TEST REPORT

Report no.:
300-KLAB-17-022 SCOP

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Customer:	Contact person:	Tom Lapere
	Company:	Daikin Europe N.V.
	Address:	Zandvoordestraat 300
	City:	BE-8400 Oostende
	Tel.:	+32 59 55 81 11
Component:	Brand:	Daikin
	Type:	Air to water
	Model:	ERGA08DAV3/EHVH08S23DA6V
	Series no.:	0000002/C700002
	Production year:	2017/2017
Dates:	Components tested:	September/October 2017
Procedure:	See objective (page 2) for list of standards	
Remarks:	The unit was delivered by the customer. The installation and test settings were done according to the manufacturer's instructions.	
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Division/Centre: Danish Technological Institute
Energy and Climate
Heat Pump Laboratory, Aarhus

Date: 2017.12.04

Signature: Kamalathasan Arumugam
B.Sc. Engineer

Objective

The objective of this report is to document the following:

- The Seasonal Coefficient of Performance (SCOP) for low and medium temperature application for the average climate, according to EN 14825:2016. In order to calculate the SCOP, tests were carried out at the part load conditions stated in the tables on page 3 and 4.

- The sound power level of the outdoor unit according to EN 12102. The measurement of the sound power level is performed using the Class A method. ISO 3743-1 is the basic method of carrying out sound power measurements. The method is briefly described in appendix 1. For a more detailed description, please view the accreditation papers DANAK-300 (in Danish only). The sound power level is not measured for the indoor unit as the compressor is not part of this.

Test conditions at low temperature application for reference heating seasons

Part load conditions for reference SCOP and reference SCOPon calculation of air to water units at low temperature application for the reference heating season "A" = average, "W" = warmer, and "C" = colder.

Condition	Part Load Ratio in %				Outdoor heat exchanger		Indoor heat exchanger			
					Inlet dry (wet) bulb temperature °C		Fixed outlet °C	Variable outlet[d] °C		
	Formula	A	W	C	Outdoor air	Exhaust air	All climates	A	W	C
A	$(-7 - 16) / (T_{designh} - 16)$	88	n/a	61	−7(−8)	20(12)	[a] / 35	[a] / 34	n/a	[a] / 30
B	$(+2 - 16) / (T_{designh} - 16)$	54	100	37	2(1)	20(12)	[a] / 35	[a] / 30	[a] / 35	[a] / 27
C	$(+7 - 16) / (T_{designh} - 16)$	35	64	24	7(6)	20(12)	[a] / 35	[a] / 27	[a] / 31	[a] / 25
D	$(+12 - 16) / (T_{designh} - 16)$	15	29	11	12(11)	20(12)	[a] / 35	[a] / 24	[a] / 26	[a] / 24
E	$(TOL - 16) / (T_{designh} - 16)$				TOL	20(12)	[a] / 35	[a] / [b]	[a] / [b]	[a] / [b]
F	$(T_{bivalent} - 16) / (T_{designh} - 16)$				$T_{bivalent}$	20(12)	[a] / 35	[a] / [c]	[a] / [c]	[a] / [c]
G	$(-15 - 16) / (T_{designh} - 16)$	n/a	n/a	82	−15	20(12)	[a] / 35	n/a	n/a	[a] / 32

[a] With the water flow rate as determined at the standard rating conditions given in EN 14511–2 at 30/35 conditions for units with a fixed water flow rate, and with a fixed delta T of 5 K for units with a variable flow rate. If the resulting flow rate is below the minimum flow rate then this minimum flow rate is used with the outlet temperature.

[b] Variable outlet shall be calculated by interpolation from $T_{designh}$ and the temperature which is closest to the TOL.

[c] Variable outlet shall be calculated by interpolation between the upper and lower temperatures which are closest to the bivalent temperature.

[d] If the variable outlet temperature is below the minimum of the operation range of the unit, this minimum should be considered.

Additional information

Climate	$T_{designh}$ [°C]	$T_{bivalent}$ [°C]	TOL [°C]	Outlet temperature	Flow rate
Average	-10	-8	-10	Variable	Variable

Test conditions at medium temperature application for reference heating seasons

Part load conditions for reference SCOP and reference SCOPon calculation of air to water units at medium temperature application for the reference heating season "A" = average, "W" = warmer, and "C" = colder.

Condition	Part Load Ratio in %				Outdoor heat exchanger		Indoor heat exchanger			
					Inlet dry (wet) bulb temperature °C		Fixed outlet °C	Variable outlet[d] °C		
	Formula	A	W	C	Outdoor air	Exhaust air	All climates	A	W	C
A	$(-7 - 16) / (T_{designh} - 16)$	88	n/a	61	−7(−8)	20(12)	[a] / 55	[a] / 52	n/a	[a] / 44
B	$(+2 - 16) / (T_{designh} - 16)$	54	100	37	2(1)	20(12)	[a] / 55	[a] / 42	[a] / 55	[a] / 37
C	$(+7 - 16) / (T_{designh} - 16)$	35	64	24	7(6)	20(12)	[a] / 55	[a] / 36	[a] / 46	[a] / 32
D	$(+12 - 16) / (T_{designh} - 16)$	15	29	11	12(11)	20(12)	[a] / 55	[a] / 30	[a] / 34	[a] / 28
E	$(TOL - 16) / (T_{designh} - 16)$				TOL	20(12)	[a] / 55	[a] / [b]	[a] / [b]	[a] / [b]
F	$(T_{bivalent} - 16) / (T_{designh} - 16)$				$T_{bivalent}$	20(12)	[a] / 55	[a] / [c]	[a] / [c]	[a] / [c]
G	$(-15 - 16) / (T_{designh} - 16)$	n/a	n/a	82	−15	20(12)	[a] / 55	n/a	n/a	[a] / 49

[a] With the water flow rate as determined at the standard rating conditions given in EN 14511-2 at 47/55 conditions for units with a fixed water flow rate, and with a fixed delta T of 8 K for units with a variable flow rate. If the resulting flow rate is below the minimum flow rate then this minimum flow rate is used with the outlet temperature.

[b] Variable outlet shall be calculated by interpolation $T_{designh}$ and the temperature which is closest to the TOL.

[c] Variable outlet shall be calculated by interpolation between the upper and lower temperatures which are closest to the bivalent temperature.

[d] If the variable outlet temperature is below the minimum of the operation range of the unit, this minimum should be considered.

Additional information

Climate	$T_{designh}$ [°C]	$T_{bivalent}$ [°C]	TOL [°C]	Outlet temperature	Flow rate
Average	-10	-8	-10	Variable	Variable

Sound power test according to EN12102

N°	Test condition		Heat pump setting		
	Outdoor heat exchanger (dry/wet bulb) (°C)	Indoor heat exchanger (inlet/outlet) (°C)	Compressor speed (Hz)	Heating capacity (kW)	COP
1	7/6	47/55	56	7.59	2.83

Main test results for low temperature application at reference heating season average

Model (indoor + outdoor)	ERGA08DAV3 / EHVH08S23DA6V
Air-to-water heat pump	Y
Low-temperature heat pump	N
Equipped with supplementary heater	N
Heat pump combination heater	Y

Rated heat output[1)]	Prated	**8.27** [kW]
Seasonal space heating energy efficiency	η_s	**186.6** [%]
	SCOP	**4.74** [-]

Measured capacity for heating for part load at outdoor temperature Tj	Average Climate - Low temperature application	Tj=-7 °C	Pdh	7.22 [kW]
		Tj=2 °C	Pdh	4.28 [kW]
		Tj=7 °C	Pdh	3.35 [kW]
		Tj=12 °C	Pdh	3.96 [kW]
		Tj=bivalent temperature	Pdh	7.43 [kW]
		Tj=operation limit	Pdh	7.29 [kW]

Measured coefficient of performance at outdoor temperature Tj	Average Climate - Low temperature application	Tj=-7 °C	COPd	2.89 [-]
		Tj=2 °C	COPd	4.53 [-]
		Tj=7 °C	COPd	6.87 [-]
		Tj=12 °C	COPd	8.80 [-]
		Tj=bivalent temperature	COPd	2.73 [-]
		Tj=operation limit	COPd	2.53 [-]

Bivalent temperature	Tbivalent	-8 [°C]
Operation limit temperatures	TOL	-10 [°C]
	WTOL	- [°C]
Degradation coefficient[2)]	Cdh	0.95 [-]

Power consumption in modes other than active mode	Off mode	P_{OFF}	0.011 [kW]
	Thermostat-off mode	P_{TO}	0.021 [kW]
	Standby mode	P_{SB}	0.011 [kW]
	Crankcase heater mode	P_{CK}	0.011 [kW]
Supplementary heater[1)]	Rated heat output	P_{SUP}	- [kW]
	Type of energy input		Electrical

Other items	Capacity control		Variable
	Water flow control		Variable
	Water flow rate		-
	Annual energy consumption	Q_{HE}	3605 [kWh]

[1)] 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).

[2)] Determined by measurements

Main test results for medium temperature application at reference heating season average

Model (indoor + outdoor)	ERGA08DAV3 / EHVH08S23DA6V
Air-to-water heat pump	Y
Low-temperature heat pump	N
Equipped with supplementary heater	N
Heat pump combination heater	Y

Rated heat output[1)]	Prated	**8.29** [kW]
Seasonal space heating energy efficiency	η_s	**133.7** [%]
	SCOP	**3.42** [-]

Measured capacity for heating for part load at outdoor temperature Tj	Average Climate - Medium temperature application	Tj=-7 °C	Pdh	6.90 [kW]
		Tj=2 °C	Pdh	4.40 [kW]
		Tj=7 °C	Pdh	3.38 [kW]
		Tj=12 °C	Pdh	4.12 [kW]
		Tj=bivalent temperature	Pdh	7.65 [kW]
		Tj=operation limit	Pdh	6.73 [kW]

Measured coefficient of performance at outdoor temperature Tj	Average Climate - Medium temperature application	Tj=-7 °C	COPd	2.03 [-]
		Tj=2 °C	COPd	3.30 [-]
		Tj=7 °C	COPd	4.81 [-]
		Tj=12 °C	COPd	6.41 [-]
		Tj=bivalent temperature	COPd	1.98 [-]
		Tj=operation limit	COPd	1.72 [-]

Bivalent temperature	Tbivalent	-8 [°C]
Operation limit	TOL	-10 [°C]
temperatures	WTOL	- [°C]
Degradation coefficient[2)]	Cdh	0.97 [-]

Power consumption in modes other than active mode	Off mode	P_{OFF}	0.011 [kW]
	Thermostat-off mode	P_{TO}	0.021 [kW]
	Standby mode	P_{SB}	0.011 [kW]
	Crankcase heater mode	P_{CK}	0.011 [kW]
Supplementary heater[1)]	Rated heat output	P_{SUP}	- [kW]
	Type of energy input		Electrical

Other items	Capacity control		Variable
	Water flow control		Variable
	Water flow rate		-
	Annual energy consumption	Q_{HE}	5010 [kWh]

[1)] 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).

[2)] Determined by measurements

Results of sound power test according to EN12102

N°	Sound power level LW(A) [dB re 1pW]	Uncertainty (dB) (weighted value)
1	60	0.5

The uncertainty value is a weighted value using the level and frequency dependant influence for each 1/1-octave level on the final A-weighted sound power level.

The A-weighted total sound power level is determined for the measured frequency range from 100 Hz to 10 kHz.

SCOP calculation for low temperature and average climate conditions

Calculation of reference SCOP

$$SCOP = \frac{P_{designh} \times H_{he}}{\frac{P_{designh} \times H_{he}}{SCOP_{on}} + H_{TO} \times P_{TO} + H_{SB} \times P_{SB} + H_{CK} \times P_{CK} + H_{OFF} \times P_{OFF}}$$

Where

P_{design} = Heating load of the building at design temperature, kW

H_{he} = Number of equivalent heating hours (1400), h

H_{TO}, H_{SB}, H_{CK}, H_{OFF} = Number of hours for which the unit is considered to work in thermostat off mode, standby mode, crankcase heater mode and off mode, h, respectively

PTO, PSB, PCK, POFF = Electricity consumption during thermostat off mode, standby mode, crankcase heater mode and off mode, kW, respectively

Data for SCOP calculation:

	Outdoor air [˚C]	Part load ratio [%]	Part load [kW]	Measured capacity [kW]	COP at measured capacity COPm [-]	Degradation coefficient Cd [-]	Capacity ratio CR [-]	COP at part load COPpl [-]
A	-7	88	7.32	7.22	2.89	0.99	1.00	2.89
B	2	54	4.45	4.28	4.53	0.98	1.00	4.53
C	7	35	2.86	3.35	6.87	0.96	0.85	6.82
D	12	15	1.27	3.96	8.80	0.95	0.32	8.01
E(TOL)	-10	100	8.27	7.29	2.53	0.99	1.00	2.53
F(Bivalent)	-8	92	7.63	7.43	2.73	0.99	1.00	2.73

	Hours [h]	Power input measured [W]	Power input applied for SCOP calculation [W]	Annual energy input [kWh]
Thermostat Off mode	178	21	10	1.78
Off mode	3672	11	11	40.39
Crankcase Heater	3850	11	0	0.00
Standby mode	0	11	11	0.00
			Total	42.17

Note: Prior to the SCOP calculation, the power consumption during standby mode is deducted from the crankcase heater mode, according to EN14825:2016.

Calculation of SCOP

	Outdoor temperature (dry bulb)	Hours	Heat demand	Heat demand covered by heat pump	Electrical back up heater	COP(pl)	Annual heat demand	Annual energy input including electrical back up heater
	Tj	hj	Ph(Tj)		elbu(Tj)		hj x Ph(TJ)	
	[°C]	[h]	[kW]	[kW]	[kW]	[-]	[kWh]	[kWh]
E(TOL)	-10	1	8.27	7.29	0.98	2.53	8.27	3.86
	-9	25	7.95	7.36	0.49	2.63	198.80	83.18
F(bivalent)	-8	23	7.63	7.43	0.00	2.73	175.58	64.31
A	-7	24	7.32	7.22	0.00	2.89	175.58	60.75
	-6	27	7.00	6.89	0.00	3.07	188.94	61.50
	-5	68	6.68	6.57	0.00	3.25	454.21	139.57
	-4	91	6.36	6.24	0.00	3.44	578.90	168.45
	-3	89	6.04	5.91	0.00	3.62	537.87	148.63
	-2	165	5.73	5.59	0.00	3.80	944.69	248.53
	-1	173	5.41	5.26	0.00	3.98	935.46	234.84
	0	240	5.09	4.93	0.00	4.17	1221.42	293.22
	1	280	4.77	4.61	0.00	4.35	1335.92	307.27
B	2	320	4.45	4.28	0.00	4.53	1424.98	314.57
	3	357	4.14	4.09	0.00	4.99	1476.20	295.95
	4	356	3.82	3.82	0.00	5.45	1358.82	249.51
	5	303	3.50	3.50	0.00	5.90	1060.15	179.56
	6	330	3.18	3.18	0.00	6.36	1049.65	164.99
C	7	326	2.86	2.86	0.00	6.82	933.24	136.84
	8	348	2.54	2.54	0.00	7.06	885.53	125.46
	9	335	2.23	2.23	0.00	7.30	745.89	102.23
	10	315	1.91	1.91	0.00	7.53	601.17	79.79
	11	215	1.59	1.59	0.00	7.77	341.93	43.99
D	12	169	1.27	1.27	0.00	8.01	215.02	26.84
	13	151	0.95	0.95	0.00	8.25	144.09	17.47
	14	105	0.64	0.64	0.00	8.49	66.80	7.87
	15	74	0.32	0.32	0.00	8.72	23.54	2.70
						Total	17082.64	3561.88

SCOP_on	4.80
SCOP_ref	4.74

SCOP calculation for medium temperature and average climate conditions

Calculation of reference SCOP

$$SCOP = \frac{P_{designh} \times H_{he}}{\frac{P_{designh} \times H_{he}}{SCOP_{on}} + H_{TO} \times P_{TO} + H_{SB} \times P_{SB} + H_{CK} \times P_{CK} + H_{OFF} \times P_{OFF}}$$

Where

P_{design} = Heating load of the building at design temperature, kW

H_{he} = Number of equivalent heating hours (1400), h

H_{TO}, H_{SB}, H_{CK}, H_{OFF} = Number of hours for which the unit is considered to work in thermostat off mode, standby mode, crankcase heater mode and off mode, h, respectively

PTO, PSB, PCK, POFF = Electricity consumption during thermostat off mode, standby mode, crankcase heater mode and off mode, kW, respectively

Data for SCOP calculation:

	Outdoor air [˚C]	Part load ratio [%]	Part load [kW]	Measured capacity [kW]	COP at measured capacity COPm [-]	Degradation coefficient Cd [-]	Capacity ratio CR [-]	COP at part load COPpl [-]
A	-7	88	7.33	6.90	2.03	0.99	1.00	2.03
B	2	54	4.46	4.40	3.30	0.98	1.00	3.30
C	7	35	2.87	3.38	4.81	0.97	0.85	4.78
D	12	15	1.28	4.12	6.41	0.97	0.31	5.97
E(TOL)	-10	100	8.29	6.73	1.72	0.99	1.00	1.72
F(Bivalent)	-8	92	7.65	7.65	1.98	0.99	1.00	1.98

	Hours [h]	Power input measured [W]	Power input applied for SCOP calculation [W]	Annual energy input [kWh]
Thermostat Off mode	178	21	10	1.78
Off mode	3672	11	11	40.39
Crankcase Heater	3850	11	0	0.00
Standby mode	0	11	11	0.00
			Total	42.17

Note: Prior to the SCOP calculation, the power consumption during standby mode is deducted from the crankcase heater mode, according to EN14825:2016.

Calculation of SCOP

	Outdoor temperature (dry bulb)	Hours	Heat demand	Heat demand covered by heat pump	Electrical back up heater	COP(pl)	Annual heat demand	Annual energy input including electrical back up heater
	Tj	hj	Ph(Tj)		elbu(Tj)		hj x Ph(TJ)	
	[°C]	[h]	[kW]	[kW]	[kW]	[-]	[kWh]	[kWh]
E(TOL)	-10	1	8.29	6.73	1.56	1.72	8.29	5.47
	-9	25	7.97	7.19	0.78	1.85	199.28	116.68
F(bivalent)	-8	23	7.65	7.65	0.00	1.98	176.00	88.89
A	-7	24	7.33	6.90	0.00	2.03	176.00	86.70
	-6	27	7.01	6.62	0.00	2.17	189.39	87.23
	-5	68	6.70	6.34	0.00	2.31	455.31	196.92
	-4	91	6.38	6.07	0.00	2.45	580.30	236.54
	-3	89	6.06	5.79	0.00	2.59	539.17	207.82
	-2	165	5.74	5.51	0.00	2.74	946.97	346.17
	-1	173	5.42	5.23	0.00	2.88	937.73	325.98
	0	240	5.10	4.96	0.00	3.02	1224.37	405.72
	1	280	4.78	4.68	0.00	3.16	1339.15	423.93
B	2	320	4.46	4.40	0.00	3.30	1428.43	432.86
	3	357	4.14	4.14	0.00	3.60	1479.77	411.40
	4	356	3.83	3.83	0.00	3.89	1362.11	349.81
	5	303	3.51	3.51	0.00	4.19	1062.71	253.59
	6	330	3.19	3.19	0.00	4.49	1052.19	234.46
C	7	326	2.87	2.87	0.00	4.78	935.49	195.52
	8	348	2.55	2.55	0.00	5.02	887.67	176.74
	9	335	2.23	2.23	0.00	5.26	747.69	142.13
	10	315	1.91	1.91	0.00	5.50	602.62	109.60
	11	215	1.59	1.59	0.00	5.74	342.76	59.75
D	12	169	1.28	1.28	0.00	5.97	215.54	36.08
	13	151	0.96	0.96	0.00	6.21	144.44	23.25
	14	105	0.64	0.64	0.00	6.45	66.96	10.38
	15	74	0.32	0.32	0.00	6.69	23.59	3.53
						Total	17123.95	4967.13

SCOP_on	3.45
SCOP_ref	3.42

Indoor unit

Indoor unit - rating plate

Outdoor unit

Outdoor unit - rating plate

Detailed test results of SCOP test low temperature

Detailed result for 'EN 14825:2016' Average Low (A) A-7/W34		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		A
Condition temperature:	°C	-7
Part load:	%	88%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	7.32
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**7.22**
COP	-	**2.89**
Power consumption	kW	**2.49**
Measured		
Heating capacity	kW	7.25
COP	-	2.87
Power consumption	kW	2.53
During heating		
Air temperature dry bulb	°C	-7.0
Air temperature wet bulb	°C	-8.1
Inlet temperature	°C	29.0
Outlet temperature	°C	34.1
Outlet temperature (Time averaged)	°C	**34.1**
Flow	l/h	1349
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	160
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.034

Detailed result for 'EN 14825:2016' Average Low (B) A2/W30		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		B
Condition temperature:	°C	2
Part load:	%	54%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	4.45
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**4.28**
COP	-	**4.53**
Power consumption	kW	**0.94**
Measured		
Heating capacity	kW	4.30
COP	-	4.44
Power consumption	kW	0.97
During heating		
Air temperature dry bulb	°C	2.0
Air temperature wet bulb	°C	0.9
Inlet temperature	°C	25.0
Outlet temperature	°C	30.0
Outlet temperature (Time averaged)	°C	**30.0**
Flow	l/h	809
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	157
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.024

Detailed result for 'EN 14825:2016' Average Low (C) A7/W27		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		C
Condition temperature:	°C	7
Part load:	%	35%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	2.86
CR:	-	0.85
Minimum flow reached:	-	No
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**3.35**
COP	-	**6.87**
Power consumption	kW	**0.49**
Measured		
Heating capacity	kW	3.37
COP	-	6.64
Power consumption	kW	0.51
During heating		
Air temperature dry bulb	°C	7.0
Air temperature wet bulb	°C	6.0
Inlet temperature	°C	22.7
Outlet temperature	°C	27.7
Outlet temperature (Time averaged)	°C	**27.0**
Flow	l/h	584
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	158
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.019

Detailed result for 'EN 14825:2016' Average Low (D) A12/W24		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		D
Condition temperature:	°C	12
Part load:	%	15%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	1.27
CR:	-	0.32
Minimum flow reached:	-	No
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**3.96**
COP	-	**8.80**
Power consumption	kW	**0.45**
Measured		
Heating capacity	kW	3.98
COP	-	8.45
Power consumption	kW	0.47
During heating		
Air temperature dry bulb	°C	12.0
Air temperature wet bulb	°C	11.0
Inlet temperature	°C	22.4
Outlet temperature	°C	27.4
Outlet temperature (Time averaged)	°C	**24.0**
Flow	l/h	689
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	174
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.022

Detailed result for 'EN 14825:2016' Average Low (E) A-10/W35		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		E
Condition temperature:	°C	-10
Part load:	%	100%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	8.27
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**7.29**
COP	-	**2.53**
Power consumption	kW	**2.88**
Measured		
Heating capacity	kW	7.32
COP	-	2.52
Power consumption	kW	2.91
During heating		
Air temperature dry bulb	°C	-10.0
Air temperature wet bulb	°C	-11.1
Inlet temperature	°C	30.0
Outlet temperature	°C	35.1
Outlet temperature (Time averaged)	°C	**35.1**
Flow	l/h	1347
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	188
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.034

Detailed result for 'EN 14825:2016' Average Low (F) A-8/W34.3		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Low
Condition name:		F
Condition temperature:	°C	-8
Part load:	%	92%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.27
Heating demand:	kW	7.63
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**7.43**
COP	-	**2.73**
Power consumption	kW	**2.72**
Measured		
Heating capacity	kW	7.46
COP	-	2.71
Power consumption	kW	2.75
During heating		
Air temperature dry bulb	°C	-8.0
Air temperature wet bulb	°C	-9.1
Inlet temperature	°C	29.3
Outlet temperature	°C	34.3
Outlet temperature (Time averaged)	°C	**34.3**
Flow	l/h	1419
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	185
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.035

Detailed test results of SCOP test medium temperature

Detailed result for 'EN 14825:2016' Average Medium (A) A-7/W52		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		A
Condition temperature:	°C	-7
Part load:	%	88%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	7.33
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**6.90**
COP	-	**2.03**
Power consumption	kW	**3.40**
Measured		
Heating capacity	kW	6.92
COP	-	2.02
Power consumption	kW	3.43
During heating		
Air temperature dry bulb	°C	-7.0
Air temperature wet bulb	°C	-8.1
Inlet temperature	°C	44.0
Outlet temperature	°C	52.0
Outlet temperature (Time averaged)	°C	**52.0**
Flow	l/h	819
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	157
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.024

Detailed result for 'EN 14825:2016' Average Medium (B) A2/W42		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		B
Condition temperature:	°C	2
Part load:	%	54%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	4.46
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Transient
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**4.40**
COP	-	**3.30**
Power consumption	kW	**1.33**
Measured		
Heating capacity	kW	4.41
COP	-	3.27
Power consumption	kW	1.35
During heating		
Air temperature dry bulb	°C	2.0
Air temperature wet bulb	°C	0.9
Inlet temperature	°C	34.0
Outlet temperature	°C	42.2
Outlet temperature (Time averaged)	°C	**42.2**
Flow	l/h	500
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	156
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.017

Detailed result for 'EN 14825:2016' Average Medium (C) A7/W36		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		C
Condition temperature:	°C	7
Part load:	%	35%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	2.87
CR:	-	0.85
Minimum flow reached:	-	Yes
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**3.38**
COP	-	**4.81**
Power consumption	kW	**0.70**
Measured		
Heating capacity	kW	3.40
COP	-	4.72
Power consumption	kW	0.72
During heating		
Air temperature dry bulb	°C	7.0
Air temperature wet bulb	°C	6.0
Inlet temperature	°C	30.5
Outlet temperature	°C	37.1
Outlet temperature (Time averaged)	°C	**36.1**
Flow	l/h	450
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	152
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.016

Detailed result for 'EN 14825:2016' Average Medium (D) A12/W30		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		D
Condition temperature:	°C	12
Part load:	%	15%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	1.28
CR:	-	0.31
Minimum flow reached:	-	Yes
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**4.12**
COP	-	**6.41**
Power consumption	kW	**0.64**
Measured		
Heating capacity	kW	4.14
COP	-	6.28
Power consumption	kW	0.66
During heating		
Air temperature dry bulb	°C	12.0
Air temperature wet bulb	°C	11.0
Inlet temperature	°C	27.5
Outlet temperature	°C	35.5
Outlet temperature (Time averaged)	°C	**30.0**
Flow	l/h	448
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	152
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.016

Detailed result for 'EN 14825:2016' Average Medium (E) A-10/W55		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		E
Condition temperature:	°C	-10
Part load:	%	100%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	8.29
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**6.73**
COP	-	**1.72**
Power consumption	kW	**3.90**
Measured		
Heating capacity	kW	6.75
COP	-	1.72
Power consumption	kW	3.92
During heating		
Air temperature dry bulb	°C	-10.0
Air temperature wet bulb	°C	-11.1
Inlet temperature	°C	47.0
Outlet temperature	°C	55.1
Outlet temperature (Time averaged)	°C	**55.1**
Flow	l/h	729
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	171
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.022

Detailed result for 'EN 14825:2016' Average Medium (F) A-8/W53		
Tested according to:		EN 14825:2016
Climate zone:		Average
Temperature application:		Medium
Condition name:		F
Condition temperature:	°C	-8
Part load:	%	92%
Chosen Tbivalent	°C	-8
Tdesign	°C	-10
Pdesign	kW	8.29
Heating demand:	kW	7.65
CR:	-	1
Minimum flow reached:	-	No
Measurement type:		Steady state
Data treatment according to EN14511-3:2013 Annex C		
Integrated circulation pump:		Yes
Corrected for power input of liquid pumps (Final result)		
Heating capacity	kW	**7.65**
COP	-	**1.98**
Power consumption	kW	**3.86**
Measured		
Heating capacity	kW	7.68
COP	-	1.98
Power consumption	kW	3.88
During heating		
Air temperature dry bulb	°C	-8.0
Air temperature wet bulb	°C	-9.0
Inlet temperature	°C	45.0
Outlet temperature	°C	53.1
Outlet temperature (Time averaged)	°C	**53.1**
Flow	l/h	830
Circulation pump		
Measured: Static differential pressure, liquid pump	mbar	155
Used in calculation: Static differential pressure, liquid pump	mbar	100
Correction of power input, liquid pump	kW	0.025

Detailed test results of sound power measurement

Sound power levels according to ISO 3743-1:2010

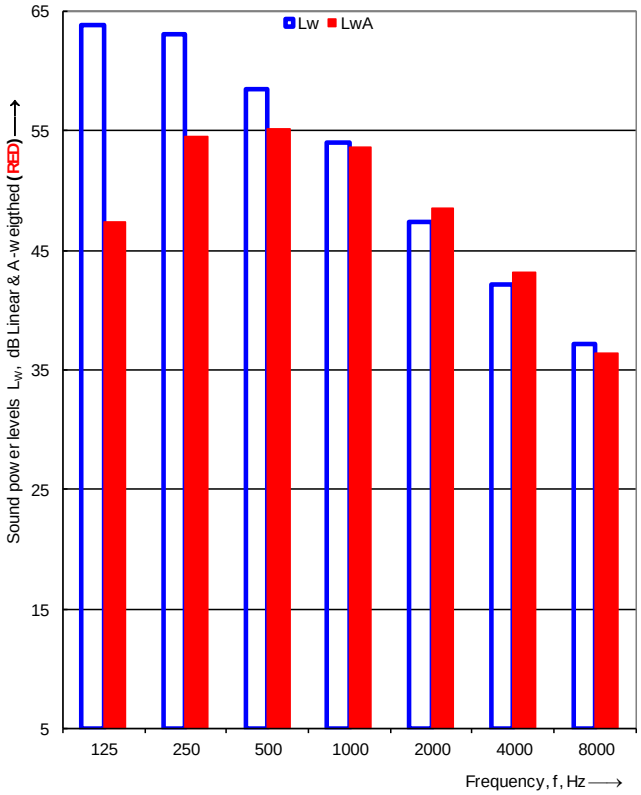
TEKNOLOGISK INSTITUT

Engineering method for small, movable sources in reverberant fields - Comparison method for hard-walled test rooms

Client:	Daikin Europe N.V. Date of test: 03-11-2017
Object:	Type: Split air to water heat pump, Model: ERGA08DAV3(Outdoor)+EHVH08S23DA6V(Indoor)
Mounting conditions:	The tested outdoor unit is standing free on four 5.5 cm thick heavy concrete tiles placed on a vibration damping mat, which is placed on a water drop tray. The water drop tray is located on a 2.5 cm thick wooden board laying on the floor. The testing outdoor unit is mounted on the supporting metal support frame using 4 vibration isolatores. The sound power measurement on outdoor unit only. The indoor unit is placed in the neighboring room.
Operating conditions:	A7/W55, Compressor speed: 56 [Hz], Heating capacity: 7.59[kW], COP: 2.83, Water flow rate: 831 [l/h], Fan speed: 740 [rpm]

Static pressure:	1013 kPa			Reference box:	
Air temperature:	7,0 °C			L1:	0,9 m
Relative air humidity:	84,0 %			L2:	0,3 m
Test room volume:	102,8 m³	Room:	Room 1	L3:	0,7 m
Area, S, of test room:	138,9 m²			Volume:	0,2 m³

Frequency f [Hz]	L_w 1/3 octave [dB]	1/1 oct [dB]
100	60,6	
125	59,4	63,9
160	56,2	
200	59,5	
250	57,2	63,1
315	57,9	
400	54,0	
500	53,6	58,4
630	53,3	
800	51,7	
1000	48,3	54,0
1250	45,7	
1600	44,7	
2000	41,6	47,4
2500	40,3	
3150	38,0	
4000	37,7	42,2
5000	36,4	
6300	34,2	
8000	31,7	37,2
10000	30,4	



Sound power level $L_w(A)$: 60 dB [re 1pW]

Name of test institute: DTI
No. of test report: 300-KLAB-17-022

Date: 03-11-2017

Appendix 1: Test Procedure

The measurements of the emitted sound power level from the heat pump are carried out according to the following:

- DS/EN 14511:2013
- EN 12102
- DS/EN 3743/1

The basic acoustic measurement standard DS/EN 3743-1 is a comparison method using a calibrated reference sound source. Two series of sound pressure measurements are made under exactly the same acoustic conditions, e.g. the same microphone positions, temperature and air humidity. The calibrated sound power levels are known for the reference sound source at each frequency band, and they are used in the estimation of the acoustical correction factor for the calculation of the sound power emitted from the tested heat pump. The background noise levels are measured and used for relevant corrections.

The final total A-weighted sound power level is based on measurements and calculations in 1/3-octave levels, which then are summed into 1/1-octave levels. The uncertainty is estimated on the weighted standard deviations in 1/1-octave levels.

The actual microphone positions and correction values are saved in data files linked to the complete project documentation according to the DANAK-accreditation.

The complete measurement system is documented and regularly calibrated according to DANAK.

The detailed description of the measurement method is given in Danish in the quality database system "QA Web" at Danish Technological Institute, which is accessible by DANAK.

mgr Maciej Stanisław Krajewski
Tłumacz przysięgły języka angielskiego
ul. Meissnera 9 m. 49
03-982 Warszawa

Wyniki głównych testów dla zastosowań niskotemperaturowych przy średniej referencyjnej sezonu grzewczego

Model (jedn. wewnętrzna + zewnętrzna)	ERGA08DAV3 / EHVH08S23DA6V
Pompa ciepła powietrze-woda	Y
Niskotemperaturowa pompa ciepła	N
Wyposażona w dodatkową grzałkę	N
Kombinowana grzałka z pompą ciepła	Y

Znamionowa moc cieplna[1)]	Prated	**8,27**	[kW]
Sezonowa efektywność energetyczna ogrzewania pomieszczeń	η_s	**186,6**	[%]
	SCOP	**4,74**	[-]

Zmierzona wydajność grzewcza przy częściowym obciążeniu przy temperaturze zewnętrznej Tj	Umiarkowany klimat - Zastosowanie w niskiej temperaturze	Tj = -7°C	Pdh	7,22	[kW]
		Tj = 2 °C	Pdh	4,28	[kW]
		Tj = 7 °C	Pdh	3,35	[kW]
		Tj = 12°C	Pdh	3,96	[kW]
		Tj = punkt biwalentny	Pdh	7,43	[kW]
		Tj = granica działania	Pdh	7,29	[kW]

Zmierzony współczynnik wydajności przy temperaturze zewnętrznej Tj	Umiarkowany klimat - Zastosowanie w niskiej temperaturze	Tj = -7°C	COPd	2,89	[-]
		Tj = 2 °C	COPd	4,53	[-]
		Tj = 7 °C	COPd	6,87	[-]
		Tj = 12°C	COPd	8,80	[-]
		Tj = punkt biwalentny	COPd	2,73	[-]
		Tj = granica działania	COPd	2,53	[-]

Punkt biwalentny	Tbivalent	-8	[°C]
Temperatura granicy	TOL	-10	[°C]
działania	WTOL	-	[°C]
Współczynnik strat[2)]	Cdh	0,95	[-]

Pobór mocy w trybach innych niż tryb aktywny	Tryb wyłączony	P_{OFF}	0,011	[kW]
	Tryb wyłączenia termostatu	P_{TO}	0,021	[kW]
	Tryb gotowości	P_{SB}	0,011	[kW]
	Tryb grzałki karteru	P_{CK}	0,011	[kW]
Dodatkowa grzałka[11]	Znamionowa moc cieplna	P_{SUP}	-	[kW]
	Rodzaj energii zasilania		elektryczna	

Inne pozycje	Kontrola wydajności		Zmienna
	Kontrola przepływu wody		Zmienna
	Natężenie przepływu wody		-
	Roczne zużycie energii	Q_{HE}	3605 [kWh]

[1)] W przypadku ogrzewaczy pomieszczeń z pompą ciepła i wielofunkcyjnych ogrzewaczy z pompą ciepła znamionowa moc cieplna (Prated) jest równa projektowemu obciążeniu grzewczemu (Pdesignh), a znamionowa moc grzewcza grzałki dodatkowej (Psup), jest równa dodatkowej wydajności grzewczej (sup(Tj)).

[2)] Ustalono na podstawie pomiarów

Wyniki głównych testów dla zastosowań średniotemperaturowych przy średniej referencyjnej sezonu grzewczego

Model (jedn. wewnętrzna + zewnętrzna)	ERGA08DAV3 / EHVH08S23DA6V
Pompa ciepła powietrze-woda	Y
Niskotemperaturowa pompa ciepła	N
Wyposażona w dodatkową grzałkę	N
Kombinowana grzałka z pompą ciepła	Y

Znamionowa moc cieplna[1)]	Prated	**8,29**	[kW]
Sezonowa efektywność energetyczna ogrzewania pomieszczeń	η_s	**133,7**	[%]
	SCOP	**3,42**	[-]

Zmierzona wydajność grzewcza przy częściowym obciążeniu przy temperaturze zewnętrznej Tj	Umiarkowany klimat - Zastosowanie w średniej temperaturze	Tj = -7°C	Pdh	6,90	[kW]
		Tj = 2 °C	Pdh	4,40	[kW]
		Tj = 7 °C	Pdh	3,38	[kW]
		Tj = 12°C	Pdh	4,12	[kW]
		Tj = punkt biwalentny	Pdh	7,65	[kW]
		Tj = granica działania	Pdh	6,73	[kW]

Zmierzony współczynnik wydajności przy temperaturze zewnętrznej Tj	Umiarkowany klimat - Zastosowanie w średniej temperaturze	Tj = -7°C	COPd	2,03	[-]
		Tj = 2 °C	COPd	3,30	[-]
		Tj = 7 °C	COPd	4,81	[-]
		Tj = 12°C	COPd	6,41	[-]
		Tj = punkt biwalentny	COPd	1,98	[-]
		Tj = granica działania	COPd	1,72	[-]

Punkt biwalentny	Tbivalent	-8	[°C]
Temperatura granicy	TOL	-10	[°C]
działania	WTOL	-	[°C]
Współczynnik strat[2)]	Cdh	0,97	[-]

Pobór mocy w trybach innych niż tryb aktywny	Tryb wyłączony	P_{OFF}	0,011	[kW]
	Tryb wyłączenia termostatu	P_{TO}	0,021	[kW]
	Tryb gotowości	P_{SB}	0,011	[kW]
	Tryb grzałki karteru	P_{CK}	0,011	[kW]
Dodatkowa grzałka[11]	Znamionowa moc cieplna	P_{SUP}	-	[kW]
	Rodzaj energii zasilania		elektryczna	

Inne pozycje	Kontrola wydajności		Zmienna
	Kontrola przepływu wody		Zmienna
	Natężenie przepływu wody		-
	Roczne zużycie energii	Q_{HE}	5010 [kWh]

[1)] W przypadku ogrzewaczy pomieszczeń z pompą ciepła i wielofunkcyjnych ogrzewaczy z pompą ciepła znamionowa moc cieplna (Prated) jest równa projektowemu obciążeniu grzewczemu (Pdesignh), a znamionowa moc grzewcza grzałki dodatkowej (Psup), jest równa dodatkowej wydajności grzewczej (sup(Tj)).

[2)] Ustalono na podstawie pomiarów

Wyniki testu mocy akustycznej zgodnie z EN12102

Nr	Poziom mocy akustycznej LW(A) [dB re 1pW]	Niepewność (dB) (wartość ważona)
1	60	0,5

Wartość niepewności jest wartością ważoną wykorzystującą wpływ zależny od poziomu i częstotliwości dla każdego poziomu 1/1 oktawy na końcowy poziom mocy akustycznej ważony A.

Całkowity poziom mocy akustycznej ważony A jest wyznaczany dla mierzonego zakresu częstotliwości od 100 Hz do 10 kHz.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Ja, Maciej Stanisław Krajewski, tłumacz przysięgły języka angielskiego wpisany na listę tłumaczy przysięgłych Ministra Sprawiedliwości RP pod numerem TP/2193/05, poświadczam zgodność powyższego tłumaczenia z dokumentem elektronicznym sporządzonym w języku angielskim.

Warszawa, 10 czerwca 2024 roku. Nr Rep. 219/24.

Niniejszy dokument został podpisany kwalifikowanym podpisem elektronicznym zgodnym z rozporządzeniem UE nr 910/2014 (rozporządzenie eIDAS).

Maciej Stanisław Krajewski
Elektronicznie podpisany przez Maciej Stanisław Krajewski
Data: 2024.06.10 11:54:51 +02'00'

TŁUMACZ PRZYSIĘGŁY JĘZYKA ANGIELSKIEGO MACIEJ KRAJEWSKI NR TP/2193/05

OŚWIADCZENIE

Producent Daikin Airconditioning Poland Sp. z.o.o oświadcza, iż pompy ciepła

1) EHVH04S18E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVH04S23E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVX04S18E3V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVX04S18E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVX04S23E3V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVX04S23E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHVZ04S18E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHBH04E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHBX04E6V / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSH04P30E / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSHB04P30E / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSX04P30E / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSXB04P30E /ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSX04P50E / ERGA04EV
Oznaczenie/typ/identyfikator modelu

1) EHSXB04P50E / ERGA04EV
Oznaczenie/typ/identyfikator modelu

2) EHVH08S18E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVH08S18E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVH08S23E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVH08S23E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVX08S18E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVX08S18E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVX08S23E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVX08S23E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVZ08S18E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVZ08S18E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVZ08S23E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHVZ08S23E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHBH08E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHBH08E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHBX08E6V / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHBX08E9W / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSH08P30E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSHB08P30E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSH08P50E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSHB08P50E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSX08P30E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSXB08P30E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSX08P50E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

2) EHSXB08P50E / ERGA06EVH
Oznaczenie/typ/identyfikator modelu

3) EHVH08S18E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVH08S18E9W/ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVH08S23E6V/ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVH08S23E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVX08S18E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVX08S18E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVX08S23E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVX08S23E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVZ08S18E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVZ08S18E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVZ08S23E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHVZ08S23E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHBH08E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHBH08E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHBX08E6V / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHBX08E9W / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSH08P30E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSHB08P30E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSH08P50E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSHB08P50E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSX08P30E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSXB08P30E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSX08P50E / ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

3) EHSXB08P50E/ERGA08EVH7
Oznaczenie/typ/identyfikator modelu

Należą do jednego podtypu w danym typoszeregu i spełniają łącznie następujące warunki:

- identyczna konstrukcja obiegu chłodniczego, ten sam czynnik chłodniczy/roboczy;
- ten sam producent, typ i liczba sprężarek;
- ten sam typ elementu rozprężnego;
- ten sam typ skraplacza;
- ten sam typ parownika;
- ten sam typ procesu odszraniania;
- ten sam sterownik i zasada sterowania wydajnością;

- ten sam producent, typ i liczba wentylatorów parownika (w przypadku powietrznych pomp ciepła) i zasada sterowania wydajnością (stała, zmienna lub stopniowana regulacja prędkości obrotowej);
- urządzenia z i bez zaworu czterodrogowego nie mogą być zaliczone do tego samego typoszeregu.

Mateusz Jaworski

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POLAND Sp. z o.o.
02-255 Warszawa, ul. Krakowiaków 36
tel. +48 22 319-90-00
Regon: 010650813, NIP: 113-00-87-046 (6)

Poznań, 11.06.2024

Miejscowość, data

Podpis osoby upoważnionej

OŚWIADCZENIE

Nazwa serii modeli aktualnych (seria E) w ofercie uległa zmianie względem badanego urządzenia (seria D). Daikin Airconditioning Poland Sp. z o.o. oświadcza, że zmiany względem serii nie miały wpływu na parametry urządzeń i raport z badań jest prawidłowy. Zmiany jakie miały miejsce między seriami zostały opisane poniżej.

Badany model: EHVH08S23**D**A6V / ERGA08**D**AV3

Odpowiednik nowego modelu: EHVH08S23**E**A6V / ERGA08**E**AV3H7

Różnice między serią **D** a **E**:

- Kompatybilność z chmurą Daikin w standardzie.

- Połączenia paneli słonecznych (PV) i Smart Grid (SG) bezpośrednio na płytce PCB jednostki wewnętrznej.

- Zmiana budowy pokrywy bocznej jednostki zewnętrznej.

Dodatkowo agregaty ERGA06EAV**H** i ERGA08EAV**H7**, otrzymały rozszerzone oznaczenia **H** i **H7**, które nie miały wpływu na kluczowe komponenty i parametry dla klimatu umiarkowanego.

Mateusz Jaworski

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