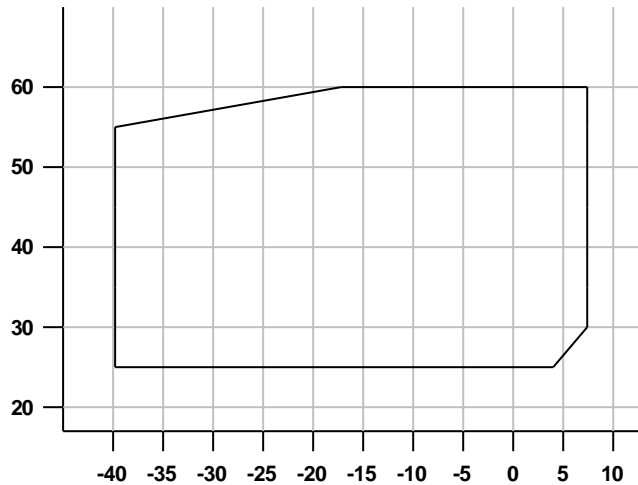


50Hz

ZF15K4E-TFD

R134a



Minimum evaporating temp. with:  
 ——— 25°C Suction Gas Return + Liquid Injection

Suction Superheat 10,0K

Evaporating Temperature °C

Liquid subcooling 0,0K

Cond °C	Capacity kW										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
25	1,53	1,97	2,52	3,22	4,06	5,09	6,30	7,74	9,40		
30	1,45	1,87	2,41	3,07	3,88	4,86	6,03	7,40	9,00	10,85	11,65
35	1,36	1,77	2,28	2,92	3,69	4,62	5,74	7,05	8,59	10,35	11,15
40	1,27	1,67	2,15	2,76	3,49	4,38	5,44	6,69	8,16	9,87	10,60
45	1,18	1,56	2,02	2,59	3,28	4,12	5,13	6,33	7,73	9,36	10,10
50	1,08	1,44	1,88	2,41	3,07	3,86	4,82	5,95	7,29	8,85	9,54
55	0,99	1,32	1,73	2,23	2,85	3,59	4,49	5,56	6,83	8,32	8,98
60						3,31	4,15	5,16	6,36	7,78	8,41
	Power Input kW										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
25	1,30	1,36	1,42	1,50	1,58	1,67	1,77	1,88	2,01		
30	1,41	1,47	1,54	1,62	1,71	1,80	1,91	2,02	2,14	2,28	2,33
35	1,53	1,59	1,67	1,75	1,84	1,94	2,05	2,16	2,29	2,43	2,48
40	1,66	1,72	1,80	1,89	1,98	2,08	2,20	2,32	2,44	2,58	2,64
45	1,80	1,87	1,95	2,04	2,14	2,24	2,35	2,48	2,61	2,75	2,81
50	1,95	2,03	2,11	2,20	2,30	2,41	2,53	2,65	2,79	2,93	2,99
55	2,12	2,20	2,29	2,38	2,49	2,60	2,72	2,85	2,98	3,13	3,19
60						2,80	2,93	3,06	3,19	3,34	3,40
	Current 400V, A										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
25	4,09	4,14	4,20	4,27	4,34	4,42	4,51	4,60	4,71		
30	4,19	4,25	4,31	4,37	4,45	4,53	4,62	4,72	4,83	4,95	5,00
35	4,29	4,35	4,41	4,48	4,56	4,65	4,75	4,85	4,97	5,09	5,15
40	4,40	4,46	4,53	4,60	4,68	4,78	4,88	4,99	5,11	5,25	5,30
45	4,52	4,58	4,65	4,73	4,82	4,92	5,03	5,15	5,28	5,42	5,48
50	4,65	4,72	4,79	4,88	4,97	5,08	5,20	5,32	5,47	5,62	5,68
55	4,81	4,88	4,96	5,05	5,15	5,27	5,39	5,53	5,68	5,84	5,91
60						5,48	5,62	5,77	5,93	6,10	6,18
	Mass Flow g/s										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
25	10,50	13,20	16,50	20,60	25,50	31,20	38,00	45,70	54,50		
30	10,40	13,20	16,50	20,60	25,50	31,20	37,90	45,70	54,50	64,40	68,70
35	10,40	13,20	16,50	20,60	25,50	31,20	37,90	45,60	54,40	64,30	68,60
40	10,30	13,10	16,50	20,60	25,40	31,10	37,80	45,50	54,30	64,30	68,60
45	10,20	13,00	16,40	20,50	25,30	31,00	37,60	45,30	54,10	64,10	68,50
50	10,00	12,90	16,30	20,30	25,10	30,80	37,40	45,10	53,90	64,00	68,40
55	9,80	12,70	16,10	20,10	24,90	30,60	37,20	44,90	53,70	63,80	68,20
60						30,30	36,90	44,50	53,40	63,60	68,00

**Copeland Scroll - Compressor - Refrigeration - LT Liquid Injection**
**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, cu.m/h	14.5
Length/Width, mm	246/251
Height, mm	442
Net Weight, kg	39
Gross Weight, kg	42
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (LT), dBA	65
Sound Power (LT), dBA	76
Sound Power with Sound Shell (LT), dBA	66
PED Category	1
Internal Free Volume, l	5.9
High Side PS, bar(g)	32
Low Side PS, bar(g)	21
Low Side TS Max., °C	50

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

Maximum Operating Current, A	10
Locked Rotor Current, A	64
Winding Resistance, ohm	2.75
Default Enclosure Class	IP 21 (IEC 34)

**ACCESSORIES INCLUDED**

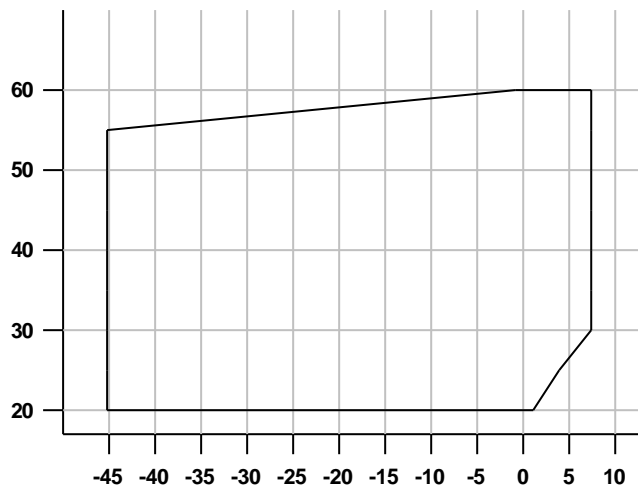
Discharge Temperature Protection	External Thermostat
Mounting Grommets	Standard

**ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
Current Sensing Relay	External
Liquid Injection	DTC Valve
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10 dBA)
Rotalock valves	suction and discharge

**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
460 V/3~/60Hz	460	TFD		Y	1,04



Minimum evaporating temp. with:  
 ——— 25°C Suction Gas Return + Liquid Injection

Suction Return Temperature 20,0°C      **Evaporating Temperature °C**      Liquid subcooling 0,0K

Cond °C	Capacity kW											
	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	2,41	3,03	3,80	4,72	5,82	7,10	8,58	10,30	12,25	14,45		
25	2,30	2,91	3,66	4,56	5,62	6,87	8,31	9,97	11,85	14,00		
30	2,20	2,80	3,52	4,39	5,42	6,63	8,02	9,63	11,45	13,55	15,85	16,85
35	2,10	2,68	3,38	4,22	5,22	6,38	7,73	9,28	11,05	13,05	15,30	16,30
40	2,02	2,57	3,24	4,05	5,00	6,12	7,41	8,91	10,60	12,55	14,70	15,65
45	1,92	2,46	3,10	3,87	4,77	5,84	7,08	8,51	10,15	12,00	14,10	15,00
50	1,83	2,34	2,94	3,67	4,53	5,55	6,73	8,10	9,66	11,45	13,45	14,35
55	1,73	2,20	2,77	3,46	4,27	5,23	6,35	7,65	9,15	10,85	12,80	13,60
60										10,20	12,05	12,85
	Power Input kW											
	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	2,02	2,07	2,13	2,20	2,30	2,41	2,55	2,72	2,92	3,16		
25	2,21	2,27	2,33	2,41	2,50	2,61	2,75	2,91	3,10	3,33		
30	2,41	2,47	2,53	2,61	2,70	2,82	2,95	3,11	3,30	3,52	3,78	3,89
35	2,61	2,67	2,75	2,83	2,92	3,03	3,17	3,32	3,51	3,72	3,97	4,08
40	2,82	2,89	2,97	3,06	3,16	3,27	3,40	3,56	3,74	3,95	4,19	4,30
45	3,04	3,12	3,21	3,31	3,41	3,53	3,66	3,82	4,00	4,20	4,44	4,55
50	3,28	3,38	3,48	3,58	3,69	3,81	3,95	4,10	4,28	4,49	4,73	4,83
55	3,55	3,66	3,77	3,88	3,99	4,12	4,26	4,42	4,61	4,81	5,05	5,15
60										5,18	5,41	5,52
	Current 400V, A											
	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	4,75	4,78	4,82	4,88	4,96	5,07	5,21	5,40	5,62	5,90		
25	4,87	4,92	4,97	5,04	5,13	5,24	5,39	5,58	5,80	6,08		
30	5,05	5,11	5,18	5,26	5,36	5,48	5,63	5,82	6,05	6,33	6,66	6,81
35	5,27	5,35	5,43	5,53	5,64	5,77	5,93	6,12	6,35	6,63	6,96	7,11
40	5,53	5,62	5,72	5,83	5,95	6,09	6,26	6,46	6,70	6,98	7,31	7,46
45	5,80	5,92	6,03	6,15	6,29	6,44	6,62	6,83	7,07	7,36	7,69	7,84
50	6,08	6,22	6,35	6,49	6,64	6,81	7,00	7,21	7,46	7,75	8,09	8,24
55	6,36	6,51	6,67	6,83	6,99	7,17	7,37	7,60	7,86	8,16	8,50	8,65
60										8,56	8,90	9,05
	Mass Flow g/s											
	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	11,90	15,00	18,80	23,40	29,00	35,50	43,10	51,90	62,00	73,60		
25	11,70	14,80	18,70	23,30	28,90	35,40	43,00	51,90	62,00	73,70		
30	11,60	14,70	18,60	23,20	28,80	35,30	42,90	51,80	62,00	73,70	87,00	93,00
35	11,50	14,60	18,50	23,10	28,70	35,20	42,80	51,70	61,90	73,70	87,00	93,00
40	11,40	14,50	18,40	23,00	28,50	35,00	42,60	51,50	61,80	73,60	87,00	93,00
45	11,30	14,40	18,20	22,80	28,30	34,80	42,40	51,20	61,50	73,30	87,00	93,00
50	11,20	14,30	18,10	22,60	28,00	34,40	42,00	50,80	61,10	72,90	86,50	92,50
55	11,10	14,10	17,80	22,20	27,60	33,90	41,40	50,20	60,50	72,40	86,00	92,00
60										71,60	85,50	91,50

**Copeland Scroll - Compressor - Refrigeration - LT Liquid Injection**
**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, cu.m/h	14.5
Length/Width, mm	246/251
Height, mm	442
Net Weight, kg	39
Gross Weight, kg	42
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (LT), dBA	65
Sound Power (LT), dBA	76
Sound Power with Sound Shell (LT), dBA	66
PED Category	1
Internal Free Volume, l	5.9
High Side PS, bar(g)	32
Low Side PS, bar(g)	21
Low Side TS Max., °C	50

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

Maximum Operating Current, A	10
Locked Rotor Current, A	64
Winding Resistance, ohm	2.75
Default Enclosure Class	IP 21 (IEC 34)

**ACCESSORIES INCLUDED**

Discharge Temperature Protection	External Thermostat
Mounting Grommets	Standard

**ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
Current Sensing Relay	External
Liquid Injection	DTC Valve
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10 dBA)
Rotalock valves	suction and discharge

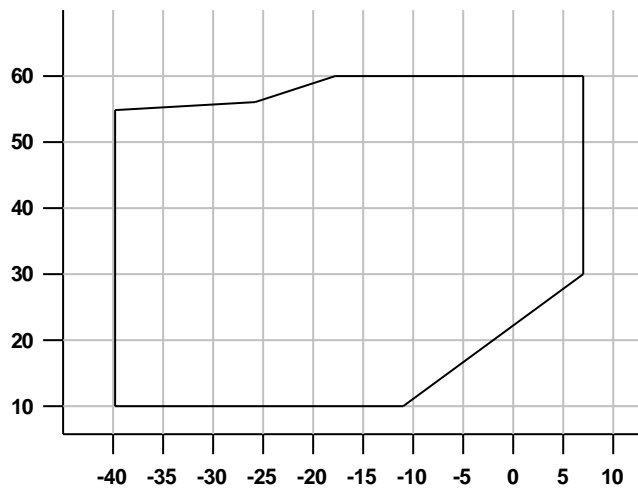
**MOTOR OPTIONS**

<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
460 V/3~/60Hz	460	TFD		Y	1,04

50Hz

ZF15K4E-TFD

R404A Dew Point



Minimum evaporating temp. with:  
 ——— 25°C Suction Gas Return + Liquid Injection

Suction Return Temperature 20,0°C

Evaporating Temperature °C

Liquid subcooling 0,0K

Cond °C	Capacity kW										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
10	3,77	4,75	5,95	7,39	9,10	11,10	12,15	14,50	15,25	17,95	19,10
20	3,43	4,34	5,43	6,74	8,27	10,05	10,80	12,85	14,25	16,75	17,85
30	3,07	3,89	4,87	6,03	7,38	8,96	10,10	12,05	14,25	16,75	17,85
35	2,89	3,66	4,58	5,65	6,92	8,39	10,10	12,05	14,25	16,75	17,85
40	2,70	3,42	4,27	5,27	6,43	7,79	9,36	11,15	13,25	15,55	16,60
45	2,51	3,18	3,96	4,87	5,93	7,18	8,61	10,25	12,15	14,35	15,30
50	2,31	2,92	3,63	4,46	5,42	6,55	7,85	9,36	11,10	13,05	13,95
55	2,11	2,67	3,30	4,04	4,90	5,90	7,07	8,42	9,99	11,80	12,60
60						5,23	6,26	7,46	8,86	10,45	11,20
	Power Input kW										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
10	1,55	1,64	1,74	1,88	2,05	2,27	2,73	3,00	3,59	3,93	4,08
20	1,85	1,94	2,04	2,17	2,31	2,50	3,06	3,30	3,78	4,10	4,24
30	2,23	2,34	2,44	2,56	2,70	2,86	3,29	3,51	4,03	4,32	4,46
35	2,45	2,57	2,69	2,81	2,95	3,10	3,29	3,51	3,78	4,10	4,24
40	2,69	2,83	2,96	3,09	3,23	3,38	3,56	3,77	4,03	4,32	4,46
45	2,95	3,11	3,25	3,40	3,54	3,70	3,88	4,08	4,32	4,60	4,73
50	3,24	3,42	3,59	3,74	3,90	4,06	4,24	4,44	4,67	4,93	5,05
55	3,55	3,76	3,95	4,12	4,29	4,46	4,65	4,84	5,07	5,32	5,43
60						4,91	5,10	5,30	5,52	5,77	5,88
	Current 400V, A										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
10	5,49	5,55	5,63	5,73	5,85	6,01	6,43	6,67	7,30	7,63	7,77
20	5,65	5,73	5,82	5,93	6,07	6,23	6,79	7,03	7,55	7,87	8,02
30	5,90	6,01	6,13	6,26	6,41	6,59	7,03	7,27	7,85	8,17	8,32
35	6,08	6,21	6,34	6,49	6,65	6,83	7,27	7,51	8,11	8,43	8,58
40	6,30	6,45	6,60	6,75	6,93	7,11	7,55	7,79	8,41	8,73	8,88
45	6,57	6,73	6,90	7,07	7,26	7,46	7,91	8,15	8,79	9,11	9,26
50	6,89	7,07	7,26	7,45	7,65	7,86	8,31	8,55	9,21	9,53	9,68
55	7,26	7,47	7,68	7,89	8,10	8,33	8,78	9,02	9,69	10,01	10,16
60						8,86	9,31	9,55	10,22	10,54	10,69
	Mass Flow g/s										
	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
10	21,00	26,50	33,30	41,60	51,40	63,00	76,00	91,50	107,50	128,50	137,50
20	20,80	26,40	33,20	41,30	51,00	62,40	74,50	90,00	106,50	127,50	136,50
30	20,50	26,10	32,80	40,80	50,20	61,40	73,70	89,00	106,50	127,50	136,50
35	20,40	25,90	32,50	40,40	49,70	60,80	73,00	88,00	105,50	126,00	135,00
40	20,20	25,70	32,20	40,00	49,20	60,00	72,80	88,00	105,50	126,00	135,00
45	20,00	25,50	31,90	39,50	48,50	59,20	71,70	86,50	104,00	124,50	134,00
50	19,90	25,30	31,60	39,00	47,80	58,20	70,60	85,50	102,50	123,00	132,50
55	19,80	25,10	31,30	38,50	47,10	57,30	69,40	84,00	101,50	122,00	131,50
60						56,40	68,40	83,00	100,00	121,00	130,50

**Copeland Scroll - Compressor - Refrigeration - LT Liquid Injection**
**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, cu.m/h	14.5
Length/Width, mm	246/251
Height, mm	442
Net Weight, kg	39
Gross Weight, kg	42
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (LT), dBA	65
Sound Power (LT), dBA	76
Sound Power with Sound Shell (LT), dBA	66
PED Category	1
Internal Free Volume, l	5.9
High Side PS, bar(g)	32
Low Side PS, bar(g)	21
Low Side TS Max., °C	50

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

Maximum Operating Current, A	10
Locked Rotor Current, A	64
Winding Resistance, ohm	2.75
Default Enclosure Class	IP 21 (IEC 34)

**ACCESSORIES INCLUDED**

Discharge Temperature Protection	External Thermostat
Mounting Grommets	Standard

**ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
Current Sensing Relay	External
Liquid Injection	DTC Valve
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10 dBA)
Rotalock valves	suction and discharge

**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
460 V/3~/60Hz	460	TFD		Y	1,04