

# FSK100 Table V5

## DIMENSIONING OF THE BUFFERTANK, MAX. PWH AND FLOW RESISTANCE

T buffer	Setting tap temperature	Min. volume of buffer tank per liter PWH (factor)	Transfer performance	Transferred energy per liter PWH	Max. PWH	Return temperature at max. PWH	Return temperature primary side at low tap volume (5l/min.)	Pressure drop secondary side at max. Tap volume
50°C	40°C	1,0	63 KW	34,9 Wh	30,0 L/Min	19,0°C	20,0°C	0,8 Bar
	45°C	1,3	61 KW	40,7 Wh	25,0 L/Min	23,0°C	23,0°C	0,6 Bar
55°C	40°C	0,9	84 KW	34,9 Wh	40,0 L/Min	18,0°C	18,0°C	1,5 Bar
	45°C	1,1	73 KW	40,7 Wh	30,0 L/Min	22,0°C	21,0°C	0,8 Bar
	50°C	1,5	56 KW	46,5 Wh	20,0 L/Min	27,0°C	27,0°C	0,4 Bar
60°C	40°C	0,7	84 KW	34,9 Wh	40,0 L/Min	17,0°C	17,0°C	1,5 Bar
	45°C	0,9	85 KW	40,7 Wh	35,0 L/Min	20,0°C	18,0°C	1,1 Bar
	* 50°C	* 1,1	* 70 KW	* 46,5 Wh	* 25,0 L/Min	* 23,0°C	* 21,0°C	0,6 Bar
	55°C	1,5	63 KW	52,3 Wh	20,0 L/Min	29,0°C	28,0°C	0,4 Bar
65°C	40°C	0,7	84 KW	34,9 Wh	40,0 L/Min	16,0°C	16,0°C	1,5 Bar
	45°C	0,8	98 KW	40,7 Wh	40,0 L/Min	19,0°C	18,0°C	1,5 Bar
	50°C	1,0	84 KW	46,5 Wh	30,0 L/Min	21,0°C	20,0°C	0,8 Bar
	55°C	1,2	79 KW	52,3 Wh	25,0 L/Min	27,0°C	24,0°C	0,6 Bar
	60°C	1,6	70 KW	58,2 Wh	20,0 L/Min	32,0°C	32,0°C	0,4 Bar
70°C	40°C	0,6	84 KW	34,9 Wh	40,0 L/Min	16,0°C	15,0°C	1,5 Bar
	45°C	0,7	98 KW	40,7 Wh	40,0 L/Min	18,0°C	17,0°C	1,5 Bar
	50°C	0,8	98 KW	46,5 Wh	35,0 L/Min	20,0°C	20,0°C	1,1 Bar
	55°C	1,0	94 KW	52,3 Wh	30,0 L/Min	23,0°C	22,0°C	0,8 Bar
	60°C	1,2	87 KW	58,2 Wh	25,0 L/Min	27,0°C	26,0°C	0,6 Bar

### \* EXAMPLE :

#### Assumptions:

Required tap volume	150 L
T Buffer	60°C
Setting tap temperatures	50°C

#### Table Values:

Min. volume of buffer tank per liter PWH (factor)	1,1
Max. PWH	25 L/Min
Return temperature at max. PWH	23°C
Return temperature primary side at low tap volume (5l/min.)	21°C
Pressure drop secondary side at max. Tap volume	0,6 Bar

#### Calculation of the minimum buffer dimension:

150 L x 1,1 =	165 L
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### Specified values are indicative and valid under the following conditions:

- The calculated buffer volume is completely heated up
- A clear layering inside the buffertank and a clear back layering
- Temperature of the cold water = 10°C
- Efficiency losses are not taken into account
- Flow resistors are not taken into account.



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