

TOP TIPS

Technical Support Series

ESBE SERIES VTA Thermostatic Mixing Valves



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#1


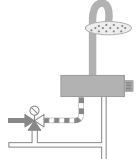

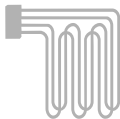

For sizing and selection,
consider the following

Firstly, what is the application?





For KVS information, use this handy sizing chart

	Typical households ¹⁾	Showers ²⁾	Shower heads ³⁾	Under floor heating ⁴⁾	Radiator heating ⁵⁾
					
Kvs	Quantity*	Quantity*	Quantity*	m ²	kW
1,2 - 1,3	1	2	2	< 80	< 12
1,5 - 1,6	≤ 3	3	2	40 - 105	6 - 16
2,2 - 2,5	≤ 6	5	3	60 - 165	10 - 26
3,0 - 3,2	≤ 15	6	4	75 - 210	12 - 33
3,4 - 3,6	≤ 20	7	5	85 - 230	13 - 36
4,5 - 4,8 ⁶⁾	—	—	—	110 - 315	18 - 49

* Number of households in the house or the number of showers in, for example sports centers.

1) A typical household consist of bath, shower, kitchen sink and washbasin with a design flow evaluated from probability curve in reference with EN 806-3:2006, and with a supply pressure >300kPa (3 bar). ESBE recommends max. allowed pressure drop (instant use) over valve <200 kPa (2 bar)

2) Showers in for example sport centers (simultaneous usage) meaning supply of scald safe hot water to shower mixer with supply pressure >300kPa (3 bar)

3) Showers in for example sport centers (simultaneous usage) meaning supply of scald safe mixed water to shower head with supply pressure >300kPa (3 bar)

4) Under floor heating calculated for: $q = 55W/m^2$, $\Delta t = 7K$ and $\Delta p = 3-20kPa$

5) Power calculated for: $\Delta t = 20K$ and $\Delta p = 3-20kPa$

6) Kvs-values available only for heating valves

What is the flow pattern?

#2



Flow pattern
shown here

Asymmetrical L flow pattern
(ESBE Series VTA320)



B symmetrical T flow pattern
(ESBE Series VTA350)

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#3

Identify the type of connection

ESBE Series TMVs are available with the following connections.



Internal thread












External thread




Compression

You can use this handy sizing guide to find the right model.

Flow direction	Temp. range	Potable water, in line	Potable water, point of use	Solar heating	Cooling	Under floor heating	Radiator heating
							
	10 - 30°C				VTA570		
	20 - 43°C	VTA320 VTA520				VTA320 VTA520	
	20 - 55°C					VTA370 VTA570	VTA370 VTA570
	30 - 70°C	VTA310 VTA320					VTA370 VTA570 VTA320
	32 - 49°C	VTA330	VTA330			VTA330	
	35 - 50°C	VTA530				VTA530	
	35 - 60°C	VTA310 VTA320 VTA330	VTA330				VTA320 VTA330
	45 - 65°C	VTA520 VTA530 VTS520		VTS520			VTA520 VTA530 VTS520
	50 - 75°C	VTA520 VTS520		VTS520			VTA520 VTS520
		20 - 43°C	VTA550				VTA550
32 - 49°C		VTA360	VTA360			VTA360	
35 - 50°C		VTA560				VTA560	
35 - 60°C		VTA350 VTA360	VTA360				VTA360
45 - 65°C		VTA550 VTA560 VTS550		VTS550			VTA550 VTA560 VTS550
50 - 75°C		VTA550 VTS550		VTS550			VTA550 VTS550

 Recommended alternative

 Secondary alternative

essco + ESBE®

Essco are the UK distributor of ESBE valve and actuator products for HVAC systems.

Contact us for technical support and product selection advice.

PRODUCTS ARE AVAILABLE
TO PURCHASE FROM YOUR
PREFERRED PLUMBING
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sales@esscogroup.co.uk

www.esscogroup.co.uk

01489 779068

