

Application for testing of air to water heat pump

1 Interested party / applicant

Company:

Address:

Zip, City:

Contact person:

Phone number:

Fax:

E-Mail:

1.1 Name of the heat pump to be inspected

Manufacturer:

Description of type:

1.2 Application

This application shall be deemed to be an official firm order for the specified heat pump in accordance of the general terms and conditions of the Heat Pump Test Center WPZ.

Site and date:

Stamp and signature:

You can send this application form as email to mick.eschmann@ost.ch

To be completed by WPZ:	
Eingang Datum:	Prüfnummer: LW -

2 Test

- Air to water heat pump test (for outdoor installation) according to EHPA V2.0 CHF 11'500.-
- Air to water heat pump test (split unit) according to EHPA test regulation V2.0 CHF 11'900.-
- Air to water heat pump test (for indoor installation) according to EHPA V2.0 CHF 12'200.-

- Test conditions according to EN 14511 or EN 14825:

	test condition (low temperature)	test condition (medium temperature)
1	A7 / W30-35	A7 / W47-55
A	A-7 / W34	A-7 / W52
B	A2 / W30	A2 / W42 (evtl.)
C	A7 / W27	
D	A12 / W24	
E	A-10 / W35	
F	bivalent point	bivalent point

- Calculation of SCOP for climate average (low temperature)
- Bivalent point W35 for colder and warmer + 1 part load W35 colder
- Measurement of operating range (3 conditions)
- Safety test (EN14511-4.2013, clause 4.4, 4.5, 4.6 and 4.7)
- Measurement of electrical consumption (EN 14825, clause 9.1, 9.2, 9.3 and 9.4)
- Measurement of sound power level
- Publication of your test results on our website www.wpz.ch

We need following data for the starting up date:

	Value	Explanation
Pdesign [kW]		Max. heating capacity at design point (or bivalent point)
Bivalent point [°C]		Bivalent point is between -10°C und +2°C

- No publication of your test results on our website CHF 200.-

2.1 Optional measurement and tests

- Optional sound power level measurement for indoor unit CHF 750.-
- Optional sound power level measurement at A7 / W30-35 (outdoor) CHF 750.-
- Further optional test conditions CHF 880.- per test conditions

Test conditions	source temperature		supply temperature		V.(m3/h)
	T (°C)	φ (%)	Tout (°C)	Tin (°C)	
A ... / W ...					
A ... / W ...					

- Determination of drop pressure coefficient ξ** **CHF 450.-**
 Measurement of the hydraulic drop pressure in condenser by 5 different volume flows.
 The drop pressure coefficient $\xi(V.)$ is determined arithmetically
- Freeze up test according to EN 14511-4 clause 4.2.3.1** **CHF 1'600.-**
 The freeze up test takes 6 hours at minimum and is performed at the lowest boundary condition (A_{min}/W_{min}). There shall be no damage to the heat pump throughout the entire test
- Further optional measurements or tests** **according to offer of WPZ**

3 Equipment under test

3.1 Technical specifications

Type of heat pump indoor unit with air ducts
 outdoor unit
 split heat pump

Power modulate heat pump no / 1-ary
 n-ary, number:
 continuous

Heating capacity ($A7/W35$) kW

Sink volume flow at $\Delta T = 5\text{ K}$ m³/h

Sink volume flow minimum m³/h and maximum m³/h

Hydraulic pressure drop mbar

Mode of defrosting reversal of process
 hot gas defrosting
 other:

Circulation pump during the defrosting? on / off

Air volume flow (evaporator) m³/h

Voltage / frequency V / Hz

Total electrical input kW

Type of refrigerant

Capacity of refrigerant kg

Dimension indoor unit (W x H x D) mm

Transport weight indoor unit kg

Dimension outdoor unit (W x H x D) mm

Transport weight outdoor unit kg

Hydraulic connection of condenser in inch:

..... Description:

..... Internal screw thread External screw thread threaded connection

3.2 Operating range

The operating range defined by a maximum of 3 boundary conditions shall be declared by the manufacturer. You can inscribe the boundary conditions in table 1. The corresponding relative humidities are determined according to the test regulation.

Conditions	Source temperature Tin [°C]	Supply temperature Tout [°C]	Relative humidity P[%]
A..... / W.....			
A..... / W.....			
A..... / W.....			

Table 1: Boundary conditions (3 conditions) of the operating range