



**Project ident.:** MARUPES VIDUSSKOLA

**Date:** 20.02.2014 **Administrator:**

**Project number:**

**Remark:**

### Data of the heating system

Heat generator		heat capacity [in kW]	Water content (in litres)	Expansion pipe	
No.	Type			l ≤ 10 m	10 < l ≤ 30m
1	Cast boiler/blast burner	277	0		
2					
3					
4					
5					
6					
<b>System/circuits sum:</b>		<b>277</b>	<b>0</b>	<b>DN 20</b>	<b>DN 20</b>

Flow temperature	tv	90,0 °C
Return temperature	tr	70,0 °C
Expansion	n	3,6 %
Antifreeze		0,0 %
Setpoint safety temperature limiter (-controller)		95,0 °C
Static pressure	pst	0,2 bar (u)
Minimum operation-/precharge pressure	po	1,0 bar (u)
Safety valve opening pressure	psv	2,5 bar (u)
Maximum system pressure	pe	2,0 bar (u)
Setpoint value minimum pressure limiter		0,0 bar (u)
Setpoint safety pressure limiter		0,0 bar (u)
Requirements regarding functioning: Pressure maintenance / automatic water make-up / central automatic degassing		
Water make-up supply pressure	pn	3,5 bar (u)
Maximum vessel diameter		2.000 mm
Maximum vessel height		8.000 mm

Type of heating surface	Share in kW	Content in litre
1. Radiators	0	0
2. Flat radiator	0	0
3. Convectors	0	0
4. Ventilation	0	0
5. Floor heating	0	0
Content of the long distance pipelines		0
Content of other equipment (e.g. storage tanks)		950
System/circuit content		950
Content heat generator Vk		0
Total system content Va		950

Expansion volume	Ve	34 Litre	
Water reserve	Selected water reserve	0,5 % or	5 Litre
DIN 4807: min. 0,5% or 3 litres			
Real water reserve		1,5 % or	14 Litre

Approximate values for the system operating pressure = filling pressure at corresponding temperature

max. system temp. in °C	10	20	30	40	50	60	70	80	90	100	110	120
Pressure in bar (u)	1,2	1,2	1,3	1,4	1,4	1,5	1,7	1,8	1,8			

The indicated values in this table can only be accurate if the real system data are in accordance with the calculation criteria.



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Protection system/circuit			
Position	Article no.	Qty	Item text
1	7211400	1	Type : N 140 Nominal volume : 140 Litre Useful volume max: : 126 Litre perm. flow temp. supp. Ins.: 120 °C perm. op. temp. diaphragm : 70 °C perm. op. overpressure : 6 bar Gas inlet press. Ex works : 1,5 bar Gas inlet press. set : 1,0 bar Diameter : 512 mm Height : 890 mm Net weight : 28,6 kg System connection : R 1 Colour : red
2	7613100	1	Type: SU R 1 x 1 Connection: Rp 1 x Rp 1 perm. op. pressure: PN 10 perm. op. temperature: 120 °C
3	6811105	1	Type : 'fillset' max. operating pressure : 10 bar max. operating temperature: 60 °C Flow value kvs : 0,8 m3/h Net weight : 1,7 kg Length : 293 mm Connection Inlet: G 1/2 Outlet: G 1/2
4	6830700	1	Type : 25 adm. excess oper. press. : 8 bar adm. operating temp. : >0..70 °C adm. ambient temp. : >0..35 °C sound level : < 55 dB(A) power supply : 230 V/ 50 Hz electr. power cons. : 0,75 kW electr. nominal curr. : 5,0 A depth x width x height (mm): 280/255/650 empty weight : 13,0 kg connections pressure-side : G 1/2 flow-off side : G 1/2 make-up : G 1/2 elimin. degree of dissolved gases: up to 90 % part. vol.flow netw. up to : 0,05 m³/h make-up volume flow up to : 0,05 m³/h  Data of the connected supply system water content : 950 Litre heat generator SV : 2,5 bar advance press. exp. vessel : 1,0 bar or min. operating press. final press. press.maint. : 2,0 bar min. flow press. make-up : 0,1 bar