

# Copeland Scroll™ ZW Compressor for Heat Pump Water Heating



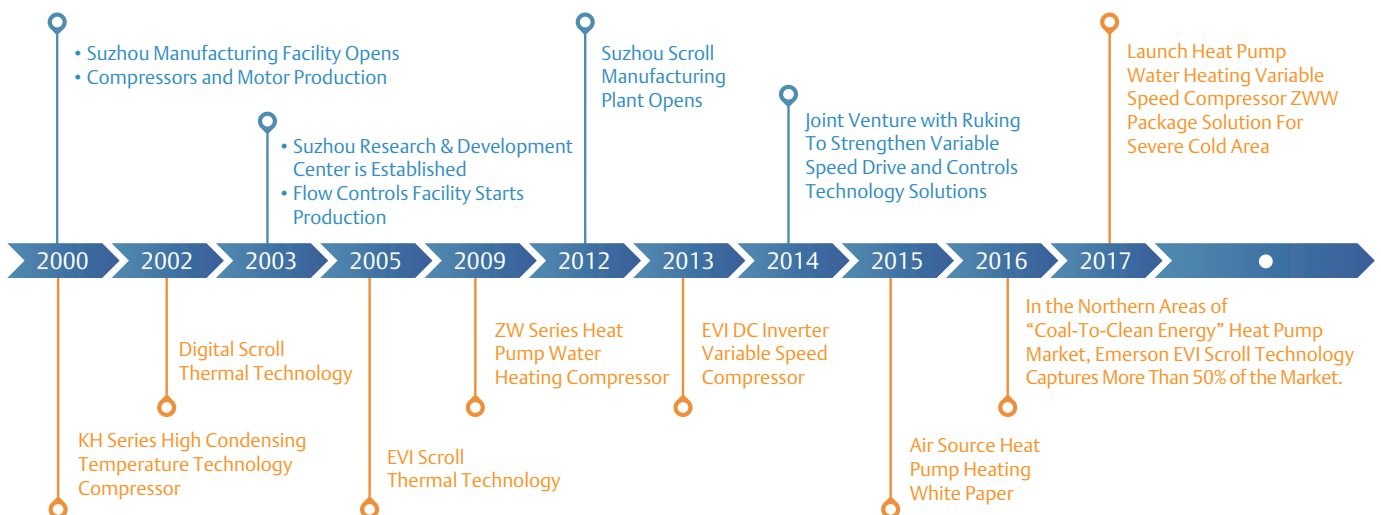
Product catalogue

**COPELAND™**

  
**EMERSON™**



## Over 10 years of heat pump technology and expertise



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# Copeland Scroll™ ZW for heat pump water heating



Compared to conventional electric heaters or fuel boilers, Copeland Scroll ZW compressors have a higher energy efficiency ratio, and are widely used for sanitary water heating, residential heating, drying, electroplating and other industrial fields. Backed with experience of over 100 million scroll compressors produced, Emerson is recognized as an industry leader with unmatched reliability and efficiency.

Copeland Scroll ZW compressors for heat pumps use Copeland EVI (Enhanced Vapor Injection) scroll heating technology and a host of new design features to create a strong core for any heat pump system. With Emerson's EVI scroll heating technology, heat range for heat pumps and water heating systems are reliably extended to -30°C ambient temperature. Heating capacity and energy efficiency are increased by about 40% and 22% respectively. Copeland Scroll ZW compressors not only can produce quality sanitary heating for residential applications but also can produce 85°C of hot water for industrial applications.



Copeland Scroll ZW compressors are uniquely designed for scroll and axial compliance which in turn make ZW scroll compressors attain higher compression ratios and greater pressure difference. Compared with normal heat pump air conditioning compressors, it offers a wider range of operations. Equipped with a highly efficient and powerful motor, ZW compressor meets the demand for heat pump and water heating under extreme conditions. ZW compressors can also be installed in tandem to meet with larger capacity heating requirements while oil and gas balance ports ensure proper operation.

ZW Digital Scroll™ compressors utilize radial and axial compliance to allow capacity adjustment by forcing the scroll set to disengage. The refrigerant compression can be stopped without turning off the compressor. When the scrolls are in the “unloaded” state, the compressor capacity is 0% and while they are in the “loaded” state, the compressor capacity output is at a 100%. In a certain period (such as 15 seconds), the output capacity is the sum of the average time in the “unloaded” and “loaded” states. The Copeland Digital Scroll compressor can adjust from 10% to 100% capacity (or vice versa) instantaneously by varying the relative durations of loaded and unloaded cycle times to allow for accurate temperature control.

In addition, ZW compressors can use environmentally friendlier zero ODP refrigerants and in combination with high efficiency technology solutions effectively reduce CO<sub>2</sub> emissions to minimize environmental impact.

## Heated swimming pool



## Hot water



## Space heating



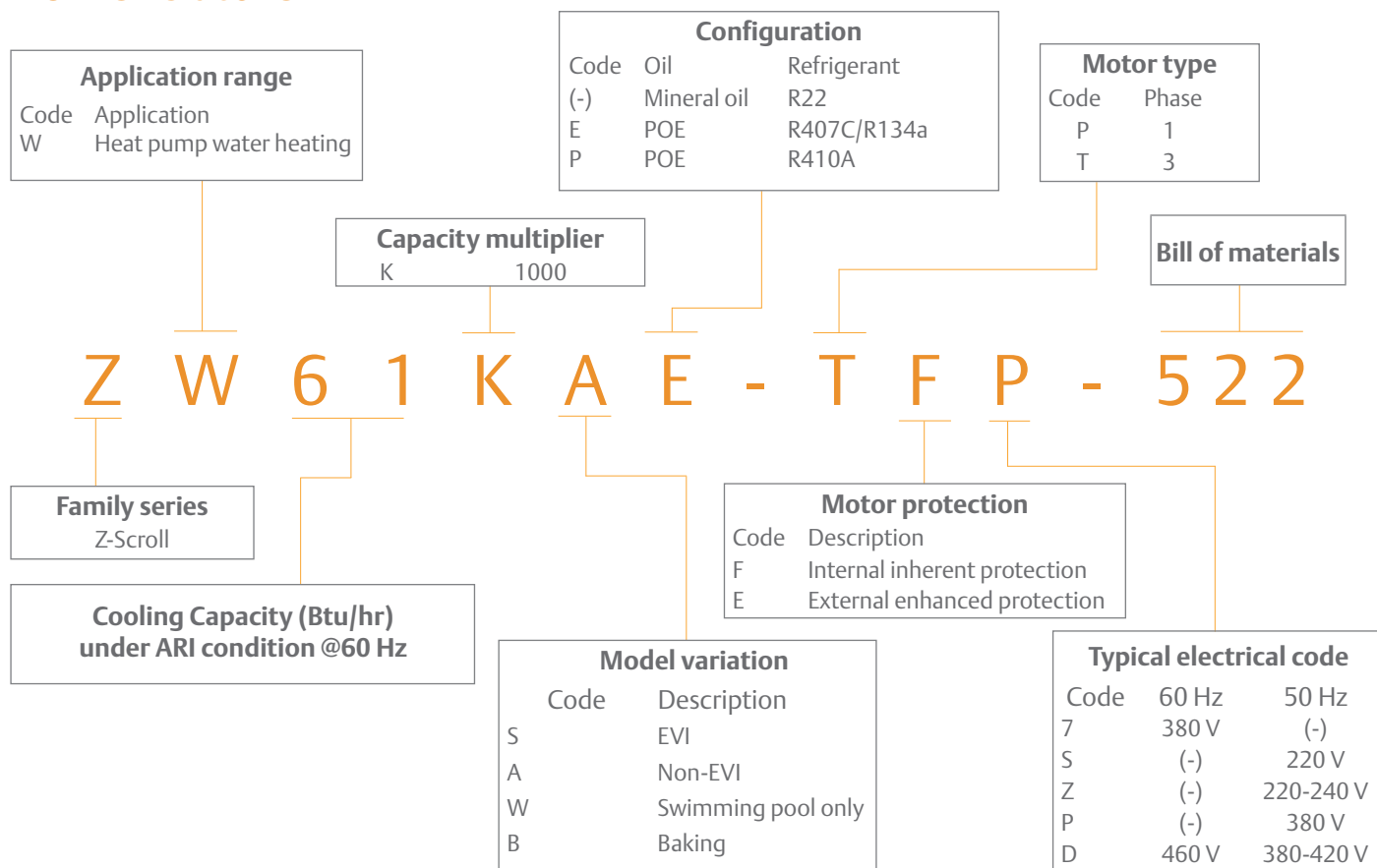
# The advantages of Emerson Copeland Scroll™ ZW

Performance	Normal air conditioning scroll	Normal heating scroll	Copeland scroll ZW EVI
Heating capacity	Benchmark	Over benchmark 10%	Over benchmark 40%
Minimum ambient temperature	0°C	0°C	-30°C
HCOP	Benchmark	Over benchmark 5%	Over benchmark 20%
Maximum water temperature	45°C	55°C	65°C

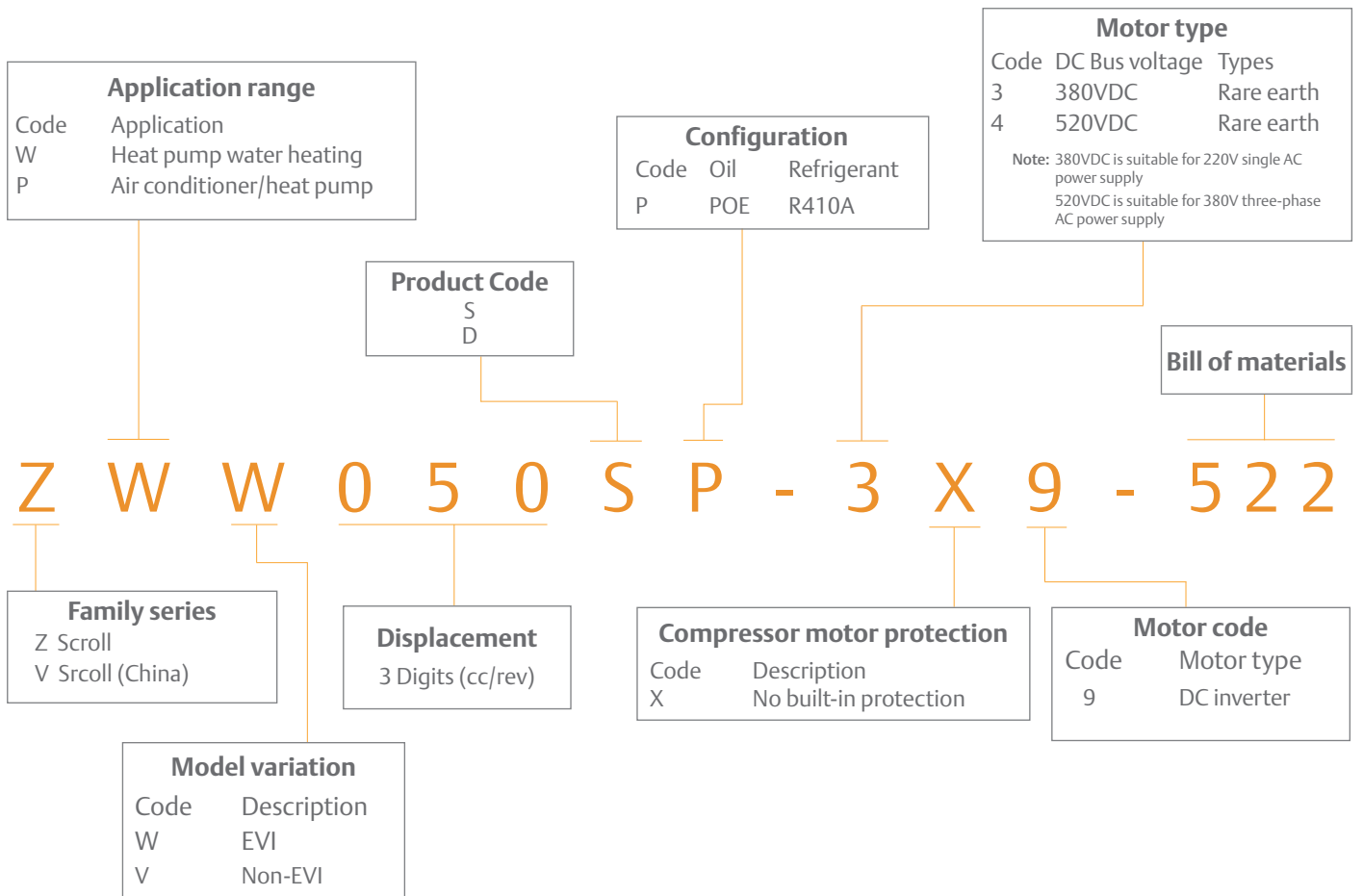
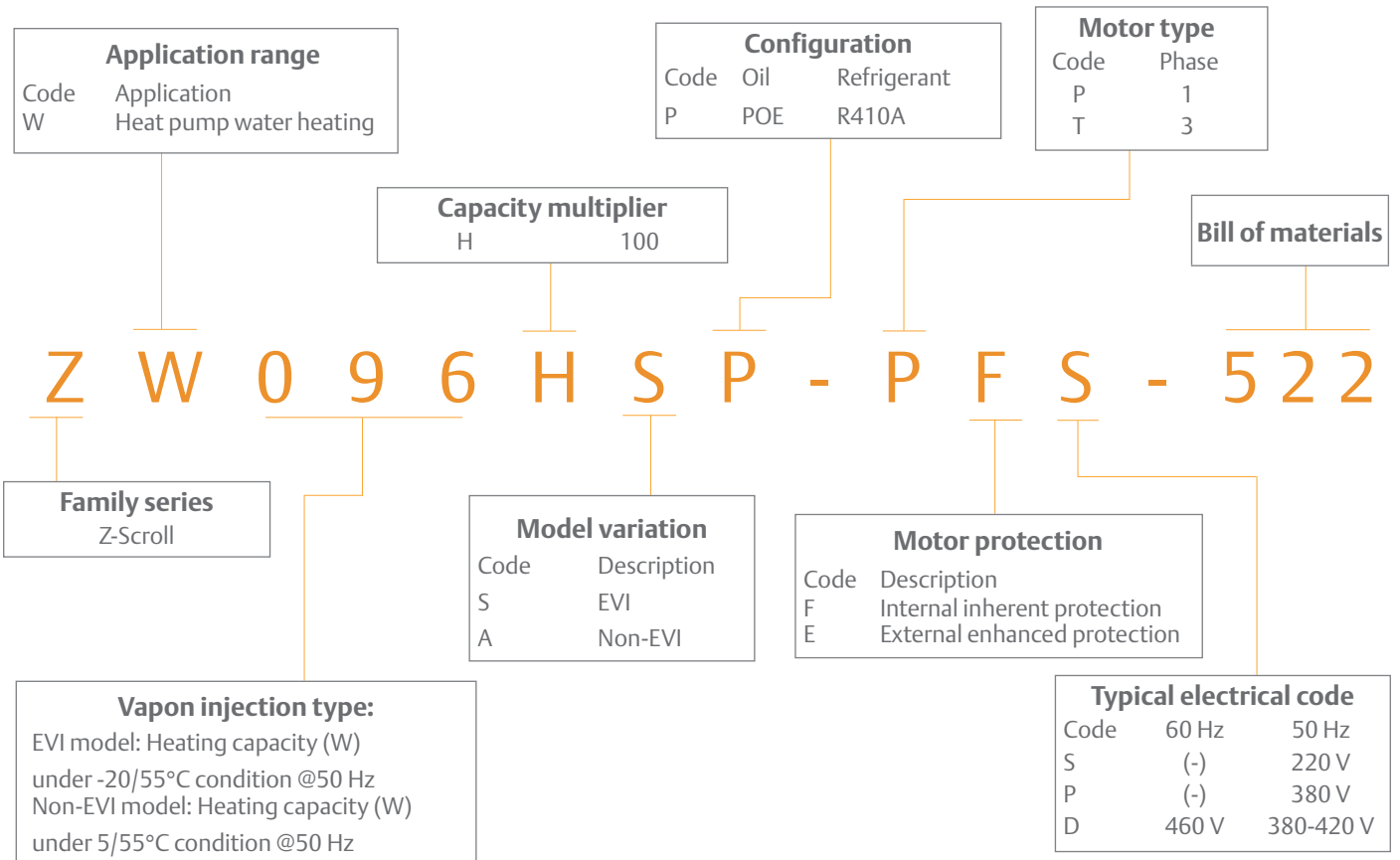
## Bill of material (BOM)

Compressor model	BOM code	Suction/ Displacement brazing connection	EVI Brazing connection	Compressor model	BOM code	Suction/ Displacement brazing connection	EVI Brazing connection	Compressor model	BOM code	Suction/ Displacement brazing connection	EVI Brazing connection
ZW30KS(E)	582	✓	✓	ZW108KA(E)	522	✓		ZW102HSP	522	✓	✓
ZW30KA(E)	582	✓		ZW124KS(E)	52E	✓	✓	ZW126HSP	522	✓	✓
ZW34KS(E)	582	✓	✓	ZW124KA(E)	52E	✓		ZW166HAP	522	✓	
ZW34KA(E)	582	✓		ZW125KS(E)	522	✓	✓	ZW188HAP	522	✓	
ZW42KS(E)	522	✓	✓	ZW125KA(E)	522	✓		ZW258HSP	522	✓	✓
ZW52KS(E)	522	✓	✓	ZW125KBE	522	✓		ZW286HSP	522	✓	✓
ZW52KA(E)	522	✓		ZW150KS(E)	522	✓	✓	ZW430HSP	522	✓	✓
ZW61KS(E)	522	✓	✓	ZW150KA(E)	522	✓		ZW520HSP	522	✓	✓
ZW61KA(E)	522/52E	✓		ZW150KBE	522	✓		ZW28KWP	58E	✓	
ZW61KBE	522	✓		ZWD61KA(E)	532	✓		ZW31KWP	522	✓	
ZW68KS(E)	522	✓	✓	ZWD61KBE	522	✓		ZW42KWP	522/52E	✓	
ZW72KA(E)	52E	✓		ZWD72KA(E)	53E	✓		ZW51KWP	522	✓	
ZW72KBE	522	✓		ZWD72KBE	532	✓		ZW54KWP	52E	✓	
ZW79KS(E)	522	✓	✓	ZWD81KA(E)	532	✓		ZW72KWP	52E	✓	
ZW79KA(E)	522	✓		ZWD81KBE	532	✓		ZW83KWP	522	✓	
ZW79KBE	522	✓		ZW059HSP	582	✓	✓	VPW038DE	571	✓	✓
ZW108KS(E)	522	✓	✓	ZW096HSP	522	✓	✓	ZWW050SP	522	✓	✓

## Nomenclature



# Nomenclature





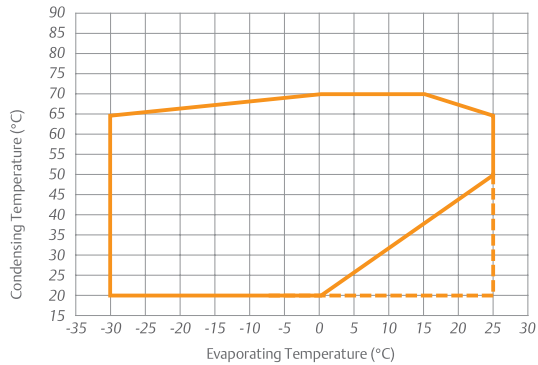
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R22	ZW30KA-PFS-582	1Φ/220 V/50 Hz		9.0	P11	P27
	ZW30KS-PFS-582		√	10.1	P6	P26
	ZW34KA-PFS-582			10.1	P11	P27
	ZW34KS-PFS-582		√	11.6	P6	P26
	ZW52KA-PFS-522			15.8	P11	P27
	ZW34KA-TFP-582	3Φ/380 V/50 Hz		10.1	P12	P27
	ZW34KS-TFP-582		√	11.2	P7	P26
	ZW57KH-TFP-522			17.1	P14	P27
	ZW61KA-TFP-522			18.1	P12	P27
	ZW61KA-TFP-52E			18.1	P12	P27
	ZW61KH-TFP-522			18.2	P14	P27
	ZW61KS-TFP-522		√	20.3	P7	P26
	ZW72KA-TFP-52E			21.4	P12	P27
	ZW79KA-TFP-522			24.7	P12	P27
	ZW79KS-TFP-522		√	25.8	P7	P26
	ZW108KA-TFP-522			31.2	P12	P27
	ZW108KS-TFP-522		√	35.9	P7	P26
	ZW124KA-TFP-52E			37.2	P13	P27
	ZW124KS-TFP-52E		√	42.6	P8	P26
	ZW125KA-TFP-522			36.8	P13	P27
	ZW125KS-TFP-522	√	41.6	P8	P26	
	ZW150KA-TFP-522		45.4	P13	P27	
	ZW150KS-TFP-522	√	50.4	P8	P26	
	ZW34KS-TF7-582	3Φ/380 V/60 Hz	√	13.5	P7	P26
	ZW61KA-TF7-542			21.9	P12	P27
	ZW108KS-TF7-522		√	43.1	P7	P26
R407C	ZW30KAE-PFS-582	1Φ/220 V/50 Hz		8.8	P15	P28
	ZW34KAE-PFS-582			9.3	P15	P28
	ZW52KAE-PFS-522			15.3	P15	P28
	ZW34KAE-TFP-582	3Φ/380 V/50 Hz		9.8	P16	P28
	ZW34KSE-TFP-582		√	10.8	P9	P26
	ZW61KAE-TFP-522			17.7	P16	P28
	ZW61KAE-TFP-52E			17.7	P16	P28
	ZW61KSE-TFP-522		√	19.6	P9	P26
	ZW72KAE-TFP-52E			21.2	P16	P28
	ZW79KAE-TFP-522			24.8	P16	P28
	ZW79KSE-TFP-522		√	26.1	P9	P26
	ZW108KAE-TFP-522			30.9	P16	P28
	ZW108KSE-TFP-522		√	35.6	P9	P26
	ZW124KAE-TFP-52E			36	P17	P28
	ZW124KSE-TFP-52E		√	41.76	P10	P26
	ZW125KAE-TFP-522			35.6	P17	P28
	ZW125KSE-TFP-522	√	40.9	P10	P26	
	ZW150KAE-TFP-522		44.2	P17	P28	
	ZW34KSE-TF7-582	3Φ/380 V/60 Hz	√	13	P9	P30
	ZW61KAE-TF7-542			21.2	P16	P30
ZW61KSE-TF7-542	√		23.8	P9	P30	
ZW108KSE-TF7-522	√		42.8	P9	P30	
R410A	ZW28KWP-PFZ-58E	1Φ/220-240 V/50 Hz		8.7	P18	P28
	ZW31KWP-PFZ-522			9.3	P18	P28
	ZW42KWP-PFZ-522			12.8	P18	P28
	ZW51KWP-PFZ-522			15.2	P19	P28
	ZW42KWP-TFD-52E	3Φ/380-420 V/50 Hz or 3Φ/460 V/60 Hz		12.7	P20/P25	P28/P30
	ZW54KWP-TFD-52E			16.1	P20/P25	P28/P30
	ZW72KWP-TFD-52E			21.4	P20/P25	P28/P30
	ZW83KWP-TFD-522		24.7	P21/P25	P28/P30	
	ZW102HSP-TFP-522	3Φ/380 V/50 Hz	√	18.9	P22	P29
	ZW166HAP-TFP-522			16.6	P21	P29
ZW188HAP-TEP-522			18.4	P21	P29	
ZW430HSP-TE7-522	3/380V/60Hz	√	81.5		P30	

# Operating envelopes

ZW30KS, ZW34KS(E)-TFP, ZW61KS(E),  
ZW79KS(E), ZW124KS(E), ZW125KS(E),  
ZW150KS

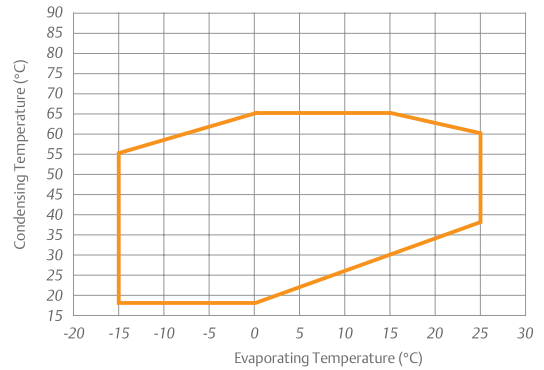
R22/R407C



Superheat 5K  
Maximum discharge temperature with EVI: 115°  
----- Transition only

ZW166HAP, ZW188HAP

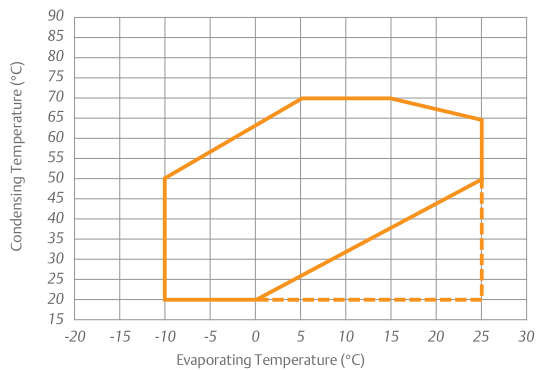
R410A



Superheat 5K

ZW30KA(E), ZW34KA(E), ZW52KA(E),  
ZW61KA(E), ZW72KA(E), ZW79KA(E),  
ZW108KA(E), ZW124KA(E), ZW125KA(E),  
ZW150KA(E), ZW57KH, ZW61KH

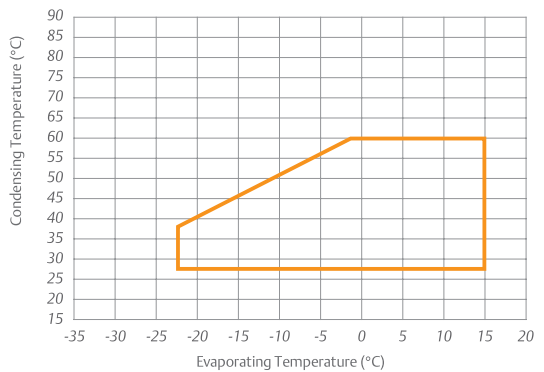
R22/R407C



Superheat 5K  
----- Transition only

ZW28KWP, ZW31KWP, ZW42KWP,  
ZW51KWP, ZW54KWP, ZW72KWP,  
ZW83KWP

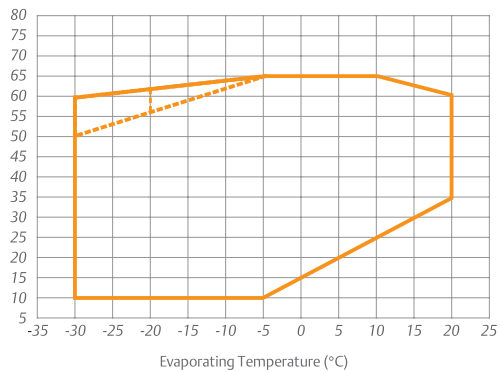
R410A



Superheat 5K

ZW102HSP, ZW430HSP-TF7

R410A



Superheat 5K  
----- In wet injection area, the running time is limited to <2000 hours when evaporating temperature is lower than -20°C.



# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW30KS	Q	65	4.62	5.20	5.85	6.57	7.36	8.25	9.22	10.30	11.48	12.78
		55	4.28	4.85	5.49	6.22	7.04	7.96	8.99	10.12	11.38	12.68
		45	4.07	4.63	5.29	6.04	6.90	7.86	8.95	10.16	11.50	12.98
		35	3.89	4.47	5.14	5.93	6.83	7.65	9.01	10.30	11.73	
		25	3.66	4.25	4.96	5.79	6.74	7.83	9.07			
	P	65	2.86	2.94	3.00	3.06	3.10	3.14	3.15	3.16	3.14	3.11
		55	2.37	2.41	2.44	2.47	2.50	2.52	2.53	2.53	2.51	2.48
		45	1.99	2.00	2.01	2.03	2.04	2.05	2.05	2.05	2.04	2.02
		35	1.68	1.67	1.66	1.67	1.68	1.68	1.69	1.70	1.70	
		25	1.39	1.37	1.36	1.36	1.36	1.38	1.40			
ZW34KS	Q	65				7.44	8.34	9.33	10.43			
		55	4.77	5.52	6.31	7.16	8.09	9.12	10.27	11.57	13.02	
		45	4.56	5.29	6.08	6.94	7.89	8.95	10.14	11.49	13.00	
		35	4.48	5.18	5.96	6.81	7.77	8.85	10.07	11.46	13.02	
		25	4.56	5.23	5.98	6.82	7.78	8.87	10.11			
	P	65				3.74	3.83	3.87	3.86			
		55	2.43	2.64	2.78	2.88	2.93	2.96	2.97	2.96	2.96	
		45	2.00	2.10	2.16	2.19	2.21	2.21	2.22	2.24	2.28	
		35	1.80	1.79	1.76	1.72	1.69	1.67	1.67	1.70	1.77	
		25	1.88	1.75	1.61	1.50	1.40	1.35	1.33			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW34KS	Q	65	4.92	5.64	6.42	7.26	8.16	9.14	10.20	11.35	12.60	13.96
		55	4.70	5.39	6.15	6.97	7.88	8.88	9.98	11.18	12.50	13.94
		45	4.84	5.15	5.90	6.74	7.68	8.72	9.87	11.14	12.55	14.09
		35	4.25	4.92	5.68	6.55	7.53	8.63	9.86	11.23	12.73	
		25	3.98	4.67	5.47	6.39	7.43	8.61	9.94			
	P	65	3.44	3.50	3.56	3.60	3.63	3.65	3.66	3.66	3.65	3.62
		55	2.66	2.71	2.75	2.78	2.80	2.81	2.82	2.82	2.81	2.79
		45	2.04	2.08	2.10	2.13	2.14	2.15	2.16	2.17	2.16	2.16
		35	1.56	1.58	1.60	1.62	1.64	1.65	1.66	1.67	1.68	
		25	1.18	1.20	1.21	1.23	1.25	1.27	1.29			
ZW61KS	Q	65	9.95	10.86	11.91	13.13	14.54	16.17	18.04	20.18	22.61	25.35
		55	8.85	9.91	11.12	12.51	14.09	15.90	17.95	20.28	22.90	25.84
		45	8.15	9.34	10.68	12.20	13.92	15.87	18.08	20.56	23.34	26.45
		35	7.74	9.01	10.45	12.07	13.91	15.97	18.29	20.90	23.81	
		25	7.46	8.80	10.30	12.00	12.90	16.05	18.46			
	P	65	5.79	5.82	5.88	5.95	6.03	6.10	6.17	6.22	6.23	6.21
		55	4.47	4.50	4.56	4.64	4.73	4.82	4.89	4.95	4.98	4.98
		45	3.51	3.54	3.59	3.67	3.76	3.86	3.94	4.01	4.05	4.05
		35	2.80	2.82	2.87	2.95	3.04	3.13	3.22	3.29	3.33	
		25	2.24	2.26	2.30	2.37	2.45	2.54	2.62			
ZW79KS	Q	65	12.11	13.64	15.25	16.98	18.87	20.97	23.32	25.97	28.95	32.31
		55	10.23	12.06	13.95	15.94	18.08	20.41	22.97	25.81	28.97	32.49
		45	9.24	11.26	13.32	15.48	17.75	20.21	22.87	25.80	29.03	32.60
		35	8.77	10.88	13.01	15.21	17.53	20.00	22.66	25.57	28.76	
		25	8.47	10.56	12.66	14.80	17.04	19.42	21.98			
	P	65	7.51	7.41	7.38	7.42	7.51	7.64	7.81	7.99	8.18	8.37
		55	5.86	5.80	5.82	5.88	6.00	6.14	6.31	6.48	6.65	6.81
		45	4.62	4.61	4.66	4.76	4.89	5.05	5.21	5.38	5.53	5.66
		35	8.77	10.88	13.01	15.21	17.53	20.00	22.66	25.57	28.76	
		25	2.77	2.86	2.99	3.15	3.33	3.50	3.67			
ZW108KS	Q	65		15.86	18.87	21.99	25.26	28.67	32.22	35.92	39.76	43.76
		55		15.42	18.66	21.82	25.28	28.64	32.20	35.88	39.66	43.55
		45		15.83	19.20	22.65	26.15	29.72	33.36	37.07	40.85	44.71
		35		16.23	19.90	27.31	27.31	31.05	34.83	38.64	42.48	
		25		15.75	19.77	27.76	27.76	31.74	35.72			
	P	65		9.83	10.02	10.32	10.32	10.40	10.43	10.39	10.39	10.10
		55		7.81	7.97	8.21	8.21	8.28	8.31	8.29	8.21	8.06
		45		6.33	6.45	6.64	6.64	6.71	6.74	6.73	6.68	6.56
		35		5.19	5.27	5.42	5.42	5.48	5.52	5.52	5.49	
		25		4.20	4.24	4.35	4.35	4.40	4.45			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW124KS	Q	65	17.86	19.98	22.53	25.52	28.92	32.74	36.95	41.55	46.54	51.90
		55	17.20	19.58	22.38	25.57	29.15	33.11	37.45	42.15	47.20	52.59
		45	17.06	19.63	22.58	25.90	29.59	33.62	38.01	42.72	47.76	53.12
		35	15.64	18.32	21.35	24.73	28.44	32.48	36.83	41.49	46.44	
		25	15.13	17.85	20.89	22.25	26.91	29.87	32.12	36.64		
	P	65	11.10	11.49	11.83	12.13	12.39	12.62	12.82	13.01	13.18	13.36
		55	8.86	9.22	9.54	9.81	10.05	10.26	10.46	10.64	10.82	11.00
		45	7.38	7.69	7.96	8.19	8.40	8.59	8.76	8.93	9.09	9.27
		35	6.13	6.38	6.59	6.77	6.93	7.07	7.21	7.34	7.48	
		25	5.59	5.76	5.90	6.02	6.11	6.20	6.29	6.37		
ZW125KS	Q	65	18.02	19.96	22.4	25.31	28.67	32.45	36.63	41.18	46.07	51.27
		55	16.9	19.15	21.86	25.02	28.6	32.57	36.91	41.58	46.58	51.86
		45	16.35	18.73	21.56	24.8	28.44	32.43	36.77	41.42	46.35	51.55
		35	15.95	18.32	21.1	24.26	27.79	31.65	35.82	40.27	44.98	
		25	15.32	17.5	20.07	22.99	26.25	29.81	33.65	37.75		
	P	65	10.74	10.87	11.04	11.24	11.46	11.7	11.95	12.21	12.46	12.71
		55	7.89	8.23	8.58	8.93	9.27	9.6	9.91	10.19	10.45	10.66
		45	6.14	6.6	7.03	7.44	7.81	8.14	8.42	8.65	8.81	8.91
		35	5.12	5.61	6.04	6.42	6.73	6.97	7.13	7.21	7.20	
		25	4.47	4.9	5.24	5.5	5.66	5.72	5.67	5.51		
ZW150KS	Q	65	19.42	23.37	27.31	31.35	35.59	40.11	45.00	50.38	56.32	62.93
		55	20.21	23.80	27.47	31.32	35.45	39.93	44.88	50.38	56.53	63.42
		45	20.04	23.41	26.94	30.73	34.87	39.45	44.58	50.33	56.82	64.13
		35	19.47	22.75	26.27	30.12	34.41	39.22	44.64	50.79	57.74	
		25	19.03	22.35	25.99	30.04	34.60	39.76	45.62	52.28		
	P	65	11.54	12.20	12.81	13.36	13.87	14.35	14.80	15.23	15.65	16.05
		55	9.62	10.15	10.64	11.09	11.53	11.94	12.34	12.74	13.14	13.55
		45	8.10	8.52	8.93	9.31	9.69	10.07	10.45	10.84	11.25	11.68
		35	6.81	7.15	7.49	7.83	8.18	8.54	8.92	9.33	9.78	
		25	5.56	5.85	6.15	6.47	6.81	7.18	7.59	8.04		

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KSE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW34KSE	Q	65	5.14	5.56	6.11	6.79	7.59	8.51	9.55	10.71	11.97	13.34
		55	4.39	4.89	5.54	6.32	7.25	8.31	9.49	10.81	12.25	13.83
		45	3.90	4.46	5.17	6.04	7.06	8.23	9.54	10.99	12.58	14.31
		35	3.64	4.23	4.98	5.91	6.99	8.24	9.65	11.21	12.92	
		25	3.58	4.16	4.93	5.88	7.01	8.31	9.79			
	P	65	3.40	3.48	3.53	3.58	3.61	3.63	3.65	3.67	3.70	3.72
		55	2.52	2.60	2.65	2.70	2.73	2.75	2.78	2.80	2.88	2.86
		45	1.93	1.99	2.05	2.08	2.11	2.13	2.15	2.17	2.19	2.22
		35	1.53	1.58	1.62	1.65	1.67	1.68	1.69	1.70	1.71	
		25	1.24	1.28	1.29	1.31	1.31	1.31	1.30			
ZW61KSE	Q	65	9.05	9.90	10.93	12.14	13.56	15.20	17.07	19.20	21.59	24.27
		55	7.70	8.79	10.05	11.51	13.17	15.05	17.17	19.55	22.19	25.11
		45	6.87	8.14	9.58	11.20	13.04	15.10	17.39	19.94	22.76	25.86
		35	6.50	7.87	9.41	11.14	13.08	15.24	17.64	20.29	23.21	
		25	6.50	7.90	9.47	11.24	13.21	15.41	17.84			
	P	65	5.66	5.56	5.54	5.60	5.71	5.84	5.99	6.13	6.25	6.24
		55	4.24	4.19	4.23	4.31	4.44	4.58	4.73	4.85	4.95	4.98
		45	3.26	3.26	3.32	3.42	3.55	3.69	3.80	3.89	3.93	3.90
		35	2.59	2.60	2.67	2.77	2.88	2.99	3.07	3.02	3.08	
		25	2.08	2.10	2.16	2.23	2.31	2.37	2.39			
ZW79KSE	Q	65	11.53	13.02	14.64	16.43	18.41	20.63	23.10	25.86	28.94	32.38
		55	9.32	11.20	13.20	15.36	17.69	20.23	23.01	26.05	29.39	33.06
		45	8.15	10.27	12.51	14.88	17.41	20.11	23.03	26.19	29.62	33.36
		35	7.72	9.94	12.26	14.70	17.26	19.97	22.87	25.99	29.35	
		25	7.73	9.92	12.18	14.52	16.95	19.51	22.23			
	P	65	7.66	7.39	7.27	7.30	7.43	7.64	7.92	8.24	8.58	8.91
		55	5.80	5.65	5.63	5.72	5.88	6.11	6.37	6.64	6.89	7.11
		45	4.49	4.44	4.49	4.63	4.81	5.03	5.25	5.46	5.61	5.70
		35	8.48	10.50	12.65	14.94	17.38	19.94	22.60	25.25	27.80	
		25	2.68	2.78	2.93	3.11	3.28	3.42	3.51			
ZW108KSE	Q	65		16.37	18.58	21.24	24.33	27.81	31.69	35.94	40.54	45.48
		55		15.37	17.88	20.76	23.99	27.56	31.45	35.64	40.12	44.86
		45		13.82	16.70	19.87	23.33	27.05	31.03	35.24	39.67	44.29
		35		12.69	15.99	19.53	23.29	27.25	31.38	35.68	40.13	
		25		16.73	16.73	20.71	24.84	29.10	33.46			
	P	65		11.36	11.36	11.08	10.87	10.73	10.66	10.66	10.72	10.86
		55		8.10	8.10	8.15	8.20	8.25	8.29	8.34	8.38	8.42
		45		6.34	6.34	6.64	6.87	7.02	7.11	7.12	7.06	6.93
		35		5.35	5.35	5.83	6.16	6.34	6.39	6.29	6.05	
		25		4.43	5.00	5.00	5.35	5.49	5.42			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KSE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW124KSE	Q	65	16.57	18.44	20.99	24.17	27.91	32.14	36.81	41.85	47.19	52.78
		55	15.39	17.49	20.27	23.66	27.59	32.00	36.84	42.02	47.49	53.19
		45	14.49	16.77	19.70	23.22	27.28	31.80	36.72	41.98	47.51	53.26
		35	13.99	16.36	19.37	22.96	27.07	31.62	36.56	41.83	47.35	
		25	13.97	16.37	19.39	22.97	27.06	31.57	36.46	41.66		
	P	65	10.06	10.66	11.17	11.62	12.01	12.36	12.68	12.99	13.30	13.63
		55	7.87	8.40	8.86	9.24	9.56	9.84	10.09	10.33	10.57	10.82
		45	6.56	7.04	7.44	7.76	8.03	8.24	8.43	8.60	8.76	8.94
		35	5.48	5.91	6.26	6.53	6.74	6.89	7.02	7.12	7.22	
		25	4.95	5.34	5.64	5.86	6.02	6.12	6.19	6.23		
ZW125KSE	Q	65	16.76	18.89	21.46	24.47	27.9	31.78	36.09	40.84	46.03	51.66
		55	15.98	18.25	20.95	24.09	27.65	31.64	36.07	40.93	46.22	51.96
		45	14.84	17.25	20.08	23.34	27.02	31.14	35.68	40.65	46.05	51.89
		35	13.80	16.35	19.31	22.70	26.51	30.74	35.39	40.47	45.98	
		25	13.34	16.02	19.12	22.63	26.56	30.91	35.68	40.87		
	P	65	9.93	10.34	10.74	11.12	11.48	11.82	12.14	12.43	12.69	12.91
		55	7.96	8.30	8.64	8.96	9.26	9.54	9.80	10.04	10.25	10.43
		45	6.52	6.80	7.07	7.33	7.58	7.81	8.01	8.20	8.36	8.50
		35	5.37	5.59	5.8	6.00	6.18	6.36	6.52	6.65	6.77	
		25	4.25	4.41	4.55	4.7	4.83	4.95	5.06	5.15		

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KA Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW30KA	Q	65				8.76	9.98	11.42
		55		6.49	7.76	9.03	10.37	11.87
		45	5.77	6.9	8.06	9.33	10.77	12.48
		35	6.05	7.1	8.29	9.68	11.37	
		25	6.16	7.28	8.63			
	P	65				2.83	2.92	2.97
		55		2.07	2.23	2.31	2.36	2.38
		45	1.67	1.78	1.84	1.88	1.92	1.99
		35	1.42	1.46	1.49	1.55	1.66	
		25	1.13	1.16	1.23			
ZW34KA	Q	65				9.36	10.81	12.42
		55		7.37	8.71	10.08	11.56	13.22
		45	6.64	7.95	9.26	10.64	12.16	13.91
		35	7.08	8.35	9.65	11.06	12.65	
		25	7.34	8.59	9.91			
	P	65				3.14	3.17	3.21
		55		2.64	2.64	2.64	2.66	2.68
		45	2.22	2.2	2.2	2.21	2.22	2.24
		35	1.8	1.81	1.82	1.85	1.89	
		25	1.43	1.48	1.53			
ZW52KA	Q	65				15.41	17.64	20.08
		55		11.87	13.59	15.77	18.28	21.00
		45	10.41	11.79	13.77	16.21	18.98	21.96
		35	10.50	12.12	14.33	17.00	20.00	
		25	11.28	13.11	15.53			
	P	65				5.06	5.04	5.02
		55		4.18	4.24	4.23	4.19	4.16
		45	3.44	3.58	3.62	3.58	3.52	3.47
		35	2.94	3.05	3.06	3.00	2.90	
		25	2.39	2.46	2.43			

Note: Superheat 11K, Subcooling 8.3K

# ZW KA Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C							
		-10	-5	0	5	10	15		
ZW34KA	Q	65				9.77	11.06	12.58	
		55		7.75	8.81	10.10	11.59	13.28	
		50	6.82	7.77	8.94	10.31	11.87	13.62	
		45	8.79	7.84	9.10	10.55	12.14	13.91	
		35	6.89	8.09	9.44	10.94	12.58		
		25	1.10	8.35	9.72				
	P	65				3.22	3.43	3.28	
		55		2.52	2.54	2.59	2.64	2.68	
		50	2.23	2.26	2.30	2.35	2.40	2.45	
		45	2.00	2.04	2.09	2.14	2.19	2.23	
		35	1.65	1.69	1.38	1.78	1.81		
		25	1.34	1.37	1.39				
ZW61KA	Q	65				17.53	19.86	22.61	
		55		13.90	15.83	18.14	20.84	23.88	
		50	12.22	13.95	16.06	18.53	21.35	24.49	
		45	12.18	14.09	13.35	19.02	21.84	25.03	
		35	12.38	14.54	16.98	19.69	22.64		
		25	12.76	15.01	17.48				
	P	65				5.66	5.75	5.81	
		55		4.39	4.50	4.60	4.68	4.74	
		50	3.85	3.97	4.07	4.16	4.24	4.30	
		45	3.50	3.59	3.69	3.77	3.85	3.92	
		35	2.88	2.95	3.02	3.10	3.19		
		25	2.33	2.38	2.45				
ZW72KA	Q	65				20.82	23.68	26.82	
		55		16.09	18.63	21.43	24.60	28.24	
		45	14.10	16.51	19.25	22.24	26.18	30.57	
		35	14.42	17.10	20.32	24.15	28.72		
		25	14.95	18.17	22.11				
		65				6.63	6.61	6.62	
	P	55		5.23	5.22	5.23	5.25	5.30	
		45	4.12	4.14	4.16	4.19	4.23	4.30	
		35	3.28	3.31	3.33	3.36	3.39		
		25	2.58	2.58	2.58				
		65				23.92	26.45	29.3	
		ZW79KA	Q	55		19.91	22.13	24.66	27.52
45	18.14			20.29	22.76	25.59	28.81	32.46	
35	18.50			20.87	23.62	26.78	30.38		
25	19.10			21.72	24.77				
65						7.65	7.64	7.64	
P	55				6.15	6.17	6.20	6.24	6.28
	45		5.02	5.06	5.11	5.18	5.26	5.36	
	35		4.20	4.26	4.34	4.44	4.57		
	25		3.53	3.60	3.72				
	65					30.82	35.05	39.82	
	ZW108KA		Q	55		24.20	27.81	31.91	36.56
50				21.14	24.46	28.24	32.52	37.36	42.83
45		21.32		24.77	28.69	33.15	38.20	43.89	
35		21.74		25.44	29.66	34.47	39.90		
25		22.21		26.15	30.66				
65						9.59	9.57	9.58	
P		55		7.58	7.58	7.60	7.65	7.74	
		50	6.72	6.74	6.77	6.82	6.90	7.02	
		45	5.99	6.03	6.08	6.14	6.25	6.40	
		35	4.80	4.86	4.93	5.03	5.17		
		25	3.82	3.88	3.96				

Note: Superheat 11K, Subcooling 8.3K

# ZW KA Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW124KA	Q	65				36.43	41.59	46.96
		55		28.14	32.29	37.18	42.70	48.75
		45	25.31	28.86	33.58	39.36	44.11	50.74
		35	25.92	29.57	34.73	39.30	45.17	
		25	27.95	30.59	35.08	40.30		
	P	65				11.27	11.50	11.75
		55		9.05	9.31	9.54	9.78	10.05
		45	7.38	7.70	7.96	8.21	8.46	8.74
		35	6.22	6.54	6.81	7.06	7.82	
		25	5.03	5.35	5.83	6.29		
ZW125KA	Q	65				35.24	40.20	45.75
		55		27.77	32.05	36.83	42.18	48.16
		45	24.74	28.80	33.34	38.42	44.09	50.41
		35	25.57	29.80	34.53	39.83	45.74	
		25	26.25	30.57	35.41	40.84		
	P	65				10.67	10.97	11.27
		55		8.43	8.75	9.03	9.31	9.63
		45	6.85	7.15	7.42	7.69	8.01	8.39
		35	5.82	6.08	6.35	6.66	7.06	
		25	4.95	5.22	5.54	5.95		
ZW150KA	Q	65				43.35	49.53	56.44
		55		34.41	39.63	45.45	51.94	59.19
		45	30.43	35.39	40.90	47.05	53.90	61.52
		35	31.17	36.44	42.30	48.81	56.06	
		25	32.61	38.23	44.47	51.40		
	P	65				13.26	13.71	14.25
		55		10.64	10.99	11.35	11.77	12.33
		45	8.71	9.08	9.41	9.79	10.25	10.88
		35	7.40	7.78	8.17	8.61	9.18	
		25	6.32	6.79	7.28	7.86		

Note: Superheat 11K, Subcooling 8.3K



# ZW KH Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model		Condensing temperature °C	Evaporating temperature °C					
			-10	-5	0	5	10	15
ZW57KH	Q	65				16.53	18.76	21.29
		55		12.97	14.92	17.11	19.59	22.40
		45	11.39	13.28	15.40	17.80	20.51	23.59
		35	11.68	13.70	15.98	18.57	21.50	
		25	12.07	14.20	16.63			
	P	65				5.3	5.31	5.34
		55		4.19	4.21	4.23	4.26	4.31
		45	3.33	3.36	3.39	3.42	3.47	3.54
		35	2.69	2.72	2.75	2.8	2.86	
		25	2.17	2.2	2.23			
ZW61KH	Q	65				17.65	20.07	22.81
		55		13.73	15.84	18.23	20.92	23.93
		45	12.03	14.07	16.38	18.98	21.87	25.09
		35	12.36	14.54	16.99	19.73	22.77	
		25	12.72	14.98	17.51			
	P	65				5.65	5.65	5.70
		55		4.48	4.47	4.48	4.53	4.62
		45	3.56	3.56	3.58	3.62	3.70	3.81
		35	2.87	2.89	2.92	2.97	3.05	
		25	2.34	2.36	2.38			

Note: Superheat 11K, Subcooling 8.3K

# ZW KAE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW30KAE	Q	65				8.37	9.70	11.06
		55		6.32	7.54	8.75	10.04	11.47
		45	5.60	6.69	7.80	9.02	10.39	12.03
		35	5.85	6.86	8.00	9.33	10.95	
		25	5.95	7.01	8.31			
	P	65				2.84	2.95	3.00
		55		2.10	2.25	2.34	2.38	2.40
		45	1.69	1.80	1.86	1.89	1.94	2.01
		35	1.44	1.47	1.51	1.56	1.67	
		25	1.14	1.17	1.25			
ZW34KAE	Q	65				8.42	9.87	11.49
		55		6.99	8.04	9.26	10.69	12.38
		45	7.22	7.87	8.75	9.91	11.38	13.20
		35	8.00	8.44	9.22	10.37	11.93	
		25	8.42	8.72	9.44			
	P	65				3.10	3.15	3.18
		55		2.58	2.60	2.61	2.61	2.60
		45	2.28	2.25	2.21	2.17	2.15	2.13
		35	1.99	1.91	1.84	1.79	1.77	
		25	1.67	1.57	1.50			
ZW52KAE	Q	65				14.76	17.01	19.60
		55		11.31	13.12	15.30	17.85	20.76
		45	9.83	11.44	13.46	15.89	18.73	21.96
		35	10.03	11.82	14.05	16.73	19.84	
		25	10.67	12.63	15.07			
	P	65				5.18	5.19	5.18
		55		4.14	4.19	4.20	4.20	4.19
		45	3.35	3.41	3.43	3.44	3.44	3.45
		35	2.78	2.81	2.83	2.84	2.87	
		25	2.27	2.30	2.33			

Note: Superheat 11K, Subcooling 8.3K

# ZW KAE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C								
		-10	-5	0	5	10	15			
ZW34KAE	Q	65				9.50	10.74	12.20		
		55		7.54	8.56	9.79	11.21	12.83		
		50	6.63	7.54	8.66	9.98	11.47	13.14		
		45	6.59	7.60	8.80	10.18	11.72	13.41		
		35	6.67	7.81	9.11	10.55	12.11			
		25	6.85	8.05	9.35					
	P	65				3.22	3.27	3.30		
		55		2.50	2.56	2.61	2.65	2.69		
		50	2.92	2.26	2.31	2.36	2.40	2.44		
		45	1.99	2.04	2.09	2.14	2.18	2.22		
		35	1.63	1.67	1.72	1.76	1.81			
		25	1.32	1.36	1.39					
ZW61KAE	Q	65				17.11	18.35	21.99		
		55		13.57	15.47	17.65	20.24	23.16		
		50	11.92	13.59	15.62	18.00	20.71	23.72		
		45	11.87	13.71	15.88	18.37	21.16	24.22		
		35	12.03	14.10	16.45	19.05	21.89			
		25	12.37	14.53	16.91					
	P	65				5.72	5.81	5.87		
		55		4.43	4.55	4.65	4.73	4.79		
		50	3.88	4.01	4.11	4.20	4.28	4.34		
		45	3.53	3.63	3.72	3.81	3.88	3.96		
		35	2.91	2.98	3.05	3.14	3.23			
		25	2.35	2.41	2.48					
ZW72KAE	Q	65				20.26	23.37	27.00		
		55		15.72	18.24	21.19	24.63	28.63		
		45	13.78	16.14	18.92	22.17	25.95	30.33		
		35	14.14	16.73	19.77	23.32	27.45			
		25	14.77	17.60	20.91					
		65				6.95	6.92	6.88		
	P	55		5.41	5.42	5.42	5.41	5.39		
		45	4.20	4.23	4.25	4.26	4.26	4.24		
		35	3.31	3.34	3.36	3.37	3.36			
		25	2.63	2.65	2.65					
		ZW79KAE	Q	65				23.34	26.88	30.78
				55		18.38	21.41	24.82	28.66	32.97
45	16.22			19.09	22.40	26.19	30.54	35.48		
35	16.81			20.05	23.83	28.23	33.29			
25	18.20			22.01	26.49					
65						8.19	8.21	8.26		
P	55			6.40	6.44	6.49	6.56	6.68		
	45		5.13	5.17	5.22	5.30	5.41	5.58		
	35		4.17	4.20	4.25	4.34	4.48			
	25		3.21	3.21	3.25					
	ZW108KAE		Q	65				29.60	33.91	38.93
				55		23.17	26.75	30.89	35.73	41.42
50		20.22		23.50	27.24	31.61	36.75	42.81		
45		20.45		23.85	27.78	32.40	37.86	44.31		
35		20.98		24.68	29.05	34.25	40.41			
25		21.69		25.78	30.68					
P		65				9.59	9.58	9.60		
		55		7.58	7.58	7.60	7.64	7.73		
		50	6.73	6.75	6.77	6.80	6.86	6.99		
		45	6.01	6.03	6.06	6.11	6.20	6.36		
		35	4.85	4.88	4.92	5.00	5.14			
		25	3.97	4.00	4.06					

Note: Superheat 11K, Subcooling 8.3K

# ZW KAE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW124KAE	Q	65				34.29	39.58	45.48
		55		26.39	30.98	36.14	41.95	48.49
		45	23.22	27.47	32.32	37.86	44.16	51.31
		35	24.41	28.77	33.86	39.75	46.52	
		25	26.15	30.61	35.91	42.13		
	P	65				11.50	11.73	11.93
		55		8.89	9.12	9.37	9.64	9.94
		45	7.16	7.27	7.45	7.70	8.03	8.45
		35	6.07	6.09	6.22	6.48	6.88	
		25	5.37	5.30	5.40	5.69		
ZW125KAE	Q	65				33.45	38.72	44.74
		55		25.99	30.43	35.56	41.41	48.02
		45	23.09	27.25	32.08	37.61	43.86	50.87
		35	24.15	28.51	33.54	39.26	45.72	
		25	25.05	29.41	34.45	40.19		
	P	65				10.58	11.06	11.46
		55		8.16	8.59	8.97	9.32	9.65
		45	6.74	7.00	7.26	7.53	7.83	8.19
		35	5.74	5.86	6.03	6.29	6.66	
		25	4.72	4.78	4.97	5.31		
ZW150KAE	Q	65				42.48	48.67	55.29
		55		32.12	37.97	44.39	51.40	59.01
		45	28.43	33.53	39.35	45.91	53.22	61.31
		35	31.75	36.14	41.42	47.62	54.73	
		25	37.36	40.54	44.78	50.10		
	P	65				13.21	13.77	14.33
		55		10.11	10.62	11.13	11.65	12.18
		45	8.21	8.64	9.09	9.56	10.05	10.58
		35	6.78	7.16	7.57	8.02	8.52	
		25	4.86	5.20	5.60	6.05		

Note: Superheat 11K, Subcooling 8.3K

# ZW KWP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220-240V

Model	Condensing temperature °C	Evaporating temperature °C									
		-23	-20	-15	-10	-5	0	5	10	15	
ZW28KWP	Q	60						7.58	8.46	9.47	10.63
		55					6.91	7.73	8.68	9.77	11.02
		50				6.18	6.94	7.82	8.84	10.01	11.36
		45			5.46	6.14	6.95	7.88	8.97	10.22	11.66
		40		4.79	5.40	6.12	6.96	7.96	9.11	10.44	11.96
		35	4.43	4.75	5.38	6.13	7.02	8.07	9.28	10.68	12.29
		30	4.47	4.80	5.44	6.22	7.15	8.25	9.52	10.99	12.68
	27	4.54	4.87	5.53	6.33	7.28	8.40	9.71	11.23	12.96	
	P	60						2.70	2.66	2.62	2.57
		55					2.46	2.42	2.38	2.34	2.28
		50				2.22	2.19	2.15	2.11	2.06	2.00
		45			1.99	1.96	1.93	1.89	1.85	1.80	1.74
		40		1.77	1.74	1.72	1.68	1.65	1.60	1.55	1.49
		35	1.56	1.55	1.52	1.50	1.47	1.43	1.38	1.33	1.26
30		1.37	1.36	1.34	1.31	1.28	1.24	1.20	1.14	1.07	
27	1.27	1.26	1.24	1.22	1.19	1.15	1.10	1.04	0.97		
ZW31KWP	Q	60						7.87	9.04	10.30	11.68
		55					6.98	8.09	9.31	10.65	12.10
		50				6.10	7.15	8.30	9.58	10.98	12.52
		45			5.26	6.23	7.31	8.51	9.84	11.31	12.93
		40		4.50	5.37	6.36	7.47	8.72	10.11	11.65	13.36
		35	4.14	4.61	5.50	6.51	7.65	8.95	10.39	12.01	13.80
		30	4.27	4.74	5.64	6.67	7.85	9.20	10.71	12.39	14.27
	27	4.36	4.83	5.74	6.79	7.99	9.36	10.91	12.64	14.57	
	P	60						3.11	3.02	2.95	2.90
		55					2.76	2.68	2.61	2.56	2.54
		50				2.45	2.39	2.33	2.28	2.25	2.23
		45			2.17	2.13	2.08	2.04	2.00	1.98	1.98
		40		1.92	1.89	1.87	1.83	1.80	1.77	1.75	1.75
		35	1.67	1.68	1.67	1.65	1.62	1.59	1.57	1.55	1.55
30		1.47	1.48	1.48	1.46	1.44	1.41	1.38	1.36	1.35	
27	1.37	1.38	1.38	1.36	1.34	1.31	1.27	1.25	1.23		
ZW42KWP	Q	60						10.60	12.40	14.20	15.00
		55					9.70	10.80	12.80	14.70	15.60
		50				8.50	9.85	11.05	13.20	15.20	16.10
		45			7.35	8.60	10.00	11.30	13.55	15.70	16.60
		40		6.30	7.40	8.70	10.20	11.60	13.95	16.20	17.10
		35	5.70	6.30	7.45	8.85	10.40	11.85	14.30	16.60	17.60
		30	5.70	6.35	7.55	8.95	10.55	12.00	14.45	16.80	17.80
	27	5.80	6.45	7.65	9.10	10.75	12.25	14.75	17.10	18.20	
	P	60						4.17	4.08	4.02	4.01
		55					3.69	3.63	3.55	3.51	3.50
		50				3.29	3.23	3.18	3.12	3.09	3.08
		45			2.94	2.90	2.86	2.82	2.76	2.73	2.73
		40		2.61	2.60	2.58	2.54	2.50	2.46	2.43	2.43
		35	2.30	2.31	2.32	2.29	2.26	2.23	2.18	2.16	2.15
30		2.13	2.15	2.16	2.14	2.10	2.07	2.03	2.00	2.00	
27	1.87	1.89	1.90	1.88	1.85	1.82	1.77	1.74	1.73		

Note: Superheat 11K, Subcooling 8.3K

# ZW KWP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220-240V

Model	Condensing temperature °C	Evaporating temperature °C									
		-23	-20	-15	-10	-5	0	5	10	15	
ZW51KWP	Q	60						12.60	14.80	16.90	17.80
		55					11.50	12.85	15.20	17.40	18.40
		50				10.15	11.75	13.15	15.60	18.00	19.10
		45			8.80	10.30	11.95	13.50	16.10	18.60	19.70
		40		7.55	8.90	10.45	12.20	13.80	16.50	19.20	20.40
		35	6.90	7.65	9.05	10.65	12.50	14.15	17.00	19.80	21.00
		30	6.95	7.70	9.15	10.75	12.65	14.35	17.30	20.20	21.40
		27	7.05	7.80	9.30	10.95	12.95	14.70	17.80	20.80	22.10
	P	60						4.75	4.67	4.61	4.59
		55					4.23	4.18	4.12	4.08	4.07
		50				3.78	3.73	3.70	3.65	3.63	3.62
		45			3.37	3.34	3.30	3.28	3.25	3.23	3.23
		40		3.00	2.99	2.96	2.94	2.92	2.90	2.89	2.89
		35	2.67	2.67	2.66	2.64	2.62	2.60	2.58	2.58	2.58
		30	2.49	2.49	2.48	2.47	2.45	2.43	2.41	2.41	2.40
		27	2.23	2.23	2.22	2.21	2.19	2.17	2.15	2.13	2.13

Note: Superheat 11K, Subcooling 8.3K

# ZW KWP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380-420V

Model	Condensing temperature °C	Evaporating temperature °C								
		-23	-20	-15	-10	-5	0	5	10	15
ZW42KWP	Q	60					10.90	12.44	14.11	15.98
		55					9.67	11.12	12.71	14.48
		50				8.45	9.81	11.30	12.97	14.86
		45			7.26	8.53	9.92	11.48	13.26	15.28
		40		6.14	7.31	8.59	10.04	11.70	13.60	15.78
		35	5.53	6.18	7.35	8.68	10.20	11.97	14.02	16.40
		30	5.57	6.22	7.42	8.81	10.44	12.35	14.57	17.16
		27	5.60	6.26	7.49	8.94	10.64	12.64	14.97	17.69
	P	60						4.10	3.98	3.88
		55					3.66	3.56	3.47	3.38
		50				3.27	3.18	3.10	3.03	2.96
		45			2.93	2.85	2.78	2.72	2.66	2.59
		40		2.63	2.55	2.49	2.44	2.39	2.34	2.28
		35	2.33	2.29	2.24	2.19	2.14	2.10	2.06	2.01
30		2.04	2.01	1.96	1.93	1.89	1.86	1.82	1.77	
27		1.88	1.86	1.82	1.79	1.75	1.72	1.68	1.64	
ZW54KWP	Q	60					13.62	15.63	17.95	20.62
		55					12.02	13.90	16.06	18.56
		50				10.47	12.22	14.23	16.54	19.19
		45			8.99	10.61	12.47	14.59	17.03	19.81
		40		7.59	9.09	10.79	12.74	14.96	17.50	20.41
		35	6.84	7.68	9.23	10.99	13.00	15.31	17.94	20.95
		30	6.94	7.79	9.37	11.17	13.24	15.61	18.32	21.42
		27	7.00	7.86	9.45	11.27	13.35	15.76	18.51	21.65
	P	60						5.07	4.99	4.92
		55					4.49	4.42	4.37	4.32
		50				3.97	3.92	3.87	3.83	3.80
		45			3.50	3.46	3.42	3.39	3.36	3.34
		40		3.07	3.05	3.03	3.00	2.97	2.95	2.94
		35	2.69	2.69	2.67	2.66	2.63	2.61	2.59	2.57
30		2.36	2.36	2.35	2.33	2.31	2.28	2.25	2.23	
27		2.18	2.18	2.17	2.15	2.13	2.10	2.06	2.04	
ZW72KWP	Q	60					18.37	20.85	23.69	26.92
		55					16.46	18.77	21.42	24.44
		50				14.60	16.75	19.21	22.02	25.22
		45			12.83	14.81	17.08	19.67	22.64	26.02
		40		11.17	12.97	15.30	17.42	20.15	23.27	26.82
		35	10.25	11.26	13.13	15.30	17.79	20.65	23.92	27.63
		30	10.34	11.37	13.32	15.57	18.16	21.15	24.56	28.44
		27	10.39	11.45	13.43	15.73	18.39	21.45	24.94	28.92
	P	60						6.48	6.48	6.48
		55					5.73	5.75	5.75	5.75
		50				5.08	5.09	5.10	5.11	5.11
		45			4.50	4.52	4.53	4.54	4.55	4.55
		40		4.00	4.01	4.02	4.03	4.05	4.06	4.07
		35	3.56	3.57	3.57	3.58	3.59	3.61	3.63	3.65
30		3.18	3.18	3.18	3.19	3.21	3.23	3.26	3.29	
27		2.96	2.96	2.97	2.98	2.99	3.02	3.05	3.10	

Note: Superheat 11K, Subcooling 8.3K

# ZW KWP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380-420V

Model	Condensing temperature °C	Evaporating temperature °C									
		-23	-20	-15	-10	-5	0	5	10	15	
ZW83KWP	Q	60					21.12	24.10	27.55	31.54	
		55				18.82	21.55	24.72	28.38	32.58	
		50			16.62	19.14	22.05	25.39	29.24	33.65	
		45		14.54	16.87	19.53	22.59	26.10	30.12	34.72	
		40	12.57	14.73	17.18	19.97	23.16	26.82	31.00	35.76	
		35	11.49	12.72	14.97	17.52	20.42	23.74	27.53	31.85	36.77
		30	11.64	12.91	15.24	17.87	20.87	24.29	28.20	32.65	37.71
	27	11.75	13.04	15.40	18.08	21.13	24.61	28.58	33.10	38.23	
	P	60					7.35	7.33	7.33	7.35	
		55				6.50	6.50	6.50	6.52	6.56	
		50			5.74	5.75	5.76	5.78	5.82	5.88	
		45		5.06	5.08	5.09	5.11	5.15	5.20	5.28	
		40	4.44	4.47	4.49	4.51	4.55	4.60	4.66	4.76	
		35	3.90	3.92	3.95	3.98	4.01	4.05	4.11	4.19	4.30
30		3.43	3.45	3.48	3.52	3.55	3.60	3.67	3.77	3.89	
27	3.18	3.20	3.23	3.26	3.30	3.36	3.43	3.53	3.67		

Note: Superheat 11K, Subcooling 8.3K

# ZW HAP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C									
		-15	-10	-5	0	5	10	15	20	25	
ZW166HAP	Q	65			14.01	15.78	17.82	20.17			
		60		12.50	14.25	16.21	18.40	20.90	23.80	27.18	
		55	9.20	10.94	12.68	14.57	16.64	18.97	21.65	24.77	28.41
		50	9.30	11.09	12.92	14.88	17.05	19.52	22.38	25.72	29.63
		45	9.54	11.31	13.17	15.18	17.45	20.06	23.10	26.66	30.82
		40	9.78	11.53	13.41	15.48	17.85	20.60	23.81	27.58	31.99
		35	10.02	11.75	13.65	15.78	18.24	21.12	24.51	28.49	32.64
	30	10.26	11.98	13.88	16.07	18.62	21.64	24.81			
	P	65			5.40	5.36	5.39	5.51			
		60		4.71	4.73	4.78	4.79	4.78	4.74	4.69	
		55	3.84	4.09	4.15	4.21	4.24	4.25	4.23	4.19	4.13
		50	3.51	3.62	3.70	3.75	3.77	3.77	3.74	3.70	3.64
		45	3.15	3.25	3.31	3.35	3.37	3.36	3.33	3.29	3.23
		40	2.85	2.94	3.00	3.03	3.04	3.02	2.99	2.95	2.89
35		2.63	2.71	2.76	2.78	2.79	2.77	2.74	2.70	3.26	
30	2.49	2.56	2.60	2.62	2.63	2.61	2.76				
*ZW188HAP	Q	65			15.32	17.36	19.70	22.36			
		60		13.74	15.66	17.85	20.35	23.19	26.38	29.97	
		55	10.68	12.24	14.03	16.08	18.42	21.07	24.07	27.44	31.22
		50	10.81	12.47	14.38	16.55	19.03	21.83	24.99	28.53	32.48
		45	10.99	12.75	14.77	17.06	19.67	22.61	25.92	29.62	33.74
		40	11.21	13.06	15.17	17.58	20.31	23.38	26.83	30.69	34.97
		35	11.42	13.35	15.56	18.06	20.90	24.09	27.68	31.34	36.19
	30	11.63	13.64	15.94	18.54	21.49	24.81	28.52			
	P	65			6.07	6.17	6.24	6.27			
		60		5.34	5.43	5.50	5.55	5.56	5.52	5.42	
		55	4.67	4.72	4.78	4.84	4.90	4.93	4.93	4.89	4.79
		50	4.21	4.24	4.28	4.32	4.36	4.39	4.38	4.34	4.25
		45	3.79	3.80	3.83	3.87	3.90	3.92	3.92	3.88	3.80
		40	3.41	3.41	3.43	3.47	3.50	3.53	3.54	3.51	3.44
35		3.09	3.08	3.11	3.15	3.19	3.24	3.26	3.26	3.17	
30	2.76	2.76	2.78	2.83	2.89	2.94	2.99				

Note: Superheat 11K, Subcooling 8.3K

\* Preliminary data



# ZW HSP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C											
		-30	-25	-20	-15	-10	-5	0	5	10	15	20	
ZW102HSP	Q	65						15.63	17.15	18.88	20.80		
		60	10.40	10.93	11.71	12.73	13.97	15.42	17.07	18.91	20.92	23.09	25.40
		50	8.88	9.73	10.81	12.08	13.55	15.20	17.01	18.97	21.07	23.29	25.63
		40	8.01	9.07	10.32	11.73	13.31	15.02	16.87	18.83	20.90	23.06	25.29
		30	7.57	8.72	10.02	11.45	13.01	14.67	16.43	18.27	20.19	22.16	
	P	65						6.03	5.92	5.90	5.98		
		60	6.75	6.25	5.86	5.57	5.38	5.28	5.27	5.35	5.50	5.73	6.02
		50	4.68	4.42	4.24	4.14	4.12	4.18	4.31	4.50	4.75	5.05	5.40
		40	3.37	3.25	3.20	3.21	3.29	3.41	3.59	3.81	4.07	4.36	4.68
		30	2.57	2.52	2.51	2.55	2.63	2.74	2.89	3.05	3.24	3.44	

Note: Superheat 11K, Subcooling 8.3K

EVI Controls: DLT<115°C, Economizer superheat 6K  
DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KS Heating capacity

R22 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW34KS	Q	65	7.36	7.42	7.88	8.68	9.74	11.01	12.41	13.88	15.34	16.72
		55	6.22	6.46	7.08	8.01	9.18	10.52	11.97	13.46	14.92	16.28
		45	5.72	6.12	6.86	7.89	9.14	10.53	12.00	13.48	14.91	16.22
		35	5.39	5.9	6.74	7.84	9.13	10.54	12.00	13.45	14.82	
		25	4.72	5.33	6.23	7.37	8.67	10.07	11.49			
	P	65	3.93	3.82	3.78	3.81	3.89	4.00	4.12	4.24	4.35	4.42
		55	3.23	3.13	3.09	3.11	3.16	3.23	3.30	3.37	3.40	3.39
		45	2.63	2.54	2.52	2.53	2.57	2.61	2.65	2.66	2.64	2.55
		35	2.09	2.04	2.04	2.06	2.09	2.13	2.14	2.12	2.04	
		25	1.61	1.60	1.63	1.68	1.72	1.75	1.75			
ZW108KS	Q	65		20.94	23.88	27.10	30.60	34.42	38.54	43.00	47.81	54.04
		55		18.34	22.05	25.91	29.93	34.14	38.54	43.14	47.96	54.06
		45		19.40	23.62	27.86	32.15	36.49	40.91	45.40	49.98	55.63
		35		21.03	25.50	29.87	34.16	38.39	42.55	46.67	50.77	
		25		20.12	24.58	28.83	32.87	36.71	40.38			
	P	65		10.76	11.44	11.96	12.31	12.52	12.59	12.54	12.38	12.05
		55		9.06	9.51	9.83	10.03	10.13	10.12	10.03	9.86	9.58
		45		7.70	7.97	8.14	8.22	8.24	8.20	8.11	7.98	7.80
		35		6.48	6.59	6.65	6.67	6.66	6.62	6.58	6.53	
		25		5.17	5.19	5.18	5.18	5.17	5.18			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls: DLT<115°C, Economizer superheat 6K  
DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KSE Heating capacity

R407C 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW34KSE	Q	65	7.29	7.28	7.51	8.12	9.05	10.24	11.61	13.12	14.70	16.27
		55	5.69	5.83	6.37	7.26	8.43	9.83	11.39	13.04	14.73	16.38
		45	4.80	5.20	5.97	7.06	8.40	9.92	11.58	13.29	15.01	16.66
		35	4.37	4.94	5.86	7.07	8.49	10.06	11.73	13.43	15.09	
		25	3.93	4.61	5.60	6.83	8.25	9.80	11.40			
	P	65	3.96	3.80	3.72	3.71	3.74	3.81	3.89	3.98	4.05	4.10
		55	3.12	3.03	3.01	3.04	3.10	3.18	3.27	3.34	3.38	3.38
		45	2.44	2.41	2.42	2.47	2.54	2.61	2.66	2.69	2.68	2.61
		35	2.02	2.01	2.04	2.08	2.12	2.16	2.16	2.13	2.04	
		25	1.84	1.83	1.84	1.85	1.85	1.86	1.81			
ZW61KSE	Q	65	11.03	12.07	13.32	14.80	16.52	18.52	20.81	23.40	26.32	29.59
		55	9.38	10.71	12.26	14.03	16.05	18.35	20.93	23.83	27.05	30.61
		45	8.38	9.92	11.67	13.66	15.89	18.40	21.20	24.30	27.74	31.52
		35	7.93	9.59	11.47	13.58	15.94	18.58	21.50	24.73	28.30	
		25	7.93	9.63	11.55	13.70	16.10	18.78	21.74			
	P	65	6.91	6.79	6.78	6.84	6.97	7.14	7.32	7.50	7.64	7.73
		55	5.19	5.13	5.17	5.28	5.43	5.61	5.78	5.94	6.04	6.08
		45	3.99	3.99	4.06	4.18	4.34	4.50	4.65	4.76	4.81	4.78
		35	3.17	3.19	3.28	3.40	3.53	3.66	3.76	3.80	3.77	
		25	2.55	2.58	2.65	2.74	2.84	2.91	2.93			
ZW108KSE	Q	65		19.96	23.13	26.23	29.44	32.94	36.90	41.52	46.96	53.40
		55		17.75	21.32	28.89	28.64	32.75	37.41	42.78	49.05	56.41
		45		18.34	21.86	25.46	29.31	33.59	38.49	44.18	50.84	58.65
		35		19.32	22.35	25.53	29.04	33.05	37.74	43.31	49.91	
		25		18.30	20.40	22.71	25.43	28.72	32.78			
	P	65		12.27	12.35	12.41	12.47	12.53	12.60	12.69	12.79	12.93
		55		9.61	9.70	9.79	9.88	9.97	10.07	10.19	10.33	10.50
		45		7.86	7.90	7.94	7.98	8.03	8.10	8.18	8.29	8.44
		35		6.62	6.55	6.47	6.40	6.34	6.29	6.27	6.28	
		25		5.50	5.24	4.97	4.72	4.48	4.26			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls: DLT<115°C, Economizer superheat 6K  
DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

## ZW KA Heating capacity

R22 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW61KA	Q	65				20.70	23.86	27.72
		55		16.09	18.92	21.86	25.06	28.63
		45	14.40	16.98	19.71	22.74	26.18	30.16
		35	14.96	17.48	20.33	23.64	27.53	
		25	15.25	17.93	21.11			
	P	65				6.96	7.11	7.12
		55		5.28	5.55	5.69	5.75	5.77
		45	4.22	4.40	4.52	4.61	4.69	4.82
		35	3.51	3.57	3.66	3.79	4.02	
		25	2.83	2.89	3.04			

Note: Superheat 11K, Subcooling 8.3K

## ZW KAE Heating capacity

R407C 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW61KAE	Q	65				20.55	23.24	26.42
		55		16.30	18.52	21.20	24.30	27.82
		45	14.24	16.44	19.05	22.04	25.39	29.08
		35	14.42	16.92	19.74	22.88	26.30	
		25	14.91	17.53	20.40			
	P	65				6.88	6.99	7.06
		55		5.33	5.47	5.58	5.67	5.75
		45	4.22	4.34	4.45	4.55	4.65	4.74
		35	3.47	3.56	3.65	3.76	3.89	
		25	2.89	2.97	3.08			

Note: Superheat 11K, Subcooling 8.3K

# ZW KWP Heating capacity

R410A 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

460V

Model	Condensing temperature °C	Evaporating temperature °C									
		-23	-20	-15	-10	-5	0	5	10	15	
ZW42KWP	Q	60						13.27	15.14	17.19	19.44
		55					11.77	13.54	15.49	17.65	20.07
		50				10.29	11.96	13.79	15.84	18.14	20.73
		45			8.88	10.43	12.13	14.05	16.21	18.67	21.46
		40		7.58	8.98	10.54	12.31	14.33	16.63	19.26	22.27
		35	6.90	7.66	9.06	10.67	12.51	14.65	17.11	19.94	23.18
		30	6.97	7.72	9.15	10.81	12.76	15.03	17.67	20.71	24.21
	27	7.00	7.76	9.21	10.92	12.93	15.30	18.05	21.24	24.90	
	P	60						4.90	4.77	4.65	4.52
		55					4.39	4.28	4.17	4.07	3.96
		50				3.94	3.83	3.74	3.65	3.57	3.48
		45			3.53	3.44	3.36	3.29	3.21	3.14	3.07
		40		3.18	3.09	3.02	2.96	2.90	2.84	2.78	2.72
		35	2.84	2.79	2.72	2.66	2.61	2.57	2.52	2.48	2.42
30		2.49	2.45	2.40	2.35	2.32	2.28	2.25	2.21	2.16	
27	2.31	2.27	2.23	2.19	2.16	2.13	2.10	2.07	2.03		
ZW54KWP	Q	60						16.95	19.28	21.93	24.94
		55					15.17	17.33	19.78	22.58	25.79
		50				13.43	15.44	17.70	20.29	23.25	26.67
		45			11.76	13.61	15.70	18.08	20.82	23.97	27.61
		40		10.17	11.88	13.80	15.98	18.49	21.40	24.76	28.64
		35	9.30	10.26	12.02	14.01	16.30	18.97	22.06	25.64	29.78
		30	9.40	10.38	12.19	14.27	16.70	19.52	22.82	26.64	31.06
	27	9.47	10.46	12.31	14.46	16.98	19.91	23.33	27.31	31.90	
	P	60						5.93	5.84	5.77	5.73
		55					5.29	5.21	5.15	5.10	5.08
		50				4.72	4.65	4.60	4.55	4.53	4.52
		45			4.20	4.15	4.11	4.07	4.04	4.02	4.02
		40		3.73	3.71	3.68	3.64	3.62	3.60	3.58	3.58
		35	3.03	3.30	3.29	3.27	3.25	3.22	3.20	3.18	3.17
30		2.66	2.94	2.93	2.92	2.89	2.87	2.84	2.81	2.79	
27	2.46	2.74	2.74	2.72	2.70	2.67	2.63	2.60	2.56		
ZW72KWP	Q	60						22.67	25.64	29.03	32.92
		55					20.38	23.15	26.30	29.91	34.04
		50				18.14	20.72	23.64	26.98	30.81	35.20
		45			15.99	18.38	21.08	24.15	27.68	31.74	36.39
		40		13.95	16.16	18.64	21.46	24.69	28.41	32.70	37.61
		35	12.83	14.08	16.34	18.91	21.86	25.26	29.18	33.69	38.87
		30	12.96	14.23	16.55	19.22	22.30	25.86	29.98	34.73	40.18
	27	13.05	14.33	16.69	19.42	22.57	26.24	30.48	35.37	40.99	
	P	60						7.62	7.64	7.66	7.66
		55					6.78	6.82	6.84	6.86	6.87
		50				6.04	6.08	6.11	6.13	6.16	6.18
		45			5.37	5.42	5.46	5.48	5.51	5.54	5.58
		40		4.76	4.82	4.86	4.89	4.92	4.95	5.00	5.06
		35	4.24	4.28	4.32	4.36	4.38	4.41	4.46	4.52	4.61
30		3.81	3.83	3.87	3.89	3.92	3.96	4.02	4.10	4.22	
27	3.56	3.58	3.61	3.63	3.66	3.71	3.78	3.88	4.02		
ZW83KWP	Q	60						26.00	29.39	33.32	37.87
		55					23.41	26.52	30.13	34.30	39.09
		50				20.94	23.81	27.12	30.93	35.31	40.33
		45			18.60	21.25	24.28	27.77	31.76	36.34	41.57
		40		16.38	18.84	21.62	24.80	28.44	32.60	37.36	42.79
		35	15.16	16.57	19.13	22.03	25.34	29.11	33.43	38.35	43.95
		30	15.36	16.81	19.46	22.45	25.87	29.77	34.22	39.28	45.04
	27	15.49	16.96	19.66	22.71	26.18	30.14	34.66	39.81	45.65	
	P	60						8.68	8.67	8.67	8.69
		55					7.76	7.75	7.76	7.78	7.82
		50				6.92	6.93	6.94	6.96	7.00	7.07
		45			6.17	6.19	6.21	6.23	6.27	6.33	6.42
		40		5.50	5.52	5.55	5.58	5.61	5.66	5.74	5.85
		35	4.90	4.92	4.95	4.98	5.02	5.06	5.13	5.22	5.34
30		4.39	4.41	4.45	4.48	4.52	4.58	4.65	4.76	4.89	
27	4.11	4.13	4.17	4.20	4.25	4.31	4.39	4.50	4.64		

Note: Superheat 11K, Subcooling 8.3K

# Specifications 50 Hz

## ZW KS

R22

ZW Series		ZW30KS	ZW34KS	ZW34KS	ZW61KS	ZW79KS	ZW108KS	ZW124KS	ZW125KS	ZW150KS
Nominal power	HP	2.5	3	3	5	7	9	10	10	13
Motor type		PFS			TFP					
Displacement	m <sup>3</sup> /hr	7.1	8.0	8.0	14.4	18.8	24.9	29.2	29.1	35.3
Refrigerant		R22								
Heating capacity	kW	10.1	11.6	11.2	20.3	25.8	35.9	42.62	41.6	50.4
Input power	kW	2.5	3.0	2.8	5.0	6.5	8.3	10.59	10.2	12.7
Current	A	11.5	13.7	5.0	8.5	11.9	16.1	21.42	18.6	24.8
Mass flow	g/s	43.5	47.8	48.2	88.2	110.6	154.0	174.8	173.5	210.4
Locked rotor amps	A	58.4	72.5	31.6	59.0	90.5	133.0	155	133.0	157
Rated load current	A	13.6	13.9	6.4	10.1	12.1	19.3	20.4	20.1	25.6
Max continuous current	A	19.0	19.4	8.9	14.2	17.0	27.0	28.6	28.1	35.8
Max operating current	A	17.2	17.7	7.0	11.8	13.6	20.5	26.8	27.2	31.5
Oil charge	Initial	L	0.74	0.74	0.74	1.57	1.89	3.25	3.25	3.37
	Replacement refill	L	0.62	0.62	0.62	1.45	1.77	3.14	3.2	3.14
Net weight	kg	22	22	22	30	41	60	62	60	65

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

## ZW KSE

R407C

ZW Series		ZW34KSE	ZW61KSE	ZW79KSE	ZW108KSE	ZW124KSE	ZW125KSE
Nominal power	HP	3	5	7	9	10	10
Motor type		TFP					
Displacement	m <sup>3</sup> /hr	8.0	14.4	18.8	24.9	29.2	29.1
Refrigerant		R407C					
Heating capacity	kW	10.8	19.6	26.1	35.6	41.76	40.9
Input power	kW	2.8	4.9	6.6	8.3	10.41	10.0
Current	A	5.0	8.4	12.3	16.6	21.17	18.5
Mass flow	g/s	43.8	81.6	121.4	146.8	167.9	166.3
Locked rotor amps	A	31.6	59.0	90.5	133.0	155	133.0
Rated load current	A	6.6	10.2	14.6	20.6	21.3	21.0
Max continuous current	A	9.3	14.3	20.5	28.8	29.8	29.4
Max operating current	A	7.1	12.6	14.6	21.0	28.13	25.2
Oil charge	Initial	L	0.74	1.57	1.77	3.25	3.25
	Replacement refill	L	0.62	1.45	1.66	3.14	3.2
Net weight	kg	22	30	39	60	62	60

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

# ZW KA

# R22

ZW Series		ZW34KA	ZW61KA	ZW72KA	ZW79KA	ZW108KA	ZW124KA	ZW125KA	ZW150KA
Nominal power	HP	3	5	6	7	9	10	10	13
Motor type		TFP							
Displacement	m³/hr	8.0	14.4	17.1	18.8	24.9	29.2	29.1	35.3
Refrigerant		R22							
Heating capacity	kW	10.1	18.1	21.4	24.7	31.2	37.21	36.8	45.41
Input power	kW	2.6	4.6	5.2	6.2	7.6	9.55	9.0	11.3
Current	A	4.5	8.2	9.1	11.5	13.7	20.2	17.1	23
Mass flow	g/s	48.0	87.1	103.0	118.4	154.0	176.2	177.0	218
Locked rotor amps	A	31.6	59.0	67.0	100.0	100.0	155	133.0	157
Rated load current	A	6.4	10.1	10.0	12.1	17.3	20.8	20.1	25.7
Max continuous current	A	8.9	14.2	14.0	17.0	24.2	29.1	28.2	36
Max operating current	A	7.0	11.8	12.1	16.0	16.8	24.18	27.2	28.5
Oil charge	Initial	L	0.74	1.57	1.77	1.89	3.25	3.25	3.37
	Replacement refill	L	0.62	1.45	1.66	1.77	3.14	3.2	3.25
Net weight	kg	22	30	39	41	60	62	60	65

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

# ZW KA

# R22

ZW Series		ZW30KA	ZW34KA	ZW52KA
Nominal power	HP	2.5	3	4.5
Motor type		PFS		
Displacement	m³/hr	7.1	8.0	12.2
Refrigerant		R22		
Heating capacity	kW	9.0	10.1	15.8
Input power	kW	2.3	2.6	4.2
Current	A	10.7	12.2	22.9
Mass flow	g/s	43.0	46.0	74.0
Locked rotor amps	A	58.4	72.5	136.0
Rated load current	A	13.6	12.6	26.4
Max continuous current	A	19.0	17.7	36.9
Max operating current	A	17.2	16.7	28.2
Oil charge	Initial	L	0.74	1.57
	Replacement refill	L	0.62	1.45
Net weight	kg	22	22	30

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

# ZW KH

# R22

ZW Series		ZW57KH	ZW61KH
Nominal power	HP	5	5
Motor type		TFP	
Displacement	m³/hr	13.4	14.4
Refrigerant		R22	
Heating capacity	kW	17.1	18.2
Input power	kW	4.2	4.5
Current	A	7.4	7.9
Mass flow	g/s	81.9	87.4
Locked rotor amps	A	64.0	67.0
Rated load current	A	9.0	10.1
Max continuous current	A	12.6	14.2
Max operating current	A	9.6	10.5
Oil charge	Initial	L	1.95
	Replacement refill	L	1.83
Net weight	kg	39	40

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

# Specifications 50 Hz

## ZW KAE

## R407C

ZW Series		ZW30KAE	ZW34KAE	ZW52KAE	ZW34KAE	ZW61KAE	ZW72KAE	ZW79KAE	ZW108KAE	ZW124KAE	ZW125KAE	ZW150KAE
Nominal power	HP	2.5	3	4.5	3	5	6	7	9	10	10	13
Motor type		PFS			TFP							
Displacement	m <sup>3</sup> /hr	7.1	8.0	12.2	8.0	14.4	17.1	18.8	24.9	29.2	29.1	35.3
Refrigerant		R407C										
Heating capacity	kW	8.8	9.3	15.3	9.8	17.7	21.2	24.8	30.9	36.02	35.6	44.24
Input power	kW	2.3	2.6	4.2	2.6	4.7	5.4	6.5	7.6	9.35	9.0	11.1
Current	A	10.8	11.9	22.6	4.5	8.1	9.5	12.0	13.9	20.1	17.2	22.6
Mass flow	g/s	44.0	41.7	70.0	44.0	89.0	99.1	115.7	147.0	168.9	168.0	206.6
Locked rotor amps	A	58.4	72.5	136.0	31.6	59.0	67.0	100.0	100.0	155	133.0	157
Rated load current	A	15.3	13.1	27.1	6.6	10.2	10.0	12.1	17.3	21.6	21.3	26.4
Max continuous current	A	21.4	18.3	38.0	9.3	14.3	14.0	17.0	24.2	30.2	29.8	37
Max operating current	A	17.7	17.0	29.3	7.1	12.6	12.1	15.0	16.8	24.63	25.2	28.5
Oil charge	Initial	L	0.74	0.74	1.57	0.74	1.57	1.77	1.89	3.25	3.25	3.37
	Replacement refill	L	0.62	0.62	1.45	0.62	1.45	1.66	1.77	3.14	3.2	3.14
Net weight	kg	22	22	30	22	30	39	41	60	62	60	65

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

## ZW KWP

## R410A

ZW Series		ZW28KWP	ZW31KWP	ZW42KWP	ZW51KWP	ZW42KWP	ZW54KWP	ZW72KWP	ZW83KWP	
Nominal power	HP	2.5	3	3.5	4.5	3.5	4.5	6	7	
Motor type		PFZ				TFD				
Displacement	m <sup>3</sup> /hr	4.6	5.1	6.9	8.4	6.9	8.9	11.7	13.4	
Refrigerant		R410A								
Heating capacity	kW	8.7	9.3	12.8	15.2	12.7	16.1	21.4	24.7	
Input power	kW	2.4	2.6	3.6	4.1	3.5	4.4	5.8	6.5	
Current	A	11.0	12.1	17.0	20.2	5.7	7.1	9.9	11.8	
Mass flow	g/s	55.6	59.6	58.8	97.3	58.4	75.1	137.2	158.3	
Locked rotor amps	A	53.0	67.0	128.0	126.0	43.0	51.5	75.0	101.0	
Rated load current	A	11.4	15.0	21.7	22.5	6.8	8.6	12.5	13.6	
Max continuous current	A	16.0	21.0	30.4	31.5	9.5	12.1	17.5	19.0	
Max operating current	A	13.7	17.1	26.0	28.0	8.0	10.3	16.0	15.0	
Oil charge	Initial	L	0.77	0.74	1.24	1.24	1.24	1.24	1.77	
	Replacement refill	L	0.65	0.62	1.12	1.12	1.12	1.12	1.66	
Net weight	kg	20	23	33	34	33	33	40	40	

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

ZW Series		ZW102HSP	ZW166HAP	*ZW188HAP
Nominal power	HP	4.5	4.5	5
Motor type		TFP		
Displacement	m <sup>3</sup> /hr	8.9	8.9	10.1
Refrigerant		R410A		
Heating capacity	kW	18.9	16.6	18.4
Input power	kW	4.9	4.2	4.9
Current	A	8.2	7.6	8.7
Mass flow	g/s	76.0	78.7	89.6
Locked rotor amps	A	70.0	62.0	74
Rated load current	A	9.0	8.1	11.1
Max continuous current	A	12.6	11.3	14.8
Max operating current	A	11.0	9.7	11.9
Oil charge	Initial	L	1.56	1.89
	Replacement refill	L	1.44	1.77
Net weight	kg	33	32	40.3

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

\*Preliminary data



# Specifications 60 Hz

## ZW KS(E) ZW KA(E)

## R22/R407C

ZW Series		ZW34KS	ZW34KSE	ZW61KSE	ZW108KS	ZW108KSE	ZW61KA	ZW61KAE
Nominal power	HP	3	3	5	9	9	5	5
Motor type		TF7						
Displacement	m <sup>3</sup> /hr	9.7	9.7	17.3	20.6	30.0	30.0	17.3
Refrigerant		R22	R407C	R407C	R22	R407C	R22	R407C
Heating capacity	kW	13.5	13.0	23.8	20.4	43.1	42.8	21.2
Input power	kW	3.4	3.3	5.9	4.8	10.0	10.2	5.6
Current	A	6.0	6.0	10.1	8.8	18.5	18.7	8.1
Mass flow	g/s	58.0	53.0	100.0	92.6	185.0	180.0	99.0
Locked rotor amps	A	50.0	50.0	65.6	94.3	147.0	147.0	65.6
Rated load current	A	6.4	6.6	12.4	12.5	23.2	24.3	12.4
Max continuous current	A	8.9	9.3	17.3	17.5	32.5	34.0	17.3
Max operating current	A	7.0	7.1	14.4	12.7	24.5	24.9	14.4
Oil charge	Initial	L	0.74	0.74	1.57	1.89	3.25	1.57
	Replacement refill	L	0.62	0.62	1.45	1.77	3.14	1.45
Net weight		kg	22	22	30	40	62	30

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

## ZW HSP ZW KWP

## R410A

ZW Series		*ZW430HSP	ZW42KWP	ZW54KWP	ZW72KWP	ZW83KWP
Nominal power	HP	20	3.5	4.5	6	7
Motor type		TE7	TFD			
Displacement	m <sup>3</sup> /hr	44.15	8.4	10.7	14.1	16.2
Refrigerant		R410A				
Heating capacity	kW	81.51	15.5	19.8	26.3	30.1
Input power	kW	21.12	4.2	5.2	6.8	7.8
Current	A	33.2	5.6	7.3	9.8	11.8
Mass flow	g/s	396.2	71.6	93.2	168.4	193.0
Locked rotor amps	A	255.5	41.0	52.0	75.0	100.0
Rated load current	A	44.29	6.9	8.6	12.5	13.6
Max continuous current	A	62.0	9.7	12.1	17.5	19.0
Max operating current	A	42.2	8.0	10.3	16.0	15.0
Oil charge	Initial	L	4.44	1.24	1.24	1.77
	Replacement refill	L	4.2	1.12	1.12	1.66
Net weight		kg	91.6	33	33	40

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

\*Preliminary data

# Residential heating



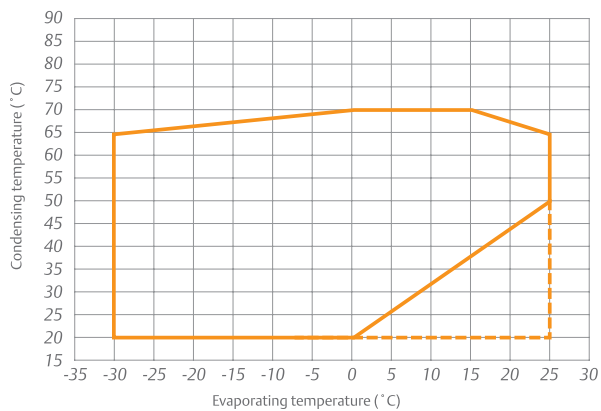
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R22	ZW30KS-PFS-582	1Φ/220 V/50 Hz	√	10.1	P33	P37
	ZW34KS-PFS-582		√	11.6	P33	P37
	ZW42KS-PFS-522		√	14.7	P33	P37
	ZW52KA-PFS-522			15.8	P35	P37
	ZW52KS-PFS-522		√	17.8	P33	P37
	ZW68KS-PFS-522		√	23.4	P33	P37
R407C	ZW30KSE-PFS-582	1Φ/220 V/50 Hz	√	9.8	P34	P37
	ZW34KSE-PFS-582		√	11.8	P34	P37
	ZW42KSE-PFS-522		√	14.3	P34	P37
	ZW52KAE-PFS-522			15.3	P35	P37
	ZW52KSE-PFS-522		√	17.3	P34	P37
	ZW68KSE-PFS-522		√	22.9	P34	P37
R410A	ZW059HSP-PFS-582	3Φ/380 V/50 Hz	√	11.1	P36	P39
	ZW096HSP-PFS-522		√	18.3	P36	P39
	ZW126HSP-PFS-522		√	23.5	P36	P39
	ZWW050SP-3X9-522		√	30.0	-	P39
	VPW038DE-3X9-571		√	20.0	-	P39
	ZWW050SP-4X9-522		√	30.0	-	P39
	VPW038DE-4X9-571		√	20.0	-	P39

# Operating envelopes

ZW30KS(E), ZW42KS(E)  
ZW52KS(E), ZW68KS(E)

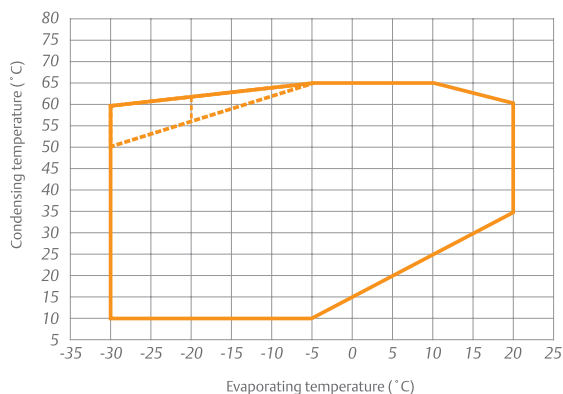
R22/R407C



11K Superheat Max Discharge Temperature with EVI: 115°C  
- - - Transition only

ZW059HSP, ZW096HSP, ZW126HSP

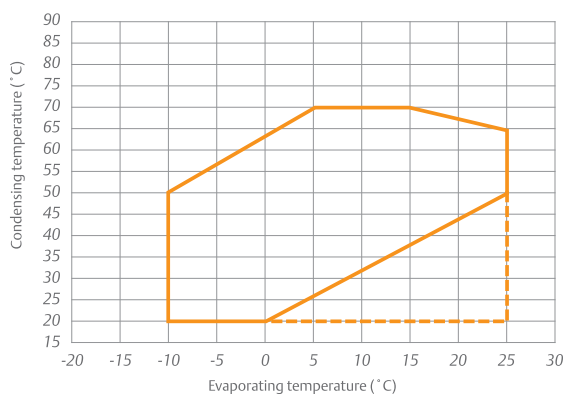
R410A



11K Superheat  
- - - In wet injection area, the running time is limited to <2000 hours when evaporating temperature is lower than -20°C.

ZW52KA(E)

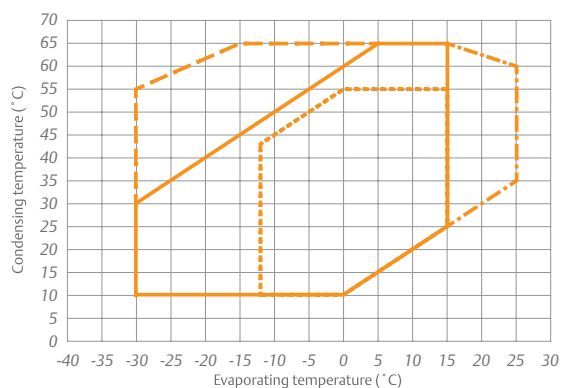
R22/R407C



11K Superheat  
- - - Transition only

VPW038DE

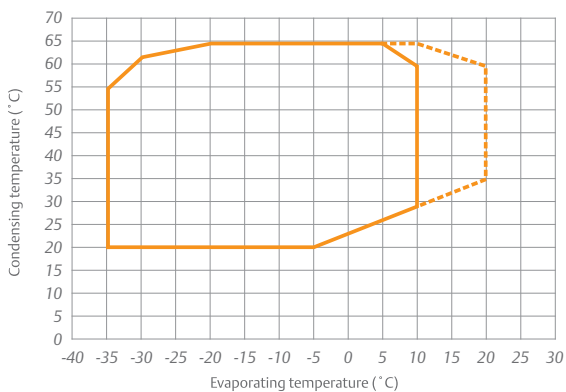
R410A



— 2400-7200RPM EVI ON/OFF      - - - 2400-7200RPM EVI ON  
- - - 2400-5400RPM EVI ON/OFF      ····· 900RPM EVI OFF

ZWW050SP

R410A



— 1800-4800RPM EVI ON      - - - 2400-4800RPM EVI OFF

# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW30KS	Q	65	4.62	5.20	5.85	6.57	7.36	8.25	9.22	10.30	11.48	12.78
		55	4.28	4.85	5.49	6.22	7.04	7.96	8.99	10.12	11.38	12.68
		45	4.07	4.63	5.29	6.04	6.90	7.86	8.95	10.16	11.50	12.98
		35	3.89	4.47	5.14	5.93	6.83	7.65	9.01	10.30	11.73	
		25	3.66	4.25	4.96	5.79	6.74	7.83	9.07			
	P	65	2.86	2.94	3.00	3.06	3.10	3.14	3.15	3.16	3.14	3.11
		55	2.37	2.41	2.44	2.47	2.50	2.52	2.53	2.53	2.51	2.48
		45	1.99	2.00	2.01	2.03	2.04	2.05	2.05	2.05	2.04	2.02
		35	1.68	1.67	1.66	1.67	1.68	1.68	1.69	1.70	1.70	
		25	1.39	1.37	1.36	1.36	1.36	1.38	1.40			
ZW34KS	Q	65				7.44	8.34	9.33	10.43			
		55	4.77	5.52	6.31	7.16	8.09	9.12	10.27	11.57	13.02	
		45	4.56	5.29	6.08	6.94	7.89	8.95	10.14	11.49	13.00	
		35	4.48	5.18	5.96	6.81	7.77	8.85	10.07	11.46	13.02	
		25	4.56	5.23	5.98	6.82	7.78	8.87	10.11			
	P	65				3.74	3.83	3.87	3.86			
		55	2.43	2.64	2.78	2.88	2.93	2.96	2.97	2.96	2.96	
		45	2.00	2.10	2.16	2.19	2.21	2.21	2.22	2.24	2.28	
		35	1.80	1.79	1.76	1.72	1.69	1.67	1.67	1.70	1.77	
		25	1.88	1.75	1.61	1.50	1.40	1.35	1.33			
ZW42KS	Q	65	6.56	7.47	8.42	9.44	10.55	11.78	13.15	14.69	16.43	18.39
		55	6.12	7.07	8.08	9.15	10.32	11.62	13.06	14.68	16.49	18.54
		45	5.59	6.62	7.69	8.85	10.11	11.49	13.03	14.75	16.67	18.82
		35	4.85	5.97	7.15	8.41	9.78	11.28	12.94	14.78	16.83	
		25	3.77	5.01	6.32	7.71	9.21	10.85	12.65			
	P	65	4.70	4.61	4.55	4.51	4.50	4.50	4.51	4.52	4.53	4.54
		55	3.48	3.49	3.52	3.56	3.60	3.65	3.68	3.71	3.72	3.71
		45	2.71	2.80	2.89	2.98	3.06	3.13	3.17	3.19	3.18	3.13
		35	2.09	2.24	2.38	2.50	2.60	2.67	2.70	2.69	2.63	
		25	1.37	1.56	1.72	1.85	1.95	1.99	1.99			
ZW52KS	Q	65	7.93	9.03	10.18	11.41	12.75	14.24	15.90	17.77	19.87	22.24
		55	7.40	8.55	9.76	11.06	12.48	14.05	15.80	17.76	19.95	22.42
		45	6.76	8.00	9.30	10.70	12.22	13.90	15.76	17.84	20.17	22.77
		35	5.86	7.22	8.64	10.17	11.82	13.64	15.65	17.88	20.36	
		25	4.56	6.06	7.64	9.32	11.14	13.12	15.31			
	P	65	5.69	5.67	5.64	5.61	5.58	5.55	5.52	5.49	5.47	5.46
		55	4.26	4.34	4.41	4.46	4.49	4.50	4.50	4.49	4.47	4.44
		45	3.28	3.45	3.59	3.70	3.77	3.81	3.82	3.81	3.77	3.70
		35	2.48	2.73	2.92	3.06	3.16	3.21	3.22	3.18	3.10	
		25	1.60	1.90	2.12	2.29	2.39	2.43	2.41			
ZW68KS	Q	65	8.98	10.64	12.42	14.32	16.35	18.52	20.83	23.29	25.90	28.66
		55	8.65	10.32	12.13	14.08	16.19	18.44	20.86	23.43	26.18	29.11
		45	8.27	9.95	11.79	13.79	15.96	18.29	20.80	23.50	26.38	29.46
		35	7.98	9.67	11.53	13.57	15.79	18.20	20.81	23.62	26.63	
		25	7.91	9.59	11.47	13.55	15.82	18.31	21.00			
	P	65	6.20	6.70	7.05	7.27	7.39	7.41	7.37	7.28	7.16	7.04
		55	4.87	5.27	5.55	5.72	5.81	5.84	5.82	5.78	5.74	5.71
		45	3.89	4.20	4.41	4.54	4.62	4.66	4.68	4.70	4.74	4.83
		35	3.19	3.43	3.58	3.69	3.76	3.82	3.88	3.98	4.12	
		25	2.73	2.90	3.01	3.10	3.18	3.27	3.39			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KSE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW30KSE	Q	65	4.32	4.95	5.58	6.24	6.96	7.77	8.70	9.77	11.06	12.54
		55	3.91	4.56	5.23	5.93	6.71	7.60	8.62	9.80	11.18	12.79
		45	3.62	4.29	4.98	5.73	6.56	7.51	8.61	9.89	11.83	13.11
		35	3.42	4.10	4.81	5.60	6.48	7.50	8.67	10.04	11.63	
		25	3.28	3.97	4.70	5.52	6.44	7.52	8.76			
	P	65	2.85	2.97	3.05	3.11	3.15	3.17	3.18	3.19	3.19	3.20
		55	2.35	2.42	2.47	2.50	2.51	2.52	2.52	2.51	2.51	2.52
		45	1.93	1.97	2.00	2.01	2.01	2.00	1.99	1.99	1.99	2.01
		35	1.59	1.61	1.62	1.62	1.61	1.60	1.60	1.60	1.61	
		25	1.32	1.33	1.33	1.32	1.31	1.31	1.31			
ZW34KSE	Q	65				7.06	7.85	8.73	9.73			
		55	5.17	5.90	6.66	7.47	8.37	9.37	10.49	11.76	13.20	
		45	4.79	5.57	6.39	7.28	8.25	9.34	10.57	11.95	13.52	
		35	4.31	5.11	5.97	6.91	7.94	9.10	10.41	11.89	13.56	
		25	4.16	4.97	5.84	6.81	7.88	9.09	10.46			
	P	65				3.37	3.36	3.35	3.35			
		55	2.96	3.02	3.05	3.06	3.07	3.07	3.07	3.07	3.08	
		45	2.34	2.41	2.45	2.48	2.50	2.50	2.51	2.51	2.53	
		35	1.57	1.66	1.72	1.76	1.78	1.80	1.81	1.81	1.83	
		25	0.81	0.91	0.99	1.04	1.07	1.09	1.10			
ZW42KSE	Q	65	6.58	7.35	8.18	9.09	10.12	11.29	12.63	14.18	15.96	18.01
		55	5.33	6.37	7.44	8.58	9.80	11.15	12.66	14.34	16.24	18.38
		45	4.72	5.95	7.19	8.47	9.81	11.26	12.84	14.58	16.51	18.66
		35	4.42	5.76	7.08	8.42	9.80	11.27	12.84	14.55	16.44	
		25	4.08	5.44	6.76	8.08	9.43	10.83	12.31			
	P	65	4.7	4.67	4.65	4.64	4.63	4.63	4.62	4.62	4.61	4.59
		55	3.65	3.64	3.63	3.63	3.64	3.65	3.66	3.66	3.66	3.65
		45	2.92	2.91	2.91	2.92	2.93	2.94	2.95	2.96	2.97	2.96
		35	2.40	2.39	2.38	2.39	2.39	2.40	2.41	2.41	2.41	
		25	1.98	1.96	1.94	1.93	1.93	1.92	1.91			
ZW52KSE	Q	65	7.96	8.89	9.89	10.99	12.23	13.65	15.27	17.15	19.30	21.78
		55	6.44	7.70	9.00	10.37	11.86	13.49	15.31	17.34	19.64	22.22
		45	5.71	7.20	8.69	10.24	11.87	13.62	15.53	17.63	19.97	22.57
		35	5.35	6.96	8.56	10.18	11.86	13.63	15.53	17.60	19.88	
		25	4.94	6.58	8.18	9.77	11.40	13.09	14.89			
	P	65	5.69	5.65	5.63	5.61	5.61	5.60	5.60	5.59	5.58	5.55
		55	4.42	4.40	4.39	4.40	4.41	4.42	4.43	4.44	4.43	4.42
		45	3.54	3.52	3.52	3.53	3.55	3.56	3.58	3.59	3.59	3.58
		35	2.91	2.89	2.88	2.89	2.90	2.91	2.92	2.92	2.92	
		25	2.40	2.37	2.35	2.34	2.33	2.33	2.32			
ZW68KSE	Q	65	9.00	10.47	12.06	13.79	15.68	17.74	20.00	22.47	25.16	28.07
		55	7.53	9.29	11.18	13.20	15.37	17.70	20.21	22.90	25.77	28.85
		45	6.99	8.95	11.01	13.19	15.49	17.93	20.50	23.23	26.13	29.21
		35	7.28	9.32	11.41	13.58	15.83	18.19	20.66	23.26	26.01	
		25	8.56	10.41	12.28	14.20	16.19	18.27	20.44			
	P	65	6.19	6.78	7.20	7.47	7.60	7.62	7.56	7.43	7.28	7.11
		55	5.11	5.49	5.72	5.84	5.87	5.84	5.78	5.71	5.65	5.63
		45	4.20	4.37	4.44	4.45	4.42	4.38	4.36	4.36	4.43	4.57
		35	3.66	3.64	3.58	3.52	3.46	3.44	3.47	3.57	3.77	
		25	3.95	3.63	3.39	3.23	3.14	3.15	3.26			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

## ZW KA Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW52KA	Q	65				15.41	17.64	20.08
		55		11.87	13.59	15.77	18.28	21.00
		45	10.41	11.79	13.77	16.21	18.98	21.96
		35	10.50	12.12	14.33	17.00	20.00	
		25	11.28	13.11	15.53			
	P	65				5.06	5.04	5.02
		55		4.18	4.24	4.23	4.19	4.16
		45	3.44	3.58	3.62	3.58	3.52	3.47
		35	2.94	3.05	3.06	3.00	2.90	
		25	2.39	2.46	2.43			

Note: Superheat 11K, Subcooling 8.3K

## ZW KAE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW52KAE	Q	65				14.76	17.01	19.60
		55		11.31	13.12	15.30	17.85	20.76
		45	9.83	11.44	13.46	15.89	18.73	21.96
		35	10.03	11.82	14.05	16.73	19.84	
		25	10.67	12.63	15.07			
	P	65				5.18	5.19	5.18
		55		4.14	4.19	4.20	4.20	4.19
		45	3.35	3.41	3.43	3.44	3.44	3.45
		35	2.78	2.81	2.83	2.84	2.87	
		25	2.27	2.30	2.33			

Note: Superheat 11K, Subcooling 8.3K

# ZW HSP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Single phase

220V

Model	Condensing temperature °C	Evaporating temperature °C											
		-30	-25	-20	-15	-10	-5	0	5	10	15	20	
ZW059HSP	Q	65						5.35	5.94	7.06	8.77		
		55	7.29	6.78	6.43	6.31	6.48	7.01	7.97	9.42	11.43	14.06	17.39
		45	5.53	5.86	6.30	6.90	7.73	8.86	10.35	12.28	14.70	17.69	21.31
		35	3.92	4.84	5.81	6.87	8.11	9.58	11.35	13.50	16.08	19.16	22.81
		25	3.46	4.72	5.96	7.23	8.62	10.17	11.97	14.08	16.56	19.48	
	P	65						3.99	3.96	3.96	3.97		
		55	3.83	3.74	3.66	3.59	3.53	3.48	3.45	3.44	3.44	3.47	3.51
		45	2.90	2.85	2.81	2.77	2.73	2.69	2.66	2.63	2.61	2.61	2.61
		35	2.21	2.21	2.20	2.19	2.17	2.14	2.11	2.08	2.04	2.01	1.98
		25	1.70	1.75	1.78	1.80	1.80	1.79	1.76	1.72	1.67	1.61	
ZW096HSP	Q	65						15.30	16.83	18.51	20.34		
		55	9.06	10.01	11.06	12.24	13.56	15.01	16.60	18.35	20.27	22.34	24.60
		45	8.25	9.26	10.39	11.66	13.06	14.62	16.33	18.20	20.24	22.47	24.87
		35	7.70	8.75	9.93	11.25	12.73	14.37	16.17	18.14	20.30	22.64	25.18
		25	7.27	8.34	9.55	10.91	12.44	14.13	16.00	18.05	20.29	22.73	
	P	65						6.39	6.41	6.40	6.37		
		55	5.32	5.41	5.50	5.57	5.63	5.67	5.68	5.67	5.63	5.55	5.44
		45	4.21	4.30	4.37	4.43	4.47	4.50	4.50	4.48	4.42	4.33	4.20
		35	3.41	3.48	3.53	3.58	3.61	3.62	3.60	3.56	3.49	3.39	3.25
		25	2.80	2.85	2.89	2.92	2.93	2.92	2.88	2.82	2.73	2.61	
ZW126HSP	Q	65						19.18	21.17	23.39	25.87		
		55	11.41	12.62	13.96	15.45	17.12	18.99	21.09	23.42	26.02	28.90	32.09
		45	10.45	11.78	13.25	14.89	16.71	18.75	21.02	23.53	26.33	29.41	32.82
		35	9.82	11.21	12.76	14.49	16.41	18.56	20.94	23.59	26.52	29.76	33.32
		25	9.37	10.78	12.35	14.11	16.08	18.28	20.72	23.45	26.46	29.79	
	P	65						7.98	8.00	7.98	7.94		
		55	6.51	6.69	6.84	6.95	7.03	7.08	7.09	7.07	7.02	6.95	6.84
		45	5.21	5.34	5.44	5.52	5.57	5.59	5.60	5.57	5.53	5.47	5.39
		35	4.20	4.28	4.35	4.40	4.44	4.45	4.45	4.44	4.41	4.38	4.33
		25	3.39	3.44	3.49	3.52	3.55	3.56	3.57	3.58	3.58	3.57	

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# Specifications 50 Hz

## ZW KS ZW KA

R22

ZW Series		ZW30KS	ZW34KS	ZW42KS	ZW52KS	ZW68KS	ZW52KA	
Nominal power	HP	2.5	3	3.5	4.5	6	4.5	
Motor type		PFS						
Displacement	m <sup>3</sup> /hr	7.1	8.0	10.0	12.2	16.2	12.2	
Refrigerant		R22						
Heating capacity	kW	10.1	11.6	14.7	17.8	23.4	15.8	
Input power	kW	2.5	3.0	3.7	4.5	5.8	4.2	
Current	A	11.5	13.7	21.5	24.3	28.9	22.9	
Mass flow	g/s	43.5	47.8	60.1	14.6	97.8	74.0	
Locked rotor amps	A	58.4	72.5	136.0	136.0	175.0	136.0	
Rated load current	A	13.6	13.9	24.3	25.0	33.2	26.4	
Max continuous current	A	19.0	19.4	34.0	35.0	46.5	36.9	
Max operating current	A	17.2	17.7	28.0	30.8	43.0	28.2	
Oil charge	Initial	L	0.74	0.74	1.57	1.57	1.89	1.57
	Replacement refill	L	0.62	0.62	1.45	1.45	1.77	1.45
Net weight	kg	22	22	30	30	44	30	

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

## ZW KSE ZW KAE

R407C

ZW Series		ZW30KSE	ZW34KSE	ZW42KSE	ZW52KSE	ZW68KSE	ZW52KAE	
Nominal power	HP	2.5	3	3.5	4.5	6	4.5	
Motor type		PFS						
Displacement	m <sup>3</sup> /hr	7.1	8.0	10.0	12.2	16.2	12.2	
Refrigerant		R407C						
Heating capacity	kW	9.8	11.8	14.3	17.3	22.9	15.5	
Input power	kW	2.5	3.1	3.7	4.4	5.7	4.2	
Current	A	11.5	14.1	21.1	23.8	28.3	22.6	
Mass flow	g/s	41.0	54.8	57.5	71.3	93.5	70.0	
Locked rotor amps	A	58.4	72.5	136.0	136.0	175.0	136.0	
Rated load current	A	15.3	14.1	29.1	25.0	33.2	27.1	
Max continuous current	A	21.4	19.8	40.8	35.0	46.5	38.0	
Max operating current	A	17.7	18.3	28.0	32.0	43.0	29.3	
Oil charge	Initial	L	0.74	0.74	1.57	1.57	1.89	1.57
	Replacement refill	L	0.62	0.62	1.45	1.45	1.77	1.45
Net weight	kg	22	22	30	30	44	30	

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K



# ZW HSP

# R410A

ZW Series		ZW059HSP	ZW096HSP	ZW126HSP	
Nominal power	HP	3	5	6	
Motor type		PFS			
Displacement	m <sup>3</sup> /hr	5.1	8.3	11.0	
Refrigerant		R407C			
Heating capacity	kW	11.1	18.3	23.5	
Input power	kW	3.00	4.92	6.26	
Current	A	14.1	25.5	32.0	
Mass flow	g/s	42.8	71.2	93.6	
Locked rotor amps	A	72.5	140.0	175.0	
Rated load current	A	17.1	28.6	34.3	
Max continuous current	A	24.0	40.1	48.0	
Max operating current	A	18	32	40	
Oil charge	Initial	L	0.74	1.57	1.89
	Replacement refill	L	0.62	1.45	1.77
Net weight	kg	22	35	44	

Conditions: ET 5 °C, CT 55 °C, Superheat 11K Subcooling 8.3K

# Variable speed series

# R410A

Variable speed series		VPW038DE	ZWW050SP	VPW038DE	ZWW050SP
Nominal power	HP	5	6	5	6
Motor type		3X9		4X9	
Inverter input rating	V	220		380	
Displacement	cc/Rev	38.3	47.7	38.3	47.7
Refrigerants		R410A			
EVI		√			
Speed range	RPM	900-7,200	1,800-4,800	900-7,200	1,800-4,800
Heating capacity @75 Hz	kW	14.4	21.3	14.4	21.3
Input power @75 Hz	kW	4.38	6.23	4.38	6.23
Current @75 Hz	A	14	13	14	13
COP @75 Hz	kW/ kW	3.3	3.4	3.3	3.4
Noise @75 Hz	dBA	75	77	75	77
Oil charge	ml	1,183	1,597	1,183	1,597
Net weight	kg	20.8	26.5	20.8	26.5

Conditions: ET -7° C, CT 50 °C, Superheat 11K, Subcooling 8.3K

# District heating



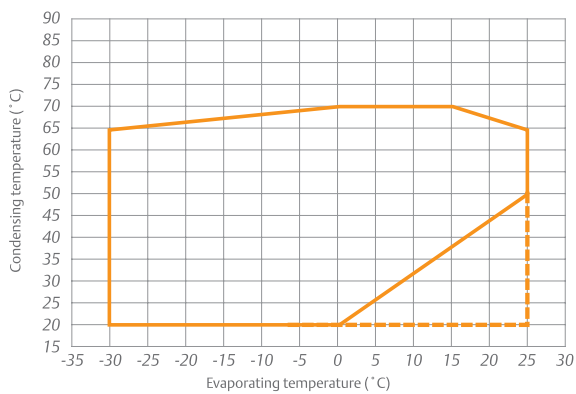
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R22	ZW61KS-TFP-522	3Φ/380 V/50 Hz	✓	20.3	P40	P44
	ZW79KS-TFP-522		✓	25.8	P40	P44
	ZW108KS-TFP-522		✓	35.9	P40	P44
	ZW124KS-TFP-52E		✓	42.6	P41	P44
	ZW125KS-TFP-522		✓	41.6	P41	P44
R407C	ZW150KS-TFP-522		✓	50.4	P41	P44
R410A	ZW150KSE-TFP-522		✓	49.8	P42	P44
	ZW258HSP-TFP-522		✓	47.5	P43	P44
	ZW286HSP-TFP-522		✓	52.2	P43	P44
	ZW430HSP-TEP-522		✓	67.9	-	P44
	ZW520HSP-TEP-522	✓	95.8	P43	P44	

## Operating envelopes

ZW61KS, ZW79KS, ZW124KS, ZW125KS, ZW150KS(E)

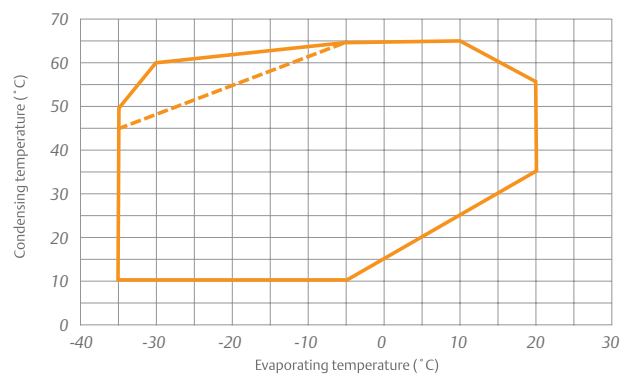
R22/R407C



Superheat 5K  
Discharge temperature with EVI: 115°C  
- - - Transition only

ZW258HSP, ZW286HSP

R410A



11K Superheat  
- - - Wet injection, Evaporating temperature below -25°C and running time less than 2000 hrs.

# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW61KS	Q	65	9.95	10.86	11.91	13.13	14.54	16.17	18.04	20.18	22.61	25.35
		55	8.85	9.91	11.12	12.51	14.09	15.90	17.95	20.28	22.90	25.84
		45	8.15	9.34	10.68	12.20	13.92	15.87	18.08	20.56	23.34	26.45
		35	7.74	9.01	10.45	12.07	13.91	15.97	18.29	20.90	23.81	
		25	7.46	8.80	10.30	12.00	12.90	16.05	18.46			
	P	65	5.79	5.82	5.88	5.95	6.03	6.10	6.17	6.22	6.23	6.21
		55	4.47	4.50	4.56	4.64	4.73	4.82	4.89	4.95	4.98	4.98
		45	3.51	3.54	3.59	3.67	3.76	3.86	3.94	4.01	4.05	4.05
		35	2.80	2.82	2.87	2.95	3.04	3.13	3.22	3.29	3.33	
		25	2.24	2.26	2.30	2.37	2.45	2.54	2.62			
ZW79KS	Q	65	12.11	13.64	15.25	16.98	18.87	20.97	23.32	25.97	28.95	32.31
		55	10.23	12.06	13.95	15.94	18.08	20.41	22.97	25.81	28.97	32.49
		45	9.24	11.26	13.32	15.48	17.75	20.21	22.87	25.80	29.03	32.60
		35	8.77	10.88	13.01	15.21	17.53	20.00	22.66	25.57	28.76	
		25	8.47	10.56	12.66	14.80	17.04	19.42	21.98			
	P	65	7.51	7.41	7.38	7.42	7.51	7.64	7.81	7.99	8.18	8.37
		55	5.86	5.80	5.82	5.88	6.00	6.14	6.31	6.48	6.65	6.81
		45	4.62	4.61	4.66	4.76	4.89	5.05	5.21	5.38	5.53	5.66
		35	8.77	10.88	13.01	15.21	17.53	20.00	22.66	25.57	28.76	
		25	2.77	2.86	2.99	3.15	3.33	3.50	3.67			
ZW108KS	Q	65		15.86	18.87	21.99	25.26	28.67	32.22	35.92	39.76	43.76
		55		15.42	18.66	21.82	25.28	28.64	32.20	35.88	39.66	43.55
		45		15.83	19.20	22.65	26.15	29.72	33.36	37.07	40.85	44.71
		35		16.23	19.90	27.31	27.31	31.05	34.83	38.64	42.48	
		25		15.75	19.77	27.76	27.76	31.74	35.72			
	P	65		9.83	10.02	10.32	10.32	10.40	10.43	10.39	10.39	10.10
		55		7.81	7.97	8.21	8.21	8.28	8.31	8.29	8.21	8.06
		45		6.33	6.45	6.64	6.64	6.71	6.74	6.73	6.68	6.56
		35		5.19	5.27	5.42	5.42	5.48	5.52	5.52	5.49	
		25		4.20	4.24	4.35	4.35	4.40	4.45			

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KS Heating capacity

R22 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW124KS	Q	65	17.86	19.98	22.53	25.52	28.92	32.74	36.95	41.55	46.54	51.90
		55	17.20	19.58	22.38	25.57	29.15	33.11	37.45	42.15	47.20	52.59
		45	17.06	19.63	22.58	25.90	29.59	33.62	38.01	42.72	47.76	53.12
		35	15.64	18.32	21.35	24.73	28.44	32.48	36.83	41.49	46.44	
		25	15.13	17.85	20.89	22.25	26.91	29.87	32.12	36.64		
	P	65	11.10	11.49	11.83	12.13	12.39	12.62	12.82	13.01	13.18	13.36
		55	8.86	9.22	9.54	9.81	10.05	10.26	10.46	10.64	10.82	11.00
		45	7.38	7.69	7.96	8.19	8.40	8.59	8.76	8.93	9.09	9.27
		35	6.13	6.38	6.59	6.77	6.93	7.07	7.21	7.34	7.48	
		25	5.59	5.76	5.90	6.02	6.11	6.20	6.29	6.37		
ZW125KS	Q	65	18.02	19.96	22.40	25.31	28.67	32.45	36.63	41.18	46.07	51.27
		55	16.90	19.15	21.86	25.02	28.60	32.57	36.91	41.58	46.58	51.86
		45	16.35	18.73	21.56	24.80	28.44	32.43	36.77	41.42	46.35	51.55
		35	15.95	18.32	21.10	24.26	27.79	31.65	35.82	40.27	44.98	
		25	15.32	17.50	20.07	22.99	26.25	29.81	33.65	37.75		
	P	65	10.74	10.87	11.04	11.24	11.46	11.7	11.95	12.21	12.46	12.71
		55	7.89	8.23	8.58	8.93	9.27	9.60	9.91	10.19	10.45	10.66
		45	6.14	6.60	7.03	7.44	7.81	8.14	8.42	8.65	8.81	8.91
		35	5.12	5.61	6.04	6.42	6.73	6.97	7.13	7.21	7.20	
		25	4.47	4.90	5.24	5.50	5.66	5.72	5.67	5.51		
ZW150KS	Q	65	19.42	23.37	27.31	31.35	35.59	40.11	45.00	50.38	56.32	62.93
		55	20.21	23.80	27.47	31.32	35.45	39.93	44.88	50.38	56.53	63.42
		45	20.04	23.41	26.94	30.73	34.87	39.45	44.58	50.33	56.82	64.13
		35	19.47	22.75	26.27	30.12	34.41	39.22	44.64	50.79	57.74	
		25	19.03	22.35	25.99	30.04	34.6	39.76	45.62	52.28		
	P	65	11.54	12.2	12.81	13.36	13.87	14.35	14.8	15.23	15.65	16.05
		55	9.62	10.15	10.64	11.09	11.53	11.94	12.34	12.74	13.14	13.55
		45	8.10	8.52	8.93	9.31	9.69	10.07	10.45	10.84	11.25	11.68
		35	6.81	7.15	7.49	7.83	8.18	8.54	8.92	9.33	9.78	
		25	5.56	5.85	6.15	6.47	6.81	7.18	7.59	8.04		

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW KSE Heating capacity

R407C 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C										
		-30	-25	-20	-15	-10	-5	0	5	10	15	
ZW150KSE	Q	65	16.31	20.07	24.08	28.39	33.02	38.03	43.46	49.35	55.75	62.69
		55	17.89	21.20	24.86	28.89	33.36	38.28	43.73	49.72	56.31	63.54
		45	17.90	20.94	24.42	28.37	32.84	37.87	43.51	49.78	56.75	64.45
		35	17.14	20.09	23.58	27.63	32.28	37.60	43.60	50.35	57.88	
		25	16.40	19.46	23.13	27.45	32.48	38.26	44.82	52.21		
	P	65	11.01	11.72	12.39	13.01	13.61	14.16	14.69	15.19	15.67	16.13
		55	9.04	9.64	10.21	10.74	11.24	11.72	12.17	12.60	13.02	13.42
		45	7.64	8.14	8.61	9.05	9.47	9.88	10.26	10.64	11.01	11.37
		35	6.46	6.86	7.25	7.62	7.97	8.31	8.64	8.97	9.30	
		25	5.17	5.49	5.80	6.10	6.40	6.68	6.97	7.26		

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# ZW HSP Heating capacity

R410A 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C												
		-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	
ZW258HSP	Q	65							38.20	42.21	46.76	51.93		
		55		22.07	24.64	27.41	30.45	33.84	37.65	41.95	46.82	52.32	58.54	65.54
		45	17.21	19.86	22.68	25.74	29.12	32.89	37.12	41.89	47.26	53.31	60.11	67.74
		35	16.25	18.94	21.85	25.05	28.60	32.59	37.08	42.14	47.85	54.29	61.51	69.61
		25	16.42	19.00	21.83	25.00	28.56	32.60	37.18	42.38	48.27	54.92	62.41	
	P	65							15.08	15.20	15.35	15.44		
		55		14.79	13.75	13.16	12.91	12.92	13.10	13.34	13.57	13.68	13.58	13.19
		45	12.02	10.17	9.75	9.66	9.82	10.12	10.48	10.80	10.99	10.96	10.61	9.86
		35	9.97	7.70	7.66	7.84	8.15	8.51	8.81	8.97	8.88	8.47	7.64	6.29
		25	7.99	6.38	6.47	6.68	6.91	7.08	7.09	6.84	6.25	6.22	6.66	
ZW286HSP	Q	65							42.27	47.4	53.06	59.03		
		55		30.49	30.01	31.16	33.68	37.33	41.87	47.06	52.65	58.41	64.08	69.43
		45	19.886	25.01	26.06	28.45	31.94	36.28	41.24	46.56	52.00	57.33	62.30	66.67
		35	18.232	20.90	23.48	27.12	31.58	36.61	41.98	47.43	52.73	57.63	61.89	65.27
		25	17.309	19.55	23.66	28.54	33.97	39.69	45.46	51.04	56.19	60.67	64.22	
	P	65							17.05	16.98	17.03	17.17		
		55		17.47	16.51	15.82	15.35	15.08	14.97	14.97	15.06	15.19	15.34	15.46
		45	10.744	12.60	12.13	11.85	11.73	11.71	11.78	11.89	12.01	12.09	12.11	12.03
		35	8.328	9.23	9.20	9.28	9.43	9.62	9.81	9.97	10.06	10.05	9.89	9.55
		25	7.333	7.26	7.61	7.99	8.36	8.70	8.97	9.13	9.13	8.96	8.57	
* ZW520HSP	Q	65							72.09	80.54	90.35	101.75		
		55		41.65	47.07	52.75	58.90	65.78	73.60	82.60	93.00	105.05	118.97	134.99
		45	34.87	40.64	46.54	52.80	59.64	67.31	76.03	86.04	97.56	110.82	126.06	143.51
		35	32.63	38.66	44.93	51.66	59.09	67.44	76.95	87.84	100.36	114.73	131.18	149.95
		25	28.63	34.82	41.34	48.43	56.32	65.25	75.43	87.11	100.52	115.88	133.43	
	P	65							29.92	29.90	29.95	30.11		
		55		25.97	26.10	26.15	26.15	26.12	26.11	26.13	26.23	26.43	26.76	27.25
		45	19.82	20.17	20.41	20.56	20.66	20.73	20.82	20.94	21.13	21.42	21.85	22.44
		35	15.55	16.02	16.37	16.64	16.85	17.04	17.24	17.47	17.77	18.17	18.70	19.39
		25	11.24	11.84	12.32	12.72	13.06	13.37	13.69	14.05	14.47	14.99	15.64	

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

\*Preliminary data

# Specifications 50 Hz

## ZW KS

R22

ZW Series		ZW61KS	ZW79KS	ZW108KS	ZW124KS	ZW125KS	ZW150KS
Nominal power	HP	5	7	9	10	10	13
Motor type		TFP					
Displacement	m <sup>3</sup> /hr	14.4	18.8	24.9	29.2	29.1	35.3
Refrigerant		R22					
Heating capacity	kW	20.3	25.8	35.9	42.62	41.6	50.4
Input power	kW	5.0	6.5	8.3	10.59	10.2	12.7
Current	A	8.5	11.9	16.1	21.42	18.6	24.8
Mass flow	g/s	88.2	110.6	154	174.08	173.5	210.4
Locked rotor amps	A	59.0	90.5	133.0	155.0	133.0	157.0
Rated load current	A	10.1	12.1	19.3	20.4	20.1	25.6
Max continuous current	A	14.2	17.0	27.0	28.6	28.1	35.8
Max operating current	A	11.8	13.6	20.5	26.8	27.2	31.5
Oil charge	Initial	L	1.57	1.89	3.25	3.25	3.37
	Replacement refill	L	1.45	1.77	3.14	3.2	3.25
Net weight	kg	30	41	60	62	60	65

Conditions: ET 5 °C, CT 55 °C  
Superheat 11K, Subcooling 8.3K

## ZW KSE

R407C

## ZW HSP

R410A

ZW Series		ZW150KSE	
Nominal power	HP	13	
Motor type		TFP	
Displacement	m <sup>3</sup> /hr	35.3	
Refrigerant		R407C	
Heating capacity	kW	49.8	
Input power	kW	12.6	
Current	A	24.5	
Mass flow	g/s	204	
Locked rotor amps	A	157	
Rated load current	A	26.6	
Max continuous current	A	37.3	
Max operating current	A	31.4	
Oil charge	Initial	L	3.37
	Replacement refill	L	3.25
Net weight	kg	65	

Conditions: ET 5 °C, CT 55 °C  
Superheat 11K, Subcooling 8.3K

ZW Series		ZW258HSP	ZW286HSP	*ZW430HSP	*ZW520HSP
Nominal power	HP	11	13	20	25
Motor type		TFP		TEP	
Displacement	m <sup>3</sup> /hr	21.6	24.9	36.58	45.73
Refrigerant		R410A			
Heating capacity	kW	47.4	52.2	67.94	95.76
Input power	kW	12.0	13.4	17.61	24.05
Current	A	24.8	25.5	33.8	42.7
Mass flow	g/s	188.1	218.0	330.1	415.6
Locked rotor amps	A	156	174.0	255.5	273.8
Rated load current	A	21.1	27.7	44.29	46.10
Max continuous current	A	29.5	38.8	62.0	64.5
Max operating current	A	30.6	33.0	42.2	52.7
Oil charge	Initial	L	3.3	3.37	4.44
	Replacement refill	L	3.2	3.25	4.2
Net weight	kg	65	65	91.6	91.6

Conditions: ET 5 °C, CT 55 °C  
Superheat 11K, Subcooling 8.3K  
\*Preliminary data

# Industrial heating



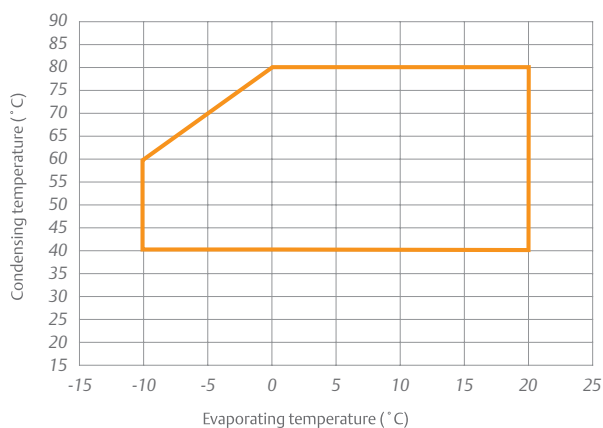
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R134a	ZWD61KAE-TFD-532	3 $\Phi$ /380-420 V/50 Hz, 3 $\Phi$ /460 V/60 Hz		12.2	P47	P51
	ZWD72KAE-TFD-532			14.7	P47	P51
	ZWD81KAE-TFD-532			16.1	P47	P51
	ZWD61KBE-TFP-532	3 $\Phi$ /380 V/50 Hz		13.0	P48	P52
	ZWD72KBE-TFP-532			15.5	P48	P52
	ZWD81KBE-TFP-532			16.6	P48	P52
	ZW61KBE-TFP-522			13.0	P49	P52
	ZW72KBE-TFP-522			15.5	P49	P52
	ZW79KBE-TFP-522			16.6	P49	P52
	ZW125KBE-TFP-522			29.1	P50	P52
	ZW150KBE-TFP-522			35.3	P50	P52
	ZW79KAE-TFP-522			16.1	P46	P51
	ZW79KSE-TFP-522			√	17.4	P46
	ZW72KSE-TF7-522	3 $\Phi$ /380 V/60 Hz	√	20.4	P51	P52

## Operating envelopes

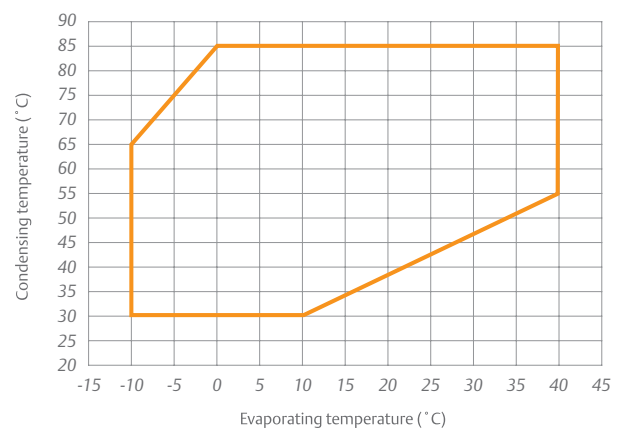
ZW79KAE, ZW79KSE,  
ZWD61KAE, ZWD72KAE,  
ZWD81KAE

R134a



ZW61KBE, ZW72KBE, ZW79KBE,  
ZW125KBE, ZW150KBE, ZWD61KBE,  
ZWD72KBE, ZWD81KBE

R134a



# ZW KSE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C							
		-10	-5	0	5	10	15	20	
ZW79KSE	Q	80			15.17	16.78	18.65	20.83	23.35
		75			15.06	16.80	18.83	21.18	23.89
		70		13.41	15.02	16.89	19.07	21.59	24.49
		65		13.32	15.03	17.03	19.36	22.05	25.14
		60	11.72	13.27	15.09	17.22	19.69	22.54	25.82
		55	11.62	13.26	15.18	17.42	20.04	23.05	26.51
		50	11.54	13.25	15.27	17.64	20.39	23.57	27.20
		45	11.46	13.25	15.37	17.85	20.74	24.07	27.88
	40	11.38	13.24	15.45	18.04	21.06	24.55	28.53	
	P	80			6.39	6.53	6.70	6.88	7.07
		75			5.81	5.97	6.15	6.33	6.51
		70		5.18	5.33	5.50	5.67	5.84	5.99
		65		4.77	4.93	5.08	5.23	5.38	5.50
		60	4.27	4.41	4.56	4.69	4.81	4.91	4.98
		55	3.96	4.08	4.19	4.29	4.37	4.41	4.43
		50	3.65	3.74	3.81	3.86	3.87	3.85	3.79
45		3.31	3.35	3.37	3.36	3.30	3.20	3.05	
40	2.91	2.90	2.85	2.76	2.62	2.43	2.17		

Note: Superheat 11K, Subcooling 8.3K

# ZW KAE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C							
		-10	-5	0	5	10	15	20	
ZW79KAE	Q	80			12.58	14.40	16.52	18.97	21.75
		75			12.72	14.67	16.95	19.55	22.50
		70		11.12	12.91	14.99	17.40	20.15	23.25
		65		11.24	13.14	15.35	17.88	20.77	24.01
		60	9.72	11.41	13.41	15.72	18.38	21.39	24.76
		55	9.84	11.61	13.70	16.11	18.88	22.00	25.50
		50	9.99	11.83	14.00	16.51	19.37	22.60	26.21
		45	10.16	12.07	14.31	16.90	19.84	23.17	26.89
	40	10.35	12.31	14.62	17.27	20.29	23.70	27.51	
	P	80			5.83	6.03	6.24	6.45	6.65
		75			5.33	5.54	5.75	5.96	6.15
		70		4.69	4.88	5.09	5.31	5.51	5.68
		65		4.28	4.48	4.69	4.89	5.08	5.23
		60	3.75	3.92	4.12	4.32	4.51	4.68	4.81
		55	3.44	3.61	3.80	3.98	4.16	4.30	4.39
		50	3.17	3.34	3.51	3.68	3.82	3.93	3.99
45		2.95	3.10	3.25	3.40	3.51	3.59	3.60	
40	2.77	2.90	3.03	3.14	3.22	3.25	3.22		

Note: Superheat 11K, Subcooling 8.3K



# ZWD KAE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380-420V

Model	Condensing temperature °C	Evaporating temperature °C							
		-10	-5	0	5	10	15	20	
ZWD61KAE	Q	80			8.55	9.07	11.83	13.84	15.15
		75			9.06	10.56	12.27	14.24	16.49
		70		8.29	9.87	11.44	13.25	15.33	17.71
		65		8.65	10.08	11.72	13.60	15.76	18.24
		60	7.15	8.03	10.24	11.96	13.94	16.20	18.78
		55	7.43	8.83	10.42	12.24	14.32	16.70	19.41
		50	7.47	8.97	10.67	12.60	14.81	17.32	20.18
		45	7.61	9.22	11.04	13.11	15.46	18.13	21.14
	40	7.90	9.65	11.61	13.83	16.34	19.17	22.37	
	P	80			4.47	4.62	4.81	5.02	5.21
		75			4.21	4.35	4.53	4.76	5.01
		70		3.65	3.76	3.88	4.02	4.16	4.30
		65		3.34	3.45	3.56	3.68	3.79	3.89
		60	2.62	2.29	3.12	3.24	3.35	3.44	3.50
		55	2.54	2.69	2.84	2.97	3.07	3.15	3.21
		50	2.27	2.46	2.64	2.79	2.89	2.95	3.01
45		2.10	2.35	2.57	2.74	2.85	2.91	2.96	
40	2.10	2.41	2.66	2.86	2.99	3.05	3.08		
ZWD72KAE	Q	80			11.94	13.71	15.71	18.01	20.65
		75			12.07	13.81	15.95	18.26	21.08
		70		10.33	12.15	13.98	16.06	18.46	21.24
		65		10.69	12.34	14.23	16.40	18.92	21.85
		60	9.38	11.02	12.51	14.48	16.76	19.41	22.50
		55	9.37	10.91	12.68	14.74	17.14	19.95	23.21
		50	9.41	11.01	12.86	15.03	17.57	20.54	23.99
		45	9.46	11.12	13.07	15.36	18.05	21.20	24.86
	40	9.51	11.26	13.31	15.74	18.60	21.94	25.83	
	P	80			5.55	5.57	5.59	5.60	5.62
		75			5.26	5.28	5.30	5.32	5.35
		70		5.01	5.02	5.03	5.04	5.05	5.07
		65		4.53	4.54	4.54	4.55	4.56	4.59
		60	4.17	4.31	4.10	4.11	4.12	4.14	4.18
		55	3.69	3.70	3.71	3.72	3.74	3.77	3.83
		50	3.32	3.33	3.34	3.36	3.40	3.45	3.54
45		2.97	2.99	3.01	3.04	3.10	3.18	3.29	
40	2.63	2.66	2.70	2.75	2.83	2.94	3.08		
ZWD81KAE	Q	80			12.58	14.40	16.52	18.97	21.75
		75			12.71	14.67	16.95	19.55	22.50
		70		11.12	12.90	14.99	17.40	20.15	23.25
		65		11.24	13.14	15.35	17.88	20.77	24.01
		60	9.72	11.41	13.41	15.72	18.38	21.39	24.76
		55	9.84	11.61	13.70	16.11	18.88	22.00	25.50
		50	9.99	11.83	14.00	16.51	19.37	22.60	26.21
		45	10.16	12.07	14.31	16.90	19.84	23.17	26.89
	40	10.35	12.31	14.62	17.27	20.29	23.70	27.51	
	P	80			5.83	6.03	6.24	6.45	6.65
		75			5.33	5.54	5.75	5.96	6.15
		70		4.69	4.88	5.09	5.31	5.51	5.68
		65		4.28	4.48	4.69	4.89	5.08	5.23
		60	3.75	3.92	4.12	4.32	4.51	4.68	4.81
		55	3.44	3.61	3.79	3.98	4.15	4.30	4.39
		50	3.17	3.33	3.51	3.68	3.82	3.93	3.99
45		2.95	3.10	3.25	3.40	3.51	3.59	3.60	
40	2.77	2.90	3.03	3.14	3.22	3.25	3.22		

Note: Superheat 11K, Subcooling 8.3K

# ZWD KBE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C											
		-10	-5	0	5	10	15	20	25	30	35	40	
* ZWD61KBE	Q	85			9.16	10.68	12.33	14.15	16.20	18.52	21.16	24.16	27.58
		80			9.40	10.95	12.66	14.57	16.73	19.20	22.01	25.21	28.86
		75			9.67	11.27	13.04	15.05	17.35	19.97	22.96	26.38	30.27
		70		8.49	9.97	11.62	13.48	15.60	18.03	20.82	24.01	27.66	31.81
		65	7.31	8.74	10.26	11.98	13.95	16.20	18.79	21.77	25.18	29.07	33.49
		60	7.59	8.99	10.56	12.35	14.42	16.80	19.55	22.71	26.34	30.48	35.18
		50	7.87	9.35	11.06	13.05	15.37	18.06	21.18	24.77	28.88		
	40	7.85	9.46	11.36	13.59	16.21	19.27	22.81					
	P	85			4.86	5.05	5.24	5.43	5.63	5.83	6.03	6.23	6.44
		80			4.52	4.70	4.87	5.05	5.23	5.41	5.60	5.78	5.98
		75			4.20	4.37	4.53	4.70	4.86	5.03	5.19	5.36	5.54
		70		3.74	3.90	4.06	4.21	4.36	4.51	4.66	4.82	4.97	5.13
		65	3.35	3.49	3.64	3.78	3.93	4.07	4.20	4.34	4.48	4.62	4.76
		60	3.09	3.23	3.38	3.51	3.64	3.77	3.89	4.02	4.14	4.27	4.39
50		2.67	2.80	2.93	3.05	3.16	3.27	3.37	3.47	3.57			
40	2.33	2.45	2.56	2.67	2.76	2.85	2.94						
* ZWD72KBE	Q	85			10.90	12.71	14.68	16.85	19.29	22.05	25.19	28.77	32.83
		80			11.19	13.04	15.07	17.34	19.92	22.85	26.20	30.01	34.36
		75			11.52	13.41	15.53	17.92	20.65	23.77	27.33	31.41	36.04
		70		10.10	11.87	13.83	16.04	18.57	21.46	24.78	28.59	32.93	37.86
		65	8.59	10.40	12.22	14.27	16.60	19.28	22.37	25.91	29.97	34.61	39.87
		60	9.04	10.70	12.57	14.70	17.16	20.00	23.27	27.04	31.36	36.29	41.88
		50	9.37	11.13	13.17	15.53	18.29	21.50	25.22	29.49	34.39		
	40	9.35	11.26	13.52	16.18	19.30	22.94	27.16					
	P	85			5.96	6.20	6.44	6.67	6.91	7.15	7.40	7.65	7.92
		80			5.55	5.77	5.99	6.20	6.42	6.65	6.87	7.10	7.34
		75			5.16	5.36	5.56	5.77	5.97	6.17	6.38	6.59	6.80
		70		4.60	4.79	4.98	5.17	5.36	5.54	5.73	5.91	6.11	6.30
		65	4.10	4.29	4.47	4.65	4.82	4.99	5.16	5.33	5.50	5.67	5.85
		60	3.79	3.97	4.15	4.31	4.47	4.63	4.78	4.93	5.09	5.24	5.40
50		3.28	3.44	3.60	3.74	3.88	4.01	4.14	4.26	4.38			
40	2.86	3.01	3.15	3.27	3.39	3.50	3.60						
* ZWD81KBE	Q	85			11.68	13.62	15.73	18.06	20.67	23.63	27.00	30.83	35.19
		80			11.99	13.97	16.15	18.59	21.35	24.49	28.08	32.17	36.82
		75			12.34	14.37	16.64	19.21	22.13	25.47	29.29	33.66	38.62
		70		10.83	12.72	14.82	17.19	19.90	23.00	26.56	30.63	35.29	40.58
		65	9.20	11.15	13.09	15.29	17.79	20.67	23.97	27.77	32.12	37.09	42.73
		60	9.69	11.47	13.47	15.76	18.39	21.43	24.94	28.98	33.61	38.89	44.88
		50	10.05	11.93	14.11	16.65	19.61	23.04	27.02	31.61	36.85		
	40	10.02	12.07	14.49	17.34	20.69	24.59	29.10					
	P	85			6.14	6.38	6.62	6.87	7.11	7.36	7.62	7.88	8.15
		80			5.71	5.93	6.16	6.39	6.61	6.84	7.07	7.31	7.55
		75			5.31	5.52	5.73	5.93	6.14	6.35	6.56	6.78	7.00
		70		4.73	4.93	5.13	5.32	5.51	5.70	5.89	6.09	6.28	6.48
		65	4.22	4.41	4.60	4.78	4.96	5.14	5.31	5.49	5.66	5.84	6.02
		60	3.90	4.09	4.27	4.44	4.60	4.76	4.92	5.08	5.23	5.39	5.55
50		3.38	3.54	3.70	3.85	3.99	4.13	4.26	4.38	4.51			
40	2.94	3.10	3.24	3.37	3.49	3.60	3.71						

Note: Superheat 5K, Subcooling 10K

\*Preliminary data

# ZW KBE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C											
		-10	-5	0	5	10	15	20	25	30	35	40	
* ZW61KBE	Q	85			9.16	10.68	12.33	14.15	16.20	18.52	21.16	24.16	27.58
		80			9.40	10.95	12.66	14.57	16.73	19.20	22.01	25.21	28.86
		75			9.67	11.27	13.04	15.05	17.35	19.97	22.96	26.38	30.27
		70		8.49	9.97	11.62	13.48	15.60	18.03	20.82	24.01	27.66	31.81
		65	7.31	8.74	10.26	11.98	13.95	16.20	18.79	21.77	25.18	29.07	33.49
		60	7.59	8.99	10.56	12.35	14.42	16.80	19.55	22.71	26.34	30.48	35.18
		50	7.87	9.35	11.06	13.05	15.37	18.06	21.18	24.77	28.88		
		40	7.85	9.46	11.36	13.59	16.21	19.27	22.81				
	P	85			4.86	5.05	5.24	5.43	5.63	5.83	6.03	6.23	6.44
		80			4.52	4.70	4.87	5.05	5.23	5.41	5.60	5.78	5.98
		75			4.20	4.37	4.53	4.70	4.86	5.03	5.19	5.36	5.54
		70		3.74	3.90	4.06	4.21	4.36	4.51	4.66	4.82	4.97	5.13
		65	3.35	3.49	3.64	3.78	3.93	4.07	4.20	4.34	4.48	4.62	4.76
		60	3.09	3.23	3.38	3.51	3.64	3.77	3.89	4.02	4.14	4.27	4.39
50		2.67	2.80	2.93	3.05	3.16	3.27	3.37	3.47	3.57			
40		2.33	2.45	2.56	2.67	2.76	2.85	2.94					
* ZW72KBE	Q	85			10.90	12.71	14.68	16.85	19.29	22.05	25.19	28.77	32.83
		80			11.19	13.04	15.07	17.34	19.92	22.85	26.20	30.01	34.36
		75			11.52	13.41	15.53	17.92	20.65	23.77	27.33	31.41	36.04
		70		10.10	11.87	13.83	16.04	18.57	21.46	24.78	28.59	32.93	37.86
		65	8.59	10.40	12.22	14.27	16.60	19.28	22.37	25.91	29.97	34.61	39.87
		60	9.04	10.70	12.57	14.70	17.16	20.00	23.27	27.04	31.36	36.29	41.88
		50	9.37	11.13	13.17	15.53	18.29	21.50	25.22	29.49	34.39		
		40	9.35	11.26	13.52	16.18	19.30	22.94	27.16				
	P	85			5.96	6.20	6.44	6.67	6.91	7.15	7.40	7.65	7.92
		80			5.55	5.77	5.99	6.20	6.42	6.65	6.87	7.10	7.34
		75			5.16	5.36	5.56	5.77	5.97	6.17	6.38	6.59	6.80
		70		4.60	4.79	4.98	5.17	5.36	5.54	5.73	5.91	6.11	6.30
		65	4.10	4.29	4.47	4.65	4.82	4.99	5.16	5.33	5.50	5.67	5.85
		60	3.79	3.97	4.15	4.31	4.47	4.63	4.78	4.93	5.09	5.24	5.40
50		3.28	3.44	3.60	3.74	3.88	4.01	4.14	4.26	4.38			
40		2.86	3.01	3.15	3.27	3.39	3.50	3.60					
* ZW79KBE	Q	85			11.68	13.62	15.73	18.06	20.67	23.63	27.00	30.83	35.19
		80			11.99	13.97	16.15	18.59	21.35	24.49	28.08	32.17	36.82
		75			12.34	14.37	16.64	19.21	22.13	25.47	29.29	33.66	38.62
		70		10.83	12.72	14.82	17.19	19.90	23.00	26.56	30.63	35.29	40.58
		65	9.20	11.15	13.09	15.29	17.79	20.67	23.97	27.77	32.12	37.09	42.73
		60	9.69	11.47	13.47	15.76	18.39	21.43	24.94	28.98	33.61	38.89	44.88
		50	10.05	11.93	14.11	16.65	19.61	23.04	27.02	31.61	36.85		
		40	10.02	12.07	14.49	17.34	20.69	24.59	29.10				
	P	85			6.14	6.38	6.62	6.87	7.11	7.36	7.62	7.88	8.15
		80			5.71	5.93	6.16	6.39	6.61	6.84	7.07	7.31	7.55
		75			5.31	5.52	5.73	5.93	6.14	6.35	6.56	6.78	7.00
		70		4.73	4.93	5.13	5.32	5.51	5.70	5.89	6.09	6.28	6.48
		65	4.22	4.41	4.60	4.78	4.96	5.14	5.31	5.49	5.66	5.84	6.02
		60	3.90	4.09	4.27	4.44	4.60	4.76	4.92	5.08	5.23	5.39	5.55
50		3.38	3.54	3.70	3.85	3.99	4.13	4.26	4.38	4.51			
40		2.94	3.10	3.24	3.37	3.49	3.60	3.71					

Note: Superheat 5K, Subcooling 10K

\*Preliminary data

# ZWD KBE Heating capacity

R134a 50 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C											
		-10	-5	0	5	10	15	20	25	30	35	40	
* ZW125KBE	Q	85			18.17	21.19	24.46	28.08	32.15	36.75	41.98	47.94	54.72
		80			18.65	21.73	25.11	28.91	33.20	38.09	43.66	50.02	57.26
		75			19.19	22.35	25.88	29.87	34.42	39.61	45.56	52.34	60.06
		70		16.84	19.78	23.05	26.74	30.95	35.77	41.31	47.64	54.88	63.11
		65	14.31	17.34	20.36	23.78	27.67	32.14	37.28	43.19	49.95	57.68	66.45
		60	15.07	17.84	20.95	24.51	28.60	33.33	38.79	45.07	52.27	60.48	69.79
		50	15.62	18.55	21.94	25.89	30.49	35.84	42.03	49.15	57.31		
	40	15.58	18.77	22.53	26.97	32.17	38.24	45.26					
	P	85			9.14	9.50	9.87	10.23	10.60	10.97	11.35	11.73	12.13
		80			8.50	8.84	9.18	9.51	9.85	10.19	10.54	10.89	11.25
		75			7.90	8.22	8.53	8.84	9.15	9.46	9.78	10.10	10.43
		70		7.05	7.35	7.64	7.93	8.21	8.50	8.78	9.07	9.36	9.66
		65	6.29	6.57	6.85	7.12	7.39	7.65	7.91	8.17	8.43	8.69	8.96
		60	5.81	6.09	6.35	6.61	6.85	7.09	7.33	7.56	7.80	8.03	8.27
50		5.03	5.28	5.51	5.74	5.95	6.15	6.34	6.53	6.72			
40	4.38	4.61	4.82	5.02	5.20	5.37	5.53						
* ZW150KBE	Q	85			21.86	25.50	29.44	33.80	38.69	44.23	50.52	57.70	65.86
		80			22.44	26.15	30.22	34.79	39.95	45.83	52.55	60.20	68.91
		75			23.10	26.90	31.15	35.95	41.42	47.67	54.83	62.99	72.28
		70		20.26	23.80	27.73	32.18	37.25	43.05	49.71	57.34	66.04	75.95
		65	17.22	20.86	24.51	28.61	33.30	38.68	44.87	51.97	60.12	69.41	79.97
		60	18.14	21.46	25.21	29.49	34.42	40.11	46.68	54.24	62.90	72.78	83.99
		50	18.80	22.33	26.41	31.16	36.69	43.13	50.58	59.15	68.97		
	40	18.75	22.58	27.12	32.46	38.72	46.02	54.47					
	P	85			11.01	11.45	11.89	12.32	12.77	13.21	13.67	14.14	14.62
		80			10.24	10.65	11.05	11.46	11.87	12.28	12.69	13.12	13.56
		75			9.52	9.90	10.28	10.65	11.02	11.40	11.78	12.17	12.56
		70		8.49	8.85	9.21	9.55	9.89	10.24	10.58	10.92	11.27	11.63
		65	7.57	7.91	8.25	8.58	8.90	9.22	9.53	9.84	10.16	10.47	10.80
		60	7.00	7.34	7.66	7.96	8.26	8.55	8.83	9.11	9.39	9.68	9.96
50		6.06	6.36	6.64	6.91	7.16	7.41	7.64	7.87	8.09			
40	5.28	5.56	5.81	6.04	6.26	6.47	6.66						

Note: Superheat 5K, Subcooling 10K

\*Preliminary data

# ZW KSE Heating capacity

R134a 60 Hz

Q = Heating capacity (kW) P = Input power (kW) Three phase

380V

Model	Condensing temperature °C	Evaporating temperature °C						
		-10	-5	0	5	10	15	
ZW72KSE	Q	75			17.92	20.21	22.62	25.07
		70			17.82	20.23	22.78	25.40
		65		15.52	17.76	20.28	22.96	25.73
		60	13.46	15.40	17.72	20.34	23.15	26.05
		55	13.31	15.30	17.69	20.39	23.31	26.36
		50	13.17	15.20	17.65	20.43	23.46	26.63
		40	12.87	14.94	17.49	20.41	23.62	27.01
		30	12.45	14.53	17.14	20.16	23.51	
	P	75			6.76	7.01	7.22	7.40
		70			6.15	6.37	6.57	6.74
		65		5.37	5.59	5.79	5.97	6.15
		60	4.69	4.88	5.07	5.25	5.43	5.61
		55	4.28	4.43	4.59	4.76	4.94	5.13
		50	3.89	4.01	4.16	4.32	4.50	4.71
	40	3.19	3.27	3.39	3.55	3.76	4.02	
	30	2.56	2.62	2.74	2.93	3.19		

Note: Superheat 11K, Subcooling 8.3K

EVI Controls:

DLT<115°C, Economizer superheat 6K

DLT>115°C, Adjust the injection volume to control discharge temperature ≤115°C

# Specifications 50 Hz

## ZW(D) KSE KAE

R134a

ZW Series		ZW79KSE	ZW79KAE	ZWD61KAE	ZWD72KAE	ZWD81KAE
Nominal power	HP	7	7	5	6	7
Motor type		TFP		TFD		
Displacement	m³/hr	18.8	18.8	14.4	17.1	18.8
Refrigerant		R134a				
Heating capacity	kW	17.4	16.1	12.2	14.7	16.1
Input power	kW	4.3	4.0	3.0	3.7	4.0
Current	A	10.8	8.8	6.0	9.0	8.8
Mass flow	g/s	83.7	83.5	63.7	75.8	83.5
Locked rotor amps	A	90.5	100	64.0	70.0	100.0
Rated load current	A	14.6	12.1	10.0	10.0	12.1
Max continuous current	A	20.5	17.0	14.0	14.0	17.0
Max operating current	A	14.6	15.0	11.0	12.5	12.1
Oil charge	Initial	L	1.89	1.89	1.89	1.89
	Replacement refill	L	1.77	1.77	1.77	1.77
Net weight	kg	41	41	38	40	41

Conditions: ET 5°C, CT 55°C, Superheat 11K, Subcooling 8.3K

# Specifications 50 Hz

## ZW KBE

## R134a

ZW Series		*ZW61KBE	*ZW72KBE	*ZW79KBE	*ZW125KBE	*ZW150KBE
Nominal power	HP	5	6	7	10	12
Motor type		TFP				
Displacement	m <sup>3</sup> /hr	14.4	17.1	18.8	29.1	35.3
Refrigerant		R134a				
Heating capacity	kW	13.0	15.5	16.6	25.9	31.2
Input power	kW	4.5	5.6	5.7	8.5	10.3
Current	A	9.4	11.5	11.8	17.4	21.2
Mass flow	g/s	72.3	84.3	98	153.3	184.7
Locked rotor amps	A	64	74	100	133	157
Rated load current	A	11.5	11.9	12.7	23.1	25.5
Max continuous current	A	15.3	15.8	17.0	30.8	34.03
Max operating current	A	12.8	12.5	15.3	22.17	30.03
Oil charge	Initial	L	1.89	1.89	3.25	3.37
	Replacement refill	L	1.77	1.77	3.14	3.25
Net weight	kg	38	40	41	59.9	64.9

Conditions: ET 10 °C, CT 75 °C, Superheat 5K, Subcooling 10K  
\*Preliminary data

# Specifications 60 Hz

## ZW KBE

## R134a

## ZW KS(E)

## R134a

ZW Series		*ZWD61KBE	*ZWD72KBE	*ZWD81KBE
Nominal power	HP	5	6	7
Motor type		TFP		
Displacement	m <sup>3</sup> /hr	14.4	17.1	18.8
Refrigerant		R134a		
Heating capacity	kW	13.0	15.5	16.6
Input power	kW	4.5	5.6	5.7
Current	A	9.4	11.5	11.8
Mass flow	g/s	72.3	84.3	98
Locked rotor amps	A	64	74	100
Rated load current	A	11.5	11.9	12.7
Max continuous current	A	15.3	15.8	17.0
Max operating current	A	12.8	12.5	15.3
Oil charge	Initial	L	1.89	1.89
	Replacement refill	L	1.77	1.77
Net weight	kg	38	40	41

ZW Series		ZW72KSE
Nominal power	HP	6
Motor type		TF7
Displacement	m <sup>3</sup> /hr	20.6
Refrigerant		R134a
Heating capacity	kW	20.4
Input power	kW	4.8
Current	A	8.8
Mass flow	g/s	92.6
Locked rotor amps	A	94.3
Rated load current	A	12.5
Max continuous current	A	17.5
Max operating current	A	12.7
Oil charge	Initial	L
	Replacement refill	L
Net weight	kg	40

Conditions: ET 10 °C, CT 75 °C, Superheat 5K, Subcooling 10K  
\*Preliminary data

Conditions: ET 5 °C, CT 55 °C  
Superheat 11K, Subcooling 8.3K

## General information

Technical data are correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson clearly stating the information required.

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