

Thermia Solid



Solid

Optimum performance and low investment cost.

Thermia Solid is the large capacity heat pump for those seeking optimum performance. You get a complete solution to cover basic needs that is perfectly suited to larger buildings, such as schools, churches, manors, business premises, sports halls etc., without the need for advanced extra functions.

Your Thermia Solid can be easily upgraded to produce cooling too. This gives you a complete comfort system that provides a pleasant indoor climate all year round without the need for a separate cooler.

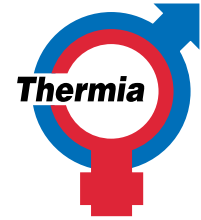
Thermia Solid can control two separate heating systems in the same building at the same time.

Using the Thermia Online optional feature, you can control your heat pump via the Internet. In the unlikely event that something needs rectifying, you will be alerted automatically via SMS text message or e-mail.

The pump utilises rock, surface ground, ground water, lake water or recycled exhaust air as its heat sources.



Technical data Solid



Connection

- 1 Coolant out (from HP)
- 2 Heat return (return line)
- 3 Return line hot-gas exchanger
- 4 Supply line hot-gas exchanger
- 5 Heat supply (supply line)
- 6 Coolant in (to HP)
- 7 Lead-in for communication cable
- 8 Lead-in for incoming power supply and sensors



Solid			20	26	35	42
Refrigerant	Type		R407C	R407C	R407C	R407C
	Amount	kg	3.4	3.5	3.6	4.2
	Test pressure	MPa	3.4	3.4	3.4	3.4
	Design pressure	MPa	2.95	2.95	2.95	2.95
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Oil		POE	POE	POE	POE
Electrical data 3-N	Main supply	Volt	400	400	400	400
	Rated power, compressor	kW	8.6	11.7	14.2	17.9
	Rated power, circulationpumps	kW	0.9	0.9	1.45	1.45
	Start current	A	22	24	27	38
	Circuit breaker	A	25	25	35	35
Performance 7	COP 1		4.19	4.18	4.27	4.09
	Heating capacity 2	kW	18.2	24.5	32.8	38.4
	COP 2		3.73	3.70	3.81	3.53
	Heating capacity 3	kW	17.6	23.2	30.3	36.8
	COP 3		3.09	3.03	3.11	2.91
Nominal flow	Power input 2	kW	4.9	6.6	8.4	10.9
	Cooling circuit 4	l/s	1.2	1.6	2.2	2.4
External available pressure 5	Heating circuit	l/s	0.5	0.6	0.8	1.0
	Cooling circuit	kPa	133	67	130	127
Internal pressure drop	Heating circuit	kPa	63	54	47	48
	Condensor	kPa	5	9	11	4
Max/min temperature 8	Evaporator	kPa	37	73	58	53
	Heating circuit	°C	20/-10	20/-10	20/-10	20/-10
	Cooling circuit	°C	60/20	60/20	60/20	60/20
Pressure switches	De-superheater	kPa	0.4	0.5	0.8	1.3
	Low pressure	MPa	0.08	0.08	0.08	0.08
	Operating	MPa	2.65	2.65	2.65	2.65
Sound power level 6	High pressure	MPa	2.95	2.95	2.95	2.95
		dB (A)	55	58	61	61
Numbers of units			1	1	1	1
Anti freeze media			Ethylene glycol/Ethanol			
Water volume	Condensor	l	5.4	5.4	6.0	6.7
	Evaporator	l	3.4	3.8	5.6	5.1
	De-superheater	l	0.6	0.6	0.6	0.6
Weight		kg	274	278	297	315

The measurements are performed on a limited number of heat pumps which can cause variations in the results. Tolerances in the measuring methods can also cause variations.

- 1) At B0/W35, Heating circuit $\Delta 10^\circ\text{K}$, excl. circ. pump.
- 2) At B0/W35 According 14511 incl. circ. pump.
- 3) At B0/W45 According 14511 incl. circ. pump.
- 4) Anti-freeze in cooling circuit: Ethanol-water.
- 5) At nominal flow.

- 6) Sound power level measured according to EN ISO 3741 at B0W45 (EN12102).
- 7) The values apply to a new heat pump with clean exchangers.
- 8) Please note that not all cooling circuit temperatures and heating circuit temperatures can be combined.

Thermia Värme AB reserves the right to make changes without further notice. 100701_S_ENG