

Minimum evaporating temp. with:

———— 25°C Suction Gas Return

- - - 10K Suction Superheat

Suction Superheat 10,0K

**Evaporating Temperature °C**

Liquid subcooling 0,0K

Cond °C	Capacity kW								
	-20	-15	-10	-5	0	5	7	10	12,5
27	8,24	10,35	12,85	15,60	18,60	21,80	23,20	25,20	27,00
30	7,97	10,05	12,50	15,25	18,25	21,50	22,80	24,90	26,70
35	7,54	9,53	11,90	14,55	17,55	20,80	22,20	24,30	26,10
40	7,13	8,98	11,25	13,85	16,80	20,00	21,40	23,50	25,30
45		8,44	10,55	13,05	15,90	19,05	20,40	22,50	24,30
50			9,86	12,20	14,95	18,05	19,35	21,40	23,20
55			9,16	11,35	13,95	16,90	18,20	20,20	21,90
60				10,45	12,90	15,70	16,90	18,85	20,60
65					11,80	14,40	15,60	17,45	19,10
	Power Input kW								
	-20	-15	-10	-5	0	5	7	10	12,5
27	3,10	3,14	3,18	3,22	3,27	3,34	3,37	3,42	3,47
30	3,31	3,35	3,39	3,43	3,48	3,54	3,57	3,62	3,67
35	3,68	3,73	3,77	3,81	3,85	3,91	3,94	3,98	4,03
40	4,09	4,14	4,18	4,22	4,27	4,32	4,34	4,39	4,43
45		4,61	4,65	4,69	4,73	4,78	4,80	4,84	4,88
50			5,17	5,21	5,25	5,30	5,32	5,35	5,38
55			5,76	5,80	5,84	5,88	5,90	5,93	5,96
60				6,45	6,49	6,53	6,55	6,57	6,60
65					7,22	7,26	7,28	7,30	7,32
	Current 400V, A								
	-20	-15	-10	-5	0	5	7	10	12,5
27	7,65	7,70	7,74	7,78	7,84	7,92	7,97	8,04	8,11
30	7,86	7,91	7,95	8,00	8,05	8,13	8,17	8,24	8,31
35	8,25	8,31	8,35	8,40	8,45	8,53	8,57	8,63	8,70
40	8,71	8,78	8,83	8,87	8,93	9,00	9,03	9,10	9,16
45		9,33	9,38	9,43	9,49	9,55	9,59	9,64	9,70
50			10,03	10,09	10,14	10,21	10,24	10,29	10,34
55			10,79	10,85	10,90	10,97	11,00	11,05	11,10
60				11,73	11,78	11,85	11,87	11,92	11,97
65					12,79	12,86	12,88	12,93	12,97
	Mass Flow g/s								
	-20	-15	-10	-5	0	5	7	10	12,5
27	48,10	59,70	73,00	87,50	103,50	120,00	127,00	137,00	146,00
30	47,60	59,20	72,60	87,50	103,50	120,50	127,50	138,50	147,50
35	46,80	58,30	71,80	87,00	103,50	121,00	128,50	139,50	149,50
40	46,10	57,20	70,60	86,00	103,00	121,00	128,50	140,50	150,00
45		56,20	69,30	84,50	101,50	120,00	128,00	140,00	151,00
50			67,70	83,00	100,00	119,00	127,00	139,50	150,00
55			66,10	80,50	97,50	117,00	125,00	137,50	148,50
60				78,50	95,00	114,00	122,50	135,50	146,50
65					92,00	111,00	119,00	132,50	143,50

**Copeland Scroll - Compressor - Air Conditioning - Standard**
**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, cu.m/h	18.8
Length/Width, mm	242/242
Height, mm	443
Net Weight, kg	39
Gross Weight, kg	45
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1 1/4
Stub Suction, inch	7/8
Stub Discharge, inch	3/4
Oil Quantity, l	1.77
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (HT), dBA	61
Sound Power (HT), dBA	72
PED Category	1
Internal Free Volume, l	4.2
High Side PS, bar(g)	29.5
Low Side PS, bar(g)	20
Low Side TS Max., °C	50

**COMPRESSOR ELECTRICAL DATA (380/420V - 3~ - 50Hz)**

Maximum Operating Current, A	15
Locked Rotor Current, A	101
Winding Resistance, ohm	1.79
Default Enclosure Class	IP 21 (IEC 34)

**ACCESSORIES INCLUDED**

Discharge Temperature Protection	Internal Thermodisk
Mounting Grommets	Standard

**ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
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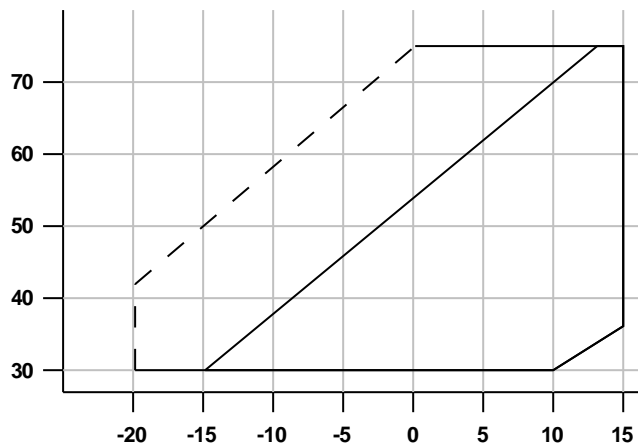
**MOTOR OPTIONS**

<b>Power Supply</b>	<b>Nominal Voltage</b>	<b>Motor Code</b>	<b>Start Connection</b>	<b>DOL Connection</b>	<b>Amps Factor</b>
380-420 V/3~/50H	400	TFD		Y	1,00
200-220 V/3~/50H	200	TF5		Y	2,09
200-230 V/3~/60H	230	TF5		Y	2,09
460 V/3~/60Hz	460	TFD		Y	1,04

50Hz

ZR81KCE-TFD

R134a



Minimum evaporating temp. with:  
 ——— 25°C Suction Gas Return  
 - - - 10K Suction Superheat

Suction Superheat 10,0K

Evaporating Temperature °C

Liquid subcooling 0,0K

Cond °C	Capacity kW									
	-20	-15	-10	-5	0	5	7	10	12,5	15
30	4,88	6,22	7,83	9,74	12,00	14,60	15,80	17,65		
40	4,30	5,53	7,01	8,76	10,80	13,20	14,25	16,00	17,50	19,15
45		5,17	6,58	8,24	10,20	12,50	13,50	15,15	16,60	18,15
50		4,80	6,14	7,72	9,57	11,75	12,70	14,25	15,65	17,15
55			5,68	7,17	8,93	11,00	11,90	13,35	14,70	16,10
60				6,61	8,26	10,20	11,05	12,45	13,70	15,05
65				6,04	7,58	9,39	10,20	11,50	12,65	13,95
70					6,88	8,57	9,32	10,55	11,65	12,80
75					6,16	7,72	8,41	9,54	10,55	11,65
	Power Input kW									
	-20	-15	-10	-5	0	5	7	10	12,5	15
30	2,25	2,28	2,29	2,30	2,31	2,33	2,35	2,37		
40	2,81	2,84	2,86	2,87	2,89	2,92	2,93	2,96	2,99	3,03
45		3,17	3,19	3,21	3,22	3,25	3,27	3,29	3,32	3,36
50		3,55	3,57	3,58	3,60	3,62	3,64	3,67	3,70	3,73
55			4,00	4,01	4,02	4,04	4,06	4,08	4,11	4,15
60				4,48	4,49	4,51	4,52	4,55	4,57	4,61
65				5,02	5,02	5,04	5,05	5,07	5,09	5,12
70					5,62	5,62	5,63	5,65	5,67	5,70
75					6,29	6,28	6,29	6,30	6,31	6,34
	Current 400V, A									
	-20	-15	-10	-5	0	5	7	10	12,5	15
30	6,91	6,92	6,92	6,92	6,93	6,95	6,97	6,99		
40	7,37	7,40	7,41	7,42	7,44	7,47	7,49	7,52	7,55	7,59
45		7,72	7,73	7,75	7,77	7,80	7,81	7,85	7,88	7,92
50		8,10	8,12	8,14	8,16	8,19	8,21	8,24	8,27	8,31
55			8,59	8,61	8,62	8,65	8,67	8,70	8,73	8,77
60				9,16	9,18	9,20	9,22	9,25	9,28	9,32
65				9,82	9,83	9,85	9,87	9,89	9,92	9,96
70					10,60	10,61	10,62	10,64	10,67	10,70
75					11,49	11,49	11,50	11,52	11,54	11,56
	Mass Flow g/s									
	-20	-15	-10	-5	0	5	7	10	12,5	15
30	32,10	40,00	49,30	60,10	72,60	87,00	93,00	103,00		
40	31,30	39,30	48,70	59,50	71,90	86,00	92,00	102,00	110,50	120,00
45		38,90	48,20	59,10	71,40	85,50	91,50	101,50	110,00	119,50
50		38,30	47,70	58,50	70,90	85,00	91,00	101,00	109,50	118,50
55			47,00	57,80	70,20	84,00	90,50	100,00	108,50	118,00
60				57,10	69,40	83,50	89,50	99,00	108,00	117,00
65				56,10	68,40	82,50	88,50	98,00	107,00	116,00
70					67,30	81,00	87,50	97,00	105,50	115,00
75					66,00	80,00	86,00	95,50	104,50	113,50

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Crankcase Heater	70 W External
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**MOTOR OPTIONS**

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200-220 V/3~/50H	200	TF5		Y	2,09
200-230 V/3~/60H	230	TF5		Y	2,09
460 V/3~/60Hz	460	TFD		Y	1,04