BPU 300 - 500

Heat pump storage tank boiler buffer unit BPU 300 - 500

Application

Buffer and hot water storage tank for classical two-storage-tank solution combined with a heat pump in one component.

Corrosion protection for parts with drinking water contact

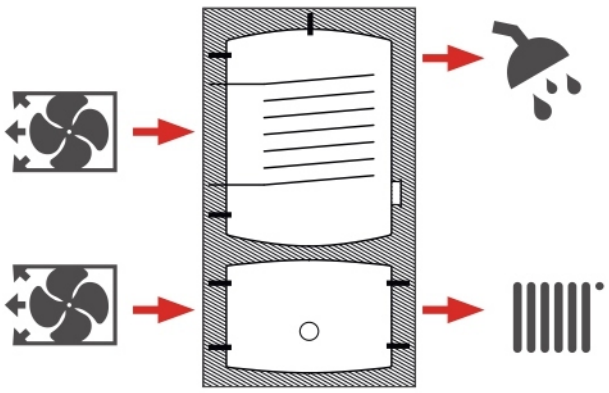
Enamelled as per DIN 4753. A magnesium anode offers additional corrosion protection.

External corrosion protection

Protective enamelled layers and foam encased

Heat insulation

50 mm PU rigid foam insulation with soft sleeve



Model overview BPU 300 - 500

Type	Article no.	Volume	Height with insulation	Tilt height	Installation diameter	Weight (empty)	Surface HE	Output figure	Efficiency class
Unit	[-]	[l]	[mm]	[mm]	[mm]	[kg]	[m²]	[-]	[-]
BPU 300	STD0300BPU	298	1840	1945	610	148	3	2.2	C
BPU 400	STD0400BPU	400	1750	1900	710	174	3.5	4.2	C
BPU 500	STD0500BPU	525	1900	2080	760	212	4.4	6	C

Technical specifications BPU 300 - 500

Type	Unit	BPU300	BPU400	BPU500
Article no.	[-]	STD0300BPU	STD0400BPU	STD0500BPU
Volume	[l]	298	400	525
Drinking water content	[l]	202	274	371
Content HE	[l]	18	21	27
Content heating side	[l]	78	105	127
Height with insulation	[mm]	1840	1750	1900
Diameter with insulation	[mm]	610	710	760
Diameter without insulation	[mm]	500	600	650
Tilt height	[mm]	1945	1900	2080
Installation diameter	[mm]	610	710	760
Weight (empty)	[kg]	148	174	212
Max. operating pressure heating side	[bar]	3	3	3
Test pressure heating side	[bar]	4.5	4.5	4.5
Max. operating pressure hot drinking water side	[bar]	10	10	10
Test pressure hot drinking water side	[bar]	15	15	15
Max. operating pressure HE	[bar]	10	10	10
Test pressure HE	[bar]	15	15	15
Max. operating temperature heating side	[°C]	95	95	95
Max. operating temperature hot drinking water side	[°C]	95	95	95
Max. operating temperature HE	[°C]	95	95	95
Surface HE	[m²]	3	3.5	4.4
Insulation thickness	[mm]	50	50	50
Max. installation length EHP	[mm]	400	450	500
Max. output EHP	[kW]	3.5	5.5	7.5
Output figure	[-]	2.2	4.2	6
On-demand heat overhead	[kWh/d]	2.20	2.40	2.60
Holding losses	[W]	91	100	108
Efficiency class	[-]	C	C	C
Insulation material	[-]	PU rigid foam (λ=0.024 W/mK)		
Corrosion protection	[-]	Enamelled as per DIN 4753, magnesium anode		

Output data BPU 300 - 500

		Continuous output at supply temperature [1]				Values as per DIN4708 (data relative to output figure) [2]					Draw-off performance in 60 min[3]
		50 °C		60 °C		Output	Max. draw-off performance in 10 min		Draw-off performance after 30 min		Supply temp. 55 °C
		[kW]	[l/h]	[kW]	[l/h]		[l]	[l/min]	[l]	[l/min]	[l]
HE	300	12.6	310	36.0	884	2.2	204	20.4	81	18.5	561
	400	14.7	361	42.0	1,032	4.2	273	27.3	155	23.3	724
	500	18.5	454	52.8	1297	6.0	326	32.6	221	27.0	935

1 - Heating from CW 10 °C to WW 45 °C
2 - Heating from CW 10 °C to WW 45 °C; supply 70 °C; storage tank temperature CW + 50 K
3 - Computed data at maximum output; CW 10 °C to WW 45 °C; storage tank temperature 60 °C

Connections and dimensions BPU 300 - 500

Connections		Unit	BPU300	BPU400	BPU500
AN	Anode	[mm]	1840 1¼" IT	1750 1¼" IT	1900 1¼" IT
WW	Hot water	[mm]	1700 1¼" IT	1595 1¼" IT	1745 1¼" IT
Z	Circulation	[mm]	1490 ½" IT	1505 ½" IT	1650 ½" IT
WNV	Hot water post-heating supply	[mm]	1400 1¼" IT	1415 1¼" IT	1505 1¼" IT
WNR	Hot water post-heating return	[mm]	720 1¼" IT	735 1¼" IT	755 1¼" IT
FWWO	Hot water sensor top	[mm]	1180 ½" IT	1280 ½" IT	1300 ½" IT
FWWU	Hot water sensor bottom	[mm]	980 ½" IT	980 ½" IT	1000 ½" IT
KW	Cold water	[mm]	625 1¼" IT	635 1¼" IT	645 1¼" IT
HZV/WPV	Heating supply/heat pump supply	[mm]	415 1¼" IT	390 1¼" IT	390 1¼" IT
HZR/WPR	Heating return/heat pump return	[mm]	115 1¼" IT	140 1¼" IT	130 1¼" IT
FP1	Sensor buffer 1	[mm]	415 ½" IT	390 ½" IT	390 ½" IT
FP2	Sensor buffer 2	[mm]	115 ½" IT	140 ½" IT	130 ½" IT
FPO	Sensor buffer top	[mm]	340 Ø 17.2 mm	320 Ø 17.2 mm	315 Ø 17.2 mm
FPU	Sensor buffer bottom	[mm]	190 Ø 17.2 mm	210 Ø 17.2 mm	205 Ø 17.2 mm
EHP	Electric heating cartridge	[mm]	215 1½" IT	220 1½" IT	230 1½" IT
FL	Flange	[mm]	775 Ø180/118	790 Ø180/120	810 Ø180/120
F/TH	Sensor/Thermometer	[mm]	1630 ½" IT	1505 ½" IT	1650 ½" IT

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