

TECHNISCHE DATASHEET
LWPC 412 Monoblock 400V

AT-TEC
WARMTEPOMPEN



General Data

Power Range	A2/W35: 2 - 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 X3	[-]
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	3/N/PE, 400V, 50Hz	[V, Hz]
Operating current compressor	3,71	[A]
Starting current compressor	9 / -	[A / A]
Cos(φ) compressor	0,97	[-]
Fuse compressor	3x C16	[-]

Sound power level Data acc. EN12102

Nom. Sound power level heat pump	45,0	[dB(A)]
Max. Sound power level heat pump	59,7	[dB(A)]

Refrigerant circuit Data

Compressor - Type	Scroll	[-]
Refrigerant - Type	R452b	[-]
Refrigerant - Amount	5,0	[kg]
Refrigerant - Fluid Group	A2L	[-]
Refrigerant - GWP	676	[-]
Compressor Oil - Type	3MA-POE	[-]
Compressor Oil - Amount	0,74	[l]

Heating Side

Condenser - Type	Plate heat exchanger	[-]
Condenser - Material	Stainless steel, copper brazed	[-]
Condenser - Flowrate (5K)	1,7	[m³/h]
Condenser pressure loss	11,6	[kPa]
Circulation pump - Type	Yonos Para 25/7,5 - PWM1	[-]
Circulation pump - residual head	5,50	[mWs]
Circulation pump - max. power	75,00	[W]

Source Side

Evaporator - Type	Lamella heat exchanger	[-]
Evaporator - Material	Copper / Aluminium lamella	[-]
Evaporator - Flowrate (3K)	5500,0	[m³/h]
Evaporator - Pressure loss	17,0	[kPa]
Source - Type	Axial fan	[-]
Source - residual head	-	[mWs]
Source - max. Power	290	[W]

Sound Power Data acc. EN12102
Max. Compressor Speed 69% (corresponds to 6,0[kW] heating capacity at A-7/W55)

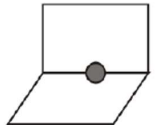
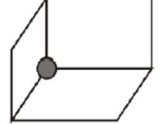
Mode*	Sound power level		Directing factor Q	Sound pressure dep. on distance[m] to heat pump								
	Maximum at A-7/W55	Minimum at A7/W55		1	2	4	5	6	8	10	12	15
	[dB(A)]	[dB(A)]		[dB]								
Standard	56,2	43,1	2	48,2	42,2	36,2	34,2	33	30,2	28,2	27	25
			4	51,2	45,2	39,2	37,2	36	33,2	31,2	30	28
			8	54,2	48,2	42,2	40,2	39	36,2	34,2	33	31
Silent	50,2	43,1	2	42,2	36,2	30,2	28,2	27	24,2	22,2	21	19
			4	45,2	39,2	33,2	31,2	30	27,2	25,2	24	22
			8	48,2	42,2	36,2	34,2	33	30,2	28,2	27	25

Max. Compressor Speed 100% (corresponds to 8,9[kW] heating capacity at A-7/W55)

Mode*	Sound power level		Directing factor Q	Sound pressure dep. on distance[m] to heat pump								
	Maximum at A-7/W55	Minimum at A7/W55		1	2	4	5	6	8	10	12	15
	[dB(A)]	[dB(A)]		[dB]								
Standard	59,7	43,1	2	51,7	45,7	39,7	37,7	36	33,7	31,7	30	28
			4	54,7	48,7	42,7	40,7	39	36,7	34,7	33	31
			8	57,7	51,7	45,7	43,7	42	39,7	37,7	36	34
Silent	54,9	43,1	2	46,9	40,9	34,9	32,9	31	28,9	26,9	25	23
			4	49,9	43,9	37,9	35,9	34	31,9	29,9	28	26
			8	52,9	46,9	40,9	38,9	37	34,9	32,9	31	29

* If the standard mode is activated, the fan is operating at normal speed.

In silent mode, this speed is reduced by about 25% to reduce the noise emissions.

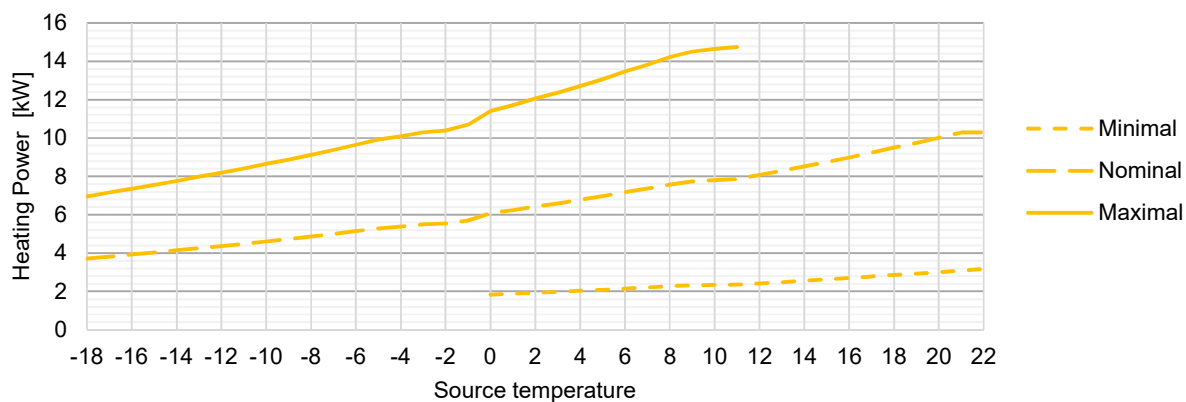
	Directing factor Q=2 describes a hemispherical radiating sound source. The sound waves are only reflected by the floor surface.
	Richtfaktor Q=4 describes a quarter spherical radiating sound source. The sound waves are reflected by the floor and a wall surface.
	Richtfaktor Q=8 describes an eight-spherical radiating sound source. The sound waves are reflected by the floor and two wall surfaces.

Performance Data*

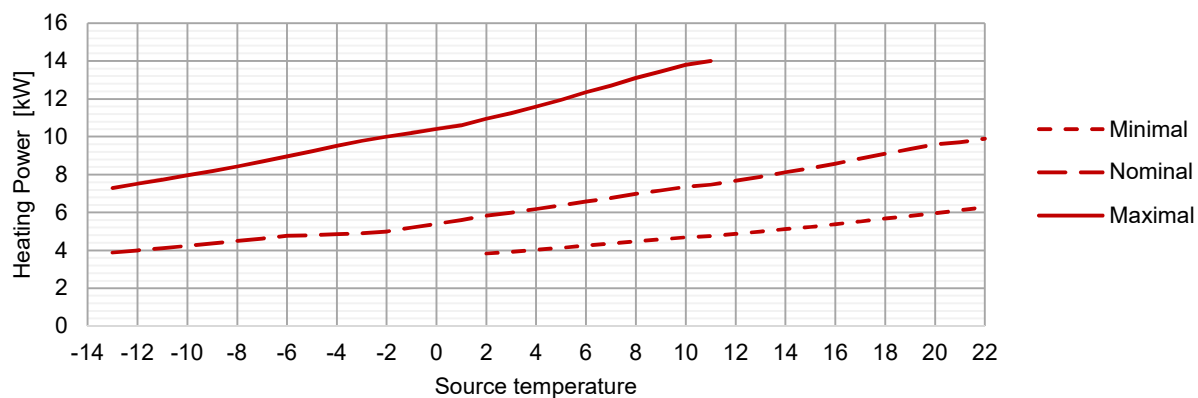
Operating point	Comp. speed	Heating capacity	Cooling capacity	Rated Input	COP
A10/W35	33%	5,1	4,2	0,9	5,65
A7/W35	33%	4,8	3,9	0,9	5,18
A2/W35	52%	6,6	5,1	1,4	4,56
A2/W35	100%	11,8	8,7	3,1	3,84
A-7/W35	88%	8,0	5,5	2,5	3,24
A-7/W52	100%	9,0	5,3	3,7	2,45
A20/W55	Minimal	6,0	4,4	1,6	3,76

Climate: warmer	35°C	SCOP	5,78
		η_s	228
	55°C	SCOP	4,28
		η_s	168
Climate: average	35°C	SCOP	4,95
		η_s	195
	55°C	SCOP	3,82
		η_s	150
Climate: colder	35°C	SCOP	4,42
		η_s	174
	55°C	SCOP	3,49
		η_s	137

Heating Power WPLK412 at Flow temperature 35°C*

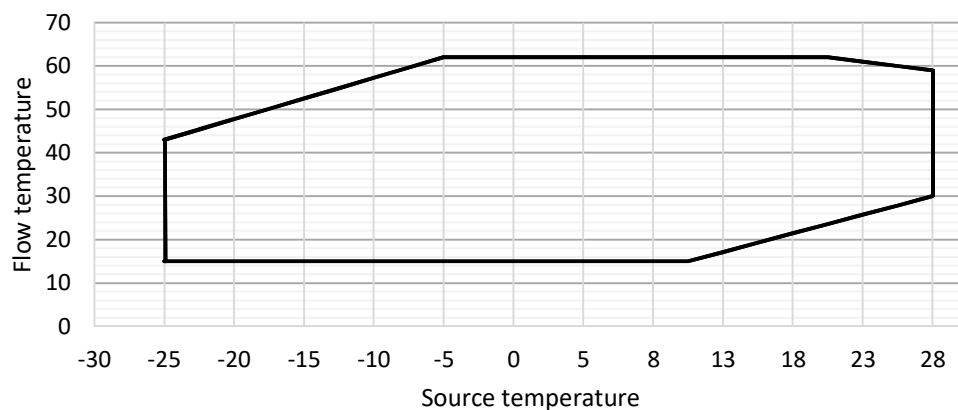


Heating Power WPLK412 at Flow temperature 55°C*



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

Operating limit



Connection measurements

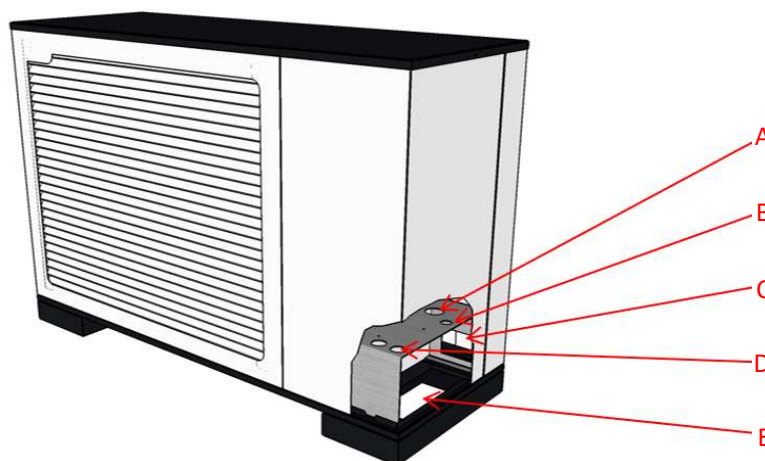
Heat Pump Dimensions (H x W x D)

[mm] 1.040 x 1.560 x 560

Heat Pump Weight

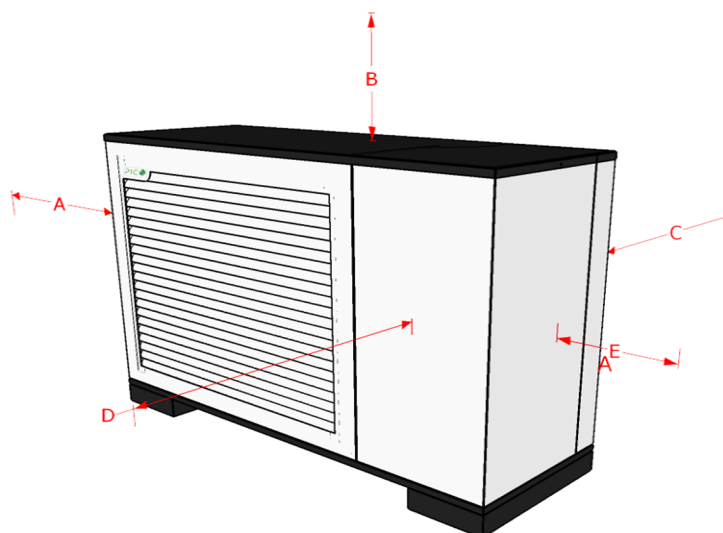
[kg] 220

- A: Heating Inlet, G1" FT
- B: Heating Outlet, G1" MT
- C: Main inlet "backside"
- D: Electrical Inlet
- E: Main inlet "bottom"

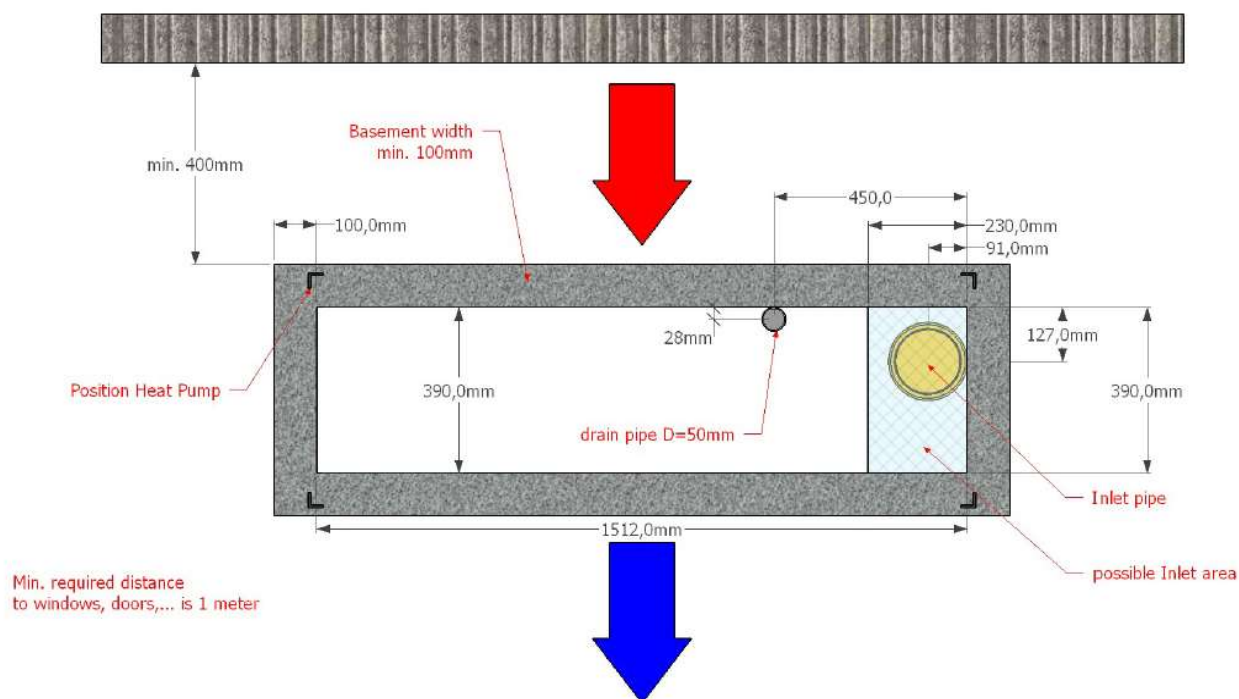


Free spaces

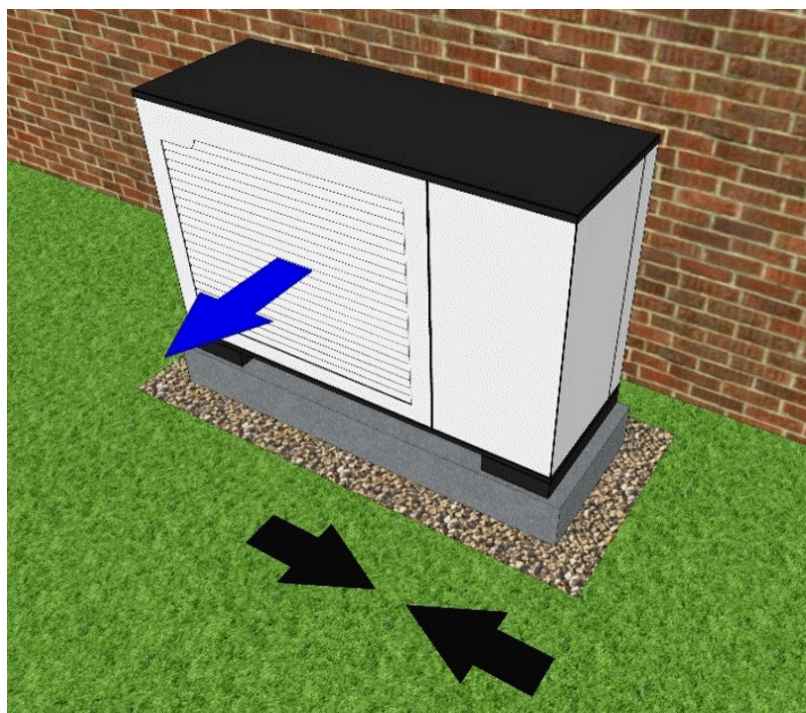
- A: 400mm
- B: 400mm
- C: 400mm
- D: 3000mm
- E: 800mm



Basement dimension



Observe the main wind direction to avoid unwanted flow through the evaporator!



General installation and assembly criteria must be observed in accordance with the valid operating instructions.