				5700				6600				5380				6200				5055			
		"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	31	28,6	26,9	25,1	28,5	26,3	24,7	23,1	56,2	51,8	48,5	45,2	50,9	46,9	43,9	41	74,3	68,4	64,1	59,8	65,9	60,8	56,9	53,1
	PD	7,9	6,84	6,1	5,4	6,8	5,89	5,25	4,65	8,27	7,1	6,28	5,52	6,87	5,9	5,22	4,62	12,8	11	9,74	8,56	10,3	8,81	7,8	6,87
60-40	Hc	18,6	16,2	14,3	12,5	17,1	14,8	13,1	11,4	33,7	29,2	25,8	22,4	30,5	26,4	23,3	20,3	45,8	40,1	35,7	31,3	40,7	35,5	31,7	27,8
	PD	3,39	2,65	2,13	1,66	2,92	2,27	1,83	1,42	3,37	2,59	2,07	1,59	2,79	2,14	1,7	1,34	5,46	4,27	3,44	2,71	4,39	3,42	2,77	2,17
45-40	Hc	18,4	16,1	14,3	12,5	16,9	14,7	13,1	11,5	33,2	28,9	25,7	22,5	30	26,1	23,2	20,3	43,1	37,5	33,3	29,2	38,2	33,2	29,5	25,9
	PD	40,3	31,4	25,5	20,2	34,5	26,9	21,8	17,3	43	33,1	26,6	20,9	35,6	27,3	22,1	17,2	64,8	49,9	39,9	31,4	51,6	39,9	32	25
50-42	Hc	19,6	17,2	15,5	13,7	18	15,8	14,2	12,6	35,4	31,1	27,9	24,7	32	28,1	25,2	22,3	46,3	40,7	36,5	32,4	41,1	36,1	32,4	28,8
	PD	19,2	15,2	12,6	10,1	16,6	13,1	10,9	8,69	20,1	15,8	12,9	10,3	16,7	13,1	10,7	8,5	30,7	24,1	19,7	15,7	24,5	19,3	15,7	12,6

Inlet/Outlet water temperature, °C		42AM--631								42AM--632								42AM--633							
		Air flow (m³/h) Direct				Air flow (m³/h) R3*				Air flow (m³/h) Direct				Air flow (m³/h) R3*				Air flow (m³/h) Direct				Air flow (m³/h) R3*			
		10450				8900				9610				7630				8280				6270			
		"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	45,4	41,9	39,3	36,7	42,7	39,4	37	34,5	84,2	77,7	72,8	68	75,1	69,2	64,9	60,6	106	97,5	91,4	85,4	89,1	82,2	77	72
	PD	6,89	5,94	5,28	4,65	6,16	5,32	4,72	4,16	14,1	12,1	10,7	9,41	11,3	9,74	8,63	7,59	21,5	18,3	16,2	14,3	15,5	13,3	11,8	10,4
60-40	Hc	26,9	23,3	20,6	17,8	25,3	21,9	19,3	16,7	51,4	44,9	40,1	35	45,8	40,1	35,5	31,1	66,1	58,2	52,3	46,3	56	49,2	44	38,9
	PD	2,79	2,14	1,71	1,32	2,5	1,91	1,53	1,19	5,8	4,52	3,67	2,84	4,69	3,66	2,92	2,29	9,2	7,26	5,94	4,76	6,74	5,31	4,31	3,43
45-40	Hc	27,2	23,7	21	18,5	25,5	22,2	19,8	17,3	49,5	43,1	38,3	33,6	44	38,3	34,1	29,9	/	53,1	47,3	41,5	51,1	44,5	39,7	34,9
	PD	36,3	28,1	22,7	17,9	32,4	25,1	20,3	15,9	73,6	56,5	45,3	35,3	58,8	45,2	36,3	28,5	/	82,5	66,5	52,2	76,9	59,2	47,7	37,6
50-42	Hc	28,8	25,3	22,7	20,1	27,1	23,8	21,4	18,9	52,9	46,6	41,8	37,1	47,1	41,4	37,2	33	65,8	57,9	52,1	46,3	55,3	48,7	43,8	38,9
	PD	17	13,4	11	8,75	15,1	12	9,77	7,81	34,2	27	22	17,6	27,6	21,6	17,7	14,1	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 - SINGLE-PHASE motor and SINGLE-PHASE EC motor

Inlet/Outlet water temperature, °C		42AM--302*				42AM--353				42AM--403				42AM--453				42AM--503				42AM--633*			
		Air flow (m³/h) Direct				Air flow (m³/h) Direct				Air flow (m³/h) Direct				Air flow (m³/h) Direct				Air flow (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 (m³/h) Direct				Air flow (m³/h) Direct				Air flow (m³/h) Direct				Air flow (m³/h) Direct				Air flow (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	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						
	Scs	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						
	Scs	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						
	Scs	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 HEE version

# 42AM - Hot Water - Three-phase motor

Inlet/Outlet water temperature, °C		42AM--351								42AM--352								42AM--353									
		Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS					
		2600				2210				2480				2040				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)				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	8	12
80-60	Hc	11,9	11	10,3	9,62	11,2	10,3	9,69	9,05	21,7	20	18,7	17,4	19,7	18,1	17	15,9	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	8,19	7,04	6,23	5,48	6,86	5,89	5,22	4,61	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	13	11,3	9,98	8,67	11,8	10,2	9,04	7,87	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	3,35	2,57	2,06	1,59	2,79	2,15	1,71	1,34	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	12,8	11,2	9,92	8,69	11,6	10,1	9	7,88	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	42,8	33	26,8	20,7	35,6	27,5	22,2	17,3	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	13,7	12	10,8	9,53	12,4	10,9	9,77	8,66	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	20	15,7	12,8	10,2	16,7	13,1	10,7	8,55	19,5	15,2	12,3	9,79	15,5	12,1	9,82	7,82		

Inlet/Outlet water temperature, °C		42AM--401								42AM--402								42AM--403							
		Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS			
		4000				3480				3800				3310				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)				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	16,9	15,6	14,6	13,6	16,1	14,8	13,9	13	31,9	29,4	27,5	25,7	29,9	27,5	25,8	24,1	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	13,9	11,9	10,5	9,24	12,2	10,5	9,31	8,18	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	19,3	16,9	15	13,1	18,1	15,8	14,1	12,3	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	5,66	4,4	3,53	2,76	4,99	3,92	3,13	2,45	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	18,8	16,3	14,5	12,7	17,6	15,3	13,6	11,9	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	72,4	55,6	44,6	34,8	63,6	49,2	39,4	30,8	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	20	17,6	15,8	14	18,8	16,5	14,8	13,1	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	33,7	26,4	21,6	17,2	29,8	23,3	19,1	15,2	31,6	24,7	20,2	16,1	27,4	21,3	7,4	13,9

Inlet/Outlet water temperature, °C		42AM--451								42AM--452								42AM--453							
		Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS			
		5400				3910				5300				4140				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)				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	23,7	21,9	20,6	19,2	21	19,4	18,2	17	44,2	40,8	38,2	35,7	39,2	36,2	33,9	31,7	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	14,8	12,7	11,3	9,96	11,9	10,2	9,08	8,01	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	27	23,7	21,2	18,7	24,1	21,1	18,8	16,5	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	6,31	4,99	4,08	3,27	5,13	4,04	3,31	2,61	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	25,8	22,5	20	17,5	22,9	19,9	17,7	15,5	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	74,7	57,9	46,6	36,6	59,8	46,2	37,2	29,2	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	27,7	24,3	21,9	19,4	24,5	21,6	19,4	17,2	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	35,4	28	23,1	18,5	28,4	22,5	18,4	14,9	35,9	28,1	23	18,3	27,4	21,6	17,6	14

Inlet/Outlet water temperature, °C		42AM--501								42AM--502								42AM--503							
		Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS			
		7500				5740				6900				5400				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)				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	31,7	29,2	27,4	25,6	28,6	26,4	24,8	23,2	57,4	52,9	49,5	46,2	51	47	44	41,1	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	8,6	7,38	6,54	5,74	6,9	5,93	5,25	4,65	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	34,4	29,8	26,4	22,9	30,6	26,5	23,4	20,3	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	3,5	2,69	2,15	1,65	2,83	2,16	1,72	1,33	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	33,9	29,5	26,2	23	30,1	26,2	23,3	20,4	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	44,8	34,5	27,7	21,7	35,8	27,5	22,2	17,3	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	36,2	31,7	28,5	25,2	32,1	28,2	25,3	22,4	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	21	16,4	13,5	10,7	16,8	13,1	10,7	8,57	32,4	25,4	20,8	16,6	24,4	19,2	15,7	12,5

Inlet/Outlet water temperature, °C		42AM--631								42AM--632								42AM--633							
		Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS				Air flow (m³/h) HS				Air flow (m³/h) LS			
		11140				9635				10510				8820				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)				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	46,5	42,9	40,2	37,5	44,1	40,7	38,1	35,6	87,9	81	75,9	70,9	80,8	74,5	69,8	65,2	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	15,3	13,1	11,6	10,2	13	11,2	9,9	8,7	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	53,5	46,8	41,8	36,5	49,3	43,1	38,3	33,5	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	6,27	4,88	3,96	3,07	5,37	4,19	3,36	2,63	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	51,7	45	40	35,1	47,4	41,3	36,8	32,2	/	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	79,8	61,2	49,2	38,4	67,9	52,2	41,9	32,8	/	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	23,1	48,6	43,6	38,7	24,5	44,6	40,1	35,6	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	37	29,1	23,8	19	31,6	24,8	20,3	16,2	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	Rotation speed rpm	I. Name A	Max. abs. P W	IP	Thermal cut-out	Class	Operating temp.			
HEATING	42AM--	35H	THREE-PHASE 230/400 V - 50 Hz	HS - $\Delta$ 1385	0,35	110	44	YES 6.3 A - 165 °C	F	-40 °C / +60 °C			
				LS - $\star$ 1175	0,15	70							
	42AM--/ 42AMA-	40H/40-		HS - $\Delta$ 1404	0,5	260	54			YES 6.3 A - 165 °C	F	-40 °C / +70 °C	
				LS - $\star$ 1176	0,3	170							
	42AM--/ 42AMA-	45H/45-		HS - $\Delta$ 1385	1,13	550							
				LS - $\star$ 1040	0,64	380							
	42AM--/ 42AMA-	50H/50-		HS - $\Delta$ 1391	1,51	770							
				LS - $\star$ 1176	0,9	520							
	42AM--/ 42AMA-	63H/63-		HS - $\Delta$ 1000	1,3	590							
				LS - $\star$ 750	0,63	250							
	42AMS-	63H	HS - $\Delta$ 1000	1,3	590								
			LS - $\star$ 750	0,63	250								
HEATING	42AM--	35H	SINGLE-PHASE 230 V- 50 Hz	Direct 1330	0,7	150	44	YES 6.3 A - 165 °C	F	-40 °C / +60 °C			
	42AM--/42AMA-	40H/40-		Direct 1400	1,3	300	54			YES 6.3 A - 165 °C	F	-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							
				Direct 880	0,3	70	44					YES 6.3 A - 165 °C	F
		Direct 890	0,5	110	54	YES 6.3 A - 165 °C	F	40 °C/+70 °C					
		Direct 933	0,6	140									
		Direct 890	1	230									

## EC FMA

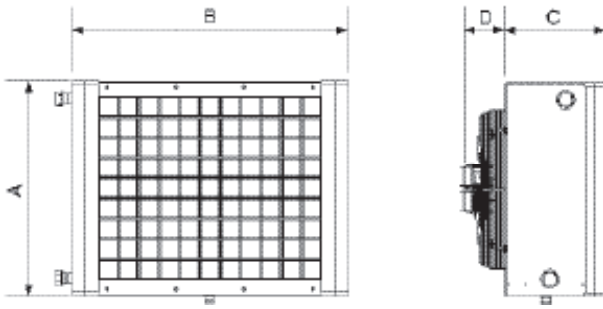
Use	Family	Size	Motor	Rotation speed rpm			IP	Thermal cut-out	Class	Operating temp.
				1530	1480	1760				
HEATING	42AM--	30H	SINGLE-PHASE 230 V 50/60 Hz	1530	0,65	72	54	PTC	B	-25°C/+60°C
	42AM--	35H		1480	1,35	165	54	PTC	B	-25°C/+60°C
	42AM--/42AMA-	40H/40-		1760	2,2	500	54	Thermal cut-out	B	-25°C/+60°C
	42AM--/42AMA-	45H/45-		1500	2,2	500	54	Thermal cut-out	B	-25°C/+60°C
	42AM--/42AMA-	50H/50-		1440	3,25	740	54	Thermal cut-out	B	-40°C/+60°C
	42AM--/42AMA-	63H/63-		1020	3,2	730	54	Thermal cut-out	B	-40°C/+60°C
COOL-ING	42AM--	30C	SINGLE-PHASE 230 V 50/60 Hz	1530	0,65	72	54	PTC	B	-25°C/+60°C
	42AM--	35C		1040	0,65	73	54	PTC	B	-25°C/+60°C
	42AM--	40C		1760	2,2	500	54	Thermal cut-out	B	-25°C/+60°C
	42AM--	45C		1500	2,2	500	54	Thermal cut-out	B	-25°C/+60°C
	42AM--	50C		970	1,1	250	54	Thermal cut-out	B	-25°C/+60°C
	42AM--	63C		770	1,1	250	54	Thermal cut-out	B	-25°C/+60°C

# Coil specifications

WATER COIL		30			35			40			45			50			63		
		2	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
	Number of heating rows	2	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
	Number of cooling rows	2	3																
	Coil capacity (L)	0,8	0,68	1,18	1,66	0,96	1,59	2,28	1,38	2,27	3,22	2,18	3,38	4,55	2,97	4,7	6,4		
	Connection diameter	1/2"	3/4"						1"			1" 1/4							
	Connection type	Threaded unions 243 GCU F/M																	
	Maximum operating pressure	8 bar																	
	Test pressure	16 bar																	
	Max T°	110°C																	

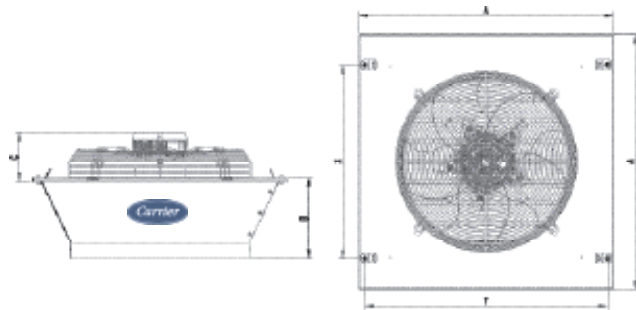
# Dimensions

## 42AM air heater



Size	A	B	C	D		Weight (kg)		
				STD	EC	1 row	2 rows	3 rows
	mm							
<b>30</b>	395	600	286	115	115	-	18	-
<b>35</b>	460	646	286	101	126	21	24	26
<b>40</b>	557	700	286	142	143	30	32	34
<b>45</b>	620	813	286	142	143	40	42	44
<b>50</b>	716	918	336	142	188	50	53	56
<b>63</b>	876	1050	336	142	200	62	67	72
<b>63S</b>	872	1050	295	126		60	-	-

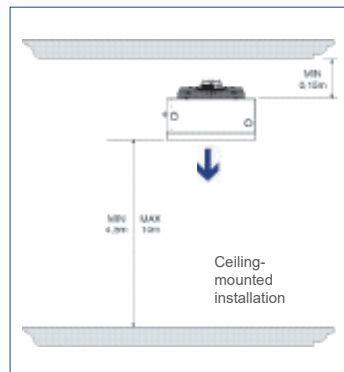
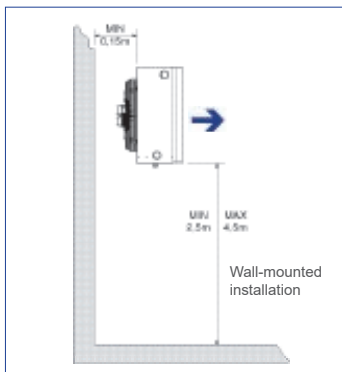
## 42AMA Destratifier



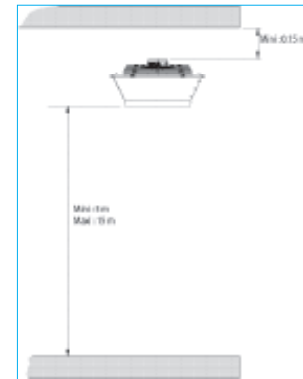
Size	A	B	C		X	Y	Weight kg
			STD	EC			
<b>40</b>	586	183	143	143	370	552	17
<b>45</b>	666	212	143	143	470	632	22
<b>50</b>	747	225	143	188	570	712	25
<b>63</b>	907	273	143	200	705	872	33

# Ceiling

## 42AM air heater




## 42AMA Destratifier




# Assembly accessories

A different assembly for each use.

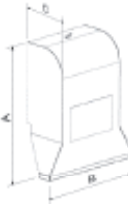
## RETURN AIR MODULE

	Size	A	B	C	Codes	<b>Filter box</b> (G1 filter in accordance with EN 779) Prevents premature clogging of exchanger coils Not ductable
	35	440		220	7185105	
40	520		7185106			
45	600		7185107			
50	680		7185108			
63/63S	840		7185110			

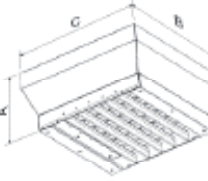
  

	Size	A	B	C	Codes	<b>2-channel mixing box with built-in filter</b> Adjusts the supply of fresh air to levels required by current regulations and mixes it with return air. Built-in G1 filter and connecting flange for cubic ducts. Air access sides configurable on-site. For compliance with standard ERP 2016, the air heater can only operate with a maximum of 10% fresh air.
	35	585	455	788	7185127	
40	665	535	868	7185128		
45	745	615	949	7185129		
50	825	695	1029	7185131		
63	985	855	1189	7185132		



## DIFFUSION MODULE

	Size	A	B	C	Codes	<b>Diffuser on door</b> Create an air curtain that limits energy loss when doors are opened.
	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		

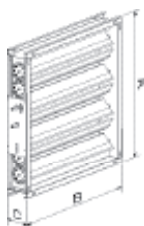
  

	Size	A	B	C	Codes	<b>Diffuser for large spaces</b> Reduction cone for increasing the air throws.
	35	-	-	-	-	
40	178	555	522	7185138		
45	136	637	618	7185139		
50	132	740	714	7185140		
63/63S	282	872	814	7185141		

## ASSEMBLY SUPPORT ACCESSORIES



	Size	Codes	<b>Wall bracket</b>
	All		
35 to 45	50 to 63/63S	7181228	<b>Additional kit for fastening on an IPN</b>
		7181230	
	Size	Codes	<b>Suspension support for ceiling mounting</b>
	All	7282116	

## DUCT ACCESSORIES


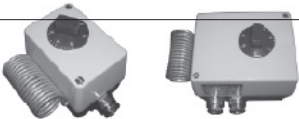
	Size	A	B	C	Codes	<b>Antifreeze damper</b>
	35	443		130	7043051	
40	523		7043052			
45	603		7043053			
50	683		7043054			
63	843		7043055			

# Electrical accessories



## ELECTRICAL & USER SAFETY

	<b>Codes</b>		<b>Padlockable proximity switch</b> 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					
	<b>Use</b>	<b>Circuit breaker unit - FMA 1-PH heating</b>	<b>Circuit breaker unit - HEE FMA 1-PH heating</b>	<b>Circuit breaker unit - FMA 1-PH cooling</b>	<b>Circuit breaker unit - HEE FMA 1-PH cooling</b>	<b>Circuit breaker unit - 3-PH</b>
	42AM--30		7252526		7252526	
	42AM--35	7252526	7252527	7252523	7252526	7252523
	42AM--40	7252527	7252528	7252525	7252528	7252525
	42AM--45	7252528	7252528	7252526	7252528	7252527
	42AM--50	7252529	7252529	7252526	7252527	7252527
	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

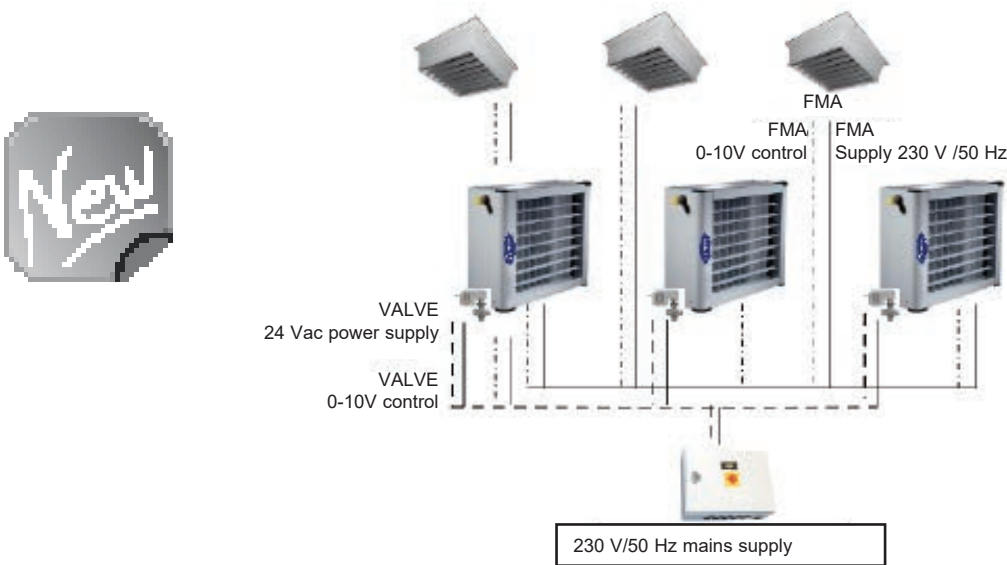
	<b>Codes</b>	<b>Manual/auto room thermostat – SINGLE-PHASE installation</b>
	33TC-EC01	3-speed EC thermostat kit (for EC SINGLE-PHASE FMA) - Heating and cooling with manual toggle switch - Inductive breaking capacity 3.53A
	33TA-AC01	1-speed AC thermostat kit (for AC SINGLE-PHASE FMA) Heating and cooling with manual toggle switch - Inductive breaking capacity 3.53A
	<b>Codes</b>	<b>IP54 industrial environment thermostat – THREE-PHASE installation</b>
	7113335	7113335: 1 stage
	7113336	7113336: 2 stages

## SUPPLY AIR SPEED SELECTION

	<b>Codes</b>	<b>LS/HS switch</b>
	7169961	For 3-phase motor, selects two motor rotation speeds and stop.
	<b>Codes</b>	<b>Autotransformer with selector switch (3.5 A)</b>
	7166982	Adjusts the voltage on single-phase motors with one variable speed to achieve up to five supply air speeds.

# 42AM single-phase EC air heater control

HEE MONO BOX range, controls six 42AM-- air heaters or three 42AM-- air heaters + three 42AM--



## Description

- Complete "PLUG & PLAY" control solution for air-source (0-10 V 1-PH 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 rates 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 box
- 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 heat requirements (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).
- A building's heat gain will depend on its occupancy, using centralised management of the 42AM air heaters via the controller (one EC MONO BOX controls six 42AM- heaters or six 42AMA- heaters or three 42AM- heaters + three 42AMA- heaters).
- 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 specifications

- HEE MONO BOX unit supply: 230 V single-phase
- Protection rating: IP54
- Built-in motor overload and user protections as required by French standard NF C 15-100





Order No.: 10040, 09.2016 - Supersedes order No.: 10040, 03.2015  
The manufacturer reserves the right to change any product specifications without notice.



Quality and Environment  
Management Systems  
Approval

Manufactured for Carrier in France.  
Printed in the European Union.