HELIOTHERM
HEAT PUMPS

HELIOTHERM HEAT PUMPS

TECHNICAL DATA SHEETS

Air Source Heat Pumps - Split Design, Modulating &
Air Source Heat Pumps - Compact Design, Modulating
WEB CONTROL Series



TECHNICAL DATA SHEET HP08L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	8,67 kW	11,14 kW	14,91 kW	9,87 kW
Cooling capacity	6,16 kW	8,58 kW	12,33 kW	6,43 kW
Input	2,51 kW	2,56 kW	2,59 kW	3,44 kW
COP	3,46	4,36	5,77	2,87

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	8,97 kW	11,49 kW	15,34 kW	10,24 kW
Cooling capacity	6,28 kW	8,75 kW	12,58 kW	6,56 kW
Input	2,69 kW	2,74 kW	2,77 kW	3,68 kW
COP	3,34	4,20	5,55	2,78

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	4,5 kW
Oil amount	1,3 l

Outdoor Evaporator (optional) / Energy Source
See data sheet HPLMV08-12

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount[2]	1,0 - 2,9 m^3/h
Pressure loss	2,0 mWs
Temperature difference	4 K
Content	2,51 l
Tested pressure	45 bar

Cooling Capacity (optional)[3]	
A30/W18	14,60 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 16 A
Max. compressor operating current	13 A
Starting current	14 A
Starting current with soft starter	FU

Acoustic Pressure Level	
1 m distance	46 dB(A)

Connections, Dimensions	
Heating outlet and inlet	5/4“ ET
Pressure line / Suction line	12/22 mm
Height x Width x Depth	1.380x460x520 mm
Weight	156 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications

A = Outdoor (air) temperature in °C
W = Heating water temperature in °C

[2] Minimum flow must be observed!

[3] Values given in counter-current flow in cooling mode.
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

Defrost loss has been calculated.

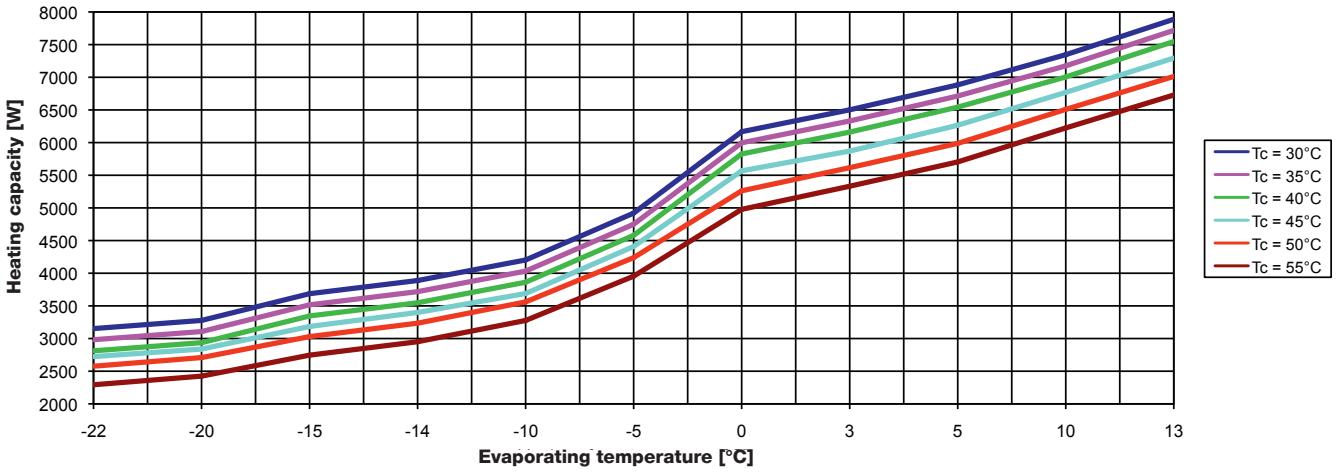
0,25 kW/person are to be calculated to the heating load for DHW preparation.

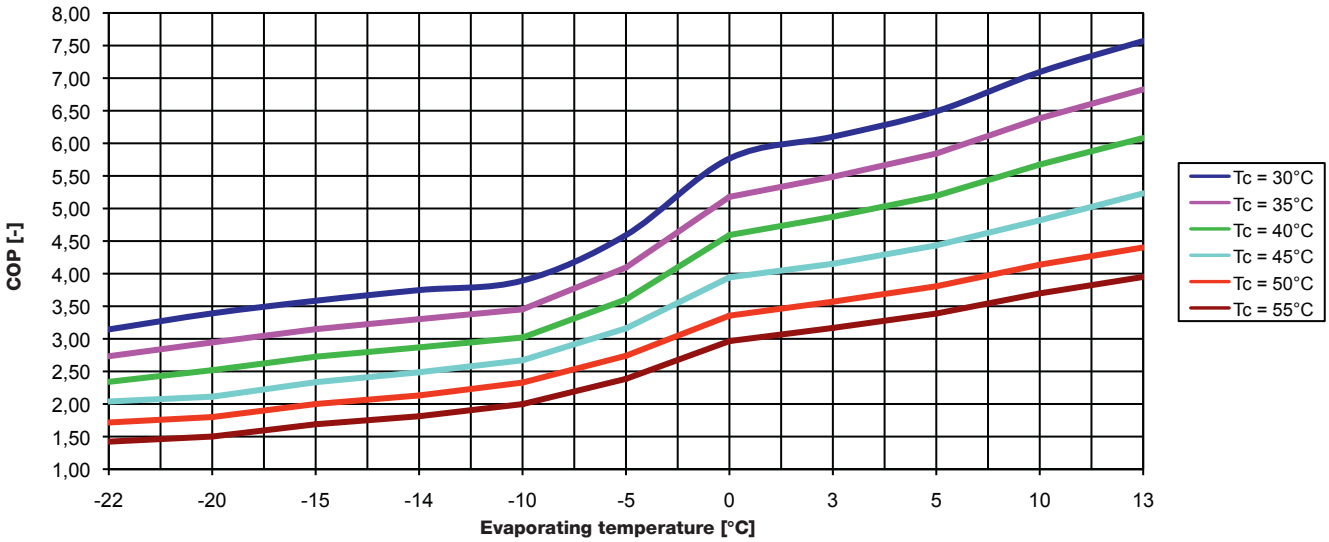
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP08L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



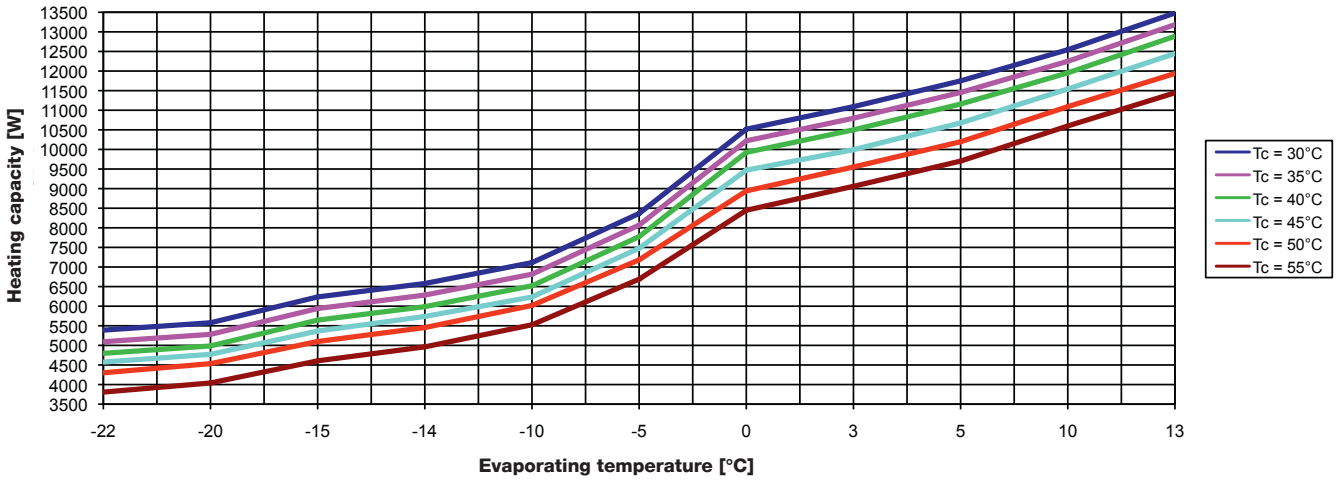


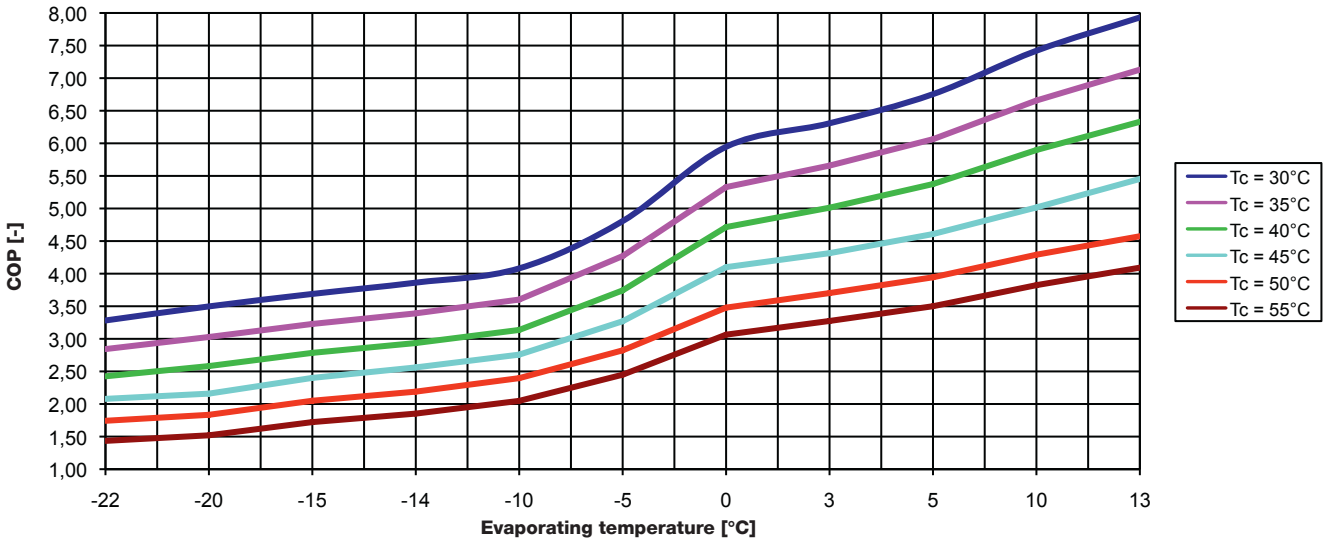
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP08L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



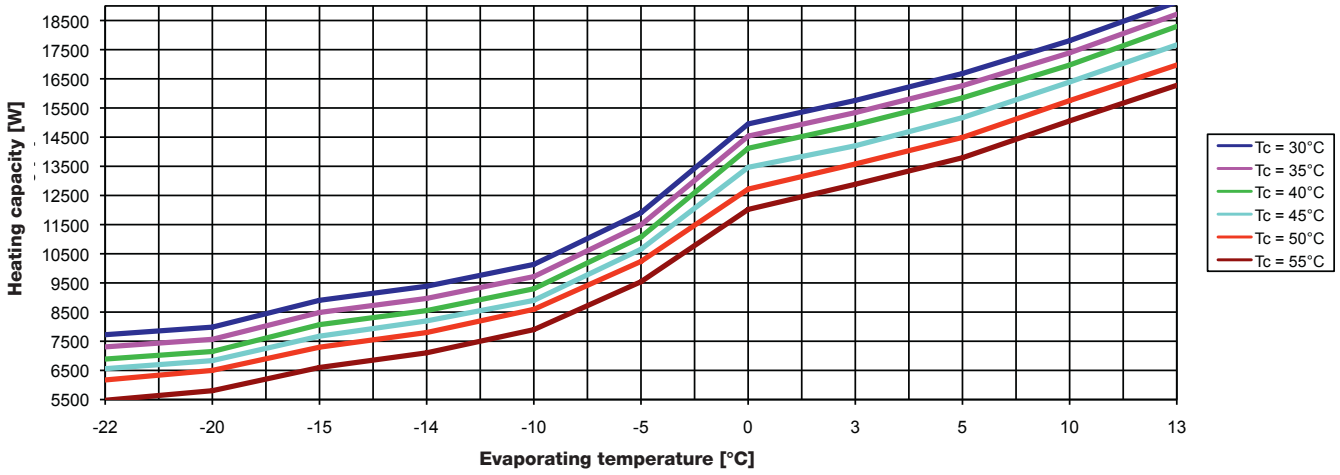


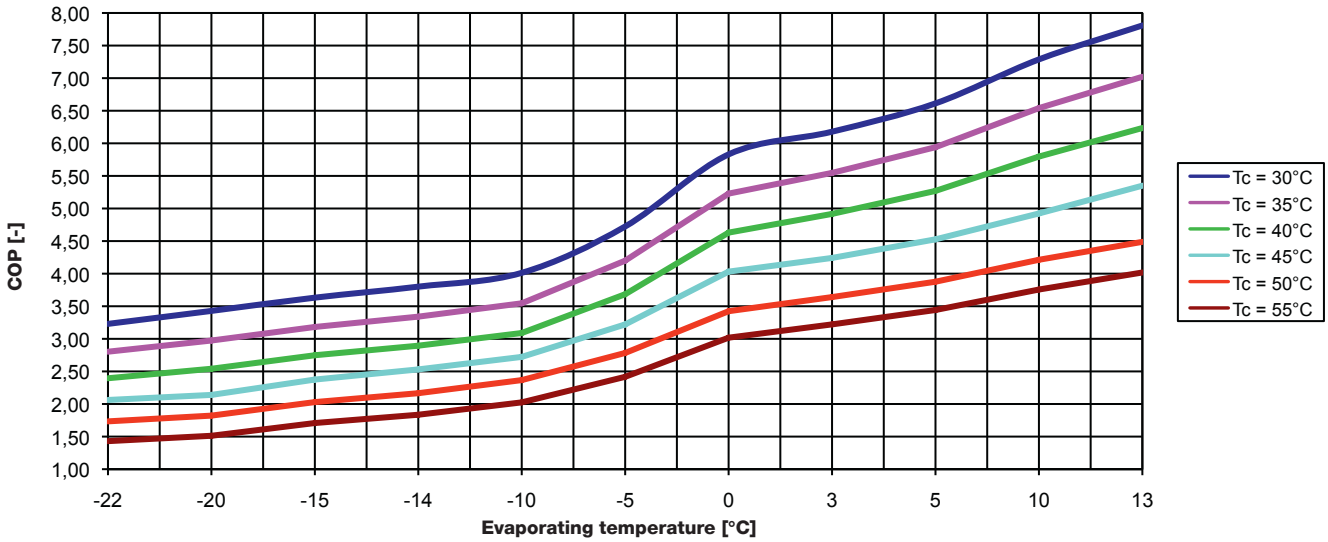
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP08L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

TECHNICAL DATA SHEET HP12L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	12,45 kW	16,05 kW	21,23 kW	13,91 kW
Cooling capacity	8,83 kW	12,35 kW	17,51 kW	9,05 kW
Input	3,62 kW	3,70 kW	3,72 kW	4,86 kW
COP	3,44	4,34	5,70	2,86

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	12,88 kW	16,55 kW	21,84 kW	14,43 kW
Cooling capacity	9,01 kW	12,59 kW	17,86 kW	9,23 kW
Input	3,88 kW	3,96 kW	3,98 kW	5,20 kW
COP	3,32	4,18	5,48	2,78

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	6,5 kW
Oil amount	1,7 l

Outdoor Evaporator (optional) / Energy Source
See data sheet HPLMV08-12

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount[2]	1,2 - 3,1 m^3/h
Pressure loss	2,1 mWs
Temperature difference	4 K
Content	2,5 l
Tested pressure	45 bar

Cooling Capacity (optional)[3]	
A30/W18	21,06 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	8,1 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	15 A
Starting current	19 A
Starting current with soft starter	FU

Acoustic Pressure Level	
1 m distance	46 dB(A)

Connections, Dimensions	
Heating outlet and inlet	5/4“ ET
Pressure line / Suction line	12/22 mm
Height x Width x Depth	1.380x460x520 mm
Weight	156 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications — A = Outdoor (air) temperature in °C, W = Heating water temperature in °C

[2] Minimum flow must be observed!

[3] Values given in counter-current flow in cooling mode.
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

Defrost loss has been calculated.

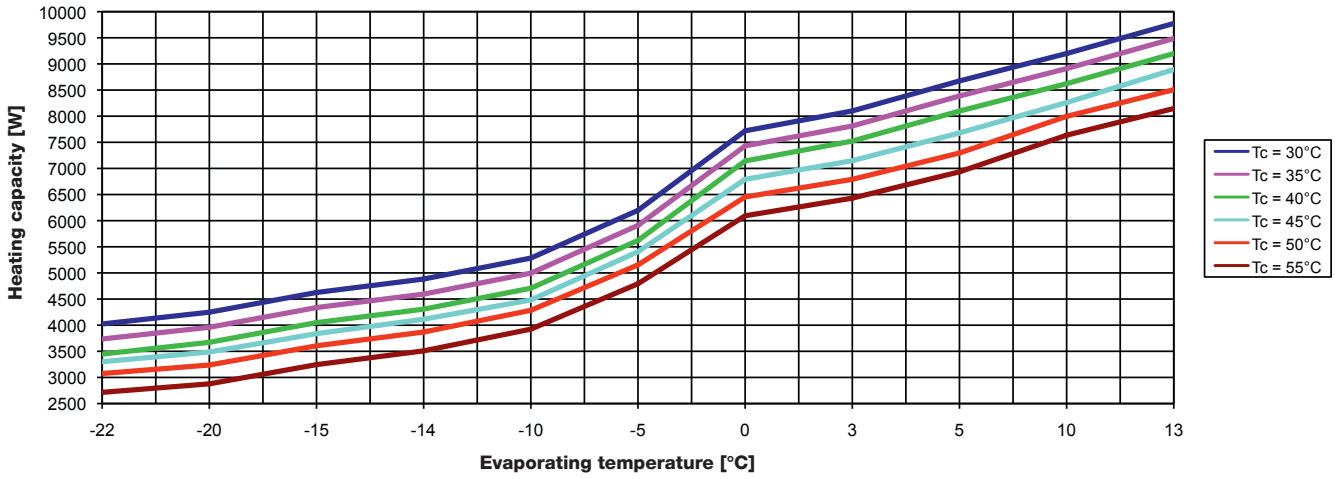
0,25 kW/person are to be calculated to the heating load for DHW preparation.

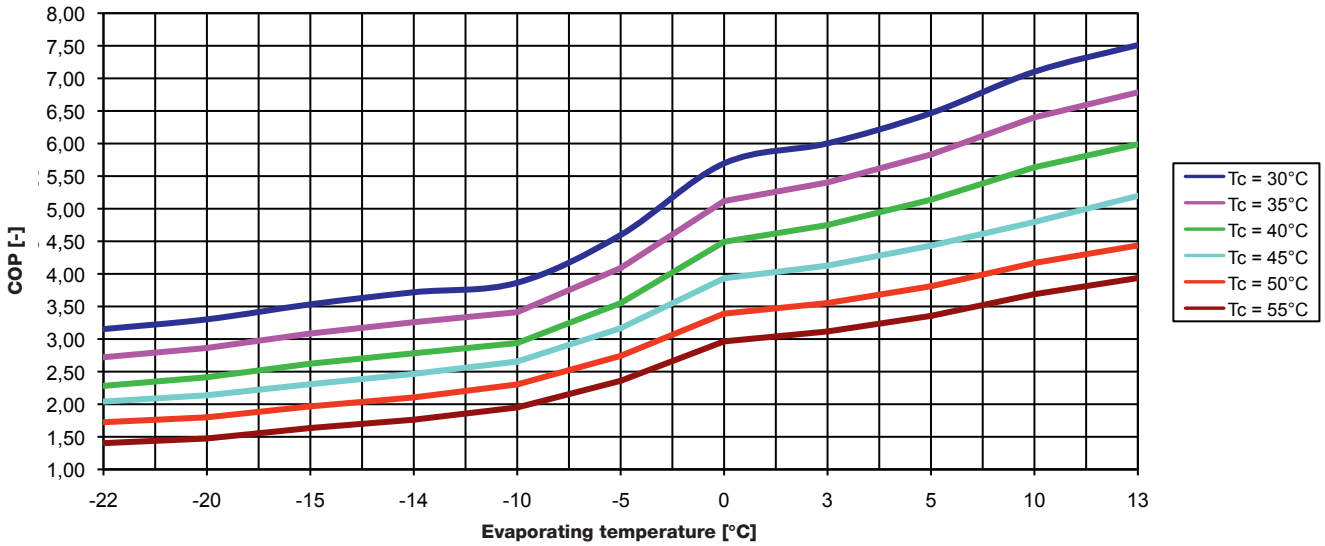
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP12L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



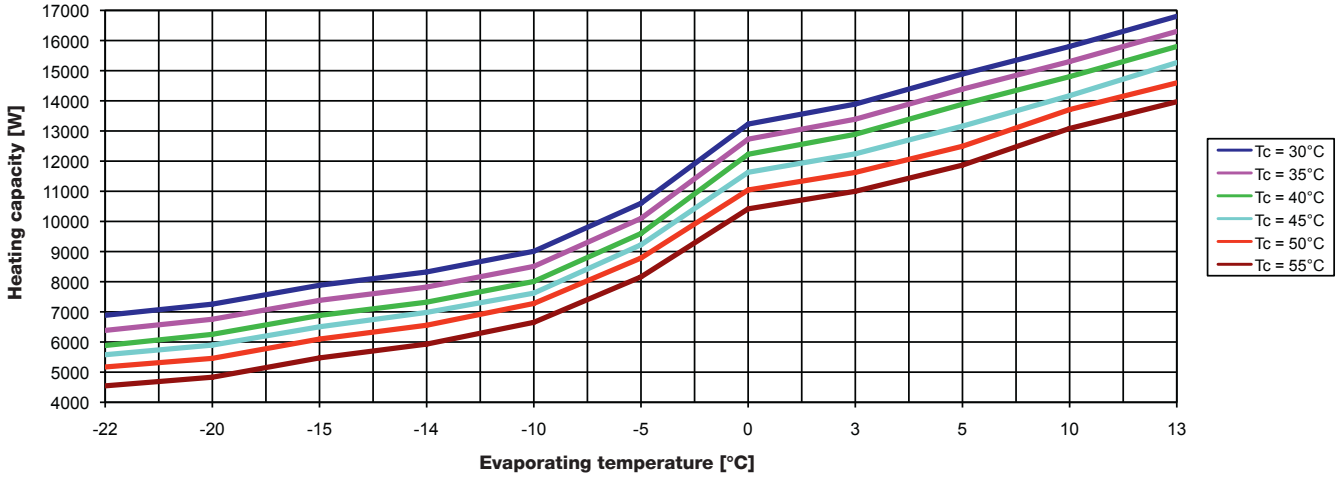


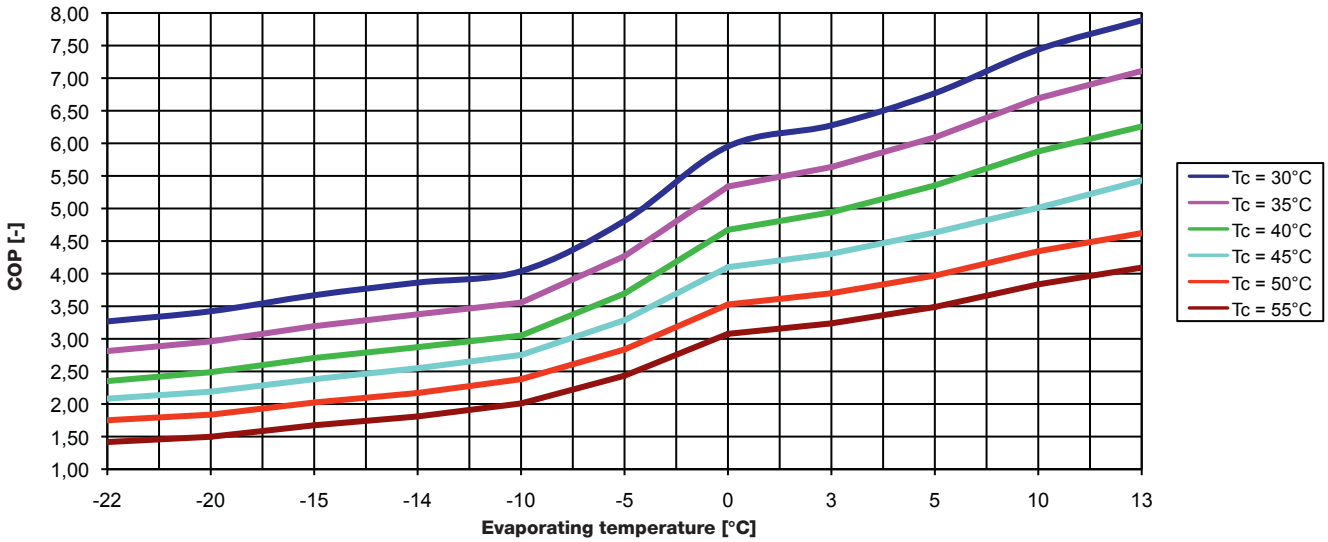
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP12L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



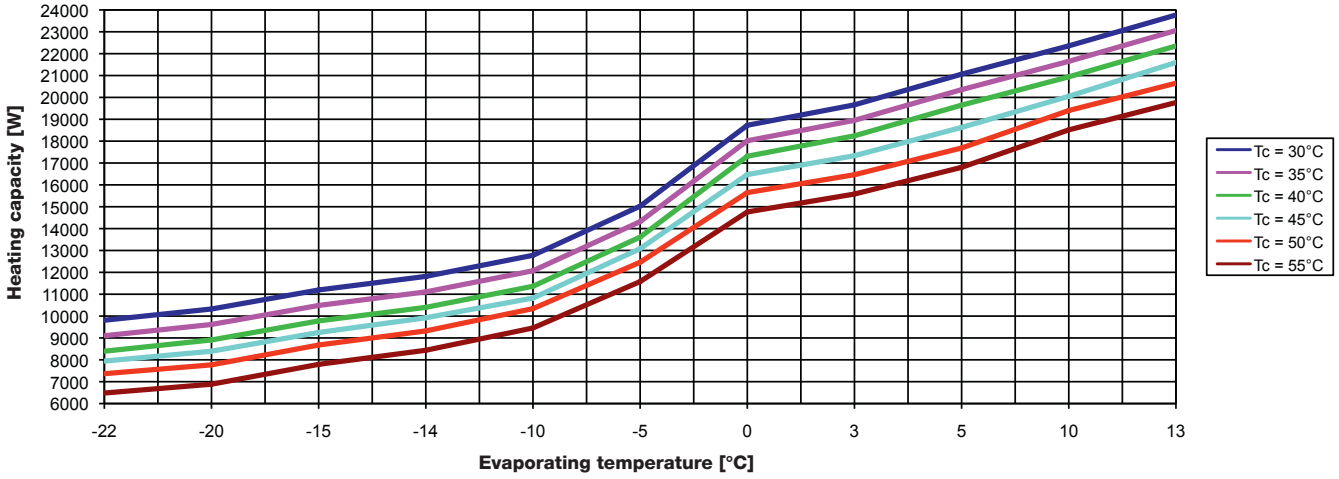


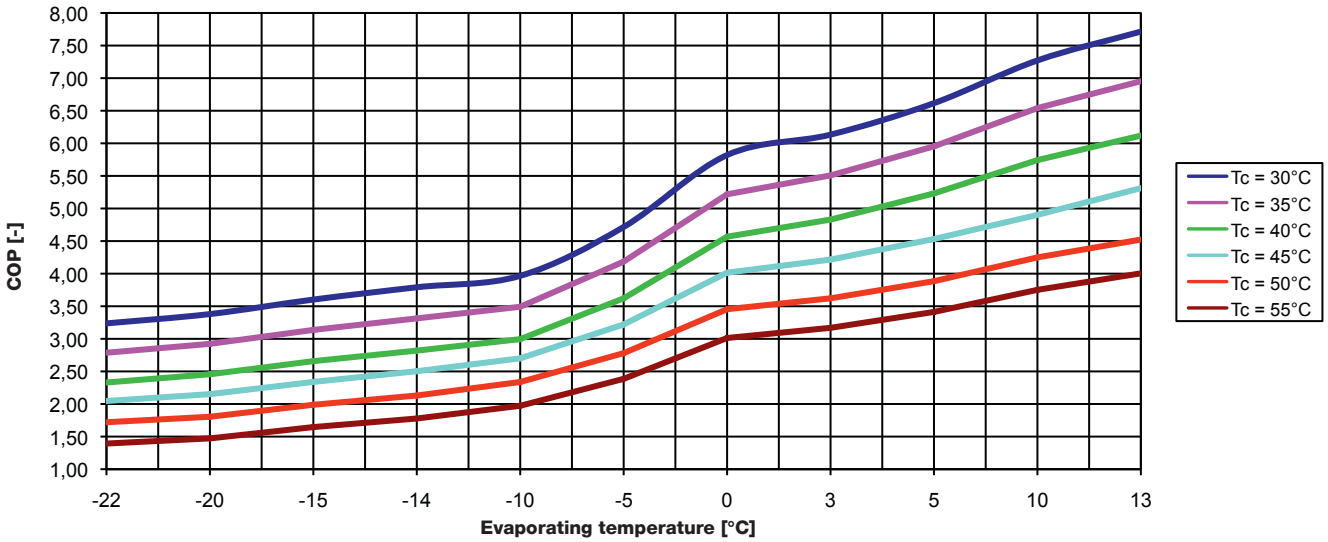
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP12L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

TECHNICAL DATA SHEET HP20L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	16,16 kW	20,29 kW	26,34 kW	17,54 kW
Cooling capacity	11,38 kW	15,54 kW	21,67 kW	11,32 kW
Input	4,78 kW	4,75 kW	4,67 kW	6,22 kW
COP	3,38	4,27	5,64	2,82

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	16,72 kW	20,93 kW	27,10 kW	18,20 kW
Cooling capacity	11,61 kW	15,85 kW	22,10 kW	11,54 kW
Input	5,11 kW	5,08 kW	5,00 kW	6,66 kW
COP	3,27	4,12	5,42	2,73

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	8,5 kW
Oil amount	2,3 l

Outdoor Evaporator (optional) / Energy Source
See data sheet HPLMV20

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount[2]	1,8 - 4,1 m^3/h
Pressure loss	2,1 mWs
Temperature difference	4 K
Content	2,5 l
Tested pressure	45 bar

Cooling Capacity (optional)[3]	
A30/W18	26,52 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	9,3 kg

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

Acoustic Pressure Level	
1 m distance	48 dB(A)

Connections, Dimensions	
Heating outlet and inlet	5/4“ ET
Pressure line / Suction line	16/28 mm
Height x Width x Depth	1.380x460x520 mm
Weight	156 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications — A = Outdoor (air) temperature in °C, W = Heating water temperature in °C

[2] Minimum flow must be observed!

[3] Values given in counter-current flow in cooling mode.
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

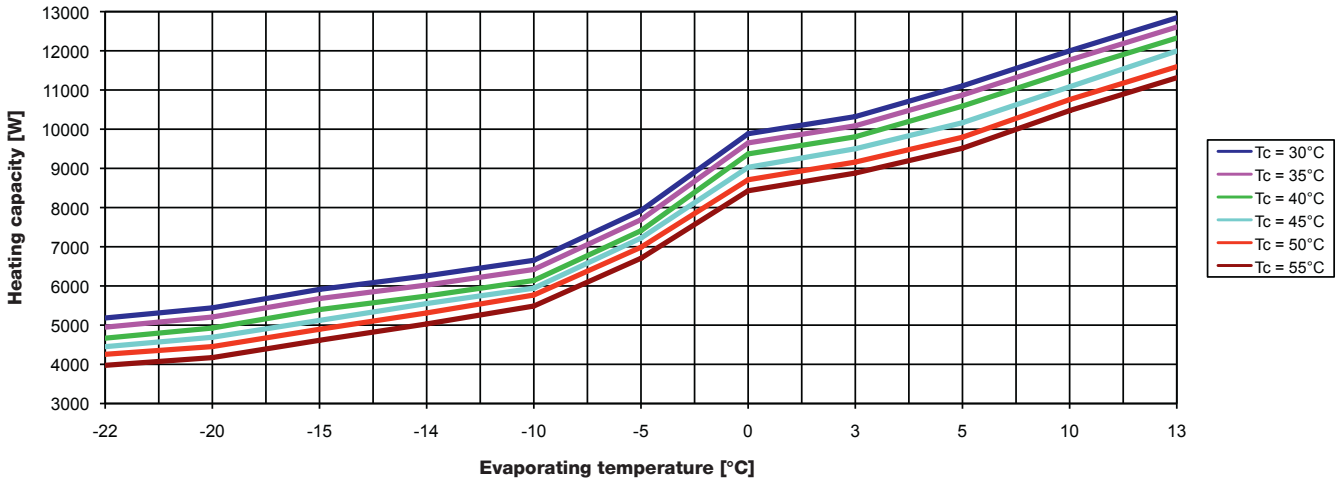
Defrost loss has been calculated.

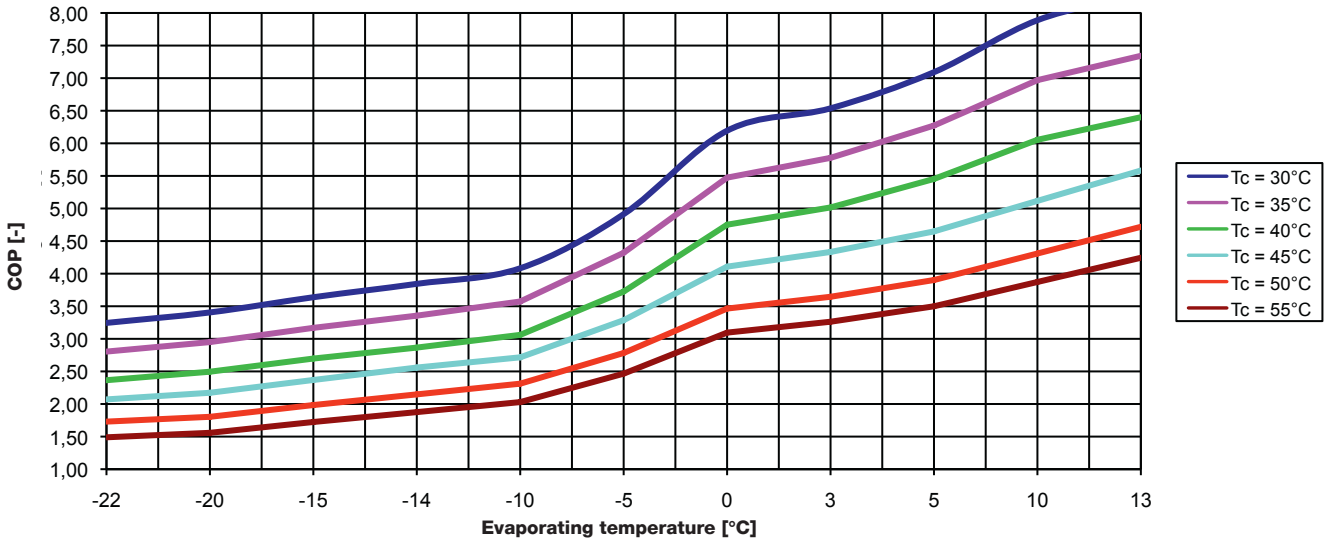
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP20L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



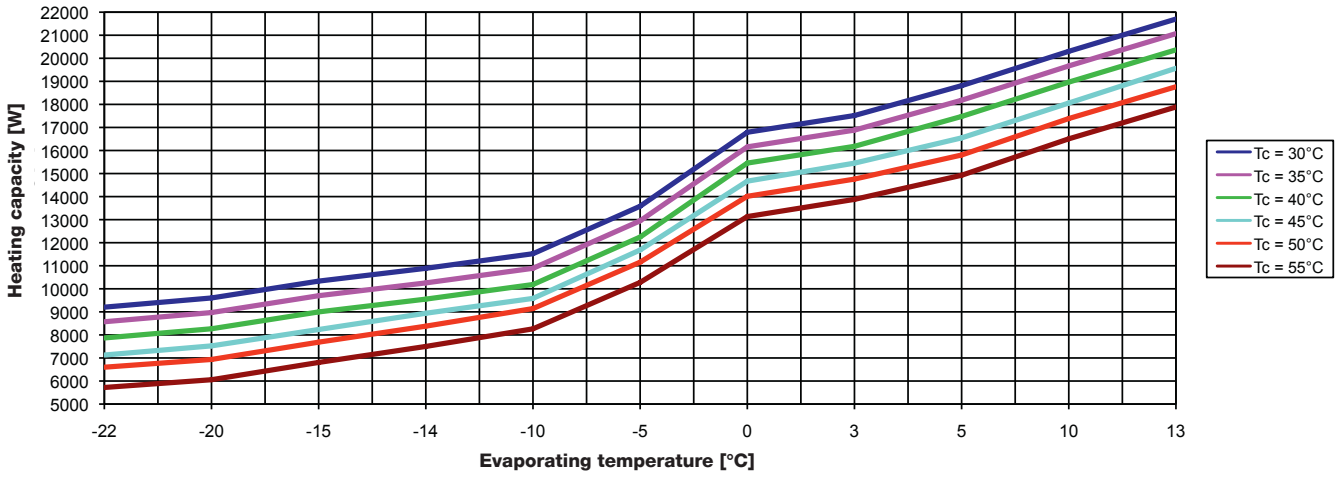


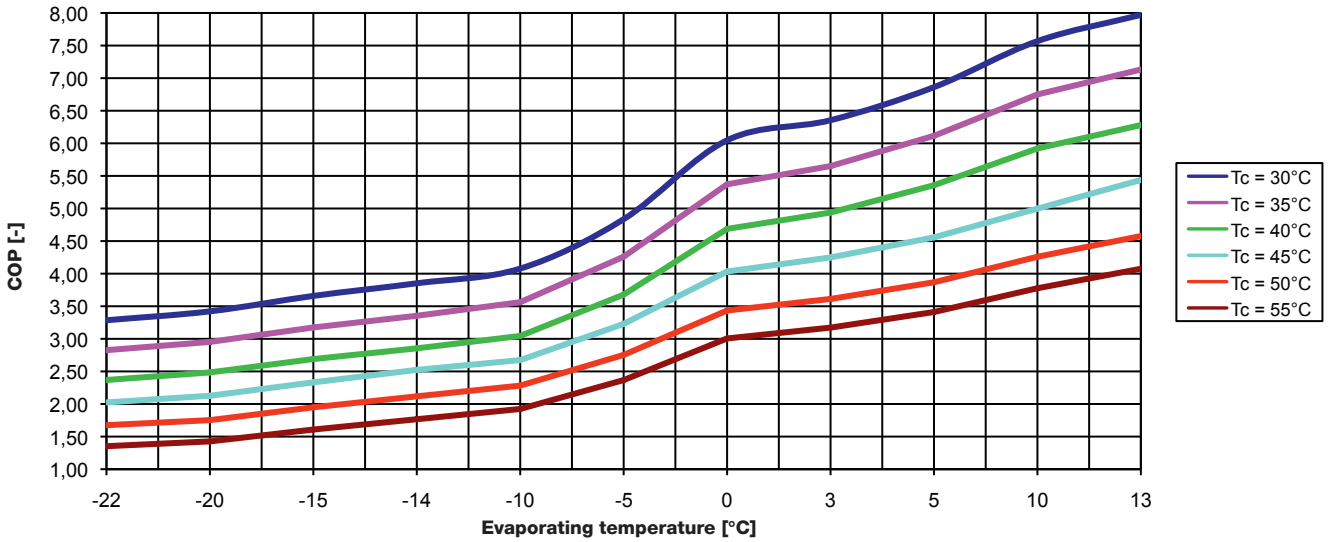
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP20L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



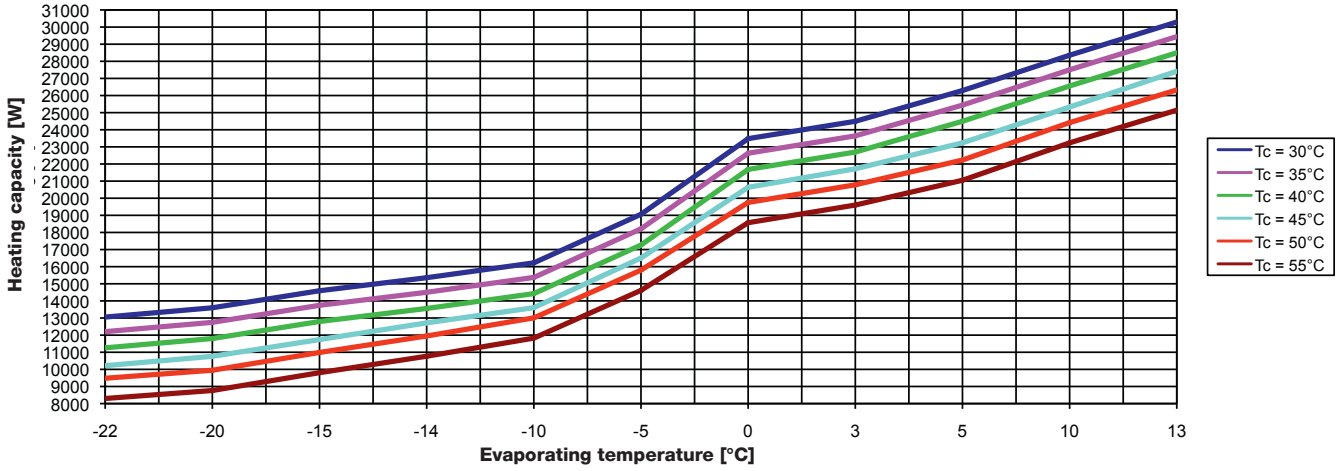


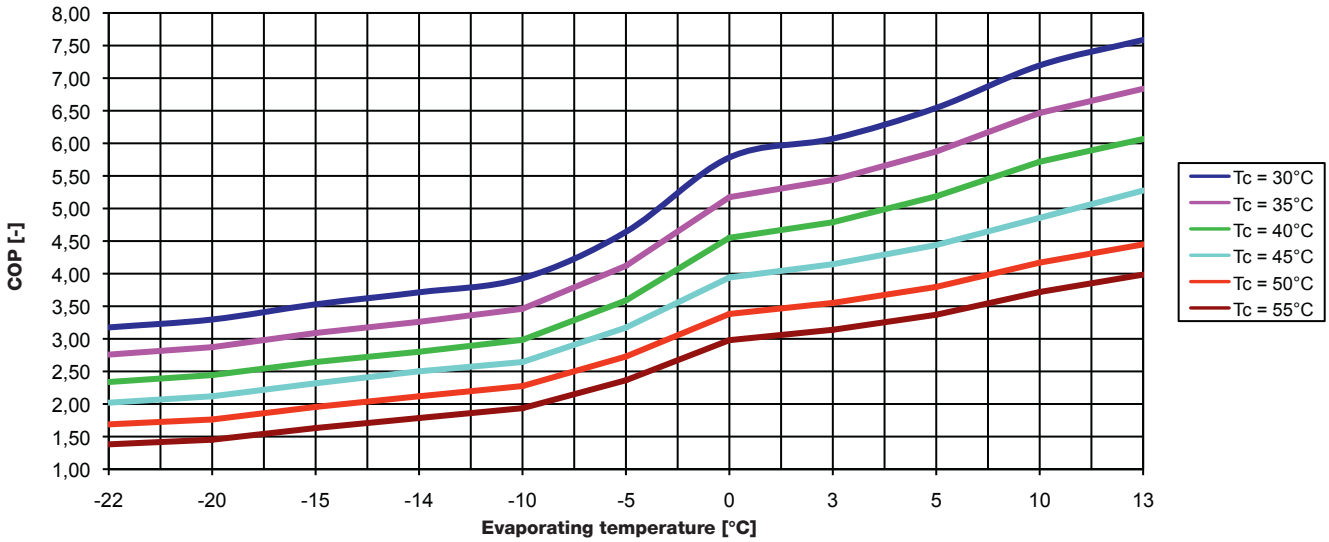
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP20L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

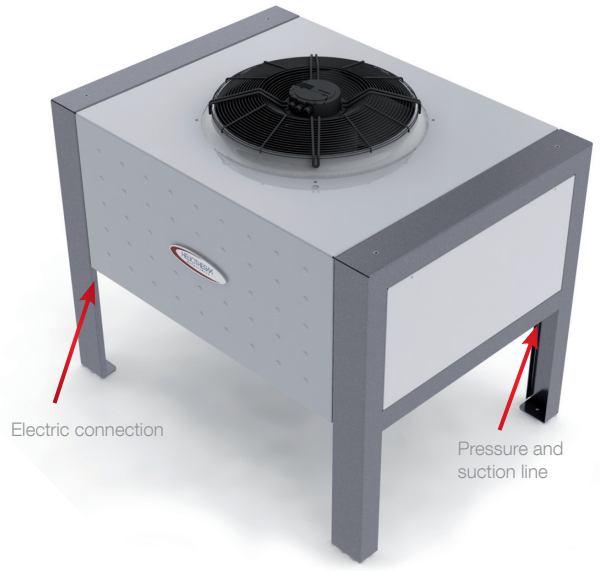
TECHNICAL DATA SHEET HPLMV08/12-BC

Outdoor Evaporator Air Source Heat Pump - Split Design | WEB CONTROL SERIES, BASIC COMFORT Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1
Area	90 m²
Air quantity	2.500 - 4.900 m³/h
Max. ext. static pressure loss	15 Pa
Fan	ECM-Sichel
Range of use	-15 °C/+30 °C
Tested pressure	30 bar
Capacity	80 - 240 W
Nitrogen pressure	10 bar

Weight	
HPLMV08/12-BC	133 kg

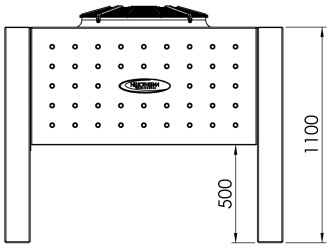
Acoustic Pressure Level DIN 18005		
Distance	Speed RPM 25 %	Speed RPM 45 %
1 m distance	35 dB(A)	56 dB(A)
5 m distance	32 dB(A)	47 dB(A)
10 m distance	28 dB(A)	40 dB(A)

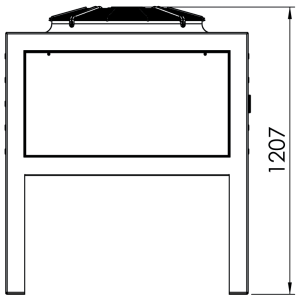


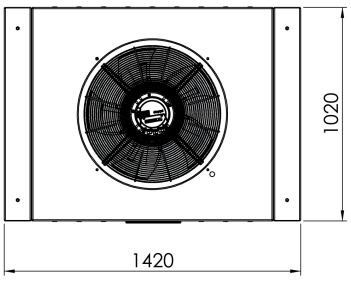
Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	27 bar

Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	0,50 A
Motor type	ECM
Fuse	Thermal relays

Connections, Dimensions	
Pressure line / Suction line	14/35 mm







TECHNICAL DATA SHEET HPLMV08/12-W

Outdoor Evaporator Wall Mounted Unit, Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1
Area	80 m^2
Air quantity	2500-4900 m^3/h
Max. ext. static pressure loss	15 Pa
Fan	ECM Sichel
Range of use	-15 °C/+30 °C
Tested pressure	30 bar
Capacity	80-240 W
Nitrogen pressure	10 bar

Weight	
HPLMV08-12-W	92 kg

Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	27 bar

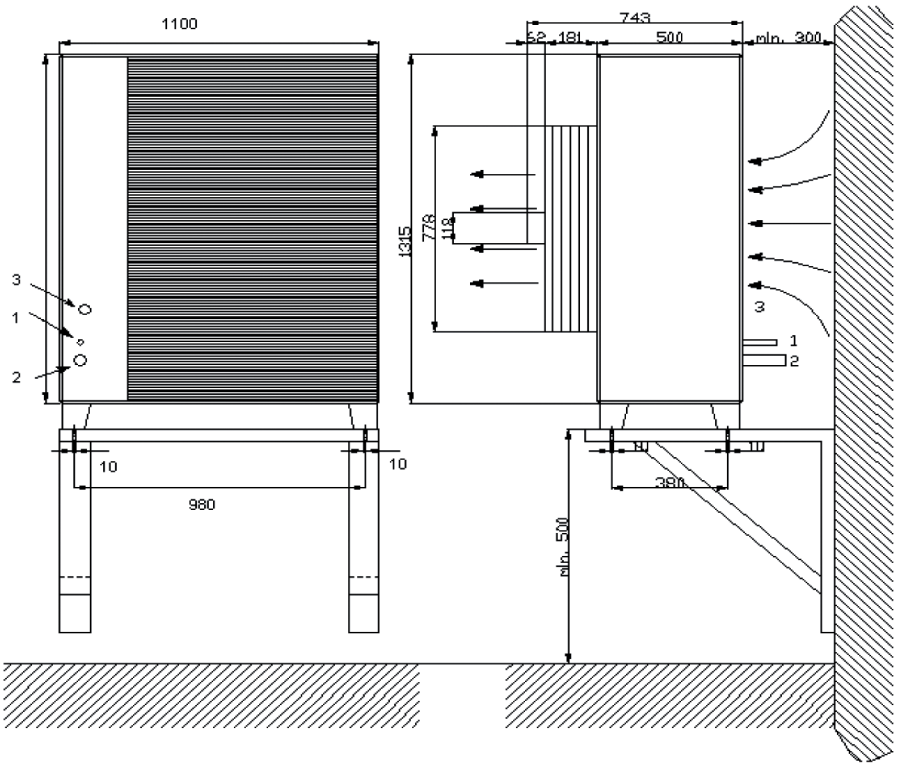
Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	0,5 A
Motor type	ECM
Fuse	Thermal relays

Acoustic Pressure Level DIN 18005		
Distance	Speed RPM 25 %	Speed RPM 45 %
1 m distance	35 dB(A)	56 dB(A)
5 m distance	32 dB(A)	47 dB(A)
10 m distance	28 dB(A)	40 dB(A)

Connections, Dimensions	
Pressure line / Suction line	12/28 mm

Dimensions (in mm)

1 Pressure gas line
2 Suction line
3 Electrical connections



TECHNICAL DATA SHEET HPLMV20-W

Outdoor Evaporator Wall Mounted Unit, Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1
Area	100 m^2
Air quantity	2500-6000 m^3/h
Max. ext. static pressure loss	15 Pa
Fan	ECM Sichel
Range of use	-15 °C/+30 °C
Tested pressure	30 bar
Capacity	80-240 W
Nitrogen pressure	10 bar

Weight	
HPLMV20-W	100 kg

Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	27 bar

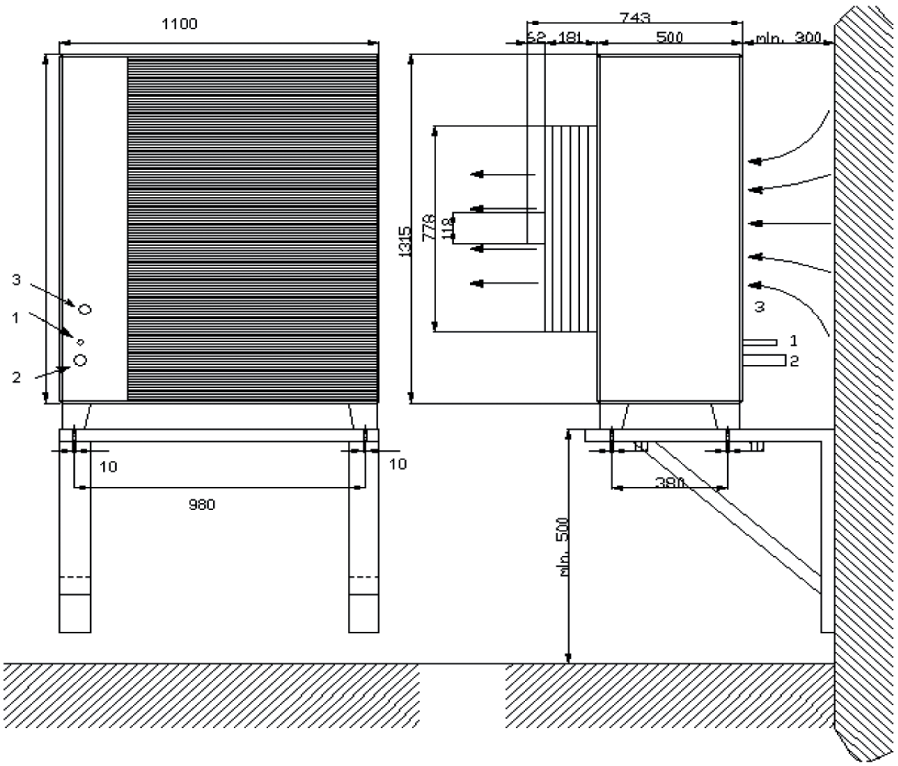
Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	0,5 A
Motor type	ECM
Fuse	Thermal relays

Acoustic Pressure Level DIN 18005		
Distance	Speed RPM 25 %	Speed RPM 45 %
1 m distance	35 dB(A)	56 dB(A)
5 m distance	32 dB(A)	47 dB(A)
10 m distance	28 dB(A)	40 dB(A)

Connections, Dimensions	
Pressure line / Suction line	12/28 mm

Dimensions (in mm)

1 Pressure gas line
2 Suction line
3 Electrical connections



TECHNICAL DATA SHEET HPLMV08/12-F

Outdoor Evaporator Standing Unit, Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1
Area	80 m^2
Air quantity	2500-4900 m^3/h
Max. ext. static pressure loss	15 Pa
Fan	ECM Sichel
Range of use	-15 °C/+30 °C
Tested pressure	30 bar
Capacity	80-240 W
Nitrogen pressure	10 bar

Weight	
HPLMV08-12-F	150 kg

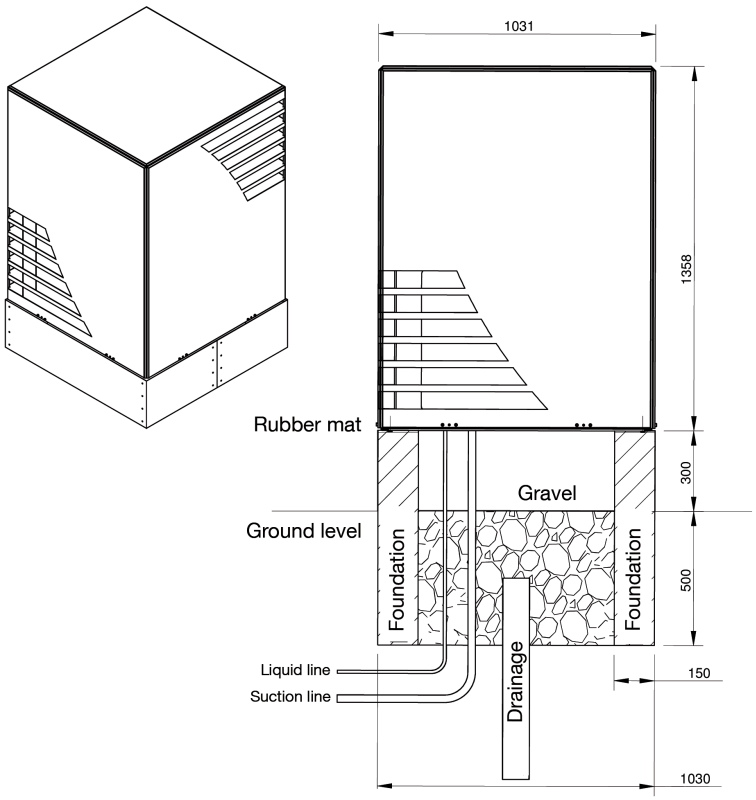
Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	27 bar

Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	0,5 A
Motor type	ECM
Fuse	Thermal relays

Acoustic Pressure Level DIN 18005		
Distance	Speed RPM 25 %	Speed RPM 45 %
1 m distance	35 dB(A)	56 dB(A)
5 m distance	32 dB(A)	47 dB(A)
10 m distance	28 dB(A)	40 dB(A)

Connections, Dimensions	
Pressure line / Suction line	12/28 mm

Dimensions (in mm)
L / D / H = 1031 / 1031 / 1358
Hole spacing = 940 / 940



TECHNICAL DATA SHEET HPLMV20-F

Outdoor Evaporator Standing Unit, Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1
Area	100 m^2
Air quantity	2500-6000 m^3/h
Max. ext. static pressure loss	15 Pa
Fan	ECM Sichel
Range of use	-15 °C/+30 °C
Tested pressure	30 bar
Capacity	80-240 W
Nitrogen pressure	10 bar

Weight	
HPLMV20-F	160 kg

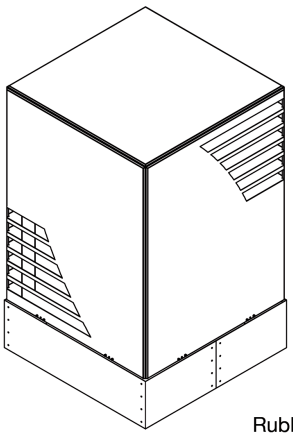
Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	27 bar

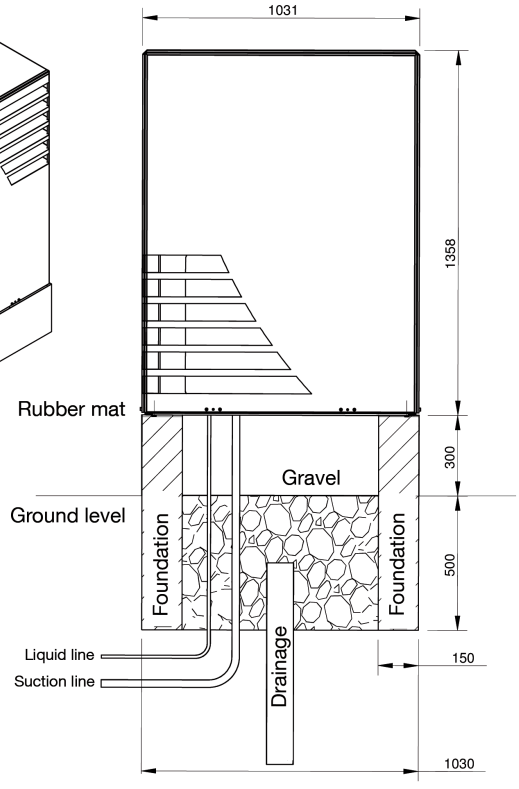
Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	0,5 A
Motor type	ECM
Fuse	Thermal relays

Acoustic Pressure Level DIN 18005		
Distance	Speed RPM 25 %	Speed RPM 45 %
1 m distance	35 dB(A)	56 dB(A)
5 m distance	32 dB(A)	47 dB(A)
10 m distance	28 dB(A)	40 dB(A)

Connections, Dimensions	
Pressure line / Suction line	12/28 mm

Dimensions (in mm)
L / D / H = 1031 / 1031 / 1358
Hole spacing = 940 / 940





TECHNICAL DATA SHEET HP25L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	18,95 kW	24,44 kW	32,15 kW	21,78 kW
Cooling capacity	13,30 kW	18,67 kW	26,35 kW	14,04 kW
Input	5,64 kW	5,78 kW	5,81 kW	7,74 kW
COP	3,36	4,23	5,54	2,81

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	19,61 kW	25,22 kW	33,09 kW	22,60 kW
Cooling capacity	13,57 kW	19,04 kW	26,87 kW	14,32 kW
Input	6,04 kW	6,18 kW	6,21 kW	8,28 kW
COP	3,25	4,08	5,33	2,73

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	12,0 kW
Oil amount	2,8 l

Outdoor Evaporator (optional) / Energy Source
See data sheet HPLMV25-30F

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount[2]	2,0-4,5 m^3/h
Pressure loss	2,6 mWs
Temperature difference	5 K
Content	6,5 dm^3
Tested pressure	45 bar

Cooling Capacity (optional)[3]	
A30/W18	31,74 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	10,0 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 25 A
Max. compressor operating current	27 A
Starting current	29 A
Starting current with soft starter	FU

Acoustic Pressure Level	
1 m distance	57 dB(A)

Connections, Dimensions	
Heating outlet and inlet	6/4“ ET
Pressure line / Suction line	16/28 mm
Height x Width x Depth	1.625x604x674 mm
Weight	210 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications — A = Outdoor (air) temperature in °C, W = Heating water temperature in °C

[2] Minimum flow must be observed!

[3] Values given in counter-current flow in cooling mode. Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

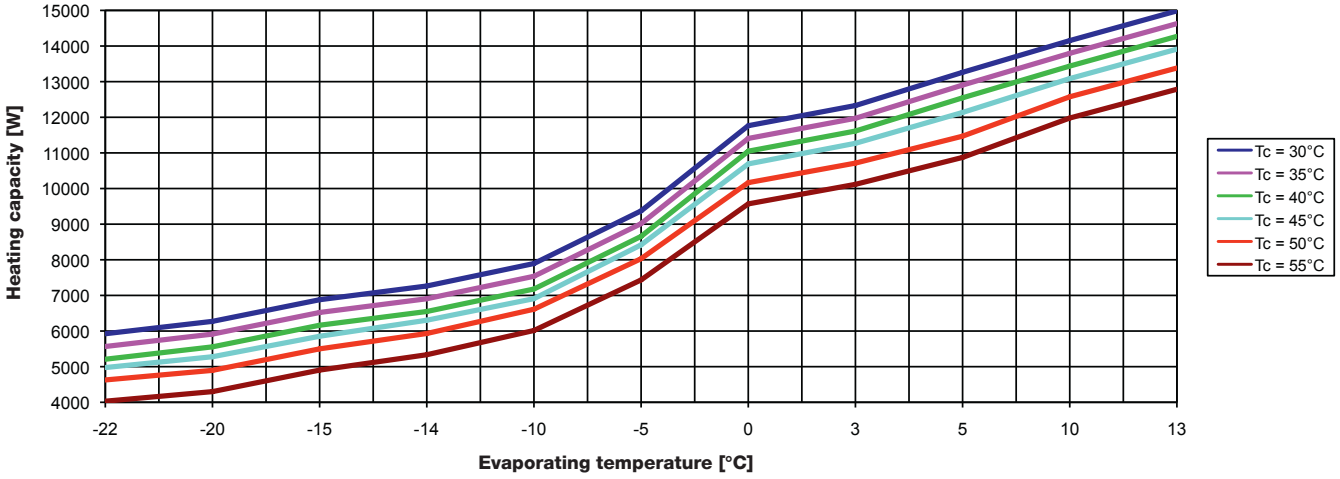
Defrost loss has been calculated.

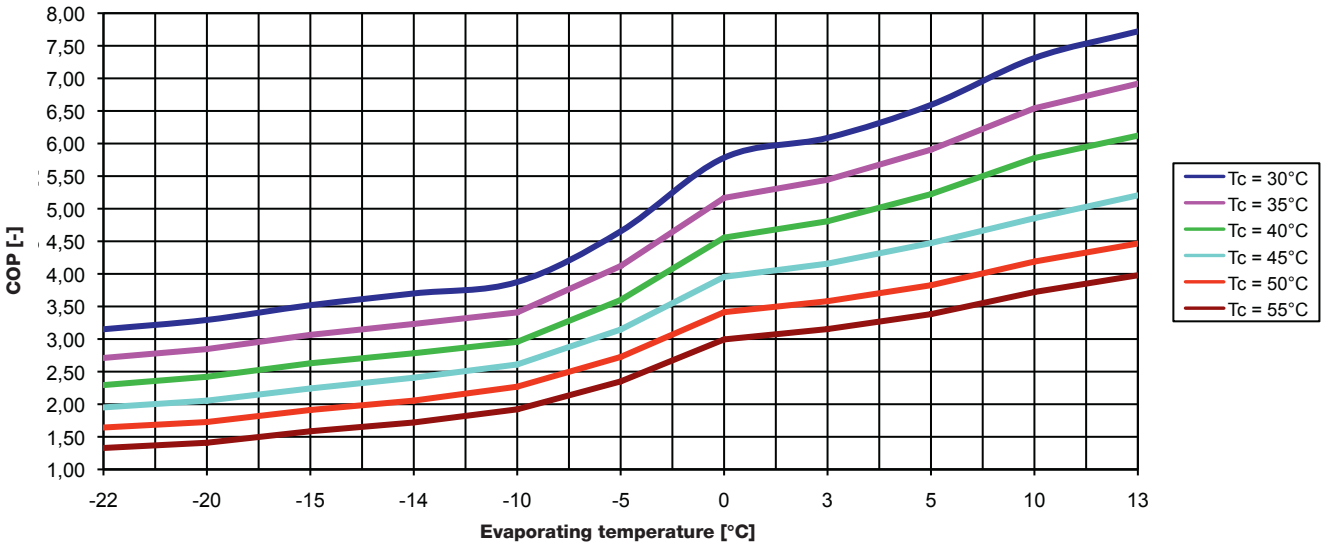
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP25L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



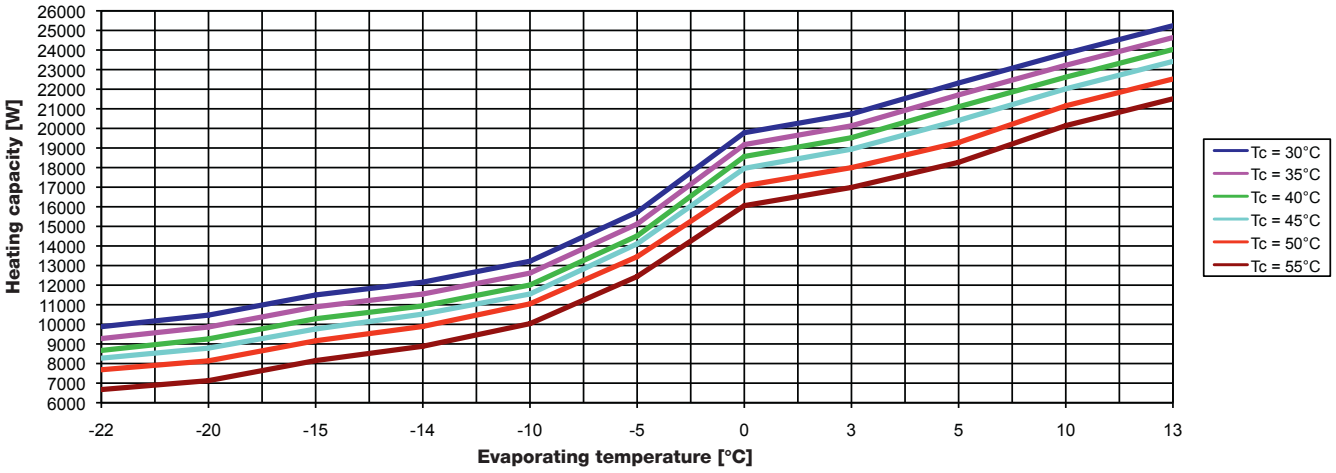


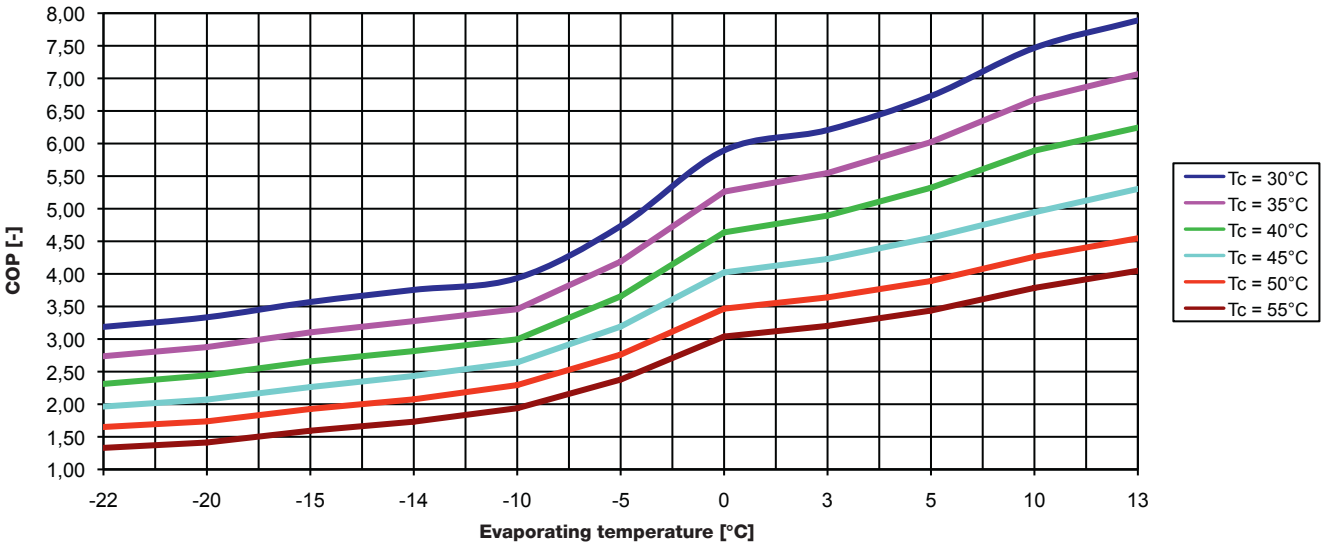
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP25L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



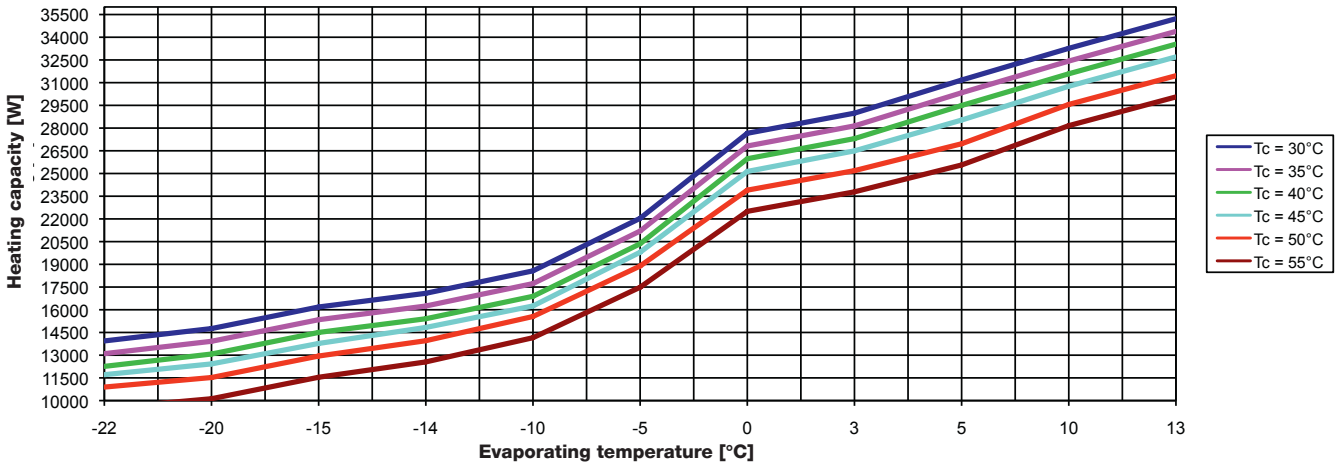


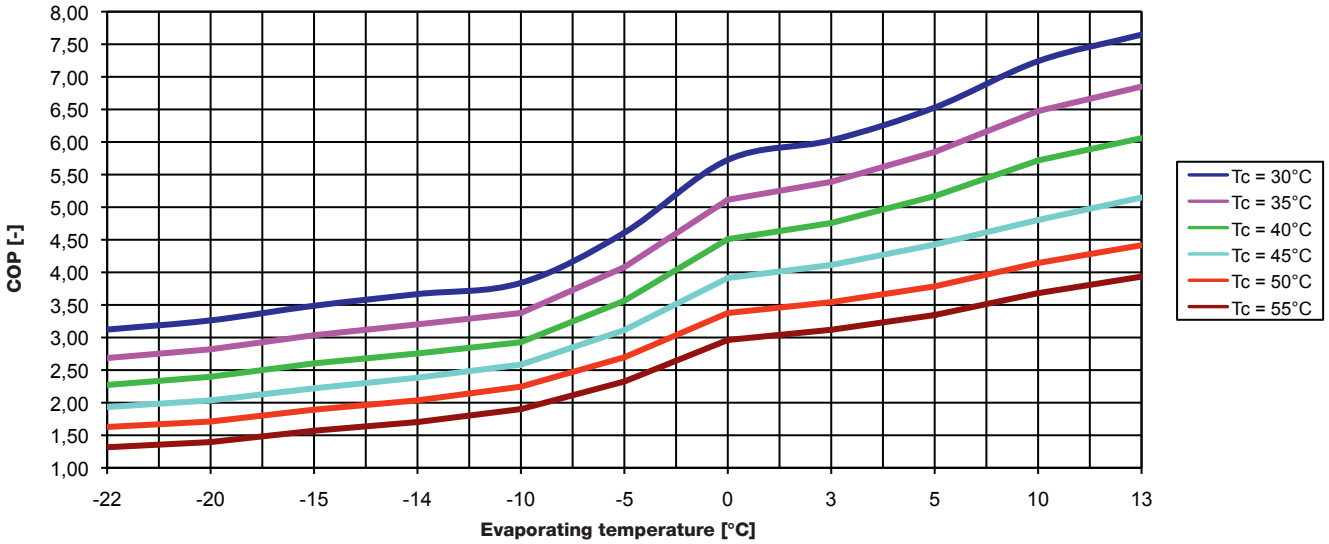
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP25L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

TECHNICAL DATA SHEET HP30L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	24,81 kW	31,84 kW	42,03 kW	28,47 kW
Cooling capacity	17,50 kW	24,27 kW	34,46 kW	18,41 kW
Input	7,31 kW	7,56 kW	7,57 kW	10,07 kW
COP	3,40	4,21	5,55	2,83

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	25,67 kW	32,85 kW	43,25 kW	29,54 kW
Cooling capacity	17,85 kW	24,76 kW	35,15 kW	18,77 kW
Input	7,82 kW	8,09 kW	8,10 kW	10,77 kW
COP	3,28	4,06	5,34	2,74

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	12,0 kW
Oil amount	2,8 l

Outdoor Evaporator (optional) / Energy Source
See data sheet HPLMV25-30F

Condenser & Subcooler / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu soldered
Flow amount[3]	2,2-4,7 m^3/h
Pressure loss	2,8 mWs
Temperature difference	5 K
Content	6,5 dm^3
Tested pressure	45 bar

Cooling Capacity (optional)[3]	
A30/W18	39,71 kW

Refrigerant Cycle	
Working fluid	R410a
Fill amount with 10 m split line	12,0 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 32 A
Max. compressor operating current	30 A
Starting current	32 A
Starting current with soft starter	FU

Acoustic Pressure Level	
1 m distance	57 dB(A)

Connections, Dimensions	
Heating outlet and inlet	6/4“ ET
Pressure line / Suction line	16/28 mm
Height x Width x Depth	1.625x604x674 mm
Weight	210 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications — A = Outdoor (air) temperature in °C, W = Heating water temperature in °C

[2] Minimum flow must be observed!

[3] Values given in counter-current flow in cooling mode.
Values in (DC) direct current flow minimizes cooling capacity by about 50 %.

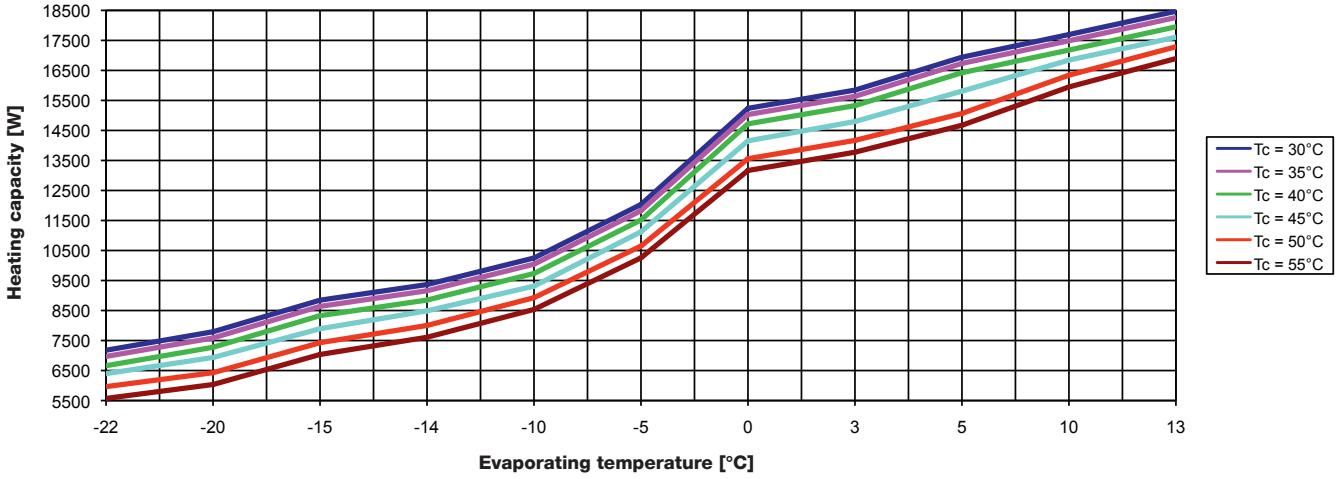
Defrost loss has been calculated.

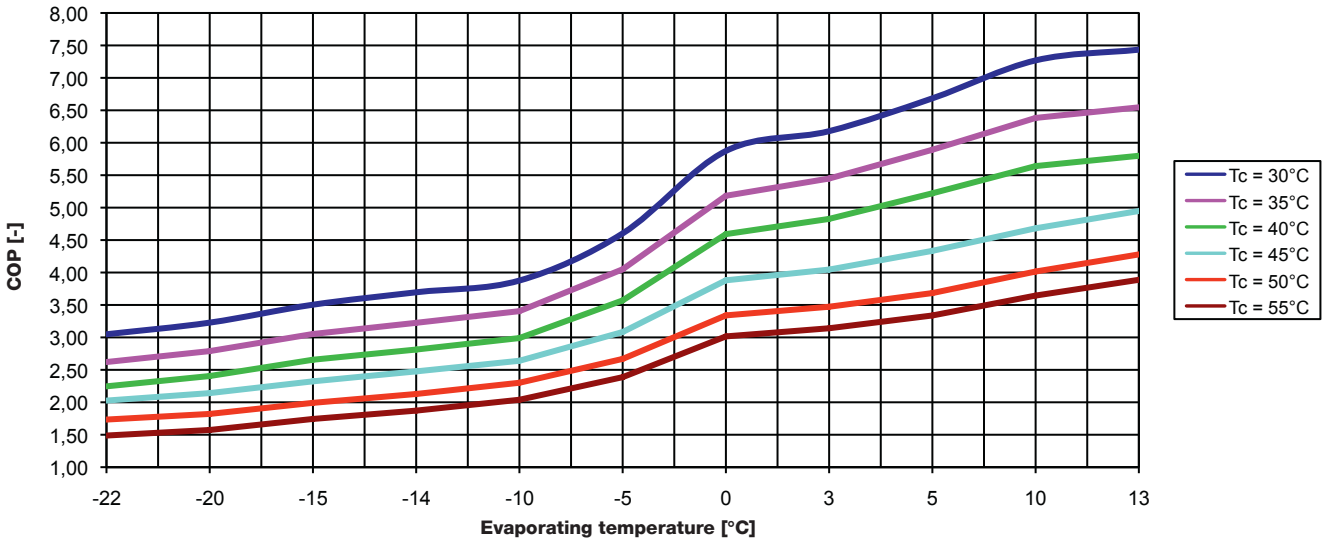
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP30L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



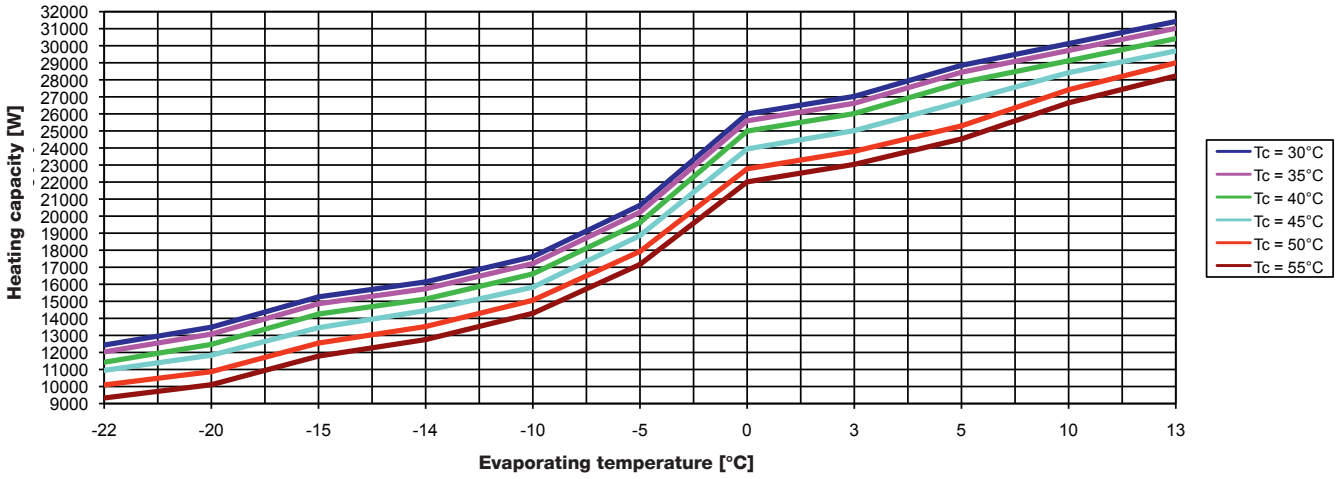


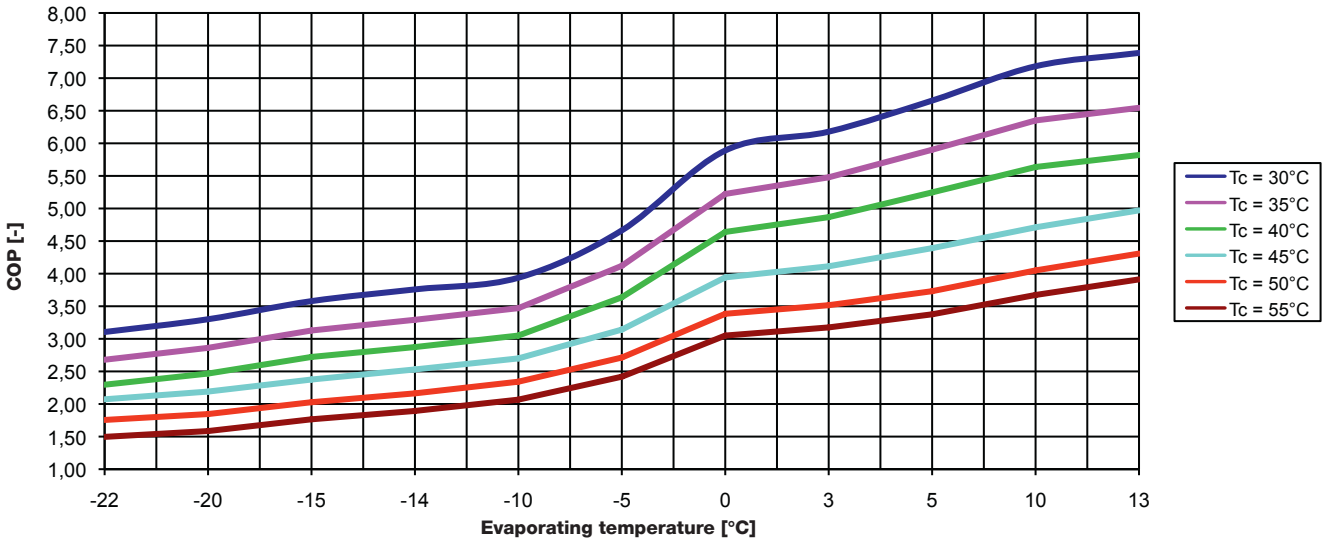
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP30L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



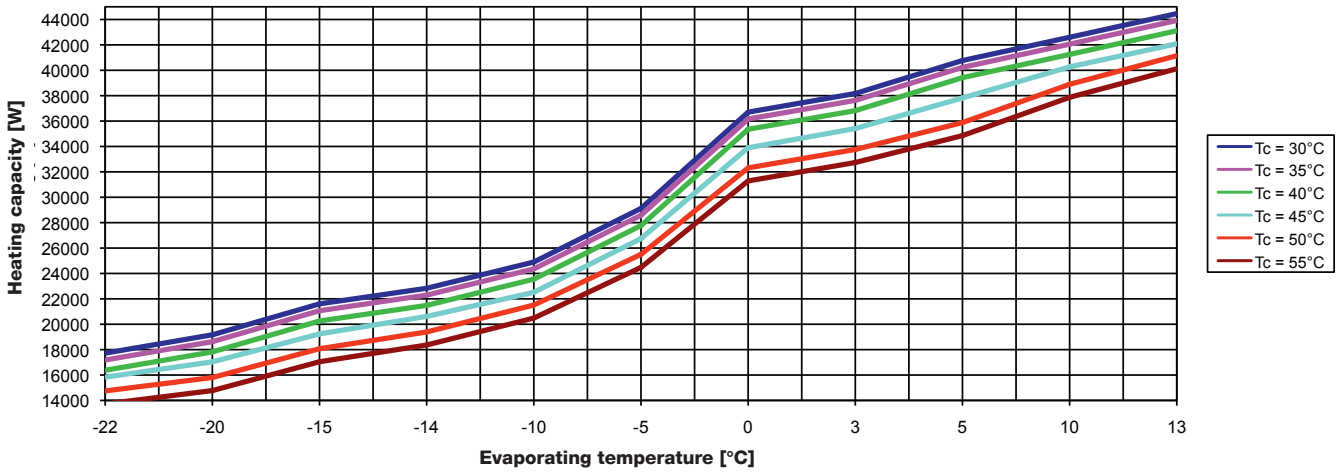


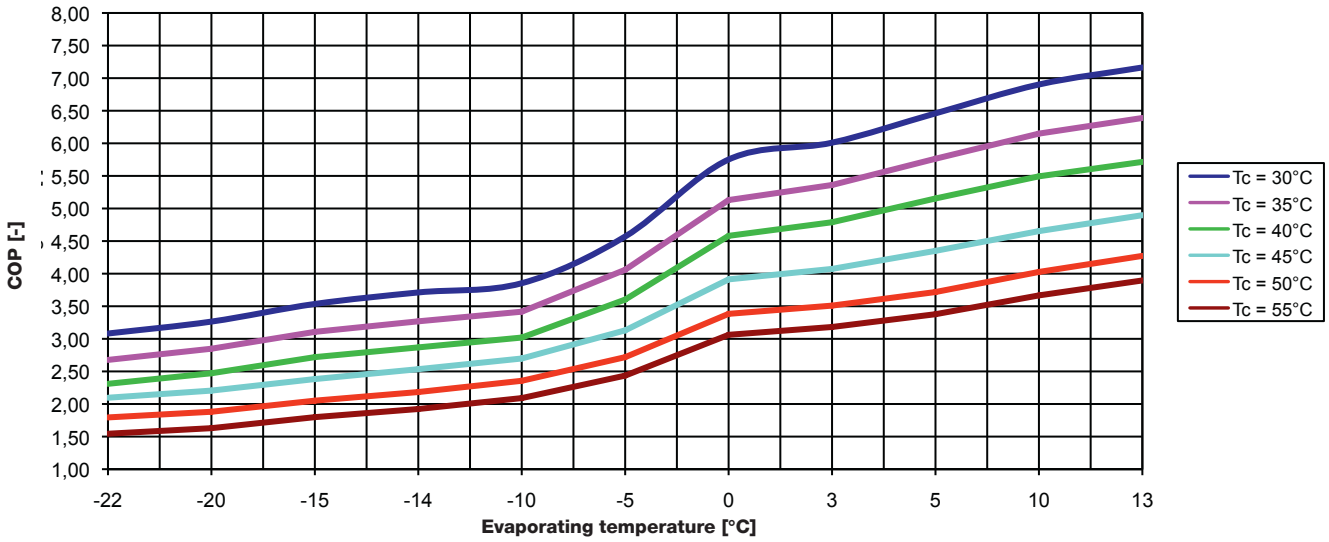
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP30L-M-WEB

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

TECHNICAL DATA SHEET HPLMV25/30F

Outdoor Evaporator Standing Unit, Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

General	
Type	Fin evaporator
Material	Copper/aluminium
Amount	1 Stk.
Area	180 m^2
Air quantity	4.000-10.000 m^3/h
Max. ext. static pressure loss	15 Pa
Fan	2 Stk. ECM Sichel
Range of use	-15 °C/+30 °C
Tested pressure	45 bar
Capacity	160-480 W
Nitrogen pressure	10 bar

Weight	
HPLMV25/30-F	220 kg

Refrigerant Cycle	
Working fluid	R410a
Max. operating refrigerant pressure	35 bar

Electric	
Voltage	400 V
Frequency	50 Hz
Power consumption	max. 1,0 A
Motor type	ECM
Fuse	Thermal relays

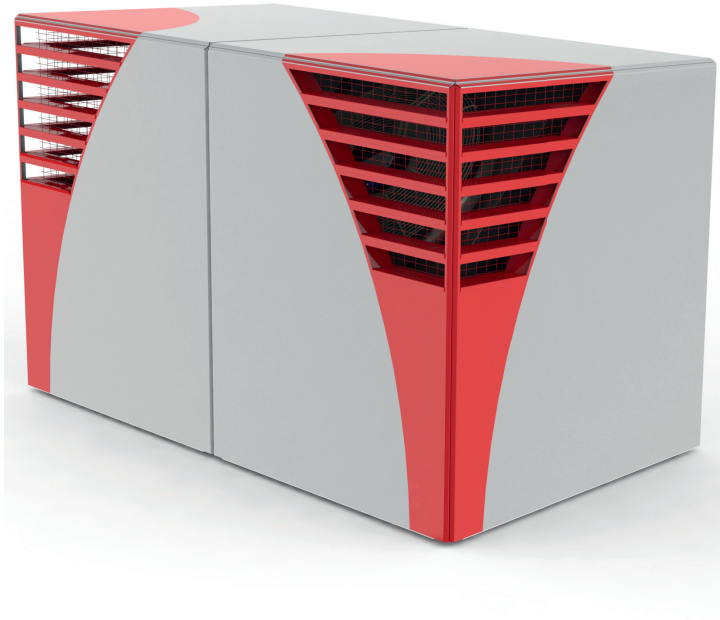
Acoustic Pressure Level DIN 18005*		
Distance	Speed RPM +15 °C	Speed RPM -15 °C
1 m distance	37 dB(A)	58 dB(A)
5 m distance	34 dB(A)	49 dB(A)
10 m distance	30 dB(A)	42 dB(A)

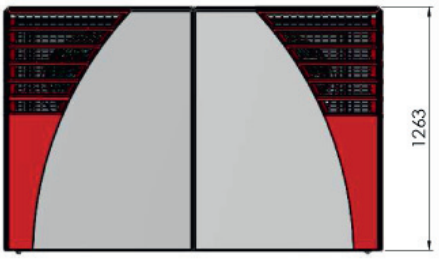
Connections, Dimensions	
Pressure line / Suction line	14/35 mm

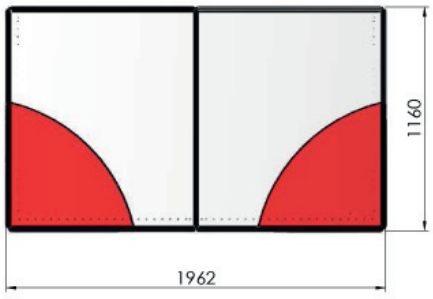
* RPM speed is adjustable, depending on local conditions.

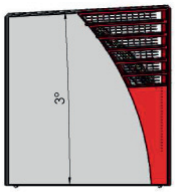
Dimensions (in mm)

1 Pressure gas line
2 Suction line
3 Electrical connections









COMMISSIONING INSTRUCTIONS

Air Source Heat Pump - Split Design, Modulating | WEB CONTROL Series

1) Installation of heating and DHW hydraulic.
2) Refrigeration technical assembly of the split lines.
3) Vacuum pumping over high and low pressure side, open expansion valve[1] manually up to 100 %.
4) Electrical wiring should be according to the supplied electrical plan. (caution on safety guard and insert conductor cross-sections!)
5) Carrying out System configuration, (see additional information under: System configuration).
6) Refrigeration technical start up:
   (1) Fan on manual and up to 20 % speed [2)]
   (2) Set heating pump to manual and turn on[3)]
   (3) Check if expansion valve is on automatic[1)]
   (4) Fill refrigerant R410A over high-pressure side
   (5) Set expansion valve to manual and open up to 45 %[1)]
   (6) Wait until no more refrigerant comes through the high pressure side into the heat pump or desired quantity is reached.
   (7) Reset the expansion valve[1], ventilator[2] and heating pump[3] to automatic.
7) Create a heating request setting. (set outside temperature to manual and -15 °C)[4)]
8) During operating start up slowly fill in, at regular intervals, the final refrigerant amount through the low pressure side until the nominal quantity is reached. (*request the latest information list at Heliotherm)
9) Set outside temperature to automatic[4)]
10) Checking over proper operating function:
    (1) The heat pump must stand still at least 20 minutes.
    (2) Set up online connection between the controller and your notebook using Heliotherm's Tele- control software. (following parameters should be recorded: expansion valve, discharge temp., discharge target value, evaporating temperature, condensing temp, outlet and inlet temperatures)
    (3) Secure heating request setting (set outside temperature to manual and -15 °C)
11) Indications of a good start:
    (1) At the end of the Pre-regulating time the expansion valve begins to regulate. Discharge temperatures should be up to about 2 K, close enough to the DCH target value.
    (2) A few minutes later, the heat pump should have stabilized, so that the difference between DCH temperature and DCH target value does not exceed a difference of 3-4 K. (if you are not able to achieve this state, see additional information: Start parameters)
12) Indications of a stable and good start:
    (1) Outlet and condensing temperature should have a maximum difference of 0,5 - 1 K.
    (2) Discharge temperature and DCH tgt. value should have a maximum difference of 3-4 K.
    (3) Energy sources inlet and evaporating temperatures should have after 30 operating minutes a maximum difference of 6-10 K but not exceeding. (see Tele-control parameters - defrosting Air-inflow_Evaporating_diff.)
    (4) Maximum expansion valve dihedral angle cannot be greater than +20 % Pre-reg.value.
    (5) Temperature difference between outlet and inlet is a maximum of 4 K.
13) Setting Defrost: (only under stable operation possible!)
    (1) After about 30-40 minutes and under stable operating conditions, write down the difference between the energy source inlet and evaporating temperature.
    (2) Set the lower and upper defrost release.[5)]
    Lower defrost release (at -15 °C): Noted Value +1
    Upper defrost release (at +7 °C): Noted Value +2

    A 100 % accurate Defrost setting is only under realistic Winter weather conditions possible.

MENU SETTING - EXPERT LEVEL: :

Menu > Total Data > DSI > Expansion Valve
Menu > Total Data > Input/Outputs > Analog_Outputs > ES-A02
Menu > Total Data > Input/Outputs > Digital > Heating pump
Menu > Total Data > Input/Outputs > Sensor > Outside_temp.
Menu > Safety > Parameters > Defrost

TECHNICAL DATA SHEET HP08L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	7,87 kW	10,46 kW	14,40 kW	9,10 kW
Cooling capacity	5,32 kW	7,85 kW	11,77 kW	5,60 kW
Input	2,56 kW	2,61 kW	2,63 kW	3,50 kW
COP	3,08	4,01	5,47	2,60

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	7,87 kW	10,39 kW	14,24 kW	9,14 kW
Cooling capacity	5,18 kW	7,65 kW	11,48 kW	5,46 kW
Input	2,69 kW	2,74 kW	2,77 kW	3,68 kW
COP	2,93	3,80	5,15	2,48

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	3,7 kW
Oil amount	1,3 l

Evaporator / Energy Source	
Type	Fin evaporator
Material	Copper/aluminium
Area	40 m^2
Air quantity	2500-4000 m^3/h
Max. ext. static pressure loss	20 Pa
Fan input	80-200 W
Fan	ECM Sichel
Range of use	-15 °C/+ 30 °C
Tested pressure	30 bar

Condenser / Heating	
Type	Plate heat exchanger
Material	Stainless steel / Cu
Flow amount[2]	1,6 m^3/h
Pressure loss	0,8 mWs
Temperature difference	5 K
Content	2,0 l
Tested pressure	45 bar

Refrigerant Cycle	
Working fluid	R410a
Fill amount	5,2 kg

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

Acoustic Pressure Level	
1 m distance	49 dB(A)

Connections, Dimensions	
Heating outlet and inlet	5/4“ ET
Air duct: air supply / exhaust air	600 x 600 mm
Height x Width x Depth	1.700x790x690 mm
Weight	170 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications

A = Outdoor (air) temperature in °C
W = Heating water temperature in °C

Defrost loss has been calculated.

[2] Minimum flow must be observed!

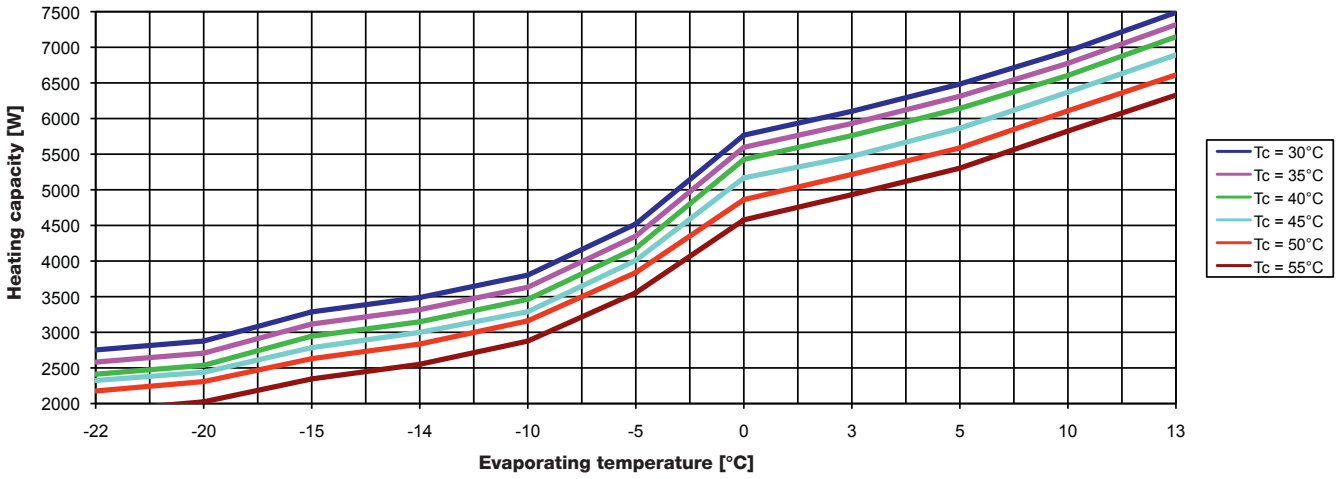
0,25 kW/person are to be calculated to the heating load for DHW preparation.

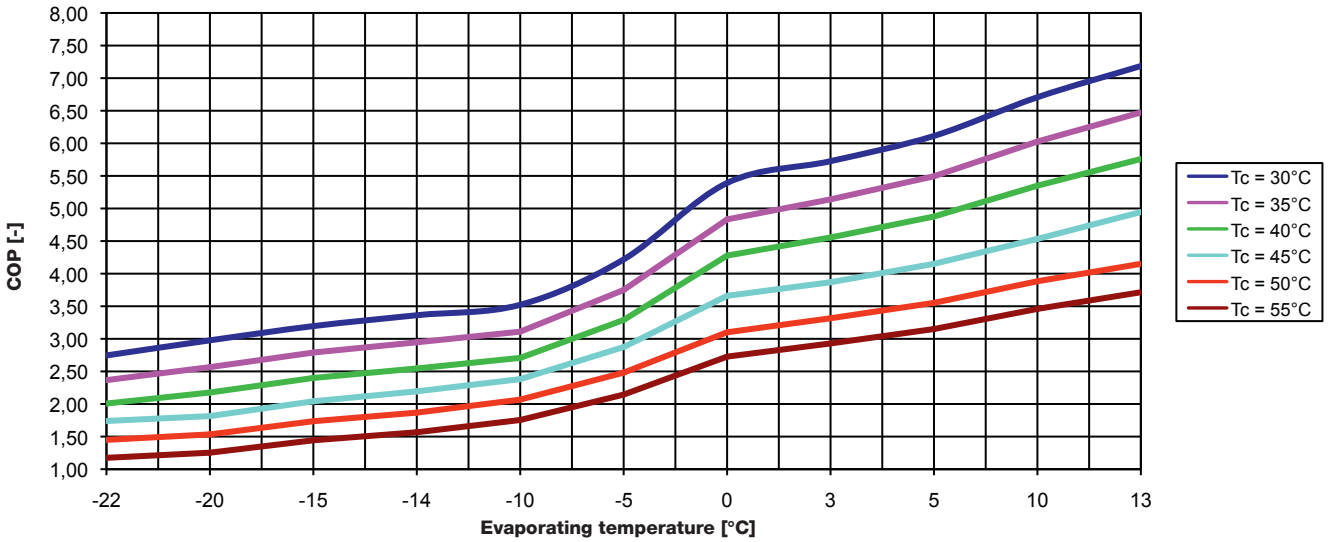
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP08L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



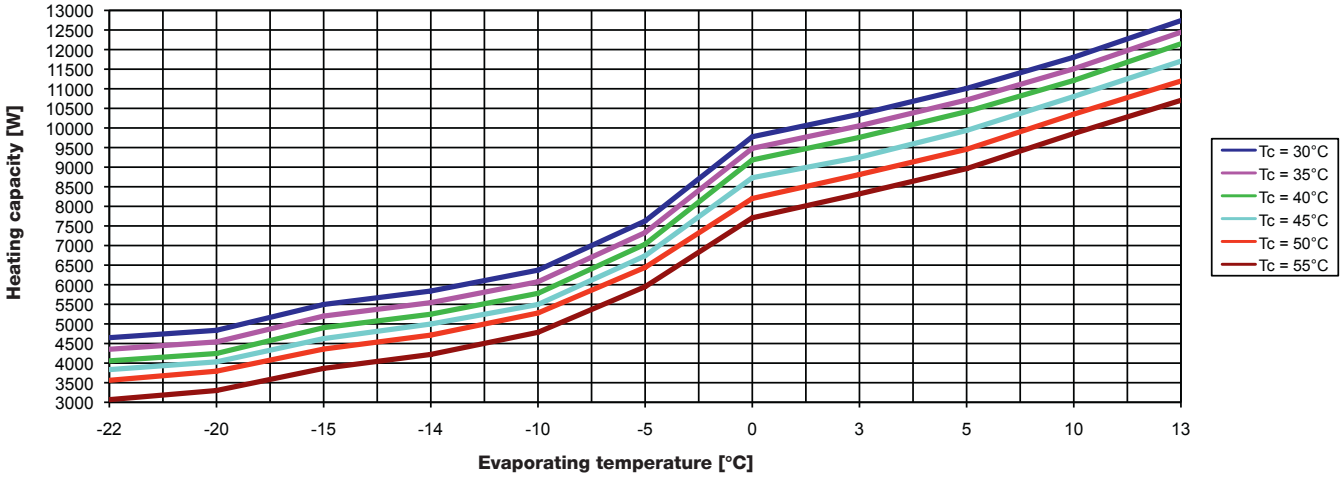


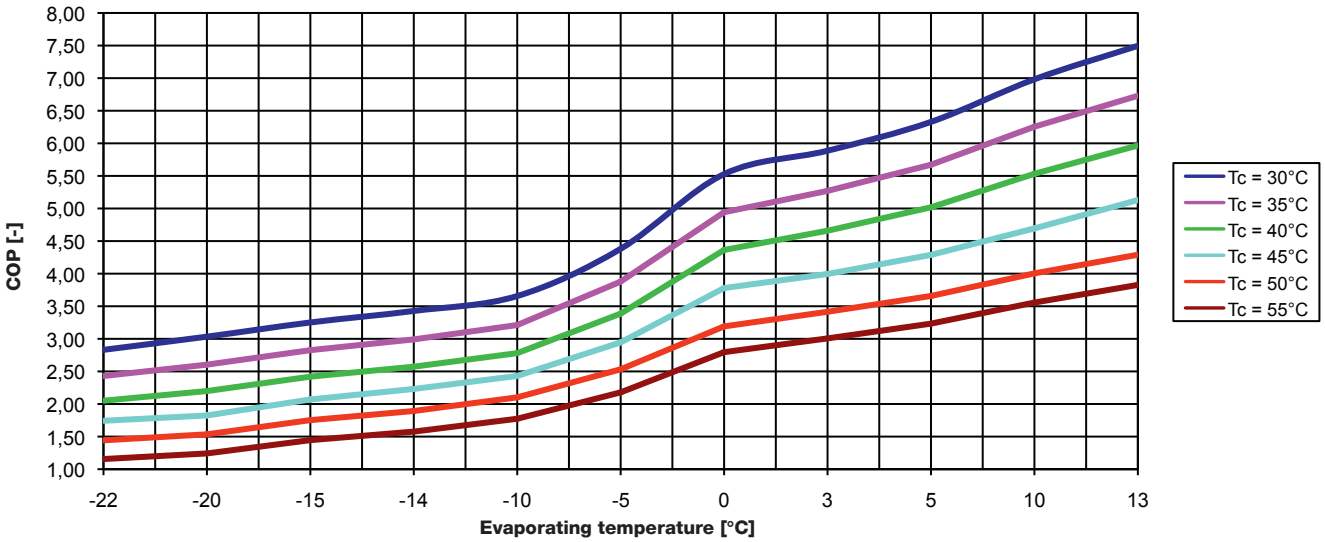
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP08L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



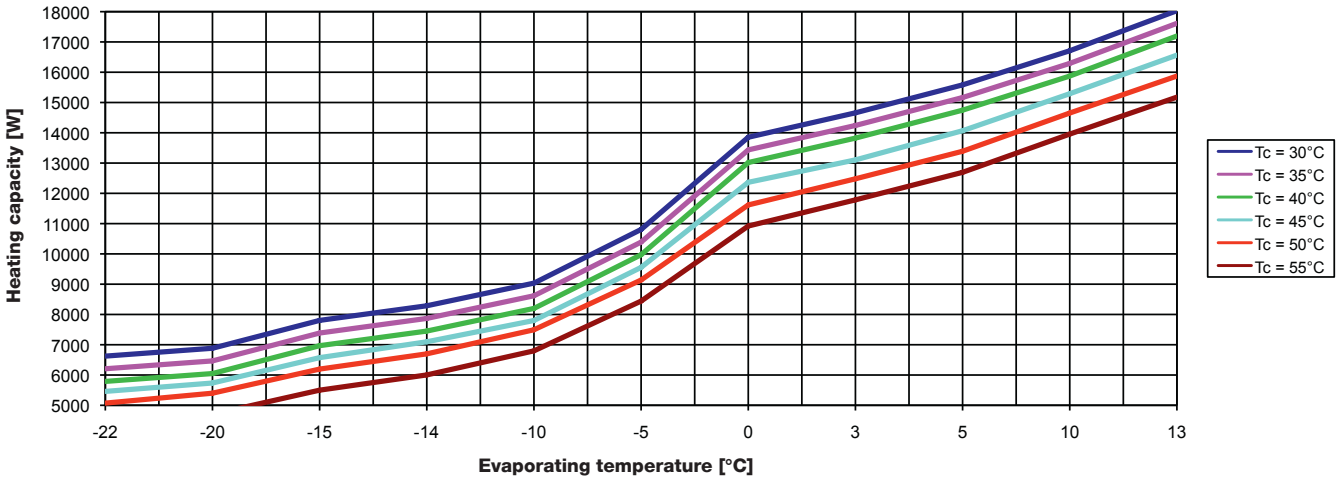


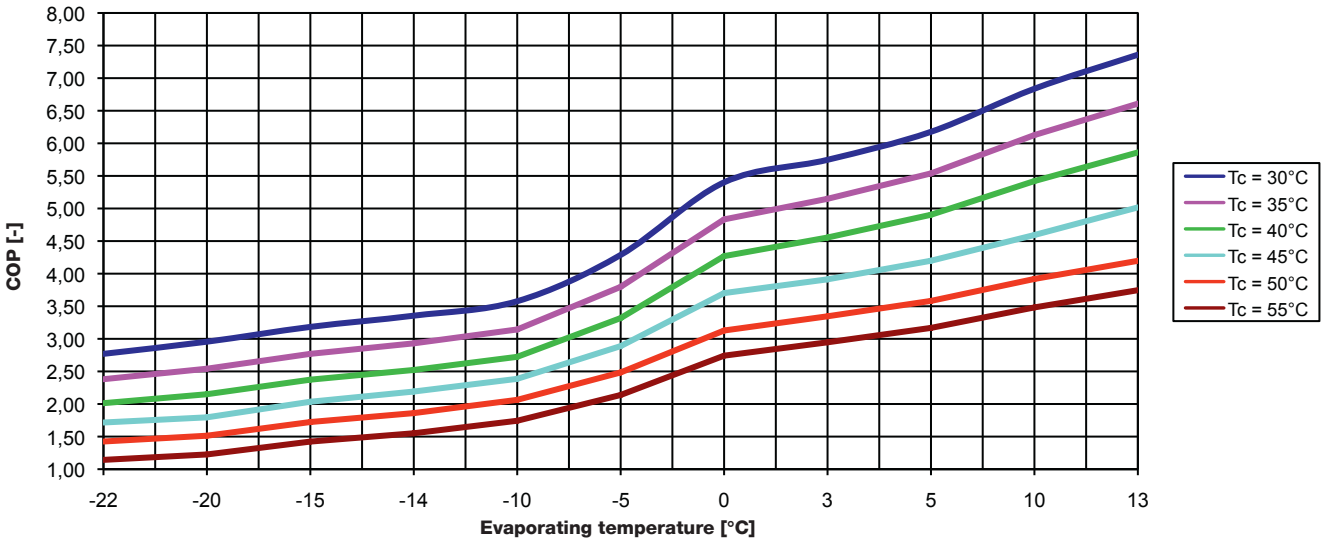
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP08L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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

TECHNICAL DATA SHEET HP12L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Data[1] EN255 Δ 10 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	9,69 kW	12,98 kW	17,73 kW	11,00 kW
Cooling capacity	6,50 kW	9,72 kW	14,45 kW	6,73 kW
Input	3,19 kW	3,26 kW	3,28 kW	4,27 kW
COP	3,04	3,98	5,41	2,58

Performance Data[1] EN14511 Δ 5 K				
	A-7W35	A2W35	A10W35	A2W50
Heating capacity	9,69 kW	12,90 kW	17,53 kW	11,04 kW
Cooling capacity	6,34 kW	9,48 kW	14,09 kW	6,56 kW
Input	3,35 kW	3,42 kW	3,44 kW	4,48 kW
COP	2,89	3,77	5,10	2,46

Compressor	
Type	Scroll
Speed RPM	1200-5400 min^{-1}
Max. input power	6,5 kW
Oil amount	1,7 l

Evaporator / Energy Source	
Type	Fin evaporator
Material	Copper/aluminium
Area	40 m^2
Air quantity	2500-4000 m^3/h
Max. ext. static pressure loss	20 Pa
Fan input	80-200 W
Fan	ECM Sichel
Range of use	-15 °C/+ 30 °C
Tested pressure	30 bar

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

Refrigerant Cycle	
Working fluid	R410a
Fill amount	5,2 kg

Electric	
Voltage	400 V
Frequency	50 Hz
Time lag fuse	3 x 16 A
Max. compressor operating current	14 A
Starting current	16 A
Starting current with soft starter	FU

Acoustic Pressure Level	
1 m distance	50 dB(A)

Connections, Dimensions	
Heating outlet and inlet	5/4“ ET
Air duct: air supply / exhaust air	600 x 600 mm
Height x Width x Depth	1.700x790x690 mm
Weight	170 kg

Operating Limit Values	
Max. operating water pressure	10 bar
Max. operating refrigerant pressure	40 bar
Max. heat outlet temperature	60 °C at 0 °C OT

[1] Performance specifications

A = Outdoor (air) temperature in °C
W = Heating water temperature in °C

Defrost loss has been calculated.

[2] Minimum flow must be observed!

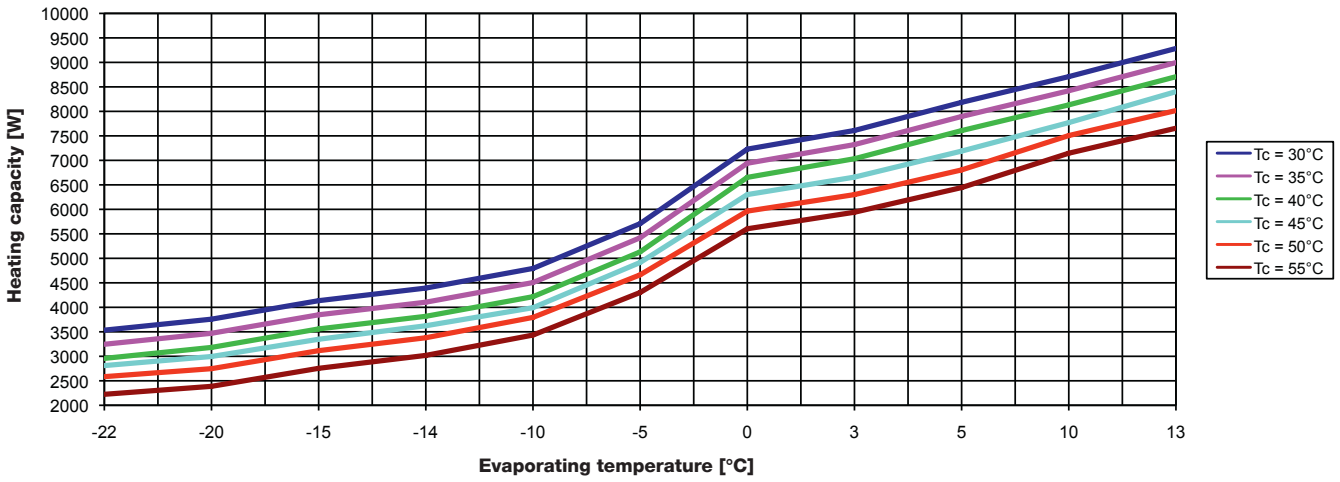
0,25 kW/person are to be calculated to the heating load for DHW preparation.

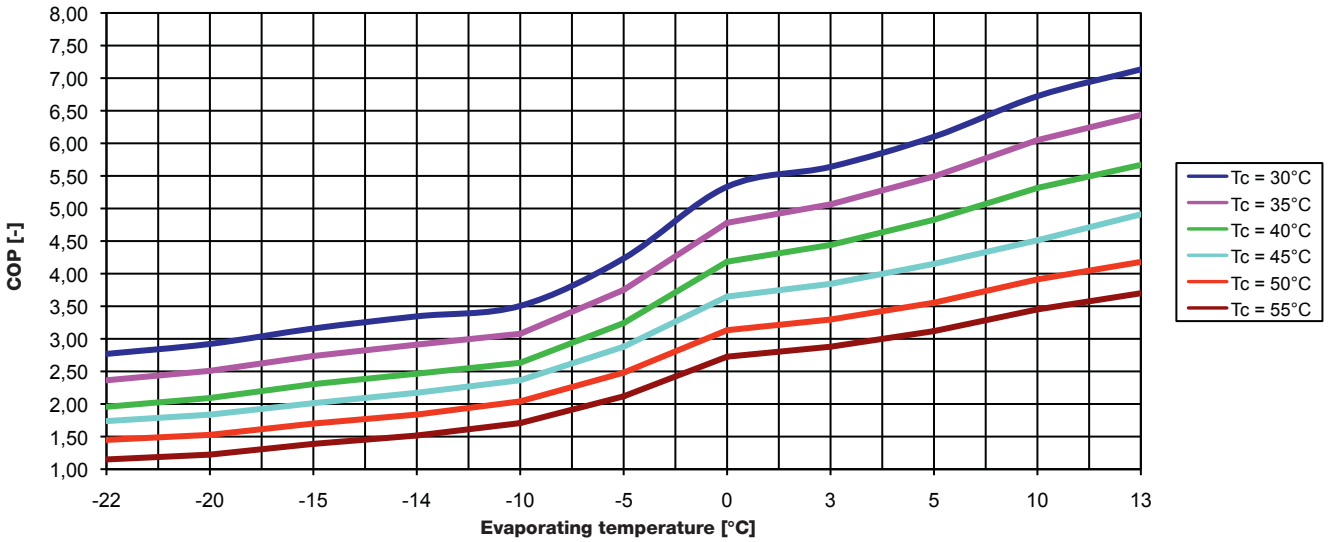
Tolerance results of EN 12900 are valid for the above mentioned performance data.

TECHNICAL DATA SHEET HP12L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 10 % Compressor Capacity



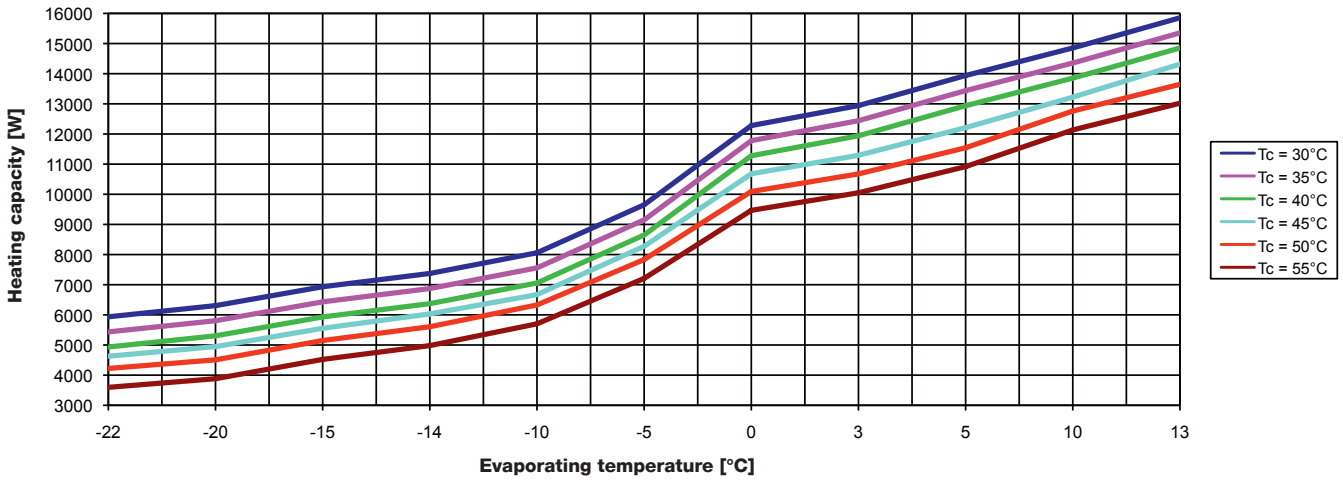


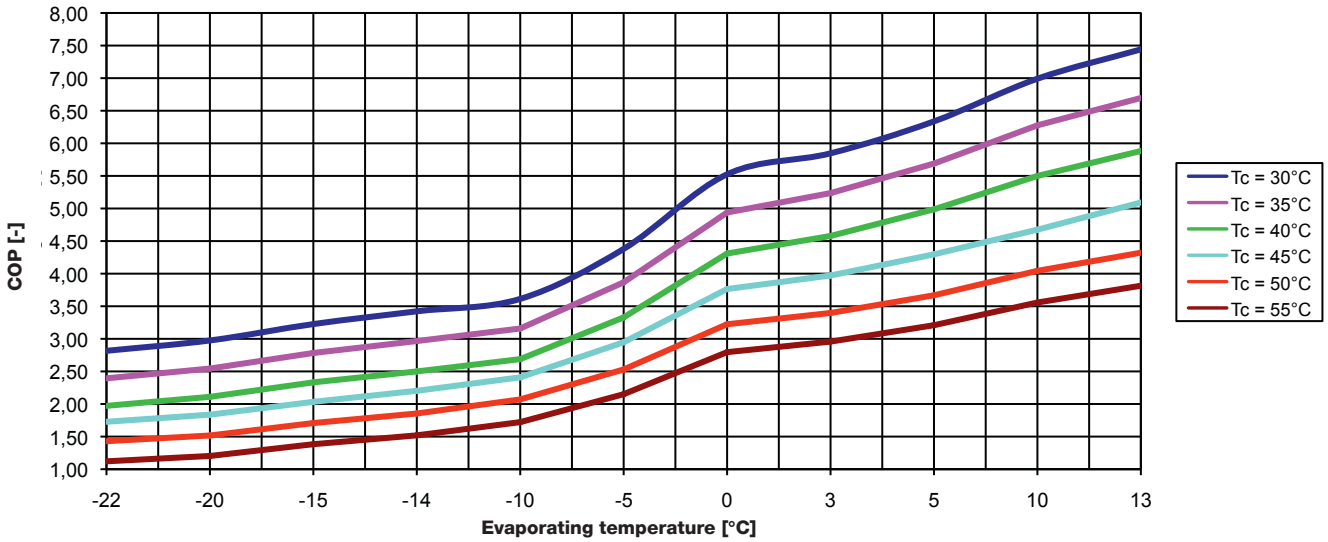
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP12L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 30 % Compressor Capacity



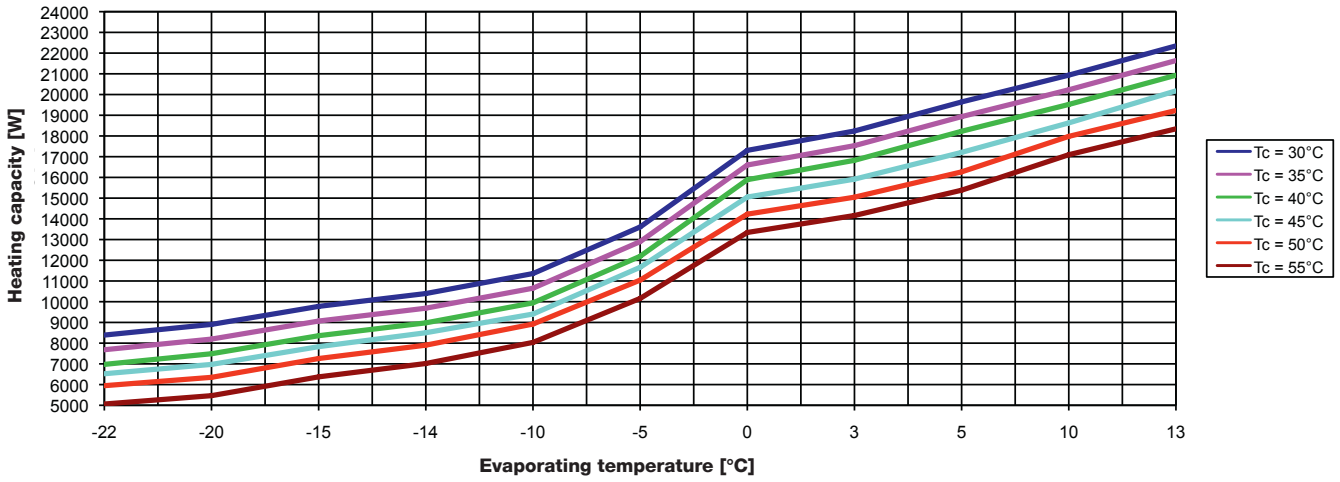


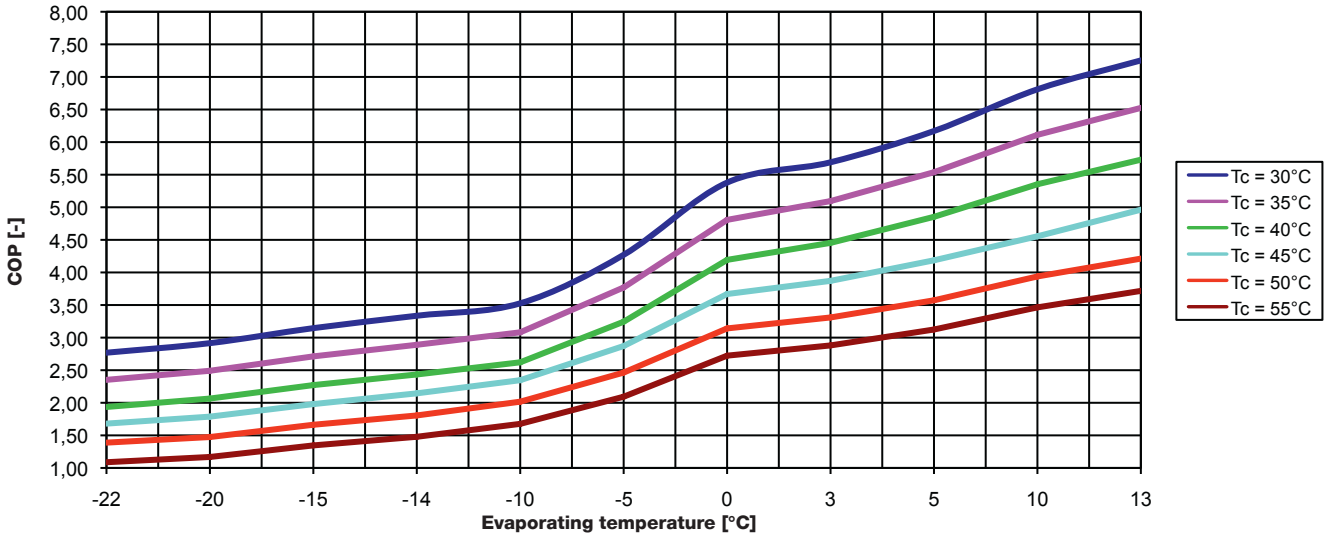
EN 12900 tolerance results are valid for the above mentioned performance data.
All performance data is according to EN 14511.

TECHNICAL DATA SHEET HP12L-K-M-WEB

Air Source Heat Pump - Compact Design, Modulating | WEB CONTROL Series

Performance Curve at 50 % Compressor Capacity





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