Air/water heat pump AHPC27, 230V

M-TEC technology for

HEATING COOLING

BENEFITS:

- Maximum self-consumption of free photovoltaic power
- High level of convenience
- Long-term supply and cost security
- Low maintenance
- Simple operation

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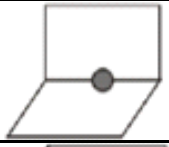
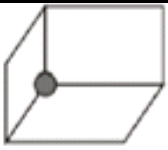
General data		
Performance range (rounded)	A2/W35: 2 - 8	[kW]
Energy class flow temp. 35°C	A+++	[-]
Energy class flow temp. 55°C	A++	[-]
Max. Flow temperature	up to 75	[°C]
Electrical data		
Protection class	IP X4	[-]
Control unit supply	1/N/PE, 230V, 50Hz	[V, Hz]
Power consumption Control unit	28,00	[W]
Cos(ϕ) control unit	0,90	[-]
Fuse protection Control unit	1x B13	[-]
Compressor supply	1/N/PE, 230V, 50Hz	[V, Hz]
Compressor operating current	4,61	[A]
Max. Compressor operating current	15,00	[A]
Compressor starting current with / without soft start	14 / -	[A / A]
Cos(ϕ) compressor	0,98	[-]
Compressor fuse protection	1x C16	[-]
Residual current circuit breaker Compressor supply	30mA, Typ B / B+	[-]
Acoustical data according to EN12102		
Nom. Sound power level heat pump	60,0	[dB(A)]
Max. Sound power level heat pump	63,0	[dB(A)]
Level allowance for low-frequency noise characteristics	-	[dB]
Refrigerant circuit data		
Compressor type	Rolling piston	[-]
Refrigerant type	R290	[-]
Refrigerant quantity	0,55	[kg]
Refrigerant fluid group	A3	[-]
Refrigerant GWP	0,02	[-]
Refrigerant oil type	HAF68	[-]
Refrigerant oil quantity	0 84	[l]
Heating side		
Condenser type	Plate heat exchanger	[-]
Condenser material	Stainless steel, brazed copper	[-]
Condenser flow rate (5K)	1,00	[m^3/h]
Condenser pressure loss	20,00	[kPa]
Circulation pump type	High-efficiency pump	[-]
Circulation pump- Residual head	7,00	[mWs]
Circulation pump- max. output	95,00	[W]
Expansion vessel	internally installed, 6L	[l]
Source side		
Evaporator type	Finned heat exchanger	[-]
Evaporator material	Copper/aluminium fins	[-]
Evaporator flow rate	3500	[m^3/h]
Evaporator pressure drop	0,03	[kPa]
Source type	Axial fan	[-]
Source- Residual head	-	[mWs]
Source- max. capacity	85	[W]

Acoustic data according to EN12102

Release of the heat pump 100% compressor speed (corresponds to 6.7 [kW] heating capacity at A-7/W35)

Mode*	Sound power level Maximum at A-7/W55 | A7/W55 [dB(A)]	Directional factor Q	Max. Sound pressure as a function of the distance [m] to the heat pump													
			1		2		5		8		10		12		15	
			[dB]													
Standard	63 | 60	2	55	52	49	46	41	38	37	34	35	32	34	31	32	29
		4	58	55	52	49	44	41	40	37	38	35	37	34	35	32
		8	61	58	55	52	47	44	43	40	41	38	40	37	38	35
Silent	58 | 56	2	50	48	44	42	36	34	32	30	30	28	29	27	27	25
		4	53	51	47	45	39	37	35	33	33	31	32	30	30	28
		8	56	54	50	48	42	40	38	36	36	34	35	33	33	31

* If Standard mode is activated, the fan is operated at normal speed.
In silent mode, this speed is reduced by approx. 25% to reduce noise emissions

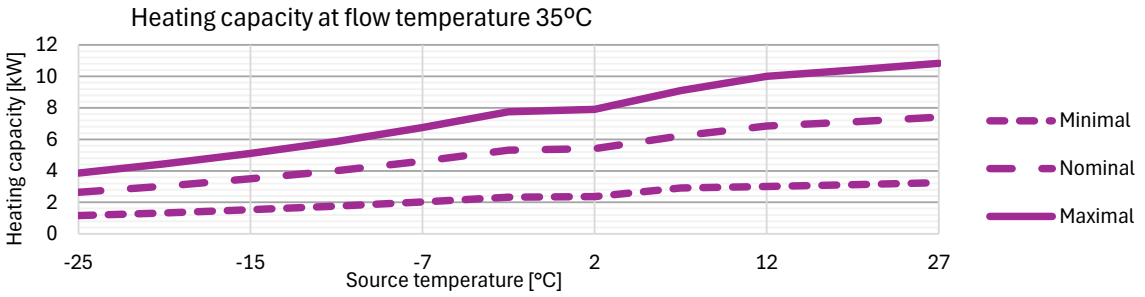
	Directional factor Q=2 describes a hemispherically radiating sound source. The sound waves are only reflected by the floor surface.
	Directional factor Q=4 describes a quarter-spherical sound source. The sound waves are reflected from the floor and one wall surface.
	Directional factor Q=8 describes 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.

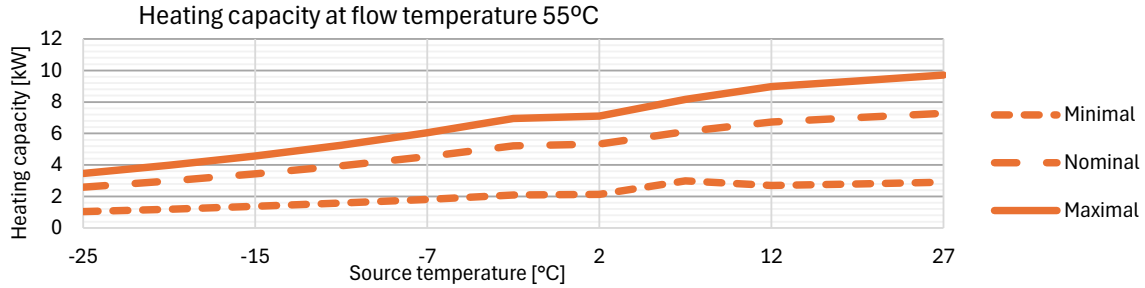
Performance data*

Operating point	Compressor operation	rps compressor	Heating capacity [kW]	Input power [kW]	COP
A-7/W34	82%	78	5,23	1,74	3,00
A-7/W52	88%	84	5,16	2,61	1,98
A2/W30	40%	38	3,31	0,73	4,53
A2/W42	42%	40	3,21	0,91	3,52
A7/W27	23%	22	2,18	0,36	6,05
A7/W36	25%	24	2,09	0,46	4,54
A-10/W35	100%	95	5,71	2,12	2,69
A-10/W55	100%	95	5,07	2,79	1,82
A7/W35*	33%	31	3,03	0,66	4,63
A7/W55*	40%	38	3,40	1,17	2,92
A2/W35*	52%	49	4,02	1,04	3,87
A7/W35	min. / max.	20 / 95	2,8 / 8,9		
A7/W55	min. / max.	20 / 95	2,9 / 7,9		
A2/W35	min. / max.	20 / 95	2,3 / 7,7		
A2/W55	min. / max.	20 / 95	2,1 / 6,8		
A-7/W35	min. / max.	20 / 95	1,9 / 6,6		
A-7/W55	min. / max.	20 / 95	1,7 / 5,8		
A20/W55	min. / max.	20 / 95	2,7 / 9		

Operating point	Compressor operation	rps compressor	Cooling capacity [kW]	EER
A35/W18	55%	45	4,77	3,20
A35/W7	55%	45	3,57	2,46
A35/W18	max.	82	7,41	
A35/W7	max.	82	5,70	

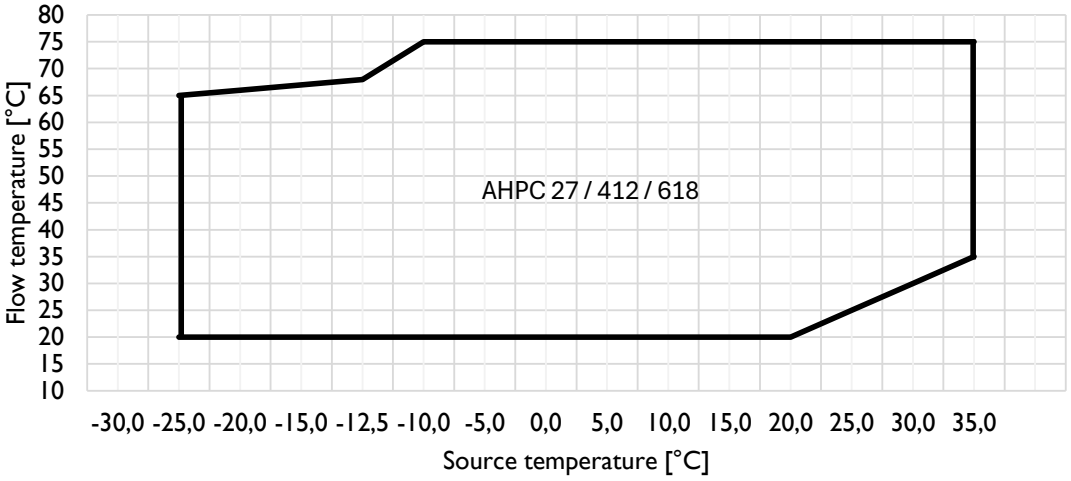
			warmer	average	colder
Climate data	35°C	SCOP	4,84	4,70	4,07
		ηs	190,43	185,00	159,62
	55°C	SCOP	3,68	3,57	3,03
		ηs	144,15	139,80	118,20





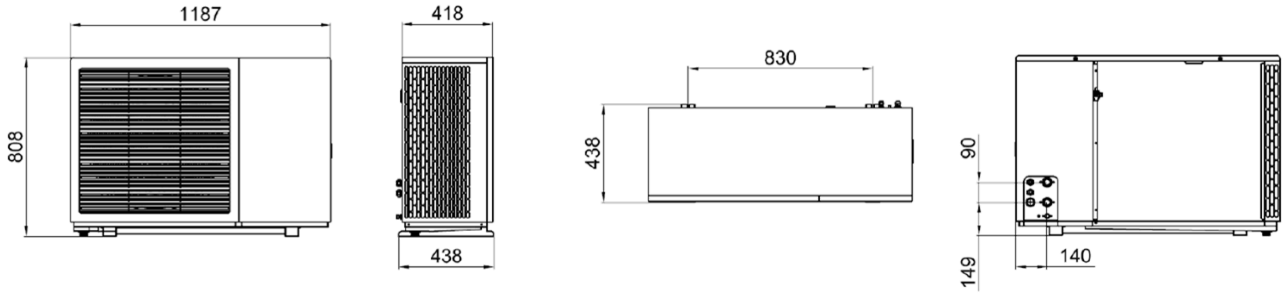
All data including any necessary defrosting and without guarantee: Subject to typesetting and printing errors.
Compressor-related performance deviations of up to 10% are possible for all specifications.
* According to EN14511

Heating application

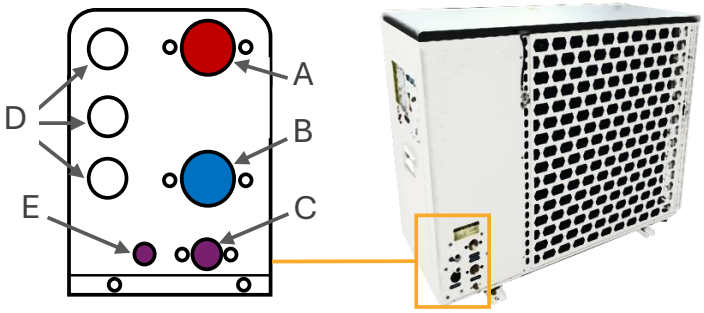


Connection dimensions

Heat pump dimensions (H x W x D)	[mm]	808 x 1187 x 418
Heat pump weight	[kg]	110



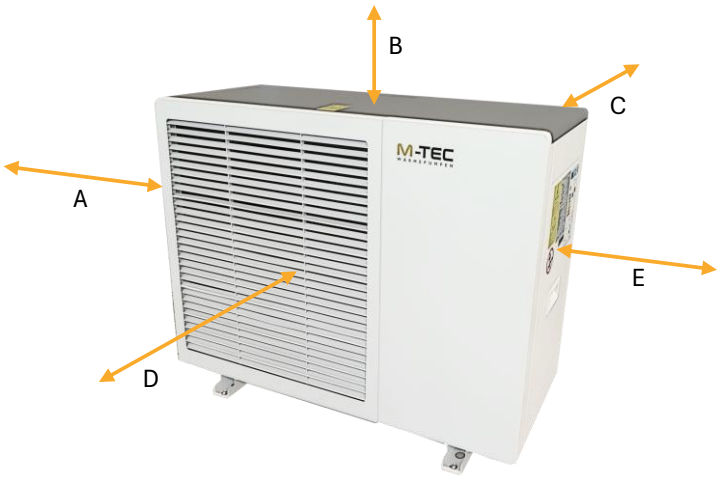
A: Heating outlet (flow), G1" AG
B: Heating inlet (return), G1" AG
C: Drainage
D: Electrical inlets
E: Pressure relief valve



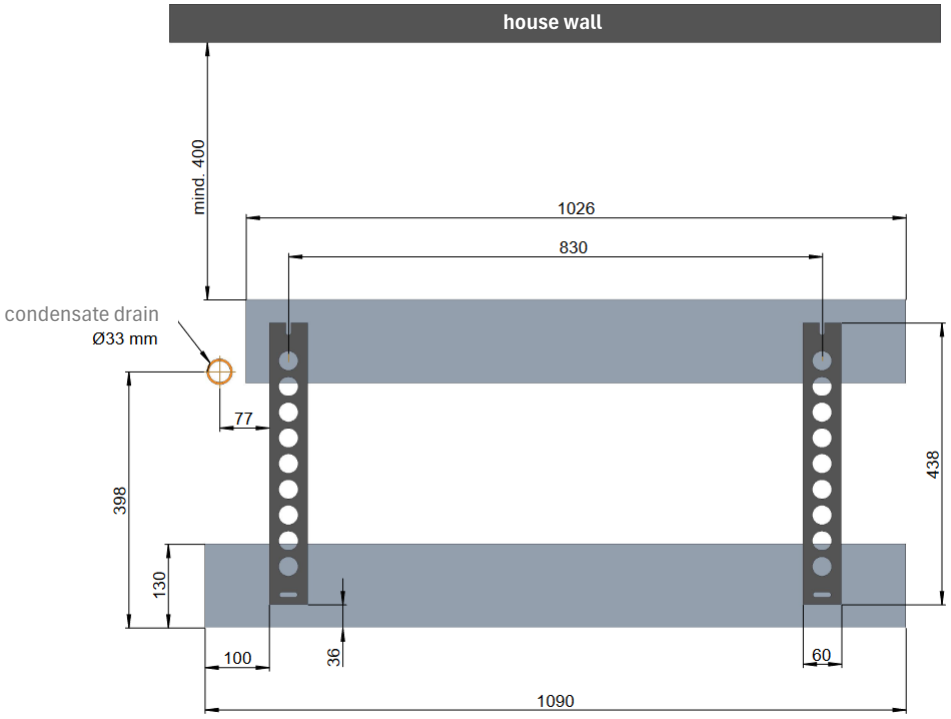
Minimum distances

Attention:
A minimum distance of 1 metre from building openings or ignition sources must be maintained!

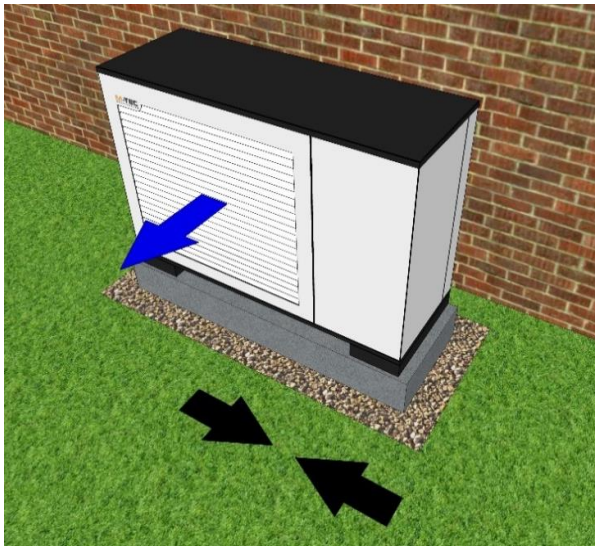
A: 300 mm
B: 500 mm
C: 300 mm
D: 3000 mm
E: 600 mm



Design proposal for foundation



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



The condensate drain must not be routed into or through the building.
For further information and general installation and assembly criteria, see the planning manual.