

AIR BASIC 109 C11B G1-1

(ELW 4)

AIR/WATER HEAT PUMP

INCL. VERTICAL SPLIT EVAPORATOR

ORDER NUMBER: 285600

SERIES: G1-1

TF MAX. 55 °C

SPLIT

APPLIANCE DATA

Dimensions of outdoor unit HxWxD	[mm]	610x869x290
Dimensions of indoor unit HxWxD	[mm]	1150x400x650
Hydraulic connection	[inch]	1"
Weight of outdoor unit	[kg]	38
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]	3.25 - 6.78
Total heating output/power consumption	[kW]	4.88 / 1.01
COP		4,83

Operating point A7/W35

Heating output range	[kW]	3.08 - 6.24
Total heating output/power consumption	[kW]	4.37 / 0.94
COP		4,63

Standard point A2/W35

Heating output range	[kW]	1.25 - 3.30
Total heating output/power consumption	[kW]	3.09 / 0.92
COP		3,35

Standard point L-7/W35

Heating output range	[kW]	1.30 - 2.95
Total heating output/power consumption	[kW]	2.59 / 0.98
COP		2,64

Operating point L-10/W35

Heating output range	[kW]	1.27 - 2.73
Total heating output/power consumption	[kW]	2.51 / 1.05
COP		2,39

Operating point A2/W50

Heating output range	[kW]	2.09 - 3.33
Total heating output/power consumption	[kW]	3.04 / 1.27
COP		2,40

COOLING MODE PERFORMANCE FIGURES

Operating point A35/W18

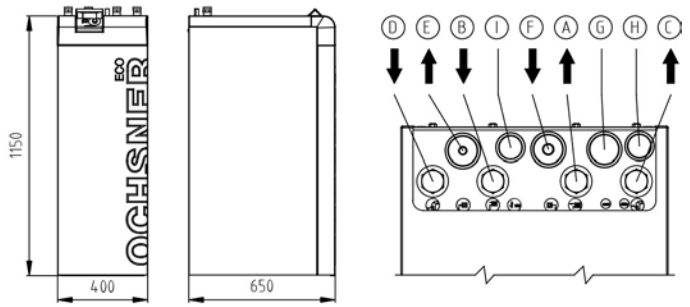
Cooling capacity range	[kW]	2.22 - 6.46
Nominal cooling capacity	[kW]	4,91
Total nominal power consumption	[kW]	1,02
Energy efficiency ratio EER at nominal output		4,81

Operating point A35/W12

Cooling capacity range	[kW]	1.85 - 5.18
Nominal cooling capacity	[kW]	3,14
Total nominal power consumption	[kW]	1,04
Energy efficiency ratio EER at nominal output		3,02

Operating point A35/W7⁽¹⁾

Cooling capacity range	[kW]	2.22 - 4.21
Nominal cooling capacity	[kW]	3,30
Total nominal power consumption	[kW]	1,09
Energy efficiency ratio EER at nominal output		3,01



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]	1/230/50
Phases/nominal voltage/frequency Electric immersion heater	[-]/[V]/[Hz]	3/400/50 or 1/230/50
Electric immersion heater internal	[kW]	5,9 (2,95 / 2,95)
Output factor cos φ		0,97
Fuse protection (tripping curve "C")	[A]	16
Max. operating current	[A]	13,50
Max. starting current, compressor	[A]	10.50 / 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]**	60.0 / 35.0

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]	0,80
Internal pressure differential	[mbar]	25
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]	700

REFRIGERANT CIRCUIT

Refrigerant		R410A
Defrost technology		Hot gas
Refrigerant charge	[kg]	1,2

COMPRESSOR

Type		Rotary piston
Output levels		Infinitely variable
Speed	[rpm]	2400-5040
Voltage/frequency	[V]/[Hz]	230/50

FAN

Type		axial
Number	[pce]	1
Voltage/frequency	[V]/[Hz]	230 / 50
Power consumption	[W]	35

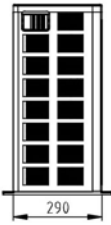
EVAPORATOR

Unit type		built-in
Type		Finned tube
Number	[pce]	1
Air flow rate	[m³/h]	2500
Application range min./max	[°C]	-20 / 35

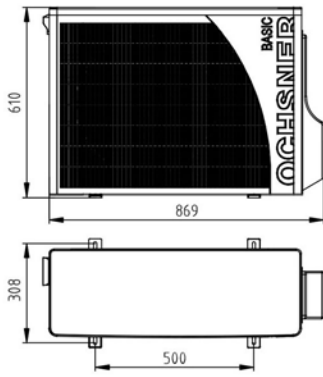
⁽¹⁾only possible with buffer tank

*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 109 C11B G1-1**

	COLDER	MEAN	HOTTER
LOW TEMPERATURE	A++	35°C	
η_s	120	162	203
Energy consumption [kWh]	3991	1721	788
P rated [kW]	5	3	3
SCOP	3,08	4,13	5,14
MEDIUM TEMPERATURE	A+	55°C	
η_s	101	110	144
Energy consumption [kWh]	4561	2307	953
P rated [kW]	5	3	3
SCOP	2,61	2,84	3,69
DHW	A	SP300	
η_{WH}	76	83	96
Energy consumption [kWh]	1879	1718	1491
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 2007 as of SP300	Primary 1" / 35 mbar Secondary 1" / 39 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

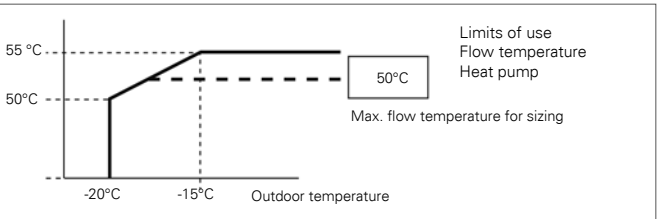
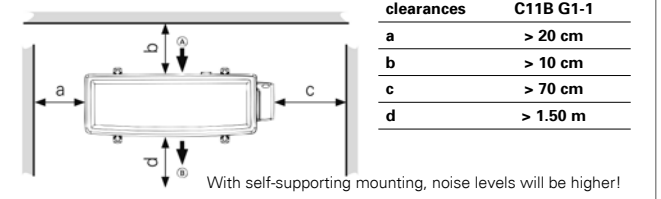
	Max. connection length	Max. height differential
AIR BASIC 109 C11B G1-1	L ≤ 20	Hmax ≤ 10

	indoor	outdoor
Sound power level [dBA]	-	60
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 109 C11B 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 109 C11B G1-1

