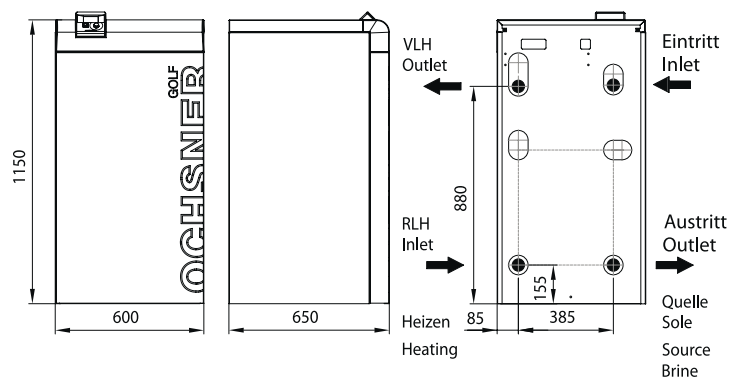


GMSW 12 PLUS S

Monovalent heating system with heat source brine

- » Series: Golf Maxi Plus
- » tv max. 65°C
- » Order number: 264655



Appliance data:

Dimensions HxWxD	[mm]	1150 x 600 x 650
Hydraulic connection	[inch]	1 1/4"
Weight	[kg]	132
Housing colour		tiger white 29/11289 / grey RAL 7016

Technical data:

Phases/Nominal voltage/Frequency	[~]/[V]/[Hz]	3/400/50
cos φ		0,73
Fuse (trip characteristic "C")	[A]	13
Max. operating current	[A]	8,2
Max. start-up current / max. with soft-start	[A]	51,5/25,8
Sound power level/sound pressure level (in 1m)	[dBA]	45,6/37,6

Performance data heating operation:

Standard point B0/W35		
Heating capacity	[kW]	12,2
Total power consumption / operating current	[kW]/[A]	2,5/4,9
COP EN14511/EN255		4,9/5,2
Operating point B0/W50		
Heating capacity	[kW]	11,1
Total power consumption / operating current	[kW]/[A]	3,3/5,8
COP EN14511/EN255		3,4/3,7
Operating point B0/W60		
Heating capacity	[kW]	10,7
Total power consumption / operating current	[kW]/[A]	4,1/7,0
COP EN14511/EN255		2,6/2,8

Condenser:

Type		plate heat exchanger
Material		stainless steel 1.4301
Quantity	[piece]	1
Max. operating pressure refrigerant	[bar]	30
Max. operating pressure working fluid	[bar]	6
Working fluid temperature difference	[K]	5
Operating range	[°C]	65
Working fluid		water
Testing pressure	[bar]	45
Working fluid flow rate	[m³/h]	2,1
Internal pressure difference	[mbar]	90
Flow meter unit standard	external	VMT-DN20 x 1 1/4" AG kvs 10
Circulation pump heating system WNA	internal	Yonos Para 25/7.5
Residual head I WNA external incl. VMT	[mbar]	466

Compressor:

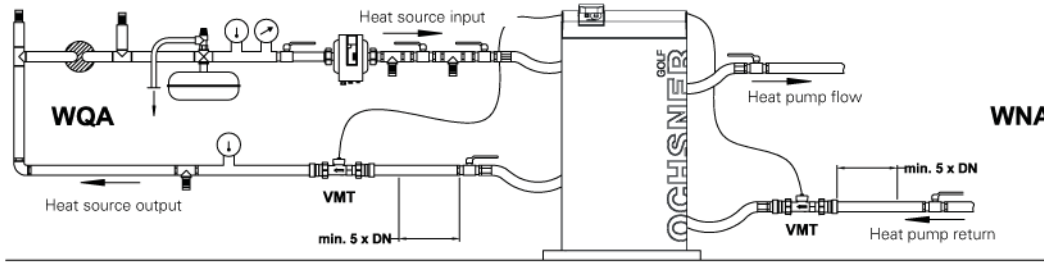
Type		fully hermetic/Scroll
Quantity	[piece]	1
Power stages		1
Rotation speed	[rpm]	2900
Voltage/Frequency	[V]/[Hz]	400/50

Refrigerant circuit:

Number of circuits	[piece]	1
Refrigerant		R 407 C
Refrigerant filling	[kg]	2,4

Evaporator:

Type		plate heat exchanger
Material		stainless steel 1.4401
Quantity	[piece]	1
Max. operating pressure working fluid	[bar]	6
Max. operating pressure refrigerant	[bar]	12
Working fluid temperature difference	[K]	3
Operating range	[°C]	-6/+20
Heat carrying medium		brine max. 30%
Testing pressure	[bar]	45
Working fluid flow rate	[m³/h]	2,9
Internal pressure difference	[mbar]	180
Flow meter unit standard	external	VMT-DN20 x 1 1/4" AG kvs 10
Circulation pump heat source WQA	internal	Stratos Para 25/1-8
Residual head I WQA external incl. VMT	[mbar]	420



Recommended accessories:

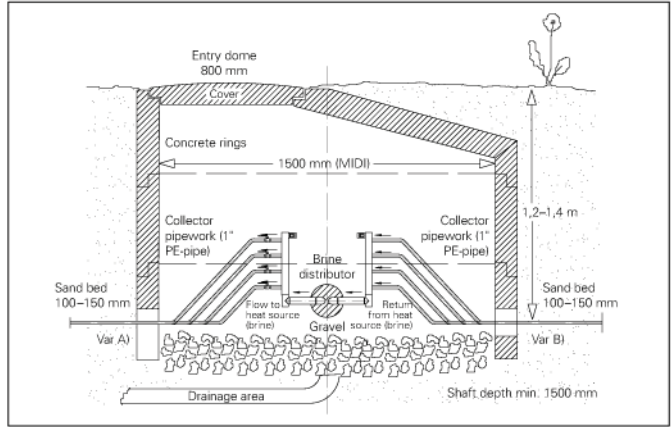
Heat pump separation tank	min. PU 500	30l/kW at B0/W35
Hot water storage tank	min. SP 300 / SP 350	30l/kW at B0/W50
3-way valve	DN 32-1 1/4"	kvs 16 pressure loss 17 mbar
External PHE for hot water heating	Type 5007	Primary 1 1/4" / 18 mbar Secondary 1" / 14 mbar
Set brine collector for flat laying	ESK 6	Pressure loss 125 mbar incl. Brine distributor

Sizing recommendation heat source brine:

Pressure loss in connection pipework, incl. individual losses	max. 100 mbar
Pressure loss in brine circuit resp. ground probes, incl. brine distributor	max. 300 mbar

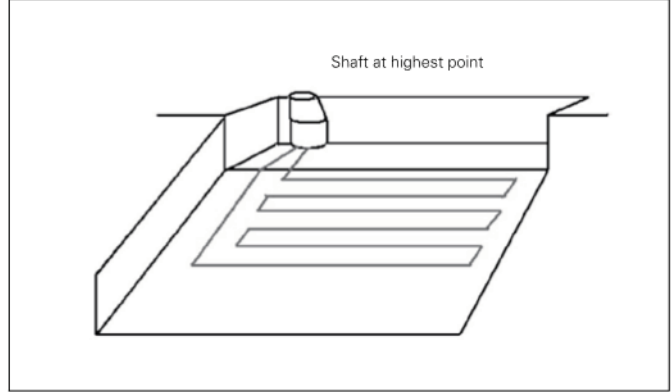
Extraction capacity for flat laying to VDI 4640

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 ²	8 W/m ²
Moist, cohesive soil	25 W/m ²	20 W/m ²
Water saturated soil with sand/gravel	40 W/m ²	32 W/m ²



Extraction capacity for K nette laying to VDI 4640

Soil conditions	max. spec. extraction capacity at 1800 h/a
Moist, cohesive soil	100 W/m K�nette
Water saturated soil	125 W/m K�nette



Extraction capacity for ground probes to VDI 4640

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
Solid bedrock with high thermal conductivity	84 W/m	70 W/m
Subsoil with strong ground water flow	65-80 W/m	55-65 W/m

Performance curve GMSW I2 plus S:

