

Calculation of heat transfer heating coil/ domestic hot waterVesttherm VT2xxx with Spiral 0,97m²

Hot water quantity 500 L/h. Heizwassermenge 500 L/St					
Prim in	Prim out	KV in	VV out	P	VV-fl
°C	°C	°C	°C	kW	l/h
60	43,7	10	55	9,5	181
70	44,6	10	55	14,8	283
80	46,9	10	55	19,3	368

Hot water quantity 1500 L/h.					
Prim in	Prim out	Kv in	VV out	P	VV-fl
°C	°C	°C	°C	kW	l/h
60	53,5	10	55	11,2	214
70	59,5	10	55	18,2	348
80	66,1	10	55	24,3	464

Hot water quantity 500 L/h.									
Prim in	Prim out	Kv in	VV out	dT In	k-value	Areal	P	Primfl	VV-fl
°C	°C	°C	°C	K	W/m ² ,K	m ²	kW	l/h	l/h
60	43,7	10	55	15,0	650	0,97	9,5	500	181
70	44,6	10	55	23,5	650	0,97	14,8	501	283
80	46,9	10	55	30,6	650	0,97	19,3	501	368

Hot water quantity 1500 L/h.									
Prim in	Prim out	Kv in	VV out	dT In	k-value	Areal	P	Primfl	VV-fl
°C	°C	°C	°C	K	W/m ² ,K	m ²	kW	l/h	l/h
60	53,5	10	55	17,8	650	0,97	11,2	1485	214
70	59,5	10	55	28,9	650	0,97	18,2	1492	348
80	66,1	10	55	38,5	650	0,97	24,3	1501	464

Vesttherm VT2xxx bottom coil 1,5 m²

Hot water quantity 2000 L/h Vesttherm VT2xxx bottom coil 1,5 m ²								
Prim in	Prim out	Kv in	VV out	P	VV-fl	Pressure drop		Time 270 L
°C	°C	°C	°C	kW	l/h	kPa	mbar	h*
60	52,7	10	55	17,1	328	14,5	145,0	0,85
70	58,1	10	55	27,7	529	-	-	0,53
80	64,2	10	55	36,8	703	-	-	0,40

Hot water quantity 800 L/h Vesttherm VT2xxx bottom coil 1,5 m ²								
Prim in	Prim out	Kv in	VV out	P	VV-fl	Pressure drop		Time 270 L
°C	°C	°C	°C	kW	l/h	kPa	mbar	h*
60	44,1	10	55	14,8	282	2,8	28,0	0,99
70	45,3	10	55	23,1	442	-	-	0,63
80	47,6	10	55	30,1	575	-	-	0,48

Vesttherm VT2xxx top coil 0,6 m²

Hot water quantity 2000 L/h Vesttherm VT2xxx top coil 0,6 m ²								
Prim in	Prim out	Kv in	VV out	P	VV-fl	Pressure drop		Time 270 L
°C	°C	°C	°C	kW	l/h	kPa	mbar	h*
60	56,9	10	55	7,3	140	-	-	2,00
70	64,9	10	55	12,0	229	-	-	1,22
80	73,1	10	55	16,0	307	9	90,0	0,91

Hot water quantity 800 L/h Vesttherm VT2xxx top coil 0,6 m ²								
Prim in	Prim out	Kv in	VV out	P	VV-fl	Pressure drop		Time 270 L
°C	°C	°C	°C	kW	l/h	kPa	mbar	h*
60	52,7	10	55	6,9	131	-	-	2,13
70	58,2	10	55	11,1	212	-	-	1,32
80	64,2	10	55	14,7	281	1,8	18,0	0,99

* Time for heat up 270L water and cold boiler from 10 °C to 55 °C

Please note that the heatpump must only be heated up to 65 °C domestic hot water. Otherwise, it can come to equipment damages.