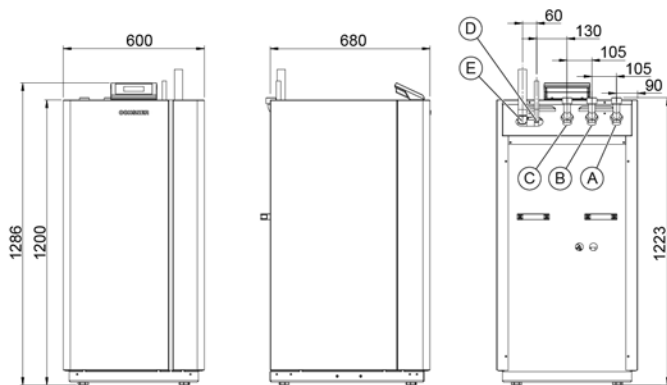


AIR 29 C12A

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 tube
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 buffer tank	min. PU800	30 l/kW at L2/W35	-
DHW tank	min. SP500	30 l/kW at L2/W50	-
External plate heat exchanger (DHW/911252 heating)	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	-

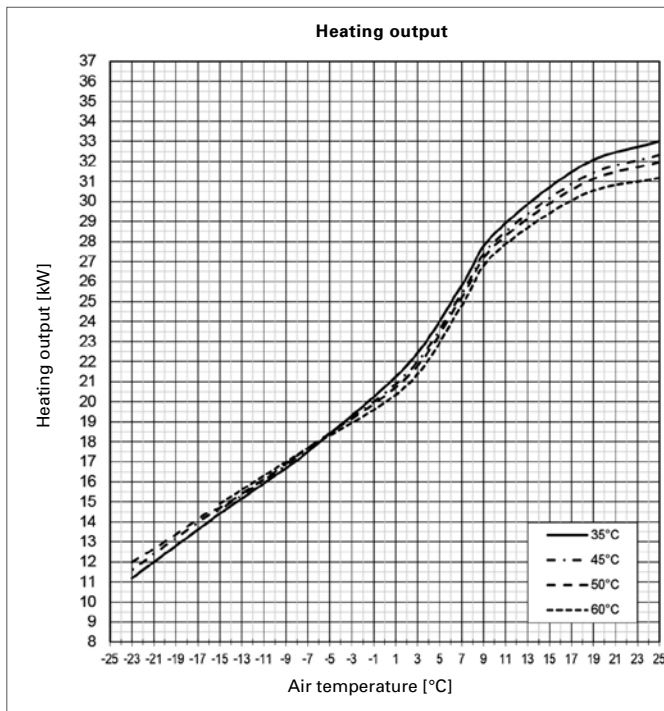
Application	Booster heater output
Bivalent parallel	Sizing according to calculated value (offer program), but with minimum 50% of building heat load
Bivalent partial parallel	Sizing to 100% of building heat load
Bivalent alternative	Sizing to 100% of building heat load

	Max. connection length	Max. height differential
AIR 29 C12A	L ≤ 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
LOW TEMPERATURE	A++	35°C	
ηs	160	174	196
Energy consumption	[kWh] 8791	8617	5851
P rated	[kW] 15	18	22
SCOP	4,08	4,42	4,98

MEDIUM TEMPERATURE	A++	55°C	
ηs	128	138	156
Energy consumption	[kWh] 13133	11613	7073
P rated	[kW] 17	20	21
SCOP	3,26	3,52	3,97

	A	SP500	
DHW	95	103	119
ηWH	1469	1343	1165
Energy consumption	[kWh]	XL	
Draw-off profile		117	
Tank losses	[W]		

	indoor	outdoor
Sound power level	[dBA] 55,5	58
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

