

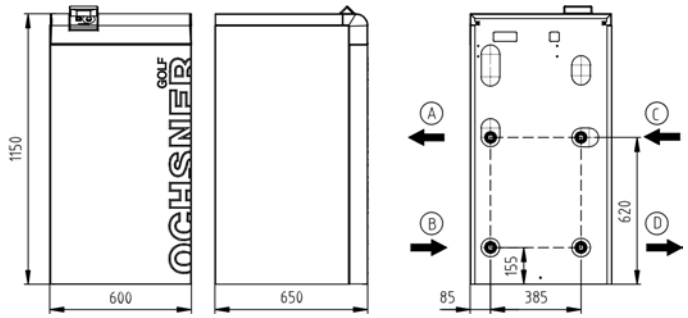
# GMSW 38 HK

## MONOVALENT HEATING SYSTEM WITH BRINE AS HEAT SOURCE

ORDER NUMBER: 264458

SERIES: GOLF MAXI HK

TF MAX. 55 °C



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

### APPLIANCE DATA

Dimensions HxWxD	[mm]	1150x600x650
Hydraulic connection	[inch]	2"
Weight	[kg]	174
Casing colour		Tiger white 29/11289/grey RAL 7016

### SPECIFICATION

Phases/nominal voltage/frequency	[~]/[V]/[Hz]	3/400/50
Output factor cos φ		0,68
Fuse protection (tripping curve "C")	[A]	25
Max. operating current	[A]	22,00
Max. starting current/max. with soft start	[A]	127.00 / 63.50
Sound power/sound pressure level (at 1 m distance)	[dBA]	58.00 / 50.00

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

#### Standard point B0/W35

Heating output	[kW]	28,70
Total power consumption / operating current	[kW]/[A]	6.50 / 13.80
COP		4,40

#### Operating point B0/W50

Heating output	[kW]	25,60
Total power consumption / operating current	[kW]/[A]	8.50 / 18.00
COP		3,00

### COOLING MODE PERFORMANCE FIGURES

#### Operating point B25/W18

Cooling capacity	[kW]	37,40
Total power consumption / operating current	[kW]/[A]	6.60 / 14.00
Energy efficiency ratio EER		5,70

#### Operating point B25/W7

Cooling capacity	[kW]	22,00
Total power consumption / operating current	[kW]/[A]	5.40 / 11.50
Energy efficiency ratio EER		4,10

### CONDENSER

Type		Plate heat exchanger
Material		Stainless steel 1.4301
Max. refrigerant operating pressure	[bar]	30
Max. heat transfer medium operating pressure	[bar]	6
Heat transfer medium temperature differential	[K]	5
Application range	[°C]	55
Heat transfer medium		Water
Test pressure	[bar]	45
Heat transfer medium flow rate	[m³/h]	5,00
Internal pressure differential	[mbar]	190
Flow meter FM standard	external	FM 50 x 2" (fem.) kvs 40
Circulation pump heat sink (WNA)	external	Stratos Para 30/1-12
Residual head I WNA external, incl. FM	[mbar]	766

### REFRIGERANT CIRCUIT

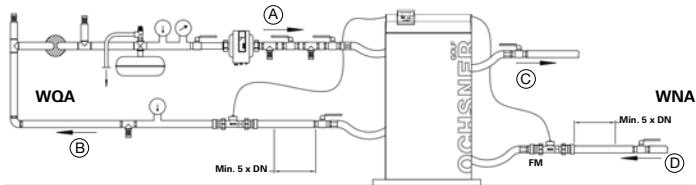
Refrigerant		R407C
Refrigerant charge	[kg]	3,7

### 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]	-5/+20
Heat transfer medium		Brine max. 30%
Test pressure	[bar]	45
Heat transfer medium flow rate	[m³/h]	6,70
Internal pressure differential	[mbar]	370
Flow meter (FM) standard	external	FM 50 x 2" (fem.) kvs 40
Circulation pump heat source (WQA)	external	Stratos Para 30/1-12
Residual head I WQA external, incl. FM	[mbar]	782



- (A) Heat source inlet
- (B) Heat source outlet
- (C) Heat pump flow
- (D) Heat pump return

### RECOMMENDED ACCESSORIES

Heat pump buffer tank	min. PU1000	30 l/kW at B0/W35
DHW tank	DHW heating not recommended	-
3-way switching module	DN50 (2")	kvs 50, pressure loss 10 mbar
External PHE for DHW heating	PHE 6007	Prim.: 1 1/4" / 46 mbar Sec.: 1" / 68 mbar
Brine collector set for shallow laying	ESKP 14	Pressure loss 51 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

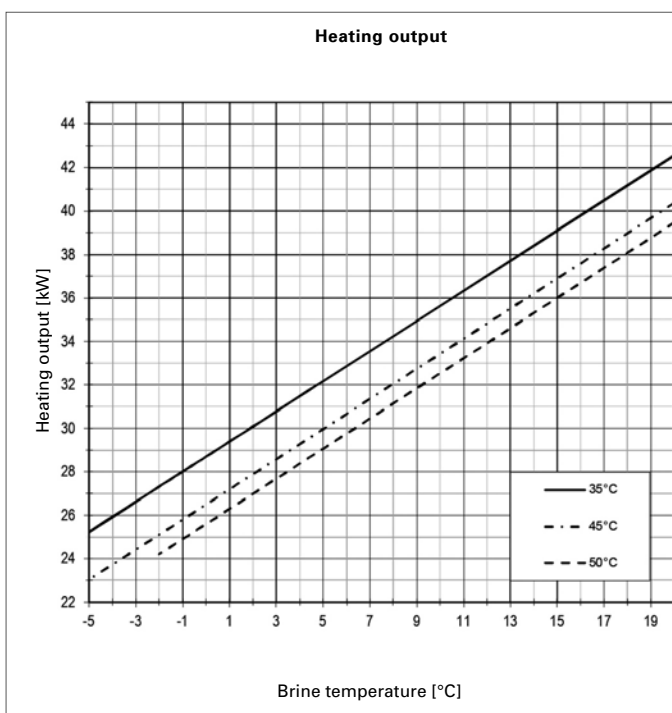
#### FOR GEOTHERMAL PROBES

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 38 HK



### PRODUCT DATA ErP: GMSW 38 HK

	COLDER	MEAN	HOTTER
<b>LOW TEMPERATURE</b>	<b>A+++</b>		<b>35°C</b>
ηs	189	<b>184</b>	185
Energy consumption	[kWh] 14352	<b>12368</b>	7940
P rated	[kW] 29	<b>29</b>	29
SCOP	4,93	<b>4,79</b>	4,83
<b>MEDIUM TEMPERATURE</b>	<b>A++</b>		<b>55°C</b>
ηs	147	<b>142</b>	143
Energy consumption	[kWh] 15610	<b>13578</b>	8699
P rated	[kW] 25	<b>25</b>	25
SCOP	3,88	<b>3,74</b>	3,77
	indoor	outdoor	
Sound power level	[dBA] 58,0	-	
Controller class with room remote control	VII	Controller contribution [%]	3,5
Controller class without room remote control	III	Controller contribution [%]	1,5

