

AIR BASIC 416 C12A G1-1

AIR/WATER HEAT PUMP INCL. VERTICAL SPLIT EVAPORATOR

ORDER NUMBER: 285615

SERIES: G1-1

TF MAX. 55 °C

SPLIT

APPLIANCE DATA

Dimensions of outdoor unit HxWxD	[mm]	1377x950x340
Dimensions of indoor unit HxWxD	[mm]	1150x400x650
Hydraulic connection	[inch]	1"
Weight of outdoor unit	[kg]	130
Weight of indoor unit	[kg]	75
Casing colour		Tiger white 29/11289/grey RAL 7016

HEATING MODE PERFORMANCE FIGURES (to EN 14511)

Standard point A10/W35		
Heating output range	[kW]	7.58 - 18.09
Total heating output/power consumption	[kW]	14.22 / 3.06
COP		4,70

Operating point A7/W35		
Heating output range	[kW]	7.26 - 16.58
Total heating output/power consumption	[kW]	13.45 / 3.11
COP		4,33

Standard point A2/W35		
Heating output range	[kW]	4.86 - 10.54
Total heating output/power consumption	[kW]	9.27 / 2.87
COP		3,23

Standard point L-7/W35		
Heating output range	[kW]	3.63 - 8.67
Total heating output/power consumption	[kW]	5.38 / 2.31
COP		2,32

Operating point L-10/W35		
Heating output range	[kW]	3.85 - 7.16
Total heating output/power consumption	[kW]	5.02 / 2.61
COP		1,92

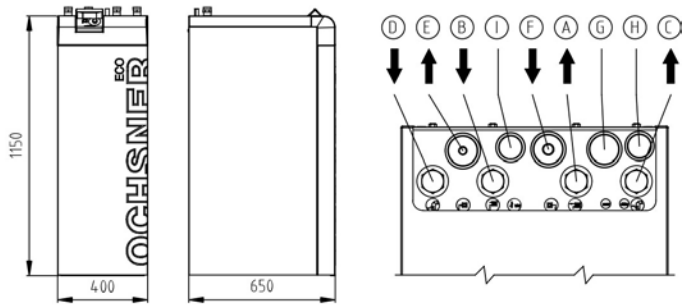
Operating point A2/W50		
Heating output range	[kW]	3.40 - 9.50
Total heating output/power consumption	[kW]	6.70 / 3.32
COP		2,22

COOLING MODE PERFORMANCE FIGURES

Operating point A35/W18		
Cooling capacity range	[kW]	5.49 - 13.89
Nominal cooling capacity	[kW]	12,62
Total nominal power consumption	[kW]	4,19
Energy efficiency ratio EER at nominal output		3,27

Operating point A35/W12		
Cooling capacity range	[kW]	5.60 - 12.61
Nominal cooling capacity	[kW]	10,19
Total nominal power consumption	[kW]	3,41
Energy efficiency ratio EER at nominal output		2,99

Operating point A35/W7 ⁽¹⁾		
Cooling capacity range	[kW]	2.80 - 10.51
Nominal cooling capacity	[kW]	10,22
Total nominal power consumption	[kW]	3,99
Energy efficiency ratio EER at nominal output		2,56



Indoor unit

- Ⓐ FL heating/cooling
- Ⓑ RTN heating/cooling
- Ⓒ FL DHW charging
- Ⓓ RTN DHW charging
- Ⓔ Refrigerant line LL (liquid line)
- Ⓕ Refrigerant line HG (hot gas line)
- Ⓖ Controller 230 V
- Ⓗ booster heater 400 V/230 V
- Ⓢ Sensor < 12 V

SPECIFICATION

Phases/nominal voltage/frequency Outdoor unit, controller	[-]/[V]/[Hz]	3/400/50
Phases/nominal voltage/frequency Electric immersion heater	[-]/[V]/[Hz]	3/400/50 or 1/230/50
Electric immersion heater internal	[kW]	8.8 (2.95/2.95/2.95)
Output factor cos φ		0,93
Fuse protection (tripping curve "C")	[A]	20
Max. operating current	[A]	10,00
Max. starting current, compressor	[A]	15.00 / 20.00*
Sound power/sound pressure level (at 1 m distance), indoor unit	[dBA]**	- / -
Sound power/sound pressure level (at 10 m distance), outdoor unit	[dBA]**	64.0 / 38.0

CONDENSER

Type		Plate heat exchanger
Material		Stainless steel 1.4301
Max. refrigerant operating pressure	[bar]	43
Max. heat transfer medium operating pressure	[bar]	3
Heat transfer medium temperature differential	[K]	5
Application range	[°C]	55
Heat transfer medium		Water
Test pressure	[bar]	59
Heat transfer medium flow rate	[m³/h]	1,90
Internal pressure differential	[mbar]	140
Flow meter FM standard	Internal	built-in
Circulation pump heat sink WNA	Internal	Yonos Para HPS15/7.5
Residual head I WNA external, incl. FM	[mbar]	245

REFRIGERANT CIRCUIT

Refrigerant		R410A
Defrost technology		Hot gas
Refrigerant charge	[kg]	2,95

COMPRESSOR

Type		Scroll
Output levels		Infinitely variable
Speed	[rpm]	1800-4500
Voltage/frequency	[V]/[Hz]	400/50

FAN

Type		axial
Number	[pce]	2
Voltage/frequency	[V]/[Hz]	230 / 50
Power consumption	[W]	90

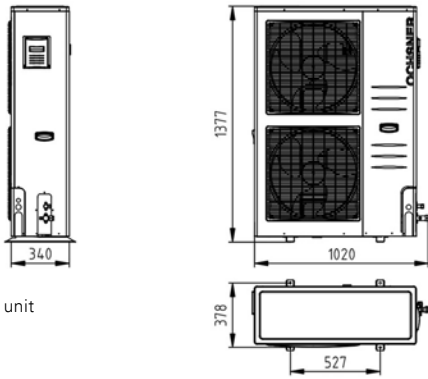
EVAPORATOR

Unit type		built-in
Type		Finned tube
Number	[pce]	1
Air flow rate	[m³/h]	7000
Application range min./max	[°C]	-20 / 35

⁽¹⁾only possible with buffer tank

*Starting current, compressor with locked rotor

**Sound pressure level measured in a free field; sound power levels measured at max. nominal speed



Outdoor unit



PRODUCT DATA **ErP: AIR BASIC 416 C12A G1-1**

	COLDER	MEAN	HOTTER
LOW TEMPERATURE	A++	35°C	
η_s	119	156	207
Energy consumption [kWh]	10227	5249	2683
P rated [kW]	13	10	11
SCOP	3,04	3,97	5,25
MEDIUM TEMPERATURE	A+	55°C	
η_s	94	112	147
Energy consumption [kWh]	10324	5856	3199
P rated [kW]	10	8	9
SCOP	2,43	2,86	3,76
DHW	B	SP300	
η_{WH}	70	76	88
Energy consumption [kWh]	2037	1862	1616
Draw-off profile		XL	
Tank losses [W]		94	

RECOMMENDED ACCESSORIES

Heat pump buffer tank	PU200 (optional)	30 l/kW, P min. at A20
DHW tank	SP350	30 l/kW at L2/W35
3-way switching module	built-in	
External PHE for DHW heating	PHE 5007 as of SP300	Primary 1 1/4" / 20 mbar Secondary 1" / 16 mbar

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

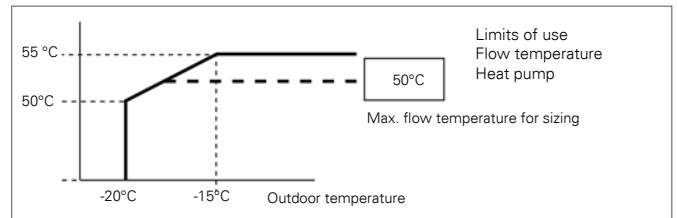
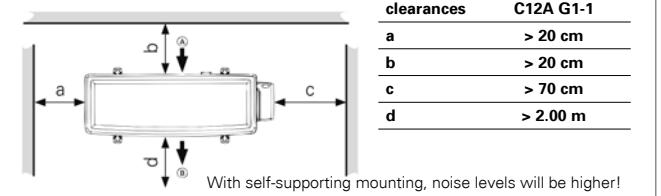
	Max. connection length	Max. height differential
AIR BASIC 416 C12A G1-1	L ≤ 30	Hmax ≤ 15

	indoor	outdoor
Sound power level [dBA]	-	64
Controller class with room remote control	VI	Controller contribution [%] 4,0
Controller class without room remote control	II	Controller contribution [%] 2,0

LIMITS OF USE AIR BASIC 416 C12A G1-1

Outdoor temperature/max. heat pump flow temperature	A-15/W55°C A-20/W50°C
Underfloor heating (-15°C / 35°C)	YES
Radiators (-15°C / 50°C)	YES
Radiators (-15°C / 60°C)	NO
Domestic hot water	YES

Observe minimum clearances



PERFORMANCE CURVES AIR BASIC 416 C12A G1-1

