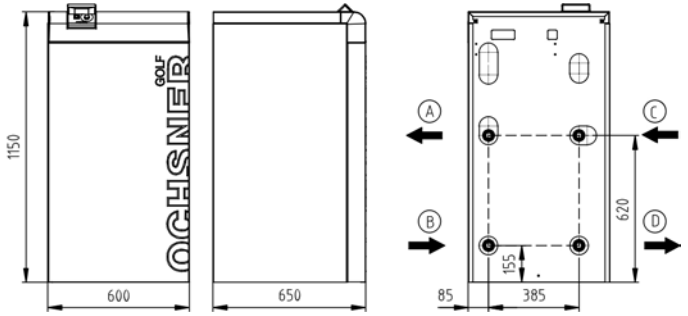


# GMSW 22 PLUS

## MONOVALENT HEATING SYSTEM WITH BRINE AS HEAT SOURCE

ORDER NUMBER: 264850  
SERIES: GOLF MAXI PLUS  
TF MAX. 68 °C



(A) FLHC (outlet) (B) RTNHC (inlet) (C) WQA (inlet) (D) WQA (outlet)

### APPLIANCE DATA

Dimensions HxWxD	[mm]	1150x600x650
Hydraulic connection	[inch]	1 1/2"
Weight	[kg]	254
Casing colour		Tiger white 29/11289/grey RAL 7016

### SPECIFICATION

Phases/nominal voltage/frequency	[~]/[V]/[Hz]	3/400/50
Output factor cos φ		0,80
Fuse protection (tripping curve "C")	[A]	25
Max. operating current	[A]	18,00
Max. starting current/max. with soft start	[A]	125.00 / 62.50
Sound power level/sound pressure level (at 1 m distance)	[dBA]	59.30 / 51.30

### HEATING MODE PERFORMANCE FIGURES (to EN 14511)

#### Standard point B0/W35

Heating output	[kW]	22,70
Total power consumption / operating current	[kW]/[A]	4.80 / 8.70
COP		4,70

#### Operating point B0/W50

Heating output	[kW]	21,20
Total power consumption / operating current	[kW]/[A]	6.40 / 11.60
COP		3,30

#### Operating point B0/W60

Heating output	[kW]	20,20
Total power consumption / operating current	[kW]/[A]	8.00 / 14.50
COP		2,50

### CONDENSER

Type		Plate heat exchanger
Material		Stainless steel 1.4401
Max. refrigerant operating pressure	[bar]	45
Max. heat transfer medium operating pressure	[bar]	6
Heat transfer medium temperature differential	[K]	5
Application range	[°C]	68
Heat transfer medium		Water
Test pressure	[bar]	54
Heat transfer medium flow rate	[m³/h]	3,90
Internal pressure differential	[mbar]	70
Flow meter FM standard	external	FM-DN 25 kvs 20
Circulation pump heat sink (WNA)	external	Stratos Para 30/1-12
Residual head I WNA external, incl. FM	[mbar]	954

### REFRIGERANT CIRCUIT

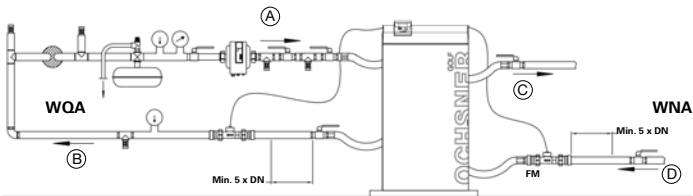
Refrigerant		R410A
Refrigerant charge	[kg]	4,3

### COMPRESSOR

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

### EVAPORATOR

Type		Plate heat exchanger
Material		Stainless steel 1.4401
Number	[pce]	1
Max. heat transfer medium operating pressure	[bar]	6
Max. refrigerant operating pressure	[bar]	12
Heat transfer medium temperature differential	[K]	3
Application range	[°C]	-6/+20
Heat transfer medium		Brine max. 30%
Test pressure	[bar]	54
Heat transfer medium flow rate	[m³/h]	5,62
Internal pressure differential	[mbar]	190
Flow meter (FM) standard	external	FM-DN 25 kvs 20
Circulation pump heat source (WQA)	Internal	Stratos Para 25/1-12
Residual head I WQA external, incl. FM	[mbar]	767



**PRODUCT DATA ErP: GMSW 22 PLUS**

	COLDER	MEAN	HOTTER
<b>LOW TEMPERATURE</b>	<b>A++</b>		<b>35°C</b>
ηs	205	<b>199</b>	200
Energy consumption	[kWh]	10497	<b>9079</b>
P rated	[kW]	23	<b>23</b>
SCOP	5,33	<b>5,17</b>	5,20
<b>MEDIUM TEMPERATURE</b>	<b>A++</b>		<b>55°C</b>
ηs	139	<b>135</b>	135
Energy consumption	[kWh]	13918	<b>11972</b>
P rated	[kW]	21	<b>21</b>
SCOP	3,67	<b>3,57</b>	3,58
<b>DHW</b>	<b>A</b>		<b>SP500</b>
ηWH	89	<b>89</b>	89
Energy consumption	[kWh]	1565	<b>1565</b>
Draw-off profile			<b>XL</b>
Tank losses	[W]		<b>117</b>

**RECOMMENDED ACCESSORIES**

Heat pump separating cylinders	min. PU500	30 l/kW at B0/W35
DHW tank	SP 500/SP550	30 l/kW at B0/W50
3-way switching module	DN40 (1 1/2")	kvs 25, pressure loss 24 mbar
External PHE for DHW heating	PHE 5007	Prim.: 1 1/4" / 18 mbar Sec.: 1" / 24 mbar
Brine collector set for shallow laying	ESKP 10	Pressure loss 89 mbar incl. brine distributor

**EXTRACTION CAPACITY ACC. TO VDI 4640**

**FOR SHALLOW LAYING**

Soil conditions	Max. spec. extraction capacity at 1800 h/a	Max. spec. extraction capacity at 2400 h/a
Dry, non-cohesive soil	10 W/m <sup>2</sup>	8 W/m <sup>2</sup>
Cohesive soil, moist	25 W/m <sup>2</sup>	20 W/m <sup>2</sup>
Water-saturated soil with sand/gravel	40 W/m <sup>2</sup>	32 W/m <sup>2</sup>

**FOR DEEP TRENCH LAYING**

Soil conditions	Max. spec. extraction capacity at 1800 h/a
Cohesive soil, moist	100 W/m deep trench
Water-saturated soil	125 W/m deep trench

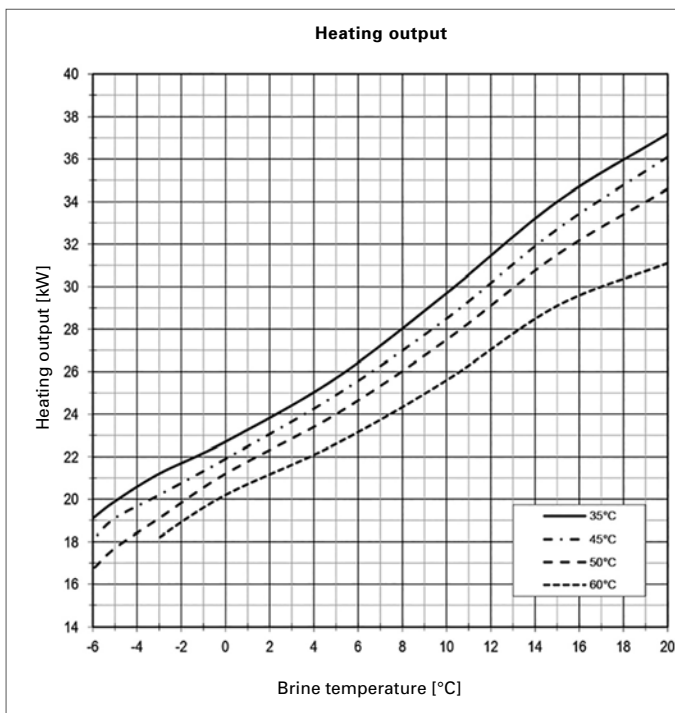
**FOR GEOTHERMAL PROBES**

Soil conditions	Spec. extraction capacity at 1800 h/a	Max. spec. extraction capacity at 2400 h/a
Dry sediment	25 W/m	20 W/m
Shale, slate	45 W/m	35 W/m
Firm rock with high thermal conductivity	84 W/m	70 W/m
Substratum with high groundwater flow	65-80 W/m	55-65 W/m

**SIZING RECOMMENDATION WITH BRINE AS HEAT SOURCE**

Pressure loss in connection line, incl. individual losses	Max. 100 mbar
Pressure loss in brine circuits or probes, incl. brine distributor	Max. 300 mbar

**PERFORMANCE CURVES GMSW 22 PLUS**



	indoor	outdoor
Sound power level	[dBA] 59,3	-
Controller class with room remote control	VII	Controller contribution [%] 3,5
Controller class without room remote control	III	Controller contribution [%] 1,5

