HARP Database

HARP Database

Updated to account for EN14825/ EN16147

**Information requirements for heat pump space heaters and heat pump combination heaters**

Model(s): [information identifying the model(s) to which the information relates]

Air-to-water heat pump: [yes/no]

Water-to-water heat pump: [yes/no]

Brine-to-water heat pump: [yes/no]

Low-temperature heat pump: [yes/no]

Equipped with a supplementary heater: [yes/no]

Heat pump combination heater: [yes/no]

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	$Prated$	x	kW	**Seasonal space heating energy efficiency**	η_s	x	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7$ °C	Pdh	x,x	kW	$T_j = -7$ °C	$COPd$ or $PERd$	x,xx or x,x	– or %
$T_j = +2$ °C	Pdh	x,x	kW	$T_j = +2$ °C	$COPd$ or $PERd$	x,xx or x,x	– or %
$T_j = +7$ °C	Pdh	x,x	kW	$T_j = +7$ °C	$COPd$ or $PERd$	x,xx or x,x	– or %
$T_j = +12$ °C	Pdh	x,x	kW	$T_j = +12$ °C	$COPd$ or $PERd$	x,xx or x,x	– or %
$T_j =$ bivalent temperature	Pdh	x,x	kW	$T_j =$ bivalent temperature	$COPd$ or $PERd$	x,xx or x,x	– or %
$T_j =$ operation limit temperature	Pdh	x,x	kW	$T_j =$ operation limit temperature	$COPd$ or $PERd$	x,xx or x,x	– or %
For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	Pdh	x,x	kW	For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	$COPd$ or $PERd$	x,xx or x,x	– or %
Bivalent temperature	T_{biv}	x	°C	For air-to-water heat pumps: Operation limit temperature	TOL	x	°C
Cycling interval capacity for heating	$Pcych$	x,x	kW	Cycling interval efficiency	$COPcyc$ or $PERcyc$	x,xx or x,x	– or %
Degradation co-efficient (**)	Cdh	x,x	—	Heating water operating limit temperature	$WTOL$	x	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	x,xxx	kW	Rated heat output (*)	$Psup$	x,x	kW
Thermostat-off mode	P_{TO}	x,xxx	kW				
Standby mode	P_{SB}	x,xxx	kW	Type of energy input			
Crankcase heater mode	P_{CK}	x,xxx	kW				
Other items							
Capacity control		fixed/variable		For air-to-water heat pumps: Rated air flow rate, outdoors	—	x	m³/h
Sound power level, indoors/outdoors	L_{WA}	x/x	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	—	x	m³/h
Emissions of nitrogen oxides	NO_x	x	mg/kWh				
For heat pump combination heater:							
Declared load profile		x		**Water heating energy efficiency**	η_{wh}	x	%
Daily electricity consumption	Q_{elec}	x,xxx	kWh	Daily fuel consumption	Q_{fuel}	x,xxx	kWh
Contact details				Name and address of the manufacturer or its authorised representative.			

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output $Prated$ is equal to the design load for heating $Pdesignh$, and the rated heat output of a supplementary heater $Psup$ is equal to the supplementary capacity for heating $sup(Tj)$.

(**) If Cdh is not determined by measurement then the default degradation coefficient is $Cdh = 0,9$.

ENERG

YZ dB

YZ kW

2015   811/2013

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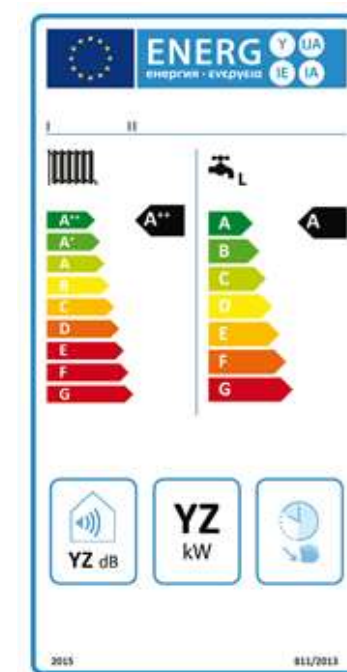
Data to be submitted as per Ecodesign – Space Heating

Manufacturers Reference	Reference to current name of manufacturer
Manufacturers Name	Original Manufacturers Name
Brand Name	Brand Name as shown on Heat Pump
Model Name	Name of Heat Pump Model
Model Qualifier	Qualifier to Model Name
Source of Data	**Certified Test Data, Self Declaration**
1st & last yr of manufacturer	First (if known) and Last Year or "Current"
Type	Air to Water, EAHP Water to Water, Air to Air etc
Low Temperature Heat Pump	As per Ecodesign
Combination Heater	Does it provide Space and HW heating
Climate Conditions	
Heating Ecodesign Efficiency Class	Ecodesign Class (A,B,etc) & efficiency
Hot Water Ecodesign Efficiency Class	Ecodesign Class (A,B,etc) & efficiency
Structure	Monobloc, Split

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Data to be submitted as per Ecodesign – Space Heating

Rated Heat Output	Output of unit
Type of Control	Fixed, Variable
Supplementary Heater	Type, Output
WTOL	To Water units – Water TOL
TOL	Operation Limit Temperature
Low Temperature Test Data At 5 test conditions:	Mandatory for Low Temperature Heat Pumps Heating Capacity, COP, Degradation Coefficient, Power Consumption, Air or Water Flow Rate
Medium Temperature Test Data At 5 test conditions:	Heating Capacity, COP, Degradation Coefficient, Power Consumption, Air or Water Flow Rate
High Temperature Test Data At 5 test conditions:	Mandatory except for Low Temperature Heat Pumps Heating Capacity, COP, Degradation Coefficient, Power Consumption, Air or Water Flow Rate
Very High Temperature Test Data At 5 test conditions:	Heating Capacity, COP, Degradation Coefficient, Power Consumption, Air or Water Flow Rate

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Data to be submitted as per Ecodesign – Hot Water

Manufacturers Reference	Reference to current name of manufacturer
Manufacturers Name	Original Manufacturers Name
Brand Name	Brand Name as shown on Heat Pump
Model Name	Name of Heat Pump Model
Model Qualifier	Qualifier to Model Name
Source of Data	Certified Test Data, Self Declaration
1st & last yr of manufacturer	First (if known) and Last Year or "Current"
Type	Air to Water, EAHP Water to Water, Air to Air etc
Hot Water Ecodesign Efficiency Class	Ecodesign Class (A,B,etc) & efficiency
Rated Heat Output	Output of unit
Declared Load Profile	Ecodesign, M,L etc
Volume	**Storage, Mixed, For Declared Efficiency**
Reference Hot Water Temperature	**For Declared Efficiency**
Standby Heat Loss	**For Declared Efficiency**

Displayed on Website

- Mix of Basic Characteristics & Current HARP Database
- Source of Data
- Ecodesign Band (A/B/C etc)

Manufacturer

Trade name

Model name

Model qualifier

Appliance ID

First Manufactured

Last manufactured

Type

Seasonal Performance Factor (SPF)
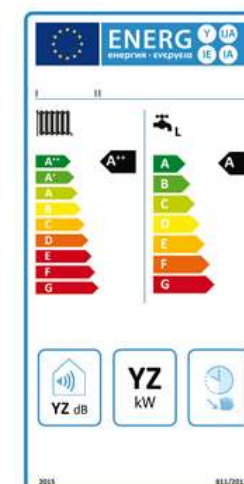
Rated capacity (kW)

Tested by Body

Record created

F Gas Name

EN test method used

Certificate No.

Record last updated

F Gas Quantity (kg)

BASIC PROPERTIES   HEAT PUMP TEST DATA

Manufacturer	ABC		Model	123
Heating Source Type	Heat pumps		Heat Pump Type	Air to Water
Space Heating Standard	I.S. EN 14825		Water Heating Standard	I.S. EN 16147
Seasonal Space Heating Efficiency, ηs	100		Water Heating Efficiency, ηwh	89.00
Integrated Immersion	N/A		Flow temperature >= [60|65]°C	N/A
TOL	-10		WTOL	55
Temperature Control	Variable Outlet			

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Used in Software

View Library Item Details - Assessor

Test Condition - Low (35°C)

Test Condition - Medium (45°C)

Test Condition - High (55°C)

	A (88%) -7°C	B (54%) 2°C	C (35%) 7°C	D (15%) 12°C	E* (100%) TOL
Source	A-7	A2	A7	A12	A-10
Sink	W52	W42	W36	W30	W55
Heating Capacity (kW)	3.40	2.08	1.35	1.43	3.05
Coefficient of Performance (kW/kW)	2.20	3.13	4.00	4.65	2.05

Test Condition - Very High (65°C)

EDIT   CLOSE

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Used in Software

Heating System Test data: I.S. EN 16147

Source of Data	Water heating energy efficiency, nwh [%]	Co-efficient of Performance [kW/kW]	0.00
Water heating energy efficiency, nwh [%]	89.00	Reference Hot water Temperature [°C]	55.00
Capacity of Heat Pump [kW]	1.35	Declared load profile	M
Standby Heat Loss [kWh/day]	0.90	Volume of DHW accounted for in test [litre]	120.00

Update

- Webinar on Heat Pump Methodology in DEAP 4 – Q1 2020

- Heat Pump Tool Update – Likely slip to Q2 2020
    - Gas Fired Heat Pumps
    - DX Heat Pumps
    - Low Temperature Heat Pump
    - Group Schemes

Questions

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Ireland's European Structural and
Investment Funds Programmes
2014-2020

Co-funded by the Irish Government
and the European Union

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