

air/water heat pump WPLK412, 400V



<b>General Data</b>		
Power range (rounded)	A2/W35: 2 - 12	[kW]
Energy class flow 35°C	A+++	[-]
Energy class flow 55°C	A+++	[-]
Max. flow temperatur	62	[°C]
<b>Electrical Data</b>		
Protection marking	IP X4	[-]
Control supply	1/N/PE, 230V, 50Hz	[V, Hz]
Rated input control	28	[W]
Cos(φ) control	0,90	[-]
Fuse control	1x B13	[-]
Compressor supply	3/N/PE, 400V, 50Hz	[V, Hz]
Operating current compressor	2,2	[A]
Max. operating current compressor	7,0	[A]
Starting current compressor with / without softstarter	9 / -	[A / A]
Cos(φ) compressor	0,97	[-]
Fuse compressor	3x C16	[-]
Res. current circuit breaker compressor supply	30mA, Typ B / B+	[-]
<b>Sound power level data acc. EN12102</b>		
Nom. sound power level heat pump	45	[dB(A)]
Max. sound powe level heat pump	60	[dB(A)]
Level surcharge low-freq. noise characteristics	-	[dB]
<b>Refrigerant circuit data</b>		
Compressor- type	scroll	[-]
Refrigerant- type	R452b	[-]
Refrigerant- amount	5,0	[kg]
Refrigerant- fluidgroup	A2L	[-]
Refrigerant- GWP	676	[-]
Compressor oil- type	3MA-POE	[-]
Compressor oil- amount	0,74	[l]
<b>Heating side</b>		
Condenser- type	plate heat exchanger	[-]
Condenser- material	stainless steel, soldered copper	[-]
Condenser- flow rate (5K)	1,7	[m³/h]
Condenser- pressure loss	11,6	[kPa]
Circulation pump- type	PARA G25-180/8-75/iPWM	[-]
Circulation pump- residual head	5,0	[mWs]
Circulation pump- max. power	75,0	[W]
<b>Source side</b>		
Evaporator- type	finned heat exchanger	[-]
Evaporator- material	copper / aluminium fins	[-]
Evaporator- flow rate	5500,0	[m³/h]
Evaporator- pressure loss	0,02	[kPa]
Source- type	axial fan	[-]
Source- residual head	-	[mWs]
Source- max. power	290,0	[W]

**Sound power level data acc. EN12102**

**Heat pump compressor speed released 75% (corresponds to 6,8[kW] heating power at A-7/W35)**

mode*	sound power level	directivity Q	max. sound pressure depending in the distance[m] to the heat pump														
	max. at A-7/W55   A7/W55		1	2	5	8	10	12	15								
	[dB(A)]		[dB]														
standard	57 57	2	49	49	43	43	35	35	31	31	29	29	28	28	26	26	
		4	52	52	46	46	38	38	34	34	32	32	31	31	29	29	
		8	55	55	49	49	41	41	37	37	35	35	34	34	32	32	
silent	55 55	2	47	47	41	41	33	33	29	29	27	27	26	26	24	24	
		4	50	50	44	44	36	36	32	32	30	30	29	29	27	27	
		8	53	53	47	47	39	39	35	35	33	33	32	32	30	30	

**Heat pump compressor speed released 100% (corresponds to 9,4[kW] heating power at A-7/W35)**

mode*	sound power level	directivity Q	max. sound pressure depending in the distance[m] to the heat pump														
	max. at A-7/W55   A7/W55		1	2	5	8	10	12	15								
	[dB(A)]		[dB]														
standard	60 58	2	52	50	46	44	38	36	34	32	32	30	30	28	28	26	
		4	55	53	49	47	41	39	37	35	35	33	33	31	31	29	
		8	58	56	52	50	44	42	40	38	38	36	36	34	34	32	
silent	55 55	2	47	47	41	41	33	33	29	29	27	27	26	26	24	24	
		4	50	50	44	44	36	36	32	32	30	30	29	29	27	27	
		8	53	53	47	47	39	39	35	35	33	33	32	32	30	30	

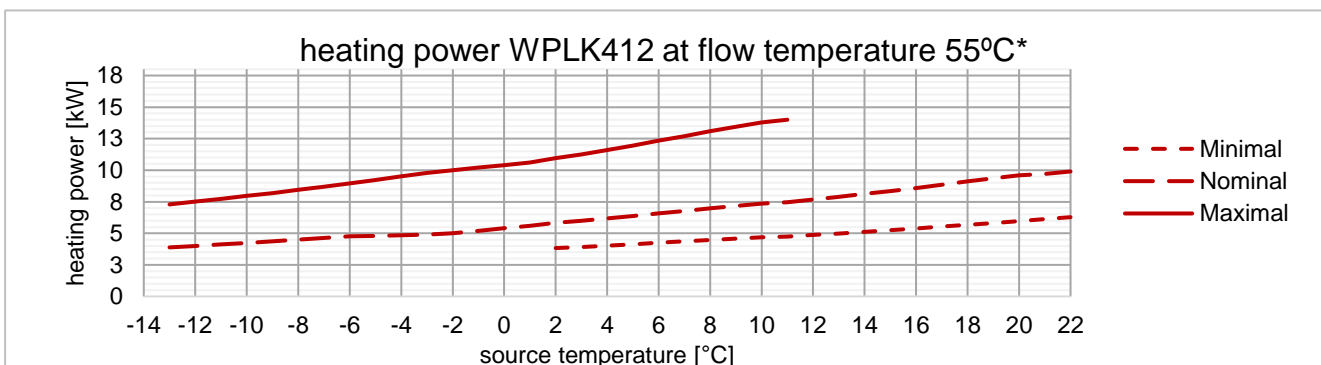
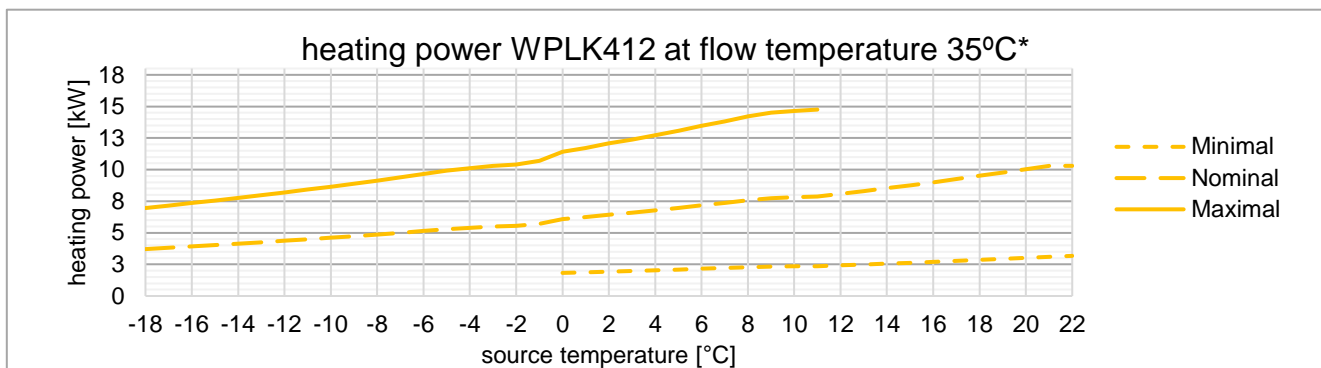
\* if standard mode is activated the fan is operating with normal speed. In silent mode the fan speed is reduced by approx. 25% to reduce noise emissions.

	<b>directivity Q=2</b> describes a hemispherically radiating sound source. The sound waves are only reflected from the floor surface.
	<b>directivity Q=4</b> describes a quarter-spherical radiating sound source. The sound waves are reflected from the floor and a wall surface.
	<b>directivity Q=8</b> describes a sound source radiating in the shape of an eighth of a sphere. The sound waves are reflected from the floor and two wall surfaces.

**Power data\*\***

operating point	compressor speed	rps compressor	heating power [kW]	COP
A7/W35*	33%	33	4,8	5,18
A7/W55*	40%	40	5,4	3,20
A2/W35*	52%	52	6,6	4,56
A2/W42*	47%	47	5,8	3,90
A-7/W34*	88%	88	9,1	3,20
A-7/W52*	100%	100	9,0	2,45
A-10/W35*	100%	100	8,2	3,12
A-10/W55*	100%	100	8,3	2,22
A7/W35	min. / max.	20 / 100	2,2 / 13,8	
A7/W55	min. / max.	20 / 100	4,4 / 12,7	
A2/W35	min. / max.	20 / 100	1,9 / 12,1	
A2/W55	min. / max.	20 / 100	3,8 / 11,0	
A-7/W35	min. / max.	20 / 100	2,8 / 9,4	
A-7/W55	min. / max.	20 / 100	3,6 / 8,7	
A20/W55	min. / max.	20 / 100	6,0 / 21,1	
operating point	compressor speed	rps compressor	cooling power [kW]	EER
A35/W18	55%	55	8,1	3,66
A35/W7	55%	55	5,6	2,48

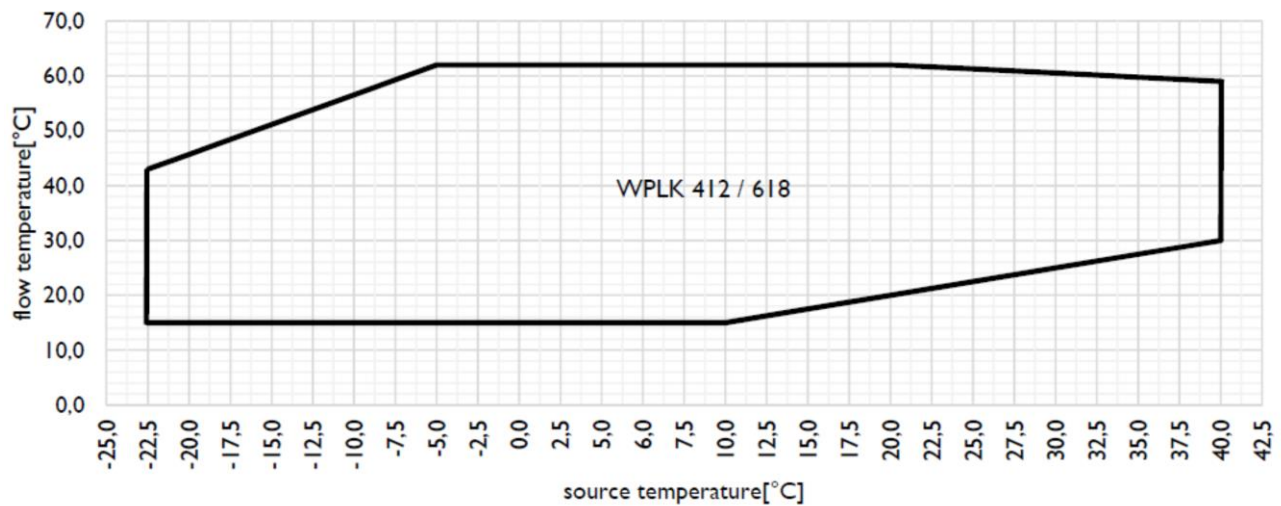
			warmer	middle	colder
climate	35°C	SCOP	5,26	4,95	3,98
		$\eta_s$	208	195	156
	55°C	SCOP	4,28	3,82	3,49
		$\eta_s$	168	150	137



\*\* Compressor-related performance deviations of up to 10% are possible. All information without guarantee: typographical and printing errors reserved. All information including possibly necessary defrosting.

\* acc. EN14511

## Area of application

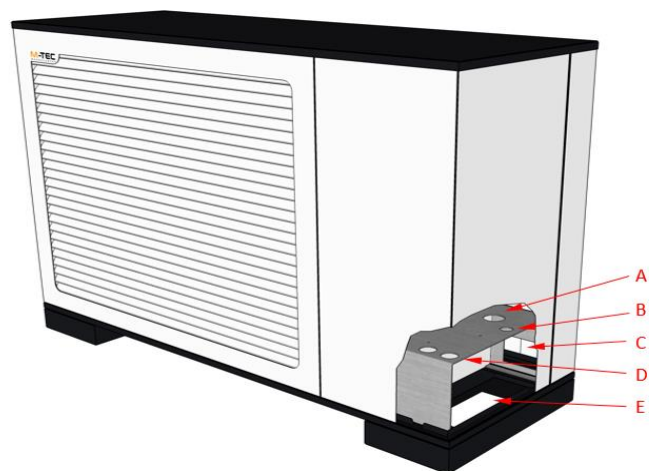


## Connection dimension

Dimensions of heat pump (H x W x D)  
Weight of heat pump

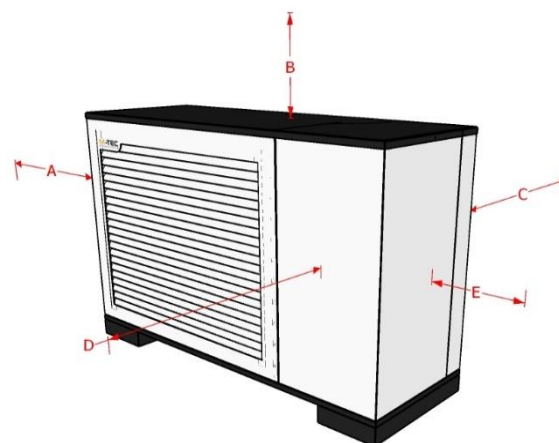
[mm] 1.040 x 1.560 x 560  
[kg] 215

- A: heating inlet (return), G1" ET
- B: heating outlet (flow), G1" ET
- C: main connection "backside"
- D: electrical entries
- E: main connection "from below"

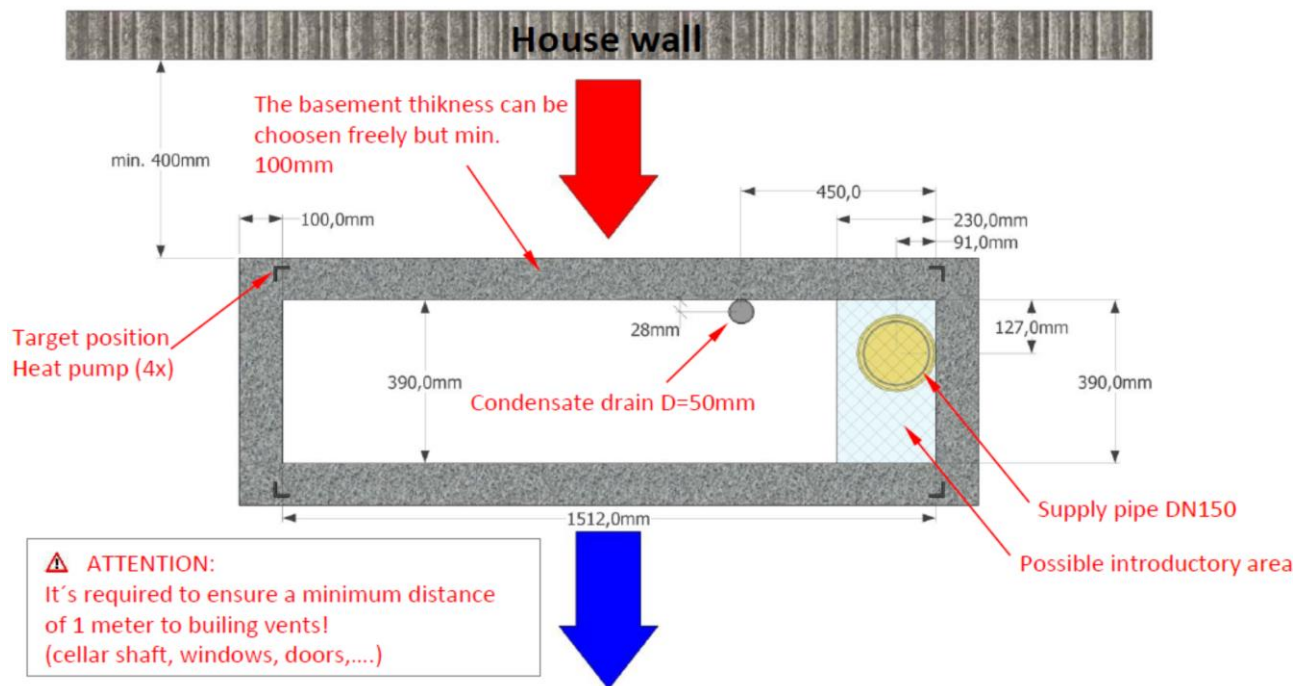


## Free spaces

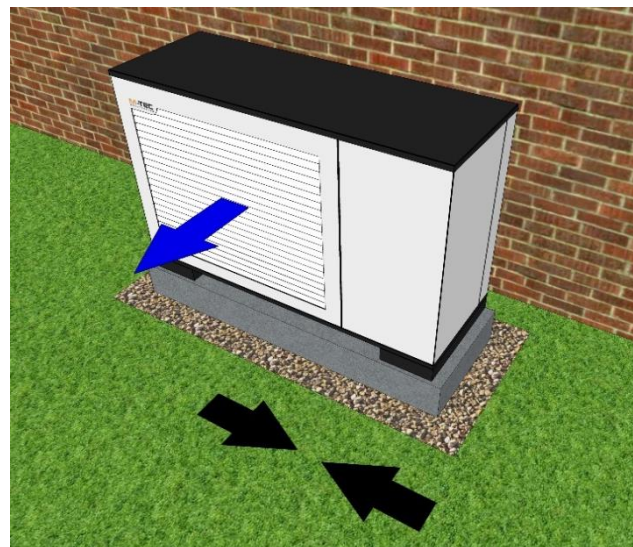
- A: 400mm
- B: 400mm
- C: 400mm
- D: 3000mm
- E: 800mm



**Proposal foundation**



**Note the main wind direction to avoid unwanted flows through the heat pump!**



**General installation and assembly criteria according to the applicable operating instructions must be observed.**