HEAT PUMPS

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Refra®

Our manufactured heat pumps are able to extract heat from the ground or water heat source and transfer it into heat, for domestic hot water and space heating needs. Our manufacturing resource allows offering wide range of capacities - from simple domestic up to commercial or industrial.

Heat pumps standard set:

~ Corps - aluminum profile with a black steel curtain, colored powder manner RAL 7035
~ Scroll Copeland compressor, Special Series ZH, for heat pumps
~ Control unit to control (Eliwell or Siemens)
~ Condenser (plate exchanger SWEP)
~ Evaporator (plate exchanger SWEP)
~ TRV (thermo mechanical regulating valve)
~ HP/LP (Low and high pressure relay)
~ Filter dryer and humidity indicator
~ Outdoor temperature sensor

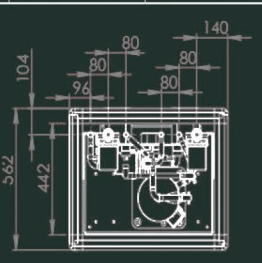
Electronic TRV consist of:

~ Electronic TRV
~ Electrical TRV control (driver)
~ Temperature sensor (overheating of the measurement)
~ Pressure sensor (radiometric)
~ Selenoid valve or changer with battery

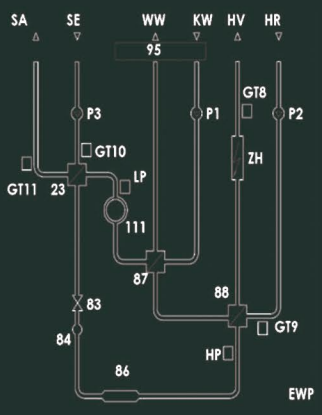
SWEP Heat exchangers	Three-way Danfoss valve for heating	Four-way Eliwell valve for cooling	Buffer tanks
			

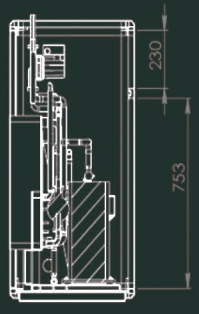
	Type	SZH 19	SZH 21	SZH 26	SZH 30	SZH 38	SZH 45	SZH 56
TECHNICAL DATA								
W0/W35*								
Nominal heating capacity	kW	6,6	7,3	9,3	10,7	13,1	15,7	19,8
Cooling cpacity	kW	5	5,6	7,2	8,2	10,2	12,2	15,2
Power consumption	kW	1,6	1,7	2,2	2,5	3,1	3,6	4,9
Coefficient of efficiency (COP)		3,99	4,2	4,25	4,19	4,26	4,3	4,03
W0/W50**								
Nominal heating capacity	kW	6,2	6,9	8,6	10	12,4	14,8	18,3
Cooling capacity	kW	4,1	4,6	5,8	6,7	8,4	10,1	12,5
Power consumption	kW	2,2	2,3	2,9	3,4	4,1	4,9	6,1
Coefficient of efficiency (COP)		2,83	2,93	2,95	2,91	2,99	2,98	3
HEATING CIRCUIT								
Flow rate***	m^3/h	0,6	0,8	1,1	1,4	1,7	2	2,3
Max. inlet temperature	°C	55						
ETHYLENE GLYCOL CIRCUIT								
Flow rate***	m^3/h	1,3	1,8	2,4	3,1	3,6	4,2	4,8
Max. inlet temperature	°C	25						
Min. inlet temperature	°C	-5						
ELECTRIC PARAMETERS								
Nominal voltage	V	380 V 500 Hz						
Total current	A	6	5,2	6,8	8,2	10,1	11,8	16
Starting current (the rotor is blocked)	A	32	32	46	51,5	64	74	99
Fuse (automatic device)	A	10	10	10	16	16	20	25
Protection class		IP21						
ELECTRIC PARAMETERS OF A CONTROL CIRCUIT								
Power supply	V	230 V 50 Hz						
Security automaton	A	6						
HEATING ELEMENT ELECTRIC PARAMETERS**								
Power supply	V	380 V 50 Hz						
Capacity	kW	/	/	7,5	7,5	7,5	9	12
REFRIGERATION CIRCUIT								
Refrigerant		R407c						
Refuelling of a coolant	kg	0,6	0,8	0,9	1	1,1	1,2	1,4
Compressor	Type	Scroll						
OVERALL DIMENSIONS OF THE UNIT								
Length	mm	562						
Width	mm	715						
Height	mm	1115						
WORKING PRESSURE								
Heating circuit	bar	4						
Ethylene glycol circuit	bar	4						
CONNECTIONS								
Inlet and outlet lines of a heating circuit	R(vid.)	1”						
Inlet and outlet lines of a glycole circuit	R(vid.)	1”						
WEIGHT								
Total weight	kg	75	85	85	105	105	120	120

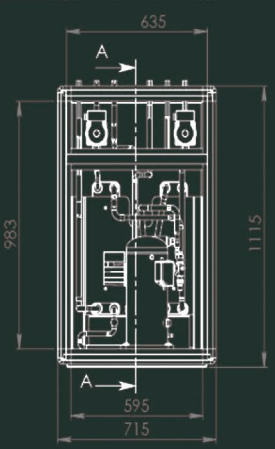
* Working point W0 = brine temperature on exit 0°C/W35 = coolant temperature on exit 35°C. According to EN 255
** Working point W0 = brine temperature on exit 0°C/W50 = coolant temperature on exit 50°C. According to EN 225
*** The minimum expense is subject to obligatory observance.
**** Heating element ordered in addition, it is not speciffied in technical parameters



EWP - Heat pump
GT8 - Temp. sensor on supply line
GT9 - Temp. sensor on return line
GT10 - Outer circuit inlet temp. sensor
GT11 - Outer circuit outlet temp. sensor
HP - High pressure sensor
HR - System return line
HV - System supply line
SA - Outer circuit outlet
SE - Outer circuit inlet
KW - Cold water supply
LP - Low pressure sensor







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