

air/water heat pump WPLK722, 400V



<b>General Data</b>		
Power range (rounded)	A2/W35: 4 - 22	[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	3,1	[A]
Max. operating current compressor	12,4	[A]
Starting current compressor with / without softstarter	24 / -	[A / A]
Cos(φ) compressor	0,98	[-]
Fuse compressor	3x C32	[-]
Res. current circuit breaker compressor supply	30mA, Typ B / B+	[-]
<b>Sound power level data acc. EN12102</b>		
Nom. sound power level heat pump	53	[dB(A)]
Max. sound powe level heat pump	67	[dB(A)]
Level surcharge low-freq. noise characteristics	-	[dB]
<b>Refrigerant circuit data</b>		
Compressor- type	scroll	[-]
Refrigerant- type	R410a	[-]
Refrigerant- amount	9,0	[kg]
Refrigerant- fluidgroup	2	[-]
Refrigerant- GWP	1924	[-]
Compressor oil- type	FVC68D	[-]
Compressor oil- amount	1,40	[l]
<b>Heating side</b>		
Condenser- type	plate heat exchanger	[-]
Condenser- material	stainless steel, soldered copper	[-]
Condenser- flow rate (5K)	3,0	[m³/h]
Condenser- pressure loss	17,5	[kPa]
Circulation pump- type	UPMXL GEO 25-125/180/PWM	[-]
Circulation pump- residual head	8,3	[mWs]
Circulation pump- max. power	180,0	[W]
<b>Source side</b>		
Evaporator- type	finned heat exchanger	[-]
Evaporator- material	copper / aluminium fins	[-]
Evaporator- flow rate	11000,0	[m³/h]
Evaporator- pressure loss	0,07	[kPa]
Source- type	axial fan	[-]
Source- residual head	-	[mWs]
Source- max. power	480,0	[W]

**Sound power level data acc. EN12102**

**Heat pump compressor speed released 75% (corresponds to 13,0[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	63 63	2	55	55	49	49	41	41	37	37	35	35	34	34	32	32
		4	58	58	52	52	44	44	40	40	38	38	37	37	35	35
		8	61	61	55	55	47	47	43	43	41	41	40	40	38	38
Silent	61 61	2	53	53	47	47	39	39	35	35	33	33	32	32	30	30
		4	56	56	50	50	42	42	38	38	36	36	35	35	33	33
		8	59	59	53	53	45	45	41	41	39	39	38	38	36	36

**Heat pump compressor speed released 100% (corresponds to 16,8[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	67 65	2	59	57	53	51	45	43	41	39	39	37	38	36	36	34
		4	62	60	56	54	48	46	44	42	42	40	41	39	39	37
		8	65	63	59	57	51	49	47	45	45	43	44	42	42	40
Silent	61 61	2	53	53	47	47	39	39	35	35	33	33	32	32	30	30
		4	56	56	50	50	42	42	38	38	36	36	35	35	33	33
		8	59	59	53	53	45	45	41	41	39	39	38	38	36	36

\* 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\*\***

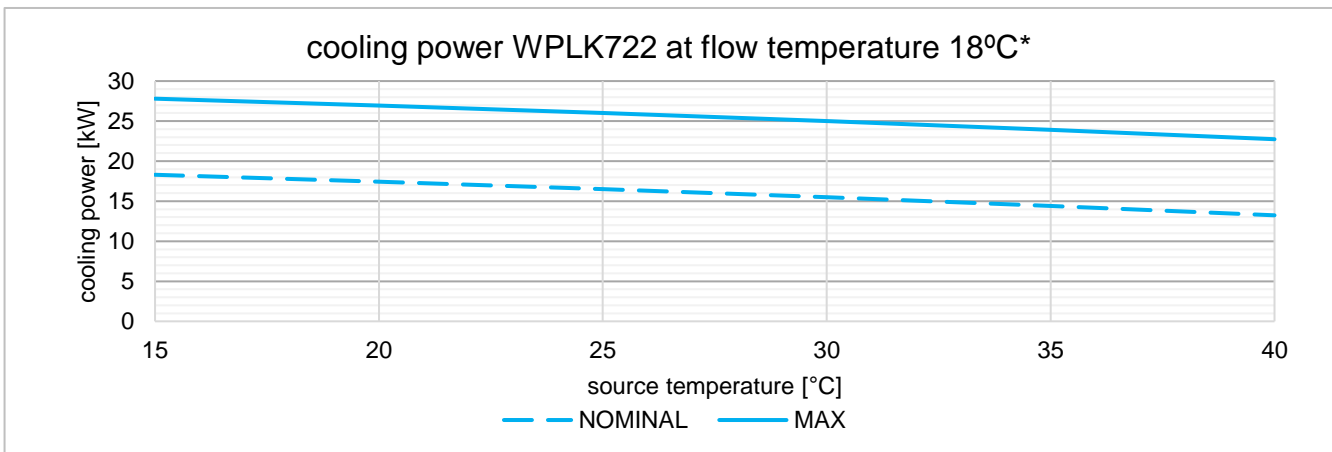
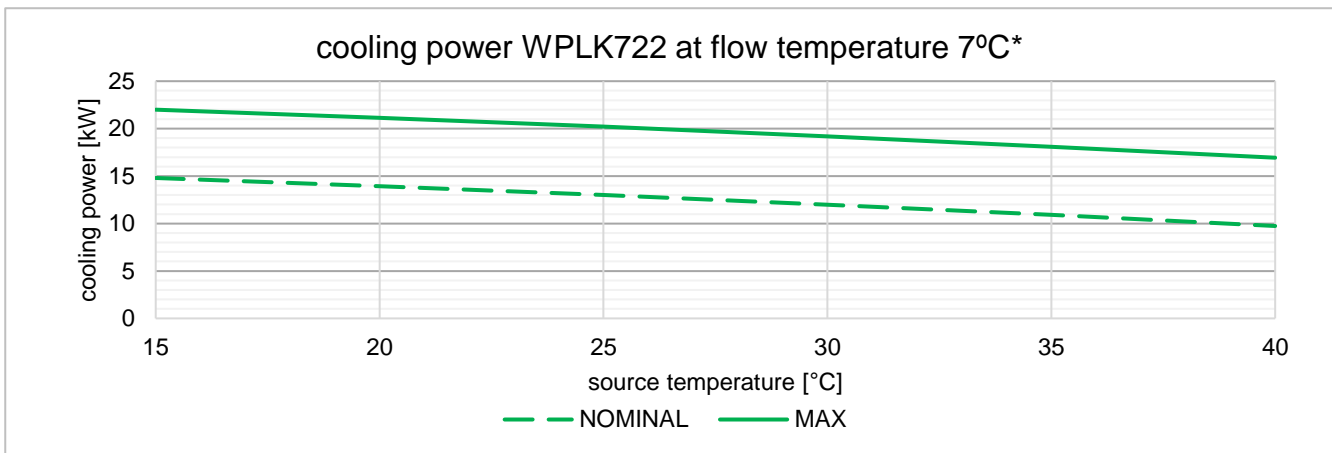
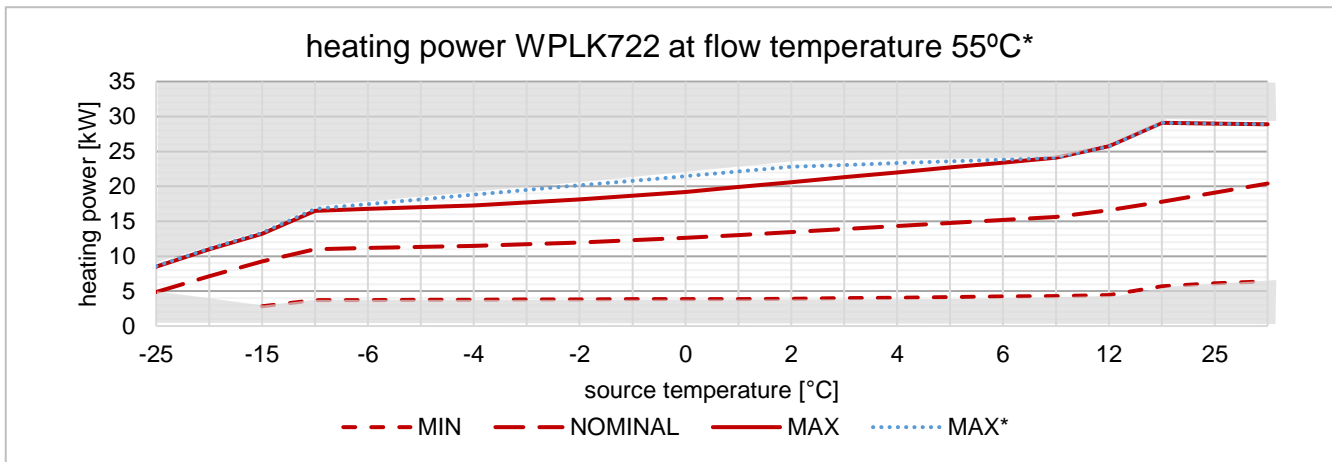
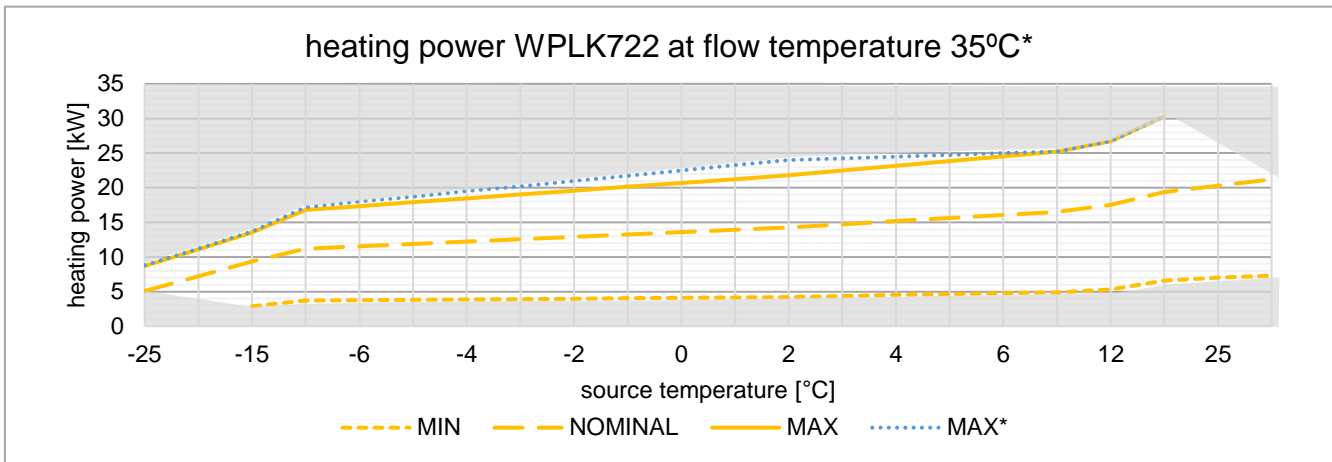
operating point	compressor speed	rps compressor	heating power [kW]	COP
A7/W35*	55%	58	13,8	5,58
A7/W55*	60%	63	14,0	3,41
A2/W35*	48%	50	10,5	4,93
A2/W42*	45%	47	9,9	4,20
A-7/W34*	100%	105	17,2	3,25
A-7/W52*	100%	105	16,3	2,45
A-10/W35*	100%	105	15,9	3,06
A-10/W55*	100%	105	15,1	2,13
A7/W35	0%	0%	0%	
A7/W55	min. / max.	20 / 105	4,9 / 25,2	
A2/W35	min. / max.	20 / 105	4,3 / 24,1	
A2/W55	min. / max.	20 / 105	4,2 / 21,8	
A-7/W35	min. / max.	20 / 105	3,9 / 20,6	
A-7/W55	min. / max.	20 / 105	3,7 / 16,8	
A20/W55	min. / max.	20 / 105	3,7 / 16,5	
operating point	compressor speed	rps compressor	cooling power [kW]	EER
A35/W18	55%	44	14,4	3,95
A35/W7	55%	44	10,9	3,74

			warmer	middle	colder
climate	35°C	SCOP	6,10	5,49	4,76
		$\eta_s$	235	214	186
	55°C	SCOP	4,44	4,19	3,77
		$\eta_s$	172	163	147

\*\* 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.

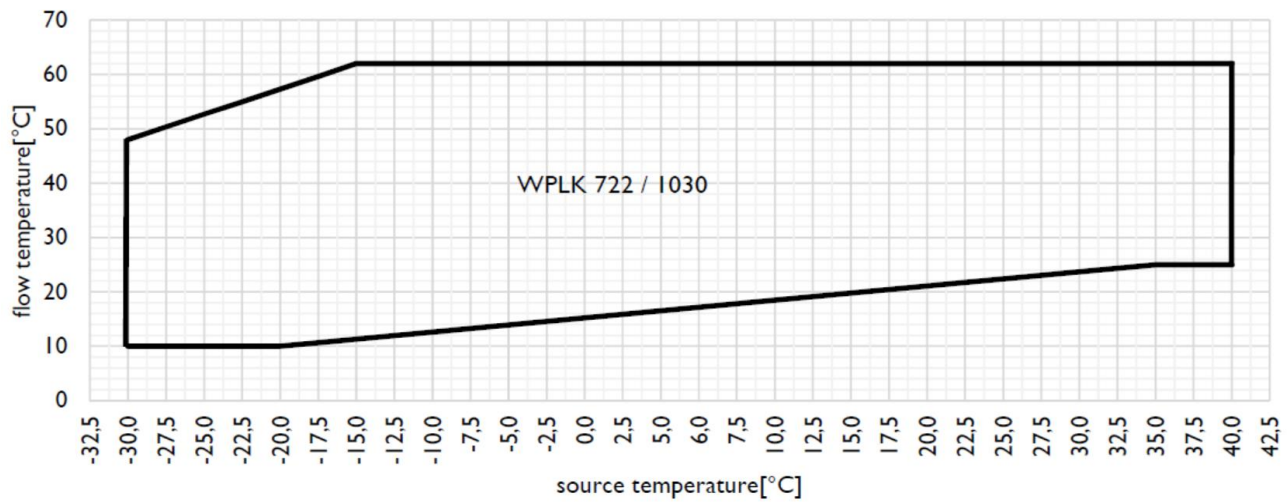
\* acc. EN14511

**Power diagrams**



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.  
 Areas with a gray background mark an impermissible operating area  
 \* data without defrosting

## Area of application



## Connection dimension

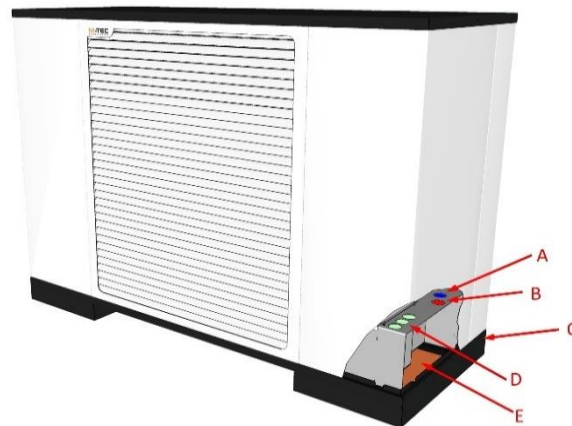
Dimensions of heat pump (H x W x D)

[mm] 1.433 x 1.965 x 755

Weight of heat pump

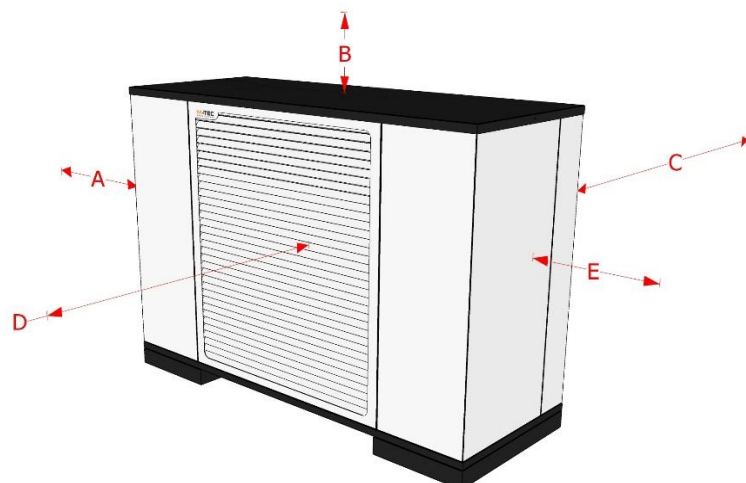
[kg] 400

- A: heating inlet (return), G5/4" ET
- B: heating outlet (flow), G5/4" ET
- C: main connection "backside"
- D: electrical entries
- E: main connection "from below"

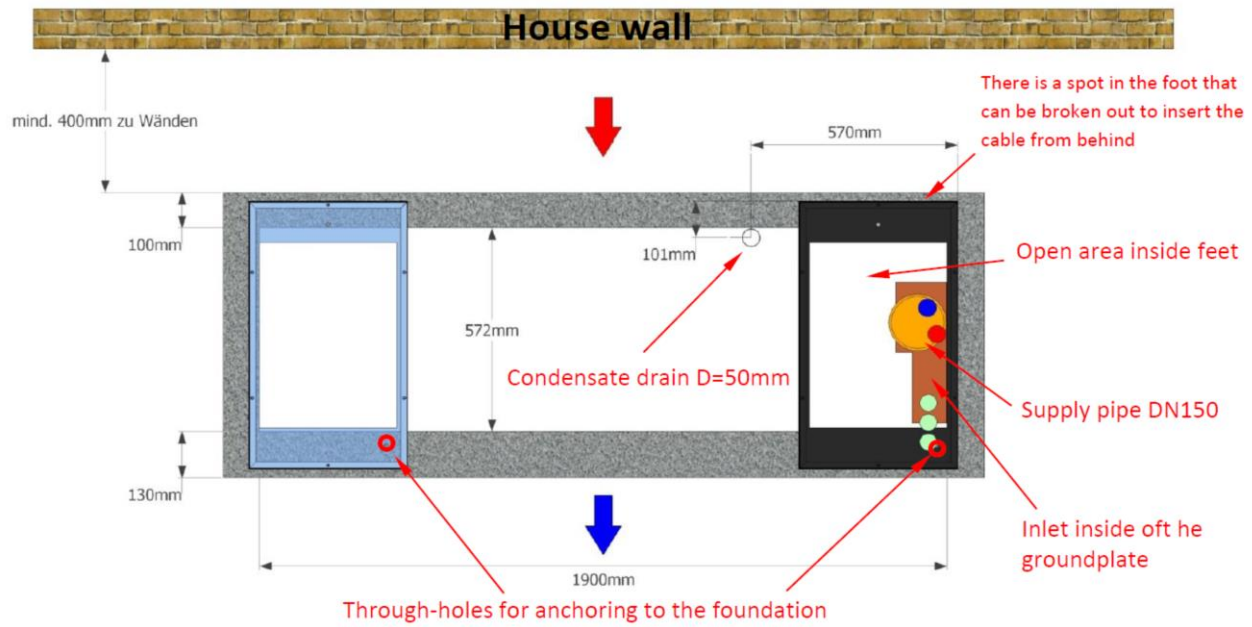


## Free spaces

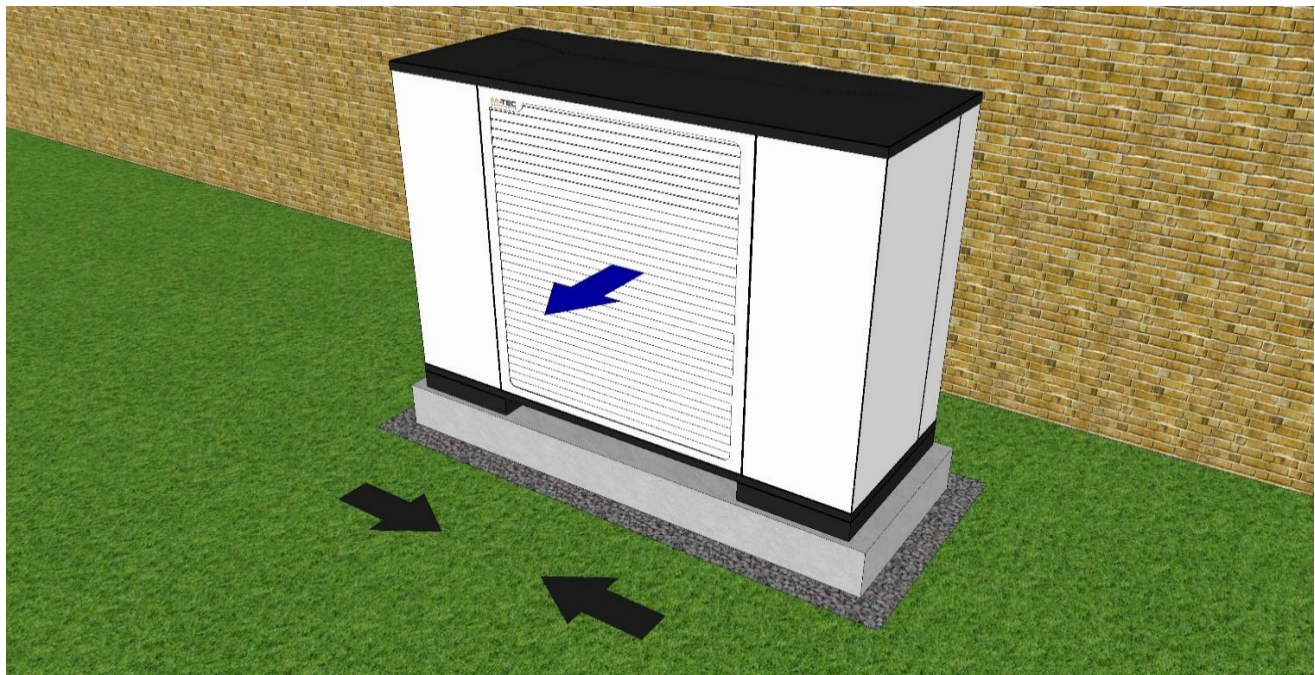
- A: 400mm
- B: 400mm
- C: 400mm
- D: 3000mm
- E: 800mm



**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.**