



HELIOTHERM HEAT PUMPS

TECHNICAL DATA SHEETS

**Ground Source Heat Pump with Surface Collector
WEB CONTROL Series**



TECHNICAL DATA SHEET HP05E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	6,71 kW	6,04 kW
Cooling capacity	5,54 kW	4,42 kW
Input	1,17 kW	1,62 kW
COP	5,76	3,73

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	6,55 kW	5,93 kW
Cooling capacity	5,35 kW	4,26 kW
Input	1,20 kW	1,67 kW
COP	5,46	3,56

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	1,9 kW
Stall current	26 A
Oil amount	1,1 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	6
Total length	420 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	1,2 m ³ /h
Pressure loss	0,8 mWs
Temperature difference	5 K
Content	1,9 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	6,40 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	6,4 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 10 A
Max. compressor operating current	5 A
Starting current	26 A
Starting current with soft starter	17 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/18	mm
Height x Width x Depth	1.380x460x520	mm
Weight	145	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

²⁾ Values given in counter-current flow in cooling mode.

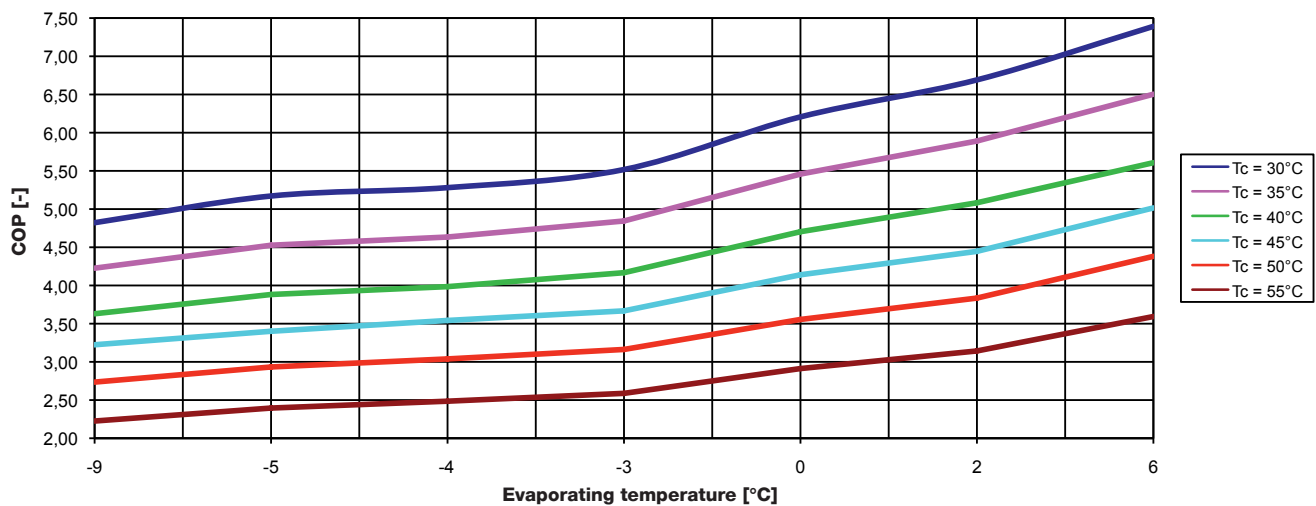
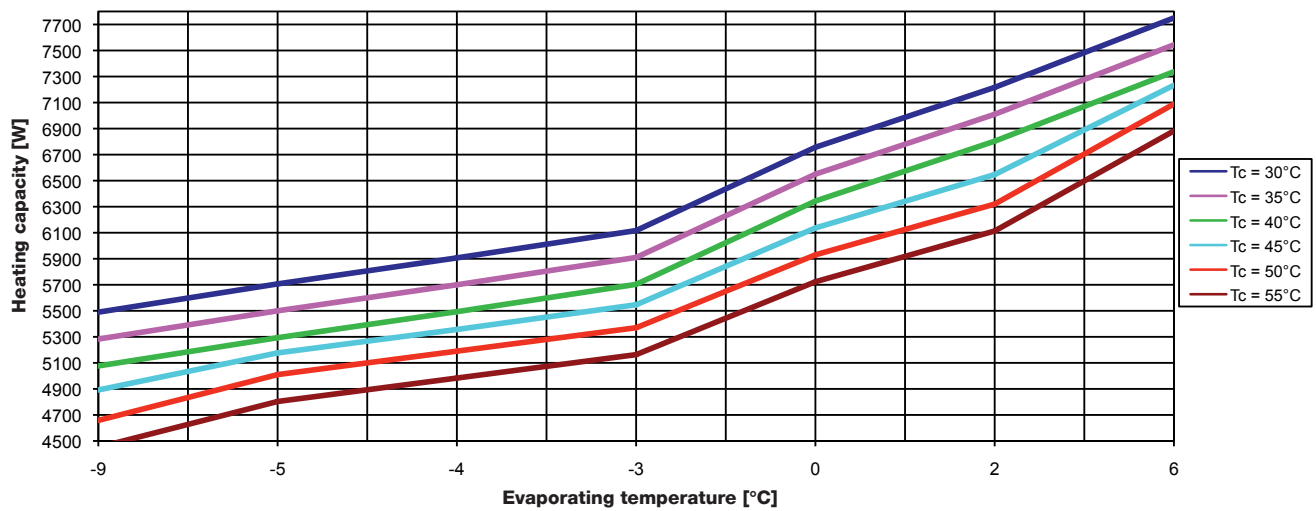
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

0,25 kW/person are to be calculated to the heating load for DHW preparation.

Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP05E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP07E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	7,94 kW	7,09 kW
Cooling capacity	6,57 kW	5,20 kW
Input	1,37 kW	1,88 kW
COP	5,80	3,77

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	7,75 kW	6,96 kW
Cooling capacity	6,34 kW	5,02 kW
Input	1,41 kW	1,94 kW
COP	5,50	3,59

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	1,9 kW
Stall current	32 A
Oil amount	1,1 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	7
Total length	490 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	1,4 m ³ /h
Pressure loss	0,8 mWs
Temperature difference	5 K
Content	1,9 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	7,60 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	7,9 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 10 A
Max. compressor operating current	5,5 A
Starting current	32 A
Starting current with soft starter	21,3 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/18	mm
Height x Width x Depth	1.380x460x520	mm
Weight	145	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

²⁾ Values given in counter-current flow in cooling mode.

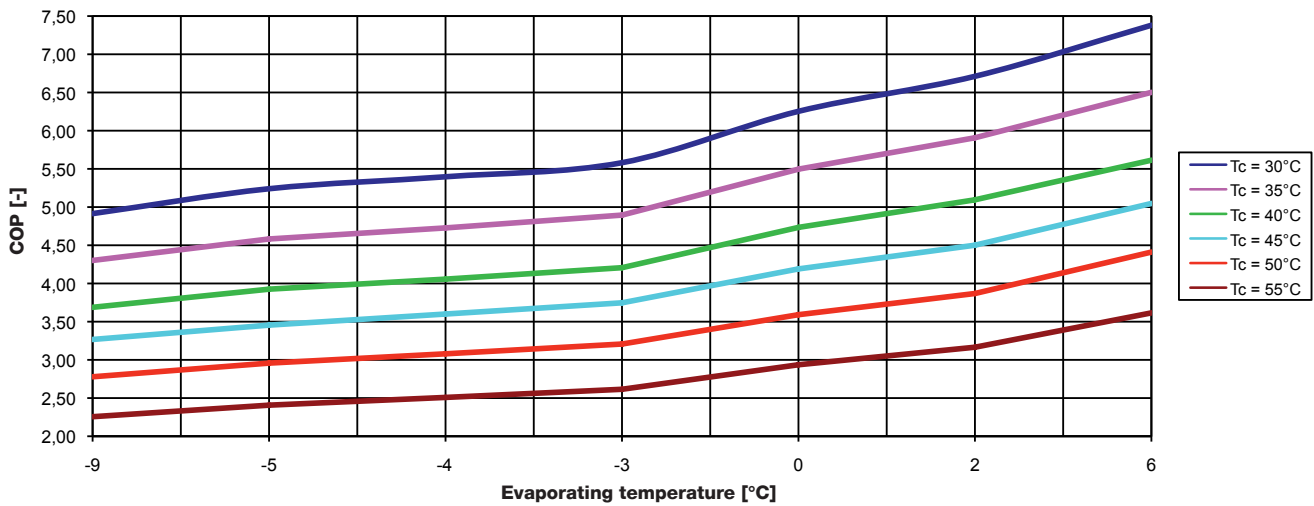
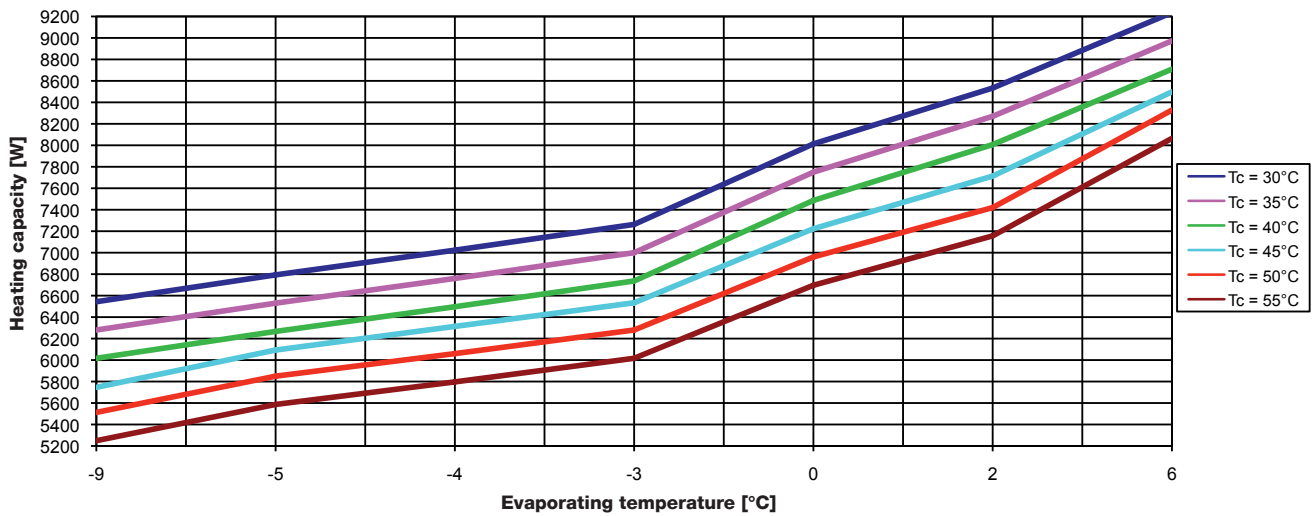
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TECHNICAL DATA SHEET HP07E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



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All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP08E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	9,58 kW	8,76 kW
Cooling capacity	7,92 kW	6,46 kW
Input	1,66 kW	2,29 kW
COP	5,77	3,82

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	9,35 kW	8,60 kW
Cooling capacity	7,64 kW	6,24 kW
Input	1,71 kW	2,36 kW
COP	5,47	3,64

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	2,4 kW
Stall current	35 A
Oil amount	1,3 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	8
Total length	560 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	1,6 m ³ /h
Pressure loss	0,8 mWs
Temperature difference	5 K
Content	1,9 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	9,10 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	8,4 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	6 A
Starting current	35 A
Starting current with soft starter	23,3 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/18	mm
Height x Width x Depth	1.380x460x520	mm
Weight	155	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

²⁾ Values given in counter-current flow in cooling mode.

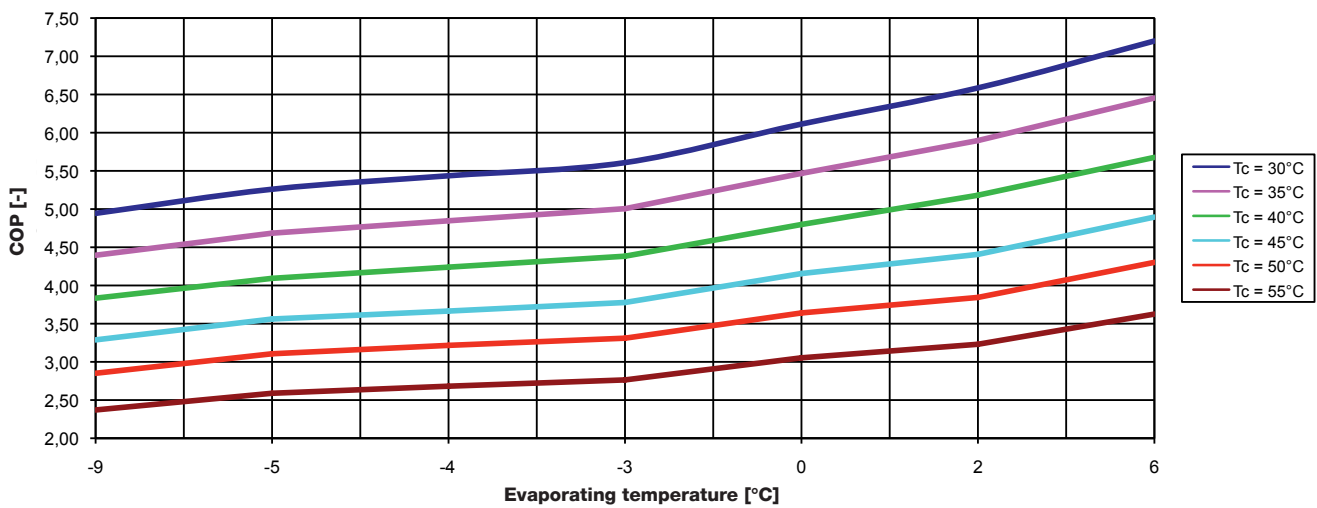
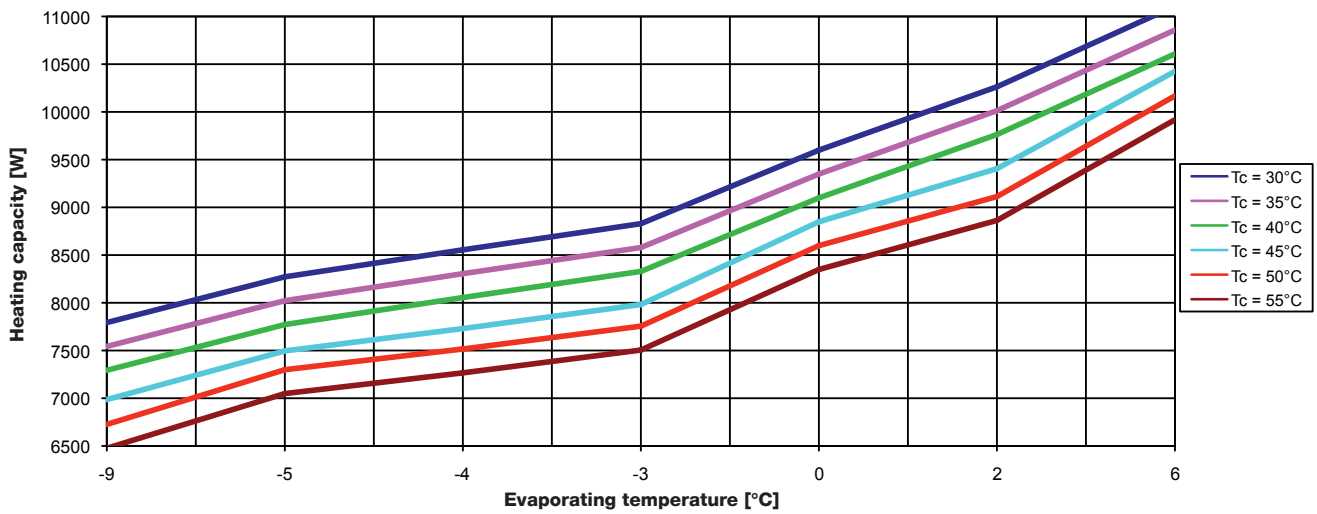
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TECHNICAL DATA SHEET HP08E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



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TECHNICAL DATA SHEET HP10E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	12,60 kW	11,52 kW
Cooling capacity	10,42 kW	8,57 kW
Input	2,18 kW	2,95 kW
COP	5,79	3,90

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	12,30 kW	11,31 kW
Cooling capacity	10,06 kW	8,27 kW
Input	2,24 kW	3,04 kW
COP	5,48	3,72

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	3,1 kW
Stall current	48 A
Oil amount	1,3 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	9
Total length	630 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	2,0 m ³ /h
Pressure loss	1,0 mWs
Temperature difference	5 K
Content	2,5 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	11,90 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	8,9 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	8 A
Starting current	48 A
Starting current with soft starter	32 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/22	mm
Height x Width x Depth	1.380x460x520	mm
Weight	155	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C
W = Heating water temperature in °C

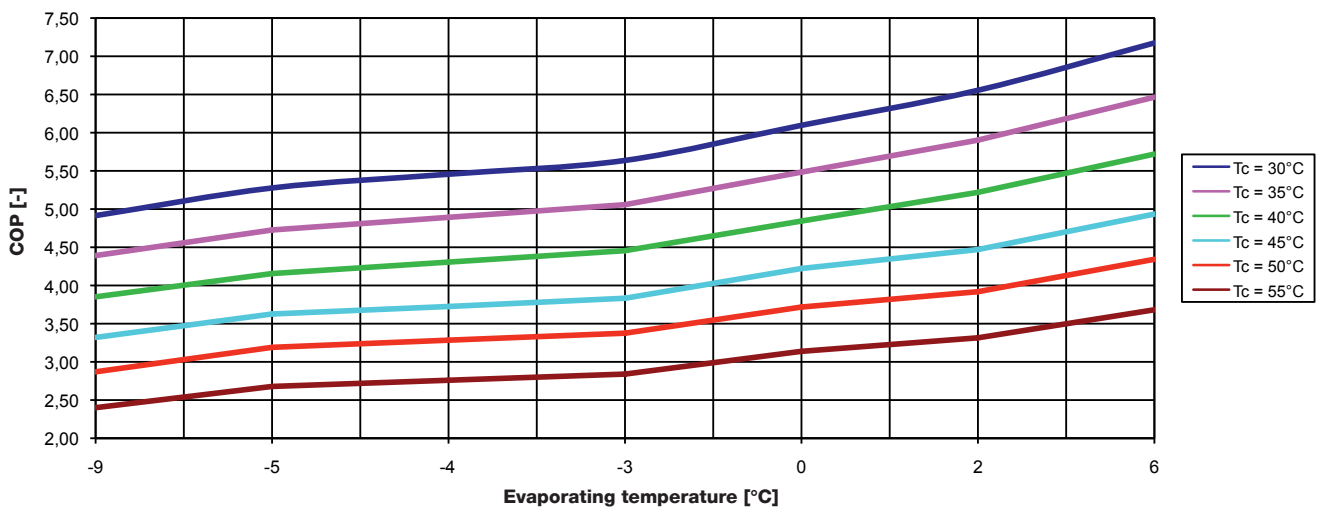
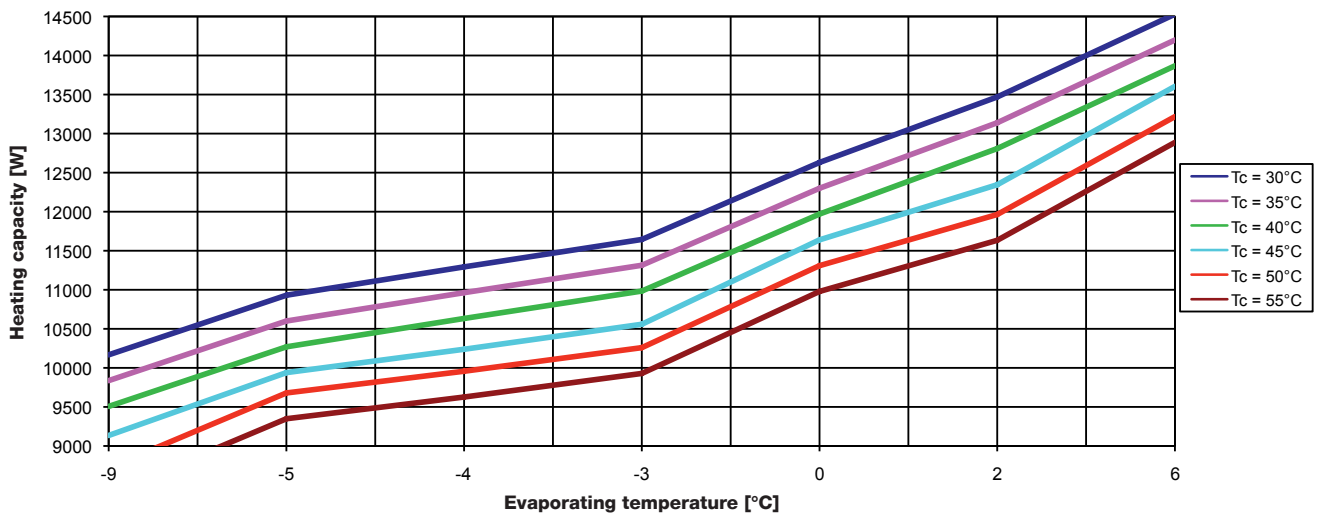
²⁾ Values given in counter-current flow in cooling mode.
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TECHNICAL DATA SHEET HP10E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP12E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	16,05 kW	14,67 kW
Cooling capacity	13,27 kW	10,90 kW
Input	2,78 kW	3,78 kW
COP	5,77	3,89

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	15,67 kW	14,41 kW
Cooling capacity	12,81 kW	10,52 kW
Input	2,87 kW	3,89 kW
COP	5,47	3,70

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	4,0 kW
Stall current	64 A
Oil amount	1,7 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	11
Total length	770 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	2,7 m ³ /h
Pressure loss	1,6 mWs
Temperature difference	5 K
Content	2,5 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	15,00 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	11,4 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	10 A
Starting current	64 A
Starting current with soft starter	42,6 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/22	mm
Height x Width x Depth	1.380x460x520	mm
Weight	155	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

²⁾ Values given in counter-current flow in cooling mode.

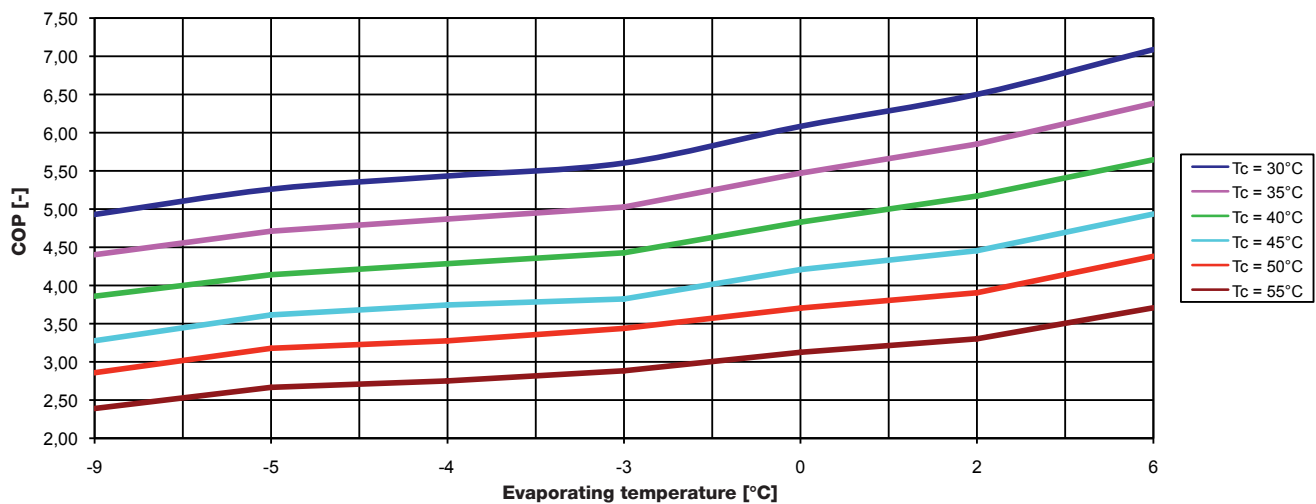
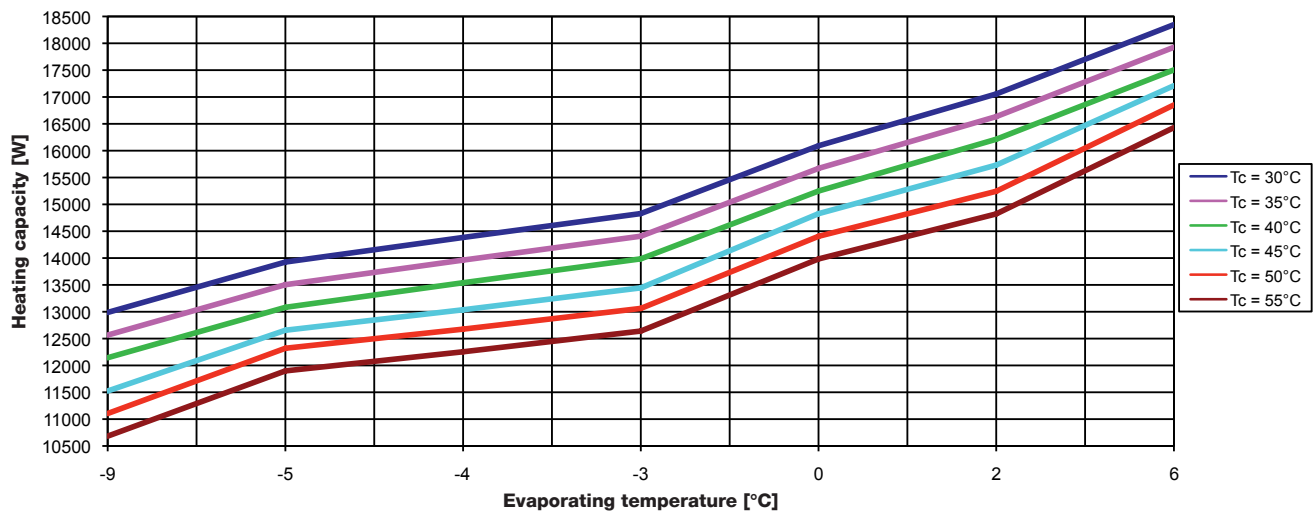
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

0,25 kW/person are to be calculated to the heating load for DHW preparation.

Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP12E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP16E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	20,13 kW	17,91 kW
Cooling capacity	16,64 kW	13,27 kW
Input	3,49 kW	4,64 kW
COP	5,77	3,86

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	19,65 kW	17,59 kW
Cooling capacity	16,06 kW	12,81 kW
Input	3,59 kW	4,78 kW
COP	5,47	3,68

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	5,1 kW
Stall current	74 A
Oil amount	1,7 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	14
Total length	980 m
Tested pressure	45 bar

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	3,3 m ³ /h
Pressure loss	1,8 mWs
Temperature difference	5 K
Content	2,5 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	19,20 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	12,8 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	12,2 A
Starting current	74 A
Starting current with soft starter	49,3 A

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions		
Heating outlet and inlet	5/4"	ET
Pressure line / Suction line	10/22	mm
Height x Width x Depth	1.380x460x520	mm
Weight	155	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

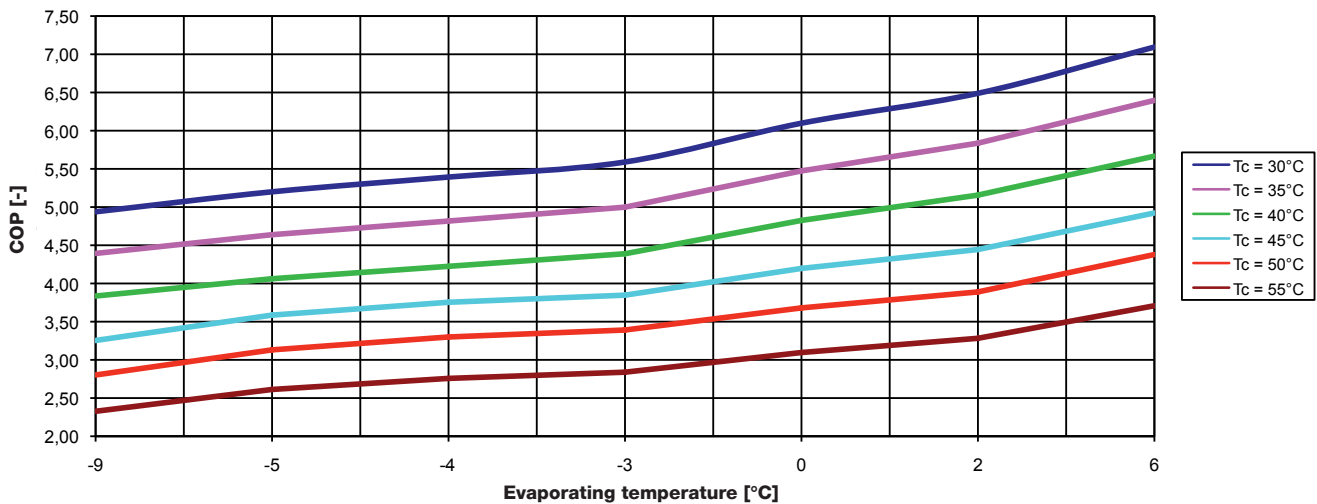
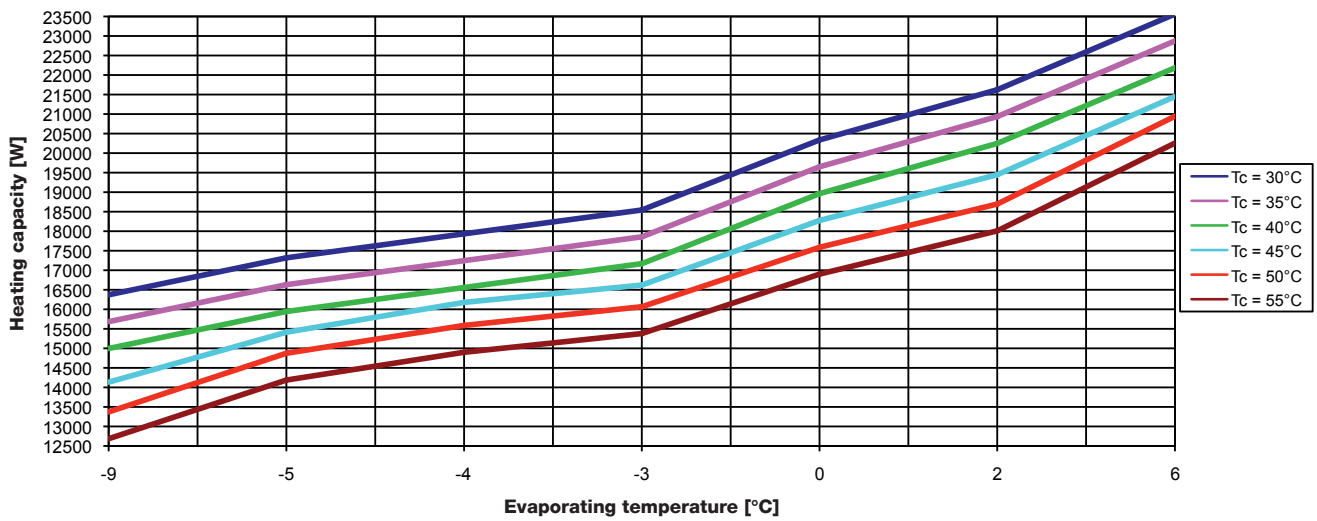
²⁾ Values given in counter-current flow in cooling mode.

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TECHNICAL DATA SHEET HP16E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



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All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP20E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	25,59 kW	23,32 kW
Cooling capacity	21,04 kW	17,10 kW
Input	4,55 kW	6,22 kW
COP	5,62	3,75

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	24,99 kW	22,91 kW
Cooling capacity	20,30 kW	16,50 kW
Input	4,69 kW	6,41 kW
COP	5,33	3,57

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	6,8 kW
Stall current	95 A
Oil amount	2,5 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	18
Total length	1.260 m
Tested pressure	45 bar

Condenser / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	4,3 m ³ /h
Pressure loss	2,2 mWs
Temperature difference	5 K
Content	3 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	24,40 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	15,8 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 20 A
Max. compressor operating current	16 A
Starting current	95 A
Starting current with soft starter	63,3 A

Acoustic Pressure Level	
1 m distance	56 dB(A)

Connections, Dimensions		
Heating outlet and inlet	2"	ET
Pressure line / Suction line	16/28	mm
Height x Width x Depth	1.380x550x620	mm
Weight	175	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

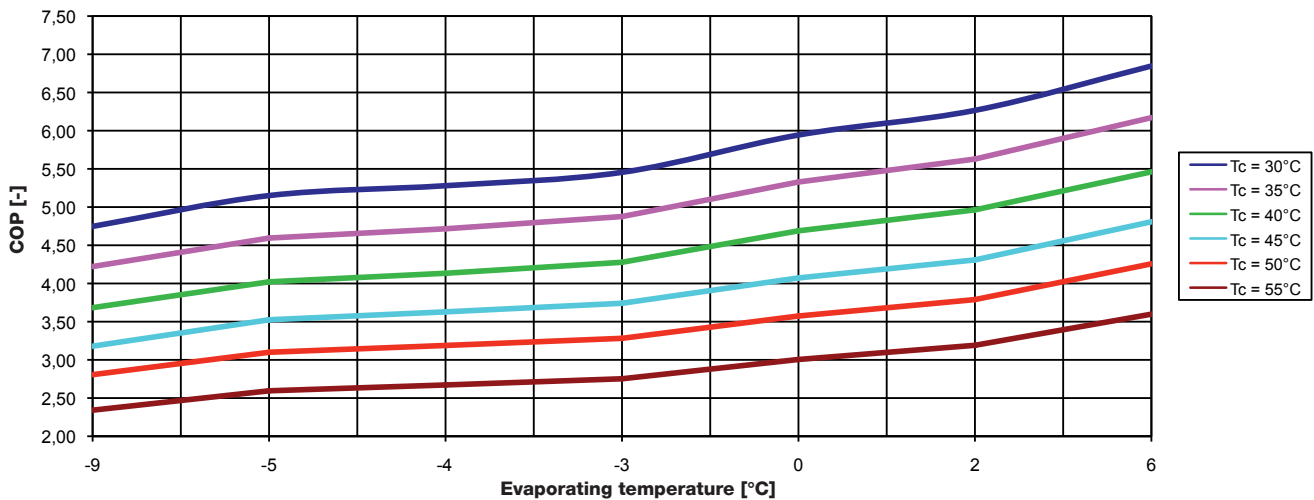
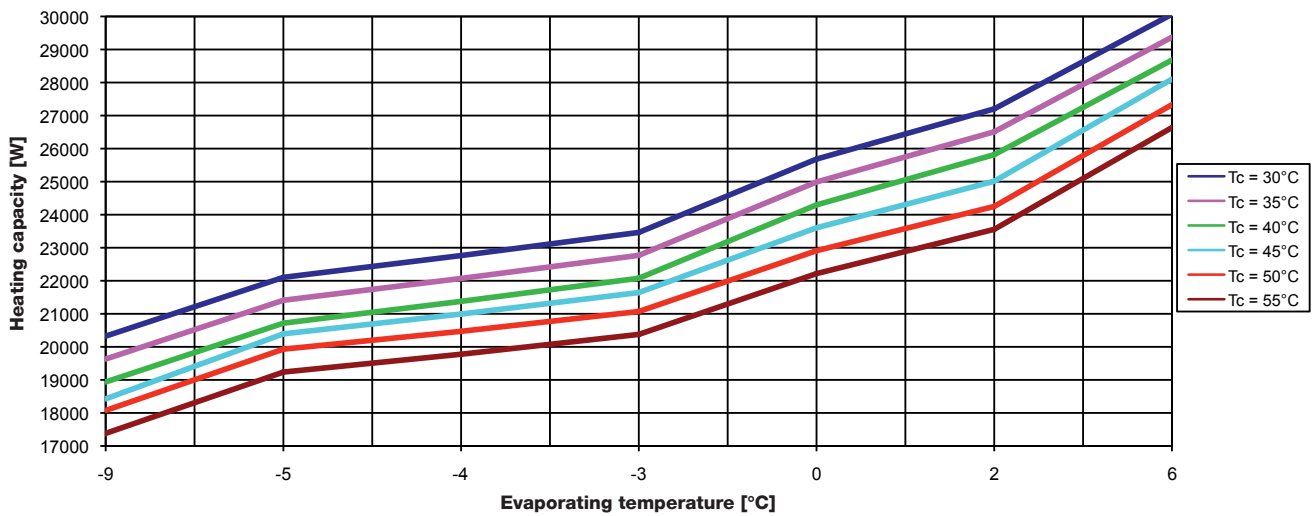
²⁾ Values given in counter-current flow in cooling mode.

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TECHNICAL DATA SHEET HP20E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP28E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series

Performance Data ¹⁾ Δ 10 K		
Surface collector	E4W35	E4W50
Heating capacity	34,37 kW	31,09 kW
Cooling capacity	28,22 kW	22,65 kW
Input	6,16 kW	8,44 kW
COP	5,58	3,68

Performance Data ¹⁾ EN15879-1 Δ 5 K		
Surface collector	E4W35	E4W50
Heating capacity	33,57 kW	30,55 kW
Cooling capacity	27,23 kW	21,85 kW
Input	6,34 kW	8,70 kW
COP	5,29	3,51

Compressor	
Type	Scroll
Speed RPM	2900 min ⁻¹
Max. input power	9,0 kW
Stall current	118 A
Oil amount	3,3 l

Surface Collector Evaporator / Energy Source	
Type	Tube evaporator
Material	Cu with PE coating
Amount at 10 mm x 70 m	22
Total length	1.540 m
Tested pressure	45 bar

Condenser / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount	5,8 m ³ /h
Pressure loss	1,9 mWs
Temperature difference	5 K
Content	4,5 l
Tested pressure	45 bar

Cooling Capacity (optional) ²⁾	
E15/W18	33,00 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	17,8 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 25 A
Max. compressor operating current	22 A
Starting current	118 A
Starting current with soft starter	78,6 A

Acoustic Pressure Level	
1 m distance	58 dB(A)

Connections, Dimensions		
Heating outlet and inlet	2"	ET
Pressure line / Suction line	16/35	mm
Height x Width x Depth	1.380x550x620	mm
Weight	185	kg

Operating Limit Values		
Max. operating water pressure	10	bar
Max. operating refrigerant pressure	40	bar
Max. heat outlet temperature	62	°C

¹⁾ Performance specifications

E = Ground temperature in °C

W = Heating water temperature in °C

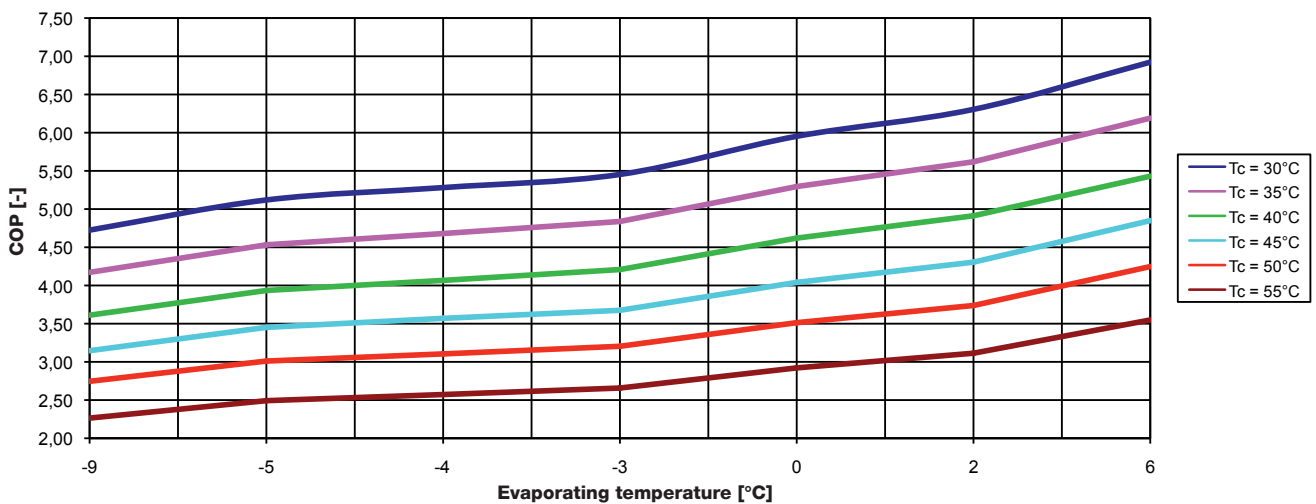
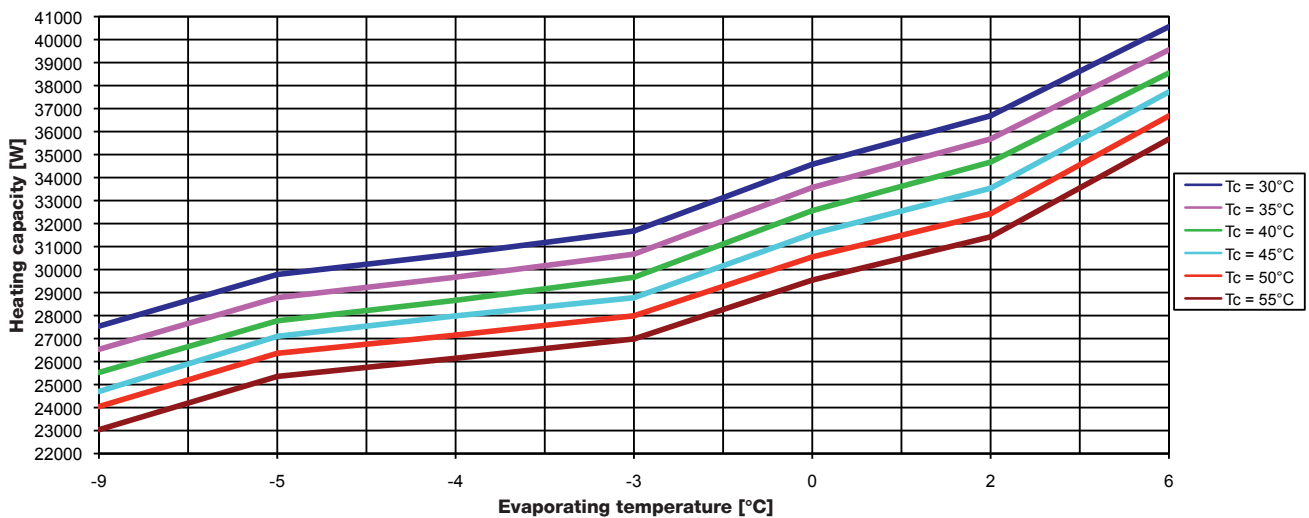
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TECHNICAL DATA SHEET HP28E-WEB

Ground Source Heat Pump with Surface Collector | WEB CONTROL Series



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All performance data is according to EN 14511.