

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	low (35°C) - average										Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A7 / W30-35 (87% r. H.)	A2 / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	A2 / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)	Abiv / W_0							
Arkteos Site de kerquessaud F - 44350 Guérande	Zuran 4 120W	270-16-24	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	12.0	11.3	14.7	13.6	11.3	12.7	13.4	13.6	-7 / 34	2.07	3.74	67.7	-		
						El. Leistung / Input power [kW]	2.8	3.3	6.0	5.3	3.1	2.6	2.2	5.3							
						COP [-]	4.3	3.4	2.4	2.5	3.6	4.9	6.2	2.5							
AJPAC 245W tri	278-17-05	c,d,e	R410A	R134A	7.5	Heizleistung / Heat. cap. [kW]	23.8	20.9	23.2	25.6	20.9	24.5	26.3	25.6	-7 / 34	4.00	3.62	65.2	56.1		
						El. Leistung / Input power [kW]	5.8	6.4	9.4	9.7	6.0	5.3	4.9	9.7							
						COP [-]	4.1	3.3	2.5	2.6	3.5	4.6	5.4	2.6							
Caleos Industry SA Rue Pierre-Péquignat 20 CH - 2900 Porrentruy	CAL014	489-20-30	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	9.1	7.3	8.3	8.8	7.4	8.8	11.1	8.8	-7 / 34	1.57	3.54	60.2	-		
						El. Leistung / Input power [kW]	2.3	2.2	3.7	3.8	2.0	2.0	2.1	3.8							
						COP [-]	4.0	3.3	2.2	2.3	3.6	4.3	5.3	2.3							
CoolStar AG Sonnenbuel 14 CH - 6024 Hildisrieden	WMTK10000	501-20-42	b,d	R32	14.0	Heizleistung / Heat. cap. [kW]	10.1	8.3	7.5	8.0	5.1	3.2	1.8	8.0	-7 / 34	1.75	4.94	61.1	-		
						El. Leistung / Input power [kW]	2.1	2.2	2.6	2.6	1.1	0.5	0.2	2.6							
						COP [-]	4.9	3.8	2.9	3.1	4.8	6.9	8.7	3.1							
WMT17000a & WMT17000i	499-20-40	c,d	R32	1.8	Heizleistung / Heat. cap. [kW]	15.8	12.7	12.1	12.7	8.0	5.4	3.4	12.7	-7 / 34	2.73	4.40	67.0	41.1			
					El. Leistung / Input power [kW]	3.6	3.8	4.8	4.9	1.9	0.8	0.4	4.9								
					COP [-]	4.4	3.4	2.5	2.6	4.2	6.5	8.0	2.6								
CTA AG Hunzigenstrasse 2 CH - 3110 Münsingen	AH SCI 25	488-20-29	c,d	R32	1.8	Heizleistung / Heat. cap. [kW]	10.3	12.1	20.8	18.0	11.3	7.4	8.4	20.8	-10 / 35	1.77	4.58	49.1	37.5		
						El. Leistung / Input power [kW]	2.1	3.0	8.1	6.8	2.4	1.2	1.1	8.1							
						COP [-]	4.8	4.1	2.6	2.6	4.8	6.1	7.4	2.6							
De Dietrich Thermique 57 rue de la Gare F - 67580 Mertzwiller	Alezio S4.5 MREM V200	327-17-54	c,d	R410A	1.3	Heizleistung / Heat. cap. [kW]	4.5	2.9	4.0	3.8	3.0	3.5	2.8	4.0	-10 / 35	0.79	4.83	55.1	36.9		
						El. Leistung / Input power [kW]	0.9	0.7	1.5	1.2	0.6	0.6	0.3	1.5							
						COP [-]	5.1	4.3	2.7	3.3	5.0	6.4	9.5	2.7							
Alezio S16 TRIH V200	326-17-53	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	14.3	8.0	11.9	10.4	8.2	10.0	10.1	11.9	-10 / 35	2.45	3.97	69.0	52.7			
					El. Leistung / Input power [kW]	3.4	2.3	4.8	3.5	2.1	2.0	1.7	4.8								
					COP [-]	4.2	3.5	2.5	2.9	3.9	5.1	5.8	2.5								
BLW Split 6C	337-18-07	c,d	R410A	1.4	Heizleistung / Heat. cap. [kW]	5.8	2.4	4.6	3.6	2.5	3.4	3.8	4.6	-10 / 35	1.02	4.15	62.2	42.9			
					El. Leistung / Input power [kW]	1.4	0.6	1.9	1.3	0.6	0.5	0.6	1.9								
					COP [-]	4.3	4.0	2.4	2.7	4.4	6.2	6.7	2.4								
BLW Split 16C	338-18-08	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	14.2	7.8	12.3	10.5	8.1	10.0	11.8	12.3	-10 / 35	2.44	4.06	68.9	37.3			
					El. Leistung / Input power [kW]	3.3	2.2	4.7	3.5	2.1	1.9	2.0	4.7								
					COP [-]	4.3	3.5	2.6	3.0	3.9	5.3	6.0	2.6								

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Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	low (35°C) - average							Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor	
							A7 / W30-35 (87% r. H.)	A2 / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	A2 / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)						Abiv / W_0
Ekoturk Isitma Sogutma San.Tic. Ltd Sti Yesilbayir, Akdeniz Blv. 64 TR - 07190 Dösemealti/Antalya	Ecocycle M12	591-23-03	b,d	R32	2.1	Heizleistung / Heat. cap. [kW]	-	-	7.0	7.7	4.7	4.2	5.0	7.7	-7 / 34	1.35	4.58	56.8	-
						El. Leistung / Input power [kW]	-	-	2.4	2.4	1.0	0.7	0.7	2.4					
						COP [-]	-	-	2.9	3.2	4.6	5.9	7.2	3.2					
	Ecocycle M16	592-23-04	b,d	R32	2.1	Heizleistung / Heat. cap. [kW]	-	-	8.9	9.7	5.9	4.3	5.0	9.7	-7 / 34	1.63	4.56	55.8	-
						El. Leistung / Input power [kW]	-	-	3.2	3.2	1.3	0.7	0.7	3.2					
						COP [-]	-	-	2.8	3.0	4.5	6.0	7.3	3.0					
Erset S.a.r.l 67 rue de Morat F - 68000 Colmar	Mistral Compact 11	298-17-25	a,d	R410A	2.3	Heizleistung / Heat. cap. [kW]	8.3	5.7	8.8	9.8	5.9	5.9	7.1	9.8	-7 / 34	1.45	4.03	59.7	57.2
						El. Leistung / Input power [kW]	1.8	1.6	3.6	3.7	1.5	1.1	1.1	3.7					
						COP [-]	4.6	3.5	2.5	2.7	3.9	5.4	6.5	2.7					
F. Zaugg AG Kälte / Klima / Wärmepumpen Biergutstrasse 22 CH - 3608 Thun	WP ECP-M-14-A	231-15-03	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	10.7	12.3	13.0	11.8	12.3	13.6	13.4	13.0	-10 / 35	1.80	3.54	66.9	-
						El. Leistung / Input power [kW]	2.7	3.9	5.3	4.5	3.5	2.9	2.2	5.3					
						COP [-]	4.1	3.1	2.4	2.6	3.5	4.6	6.1	2.4					
Heliotherm Wärmepumpen GmbH Sportplatzweg 18 A - 6336 Langkapfen	S07L-M-CU	532-21-30	c,d	R410A	9.3	Heizleistung / Heat. cap. [kW]	3.7	7.1	7.0	6.3	3.8	2.6	2.9	7.0	-10 / 35	0.63	5.24	43.6	36.8
						El. Leistung / Input power [kW]	0.7	1.7	2.5	2.0	0.7	0.4	0.3	2.5					
						COP [-]	5.4	4.2	2.8	3.1	5.3	7.0	9.1	2.8					
	S30L-M-CC	521-21-19	b,d	R410A	15.0	Heizleistung / Heat. cap. [kW]	15.4	14.6	27.3	24.6	14.6	13.6	12.4	27.3	-10 / 35	2.67	5.07	50.9	-
						El. Leistung / Input power [kW]	2.9	3.2	11.2	8.3	2.8	2.1	1.6	11.2					
						COP [-]	5.4	4.6	2.4	3.0	5.2	6.5	8.0	2.4					
Hoval Aktiengesellschaft Austrasse 70 FL - 9490 Vaduz	Belaria twin I (20)	232-15-04	a,d	R407C	8.5	Heizleistung / Heat. cap. [kW]	20.2	17.1	14.1	15.4	9.8	13.4	15.9	15.4	-7 / 34	4.00	3.91	-	-
						El. Leistung / Input power [kW]	5.3	5.2	5.2	5.2	2.6	2.6	2.6	5.3					
						COP [-]	3.8	3.3	2.7	2.9	3.8	5.2	6.2	2.9					
	Belaria twin IR (20)	228-14-15	a,d	R407C	13.0	Heizleistung / Heat. cap. [kW]	24.4	17.4	14.1	15.8	17.5	13.1	15.5	15.8	-7 / 34	4.20	3.75	-	-
						El. Leistung / Input power [kW]	5.9	5.3	5.4	5.4	4.9	2.7	2.6	5.4					
						COP [-]	4.1	3.3	2.6	2.9	3.6	4.9	5.9	2.9					
Belaria dual AR (60)	287-17-14	b,e	R410A R410A	14.8 14.8	Heizleistung / Heat. cap. [kW]	69.5	50.3	43.9	47.2	50.1	35.5	41.8	47.2	-7 / 34	11.90	4.03	72.9	-	
					El. Leistung / Input power [kW]	15.6	13.8	14.8	14.9	13.1	7.2	7.1	14.9						
					COP [-]	4.5	3.6	3.0	3.2	3.8	4.9	5.9	3.2						
HoKaTherm Heizsysteme Grüning Obergrundstrasse 13 CH - 5430 Wettingen	HM112-1	517-21-15	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	6.0	9.5	10.9	10.6	6.0	3.7	4.0	10.9	-10 / 35	1.03	4.40	56.6	31.8
						El. Leistung / Input power [kW]	1.3	2.8	4.4	3.9	1.4	0.6	0.5	4.4					
						COP [-]	4.5	3.4	2.5	2.7	4.4	6.4	7.6	2.5					

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							A7 / W30-35 (87% r. H.)	A2 / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	A2 / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)	Abiv / W_0					
IDM Energiesysteme GmbH Seblas 16-18 A - 9971 Matriei in Osttirol	AERO ILM 2-8 230V	314-17-41	a,d	R410A	3.2	Heizleistung / Heat. cap. [kW]	4.5	3.9	5.6	5.0	3.0	2.7	1.4	5.6	-10 / 35	0.79	4.59	50.9	43.9
						El. Leistung / Input power [kW]	0.9	0.9	1.9	1.5	0.6	0.4	0.3	1.9					
						COP [-]	5.1	4.3	2.9	3.3	4.9	6.4	5.1	2.9					
	AERO ALM 2-8	436-19-49	b,d	R290	1.2	Heizleistung / Heat. cap. [kW]	4.1	3.5	7.7	6.8	4.2	2.8	2.8	7.7	-10 / 35	0.70	5.26	45.5	-
						El. Leistung / Input power [kW]	0.7	0.8	3.1	2.3	0.8	0.4	0.3	3.1					
						COP [-]	5.4	4.6	2.5	3.0	5.2	7.1	9.1	2.5					
	AERO ALM 50 Max	580-22-31	b,d,e	R290	4.8	Heizleistung / Heat. cap. [kW]	33.0	51.9	41.9	36.7	22.1	14.7	10.6	41.9	-10 / 35	5.72	4.32	57.1	-
				R290	4.9	El. Leistung / Input power [kW]	6.1	17.1	16.1	11.9	4.2	2.2	1.1	16.1					
				COP [-]	5.4	3.0	2.6	3.1	5.3	6.8	9.3	2.6							
Inova d.o.o. Bage 3 BA - 70101 Jajce	ACP15	612-23-24	b, d	R290	1.1	Heizleistung / Heat. cap. [kW]	7.4	12.7	13.1	11.8	7.3	5.0	5.4	13.1	-10 / 35	1.29	5.32	50.7	-
				El. Leistung / Input power [kW]	1.3	3.6	4.8	3.8	1.4	0.7	0.6	4.8							
				COP [-]	5.5	3.6	2.7	3.1	5.2	7.1	8.5	2.7							
Lambda Wärmepumpen GmbH Perlmooserstrasse 5 A - 6322 Kirchbichl	EU10L	639-23-51	b, d	R290	1.4	Heizleistung / Heat. cap. [kW]	3.6	5.6	9.1	8.1	5.2	3.6	2.3	9.1	-10 / 35	0.69	5.96	47.4	-
				El. Leistung / Input power [kW]	0.6	1.1	2.9	2.2	0.9	0.5	0.2	2.9							
				COP [-]	5.9	5.1	3.2	3.7	5.8	7.7	9.7	3.2							
M-TEC GmbH Aumühlweg 20 A - 4812 Pinsdorf	WPLK 1030	504-21-02	b, d	R410A	9.0	Heizleistung / Heat. cap. [kW]	20.4	17.9	22.1	23.9	15.4	10.0	8.5	23.9	-7 / 34	3.49	5.16	53.3	-
				El. Leistung / Input power [kW]	4.0	5.2	7.6	7.6	3.0	1.5	1.0	7.6							
				COP [-]	5.1	3.4	2.9	3.1	5.2	6.7	8.3	3.1							
Ochsner Wärmepumpen GmbH Krackowizerstrasse 4 A - 4020 Linz	Eagle 717	243-15-15	c,d	R410A	7.6	Heizleistung / Heat. cap. [kW]	7.1	7.1	13.5	12.8	9.2	6.6	7.5	10.3	-2 / 32	1.20	4.48	63.4	-
				El. Leistung / Input power [kW]	1.5	1.7	4.2	4.1	1.9	1.2	1.1	2.7							
				COP [-]	4.8	4.2	3.2	3.1	4.8	5.6	6.8	3.8							
	AIR HAWK 208 C11B	404-19-17	c,d	R513A	2.7	Heizleistung / Heat. cap. [kW]	2.5	2.5	4.9	5.3	3.2	2.1	1.1	5.3	-7 / 34	0.44	4.46	45.4	-
				El. Leistung / Input power [kW]	0.5	0.6	1.9	2.0	0.7	0.3	0.2	2.0							
				COP [-]	5.0	4.2	2.6	2.7	4.5	6.4	5.5	2.7							
	AIR 85 C14A	505-21-03	c	R410A	32.0	Heizleistung / Heat. cap. [kW]	68.1	50.2	45.0	47.9	50.9	68.5	77.7	47.9	-7 / 34	11.60	4.32	70.9	64.5
				El. Leistung / Input power [kW]	14.0	13.0	13.3	13.2	12.2	12.8	12.6	13.2							
				COP [-]	4.9	3.9	3.4	3.6	4.2	5.3	6.2	3.6							
Sapac AG Mühleweg 2 CH - 1734 Tentlingen	Mistral Compact 11	298-17-25	a,d	R410A	2.3	Heizleistung / Heat. cap. [kW]	8.3	5.7	8.8	9.8	5.9	5.9	7.1	9.8	-7 / 34	1.45	4.03	59.7	57.2
				El. Leistung / Input power [kW]	1.8	1.6	3.6	3.7	1.5	1.1	1.1	3.7							
				COP [-]	4.6	3.5	2.5	2.7	3.9	5.4	6.5	2.7							

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							A7 / W30-35 (87% r. H.)	AZ / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	AZ / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)	Abiv / W_0							
Striega-Therm AG Breitenstrasse 10 CH - 4852 Rothrist	AWS 17	434-19-47	c	R407C	5.6	Heizleistung / Heat. cap. [kW]	14.4	10.2	8.2	9.5	10.1	10.8	12.9	9.5	-7 / 34	2.46	3.72	65.1	48.8		
						El. Leistung / Input power [kW]	3.2	2.9	3.1	3.0	2.7	2.7	2.6	3.0							
						COP [-]	4.6	3.5	2.6	3.2	3.7	4.1	4.9	3.2							
Swisscondens.ch GmbH Bahnhofstrasse 2 CH - 3432 Lützelflüh	CGK-060V2	522-21-20	b,d	R410A	3.2	Heizleistung / Heat. cap. [kW]	7.5	13.9	12.1	12.9	8.0	7.6	8.7	12.9	-7 / 34	1.30	4.75	59.0	-		
						El. Leistung / Input power [kW]	1.4	4.1	3.9	3.9	1.8	1.2	1.1	3.9							
						COP [-]	5.3	3.4	3.1	3.3	4.5	6.5	8.1	3.3							
Templari s.r.l. Via Pitagora 20/A I - 35030 Rubano	KITA L Split (3 Phase)	246-15-18	c,d	R410A	13.0	Heizleistung / Heat. cap. [kW]	11.9	12.2	17.7	19.1	11.8	10.1	10.6	19.1	-7 / 34	2.01	4.77	63.9	-		
						El. Leistung / Input power [kW]	2.3	2.8	6.3	6.4	2.4	1.5	1.4	6.4							
						COP [-]	5.1	4.3	2.8	3.0	4.8	6.7	7.6	3.0							
Viessmann Werke Allendorf GmbH Viessmannstrasse 1 D-35108 Allendorf (Eder)	Vitocal 252-A 251.A10	539-21-37	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	-	-	8.2	8.9	5.4	5.8	5.7	8.9	-7 / 34	1.26	5.01	-	-		
						El. Leistung / Input power [kW]	-	-	2.6	2.6	1.1	0.9	0.7	2.6							
						COP [-]	-	-	3.2	3.4	5.0	6.4	7.7	3.4							
	Vitocal 252-A 251.A13	540-21-38	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	-	-	10.3	11.0	6.7	5.8	5.7	11.0	-7 / 34	1.40	4.96	-	-		
						El. Leistung / Input power [kW]	-	-	3.5	3.6	1.3	0.9	0.7	3.6							
						COP [-]	-	-	2.9	3.1	5.0	6.5	7.7	3.1							
Walter Meier (Klima Schweiz) AG Bahnstrasse 24 CH - 8603 Schwerzenbach	LSI 80 SHW-AA	310-17-37	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	5.0	7.0	8.9	9.2	7.1	5.5	6.4	9.2	-7 / 34	0.87	4.33	56.9	38.6		
						El. Leistung / Input power [kW]	1.0	1.7	3.0	2.9	1.7	0.9	0.8	2.9							
						COP [-]	4.9	4.0	2.9	3.2	4.2	5.8	7.6	3.2							
	LSI 112 SHW-AA	311-17-38	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	6.6	7.5	12.0	10.8	7.5	6.9	6.4	10.8	-7 / 34	1.15	4.32	58.7	38.6		
						El. Leistung / Input power [kW]	1.3	1.9	4.8	3.9	1.8	1.1	0.7	3.9							
						COP [-]	5.1	3.9	2.5	2.8	4.2	6.1	8.7	2.8							
	LSI 140 SHW-SG	304-17-31	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	9.3	-	15.4	13.8	8.6	8.5	7.4	13.8	-7 / 34	1.56	3.62	-	-		
						El. Leistung / Input power [kW]	2.1	-	6.8	5.7	2.3	1.7	1.1	5.7							
						COP [-]	4.5	-	2.3	2.4	3.7	5.1	6.8	2.4							
	LSI 230 SHW-SG	305-17-32	c,d	R410A	7.7	Heizleistung / Heat. cap. [kW]	16.9	-	24.1	21.2	15.6	16.2	19.2	21.2	-7 / 34	2.89	3.38	-	-		
						El. Leistung / Input power [kW]	3.9	-	10.9	9.9	4.7	3.1	3.2	9.9							
						COP [-]	4.3	-	2.2	2.1	3.3	5.2	6.0	2.1							
Wamak s.r.o. Orovnic 252 SK - 966 52 Orovnic	AiWa 18 EVI	465-20-06	b	R410A	6.0	Heizleistung / Heat. cap. [kW]	21.7	16.1	14.2	14.9	16.1	21.4	14.9	-7 / 34	3.72	4.11	70.2	-			
						El. Leistung / Input power [kW]	4.6	4.5	4.5	4.5	4.2	4.1	4.0						4.5		
						COP [-]	4.7	3.6	3.1	3.4	3.8	5.2	6.0						3.4		

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	low (35°C) - average										Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A7 / W30-35 (87% r. H.)	A2 / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	A2 / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)	Abiv / W <sub>0</sub> 0	Heizleistung / Heat. cap. [kW]	El. Leistung / Input power [kW]					
Waterkotte GmbH Gewerkenstrasse 15 D - 44628 Herne	AW 27 EVI & VO Split AiWa 1200	491-20-32	c	R410A	14.5	low (35°C) - average	Heizleistung / Heat. cap. [kW]	30.1	23.0	20.1	21.7	23.0	30.1	33.6	20.1	-10 / 35	5.10	4.00	77.2	63.8	
							El. Leistung / Input power [kW]	6.8	6.4	6.6	6.6	6.1	6.2	6.0	6.6						
							COP [-]	4.4	3.6	3.0	3.3	3.8	4.8	5.6	3.0						
	Basic Line 5008.5 - 230V	346-18-16	c,d	R410A	2.1	low (35°C) - average	Heizleistung / Heat. cap. [kW]	8.1	3.6	6.6	5.9	3.7	2.9	3.4	6.6	-10 / 35	1.42	4.91	62.3	41.9	
							El. Leistung / Input power [kW]	1.8	0.9	2.4	1.9	0.8	0.5	0.4	2.4						
							COP [-]	4.5	4.2	2.8	3.1	4.8	6.3	8.7	2.8						
	Basic Line 5011.5 - 230V	348-18-18	c,d	R410A	2.7	low (35°C) - average	Heizleistung / Heat. cap. [kW]	9.3	6.9	7.9	7.1	4.3	5.2	6.1	7.9	-10 / 35	1.64	4.21	63.4	41.9	
							El. Leistung / Input power [kW]	2.0	2.0	3.0	2.3	1.1	1.0	0.8	3.0						
							COP [-]	4.7	3.5	2.6	3.0	4.0	5.3	7.2	2.6						
	Basic Line 5011.5 - 400V	347-18-17	c,d	R410A	2.3	low (35°C) - average	Heizleistung / Heat. cap. [kW]	9.5	8.6	9.1	8.2	5.1	5.1	5.9	9.1	-10 / 35	1.66	4.94	60.4	41.9	
							El. Leistung / Input power [kW]	1.9	2.2	3.2	2.6	1.0	0.8	0.7	3.2						
							COP [-]	5.1	3.9	2.9	3.2	4.9	6.3	8.0	2.9						
EcoTouch Air Kaskade 5030.5	430-19-43	c,d,e	R410A	3.3	low (35°C) - average	Heizleistung / Heat. cap. [kW]	19.4	12.8	24.1	21.4	13.3	8.5	7.8	24.1	-10 / 35	3.36	4.83	66.5	44.1		
						El. Leistung / Input power [kW]	4.0	3.2	9.4	7.1	2.8	1.4	1.0	9.4							
			COP [-]	4.8		4.0	2.6	3.0	4.8	6.2	7.6	2.6									
Zehnder Group Produktion Gränichen AG Oberfeldstrasse 1 CH - 5722 Gränichen	ComfoBox CB-AW-MO14	226-14-13	b,d	R410A	4.0	low (35°C) - average	Heizleistung / Heat. cap. [kW]	8.6	9.1	14.2	13.8	9.5	11.8	13.8	14.2	-10 / 35	1.50	3.71	65.8	-	
							El. Leistung / Input power [kW]	1.8	2.7	5.9	5.5	2.5	2.1	2.0	5.9						
							COP [-]	4.7	3.4	2.4	2.5	3.8	5.6	6.9	2.4						

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfbedingungen Test conditions	low (35°C) - average														
	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	A7 / W30-35 (87% r. H.)	A2 / W35 (84% r. H.)	A-10 / W35 (-)	A-7 / W34 (74% r. H.)	A2 / W30 (84% r. H.)	A7 / W27 (87% r. H.)	A12 / W24 (89% r. H.)	Abiv / W_ _ 0	Bivalentpunkt [°] Bivalent point	Volumenstrom [m <sup>3</sup> /h] Volume flow	SCOP	Schalleistungspegel aussen [dB(A)] Sound power level outdoor	Schalleistungspegel innen [dB(A)] Sound power level indoor

### Bauart / Type of construction

- a Kompaktwärmepumpe für Innenaufstellung / Compact heat pump for indoor installation
- b Kompaktwärmepumpe für Aussenaufstellung / Compact heat pump for outdoor installation
- c Splitwärmepumpe / Split heat pump
- d Leistungsgeregelte Wärmepumpe mit Frequenzumformer / Output-modulated heat pump with frequency converter
- e Leistungsgeregelte Wärmepumpe mit mehreren Kompressoren / Output-modulated heat pump with several compressors

### Abkürzungen / Abbreviations

- A Lufttemperatur / Air temperature
- W Wassertemperatur / Water temperature
- r. H. relative Luftfeuchtigkeit / relative humidity
- V Durchflussrate / Volume flow rate

Schalleistungspegel aussen / Sound power level outdoor:

bezieht sich auf das Geräusch draussen (wird vom Nachbar wahrgenommen) / it relates to the outside noise (is perceived by the neighbor)

Schalleistungspegel innen / Sound power level indoor:

bezieht sich auf das Geräusch drinnen (z.B. im Aufstellungsraum) / it relates to the indoor noise (e.g. in the installation room)

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions										Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
						medium (55°C) - average														
						A7 / W47-55 (87% r. H.)	A-10 / W55 (-)	A-7 / W52 (74% r. H.)	A2 / W42 (84% r. H.)	A7 / W36 (87% r. H.)	A12 / W30 (89% r. H.)	Abiv / W <sub>0</sub> 0								
Arkteos Site de kerquessaud F - 44350 Guérande	Zuran 4 120W	270-16-24	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	12.1	15.3	15.7	11.3	-	-	15.7	-7 / 52	1.32	-	67.7	-		
						El. Leistung / Input power [kW]	4.5	8.6	8.1	4.0	-	-	8.1							
						COP [-]	2.7	1.8	2.0	2.8	-	-	2.0							
AJPAC 245W tri	278-17-05	c,d,e	R410A	R134A	7.5	Heizleistung / Heat. cap. [kW]	25.8	20.9	22.0	22.4	-	-	22.0	-7 / 52	2.77	-	65.2	56.1		
						El. Leistung / Input power [kW]	9.3	10.4	10.6	8.6	-	-	10.6							
						COP [-]	2.8	2.0	2.1	2.6	-	-	2.1							
Caleos Industry SA Rue Pierre-Péquignat 20 CH - 2900 Porrentruy	CAL014	489-20-30	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	7.5	9.1	9.9	7.9	8.9	10.5	9.9	-7 / 52	0.81	2.98	60.2	-		
						El. Leistung / Input power [kW]	3.1	5.1	5.0	2.6	2.5	2.4	5.0							
						COP [-]	2.5	1.8	2.0	3.1	3.6	4.3	2.0							
CoolStar AG Sonnenbuel 14 CH - 6024 Hildisrieden	WMTK10000	501-20-42	b,d	R32	14.0	Heizleistung / Heat. cap. [kW]	9.3	5.5	6.7	4.3	-	-	6.7	-7 / 52	1.00	-	61.1	-		
						El. Leistung / Input power [kW]	3.0	2.9	3.0	1.3	-	-	3.0							
						COP [-]	3.1	1.9	2.3	3.4	-	-	2.3							
WMT17000a & WMT17000i	499-20-40	c,d	R32	1.8	Heizleistung / Heat. cap. [kW]	15.8	10.1	11.3	6.7	-	-	11.3	-7 / 52	1.69	-	67.0	41.1			
					El. Leistung / Input power [kW]	5.5	5.6	5.7	2.1	-	-	5.7								
					COP [-]	2.9	1.8	2.0	3.1	-	-	2.0								
CTA AG Hunzigenstrasse 2 CH - 3110 Münsingen	AH SCI 25	488-20-29	c,d	R32	1.8	Heizleistung / Heat. cap. [kW]	9.1	20.6	18.5	11.8	-	-	20.6	-10 / 55	0.98	-	49.1	37.5		
						El. Leistung / Input power [kW]	3.3	12.5	9.7	3.4	-	-	12.5							
						COP [-]	2.7	1.6	1.9	3.4	-	-	1.6							
De Dietrich Thermique 57 rue de la Gare F - 67580 Mertzwiller	Alezio S4.5 MREM V200	327-17-54	c,d	R410A	1.3	Heizleistung / Heat. cap. [kW]	3.2	3.0	2.5	2.6	3.2	2.5	3.0	-10 / 55	0.35	3.01	55.1	36.9		
						El. Leistung / Input power [kW]	1.4	2.2	1.5	0.8	0.8	0.4	2.2							
						COP [-]	2.4	1.4	1.7	3.2	4.2	6.0	1.4							
Alezio S16 TRIH V200	326-17-53	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	14.3	8.8	7.6	6.5	6.1	5.8	8.8	-10 / 55	1.55	3.02	69.0	52.7			
					El. Leistung / Input power [kW]	5.3	6.4	4.6	2.2	1.4	0.9	6.4								
					COP [-]	2.7	1.4	1.6	3.0	4.4	6.3	1.4								
BLW Split 6C	337-18-07	c,d	R410A	1.4	Heizleistung / Heat. cap. [kW]	5.5	3.9	3.3	2.1	2.0	2.7	3.9	-10 / 55	0.60	3.08	62.2	42.9			
					El. Leistung / Input power [kW]	2.2	2.6	1.9	0.7	0.5	0.4	2.6								
					COP [-]	2.5	1.5	1.7	3.1	4.5	6.9	1.5								
BLW Split 16C	338-18-08	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	14.2	9.4	7.6	6.4	5.8	7.3	9.4	-10 / 55	1.53	3.09	68.9	37.3			
					El. Leistung / Input power [kW]	5.2	6.5	4.5	2.1	1.3	1.1	6.5								
					COP [-]	2.7	1.5	1.7	3.1	4.5	6.5	1.5								

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	medium (55°C) - average							Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A7 / W47-55 (87% r. H.)	A-10 / W55 (-)	A-7 / W52 (74% r. H.)	A2 / W42 (84% r. H.)	A7 / W36 (87% r. H.)	A12 / W30 (89% r. H.)	Abiv / W <sub>0</sub>					
Ekoturk Isitma Sogutma San.Tic. Ltd Sti Yesilbayir, Akdeniz Blv. 64 TR - 07190 Dösemealti/Antalya	Ecocycle M12	591-23-03	b,d	R32	2.1	Heizleistung / Heat. cap. [kW]	-	6.3	7.0	4.2	3.9	4.8	7.0	-7 / 52	0.77	3.40	56.8	-
						El. Leistung / Input power [kW]	-	3.3	3.2	1.2	0.9	0.9	3.2					
						COP [-]	-	1.9	2.2	3.4	4.3	5.5	2.2					
	Ecocycle M16	592-23-04	b,d	R32	2.1	Heizleistung / Heat. cap. [kW]	-	8.1	9.0	5.4	4.1	4.8	9.0	-7 / 52	0.98	3.46	55.8	-
						El. Leistung / Input power [kW]	-	4.2	4.1	1.6	0.9	0.8	4.1					
						COP [-]	-	1.9	2.2	3.5	4.5	5.7	2.2					
Erset S.a.r.l 67 rue de Morat F - 68000 Colmar	Mistral Compact 11	298-17-25	a,d	R410A	2.3	Heizleistung / Heat. cap. [kW]	8.2	8.1	9.1	5.7	5.5	6.6	9.1	-7 / 52	0.89	3.03	59.7	57.2
						El. Leistung / Input power [kW]	2.9	4.3	4.4	2.0	1.4	1.3	4.4					
						COP [-]	2.8	1.9	2.1	2.9	4.0	5.2	2.1					
F. Zaugg AG Kälte / Klima / Wärmepumpen Biergutstrasse 22 CH - 3608 Thun	WP ECP-M-14-A	231-15-03	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	13.6	-	10.9	12.4	-	-	10.9	-7 / 52	1.45	-	66.9	-
						El. Leistung / Input power [kW]	6.3	-	5.4	4.6	-	-	5.4					
						COP [-]	2.2	-	2.0	2.7	-	-	2.0					
Heliotherm Wärmepumpen GmbH Sportplatzweg 18 A - 6336 Langkapfen	S07L-M-CU	532-21-30	c,d	R410A	9.3	Heizleistung / Heat. cap. [kW]	2.9	7.5	6.6	4.1	2.7	2.4	7.5	-10 / 55	0.31	3.84	43.6	36.8
						El. Leistung / Input power [kW]	1.1	4.0	2.9	1.1	0.5	0.4	4.0					
						COP [-]	2.8	1.9	2.3	3.8	5.2	6.5	1.9					
	S30L-M-CC	521-21-19	b,d	R410A	15.0	Heizleistung / Heat. cap. [kW]	11.9	25.1	22.6	13.8	10.9	12.5	25.1	-10 / 55	1.27	3.83	50.9	-
						El. Leistung / Input power [kW]	3.9	14.7	10.7	3.5	2.1	2.0	14.7					
						COP [-]	3.1	1.7	2.1	3.9	5.1	6.3	1.7					
Hoval Aktiengesellschaft Austrasse 70 FL - 9490 Vaduz	Belaria twin I (20)	232-15-04	a,d	R407C	8.5	Heizleistung / Heat. cap. [kW]	22.2	-	14.9	17.4	-	-	14.9	-7 / 52	2.41	-	-	-
						El. Leistung / Input power [kW]	7.8	-	6.7	5.7	-	-	6.7					
						COP [-]	2.8	-	2.2	3.0	-	-	2.2					
	Belaria twin IR (20)	228-14-15	a,d	R407C	13.0	Heizleistung / Heat. cap. [kW]	22.5	-	15.0	17.3	-	-	15.0	-7 / 52	2.39	-	-	-
						El. Leistung / Input power [kW]	7.8	-	6.8	5.8	-	-	6.8					
						COP [-]	2.9	-	2.2	3.0	-	-	2.2					
Belaria dual AR (60)	287-17-14	b,e	R410A R410A	14.8 14.8	Heizleistung / Heat. cap. [kW]	65.8	43.0	46.6	50.8	-	-	46.6	-7 / 52	7.10	-	72.9	-	
					El. Leistung / Input power [kW]	21.7	20.7	20.1	16.8	-	-	20.1						
					COP [-]	3.0	2.1	2.3	3.0	-	-	2.3						
HoKaTherm Heizsysteme Grüning Obergrundstrasse 13 CH - 5430 Wettingen	HM112-1	517-21-15	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	7.2	12.1	10.7	7.0	-	-	12.1	-10 / 55	0.77	-	56.6	31.8
						El. Leistung / Input power [kW]	2.6	6.4	5.2	2.3	-	-	6.4					
						COP [-]	2.8	1.9	2.0	3.0	-	-	1.9					



## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	medium (55°C) - average							Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A7 / W47-55 (87% r. H.)	A-10 / W55 (-)	A-7 / W52 (74% r. H.)	A2 / W42 (84% r. H.)	A7 / W36 (87% r. H.)	A12 / W30 (89% r. H.)	Abiv / W_0					
IDM Energiesysteme GmbH Seblas 16-18 A - 9971 Matriei in Osttirol	AERO ILM 2-8 230V	314-17-41	a,d	R410A	3.2	Heizleistung / Heat. cap. [kW]	4.0	4.4	4.0	2.4	2.5	1.6	4.4	-10 / 55	0.43	3.32	50.9	43.9
						El. Leistung / Input power [kW]	1.3	2.4	1.7	0.7	0.6	0.3	2.4					
						COP [-]	3.0	1.8	2.3	3.5	4.5	5.1	1.8					
	AERO ALM 2-8	436-19-49	b,d	R290	1.2	Heizleistung / Heat. cap. [kW]	3.6	6.8	6.2	3.9	-	-	6.8	-10 / 55	0.38	-	45.5	-
						El. Leistung / Input power [kW]	1.1	3.6	2.8	1.0	-	-	3.6					
						COP [-]	3.2	1.9	2.2	3.8	-	-	1.9					
	AERO ALM 50 Max	580-22-31	b,d,e	R290	4.8	Heizleistung / Heat. cap. [kW]	30.6	38.3	33.3	20.9	12.8	10.3	38.3	-10 / 55	3.30	4.08	57.1	-
				R290	4.9	El. Leistung / Input power [kW]	8.9	19.3	13.8	5.1	2.3	1.4	19.3					
				COP [-]	3.4	2.0	2.4	4.1	5.6	7.4	2.0							
Inova d.o.o. Bage 3 BA - 70101 Jajce	ACP15	612-23-24	b, d	R290	1.1	Heizleistung / Heat. cap. [kW]	7.2	12.7	12.2	7.5	-	-	12.7	-10 / 55	0.78	-	50.7	-
				R290	1.1	El. Leistung / Input power [kW]	2.2	6.1	5.3	2.0	-	-	6.1					
				COP [-]	3.3	2.1	2.3	3.9	-	-	2.1							
Lambda Wärmepumpen GmbH Perlmooserstrasse 5 A - 6322 Kirchbichl	EU10L	639-23-51	b, d	R290	1.4	Heizleistung / Heat. cap. [kW]	4.7	8.9	8.0	5.1	3.4	2.3	8.9	-10 / 55	0.51	4.44	47.4	-
				R290	1.4	El. Leistung / Input power [kW]	1.3	3.8	3.0	1.2	0.6	0.3	3.8					
				COP [-]	3.6	2.3	2.7	4.3	5.8	7.5	2.3							
M-TEC GmbH Aumühlweg 20 A - 4812 Pinsdorf	WPLK 1030	504-21-02	b, d	R410A	9.0	Heizleistung / Heat. cap. [kW]	20.9	21.9	23.8	14.9	10.3	8.4	23.8	-7 / 52	2.26	3.91	53.3	-
				R410A	9.0	El. Leistung / Input power [kW]	6.8	11.2	10.6	3.8	2.0	1.3	10.6					
				COP [-]	3.1	2.0	2.3	3.9	5.3	6.4	2.3							
Ochsner Wärmepumpen GmbH Krackowizerstrasse 4 A - 4020 Linz	Eagle 717	243-15-15	c,d	R410A	7.6	Heizleistung / Heat. cap. [kW]	11.0	14.1	13.6	9.3	6.4	7.3	10.7	-2 / 46	1.20	3.63	63.4	-
				R410A	7.6	El. Leistung / Input power [kW]	3.3	6.1	5.7	2.5	1.4	1.3	3.6					
				COP [-]	3.3	2.3	2.4	3.8	4.6	5.8	3.0							
	AIR HAWK 208 C11B	404-19-17	c,d	R513A	2.7	Heizleistung / Heat. cap. [kW]	4.0	4.6	5.0	3.2	2.0	1.1	5.0	-7 / 52	0.43	3.56	45.4	-
				R513A	2.7	El. Leistung / Input power [kW]	1.3	2.3	2.3	0.9	0.4	0.2	2.3					
				COP [-]	3.1	2.0	2.1	3.6	5.0	4.6	2.1							
	AIR 85 C14A	505-21-03	c	R410A	32.0	Heizleistung / Heat. cap. [kW]	66.5	46.8	49.2	51.3	67.2	76.5	49.2	-7 / 52	7.16	3.49	70.9	64.5
				R410A	32.0	El. Leistung / Input power [kW]	19.9	19.2	18.2	15.2	15.3	14.4	18.2					
				COP [-]	3.3	2.4	2.7	3.4	4.4	5.3	2.7							
Sapac AG Mühlweg 2 CH - 1734 Tentlingen	Mistral Compact 11	298-17-25	a,d	R410A	2.3	Heizleistung / Heat. cap. [kW]	8.2	8.1	9.1	5.7	5.5	6.6	9.1	-7 / 52	0.89	3.03	59.7	57.2
				R410A	2.3	El. Leistung / Input power [kW]	2.9	4.3	4.4	2.0	1.4	1.3	4.4					
				COP [-]	2.8	1.9	2.1	2.9	4.0	5.2	2.1							

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions								Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
						medium (55°C) - average												
						A7 / W47-55 (87% r. H.)	A-10 / W55 (-)	A-7 / W52 (74% r. H.)	A2 / W42 (84% r. H.)	A7 / W36 (87% r. H.)	A12 / W30 (89% r. H.)	Abiv / W <sub>0</sub>						
Striega-Therm AG Breitenstrasse 10 CH - 4852 Rothrist	AWS 17	434-19-47	c	R407C	5.6	Heizleistung / Heat. cap. [kW]	14.0	-	9.8	10.3	-	-	9.8	-7 / 52	1.51	-	65.1	48.8
						El. Leistung / Input power [kW]	4.5	-	3.9	3.4	-	-	3.9					
						COP [-]	3.1	-	2.6	3.1	-	-	2.6					
Swisscondens.ch GmbH Bahnhofstrasse 2 CH - 3432 Lützelflüh	CGK-060V2	522-21-20	b,d	R410A	3.2	Heizleistung / Heat. cap. [kW]	7.2	11.7	12.8	8.3	-	-	12.8	-7 / 52	0.77	-	59.0	-
						El. Leistung / Input power [kW]	2.3	5.1	5.0	2.4	-	-	5.0					
						COP [-]	3.1	2.3	2.6	3.4	-	-	2.6					
Templari s.r.l. Via Pitagora 20/A I - 35030 Rubano	KITA L Split (3 Phase)	246-15-18	c,d	R410A	13.0	Heizleistung / Heat. cap. [kW]	14.0	18.4	19.5	12.0	10.0	10.8	19.5	-7 / 52	1.52	3.74	63.9	-
						El. Leistung / Input power [kW]	4.5	8.9	8.8	3.2	1.9	1.6	8.8					
						COP [-]	3.1	2.1	2.2	3.8	5.1	6.9	2.2					
Viessmann Werke Allendorf GmbH Viessmannstrasse 1 D-35108 Allendorf (Eder)	Vitocal 252-A 251.A10	539-21-37	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	-	7.7	8.5	5.1	5.5	5.5	8.5	-7 / 52	0.73	3.87	-	-
						El. Leistung / Input power [kW]	-	3.3	3.3	1.3	1.1	0.8	3.3					
						COP [-]	-	2.3	2.6	3.8	5.0	6.6	2.6					
	Vitocal 252-A 251.A13	540-21-38	b,d	R290	2.0	Heizleistung / Heat. cap. [kW]	-	9.8	10.8	6.6	5.7	5.5	10.8	-7 / 52	0.81	3.93	-	-
						El. Leistung / Input power [kW]	-	4.4	4.4	1.7	1.1	0.8	4.4					
						COP [-]	-	2.2	2.4	3.9	5.1	6.6	2.4					
Walter Meier (Klima Schweiz) AG Bahnstrasse 24 CH - 8603 Schwerzenbach	LSI 80 SHW-AA	310-17-37	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	4.3	8.9	8.6	6.7	5.2	5.9	8.6	-7 / 52	0.74	3.42	56.9	38.6
						El. Leistung / Input power [kW]	1.5	4.2	3.7	2.0	1.1	1.0	3.7					
						COP [-]	2.8	2.1	2.4	3.3	4.8	6.1	2.4					
	LSI 112 SHW-AA	311-17-38	c,d	R410A	4.6	Heizleistung / Heat. cap. [kW]	5.7	12.6	10.7	7.4	6.6	6.2	10.7	-7 / 52	0.63	3.34	58.7	38.6
						El. Leistung / Input power [kW]	1.9	6.6	5.1	2.3	1.4	0.9	5.1					
						COP [-]	3.0	1.9	2.1	3.2	4.8	6.8	2.1					
	LSI 140 SHW-SG	304-17-31	c,d	R410A	5.5	Heizleistung / Heat. cap. [kW]	7.1	15.6	15.9	10.2	8.1	4.7	15.9	-7 / 52	0.77	3.07	-	-
						El. Leistung / Input power [kW]	2.5	8.3	8.5	3.4	1.7	0.7	8.5					
						COP [-]	2.8	1.9	1.9	3.0	4.7	6.7	1.9					
	LSI 230 SHW-SG	305-17-32	c,d	R410A	7.7	Heizleistung / Heat. cap. [kW]	14.4	22.1	22.0	14.8	10.6	12.8	22.0	-7 / 52	1.55	2.74	-	-
						El. Leistung / Input power [kW]	5.5	13.5	13.6	5.6	2.4	2.4	13.6					
						COP [-]	2.6	1.6	1.6	2.6	4.3	5.4	1.6					
Wamak s.r.o. Orovnic 252 SK - 966 52 Orovnic	AiWa 18 EVI	465-20-06	b	R410A	6.0	Heizleistung / Heat. cap. [kW]	21.9	14.9	12.9	-	-	23.9	12.9	-7 / 52	2.36	-	70.2	-
						El. Leistung / Input power [kW]	6.9	6.4	5.8	-	-	4.7	5.8					
						COP [-]	3.2	2.3	2.2	-	-	5.1	2.2					

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions										Bivalentpunkt [°] Bivalent point	Volumenstrom [m³/h] Volume flow	SCOP	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
						medium (55°C) - average														
						A7 / W47-55 (87% r. H.)	A-10 / W55 (-)	A-7 / W52 (74% r. H.)	A2 / W42 (84% r. H.)	A7 / W36 (87% r. H.)	A12 / W30 (89% r. H.)	Abiv / W <sub>0</sub> 0	Heizleistung / Heat. cap. [kW]	El. Leistung / Input power [kW]	COP [-]					
Waterkotte GmbH Gewerkenstrasse 15 D - 44628 Herne	AW 27 EVI & VO Split AiWa 1200	491-20-32	c	R410A	14.5	Heizleistung / Heat. cap. [kW]	29.7	18.8	20.7	23.6	-	-	18.8	-10 / 55	3.22	-	77.2	63.8		
						El. Leistung / Input power [kW]	9.9	9.9	9.7	7.9	-	-	9.9							
						COP [-]	3.0	1.9	2.1	3.0	-	-	1.9							
	Basic Line 5008.5 - 230V	346-18-16	c,d	R410A	2.1	Heizleistung / Heat. cap. [kW]	5.7	5.9	5.3	3.3	-	-	5.9	-10 / 55	0.63	-	62.3	41.9		
						El. Leistung / Input power [kW]	1.9	3.1	2.4	1.0	-	-	3.1							
						COP [-]	2.9	1.9	2.2	3.4	-	-	1.9							
	Basic Line 5011.5 - 230V	348-18-18	c,d	R410A	2.7	Heizleistung / Heat. cap. [kW]	8.0	6.6	6.0	3.6	-	-	6.6	-10 / 55	0.88	-	63.4	41.9		
						El. Leistung / Input power [kW]	3.1	4.3	3.3	1.3	-	-	4.3							
						COP [-]	2.6	1.5	1.8	2.8	-	-	1.5							
	Basic Line 5011.5 - 400V	347-18-17	c,d	R410A	2.3	Heizleistung / Heat. cap. [kW]	7.7	7.6	6.8	4.2	-	-	7.6	-10 / 55	0.84	-	60.4	41.9		
						El. Leistung / Input power [kW]	2.8	4.2	3.3	1.3	-	-	4.2							
						COP [-]	2.8	1.8	2.1	3.2	-	-	1.8							
	EcoTouch Air Kaskade 5030.5	430-19-43	c,d,e	R410A	3.3	Heizleistung / Heat. cap. [kW]	13.2	18.4	16.9	11.8	7.4	7.1	18.4	-10 / 55	1.43	3.25	66.5	44.1		
				R410A	3.3	El. Leistung / Input power [kW]	5.8	10.2	9.7	3.7	1.6	1.2	10.2							
				COP [-]	2.3	1.8	1.7	3.2	4.6	5.9	1.8									
Zehnder Group Produktion Gränichen AG Oberfeldstrasse 1 CH - 5722 Gränichen	ComfoBox CB-AW-MO14	226-14-13	b,d	R410A	4.0	Heizleistung / Heat. cap. [kW]	11.6	12.6	12.8	-	-	12.6	-10 / 55	1.25	-	65.8	-			
						El. Leistung / Input power [kW]	4.4	7.2	6.4	-	-	-						7.2		
						COP [-]	2.6	1.7	2.0	-	-	-						1.7		

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511 und EN 14825

Test results of air to water heat pumps based on EN 14511 and EN 14825

Auftraggeber Customer	Gerät Type	Prüfbedingungen Test conditions	medium (55°C) - average	
	Prüfnummer Test number  Bauart Type of construction  Kältemittel Refrigerant  Kältemittelmenge [kg] Capacity of refrigerant		A7 / W47-55 (87% r. H.)  A-10 / W55 (-)  A-7 / W52 (74% r. H.)  A2 / W42 (84% r. H.)  A7 / W36 (87% r. H.)  A12 / W30 (89% r. H.)  Abiv / W_ _ 0	Bivalentpunkt [°] Bivalent point  Volumenstrom [m³/h] Volume flow  <b>SCOP</b>  Schalleistungspegel aussen [dB(A)] Sound power level outdoor  Schalleistungspegel innen [dB(A)] Sound power level indoor

### Bauart / Type of construction

- a Kompaktwärmepumpe für Innenaufstellung / Compact heat pump for indoor installation
- b Kompaktwärmepumpe für Aussenaufstellung / Compact heat pump for outdoor installation
- c Splitwärmepumpe / Split heat pump
- d Leistungsgeregelte Wärmepumpe mit Frequenzumformer / Output-modulated heat pump with frequency converter
- e Leistungsgeregelte Wärmepumpe mit mehreren Kompressoren / Output-modulated heat pump with several compressors

### Abkürzungen / Abbreviations

- A Lufttemperatur / Air temperature
- W Wassertemperatur / Water temperature
- r. H. relative Luftfeuchtigkeit / relative humidity
- V Durchflussrate / Volume flow rate

Schalleistungspegel aussen / Sound power level outdoor:

bezieht sich auf das Geräusch draussen (wird vom Nachbar wahrgenommen) / it relates to the outside noise (is perceived by the neighbor)

Schalleistungspegel innen / Sound power level indoor:

bezieht sich auf das Geräusch drinnen (z.B. im Aufstellungsraum) / it relates to the indoor noise (e.g. in the installation room)

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2011 und EN 14511:2013

Test results of air to water heat pumps based on EN 14511:2011

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	VolumenstromEinstellung Volume flow adjustment								Volumenstrom [m <sup>3</sup> /h] Volume flow	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
								A10 / W35 (80% r. H.)	A7 / W35 - 30 (89% r. H.)	A2 / W35 (84% r. H.)	A-7 / W35 (75% r. H.)	A-15 / W35 (-)	A7 / W45 - 40 (89% r. H.)	A7 / W55 - 47 (89% r. H.)	A-7 / W55 (75% r. H.)			
CTC Giersch AG Bahnhofstrasse 60 CH - 8112 Otelfingen	MLW 12	197-12-14	a	S	R407C	5.9	Heizleistung / Heat. cap. [kW]	15.7	13.1	9.7	9.2	7.6	12.4	12.5	9.2	2.51	77	66
							El. Leistung / Input power [kW]	3.8	3.6	3.1	3.2	3.6	4.2	4.8	4.7	2.41		
							COP [-]	4.1	3.6	3.2	2.9	2.1	3.0	2.6	1.9	1.44		
Daikin Europe N.V. Zandvoordestraat 300 B - 8400 Oostende	ERLQ006CAV3 & EHBH08C	207-13-10	c,d	S	R410A	1.6	Heizleistung / Heat. cap. [kW]	6.3	6.1	4.7	5.4	5.7	5.4	2.8	1.07	59	-	
							El. Leistung / Input power [kW]	1.2	1.3	1.2	1.9	2.6	1.6	1.8	2.1			0.99
							COP [-]	5.2	4.8	3.8	2.9	2.2	3.6	2.9	1.3			0.59
	ERLQ016CAW1 & EHVX16S	208-13-11	c,d	S	R410A	3.4	Heizleistung / Heat. cap. [kW]	17.5	16.6	11.7	12.1	9.4	15.6	15.0	12.7	2.86	65	-
							El. Leistung / Input power [kW]	3.9	3.9	3.4	4.6	4.5	4.6	5.4	6.8	2.72		
							COP [-]	4.5	4.3	3.4	2.6	2.1	3.4	2.8	1.9	1.66		
De Dietrich Thermique 57 rue de la Gare F - 67580 Mertzwiller	HPI 14TR	205-13-08	c,d	S	R410A	5.0	Heizleistung / Heat. cap. [kW]	14.7	13.8	9.6	9.8	7.1	13.3	8.6	-	2.39	66	-
							El. Leistung / Input power [kW]	3.4	3.4	3.0	4.2	4.2	4.3	3.7	-	2.34		
							COP [-]	4.3	4.1	3.2	2.3	1.7	3.1	2.3	-	0.93		
	HPI 22TR	206-13-09	c,d	S	R410A	7.1	Heizleistung / Heat. cap. [kW]	20.9	19.9	12.1	12.1	8.7	19.7	-	-	3.45	72	-
							El. Leistung / Input power [kW]	5.3	5.3	3.9	5.3	5.2	6.8	-	-	3.42		
							COP [-]	4.0	3.7	3.1	2.3	1.7	2.9	-	-	-		
Elcotherm AG Sarganserstrasse 100 CH - 7324 Vilters	Aerotop S07M-CR	214-14-01	a,d	S	R410A	4.7	Heizleistung / Heat. cap. [kW]	6.0	5.7	5.7	7.1	6.8	5.3	7.0	0.98	54	46	
							El. Leistung / Input power [kW]	1.2	1.2	1.4	2.4	3.0	1.5	2.3	3.7			0.91
							COP [-]	5.1	4.8	4.0	3.0	2.3	3.5	2.8	1.9			0.70
	Aerotop S15M-HT	213-13-16	a,d	S	R410A	4.9	Heizleistung / Heat. cap. [kW]	11.0	9.2	9.0	13.9	13.5	11.2	10.5	13.7	1.59	58	48
							El. Leistung / Input power [kW]	2.3	2.0	2.3	4.8	5.8	3.2	3.7	6.4	1.89		
							COP [-]	4.8	4.6	3.9	2.9	2.3	3.5	2.8	2.1	1.14		
Energy Panel S.L. Carretera Estepa-Guadix PK 45 E - 14900 Lucena (Córdoba)	Green e-pack GTEP01 (4 evaporator panels)	227-14-14	d	S	R134a	1.0	Heizleistung / Heat. cap. [kW]	1.5	1.4	1.2	0.8	-	-	-	0.24	-	-	
							El. Leistung / Input power [kW]	0.4	0.4	0.4	0.3	-	-	-	-			-
							COP [-]	3.9	3.7	3.2	2.2	-	-	-	-			-
Erset S.a.r.l 67 rue de Morat F - 68000 Colmar	Sirocco 13	211-13-14	d	S	R407C	10.4	Siehe / see Sapac SA, Sirocco 13											
	Sirocco 18	217-14-04	d	S	R407C	13.4	Siehe / see Sapac SA, Sirocco 18											
Friap AG Ey 9 CH - 3063 Ittigen	FLWsp 1-15	195-12-12	c	S	R407C	9.4	Heizleistung / Heat. cap. [kW]	16.1	15.2	13.9	11.4	9.5	15.9	16.1	11.2	2.85	71	48
							El. Leistung / Input power [kW]	4.1	4.1	4.1	4.0	3.9	5.0	6.0	5.9	3.06		
							COP [-]	3.9	3.7	3.4	2.9	2.4	3.2	2.7	1.9	1.91		

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2011 und EN 14511:2013

Test results of air to water heat pumps based on EN 14511:2011

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	Volumenstromeinstellung Volume flow adjustment										Volumenstrom [m <sup>3</sup> /h] Volume flow	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor										
								A10 / W35 (80% r. H.)	A7 / W35 - 30 (89% r. H.)	A2 / W35 (84% r. H.)	A-7 / W35 (75% r. H.)	A-15 / W35 (-)	A7 / W45 - 40 (89% r. H.)	A7 / W55 - 47 (89% r. H.)	A-7 / W55 (75% r. H.)	V <sub>35</sub>	V <sub>45</sub>				V <sub>55</sub>									
Hoval Aktiengesellschaft Austrasse 70 FL - 9490 Vaduz	Belaria SRM (6)	207-13-10	c,d	S	R410A	1.6	Siehe / see Daikin Europe N.V., ERLQ006CAV3 & EHBH08C																							
	Belaria SRM (16)	208-13-11	c,d	S	R410A	3.4	Siehe / see Daikin Europe N.V., ERLQ016CAV3/W1 & EHVX16S																							
Kermi GmbH Bankofen-Bahnhof 1 D - 94447 Plattling	x-change WPL 12	196-12-13	a,d	S	R410A	7.2	Heizleistung / Heat. cap. [kW]	10.9	10.2	9.7	8.8	8.0	9.5	8.7	9.6		1.77													
							El. Leistung / Input power [kW]	2.0	2.1	2.4	3.4	4.1	2.5	3.0	5.0		1.61	55												
							COP [-]	5.3	5.0	4.1	2.6	2.0	3.8	2.9	1.9		0.95	A7 / W63												
Krüger + Co. AG Winterhaldenstrasse 11 CH - 9113 Degersheim	HWS-804HE	222-14-09	c,d	S	R410A	1.8	Heizleistung / Heat. cap. [kW]	9.2	8.2	6.5	5.4	4.0	7.8	8.1	-	1.41														
							El. Leistung / Input power [kW]	2.2	2.0	2.1	2.3	2.0	2.4	3.0	-	1.34	65													
							COP [-]	4.1	4.2	3.1	2.4	2.0	3.2	2.7	-	0.89	A7 / W55													
	HWS-1604H8R-E	221-14-08	c,d	S	R410A	2.7	Heizleistung / Heat. cap. [kW]	17.9	14.4	11.7	9.4	8.3	14.7	15.5	-	2.60														
							El. Leistung / Input power [kW]	4.1	3.6	3.6	3.5	3.5	4.3	5.3	-	2.56	65													
							COP [-]	4.4	4.0	3.2	2.7	2.3	3.5	2.9	-	1.71	A7 / W55													
Multi Energie AG Wiesentalstrasse 20 CH - 8355 Aadorf	RLW 16.3	197-12-14	a	S	R407C	5.9	Siehe / see CTC Giersch AG, MLW 12																							
Ochsner Wärmepumpen GmbH Ochsner-Strasse 1 A - 3350 Haag	GMLW 5 plus (VHS-M5)	212-13-15	c	S	R407C	4.7	Heizleistung / Heat. cap. [kW]	6.8	6.3	5.4	4.1	3.0	5.9	5.6	3.7	1.09														
							El. Leistung / Input power [kW]	1.3	1.3	1.3	1.3	1.2	1.6	1.9	1.8	1.03	51													
							COP [-]	5.1	4.8	4.1	3.2	2.4	3.7	3.0	2.0	0.61	A7 / W55													
Sapac SA Mühleweg 2 CH - 1734 Tentlingen	Sirocco 13	211-13-14	c	S	R407C	10.4	Heizleistung / Heat. cap. [kW]	15.1	13.0	10.7	9.9	8.1	13.2	15.0	10.6	2.46														
							El. Leistung / Input power [kW]	3.4	3.2	3.0	3.1	3.0	3.9	4.9	4.5	2.45	59													
							COP [-]	4.4	4.0	3.5	3.2	2.7	3.4	3.1	2.4	1.62	A7 / W55													
	Sirocco 18	217-14-04	c	S	R407C	13.4	Heizleistung / Heat. cap. [kW]	22.1	20.9	13.2	14.6	11.8	21.4	21.8	15.7	3.55														
							El. Leistung / Input power [kW]	4.4	4.4	3.8	4.2	4.1	5.5	6.8	6.6	3.62	60													
							COP [-]	5.0	4.8	3.5	3.5	2.9	3.9	3.2	2.4	2.36	A7 / W55													
Striega-Therm AG Breitenstrasse 10 CH - 4852 Rothrist	AWS 8	198-13-01	c	S	R407C	3.0	Heizleistung / Heat. cap. [kW]	8.0	7.6	6.0	4.9	3.8	7.3	7.0	4.2	1.33														
							El. Leistung / Input power [kW]	1.8	1.7	1.6	1.7	1.5	2.1	2.3	2.1	1.27	56													
							COP [-]	4.6	4.4	3.6	2.9	2.5	3.6	3.0	2.0	0.76	A7 / W55													
AWS 16	199-13-02	c	S	R407C	3.0	Heizleistung / Heat. cap. [kW]	13.9	12.4	10.6	9.2	7.3	12.6	13.0	8.8	2.33															
						El. Leistung / Input power [kW]	3.3	3.2	3.1	3.1	2.9	4.0	4.6	4.0	2.27	55														
						COP [-]	4.2	3.9	3.4	3.0	2.5	3.2	2.8	2.2	1.42	A7 / W55														

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2011 und EN 14511:2013

Test results of air to water heat pumps based on EN 14511:2011

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	Volumenstromeinstellung Volume flow adjustment							Volumenstrom [m <sup>3</sup> /h] Volume flow	Schalleistungspegel aussen [dB(A)] Sound power level outdoor	Schalleistungspegel innen [dB(A)] Sound power level indoor			
								V <sub>35</sub>										V <sub>45</sub>	V <sub>55</sub>	
								A10 / W35 (80% r. H.)	A7 / W35 - 30 (89% r. H.)	A2 / W35 (84% r. H.)	A-7 / W35 (75% r. H.)	A-15 / W35 (-)	A7 / W45 - 40 (89% r. H.)	A7 / W55 - 47 (89% r. H.)				A-7 / W55 (75% r. H.)		
Thermolink AG Wittenwilerstrasse 31a CH - 8355 Aadorf	LW1-6		a	S	R407C	6.5	Heizleistung / Heat. cap. [kW]	9.9	9.0	7.5	6.1	4.6	9.3	9.3	-	1.62	57	54		
							El. Leistung / Input power [kW]	2.3	2.3	2.2	2.1	2.1	2.9	3.4	-	1.62				
							COP [-]	4.3	4.0	3.4	2.9	2.3	3.3	2.7	-	1.01				
Toshiba Carrier (UK) Ltd. Porsham Close Roborough, Plymouth UK - Devon PL6 7DB	HWS-804HE	222-14-09	c,d	S	R410A	1.8	Heizleistung / Heat. cap. [kW]	9.2	8.2	6.5	5.4	4.0	7.8	8.1	-	1.41	65			
							El. Leistung / Input power [kW]	2.2	2.0	2.1	2.3	2.0	2.4	3.0	-	1.34				
							COP [-]	4.1	4.2	3.1	2.4	2.0	3.2	2.7	-	0.89				
	HWS-1604H8R-E	221-14-08	c,d	S	R410A	2.7	Heizleistung / Heat. cap. [kW]	17.9	14.4	11.7	9.4	8.3	14.7	15.5	-	2.60	65			
							El. Leistung / Input power [kW]	4.1	3.6	3.6	3.5	3.5	4.3	5.3	-	2.56				
							COP [-]	4.4	4.0	3.2	2.7	2.3	3.5	2.9	-	1.71				
	HWS-P804HR-E HWS-P804XWHM3-E	233-15-05	c,d	S	R410A	2.7	Heizleistung / Heat. cap. [kW]	18.6	7.9	11.8	10.5	9.3	7.1	11.7	7.9	1.34	62			
							El. Leistung / Input power [kW]	4.1	1.7	3.6	3.6	3.8	1.9	4.0	4.2	1.23				
							COP [-]	4.5	4.7	3.3	2.9	2.5	3.7	2.9	1.9	1.28				
	HWS-P1104HR-E HWS-P1104XWHM3-E	234-15-06	c,d	S	R410A	2.7	Heizleistung / Heat. cap. [kW]	18.9	11.3	12.1	11.0	10.5	10.9	12.4	7.9	2.00	63			
							El. Leistung / Input power [kW]	4.1	2.3	3.6	4.0	4.2	2.9	4.1	4.0	1.85				
							COP [-]	4.6	4.9	3.4	2.8	2.5	3.8	3.0	2.0	1.37				
Walter Bösch GmbH & Co KG Industrie Nord A - 6890 Lustenau	HPI 14TR	205-13-08	c,d	S	R410A	5.0	Siehe / see De Dietrich Thermique, HPI 14TR													
	HPI 22TR	206-13-09	c,d	S	R410A	7.1	Siehe / see De Dietrich Thermique, HPI 22TR													
Walter Meier (Klima Schweiz) AG Bahnstrasse 24 CH - 8603 Schwerzenbach	LSI 140 SHW	200-13-03	c,d	S	R410A	5.0	Heizleistung / Heat. cap. [kW]	14.9	15.1	13.0	13.6	13.7	14.5	13.7	14.6	2.60	69			
							El. Leistung / Input power [kW]	3.3	3.6	4.1	5.7	6.9	4.6	5.1	8.2	2.51				
							COP [-]	4.5	4.2	3.2	2.4	2.0	3.1	2.7	1.8	1.50				
	LSP 50 SW	204-13-07	c,d	S	R410A	2.1	Heizleistung / Heat. cap. [kW]	6.5	6.1	3.2	4.6	3.6	6.5	6.1	4.7	1.13	62			
							El. Leistung / Input power [kW]	1.6	1.7	1.0	1.9	1.7	2.1	2.3	2.7	1.08				
							COP [-]	4.1	3.7	3.2	2.4	2.1	3.1	2.6	1.7	0.66				
	LSP 200 SW	203-13-06	c,d	S	R410A	5.1	Heizleistung / Heat. cap. [kW]	13.4	12.6	11.6	15.3	10.9	11.4	9.0	-	2.15	72			
							El. Leistung / Input power [kW]	2.8	2.9	3.6	6.4	5.9	3.5	4.2	-	1.98				
							COP [-]	4.7	4.3	3.2	2.4	1.8	3.3	2.2	-	0.97				
Weider Wärmepumpen GmbH Oberer Achdamm 4 A - 6971 Hard bei Bregenz	LW140	201-13-04	c	S	R407C	7.0	Heizleistung / Heat. cap. [kW]	16.5	16.0	14.0	10.9	9.0	15.8	11.4	11.1	2.73	67			
							El. Leistung / Input power [kW]	3.2	3.2	3.2	3.0	3.0	3.8	4.0	4.2	2.69				
							COP [-]	5.1	5.0	4.4	3.6	3.0	4.1	2.8	2.6	1.40				





## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2004 und EN 14511:2007

Test results of air to water heat pumps based on EN 14511:2004 and EN 14511:2007

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions										Volumenstrom [m <sup>3</sup> /h] Volume flow	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A10 / W35 (80% r. H.)	A7 / W35 - 30 (89% r. H.)	A2 / W35 (84% r. H.)	A-7 / W35 (75% r. H.)	A-15 / W35 (-)	A7 / W45 (89% r. H.)	A20 / W55 (50% r. H.)	A7 / W55 (89% r. H.)	A-7 / W55 (75% r. H.)				
Alpha-InnoTec GmbH Industriestrasse 3 D - 95359 Kasendorf	LWC 80	128-09-01	a	S	R407C	3.2	Heizleistung / Heat. cap. [kW]	-	8.8	8.0	6.0	4.6	8.5	11.5	8.5	5.7	1.7	53	-
							El. Leistung / Input power [kW]	-	2.1	2.3	2.2	2.1	2.5	3.6	3.1	3.1			
							COP [-]	-	4.1	3.5	2.7	2.2	3.4	3.2	2.7	1.9			
BARTL Wärmepumpen Wörthstrasse 13/1 D - 89077 Ulm	ECO 5LCI	146-10-06	a	S	R404A	2.8	Heizleistung / Heat. cap. [kW]	13.1	10.8	9.1	7.5	6.0	11.6	13.5	10.8	6.8	2.1	74	59
							El. Leistung / Input power [kW]	3.0	2.8	2.8	2.9	3.0	3.7	4.5	4.5	4.5			
							COP [-]	4.4	3.9	3.3	2.6	2.0	3.2	3.0	2.4	1.5			
	ECO 6 LS/HG	160-10-20	c	S	R404A	5.6	Heizleistung / Heat. cap. [kW]	16.5	15.7	10.8	8.6	8.6	14.7	16.8	13.9	9.5	2.7	69	51
							El. Leistung / Input power [kW]	3.8	3.8	3.4	3.3	3.5	4.6	5.6	5.6	5.3			
							COP [-]	4.3	4.1	3.2	2.6	2.4	3.2	3.0	2.5	1.8			
CTC Giersch AG Bahnhofstrasse 60 CH - 8112 Otelfingen	MLW 8	119-07-09	a	S	R407C	8.0	Heizleistung / Heat. cap. [kW]	11.5	10.0	8.5	6.7	5.3	9.6	12.8	9.5	6.5	1.8	60	59
							El. Leistung / Input power [kW]	3.0	2.9	2.8	2.8	2.7	3.4	4.3	4.1	3.9			
							COP [-]	3.9	3.4	3.0	2.4	1.9	2.8	3.0	2.3	1.7			
	MLW 12	120-08-01	a	S	R407C	8.5	Heizleistung / Heat. cap. [kW]	13.8	11.9	10.5	8.2	6.5	11.1	17.0	10.7	7.8	2.4	67	59
							El. Leistung / Input power [kW]	3.6	3.5	3.4	3.3	3.2	4.1	5.5	4.9	4.6			
							COP [-]	3.8	3.4	3.0	2.5	2.1	2.7	3.1	2.2	1.7			
Elcotherm AG Sarganserstrasse 100 CH - 7324 Vilters	AEROTOP G10	164-11-03	b	S	R407C	4.0	Heizleistung / Heat. cap. [kW]	14.1	12.5	9.2	7.6	6.4	12.6	15.5	12.0	7.3	2.1	59	-
							El. Leistung / Input power [kW]	2.7	2.7	2.5	2.5	2.4	3.3	4.1	4.0	3.5			
							COP [-]	5.2	4.7	3.7	3.1	2.7	3.8	3.7	3.0	2.1			
	AEROTOP G07-14M	185-12-02	b,d	S	R407C	4.6	Heizleistung / Heat. cap. [kW]	5.2	11.0	10.0	10.7	10.3	10.4	6.0	9.5	9.2	1.9	55	-
							El. Leistung / Input power [kW]	1.0	2.2	2.6	3.6	4.2	2.7	1.6	3.3	4.6			
							COP [-]	5.0	5.0	3.8	2.9	2.4	3.9	3.6	2.9	2.0			
Friap AG Ey 9 CH - 3036 Ittigen	FLWi 1-6	132-09-05	a	S	R407C	4.0	Heizleistung / Heat. cap. [kW]	-	8.2	6.2	5.2	3.9	7.8	9.5	7.5	5.1	1.4	53	52
							El. Leistung / Input power [kW]	-	2.1	1.9	1.9	1.8	2.5	2.9	2.9	2.6			
							COP [-]	-	4.0	3.2	2.8	2.2	3.2	3.2	2.6	1.9			
	FLWi 1-12	107-06-04	a	S	R407C	7.2	Siehe / see Sapac SA, Sirocco [kW]	16.7	15.4	12.7	11.0	8.7	15.5	19.6	16.0	10.1	2.9	67	59
							Siehe / see Sapac SA, Sirocco [kW]	4.4	4.4	4.2	4.1	4.0	5.2	6.5	6.3	5.7			
							COP [-]	3.8	3.5	3.0	2.7	2.2	3.0	3.0	2.5	1.8			
LWsp 1-8	135-09-08	c	S	R407C	6.0	Heizleistung / Heat. cap. [kW]	11.8	10.9	8.7	6.5	4.9	10.7	13.5	10.2	6.7	1.9	59	47	
						El. Leistung / Input power [kW]	2.8	2.8	2.6	2.5	2.4	3.3	4.2	4.0	3.6				
						COP [-]	4.2	3.9	3.3	2.6	2.1	3.2	3.2	2.6	1.9				

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2004 und EN 14511:2007

Test results of air to water heat pumps based on EN 14511:2004 and EN 14511:2007

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions	A10 / W35	A7 / W35 - 30	A2 / W35	A-7 / W35	A-15 / W35	A7 / W45	A20 / W55	A7 / W55	A-7 / W55	Volumenstrom [m <sup>3</sup> /h] Volume flow	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor		
								(80% r. H.)	(89% r. H.)	(84% r. H.)	(75% r. H.)	(-)	(89% r. H.)	(50% r. H.)	(89% r. H.)	(75% r. H.)					
Friap AG Ey 9 CH - 3036 Ittigen	LWsp 1-12	136-09-09	c	S	R407C	6.8	Heizleistung / Heat. cap. [kW]	16.9	14.9	12.3	9.2	7.1	14.5	18.9	14.5	9.3	2.7	62	49		
							El. Leistung / Input power [kW]	3.9	3.8	3.7	3.5	3.3	4.5	5.8	5.5	5.0					
							COP [-]	4.3	3.9	3.4	2.6	2.2	3.2	3.3	2.6	1.9					
Green Terra AG Wiesenstrasse 1a CH - 8865 Biltlen	AW 13 EVI	189-12-06	c	S	R407C	10.1	Siehe / see Wamak s.r.o, AW 13 EVI														
Harreither GmbH Oberland 71 A - 3334 Gaflenz	Klima Star Air 10	130-09-03	b	S	R407C	7.9	Heizleistung / Heat. cap. [kW]	-	11.1	9.5	7.1	5.5	11.2	16.5	11.2	7.4	2.3	67	-		
							El. Leistung / Input power [kW]	-	3.2	3.0	2.9	2.8	3.8	5.0	4.6	4.1					
							COP [-]	-	3.5	3.1	2.4	2.0	3.0	3.3	2.4	1.8					
HAUTECH GmbH An der Molkerei 9 D - 47551 Bedburg-Hau	HWL-A 43	113-07-03	b	S	R404A	2.7	Heizleistung / Heat. cap. [kW]	10.9	8.8	7.5	5.7	4.4	8.7	10.9	7.9	4.4	1.8	62	-		
							El. Leistung / Input power [kW]	2.6	2.4	2.3	2.0	1.8	2.7	3.4	3.0	2.2					
							COP [-]	4.2	3.7	3.3	2.8	2.5	3.2	3.2	2.7	2.0					
Heim AG Wittenwilerstrasse 31 CH - 8355 Aadorf	HLWi 1-12	107-06-04	a	S	R407C	7.2	Heizleistung / Heat. cap. [kW]	16.7	15.4	12.7	11.0	8.7	15.5	19.6	16.0	10.1	2.9	67	59		
							El. Leistung / Input power [kW]	4.4	4.4	4.2	4.1	4.0	5.2	6.5	6.3	5.7					
							COP [-]	3.8	3.5	3.0	2.7	2.2	3.0	3.0	2.5	1.8					
Heliotherm Wärmepumpentechnik GmbH Sportplatz 18 A - 6336 Langkampfen	HP10L-K-BC	159-10-19	c	S	R410A	8.3	Heizleistung / Heat. cap. [kW]	13.1	12.3	10.1	8.0	6.1	11.6	13.6	10.7	5.8	2.1	66	51		
							El. Leistung / Input power [kW]	2.4	2.4	2.4	2.4	2.3	3.0	3.6	3.7	3.5					
							COP [-]	5.4	5.1	4.2	3.3	2.6	3.8	3.7	2.9	1.7					
	HP10L-WEB	141-10-01	c	S	R410A	13.9	Heizleistung / Heat. cap. [kW]	13.4	12.5	10.0	8.0	6.4	11.7	14.8	10.8	-	2.2	63	45		
							El. Leistung / Input power [kW]	2.4	2.4	2.4	2.3	2.3	3.0	3.7	3.7	-					
							COP [-]	5.5	5.2	4.2	3.4	2.8	3.9	4.0	2.9	-					
H2Q Systems GmbH Welzheimer Strasse 53 D - 71554 Weissach im Tal	H2Q-1200	140-09-13	c,d	S	R410A	3.8	Heizleistung / Heat. cap. [kW]	12.4	11.8	9.1	7.6	4.4	9.8	13.3	10.6	5.5	2.2	64	-		
							El. Leistung / Input power [kW]	2.9	2.9	2.8	2.8	2.4	3.4	4.3	4.1	3.2					
							COP [-]	4.3	4.0	3.3	2.7	1.8	2.9	3.1	2.5	1.7					
KNV Energietechnik GmbH Gahbergasse 11 A - 4861 Schörfliing	LWSE - 10	131-09-04	c	S	R407C	7.0	Heizleistung / Heat. cap. [kW]	13.2	12.2	9.3	7.9	6.3	11.8	14.2	11.2	7.5	2.1	65	50		
							El. Leistung / Input power [kW]	3.0	2.9	2.8	2.7	2.6	3.5	4.4	4.2	3.9					
							COP [-]	4.5	4.2	3.4	2.9	2.4	3.3	3.2	2.6	1.9					
Multi Energie AG Wiesentalstrasse 20 CH - 8355 Aadorf	RLW 12.3	119-07-09	a	S	R407C	8.0	Siehe / see CTC Giersch AG, MLW 8														
	RLW 16.3	120-08-01	a	S	R407C	8.5	Siehe / see CTC Giersch AG, MLW 12														

## Prüfresultate Luft/Wasser-Wärmepumpen basierend auf der EN 14511:2004 und EN 14511:2007

Test results of air to water heat pumps based on EN 14511:2004 and EN 14511:2007

Auftraggeber Customer	Gerät Type	Prüfnummer Test number	Bauart Type of construction	Produktart Product type	Kältemittel Refrigerant	Kältemittelmenge [kg] Capacity of refrigerant	Prüfbedingungen Test conditions										Volumenstrom [m <sup>3</sup> /h] Volume flow	Schallleistungspegel aussen [dB(A)] Sound power level outdoor	Schallleistungspegel innen [dB(A)] Sound power level indoor
							A10 / W35 (80% r. H.)	A7 / W35 - 30 (89% r. H.)	A2 / W35 (84% r. H.)	A-7 / W35 (75% r. H.)	A-15 / W35 (-)	A7 / W45 (89% r. H.)	A20 / W55 (50% r. H.)	A7 / W55 (89% r. H.)	A-7 / W55 (75% r. H.)				
Ochsner Wärmepumpen GmbH Ochsner-Strasse 1 A - 3350 Haag	GMLW 5 (VHS)	147-11-05	c	S	R407C	4.7	Heizleistung / Heat. cap. [kW]	6.8	6.3	5.3	4.0	3.1	5.9	7.4	5.5	3.6	1.1	54	41
							El. Leistung / Input power [kW]	1.4	1.4	1.3	1.3	1.2	1.6	2.0	1.9	1.7			
							COP [-]	5.0	4.7	3.9	3.1	2.6	3.6	3.7	2.9	2.1			
	GMLW 9 plus (VHS) GMLW 9 plus (VHS/M)	191-12-08	c	S	R407C	11.5	Heizleistung / Heat. cap. [kW]	11.0	10.2	8.8	6.8	5.4	10.0	12.6	10.2	7.0	1.8	64	51
							El. Leistung / Input power [kW]	2.2	2.2	2.2	2.0	2.0	2.6	3.2	3.2	3.0			
							COP [-]	4.9	4.5	4.0	3.3	2.7	3.9	3.9	3.2	2.3			
GMLW 14 plus (VHS) GMLW 14 plus (VHS/M)		c	S	R407C	11.6	Heizleistung / Heat. cap. [kW]	16.0	15.1	13.2	10.6	8.2	15.0	18.5	15.2	11.1	2.6	55	48	
						El. Leistung / Input power [kW]	3.0	3.0	3.0	3.0	2.9	3.7	4.6	4.6	4.4				
						COP [-]	5.3	5.0	4.4	3.6	2.8	4.1	4.0	3.3	2.5				
PZP Heating a.s. Dobre 149 CZ - 51793 Dobre	HP3AWX 08	190-12-07	b	S	R410A	2.7	Heizleistung / Heat. cap. [kW]	11.6	11.1	8.8	7.1	5.7	10.5	12.6	10.0	7.0	1.9	66	-
							El. Leistung / Input power [kW]	2.3	2.4	2.3	2.3	2.3	2.9	3.5	3.5	3.4			
							COP [-]	5.0	4.7	3.8	3.1	2.5	3.6	3.5	2.9	2.0			
Swisstherm AG Hardstrasse 21 CH - 5103 Wildegg	AWX 08	149-10-09	b	S	R404A	3.8	Heizleistung / Heat. cap. [kW]	9.3	8.7	6.6	5.1	3.9	8.1	9.4	7.4	4.4	1.5	66	-
							El. Leistung / Input power [kW]	2.3	2.3	2.1	2.0	1.9	2.6	3.2	3.0	2.6			
							COP [-]	4.0	3.8	3.1	2.5	2.0	3.2	3.0	2.5	1.7			
	AWX 08	190-12-07	b	S	R410A	2.7	Siehe / see PZP Heating a.s., HP3AWX 08												
Technibel S.A.S ZI Reyrieux - BP 131 F - 01601 Trevoux Cedex	PHRIE 157 F	183-11-23	b,d	S	R410A	3.5	Heizleistung / Heat. cap. [kW]	17.2	16.4	11.3	9.9	7.7	15.9	13.5	13.0	7.0	2.8	70	-
							El. Leistung / Input power [kW]	3.6	3.7	3.2	3.3	3.2	4.4	3.9	4.6	3.8			
							COP [-]	4.7	4.5	3.5	3.0	2.4	3.6	3.5	2.8	1.9			
Voß Wärmepumpen GmbH Lange Gasse 20 D - 93468 Furth im Wald	LW 12 - basic	134-09-07	c	S	R407C	17.0	Heizleistung / Heat. cap. [kW]	12.6	11.8	9.7	7.7	6.1	11.3	14.1	11.1	7.4	2.0	63	50
							El. Leistung / Input power [kW]	2.6	2.6	2.6	2.6	2.5	3.2	3.9	3.9	3.8			
							COP [-]	4.8	4.5	3.7	3.0	2.4	3.6	3.7	2.9	1.9			
Wamak s.r.o. Hodrusa - Harmre 1118 SK - 96661 Hodrusa-Hamre	AW 13 EVI	189-12-06	c	S	R407C	10.1	Heizleistung / Heat. cap. [kW]	14.9	12.9	11.0	9.5	7.9	13.0	17.3	13.3	9.7	2.4	64	-
							El. Leistung / Input power [kW]	3.1	3.0	2.9	2.9	2.9	3.6	4.6	4.5	4.2			
							COP [-]	4.8	4.3	3.8	3.2	2.7	3.6	3.6	3.0	2.3			
Wolf GmbH Industriestrasse D - 84048 Mainburg	BWL-1-10	150-10-10	b	S	R407C	4.4	Heizleistung / Heat. cap. [kW]	10.6	9.4	9.4	8.5	6.7	12.2	14.5	11.8	8.1	2.1	56	-
							El. Leistung / Input power [kW]	2.3	2.1	2.6	2.7	2.6	3.4	4.1	4.1	3.9			
							COP [-]	4.6	4.4	3.7	3.2	2.5	3.6	3.5	2.9	2.1			

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### Bauart / Type of construction

- a Kompaktwärmepumpe für Innenaufstellung / Compact heat pump for indoor installation
- b Kompaktwärmepumpe für Aussenaufstellung / Compact heat pump for outdoor installation
- c Splitwärmepumpe / Split heat pump
- d Leistungsgeregelte Wärmepumpe mit Frequenzumformer / Output-modulated heat pump with frequency converter

### Produktart / Product typ

- S Serienprodukt / Standard product
- P Prototyp / Prototype
- E Einzelanfertigung / Single-unit production

### Abkürzungen / Abbreviations

- A Lufttemperatur / Air temperature
- W Wassertemperatur / Water temperature
- r. H. relative Luftfeuchtigkeit / relative humidity

Schallleistungspegel aussen / Sound power level outdoor:

bezieht sich auf das Geräusch draussen (wird vom Nachbar wahrgenommen) / relates to the noise outside (is perceived by the neighbor)

Schallleistungspegel innen / Sound power level indoor:

bezieht sich auf das Geräusch drinnen (z.B. im Aufstellungsraum) / it relates to the indoor noise (e.g. in the installation room)