

TECHNISCHE DATASHEET
AWP 412 WATER 230V

AT-TEC
WARMTEPOMPEN



General Data

Power Range	W10/W35: 3 - 12	[kW]
Energy class VL 35°C	A++ (from 09/2019: A+++)	[-]
Energy class VL 55°C	A++	[-]
Max. Flow temperature	62,0	[°C]

Electrical Data

International Protection Marking	IP 20	[-]
Supply control	1/N/PE, 230V, 50Hz	[V, Hz]
Rated Input control	28	[W]
Cos(φ) control	0,90	[-]
Fuse control	1x B13	[-]
Supply compressor	1/N/PE, 230V, 50Hz	[V, Hz]
Operating current compressor	4,61	[A]
Starting current compressor	22 / -	[A / A]
Cos(φ) compressor	0,97	[-]
Fuse compressor	1x C25	[-]

Sound power level Data acc. EN12102

Nom. Sound power level heat pump	44,1	[dB(A)]
Max. Sound power level heat pump	52,8	[dB(A)]

Refrigerant circuit Data

Compressor - Type	Scroll	[-]
Refrigerant - Type	R410a	[-]
Refrigerant - Amount	3,6	[kg]
Refrigerant - Fluid Group	2	[-]
Refrigerant - GWP	1927	[-]
Compressor Oil - Type	3MA-POE	[-]
Compressor Oil - Amount	1,18	[l]

Heating Side

Condenser - Type	Plate heat exchanger	[-]
Condenser - Material	Stainless steel, copper brazed	[-]
Condenser - Flowrate (5K)	2,1	[m³/h]
Condenser pressure loss	8,7	[kPa]
Circulation pump - Type	external circulation pump	[-]
Circulation pump - residual head	-	[mWs]
Circulation pump - max. power	-	[W]

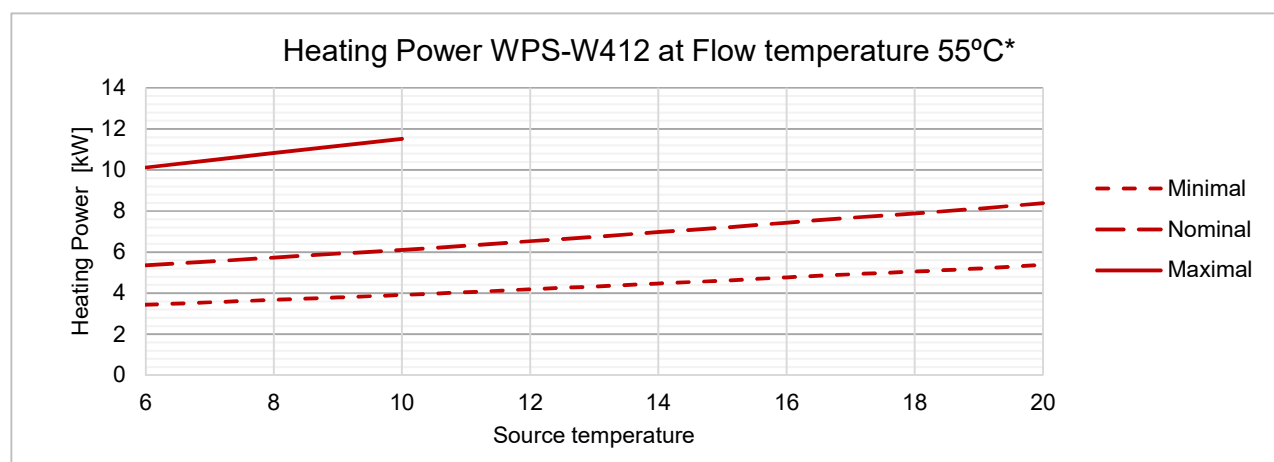
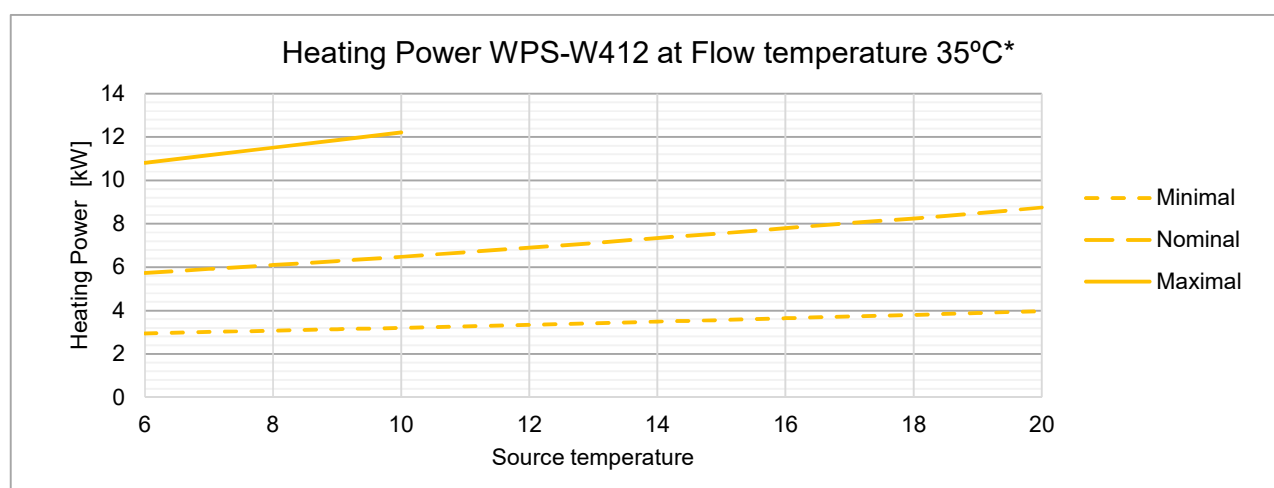
Source Side

Evaporator - Type	Plate heat exchanger	[-]
Evaporator - Material	Stainless steel, copper brazed	[-]
Evaporator - Flowrate (3K)	2,9	[m³/h]
Evaporator - Pressure loss	27,4	[kPa]
Source - Type	external submersible pump	[-]
Source - residual head	-	[mWs]
Source - max. Power	-	[W]

Performance Data*

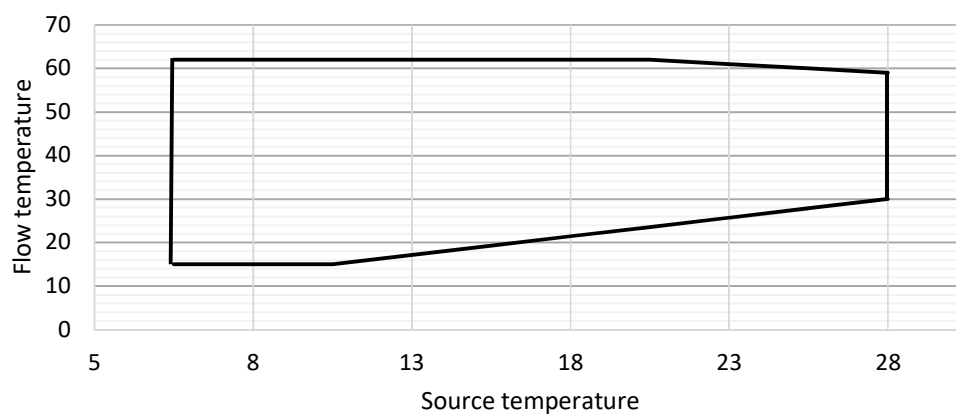
Operating point	Comp. speed	Heating capacity	Cooling capacity	Rated Input	COP
W10/W35	54%	6,6	5,6	1,0	6,42
W10/W35	100%	12,2	10,1	2,1	5,75
W10/W55	100%	11,5	8,3	3,2	3,58
W10/W35	Minimal	2,8	2,2	0,6	4,59
W10/W55	Minimal	3,5	2,2	1,3	2,60

Climate: warmer	35°C	SCOP	6,93
		η_s	274
	55°C	SCOP	4,93
		η_s	194
Climate: average	35°C	SCOP	6,71
		η_s	265
	55°C	SCOP	5,01
		η_s	197
Climate: colder	35°C	SCOP	6,81
		η_s	269
	55°C	SCOP	5,16
		η_s	203



* Compressive performance deviations of up to 10% are possible. All informations without guarantee: typographical and printing errors reserved.

Operating limit



Connection measurements

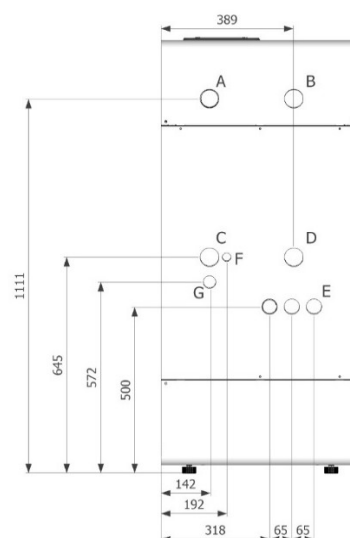
Heat Pump Dimensions (H x W x D)

[mm] 1.350 x 600 x 650

Heat Pump Weight

[kg] 162

- A: Source Inlet, G1" MT
- B: Heating Outlet, G1" MT
- C: Source Outlet, G1" MT
- D: Heating Inlet, G1" FT
- E: Electrical Inlet
- F: not in usage
- G: not in usage



Free spaces

- A: 400mm
- B: 400mm
- C: 200mm
- D: 600mm
- E: 400mm

