TECHNICAL DESCRIPTION

Elve

Outdoor unit

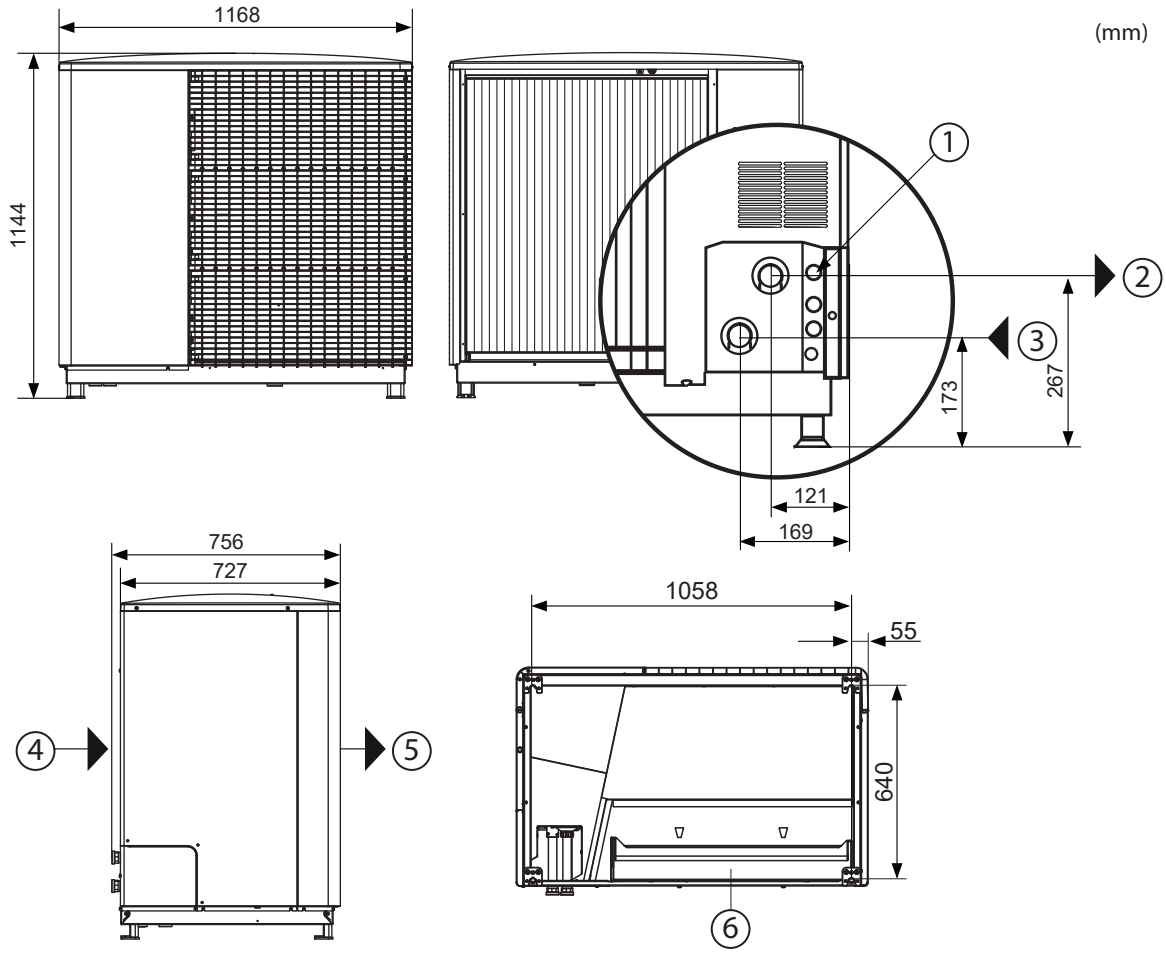
www.thermia.com

Table of Contents

1 Dimensions and connections 4
1.1 Elve L 400V 4
1.2 Elve XL 400V 5
2 Technical data 6
2.1 Elve L and Elve XL 400V 6
3 Output diagrams 8
3.1 Elve L Heating output 8
3.2 Elve L Cooling output 9
3.3 Elve XL Heating output 10
3.4 Elve XL Cooling output 11

1 Dimensions and connections

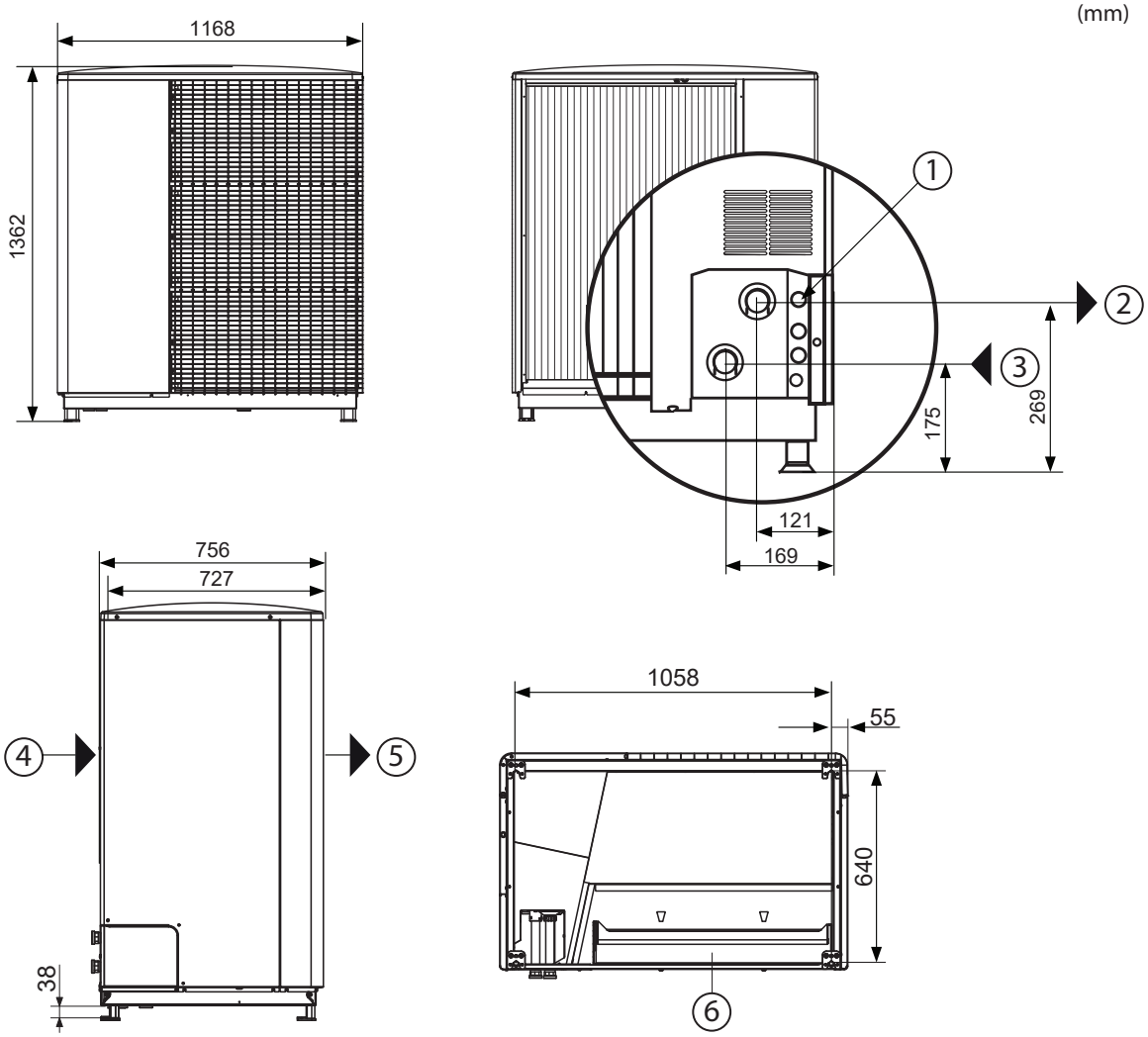
1.1 Elve L 400V



1. Entry electrical cables
2. Supply line Ø28 mm
3. Return line Ø28 mm
4. Back side/air intake
5. Front side/air discharge
6. Condensate drain DN50

1.2 Elve XL 400V

(mm)



1. Entry electrical cables
2. Supply line Ø28 mm
3. Return line Ø28 mm
4. Back side/air intake
5. Front side/air discharge
6. Condensate drain DN50

2 Technical data

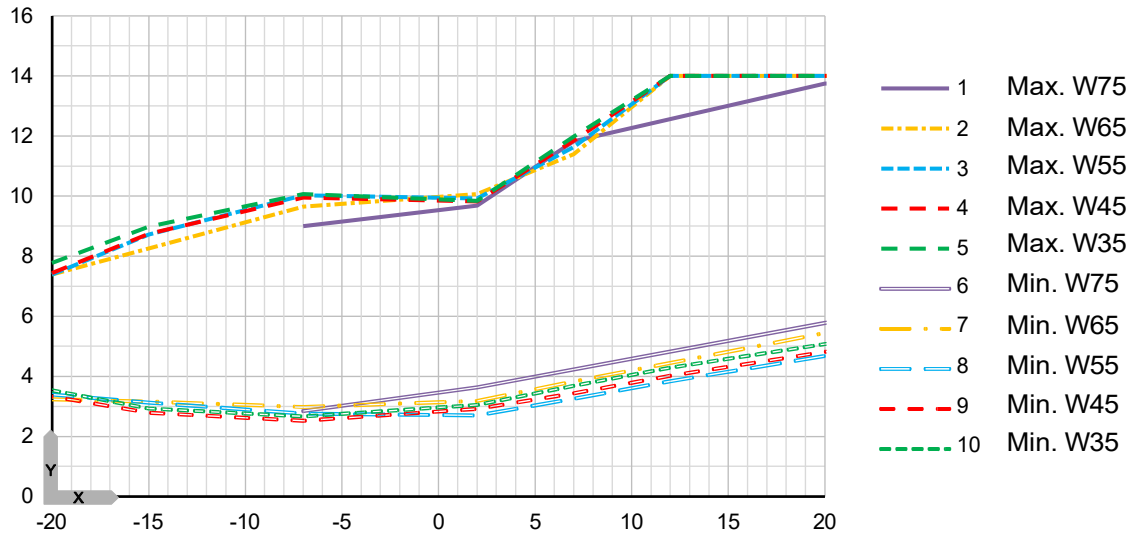
2.1 Elve L and Elve XL 400V

Energy data	Unit	Elve L	Elve XL
Energy efficiency class, heat pump W35		A+++	A+++
Energy efficiency class, heat pump W55		A+++	A+++
Energy efficiency class, composite system (heat pump + controller) W35		A+++	A+++
Energy efficiency class, composite system (heat pump + controller) W55		A+++	A+++
Heating outputs			
Heating output at A7/W35 (min./max.)	kW	3,69 / 11.97	5,11 / 15.31
Heating output at A2/W35 (min./max.)	kW	3,05 / 9,84	4,36 / 13,04
Heating output at A-7/W35 (min./max.)	kW	2,67 / 10.07	3,21 /13,15
Heating output at A7/W35 (EN 14511)	kW	4,32	5,79
Heating output at A7/W55 (EN 14511)	kW	4,05	5,10
Heating output at A2/W35 (EN 14511)	kW	4,09	4,82
Heating output at A2/W35 (EN 14511) with defrosting	kW	5,92	8,10
Heating output at A2/W55 (EN 14511)	kW	6,14	8,14
Heating output at A-7/W35 (EN 14511)	kW	10,07	13,15
Heating output at A-7/W55 (EN 14511)	kW	10,02	13,11
Heating output at A-7/W65 (EN 14511)	kW	9,65	12,89
Heating output at A-7/W75 (EN 14511)	kW	9,00	12,32
Cooling capacity at A35/W7 partial load	kW	3,53	4,29
Max. cooling capacity at A35/W7	kW	9,33	10,09
Cooling capacity at A35/W18 partial load	kW	4,29	5,81
Max. cooling capacity at A35/W18	kW	10,51	12,95
Power consumption			
Power consumption at A7/W35 (EN 14511)	kW	0,80	1,07
Power consumption at A7/W55 (EN 14511)	kW	1,27	1,56
Power consumption at A2/W35 (EN 14511)	kW	0,90	1,09
Power consumption at A2/W35 (EN 14511) with defrosting	kW	1,41	1,97
Power consumption at A2/W55 (EN 14511)	kW	2,12	2,82
Power consumption at A-7/W35 (EN 14511)	kW	3,20	4,23
Power consumption at A-7/W55 (EN 14511)	kW	4,04	5,24
Power consumption at A-7/W65 (EN 14511)	kW	4,79	6,41
Power consumption at A-7/W75 (EN 14511)	kW	5,88	7,63
Coefficients of performance			
COP at A7/W35 (EN 14511)		5,40	5,41
COP at A7/W55 (EN 14511)		3,18	3,26
COP at A2/W35 (EN 14511)		4,54	4,41
COP at A2/W35 (EN 14511) with defrosting		4,21	4,10
COP at A2/W55 (EN 14511)		2,90	2,89
COP at A-7/W35 (EN 14511)		3,15	3,11
COP at A-7/W55 (EN 14511)		2,48	2,50
COP at A-7/W65 (EN 14511)		2,02	2,01
COP at A-7/W75 (EN 14511)		1,53	1,62
Energy efficiency ratio at A35/W7 partial load		3,87	3,95
Energy efficiency ratio at A35/W7 max.		2,76	3,14
Energy efficiency ratio at A35/W18 partial load		5,46	5,41
Energy efficiency ratio at A35/W18 max.		4,01	4,11
SCOP 35 °C (EN 14825), warmer climate		6,27	6,45
SCOP 35 °C (EN 14825), medium climate		4,96	4,89
SCOP 35 °C (EN 14825), colder climate		4,46	4,35
SCOP 55 °C (EN 14825), warmer climate		4,58	4,57
SCOP 55 °C (EN 14825), medium climate		3,99	4,01

Energy data	Unit	Elve L	Elve XL
SCOP 55 °C (EN 14825), colder climate		3,66	3,56
Sound emissions			
Sound power level (EN 12102)	dB(A)	46	45
Max. sound power level	dB(A)	59	60
Sound power level, max. reduced night mode	dB(A)	49	50
Application limits			
Min. application limit, heat source	°C	-25	-25
Max. application limit, heat source	°C	40	40
Min. application limit on heating side	°C	15	15
Max. application limit on the heating side	°C	75	75
Min. cooling mode application limit for outside temperature	°C	15	15
Max. cooling mode application limit for outside temperature	°C	45	45
Permissible operating pressure, heating circuit	MPa	0,25	0,25
Min./max. heating application limit for outside temperature	°C	-25 / 40 °C	-25 / 40 °C
Min./max. heating application limit for flow temperature	°C	15 / 75 °C	15 / 75 °C
Min./max. cooling application limit for outside temperature	°C	15 / 45 °C	15 / 45 °C
Dimensions			
Height	mm	1144	1362
Width	mm	1168	1168
Depth	mm	727	727
Weights			
Weight	kg	166	205
Electrical data			
Rated voltage, compressor	V	400	400
Rated voltage, control unit	V	230	230
Phases, compressor		3/N/PE	3/N/PE
Phases, control unit		1/N/PE	1/N/PE
Compressor fuse protection	A	3 x B 10	3 x B 16
Control unit fuse protection	A	1 x B 16	1 x B 16
Max. power consumption, heat pump	kW	6,83	8,3
Starting current	A	5,2	4,8
Max. operating current	A	9,7	13
Frequency	Hz	50	50
Values			
Design flow rate at A-7/W35 7K	m³/h	1,31	1,74
Min. flow rate, heating	m³/h	0,42	0,54
Min. flow rate, defrosting	m³/h	0,72	0,90
Min. flow rate, cooling	m³/h	0,72	0,90
Standard flow rate according to EN 14511 low temperature application	m³/h	0,75	0,98
Standard flow rate according to EN 14511 medium-temperature application	m³/h	0,44	0,55
Internal pressure loss at design flow rate	hPa	137	207
kVS value	m³/h	3,53	3,83
Flow rate on heat source side	m³/h	4600	5780
Versions			
Refrigerant		R290	R290
Refrigerant charge	kg	1,6	2,15
Global warming potential of the refrigerant (GWP100)	t	3	3
CO2 equivalent (CO2e)		0,0048	0,00645
IP rating		IP14B	IP14B
Defrost type		Circuit reversal	Circuit reversal
Frost protection		-	-
Condenser material		1,4401/Cu	1,4401/Cu
Connection, heating flow/return		G 1 1/4 A	G 1 1/4 A
Enclosure colour	RAL	Dark grey 7021	Dark grey 7021
Additional data			
Maximum height for installation	m	2000	2000

3 Output diagrams

3.1 Elve L Heating output



X Outside temperature [°C]
Y Heating output [kW]

35 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	5,36	7,78	8,98	10,07	9,84	11,97	14,00	14,00	13,80	13,00
Rated heating output	kW	5,36	7,78	8,98	10,07	4,09	4,32	4,47	5,07	6,36	6,47
Nominal power consumption	kW	2,30	3,10	3,23	3,20	0,90	0,80	0,67	0,63	0,54	0,53
Nominal COP		2,33	2,51	2,78	3,15	4,54	5,40	6,37	8,01	11,80	12,31
Min. heating output	kW	4,11	3,53	2,94	2,94	3,05	3,69	4,47	5,07	6,36	6,47

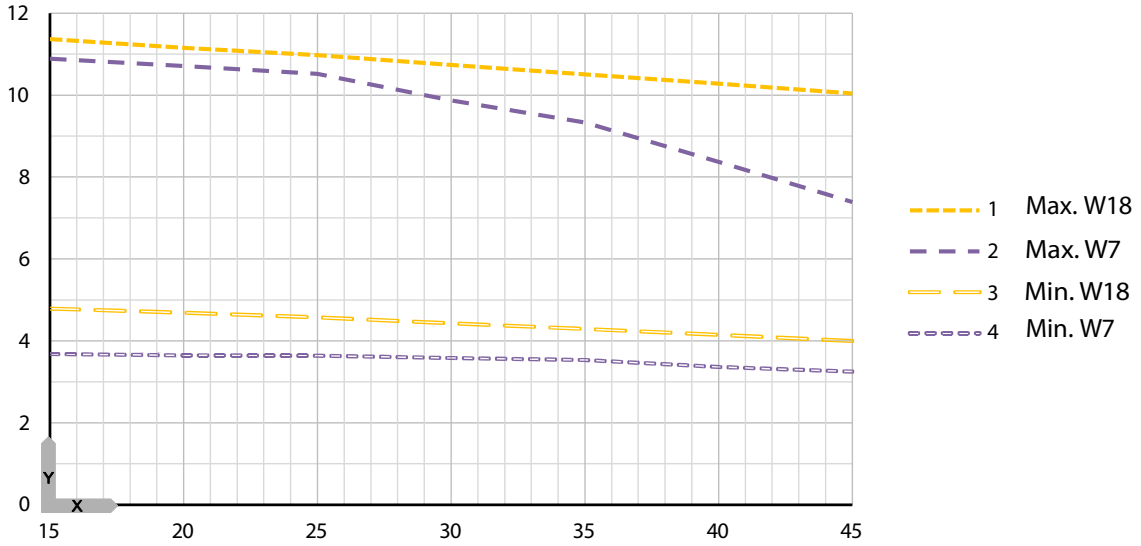
45 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	5,10	7,44	8,74	9,95	9,82	11,85	14,00	14,00	14,00	14,00
Rated heating output	kW	5,10	7,44	8,74	9,95	4,54	4,89	5,09	4,82	5,98	6,22
Nominal power consumption	kW	2,52	3,38	3,59	3,70	1,27	1,20	1,04	0,86	0,80	0,78
Nominal COP		2,02	2,20	2,43	2,69	3,58	4,08	4,91	5,64	7,51	7,99
Min. heating output	kW	3,86	3,34	2,79	2,52	2,92	3,44	4,24	4,82	5,98	6,22

55 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	4,97	7,39	8,72	10,02	9,92	11,63	14,00	14,00	14,00	14,00
Rated heating output	kW	4,97	7,39	8,72	10,02	4,62	5,63	6,11	4,68	5,78	5,98
Nominal power consumption	kW	2,72	3,61	3,90	4,04	1,55	1,69	1,56	1,08	1,06	1,04
Nominal COP		1,83	2,05	2,23	2,48	2,98	3,33	3,91	4,31	5,44	5,74
Min. heating output	kW	3,66	3,39	3,13	2,76	2,70	3,26	4,11	4,68	5,78	5,98

65 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	-	7,39	8,25	9,65	10,07	11,40	14,00	14,00	14,00	14,00
Rated heating output	kW	-	7,39	8,25	9,65	4,65	6,24	6,94	5,45	6,97	7,12
Nominal power consumption	kW	-	4,07	4,28	4,79	1,86	2,26	2,19	1,59	1,64	1,62
Nominal COP		-	1,82	1,93	2,02	2,50	2,77	3,17	3,43	4,25	4,41
Min. heating output	kW	-	3,23	3,16	2,98	3,18	3,83	4,78	5,45	6,97	7,12

75 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	-	-	-	9,00	9,68	11,82	13,00	13,74	14,00	14,00
Rated heating output	kW	-	-	-	9,00	8,00	10,93	11,74	5,78	7,19	7,43
Nominal power consumption	kW	-	-	-	5,88	4,23	5,36	4,97	2,18	2,50	2,53
Nominal COP		-	-	-	1,53	1,89	2,04	2,36	2,65	2,87	2,94
Min. heating output	kW	-	-	-	2,85	3,63	4,22	5,18	5,78	7,19	7,43

3.2 Elve L Cooling output

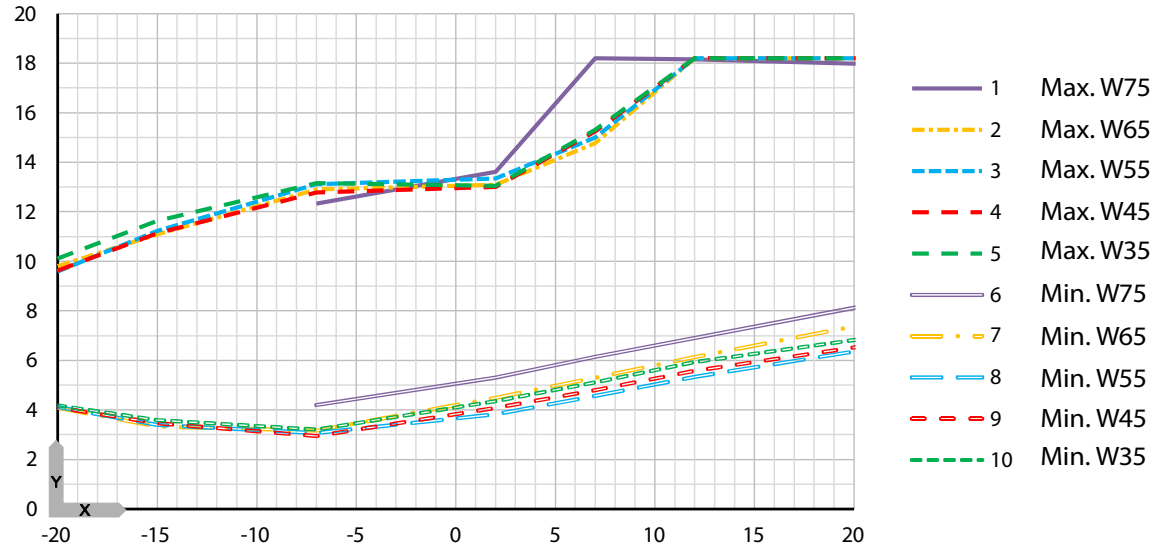


X Outside temperature [°C]
Y Heating output [kW]

7 °C flow temperature	Unit	Outside temperature [°C]						
		15	20	25	30	35	40	45
Max. heating output	kW	10,89	10,71	10,52	9,87	9,33	8,37	7,39
Min. heating output	kW	3,68	3,65	3,64	3,58	3,53	3,36	3,25

18 °C flow temperature	Unit	Outside temperature [°C]						
		15	20	25	30	35	40	45
Max. heating output	kW	11,37	11,16	10,98	10,74	10,51	10,28	10,04
Min. heating output	kW	4,79	4,69	4,58	4,43	4,29	4,15	4,00

3.3 Elve XL Heating output



X Outside temperature [°C]
Y Heating output [kW]

35 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	7,34	10,10	11,64	13,15	13,04	15,31	18,20	18,20	18,20	17,68
Rated heating output	kW	7,34	10,10	11,64	13,15	4,82	5,79	6,08	6,82	8,46	8,85
Nominal power consumption	kW	3,31	4,10	4,25	4,23	1,09	1,07	0,92	0,87	0,73	0,70
Nominal COP		2,22	2,46	2,74	3,11	4,41	5,41	6,63	7,84	11,55	12,71
Min. heating output	kW	4,86	4,18	3,58	3,21	4,36	5,11	6,08	6,82	8,46	8,85

45 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	6,94	9,62	11,13	12,77	13,00	15,24	18,20	18,20	18,20	18,20
Rated heating output	kW	6,94	9,62	11,13	12,77	4,99	6,30	6,90	6.,53	8,18	8,38
Nominal power consumption	kW	3,56	4,41	4,64	4,85	1,43	1,55	1,44	1,19	1,10	1,08
Nominal COP		1,95	2,18	2,40	2,63	3,50	4,07	4,80	5,49	7,43	7,75
Min. heating output	kW	4,83	4,09	3,47	2,95	4,08	4,80	5,80	6,53	8,18	8,38

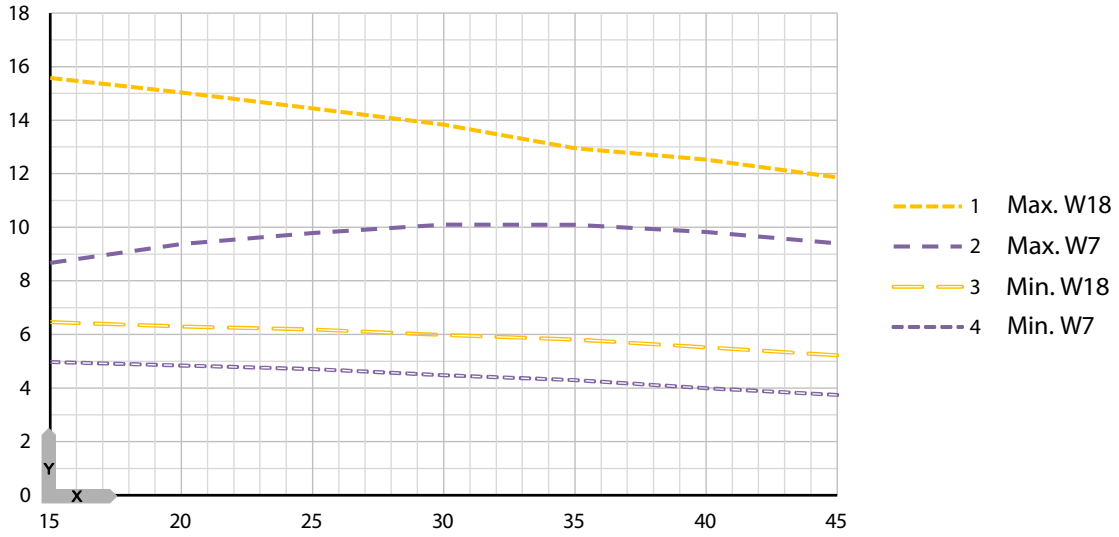
55 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	7,11	9,59	11,22	13,11	13,34	14,99	18,20	18,20	18,20	18,20
Rated heating output	kW	7,11	9,59	11,22	13,11	5,20	6,95	8,36	6,36	8,05	8,07
Nominal power consumption	kW	3,88	4,71	5,00	5,24	1,78	2,09	2,15	1,48	1,46	1,43
Nominal COP		1,83	2,04	2,24	2,50	2,92	3,33	3,88	4,29	5,51	5,62
Min. heating output	kW	4,95	4,12	3,40	3,07	3,83	4,56	5,62	6,36	8,05	8,07

65 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	-	9,81	11,09	12,89	13,09	14,76	18,20	18,20	18,20	18,20
Rated heating output	kW	-	9,81	11,09	12,89	5,27	7,86	9,06	7,38	9,41	9,54
Nominal power consumption	kW	-	5,43	5,76	6,41	2,15	2,82	2,81	2,10	2,17	2,14
Nominal COP		-	1,81	1,92	2,01	2,45	2,79	3,22	3,51	4,35	4,47
Min. heating output	kW	-	4,08	3,33	3,17	4,49	5,30	6,50	7,38	9,41	9,54

75 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Max. heating output	kW	-	-	-	12,32	13,61	18,20	18,09	17,98	17,89	18,00
Rated heating output	kW	-	-	-	12,32	10,00	14,18	15,00	8,12	9,79	10,14

75 °C flow temperature	Unit	Outside temperature [°C]									
		-25	-20	-15	-7	2	7	15	20	30	40
Nominal power consumption	kW	-	-	-	7,63	5,21	6,48	6,10	3,08	3,37	3,38
Nominal COP		-	-	-	1,62	1,92	2,19	2,46	2,64	2,90	3,00
Min. heating output	kW	-	-	-	4,20	5,31	6,14	7,36	8,12	9,79	10,14

3.4 Elve XL Cooling output



X Outside temperature [°C]
Y Cooling capacity [kW]

7 °C flow temperature	Unit	Outside temperature [°C]						
		15	20	25	30	35	40	45
Max. heating output	kW	8,67	9,37	9,79	10,10	10,09	9,82	9,40
Min. heating output	kW	4,97	4,84	4,71	4,48	4,29	3,99	3,74

18 °C flow temperature	Unit	Outside temperature [°C]						
		15	20	25	30	35	40	45
Max. heating output	kW	15,58	15,04	14,44	13,84	12,95	12,53	11,87
Min. heating output	kW	6,46	6,30	6,18	5,98	5,81	5,52	5,22

Thermia AB
Box 950
SE 671 29 ARVIKA
Phone +46 570 81300
E-mail: info@thermia.com
Website: www.thermia.com

Thermia can accept no responsibility for possible errors in catalogues, brochures and other printed material. Thermia reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Thermia AB and the Thermia AB logotype are trademarks of Thermia AB. All rights reserved.

AWEL01TD0102

Produced by Thermia AB © 2026