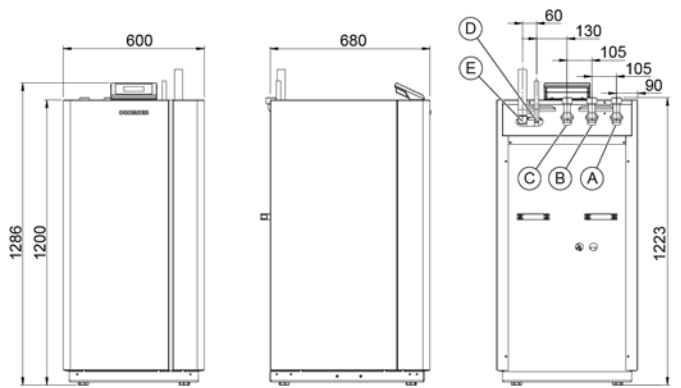


# AIR 29 C12A

**HIGH EFFICIENCY AIR/WATER HEAT PUMP**  
INCL. HORIZONTAL SPLIT EVAPORATOR

ORDER NUMBER: 287050  
SERIES: M4  
TF MAX. 65 °C  
SPLIT



(A) FLHC (outlet) (B) FLT (outlet) (C) RTN (inlet) (D) WQA (outlet) (E) WQA (inlet)

## APPLIANCE DATA

Dimensions HxWxD	[mm]	1285x600x681
Hydraulic connection	[inch]	1 1/2"
Weight	[kg]	160
Casing colour		White/anthracite

## HEATING MODE PERFORMANCE FIGURES (to EN 14511)

### Standard point A10/W35

Heating output	[kW]	28,40
Total power consumption / operating current	[kW]/[A]	5.80 / 11.80
COP		4,90

### Operating point A7/W35

Heating output	[kW]	25,80
Total power consumption / operating current	[kW]/[A]	5.60 / 11.40
COP		4,60

### Standard point A2/W35

Heating output	[kW]	21,80
Total power consumption / operating current	[kW]/[A]	5.20 / 10.60
COP		4,20

### Standard point L-7/W35

Heating output	[kW]	17,50
Total power consumption / operating current	[kW]/[A]	5.00 / 10.20
COP		3,50

### Operating point L-10/W35

Heating output	[kW]	16,30
Total power consumption / operating current	[kW]/[A]	5.00 / 10.20
COP		3,30

### Operating point A2/W50

Heating output	[kW]	21,20
Total power consumption / operating current	[kW]/[A]	6.60 / 13.40
COP		3,20

### Operating point A2/W60

Heating output	[kW]	20,80
Total power consumption / operating current	[kW]/[A]	7.30 / 14.80
COP		2,80

## COOLING MODE PERFORMANCE FIGURES

### Operating point A30/W18

Cooling capacity	[kW]	17,90
Total power consumption / operating current	[kW]/[A]	5.70 / 11.60
Energy efficiency ratio EER		3,10

### Operating point A30/W7

Cooling capacity	[kW]	17,20
Total power consumption / operating current	[kW]/[A]	5.60 / 11.40
Energy efficiency ratio EER		3,10

Hydraulic version			Electric immersion heater		3-way switching module	
			Internal	external	Internal	external
M2-1	M4-1		x		x	
M2-2	M4-2			x	x	
M2-3	M4-3		x			x
M2-4	M4-4	M6		x		x

## SPECIFICATION

Phases/nominal voltage/frequency	[~]/[V]/[Hz]	3/400/50
Output factor cos φ		0,71
Fuse protection (tripping curve "C")	[A]	25
Max. operating current	[A]	21,10
Max. starting current/max. with soft start	[A]	99.00 / 49.50
Sound power/sound pressure level (at 1 m distance) indoor unit	[dBA]	55.50 / 47.50
Sound power/sound pressure level (at 10 m distance), outdoor unit	[dBA]	58.0 / 30.0

## CONDENSER

Type		Plate heat exchanger
Material		Stainless steel 1.4301
Max. refrigerant operating pressure	[bar]	30
Max. heat transfer medium operating pressure	[bar]	3
Heat transfer medium temperature differential	[K]	5
Application range	[°C]	65
Heat transfer medium		Water
Test pressure	[bar]	45
Heat transfer medium flow rate	[m³/h]	4,40
Internal pressure differential	[mbar]	464
Flow meter (FM)	Internal	Installed as
Circulation pump heat sink (WNA)	Internal	Stratos Para 25/1-8
Residual head I WNA external	[mbar]	113 (M4-1), 273 (M4-4)

## REFRIGERANT CIRCUIT

Refrigerant		R407C
Defrost technology		Hot gas
Refrigerant charge	[kg]	15

## COMPRESSOR

Type		Scroll
Output levels		1
Speed	[rpm]	2900
Voltage/frequency	[V]/[Hz]	400/50

## FAN

Type		axial
Number	[pce]	2
Voltage/frequency	[V]/[Hz]	230/50
Power consumption	[W]	1 x 201
Max. operating current	[A]	1 x 2.80

## EVAPORATOR

Unit type		VHS-M 25
Dimensions HxWxD	[mm]	1080x2220x960
Type		Finned pipe
Number	[pce]	1
Weight	[kg]	175
Fin pack material		Copper/aluminium
Casing material		Stainless steel / coated
Max. refrigerant operating pressure	[bar]	30
Relative humidity	[%]	80
Heat transfer medium temperature differential	[K]	5,90
Air flow rate	[m³/h]	8000
Application range min./max	[°C]	-22 / 40



SPLIT EVAPORATOR VHS-M 25

**RECOMMENDED ACCESSORIES**

	Order no./type	Description	Pressure loss
Heat pump separating cylinders	min. PU800	30 l/kW at L2/W35	-
DHW tank	min. SP500	30 l/kW at L2/W50	-
External plate heat exchanger (DHW heating)	911252 PHE 5007	Prim.: 1 1/4" Sec.: 1"	Prim.: 62 mbar Sec.: 80 mbar
3-way switching module internal	980191	-	31 mbar
3-way switching module external	290341	DN40 (1 1/2") kvs 25	31 mbar
Electric immersion heater internal	980190	8.8 kW (2.6 / 3.0 / 3.2)	135 mbar
External electric immersion heater (heat pump buffer tank)	922508	2 x 6 kW	-

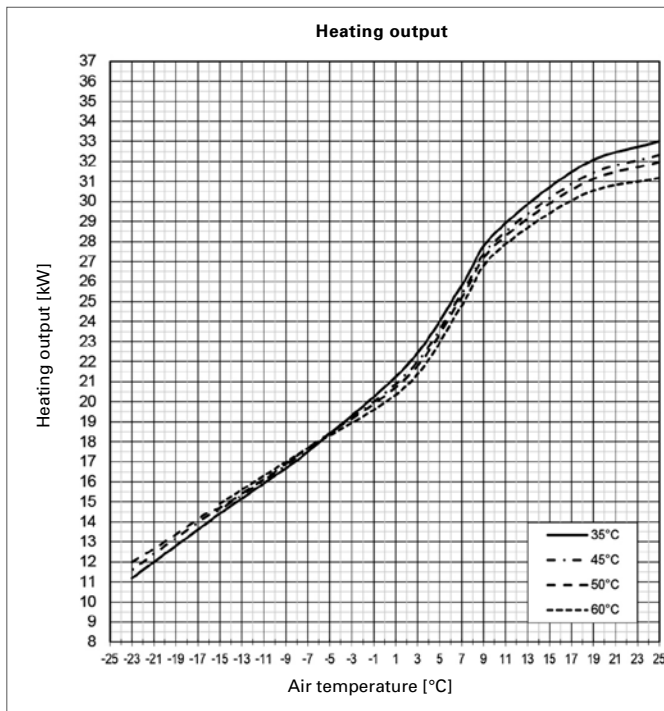
Application	Booster heater output
Bivalent <b>parallel</b>	Sizing according to calculated value (offer program), but with minimum 50% of building heat load
Bivalent <b>partial parallel</b>	Sizing to 100% of building heat load
Bivalent <b>alternative</b>	Sizing to 100% of building heat load

	Max. connection length	Max. height differential
AIR 29 C12A	Lmax ≤ 20	Hmax ≤ 10

**LIMITS OF USE AIR 29 C12A**

Outdoor temperature/max. heat pump flow temperature	A-10/W65°C A-15/W60°C A-20/W55°C
Underfloor heating (-15°C / 35°C)	YES
Radiators (-15°C / 50°C)	YES
Radiators (-15°C / 55°C)	YES
Radiators (-15°C / 65°C)	YES
Radiators (-15°C / 65°C)	Booster heater should be sized for 100% heat load
Domestic hot water	YES

**PERFORMANCE CURVES AIR 29 C12A**



**PRODUCT DATA ErP: AIR 29 C12A**

	COLDER	MEAN	HOTTER
<b>LOW TEMPERATURE</b>	<b>A++</b>	<b>35°C</b>	
ηs	160	<b>174</b>	196
Energy consumption [kWh]	8791	<b>8617</b>	5851
P rated [kW]	15	<b>18</b>	22
SCOP	4,08	<b>4,42</b>	4,98
<b>MEDIUM TEMPERATURE</b>	<b>A++</b>	<b>55°C</b>	
ηs	128	<b>138</b>	156
Energy consumption [kWh]	13133	<b>11613</b>	7073
P rated [kW]	17	<b>20</b>	21
SCOP	3,26	<b>3,52</b>	3,97
<b>DHW</b>	<b>A</b>	<b>SP500</b>	
ηWH	95	<b>103</b>	119
Energy consumption [kWh]	1469	<b>1343</b>	1165
Draw-off profile		<b>XL</b>	
Tank losses [W]		<b>117</b>	
		indoor	outdoor
Sound power level [dBA]		55,5	58,0
Controller class with room remote control	VII	Controller contribution [%]	3,5
Controller class without room remote control	III	Controller contribution [%]	1,5

**INSTALLATION**

VHS-M 25



**Longitudinal clearance to wall:**  
10 cm or min. 100 cm

**Lateral clearance to walls:**  
100 cm

