

# Copeland™ Scroll ZW Compressor for Heat Pump Water Heating



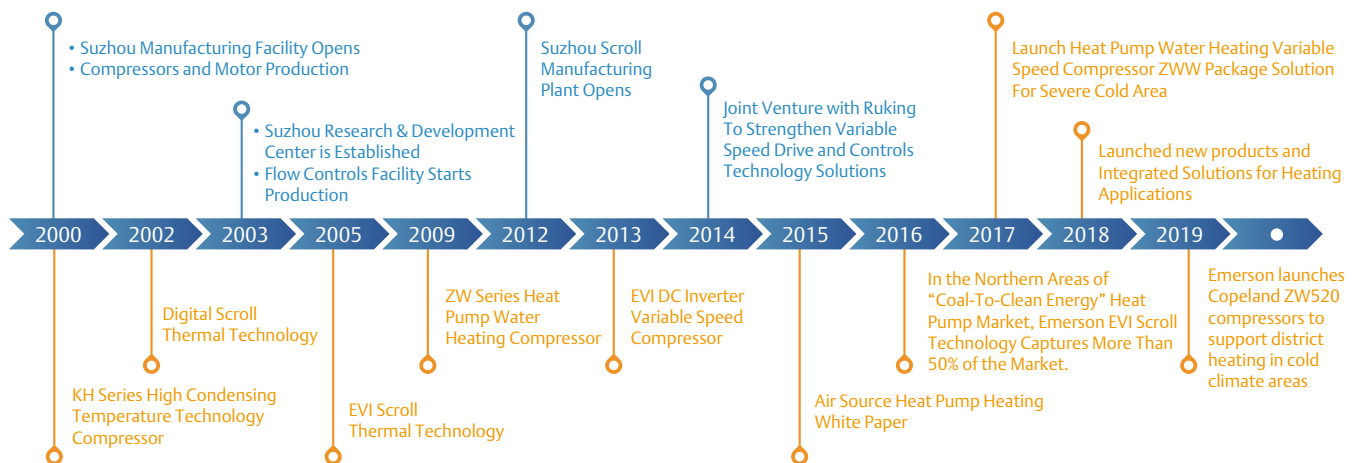
Product catalogue

**COPELAND™**

  
**EMERSON™**



## Over 10 years of heat pump technology and expertise



### Our Mission:

Ensuring Human Comfort and Health

Protecting Food Quality and Sustainability

Advancing Energy Efficiency and Environmental Conservation

Creating Sustainable Infrastructure

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# Copeland™ Scroll ZW for heat pump water heating



Compared to electric heaters or coal-fired boilers, Copeland ZW heat pump compressors provide higher energy efficiency ratios for residential hot water and comfort heating. From sanitary heating, residential space heating, agricultural drying and other industrial heating applications, Emerson, with experience of producing over 100 million scroll compressors is world renowned for efficiency and reliability.

Copeland ZW heat pump compressors employ EVI technology to create a strong “core” for any heating system. EVI technology effectively expands the operating ranges for heat pumps with an ambient temperature range of -30°C and increasing energy efficiency by 22%. Hot water temperatures of up to 85°C are achievable for residential heating and even meets the industrial application requirements.

Copeland ZW heat pump compressors are uniquely designed with higher compression ratios and larger pressure difference, allowing for systems to operate under wider conditions compared to ordinary heat pump or air-conditioning compressors. Equipped with high-efficiency and high-power motors, ZW compressors meet the toughest challenges for heat pumps and water heaters even in the harshest ambient conditions. The flexibility of ZW compressors allows for installation in tandems to meet greater heating requirements.



Copeland ZW digital scroll compressors utilize axial compliance allows the fixed scroll to move vertically, by a very small amount, to ensure that the scrolls are always radially loaded with optimal force. This holds the two scrolls together, at all operating conditions, ensuring high efficiency. When the Copeland Digital Scroll is operating in normal “Loaded” mode the compressor behaves just like a standard scroll compressor providing 100% capacity. Within a certain period (such as 15 seconds) the output capacity is the sum of the average time of the loading and unloading state. By altering the loading and unloading time, it realizes the stepless adjustment of 10-100% of the compressor capacity to achieve precise 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



## Food drying



## District heating



## Print drying



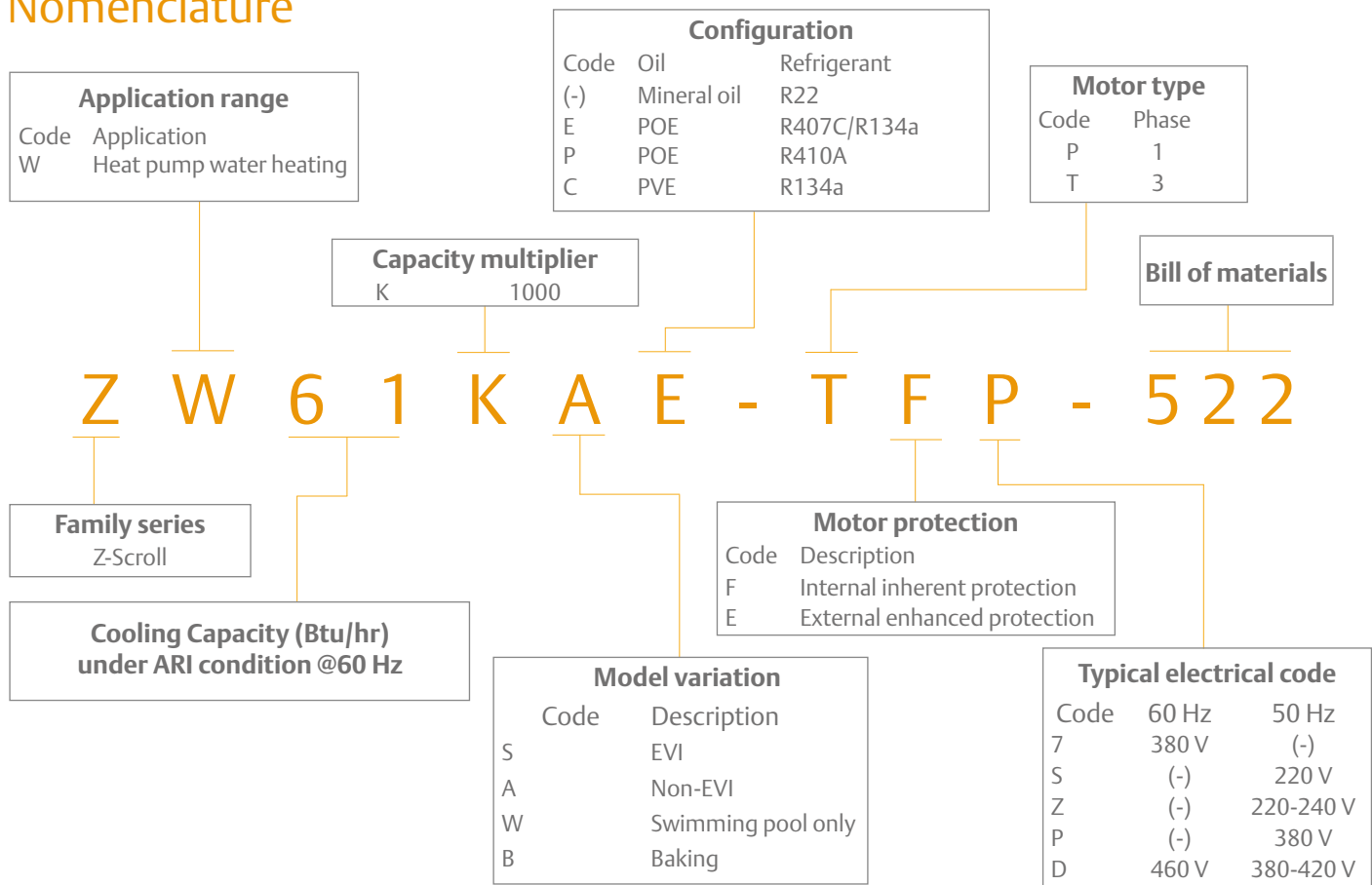
# The advantages of Emerson Copeland™ Scroll ZW

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

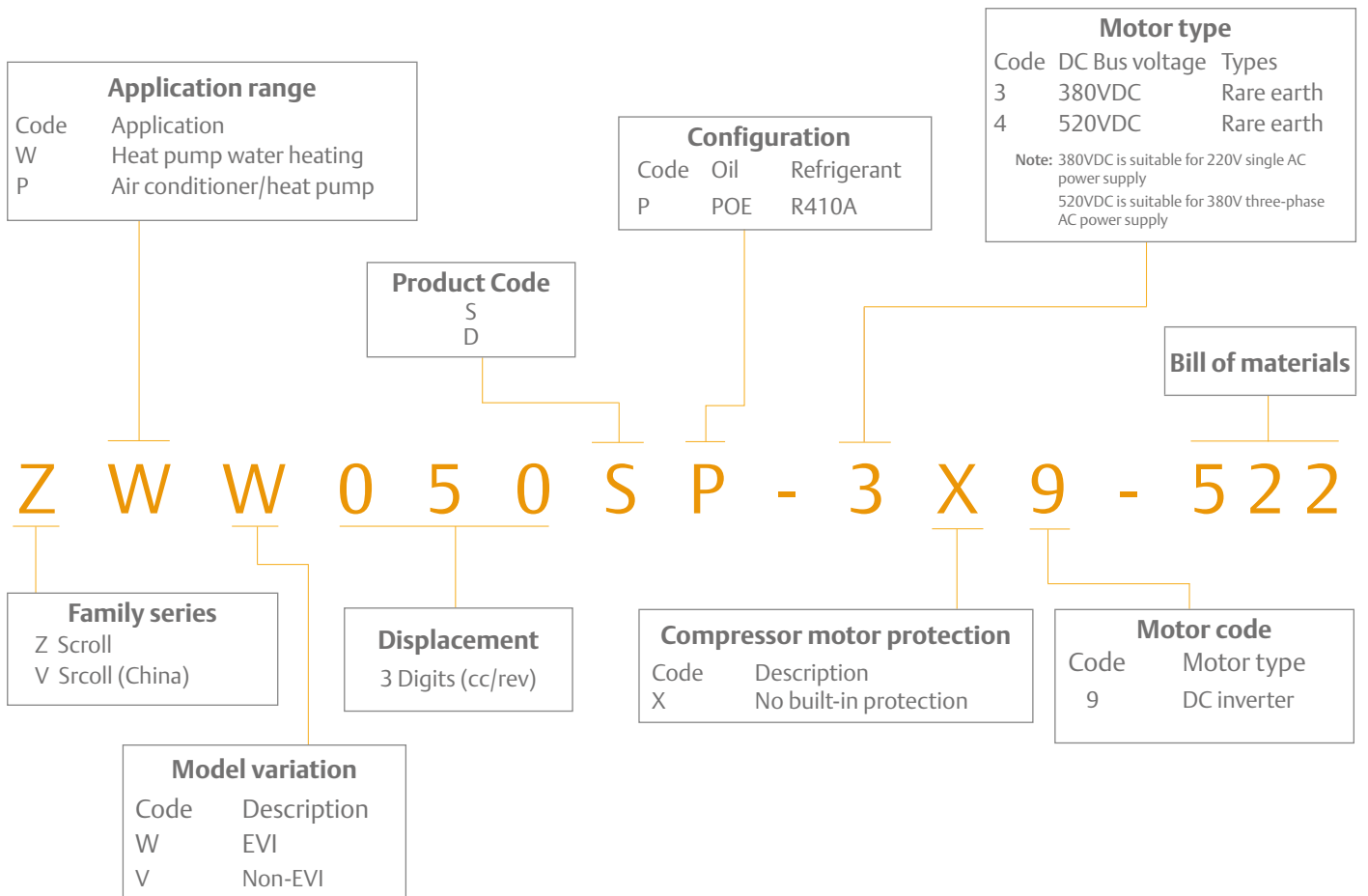
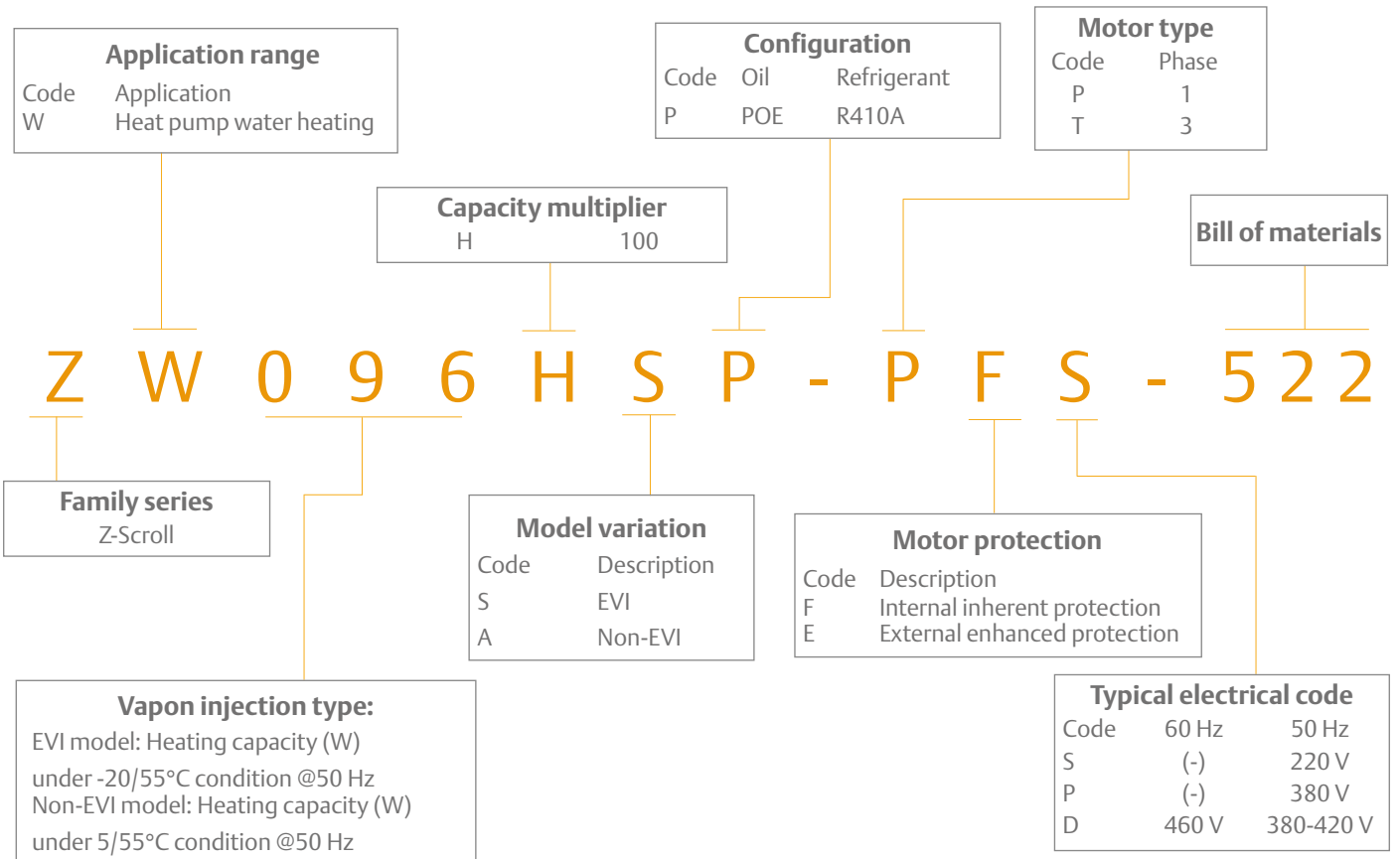
## Bill of material (BOM)

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	✓	✓	ZW124KS(E)	52E	✓	✓	ZW166HAP	522	✓	
ZW30KA(E)	582	✓		ZW124KA(E)	52E	✓		ZW188HAP	522	✓	
ZW34KS(E)	582	✓	✓	ZW125KS(E)	522	✓	✓	ZW420HAP	522	✓	
ZW34KA(E)	582	✓		ZW125KA(E)	522	✓		ZW465HAP	522	✓	
ZW42KS(E)	522	✓	✓	ZW125KBE	522	✓		ZW258HSP	522	✓	✓
ZW52KS(E)	522	✓	✓	ZW150KS(E)	522	✓	✓	ZW286HSP	522	✓	✓
ZW52KA(E)	522	✓		ZW150KA(E)	522	✓		ZW430HSP	522	✓	✓
ZW61KS(E)	522	✓	✓	ZW150KBE	522	✓		ZW520HSP	522	✓	✓
ZW61KA(E)	522/52E	✓		ZW330KBE	522	✓		ZW28KWP	58E	✓	
ZW61KBC	522	✓		ZWD61KA(E)	532	✓		ZW31KWP	522	✓	
ZW68KS(E)	522	✓	✓	ZWD72KA(E)	532	✓		ZW42KWP	522/52E	✓	
ZW72KA(E)	52E	✓		ZWD81KA(E)	532	✓		ZW51KWP	522	✓	
ZW72KBC	522	✓		ZW099HSP	582	✓	✓	ZW54KWP	52E	✓	
ZW79KS(E)	522	✓	✓	ZW096HSP	522	✓	✓	ZW72KWP	52E	✓	
ZW79KA(E)	522	✓		ZW100HSP	52E	✓	✓	ZW83KWP	522	✓	
ZW79KBC	522	✓		ZW102HSP	522	✓	✓	VPW038DE	571	✓	✓
ZW108KS(E)	522	✓	✓	ZW126HSP	522	✓	✓	ZWW050SP	522	✓	✓
ZW108KA(E)	522	✓		ZW165HAP	52E	✓		ZWW070SP	522	✓	✓

## Nomenclature



# Nomenclature





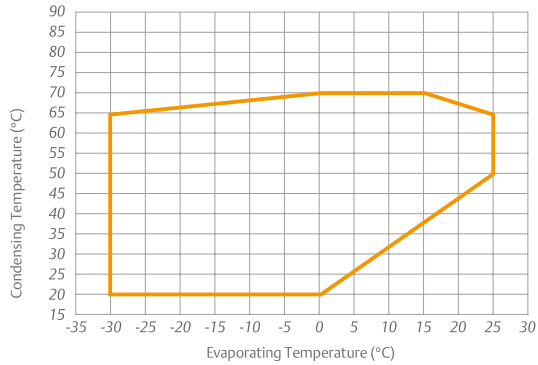
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R22	ZW30KA-PFS-582	1Φ/220V/50Hz		9.0	P12	P30
	ZW30KS-PFS-582		√	10.1	P7	P29
	ZW34KA-PFS-582			10.1	P12	P30
	ZW34KS-PFS-582		√	11.6	P7	P29
	ZW52KA-PFS-522			15.8	P12	P30
	ZW34KA-TFP-582	3Φ/380 V/50 Hz		10.1	P13	P30
	ZW34KS-TFP-582		√	11.2	P8	P29
	ZW57KH-TFP-522			17.1	P15	P30
	ZW61KA-TFP-522			18.1	P13	P30
	ZW61KA-TFP-52E			18.1	P13	P30
	ZW61KH-TFP-522			18.2	P15	P30
	ZW61KS-TFP-522		√	20.3	P8	P29
	ZW72KA-TFP-52E			21.4	P13	P30
	ZW79KA-TFP-522			24.7	P13	P30
	ZW79KS-TFP-522		√	25.8	P8	P29
	ZW108KA-TFP-522	3Φ/380 V/60 Hz		31.2	P13	P30
	ZW108KS-TFP-522		√	35.9	P8	P29
	ZW124KA-TFP-52E			37.2	P14	P30
	ZW124KS-TFP-52E		√	42.6	P9	P29
	ZW125KA-TFP-522			36.8	P14	P30
	ZW125KS-TFP-522		√	41.6	P9	P29
	ZW150KA-TFP-522			45.4	P14	P30
	ZW150KS-TFP-522		√	50.4	P9	P29
	ZW34KS-TF7-582			13.5	P8	P29
ZW61KA-TF7-542			21.9	P13	P30	
ZW108KS-TF7-522	√	43.1	P8	P29		
R407C	ZW30KAE-PFS-582	1Φ/220 V/50 Hz		8.8	P16	P31
	ZW34KAE-PFS-582			9.3	P16	P31
	ZW52KAE-PFS-522			15.3	P16	P31
	ZW34KAE-TFP-582	3Φ/380 V/50 Hz		9.8	P17	P31
	ZW34KSE-TFP-582		√	10.8	P10	P29
	ZW61KAE-TFP-522			17.7	P17	P31
	ZW61KAE-TFP-52E			17.7	P17	P31
	ZW61KSE-TFP-522		√	19.6	P10	P29
	ZW72KAE-TFP-52E			20.9	P17	P31
	ZW79KAE-TFP-522			24.8	P17	P31
	ZW79KSE-TFP-522		√	26.1	P10	P29
	ZW108KAE-TFP-522			30.9	P17	P31
	ZW108KSE-TFP-522		√	35.6	P10	P29
	ZW124KAE-TFP-52E		36	P18	P31	
	ZW124KSE-TFP-52E	√	41.8	P11	P29	
	ZW125KAE-TFP-522		35.6	P18	P31	
	ZW125KSE-TFP-522	√	40.9	P11	P29	
	ZW150KAE-TFP-522		44.2	P18	P31	
	ZW34KSE-TF7-582	3Φ/380 V/60 Hz	√	13	P10	P33
	ZW61KAE-TF7-542			21.2	P17	P33
	ZW61KSE-TF7-542		√	23.8	P10	P33
	ZW108KSE-TF7-522		√	42.8	P10	P33
	ZW28KWP-PFZ-58E		1Φ/220-240 V/50 Hz		8.7	P19
	ZW31KWP-PFZ-522			9.3	P19	P31
ZW42KWP-PFZ-522		12.8		P19	P31	
ZW51KWP-PFZ-522	3Φ/380-420 V/50 Hz or 3Φ/460 V/60 Hz		15.2	P20	P31	
ZW42KWP-TFD-52E			12.7	P21/P28	P31/P33	
ZW54KWP-TFD-52E			16.1	P21/P28	P31/P33	
ZW72KWP-TFD-52E			21.4	P21/P28	P31/P33	
ZW83KWP-TFD-522			24.7	P22/P28	P31/P33	
ZW100HSP-TFP-52E		3Φ/380 V/50 Hz	√	18.9	P24	P32
ZW102HSP-TFP-522				18.9	P24	P32
ZW126HSP-TFP-522			24.3	P24	P32	
ZW165HAP-TFP-52E	√		16.6	P22	P32	
ZW166HAP-TFP-522			16.4	P22	P32	
ZW188HAP-TFP-522			18.4	P23	P32	
ZW420HAP-TFP-522			40.3	P23	P32	
ZW465HAP-TFP-522			46.2	P23	P32	
ZW430HSP-TE7-522	3Φ/380V/60 Hz	√	92.9	P27	P33	
ZW188HAP-TFM-522	3Φ/380-420V/50 Hz		18.4	P23	P32	

# Operating envelopes

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

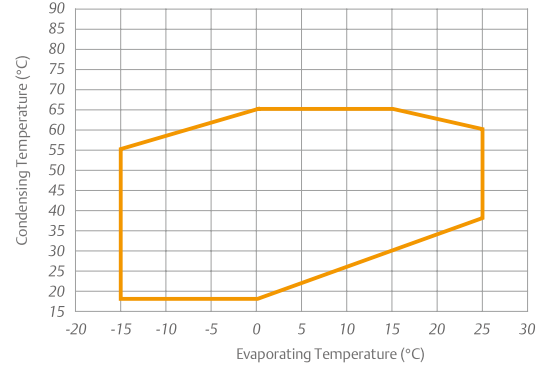
R22/R407C



Superheat 5K  
Maximum discharge temperature with EVI: 115°C

ZW165HAP, ZW166HAP, ZW188HAP,  
ZW420HAP, ZW465HAP

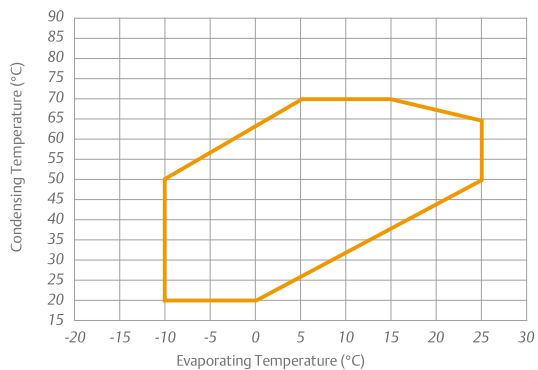
R410A



Superheat 5K

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

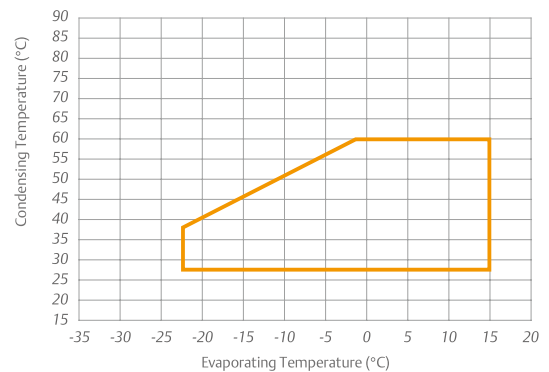
R22/R407C



Superheat 5K

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

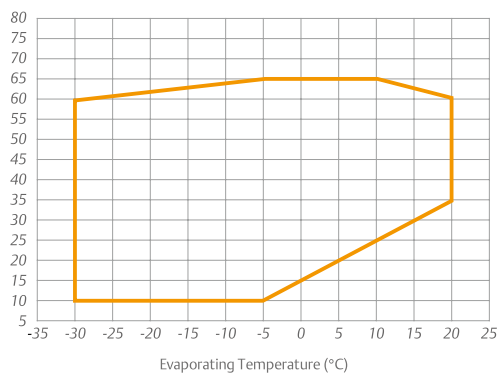
R410A



Superheat 5K

ZW100HSP, ZW102HSP, ZW126HSP,  
ZW430HSP-TF7

R410A



Superheat 5K  
Maximum discharge temperature with EVI: 115°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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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	9.69	11.06
		55		6.31	7.53	8.74	10.03	11.46
		45	5.60	6.69	7.80	9.00	10.39	12.02
		35	5.85	6.86	7.99	9.33	10.94	
		25	5.94	7.01	8.30			
	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	1.93	2.01
		35	1.44	1.47	1.51	1.56	1.67	
		25	1.14	1.17	1.25			
ZW34KAE	Q	65				8.41	9.87	11.48
		55		6.99	8.03	9.25	10.69	12.38
		45	7.22	7.86	8.74	9.90	11.37	13.19
		35	8.00	8.44	9.21	10.36	11.92	
		25	8.42	8.71	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 5K, 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	10.73	12.19
		55		7.54	8.55	9.78	11.21	12.82
		45	6.58	7.60	8.80	10.17	11.71	13.40
		35	6.66	7.81	9.10	10.54	12.10	
		25	6.84	8.04	9.35			
	P	65				3.22	3.27	3.30
		55		2.50	2.56	2.61	2.65	2.69
		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	1.35	1.39			
ZW61KAE	Q	65				17.10	19.34	21.98
		55		13.56	15.41	17.64	20.22	23.15
		45	11.86	13.70	15.87	18.36	21.14	24.21
		35	12.02	14.09	16.44	19.04	21.88	
		25	12.36	14.52	16.90			
	P	65				5.72	5.81	5.87
		55		4.43	4.55	4.65	4.72	4.79
		45	3.53	3.63	3.72	3.81	3.88	3.96
		35	2.91	2.98	3.05	3.13	3.23	
		25	2.35	2.41	2.48			
ZW72KAE	Q	65				19.86	22.83	26.27
		55		15.48	17.99	20.92	24.29	28.12
		45	13.53	15.99	18.83	22.07	25.76	29.90
		35	13.96	16.67	19.75	23.23	27.14	
		25	14.57	17.43	20.67			
	P	65				6.91	6.86	6.82
		55		5.46	5.41	5.37	5.35	5.35
		45	4.28	4.23	4.21	4.20	4.22	4.26
		35	3.32	3.30	3.31	3.35	3.42	
		25	2.58	2.60	2.66			
ZW79KAE	Q	65				21.69	24.98	28.61
		55		17.08	19.90	23.07	26.63	30.65
		45	15.07	17.74	20.82	24.35	28.38	32.98
		35	15.62	18.63	22.15	26.24	30.94	
		25	16.91	20.46	24.62			
	P	65				7.65	7.67	7.71
		55		5.98	6.01	6.06	6.13	6.24
		45	4.79	4.82	4.87	4.95	5.05	5.21
		35	3.89	3.92	3.97	4.05	4.18	
		25	2.99	3.00	3.03			
ZW108KAE	Q	65				29.59	33.89	38.91
		55		23.16	26.74	30.88	35.71	41.40
		45	20.44	23.84	27.77	32.39	37.84	44.28
		35	20.97	24.67	29.03	34.23	40.39	
		25	21.68	25.76	30.66			
	P	65				9.59	9.58	9.60
		55		7.58	7.58	7.60	7.64	7.73
		45	6.01	6.03	6.06	6.11	6.20	6.35
		35	4.85	4.88	4.92	5.00	5.14	
		25	3.97	4.00	4.06			

Note: Superheat 5K, 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				34.26	39.55	45.45
		55		26.37	30.96	36.12	41.93	48.46
		45	23.21	27.45	32.30	37.84	44.14	51.28
		35	24.39	28.75	33.84	39.73	46.49	
		25	26.13	30.59	35.89			
	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			
ZW125KAE	Q	65				33.46	38.73	44.75
		55		26.00	30.43	35.56	41.42	48.04
		45	23.10	27.26	32.09	37.62	43.87	50.88
		35	24.15	28.51	33.54	39.27	45.73	
		25	25.05	29.42	34.46			
	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				41.80	47.93	54.55
		55		31.70	37.42	43.77	50.74	58.31
		45	28.09	33.14	38.95	45.51	52.81	60.82
		35	31.09	35.61	41.00	47.26	54.36	
		25	35.84	39.32	43.79			
	P	65				13.20	13.77	14.33
		55		10.12	10.62	11.13	11.65	12.18
		45	8.20	8.63	9.08	9.55	10.05	10.58
		35	6.74	7.13	7.55	8.02	8.53	
		25	4.79	5.16	5.60			

Note: Superheat 5K, 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					7.59	8.46	9.47	10.63
		55					6.91	7.73	8.68	9.77
		50				6.19	6.94	7.82	8.84	10.01
		45			5.46	6.14	6.95	7.89	8.97	10.22
		40		4.79	5.40	6.12	6.96	7.96	9.11	10.44
		35	4.43	4.75	5.38	6.13	7.02	8.07	9.28	10.68
		30	4.47	4.80	5.44	6.22	7.15	8.25	9.52	11.00
	27	4.54	4.87	5.53	6.33	7.28	8.40	9.71	11.23	
	P	60						2.70	2.66	2.62
		55					2.46	2.42	2.38	2.34
		50				2.22	2.19	2.15	2.11	2.06
		45			1.99	1.96	1.93	1.89	1.85	1.80
		40		1.77	1.74	1.72	1.68	1.65	1.60	1.55
		35	1.56	1.55	1.52	1.50	1.47	1.43	1.38	1.33
30		1.37	1.36	1.34	1.31	1.28	1.24	1.20	1.14	
ZW31KWP	Q	60					7.87	9.03	10.30	
		55					6.98	8.09	9.31	
		50				6.10	7.14	8.30	9.57	
		45			5.26	6.23	7.30	8.50	9.83	
		40		4.49	5.37	6.36	7.47	8.71	10.10	
		35	4.13	4.61	5.49	6.50	7.65	8.94	10.39	
		30	4.26	4.74	5.63	6.67	7.85	9.19	10.70	
	27	4.35	4.83	5.73	6.78	7.98	9.35	10.90		
	P	60						3.11	3.02	
		55					2.76	2.68	2.61	
		50				2.45	2.39	2.33	2.28	
		45			2.17	2.13	2.08	2.04	2.00	
		40		1.92	1.89	1.87	1.83	1.80	1.77	
		35	1.67	1.68	1.67	1.65	1.62	1.59	1.57	
30		1.47	1.48	1.48	1.46	1.44	1.41	1.38		
ZW42KWP	Q	60					10.89	12.42	14.20	
		55					9.70	11.12	12.79	
		50				8.51	9.84	11.39	13.18	
		45			7.37	8.59	10.01	11.67	13.56	
		40		6.30	7.40	8.70	10.21	11.95	13.93	
		35	5.70	6.31	7.47	8.84	10.42	12.23	14.28	
		30	5.73	6.37	7.58	9.00	10.63	12.49	14.59	
	27	5.78	6.43	7.66	9.10	10.75	12.63	14.75		
	P	60						4.15	4.08	
		55					3.69	3.61	3.55	
		50				3.29	3.23	3.17	3.12	
		45			2.94	2.90	2.86	2.81	2.76	
		40		2.61	2.60	2.58	2.54	2.49	2.46	
		35	2.30	2.31	2.32	2.29	2.26	2.22	2.18	
30		2.03	2.05	2.05	2.04	2.00	1.96	1.93		
27	1.87	1.89	1.90	1.88	1.85	1.81	1.77			

Note: Superheat 5K, 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 5K, 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					11.01	12.55	14.25	16.13
		55					9.76	11.23	12.83	14.62
		50				8.53	9.90	11.41	13.09	15.00
		45			7.33	8.61	10.01	11.59	13.38	15.43
		40		6.20	7.38	8.67	10.14	11.80	13.72	15.93
		35	5.58	6.23	7.42	8.76	10.30	12.08	14.15	16.55
		30	5.62	6.27	7.49	8.90	10.54	12.46	14.71	17.32
	27	5.65	6.31	7.56	9.02	10.74	12.75	15.11	17.86	
	P	60						4.16	4.04	3.94
		55					3.71	3.61	3.52	3.43
		50				3.32	3.23	3.15	3.07	3.00
		45			2.97	2.89	2.82	2.76	2.69	2.63
		40		2.67	2.59	2.53	2.47	2.42	2.37	2.32
		35	2.37	2.33	2.27	2.22	2.18	2.13	2.09	2.04
30		2.07	2.04	1.99	1.95	1.92	1.88	1.85	1.80	
27	1.91	1.88	1.85	1.81	1.78	1.75	1.71	1.67		
ZW54KWP	Q	60					13.88	15.92	18.28	
		55					12.25	14.16	16.36	
		50				10.67	12.45	14.50	16.85	
		45			9.16	10.81	12.70	14.86	17.34	
		40		7.74	9.26	11.00	12.97	15.24	17.83	
		35	6.97	7.83	9.40	11.19	13.24	15.59	18.28	
		30	7.07	7.94	9.54	11.38	13.48	15.90	18.66	
	27	7.13	8.01	9.62	11.47	13.60	16.05	18.85		
	P	60						5.17	5.09	
		55					4.58	4.51	4.45	
		50				4.05	3.99	3.94	3.90	
		45			3.57	3.53	3.49	3.45	3.42	
		40		3.13	3.11	3.09	3.06	3.03	3.01	
		35	2.74	2.74	2.73	2.71	2.68	2.66	2.64	
30		2.40	2.40	2.39	2.37	2.35	2.32	2.30		
27	2.22	2.22	2.21	2.19	2.17	2.14	2.10			
ZW72KWP	Q	60					18.37	20.86	23.69	
		55					16.46	18.78	21.43	
		50				14.61	16.75	19.21	22.03	
		45			12.84	14.81	17.08	19.68	22.65	
		40		11.17	12.97	15.05	17.43	20.16	23.28	
		35	10.26	11.26	13.14	15.30	17.79	20.65	23.92	
		30	10.34	11.37	13.32	15.57	18.17	21.15	24.57	
	27	10.40	11.45	13.43	15.74	18.40	21.45	24.95		
	P	60						6.48	6.48	
		55					5.73	5.75	5.75	
		50				5.08	5.09	5.10	5.11	
		45			4.50	4.52	4.53	4.54	4.55	
		40		4.00	4.01	4.02	4.03	4.04	4.06	
		35	3.56	3.57	3.57	3.58	3.59	3.61	3.63	
30		3.18	3.18	3.18	3.19	3.21	3.23	3.26		
27	2.96	2.96	2.97	2.97	2.99	3.02	3.05			

Note: Superheat 5K, 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					21.13	24.10	27.55	31.55	
		55					18.82	21.56	24.72	28.38	32.59
		50				16.63	19.15	22.05	25.40	29.25	33.66
		45			14.55	16.88	19.54	22.60	26.11	30.13	34.72
		40		12.57	14.73	17.18	19.97	23.17	26.83	31.01	35.77
		35	11.49	12.72	14.97	17.52	20.42	23.74	27.53	31.86	36.78
		30	11.64	12.91	15.24	17.87	20.87	24.30	28.21	32.66	37.72
	27	11.75	13.04	15.41	18.08	21.13	24.62	28.59	33.11	38.24	
	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	5.07	5.09	5.11	5.15	5.20	5.28
		40		4.44	4.47	4.49	4.51	4.55	4.59	4.66	4.76
		35	3.90	3.92	3.95	3.97	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 5K, 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	
ZW165HAP	Q	65				13.91	15.86	18.00	20.37		
		60			12.44	14.26	16.26	18.49	20.99	23.79	26.95
		55	9.47	11.03	12.73	14.60	16.67	19.01	21.64	24.61	27.96
		50	9.71	11.28	13.00	14.93	17.10	19.55	22.33	25.48	29.04
		45	9.92	11.50	13.27	15.27	17.54	20.13	23.08	26.42	30.20
		40	10.10	11.71	13.53	15.62	18.01	20.75	23.87	27.42	31.44
		35	10.25	11.90	13.80	15.99	18.52	21.41	24.73	28.50	
	30	10.38	12.09	14.08	16.39	19.06	22.13	25.65			
	P	65				5.44	5.49	5.53	5.58		
		60			4.84	4.89	4.93	4.97	5.00	5.04	5.07
		55	4.25	4.31	4.36	4.40	4.44	4.47	4.50	4.53	4.55
		50	3.83	3.88	3.93	3.97	4.00	4.03	4.05	4.08	4.10
		45	3.45	3.50	3.54	3.58	3.61	3.63	3.66	3.68	3.71
		40	3.10	3.15	3.19	3.23	3.26	3.28	3.31	3.33	3.36
35		2.77	2.82	2.87	2.91	2.94	2.97	3.00	3.03		
30	2.46	2.52	2.57	2.61	2.65	2.68	2.71				
ZW166HAP	Q	65					15.82	17.85			
		60				14.29	16.24	18.43	20.94	23.84	27.23
		55			12.71	14.59	16.66	19.00	21.69	24.80	28.43
		50	9.36	11.12	12.94	14.90	17.08	19.56	22.41	25.72	29.57
		45	9.56	11.33	13.19	15.21	17.49	20.09	23.10	26.59	30.64
		40	9.79	11.56	13.44	15.52	17.87	20.59	23.73	27.39	31.64
		35	10.04	11.79	13.68	15.80	18.22	21.03	24.30	28.12	32.55
	30	10.30	12.01	13.90	16.05	18.53	21.42	24.80	28.76	33.36	
	P	65					5.50	5.53			
		60			4.84	4.84	4.90	4.91	4.89	4.85	4.83
		55			4.24	4.32	4.36	4.35	4.34	4.32	4.34
		50	3.52	3.70	3.81	3.86	3.87	3.87	3.86	3.88	3.94
		45	3.22	3.35	3.41	3.44	3.44	3.45	3.47	3.53	3.65
		40	2.94	3.02	3.05	3.06	3.07	3.10	3.16	3.27	3.45
35		2.67	2.71	2.73	2.74	2.76	2.81	2.92	3.09	3.36	
30	2.42	2.44	2.45	2.46	2.51	2.60	2.76	3.01	3.36		

Note: Superheat 5K, 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	
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	31.54	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	3.22	
30	2.76	2.76	2.78	2.83	2.89	2.94	2.99				
ZW420HAP	Q	65				32.67	37.56	42.88	48.77		
		60			29.52	34.08	39.01	44.44	50.50	57.32	65.05
		55	22.24	26.35	30.64	35.23	40.26	45.87	52.17	59.31	67.42
		50	23.15	27.22	31.53	36.22	41.42	47.26	53.88	61.40	69.96
		45	23.81	27.89	32.29	37.14	42.57	48.71	55.70	63.67	72.75
		40	24.29	28.46	33.01	38.09	43.81	50.33	57.76	66.23	75.90
		35	24.70	29.01	33.79	39.15	45.24	52.19	60.12	69.18	
	30	25.13	29.66	34.71	40.44	46.95	54.40	62.90			
	P	65				12.05	12.37	12.64	12.87		
		60			10.82	11.12	11.37	11.58	11.75	11.88	11.97
		55	9.39	9.71	9.99	10.23	10.42	10.58	10.70	10.78	10.83
		50	8.70	8.97	9.19	9.38	9.53	9.65	9.73	9.78	9.80
		45	8.04	8.26	8.44	8.59	8.71	8.80	8.85	8.88	8.89
		40	7.40	7.59	7.74	7.87	7.97	8.04	8.08	8.10	8.10
35		6.81	6.98	7.11	7.22	7.31	7.38	7.42	7.44		
30	6.27	6.43	6.56	6.67	6.76	6.82	6.88				
ZW465HAP	Q	65				38.19	43.83	50.05	56.88		
		60			33.73	38.99	44.88	51.40	58.56	66.36	74.80
		55	25.58	29.75	34.58	40.06	46.21	53.02	60.52	68.69	77.54
		50	26.27	30.59	35.61	41.32	47.73	54.85	62.68	71.23	80.49
		45	27.07	31.55	36.76	42.70	49.38	56.81	64.98	73.91	83.60
		40	27.90	32.54	37.95	44.14	51.09	58.83	67.36	76.67	86.78
		35	28.71	33.52	39.13	45.56	52.79	60.85	69.73	79.44	
	30	29.41	34.39	40.22	46.89	54.41	62.79	72.03			
	P	65				13.81	14.12	14.37	14.58		
		60			12.32	12.63	12.89	13.10	13.29	13.45	13.61
		55	10.59	10.95	11.25	11.50	11.72	11.90	12.07	12.23	12.40
		50	9.72	10.00	10.24	10.45	10.63	10.79	10.95	11.12	11.31
		45	8.90	9.12	9.30	9.47	9.62	9.78	9.94	10.13	10.34
		40	8.14	8.30	8.45	8.58	8.72	8.87	9.05	9.26	9.51
35		7.46	7.58	7.69	7.80	7.93	8.09	8.29	8.53		
30	6.87	6.95	7.03	7.13	7.27	7.44	7.66				

Note: Superheat 5K, Subcooling 8.3K

# 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	
ZW100HSP	Q	65						14.43	16.01	17.78	19.75		
		60	9.27	9.27	10.26	11.41	12.71	14.17	15.82	17.65	19.68	21.92	27.06
		50	8.42	8.42	9.52	10.77	12.17	13.74	15.49	17.43	19.56	21.90	27.24
		40	7.83	7.83	9.00	10.32	11.79	13.43	15.25	17.25	19.45	21.85	27.31
		30	7.50	7.50	8.70	10.05	11.55	13.22	15.07	17.09	19.32	21.75	
	P	65						6.22	6.29	6.34	6.40		
		60	5.14	5.23	5.32	5.39	5.46	5.51	5.57	5.62	5.66	5.71	5.76
		50	4.06	4.14	4.20	4.26	4.31	4.35	4.38	4.42	4.45	4.48	4.51
		40	3.23	3.29	3.35	3.39	3.43	3.46	3.48	3.51	3.53	3.55	3.58
		30	2.59	2.65	2.69	2.73	2.76	2.79	2.81	2.83	2.85	2.87	
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	
ZW126HSP	Q	65						19.66	21.80	24.15	26.74		
		60	11.12	12.45	13.93	15.58	17.40	19.43	21.67	24.15	26.89	29.90	33.20
		50	10.35	11.73	13.29	15.05	17.02	19.23	21.69	24.43	27.45	30.78	34.44
		40	9.72	11.15	12.79	14.66	16.78	19.18	21.86	24.85	28.16	31.81	35.83
		30	8.98	10.45	12.17	14.15	16.43	19.01	21.91	25.15	28.75	32.73	
	P	65						7.51	7.59	7.66	7.72		
		60	6.17	6.30	6.42	6.54	6.64	6.74	6.84	6.92	6.98	7.04	7.07
		50	4.94	5.07	5.19	5.31	5.43	5.54	5.64	5.73	5.81	5.88	5.94
		40	3.99	4.11	4.23	4.34	4.45	4.56	4.66	4.76	4.85	4.93	4.99
		30	3.10	3.20	3.30	3.39	3.49	3.59	3.68	3.77	3.85	3.92	

Note: Superheat 5K, 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 5K, 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	24.89	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 5K, 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 5K, 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		

Note: Superheat 5K, 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	
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 5K, Subcooling 8.3K

# ZW HSP Heating capacity

R410A 60 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	
ZW430HSP	Q	65							72.50	80.06	88.71	98.67		
		55		41.10	46.77	52.55	58.66	65.31	72.72	81.10	90.68	101.67	114.29	122.35
		45	33.07	38.92	44.87	51.15	57.97	65.55	74.11	83.86	95.02	107.80	122.43	139.11
		35	32.90	38.43	44.30	50.70	57.87	66.00	75.33	86.07	98.44	112.64	128.90	147.44
		25	33.07	37.93	43.33	49.48	56.61	64.94	74.66	86.02	99.21	114.46	131.98	
	P	65							27.71	27.75	27.76	27.79		
		55		22.99	23.71	24.23	24.59	24.82	24.97	25.06	25.13	25.23	25.38	24.66
		45	17.76	18.64	19.30	19.79	20.14	20.38	20.56	20.72	20.88	21.09	21.37	21.78
		35	14.66	15.40	15.96	16.37	16.66	16.87	17.04	17.21	17.40	17.67	18.04	18.56
		25	12.05	12.61	13.01	13.28	13.47	13.59	13.70	13.83	14.01	14.29	14.70	

Note: Superheat 5K, 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	3.25
Net weight	kg	22	22	22	30	41	60	62	60	65

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

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 5K Subcooling 8.3K

ZW KA

R22

ZW KH

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 5K Subcooling 8.3K

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 5K 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	29.1	29.1	35.3
Refrigerant		R407C										
Heating capacity	kW	8.74	9.25	15.3	9.78	17.64	20.92	23.07	30.88	36.12	35.56	43.77
Input power	kW	2.34	2.61	4.2	2.61	4.65	5.37	6.06	7.60	9.37	8.97	11.13
Current	A	10.77	12.02	22.6	4.5	8.08	9.47	11.31	13.8	20.06	17.17	22.59
Mass flow	g/s	41.47	41.7	70.0	45.79	82.41	97.27	116.24	147.47	171.94	167.63	207.25
Locked rotor amps	A	58.4	72.5	136.0	31.6	59	67	100	100	154.6	133	157
Rated load current	A	15.3	13.1	27.1	6.6	10.2	10	12.1	17.3	21.3	21.3	26.4
Max continuous current	A	17.7	17	38.0	7.1	12.6	12.1	15	16.8	26.3	25.2	28.5
Max operating current	A	21.4	18.3	29.3	9.3	14.3	14	17	24.2	29.8	29.8	37
Oil charge	Initial	L	0.739	0.739	1.57	0.739	1.567	1.774	1.893	3.253	3.253	3.371
	Replacement refill	L	0.562	0.621	1.45	0.621	1.449	1.656	1.774	3.135	3.135	3.253
Net weight	kg	22.23	22.23	30	22.23	29.94	38.56	40.82	59.87	59.87	59.87	64.86

Conditions: ET 5 °C, CT 55 °C, Superheat 5K 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	8.68	9.31	12.79	15.2	12.83	16.36	21.43	24.72	
Input power	kW	2.38	2.61	3.55	4.1	3.52	4.45	5.75	6.50	
Current	A	11.05	12.1	16.98	20.2	5.95	7.57	9.91	11.8	
Mass flow	g/s	55.56	59.58	66.9	97.3	66.9	75.04	137.19	158.32	
Locked rotor amps	A	53	67	128	126.0	43	51.5	75	101	
Rated load current	A	11.4	15	21.7	22.5	6.8	8.6	12.5	13.6	
Max continuous current	A	13.7	17.1	26	31.5	8	10.3	16	15	
Max operating current	A	16	21	30.4	28.0	9.5	12.1	17.5	19	
Oil charge	Initial	L	0.769	0.739	1.242	1.24	1.242	1.242	1.774	1.774
	Replacement refill	L	0.651	0.621	1.124	1.12	1.124	1.124	1.656	1.656
Net weight	kg	19.96	22.77	33.07	34	30.39	33.02	39.92	39.46	

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

# ZW HSP

# R410A

ZW Series		ZW100HSP	ZW102HSP	ZW126HSP	
Nominal power	HP	4.5	4.5	6	
Motor type		TFP			
Displacement	m <sup>3</sup> /hr	8.9	8.9	11	
Refrigerant		R410A			
Heating capacity	kW	19.6	18.9	24.3	
Input power	kW	5.0	4.9	6.3	
Current	A	9.5	8.2	11.8	
Mass flow	g/s	80.8	76.0	99.1	
Locked rotor amps	A	73	70.0	91	
Rated load current	A	8.7	9.0	14.3	
Max continuous current	A	12.2	12.6	20	
Max operating current	A	11.2	11.0	13.7	
Oil charge	Initial	L	1.24	1.56	1.89
	Replacement refill	L	1.12	1.44	1.77
Net weight	kg	33	33	40	

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

# ZW HAP

# R410A

ZW Series		ZW165HAP	ZW166HAP	ZW188HAP	ZW420HAP	ZW465HAP	
Nominal power	HP	4.5	4.5	5	10	12	
Motor type		TFP					
Displacement	m <sup>3</sup> /hr	8.9	8.9	10.1	21.6	24.9	
Refrigerant		R410A					
Heating capacity	kW	16.7	16.66	18.4	40.3	46.2	
Input power	kW	4.4	4.36	4.9	10.4	11.7	
Current	A	8	7.73	8.7	23.4	23.7	
Mass flow	g/s	77.9	78.65	89.6	199.1	230.2	
Locked rotor amps	A	57	62	74	156	157	
Rated load current	A	8.8	8.1	10.6	24.9	27.7	
Max continuous current	A	12.3	9.7	14.8	34.8	38.8	
Max operating current	A	9.5	11.3	11.9	29.4	33	
Oil charge	Initial	L	1.24	1.242	1.69	3.37	3.37
	Replacement refill	L	1.12	1.124	1.57	3.25	3.25
Net weight	kg	32	34.75	40	65	65	

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

# 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 5K 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 5K Subcooling 8.3K



# Residential heating



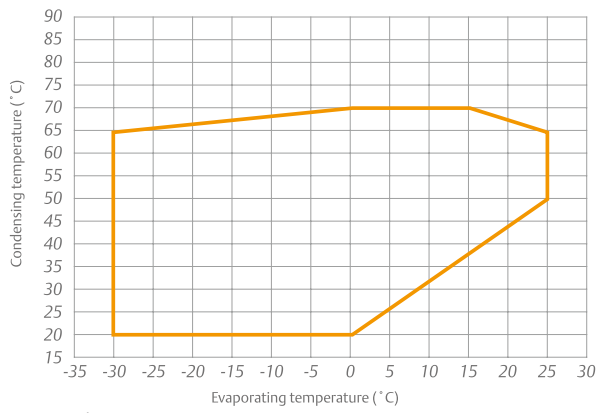
## Compressor model

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		√	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		√	11.1	P36	P39
	ZW096HSP-PFS-522	√	18.3	P36	P39	
	ZW126HSP-PFS-522	√	23.5	P36	P39	

# Operating envelopes

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

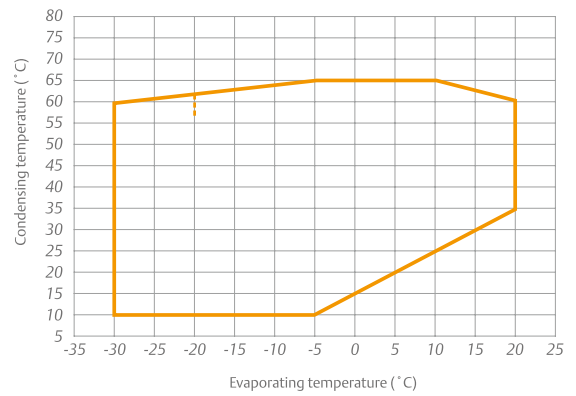
R22/R407C



Superheat 5K  
Maximum discharge temperature with EVI: 115°C

ZW059HSP, ZW096HSP, ZW126HSP

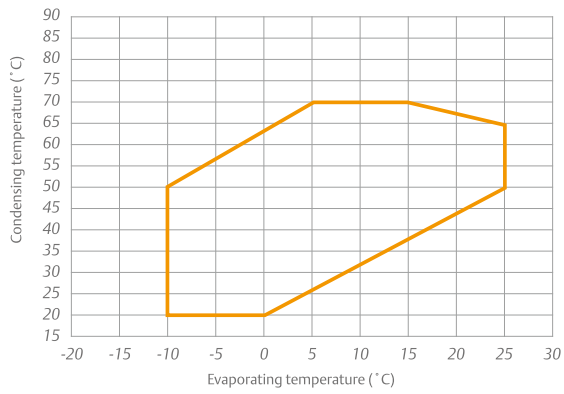
R410A



Superheat 5K  
Maximum discharge temperature with EVI: 115°C

ZW52KA(E)

R22/R407C



Superheat 5K

# 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 5K, 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 5K, 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 5K, 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 5K, 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 5K, 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 5K 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 5K Subcooling 8.3K

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
	Replacement refill	L	0.62	1.45
Net weight	kg	22	35	44

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



# District heating



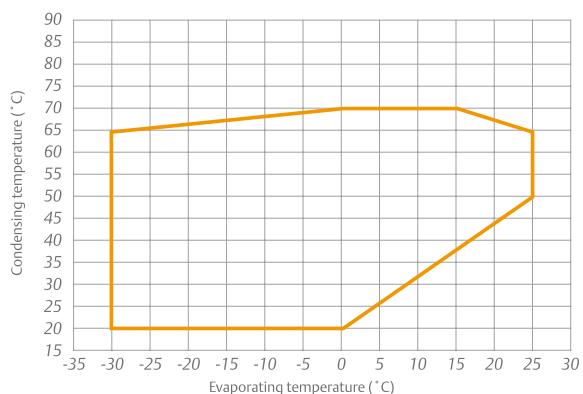
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R22	ZW61KS-TFP-522	3Φ/380 V/50 Hz	√	20.3	P42	P46
	ZW79KS-TFP-522		√	25.8	P42	P46
	ZW108KS-TFP-522		√	35.9	P42	P46
	ZW124KS-TFP-52E		√	42.6	P43	P46
	ZW125KS-TFP-522		√	41.6	P43	P46
R407C	ZW150KS-TFP-522		√	50.4	P43	P46
R410A	ZW150KSE-TFP-522		√	49.8	P44	P46
	ZW258HSP-TFP-522		√	47.0	P45	P46
	ZW286HSP-TFP-522		√	48.8	P45	P46
	ZW430HSP-TEP-522		√	79.4	P45	P46
	ZW520HSP-TEP-522	√	95.4	P45	P46	

## Operating envelopes

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

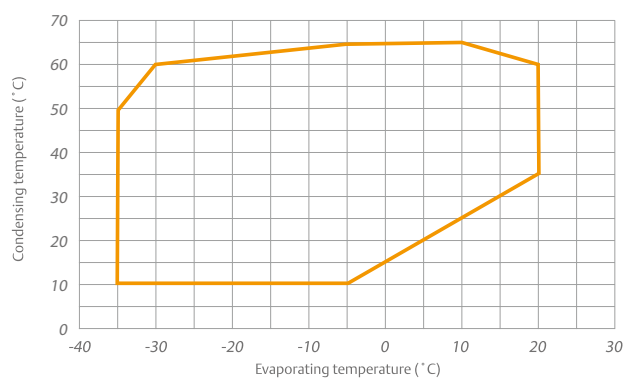
R22/R407C



Superheat 5K  
Discharge temperature with EVI: 115°C

ZW258HSP, ZW286HSP, ZW430HSP, ZW520HSP

R410A



Superheat 5K  
Maximum discharge temperature with EVI: 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	
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 5K, 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 5K, 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 5K, 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		
		60		22.07	24.64	27.41	30.45	33.84	37.65	41.95	46.82	52.32	58.54	
		50	17.21	19.86	22.68	25.74	29.12	32.89	37.12	41.89	47.26	53.31	57.24	62.54
		40	16.25	18.94	21.85	25.05	28.60	32.59	37.08	42.14	47.85	54.29	56.44	61.29
		30	16.42	19.00	21.83	25.00	28.56	32.60	37.18	42.38	48.27	56.92	60.41	61.61
	P	65							15.08	15.20	15.35	15.44		
		60		14.79	13.75	13.16	12.91	12.92	13.10	13.34	13.57	13.68	13.78	13.98
		50	12.02	11.65	11.05	10.96	10.62	10.40	10.88	11.30	11.59	11.76	11.91	12.24
		40	9.87	9.50	9.46	9.34	9.15	8.56	8.91	9.27	9.58	9.77	9.94	10.29
		30	7.99	7.78	7.67	7.48	7.21	7.08	7.59	7.94	8.25	8.62	8.96	
ZW286HSP	Q	65							40.55	43.37	46.76	51.07		
		60		23.30	28.25	32.15	35.35	38.19	41.00	44.13	47.93	52.72	13.78	66.69
		50	16.17	22.26	27.11	31.08	34.49	37.70	41.05	44.87	49.51	55.31	11.91	71.76
		40	15.08	20.98	25.80	29.89	33.59	37.24	41.18	45.75	51.30	58.17	9.94	77.22
		30	15.15	20.92	25.77	30.04	34.08	38.23	42.83	48.22	54.74	62.74	8.96	
	P	65							15.76	15.96	16.16	16.40		
		60		12.55	13.03	13.39	13.67	13.88	14.05	14.21	14.38	14.59	14.85	15.20
		50	9.55	10.11	10.53	10.85	11.07	11.23	11.35	11.46	11.57	11.73	11.94	12.23
		40	7.76	8.28	8.67	8.95	9.13	9.26	9.35	9.42	9.50	9.62	9.80	10.06
		30	6.23	6.74	7.11	7.37	7.54	7.65	7.72	7.78	7.84	7.95	8.11	
ZW430HSP	Q	65							62.07	68.98	76.93	86.13		
		60		34.67	39.68	44.76	50.10	55.92	62.43	69.82	78.32	88.13	99.45	99.89
		50	27.45	32.69	37.90	43.28	49.05	55.42	62.59	70.76	80.15	90.97	103.42	117.70
		40	26.87	31.92	37.06	42.49	48.42	55.07	62.63	71.31	81.33	92.89	106.20	121.46
		30	28.53	33.12	37.92	43.13	48.95	55.61	63.29	72.22	82.60	94.63	108.53	
	P	65							24.40	24.40	24.40	24.44		
		60		20.30	20.84	21.19	21.41	21.53	21.59	21.62	21.67	21.78	21.98	19.95
		50	15.29	15.95	16.41	16.73	16.92	17.04	17.11	17.19	17.31	17.50	17.80	18.26
		40	12.58	13.10	13.44	13.64	13.76	13.81	13.85	13.91	14.03	14.25	14.60	15.13
		30	11.02	11.33	11.49	11.54	11.51	11.45	11.39	11.38	11.45	11.63	11.98	
ZW520HSP	Q	65							72.09	80.54	90.35	101.75		
		60		41.65	47.07	52.75	58.90	65.78	73.60	82.60	93.00	105.05	118.97	134.99
		50	34.87	40.64	46.54	52.80	59.64	67.31	76.03	86.04	97.56	110.82	126.06	143.51
		40	32.63	38.66	44.93	51.66	59.09	67.44	76.95	87.84	100.36	114.73	131.18	149.95
		30	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		
		60		25.97	26.10	26.15	26.15	26.12	26.11	26.13	26.23	26.43	26.76	27.25
		50	19.82	20.17	20.41	20.56	20.66	20.73	20.82	20.94	21.13	21.42	21.85	22.44
		40	15.55	16.02	16.37	16.64	16.85	17.04	17.24	17.47	17.77	18.17	18.70	19.39
		30	11.24	11.84	12.32	12.72	13.06	13.37	13.69	14.05	14.47	14.99	15.64	

Note: Superheat 5K, 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

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	42.6	41.6	50.4
Input power	kW	5.0	6.5	8.3	10.6	10.2	12.7
Current	A	8.5	11.9	16.1	21.4	18.6	24.8
Mass flow	g/s	88.2	110.6	154	174.1	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	3.14
Net weight	kg	30	41	60	62	60	65

Conditions: ET 5 °C, CT 55 °C  
Superheat 5K, 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 5K, 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	36.6	45.7
Refrigerant		R410A			
Heating capacity	kW	47	48.8	79.4	95.4
Input power	kW	12.2	12.9	19.3	23.4
Current	A	25.2	26.4	33.9	41.7
Mass flow	g/s	184.8	227	329.8	402.0
Locked rotor amps	A	156.4	157	256.0	279.0
Rated load current	A	24.9	27.7	40.5	48.4
Max continuous current	A	34.8	38.8	54.0	64.5
Max operating current	A	29.4	33	41.3	51.6
Oil charge	Initial	L	3.37	4.44	4.44
	Replacement refill	L	3.25	3.25	4.2
Net weight	kg	65	65	94	95

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

# Industrial heating



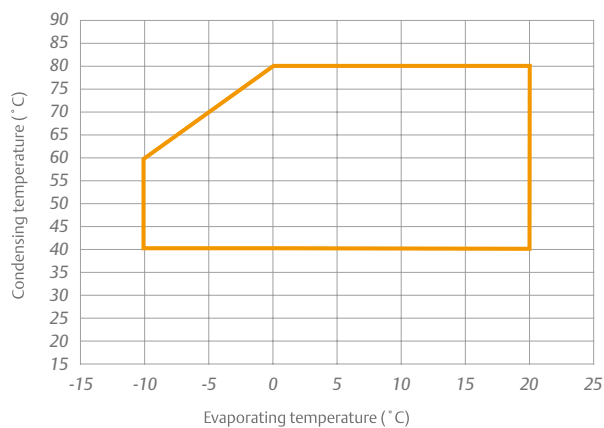
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification	
R134a	ZWD61KAE-TFD-532	3Φ/380-420 V/50 Hz, 3Φ/460 V/60 Hz		12.2	P49	P53	
	ZWD72KAE-TFD-532			14.7	P49	P53	
	ZWD81KAE-TFD-532			16.1	P49	P53	
	ZW61KBC-TFP-522	3Φ/380 V/50 Hz		13.0	P50	P53	
	ZW72KBC-TFP-522			15.5	P50	P53	
	ZW79KBC-TFP-522			16.6	P50	P53	
	ZW125KBE-TFP-522			29.1	P51	P53	
	ZW150KBE-TFP-522			35.3	P51	P53	
	ZW330KBE-TFP-522			64.4	P51	P53	
	ZW79KAE-TFP-522	3Φ/380 V/60 Hz		16.1	P48	P53	
	ZW79KSE-TFP-522		√	17.4	P48	P53	
	ZW72KSE-TF7-522	3Φ/380 V/60 Hz	√	20.4	P52	P54	
	ZW61KBC-TFM-522	3Φ/380-420V/50 Hz			13.0	P50	P53
	ZW72KBC-TFM-522				15.5	P50	P53
	ZW79KAE-TFM-522				16.1	P48	P53
	ZW125KBE-TFM-522				29.1	P51	P53
ZW150KBE-TFM-522				35.3	P51	P53	

## Operating envelopes

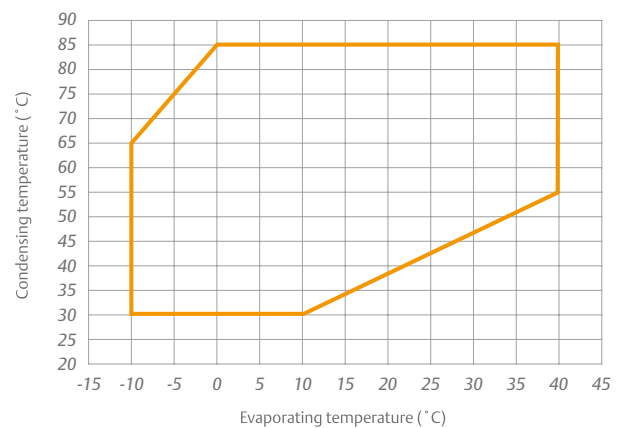
ZW79KAE, ZW79KSE, ZWD61KAE,  
ZWD72KAE, ZWD81KAE

R134a



ZW61KBC, ZW72KBC, ZW79KBC,  
ZW125KBE, ZW150KBE, ZW330KBE

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 5K, 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 5K, 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			9.41	10.92	12.59	14.45	16.54
		75			9.64	11.17	12.89	14.83	17.01
		70		8.43	9.84	11.43	13.22	15.24	17.53
		65		8.59	10.05	11.69	13.56	15.68	18.09
		60	7.42	8.74	10.25	11.97	13.93	16.16	18.71
		55	7.52	8.89	10.46	12.27	14.34	16.70	19.39
		50	7.61	9.04	10.69	12.60	14.79	17.29	20.14
		45	7.70	9.20	10.95	12.97	15.29	17.95	20.98
	40	7.79	9.38	11.24	13.39	15.86	18.69	21.90	
	P	80			4.56	4.70	4.84	4.96	5.05
		75			4.12	4.25	4.38	4.48	4.55
		70		3.61	3.74	3.87	3.98	4.07	4.11
		65		3.29	3.41	3.53	3.63	3.71	3.74
		60	2.89	3.00	3.13	3.24	3.34	3.40	3.42
		55	2.63	2.75	2.88	2.99	3.09	3.14	3.15
		50	2.40	2.53	2.66	2.78	2.87	2.92	2.92
45		2.19	2.33	2.47	2.59	2.68	2.73	2.72	
40	1.99	2.14	2.29	2.42	2.51	2.56	2.55		
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 5K, Subcooling 8.3K



# ZW KBC 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	
ZW61KBC	Q	85			9.66	10.78	12.17	13.83	15.79	18.06	20.67	23.64	26.98
		80			9.63	10.91	12.45	14.27	16.38	18.80	21.56	24.66	28.14
		75			9.68	11.10	12.78	14.73	16.98	19.53	22.41	25.65	29.25
		70		8.46	9.78	11.34	13.14	15.21	17.57	20.23	23.23	26.57	30.28
		60	7.29	8.61	10.13	11.88	13.87	16.13	18.67	21.51	24.68	28.18	32.05
		50	7.44	8.90	10.55	12.43	14.54	16.92	19.57	22.52	25.78		
	P	40	7.68	9.21	10.93	12.86	15.03	17.45	20.15				
		85			5.44	5.41	5.40	5.43	5.53	5.71	6.01	6.45	7.05
		80			4.85	4.86	4.88	4.93	5.03	5.23	5.53	5.96	6.56
		75			4.34	4.37	4.41	4.48	4.60	4.80	5.10	5.53	6.11
		70		3.80	3.89	3.95	4.01	4.09	4.22	4.42	4.73	5.15	5.72
		60	2.83	3.04	3.19	3.30	3.39	3.50	3.64	3.85	4.14	4.54	5.08
ZW72KBC	Q	85			11.65	13.09	14.77	16.74	19.02	21.67	24.70	28.17	32.11
		80			11.57	13.14	14.97	17.10	19.57	22.40	25.65	29.34	33.52
		75			11.59	13.29	15.26	17.55	20.18	23.20	26.65	30.55	34.96
		70		10.12	11.69	13.51	15.62	18.05	20.85	24.05	27.69	31.80	36.43
		60	8.81	10.32	12.07	14.11	16.46	19.17	22.28	25.81	29.82	34.32	39.37
		50	9.04	10.68	12.59	14.82	17.39	20.35	23.73	27.57	31.90		
	P	40	9.33	11.07	13.11	15.50	18.26	21.43	25.06				
		85			6.46	6.56	6.67	6.80	6.95	7.13	7.33	7.56	7.83
		80			5.72	5.81	5.93	6.06	6.20	6.38	6.57	6.80	7.06
		75			5.08	5.18	5.29	5.42	5.57	5.74	5.93	6.15	6.41
		70		4.44	4.54	4.64	4.76	4.89	5.04	5.20	5.40	5.61	5.86
		60	3.49	3.60	3.71	3.82	3.94	4.08	4.23	4.39	4.58	4.79	5.03
ZW79KBC	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
		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		
	P	40	10.02	12.07	14.49	17.34	20.69	24.59	29.10				
		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
		60	3.90	4.09	4.27	4.44	4.60	4.76	4.92	5.08	5.23	5.39	5.55
P	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

# 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	
ZW125KBE	Q	85			18.18	21.20	24.48	28.10	32.17	36.78	42.01	47.98	54.76
		80			18.66	21.74	25.13	28.93	33.22	38.11	43.69	50.06	57.30
		75			19.21	22.37	25.90	29.89	34.44	39.64	45.59	52.38	60.11
		70		16.85	19.79	23.06	26.76	30.97	35.80	41.34	47.68	54.92	63.15
		60	15.08	17.85	20.97	24.53	28.62	33.36	38.82	45.10	52.30	60.52	69.84
		50	15.64	18.57	21.96	25.91	30.51	35.86	42.06	49.19	57.35		
		40	15.59	18.78	22.55	26.99	32.20	38.27	45.29				
	P	85			9.11	9.47	9.83	10.19	10.56	10.93	11.31	11.69	12.09
		80			8.47	8.81	9.14	9.48	9.81	10.15	10.50	10.85	11.21
		75			7.88	8.19	8.50	8.81	9.12	9.43	9.74	10.06	10.39
		70		7.02	7.32	7.61	7.90	8.18	8.47	8.75	9.04	9.33	9.62
		60	5.79	6.07	6.33	6.59	6.83	7.07	7.30	7.54	7.77	8.00	8.24
		50	5.01	5.26	5.50	5.72	5.93	6.13	6.32	6.51	6.69		
		40	4.37	4.60	4.81	5.00	5.18	5.35	5.51				
ZW150KBE	Q	85			22.13	25.81	29.80	34.21	39.16	44.77	51.14	58.41	66.67
		80			22.72	26.47	30.59	35.22	40.44	46.40	53.19	60.94	69.76
		75			23.38	27.23	31.53	36.39	41.93	48.26	55.50	63.77	73.17
		70		20.51	24.09	28.08	32.57	37.70	43.58	50.32	58.04	66.85	76.88
		60	18.36	21.73	25.52	29.86	34.85	40.61	47.26	54.91	63.67	73.67	85.03
		50	19.04	22.60	26.73	31.54	37.14	43.66	51.20	59.88	69.82		
		40	18.98	22.86	27.45	32.85	39.19	46.58	55.14				
	P	85			11.28	11.73	12.17	12.62	13.07	13.53	14.00	14.48	14.97
		80			10.49	10.91	11.32	11.74	12.15	12.57	13.00	13.44	13.89
		75			9.75	10.14	10.53	10.91	11.29	11.67	12.06	12.46	12.87
		70		8.70	9.07	9.43	9.78	10.13	10.48	10.83	11.19	11.55	11.92
		60	7.17	7.51	7.84	8.15	8.46	8.75	9.04	9.33	9.62	9.91	10.20
		50	6.21	6.52	6.80	7.08	7.34	7.59	7.82	8.06	8.29		
		40	5.41	5.69	5.95	6.19	6.41	6.62	6.82				
ZW330KBE	Q	85			48.83	56.43	64.88	74.44	85.36	97.92	112.37	128.97	147.98
		80			50.12	58.05	66.95	77.08	88.71	102.08	117.48	135.15	155.35
		75			51.34	59.62	68.99	79.71	92.05	106.26	122.62	141.37	162.78
		70		44.85	52.53	61.16	71.02	82.34	95.41	110.48	127.81	147.66	170.30
		60	39.43	46.68	54.88	64.28	75.14	87.73	102.31	119.13	138.46	160.55	185.68
		50	41.00	48.59	57.37	67.59	79.53	93.44	109.58	128.22	149.61		
		40	42.77	50.76	60.18	71.30	84.37	99.66	117.44				
	P	85			23.32	24.57	25.88	27.22	28.57	29.87	31.11	32.24	33.23
		80			21.71	22.88	24.12	25.41	26.70	27.97	29.18	30.30	31.30
		75			20.19	21.28	22.46	23.69	24.95	26.19	27.39	28.50	29.50
		70		17.86	18.75	19.78	20.90	22.09	23.32	0.02	25.72	26.84	27.85
		60	14.87	15.43	16.18	17.09	18.12	19.25	20.42	21.62	22.81	23.95	25.01
		50	12.97	13.40	14.04	14.86	15.83	16.91	18.06	19.27	20.48		
		40	11.50	11.81	12.37	13.13	14.05	15.12	16.28				

Note: Superheat 5K, Subcooling 10K

# 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 5K, 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	m <sup>3</sup> /hr	18.8	18.8	14.4	17.1	18.8
Refrigerant		R134a				
Heating capacity	kW	17.4	16.1	12.27	14.7	16.1
Input power	kW	4.3	4.0	2.99	3.7	4.0
Current	A	10.8	8.8	5.91	9.0	8.8
Mass flow	g/s	83.7	83.5	63.88	75.8	83.5
Locked rotor amps	A	90.5	100	64	70.0	100.0
Rated load current	A	14.6	12.1	10	10.0	12.1
Max continuous current	A	20.5	17.0	11	14.0	17.0
Max operating current	A	14.6	15.0	14	12.5	12.1
Oil charge	Initial	L	1.89	1.89	1.893	1.89
	Replacement refill	L	1.77	1.77	1.774	1.77
Net weight	kg	41	41	38.1	40	41

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

ZW Series		ZW61KBC	ZW72KBC	ZW79KBC	ZW125KBE	ZW150KBE	ZW330KBE
Nominal power	HP	5	6	7	10	12	25
Motor type		TFP					
Displacement	m <sup>3</sup> /hr	14.4	17.1	18.8	29.1	35.4	77.3
Refrigerant		R134a					
Heating capacity	kW	12.8	15.5	16.6	25.9	31.5	68.9
Input power	kW	4.4	5.3	5.7	8.5	10.5	22.5
Current	A	7.6	9.2	11.8	17.4	21.2	39.3
Mass flow	g/s	73.4	87.3	98	149.7	184.7	407.8
Locked rotor amps	A	58	74	100	133	157	310
Rated load current	A	11.5	11.9	12.7	21.3	24.3	50.1
Max continuous current	A	16.1	16.6	17.8	29.8	34	70.1
Max operating current	A	12.8	12.5	15.3	22.2	30	56.4
Oil charge	Initial	L	1.89	1.89	1.89	3.25	6.30
	Replacement refill	L	1.77	1.77	1.77	3.14	6.00
Net weight	kg	38	40	41	60	65	179

Conditions: ET 10 °C, CT 75 °C, Superheat 5K, Subcooling 10K

## Specifications 60 Hz

### ZW KS(E)

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	1.89
	Replacement refill	L	1.77
Net weight	kg	40	

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

# Variable speed series

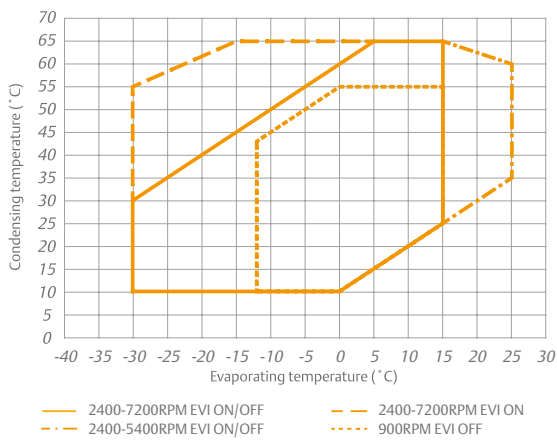
## Compressor model

Refrigerant	Compressor model	Power supply	EVI	Rated heating capacity (kW)	Performance table	Specification
R410A	ZWW050SP-3X9-522	1Φ/220 V/50 Hz	√	30.0	-	P56
	VPW038DE-3X9-571		√	20.0	-	P56
	ZWW050SP-4X9-522	3Φ/380 V/50 Hz	√	30.0	-	P56
	VPW038DE-4X9-571		√	20.0	-	P56
	ZWW070SP-4X9-522		√	40.0	-	P56

## Operating envelopes

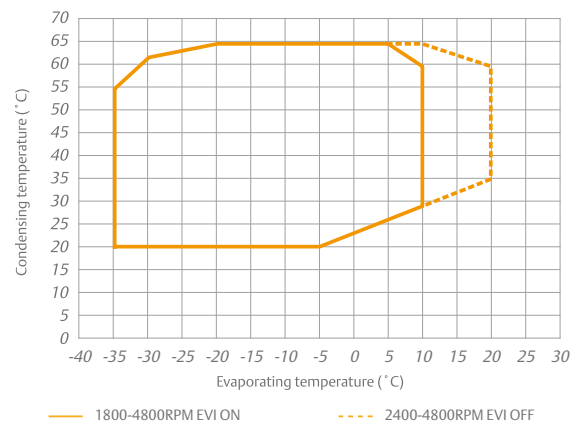
### VPW038DE

#### R410A



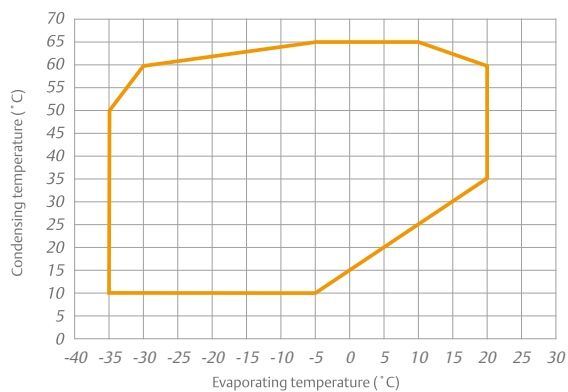
### ZWW050SP

#### R410A



### ZWW070SP\*

#### R410A



\* Preliminary parameters

# Variable speed series

# R410A

Variable speed series		VPW038DE	ZWW050SP	VPW038DE	ZWW050SP	ZWW070*
Nominal power	HP	5	6	5	6	12
Motor type		3X9		4X9		
Inverter input rating	V	220		380		
Displacement	cc/Rev	38.3	47.7	38.3	47.7	70.0
Refrigerants		R410A				
EVI		√				
Speed range	RPM	900-7,200	1,800-4,800	900-7,200	1,800-4,800	1,200-7,200
Heating capacity @75 Hz	kW	14.4	21.3	14.4	21.3	32.7
Input power @75 Hz	kW	4.38	6.23	4.38	6.23	8.3
Current @75 Hz	A	14	13	14	13	20
COP @75 Hz	kW/ kW	3.3	3.4	3.3	3.4	3.9
Noise @75 Hz	dBA	75	77	75	77	77
Rated frequency	Hz	75				
Oil charge	ml	1,183	1,597	1,183	1,597	1,597
Net weight	kg	21	27	21	27	33

Conditions: ET -7° C, CT 50 ° C, Superheat 5K, Subcooling 8.3K

\* Preliminary parameter

## 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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The suitability for this has to be assured from the plant manufacturer, which may include making appropriate tests.

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