

Välitä luonnosta
Ja puolita
hiilidioksidipäästöt

Lämpöpumpputehdas

HH-Järnström Oy



Sebastian Järnström

040-775 14 08

HH-Ironpower MP25

Test report

Date	y-m-d	41488
Serial number	nr:	13-302-6
Test down by:	Sign	pl
Aoplique	type	EC Multi 903P
Heat Exchanger	model	Multichannel EC59-60
Compressor	model	Sanyo Scroll 903
Expansion valve	model	Carel EVD EVO E2V35

Warm Fluid [high temp]

Fluid	type	Water
Density	994	kg/m ³
Specific heat capacity	4,18	kJ/kgK
Inlet temperature	29,87	°C
Outlet temperature	34,74	°C
Temperature differential	4,87	°C
Uquid flow	1,25	l/s
Pressure drop (include hose)	45	kPa
Capacity condenser	25,29	kW

Coolant Brine [low temp]

Fluid	type	Propylene Glycol 39
Density	1042	kg/m ³
Specific heat capacity	3,74	kJ/kgK
Inlet temperature	0,23	°C
Outlet temperature	-3,11	°C
Temperature differential	3,33	°C
Liquid flow	1,52	l/s
Pressure drop (include hose)	50	kPa
Capacity evaporator	19,73	kW

Refrigerant

* = Bubble point ** = Dew point

Refrigerant	type	HFC R-134a
Refrigerant charge	29,95	gram
Condensing pressure *	7,99	bar [e]
Condensing temp. *	35,5	°C
Evaporating pressure **	1,24	bar [el
Evaporating tempo **	-7,2	°C
Hot gas temperature	62,16	°C
Liquid temperature	20,64	°C
Suction gas temperature	1,57	°C
Super heat	8,77	°K
Sub coollnc	14,86	°K

Electric data

Voltage	Volt	380/420-3-50
Power input	kW	4,94

COP

Low Temp (cooling)	C.O.P	3,99
High Temp (heating)	C.O.P	5,12

HH-Ironpower MP35

Test report

Date	y-rn-d	16.6.2013
Serial number	nr:	13-213 vp1
Test down by:	Sign	pl
Applioue	type	EC Multi 903P
Heat Exchancer	model	Multichannel EC59-60
Compressor	model	Sanyo Scroll
Expansion valve	model	Carel EVD EVO E2V35

Warm Fluid [high temp]

Fluid	type	Water
Density	994	kg/m ³
Specific heat capacity	4,18	kJ/kgK
Inlet temperature	29,76	°C
Outlet temperature	3488	°C
Temperature differential	5,12	°C
Liquid flow	1,67	l/s
Pressure drop (include hose)	45	kPa
Capacitv condenser	35,53	kW

Coolant Brine [low temp]

Fluid	type	Propylene Glycol 39 %
Density	1042	kg/m ³
Specific heat capacitv	3,74	kJ/kgK
Inlet temperature	-0,06	°C
Outlet temperature	-3,55	°C
Temperature differential	3,49	°C
Liquid flow	1,96	l/s
Pressure drop (include hose)	50	kPa
Capacitv evaporator	26,66	kW

Refrigerant

* = Bubble point ** = Dew point

Refrigerant	type	HFC R-407C
Refrigerant charge	2995	gram
Condensing pressure *	15,87	bar [el]
Condensing temp. *	38,5	°C
Evaporating pressurecs **	48	bar [el]
Evaporating tempo **	-7,7	°C
Hot gas temperature	84,12	°C
Liquid temperature	17,15	°C
Suction gas ternoerature	0,18	°C
Suoer heat	7,88	°K
Sub cooling	21,35	°K

Electric data

Voltage	Volt	380/420-3-50
Power input	kW	8,38

COP

Low Temp (cooling)	C.O.P	3,18
High Temp (heating)	C.O.P	4,24