

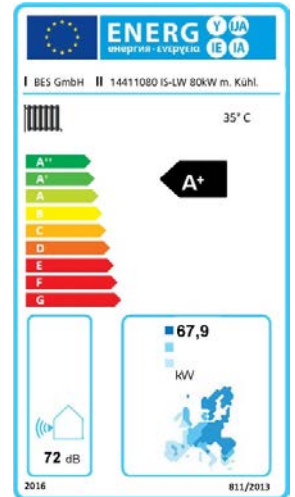
Air-Water Heat Pump 50/80/150 kW



IS-WP LW 50/80/150

Range of application :

- ▶ external air as energy source
- ▶ usable as an air conditioner
- ▶ for heating and cooling
- ▶ new construction and refurbishment



- ▶ Due to integrated reversible refrigeration cycle suitable as air conditioner if necessary
- ▶ External temperature based e-TALK controller with mixer and domestic hot water control
- ▶ Fully-automatic operation for heating and cooling
- ▶ Air operating temperature -25 °C to 40 °C
- ▶ Modularly expandable through cascading
- ▶ Phase sequence integrated monitoring
- ▶ Fully hermetic compressor heat pump
- ▶ Utilizes external air as energy source
- ▶ Remote monitoring via web portal
- ▶ Maintenance-friendly housing
- ▶ Extremely silent operation

Seasonal energy efficiency
in heating

156%

Climate middle

Efficiency class

A++

IS-WP LW 50/80/150

Operating point	Heating capacity*	Power consumption (kW)	Current consumption in A	Coefficient of Performance** (COP/EER)	Refrigeration capacity (kW)	Cooling capacity (kW)***
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IS-WP LW 50 kW

A 10/W 35	54,8	12,1	21,2	4,5	43,7	-
A 10/W 50	51,6	16,9	28,9	3,1	35,9	-
A 7/W 35	50,7	12,1	21,2	4,2	39,6	-
A 7/W 50	48,1	16,9	28,9	2,8	32,4	-
A 2/ W 35	44,0	12,1	21,1	3,7	33,0	-
A 2/ W 50	42,5	16,9	28,9	2,5	26,7	-
A -7/W 35	34,5	12,0	21,1	2,9	23,8	-
A 30/W 15	-	15,3	26,3	3,7	-	57,1
A 30/W 7	-	14,3	24,8	3,2	-	46,3

IS-WP LW 80 kW

A 10/W 35	67,9	15,1	26,8	4,5	54,1	-
A 10/W 50	63,4	20,8	36,1	3,1	44,2	-
A 7/W 35	64,8	15,0	26,8	4,3	51,1	-
A 7/W 50	60,6	20,9	36,1	2,9	41,3	-
A 2/ W 35	54,7	14,9	26,6	3,7	41,1	-
A 2/ W 50	51,9	20,8	36,1	2,5	32,7	-
A -7/W 35	44,6	14,4	26,7	3,4	34,0	-
A 30/W 15	-	18,1	31,7	4,0	-	72,6
A 30/W 7	-	17,2	30,2	3,4	-	58,4

IS-WP LW 150 kW

A 10/W 35	142,7	31,1	49,5	4,6	115,2	-
A 10/W 50	133,0	42,6	67,9	3,1	94,6	-
A 7/W 35	129,9	30,9	49,2	4,2	102,6	-
A 7/W 50	121,7	42,6	67,9	2,9	83,3	-
A 2/ W 35	117,2	30,9	49,1	3,8	89,9	-
A 2/ W 50	110,1	42,6	67,9	2,6	71,6	-
A -7/W 35	89,9	30,8	49,0	2,9	62,7	-
A 30/W 15	-	37,8	60,2	3,8	-	144,0
A 30/W 7	-	36,1	57,4	3,2	-	115,6

Efficiency

IS-WP LW 50 kW

	η_s (%)** 35 °C		η_s (%)** 45 °C		sound pressure level in dB/A			sound power in dB/A
Clime	average	cold	average	cold	1m	5m	10m	
	144%	104%	121%	100%	63	49	43	71

IS-WP LW 80 kW

	η_s (%)** 35 °C		η_s (%)** 45 °C		sound pressure level in dB/A			soundpower in dB/A
Clime	average	cold	average	cold	1m	5m	10m	
	156%	112%	130%	107%	64	50	44	72

IS-WP LW 150 kW

	η_s (%)** 35 °C		η_s (%)** 45 °C		sound pressure level in dB/A			soundpower in dB/A
Clime	average	cold	average	cold	1m	5m	10m	
	145%	105%	123%	101%	67	53	47	75

* all output specifications in accordance with DIN 14 511

** seasonal energy efficiency in heating

IS-WP LW 50/80/150

	50 kW	80 kW	150 kW
Condenser			
Type	plate heat exchanger		
Recommended volume flow	8320 l/h	12200 l/h	23800 l/h
Pressure loss at nominal volume	36 kPa	31 kPa	39 kPa
Max. operating pressure	45 bar		
Max. temperature	150 °C		
Connections heating	2" AG	2" AG	3" AG
Max. / min. inlet temperature (heating)	55 °C / 25 °C		
Max. / min. inlet temperature (cooling)	18 °C / 5 °C		

Evaporator			
Type	Finned-tube heat exchanger		
Insulation	PVC- and CFC-free		
Recommended volume flow	15400 m³/h	21955 m³/h	51000 m³/h
Number of fans	4	4	8
Pressure drop	80 Pa	80 Pa	100 Pa
Max. operating pressure / temperature	45 bar / 43 °C		
Source connections	none		
Max. / min. source inlet temperature (heating)	40 °C / -15 °C		
Max. / min. source inlet temperature (cooling)	40 °C / -15 °C		
Expansion valve	electronical		

Cooling cycle			
Compressor	Scroll, fully hermetic		
Quantity	2 pieces	2 pieces	4 pieces
Insulation cooling cycle	PVC- and FCKW-free		
Refrigerant	R 410 A		
Filling capacity	16 kg	20 kg	38 kg
Volume flow	2x 16,8 m³/h	19,8 + 22,1 m³/h	2x 19,8 + 2x 22,1 m³/h
Ester oil content	Σ 6,6 liters	Σ 6,6 liters	2x Σ 6,6 liters
Ester oil	COPELAND MOBIL EAL ARCTIC		

Housing			
Dimensions (W x D x H)	2360 mm x 1185 mm x 1720 mm		3540 mm x 1654 mm x 1830 mm
Weight	720 kg	720 kg	1050 kg
Material / sound insulation	steel sheet (powder coated) RAL 7016/soundproofed		

Electrical data			
Nominal voltage (heat pump)	3 Ph / 50 Hz / 400 V		
Nominal voltage (control & ventilator)	1 Ph / 50 Hz / 230 V		
Compressor startup current 1/3* (w/o soft-start)	111A	118A	118A
Compressor startup current 1/3* (with soft-start)	21A	25A	25A
Max. compressor operating current 1/3*	18A	23,2A	23,2A
Motor overload protection compressor 1/3*	25A	25A	25A
Compressor startup current 2/4* (w/o soft-start)	111A	118A	118A
Compressor startup current 2/4* (with soft-start)	21A	22A	22A
Max. compressor operating current 2-(4)*	18A	21,5A	21,5A
Motor overload protection compressor 2-(4)*	25A	25A	25A
Type of protection	IP 44		IP 42

IS-WP LW 50/80/150

Electrical connections				
Fuse protection slow-blow compressor	D40 A – 4-pol.	D 50 A – 4-pol.	2x D 50 A – 4-pol.	
Fuse protection control/fan	C 20 A – 4-pol.		C 25 A – 4-pol.	
Fuse protection control AP housing	B 13 A 2 pol.			
Supply compressor**	1 supply à 5 x 10 mm² flexible	1 supply à 5 x 16 mm² flexible	2 supplies à 5 x 16 mm² flexible	
Supply control/fan**	5 x 4 mm² flexible			
Supply control AP housing**	3 x 1,5 mm² flexible			
Product-No.	1441 1050	1441 1080	1441 1150	

* LW150 with 4 compressor 1/3 and 2/4

** The width for the supplies is to be configured depending on the laying and length



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