FULL SPECIFICATION REPORT

COPELAND

Date : 15-Jun-2026 4:42:57 PM

Model No: ZR32K5E-PFV-800
Refrigerant: R-407C
Voltage: 208/230
Phase: 1
Product Type: Scroll
Job Name: --
Job Location: --

Serial No: *******
Frequency (Hz): 60
Application: Air Conditioning
Status: OEM Production
BOM Status: Active

Mechanical

Overall Dimensions (in)	9.7L x 9.7W x 15.3H
Mounting Dimensions (in)	7.5L x 7.5W
Suction Size (in)/Type	3/4 Stub
Discharge Size (in)/Type	1/2 Stub
Oil	3MA (Polyol Ester Oil)
Service Oil Type	3MA (Polyol Ester Oil)
Oil Charge (oz)	25
Oil Recharge (oz)	19
Net Weight (lb)	50
Internal Free Volume (in^3)	115
Displacement (in^3/rev)	2.69
Displacement (in^3/hr)	326.9
Electrical Connection	Molded Plug
Sight Glass	--
Bore (in)	--
Stroke (in)	--
Mounting Parts	Included
Crankcase Heater	--
Schrader Valve	--
Tandem Ready	--
Module Voltage	--
No. of Cylinders	--
Reference Drawing	Reference Drawing
BOM Notes	NOTE 1 3/4 IN (19MM) ID SUCT STRAIGHT 1/2 IN (12.7MM) ID DISCH STRAIGHT 4 FT MTG SERVICE W/SMALL TERM FENCE OIL & MTG PTS W/POWER CABLE W/MOLDED PLUG CAP AND LABEL

Electrical

LRA High (Amps)	87.0
RLA (MCC/1.4) (Amps)	17.1
RLA (MCC/1.56) (Amps)	15.4
MCC (Amps)	24.0
RPM	3,500
UL File No.	SA2337-20031216
UL File Date	16 Dec 2003
Box IP	56

Capacitor

	Start	Run
Part Number	014-0061-27	014-0064-29
mfd.	88-106	50
Volts	330	370

Relay

	Potential	Current
Part Number	040-0166-37	--
Pick-Up (Volts)	170	--
Drop Out (Volts)	40	--
Coil (Volts)	332	--

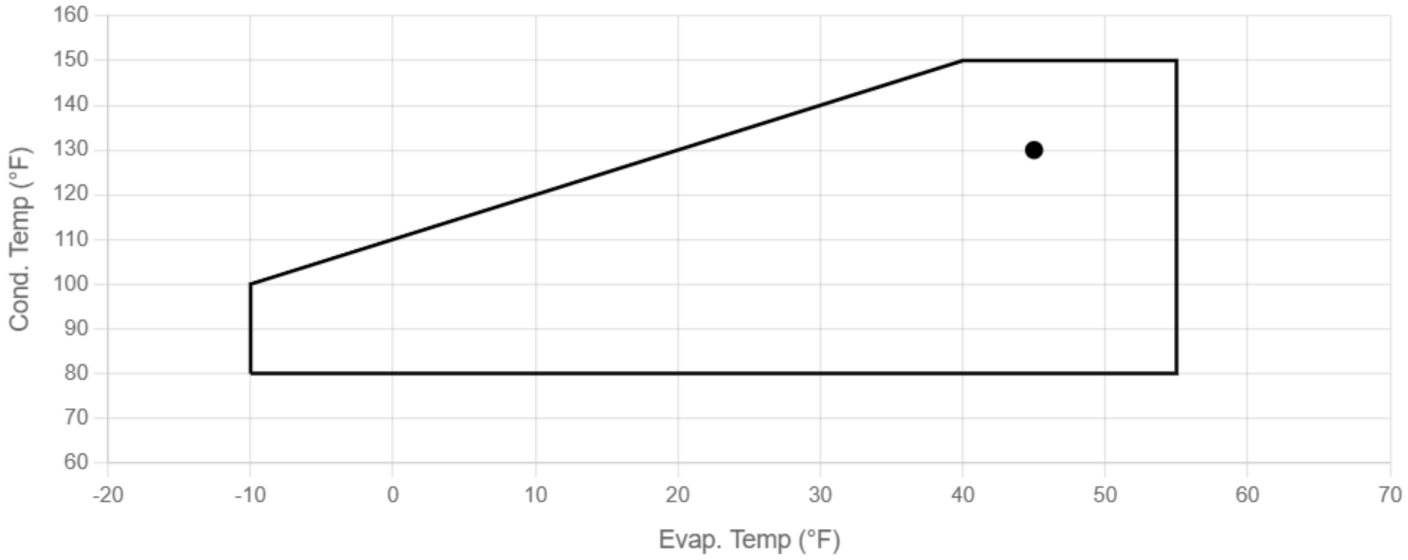
Winding Resistance

Part Number	071-0512-27
Resistance	+/-7%
Start (Ω)	1.2
Run (Ω)	0.828

Performance

	#1	#2
Capacity (Btu/hr)	31,300	42,200
Evaporator Temp. (°F)	45	50
Condensing Temp. (°F)	130	100
Return Gas Temp. (°F)	65	70
Subcooling (F)	15	15
Power	2,990	1,980
EER (Btu/Wh)	10.47	21.31
Current (Amps)	13.1	9.0
Full Performance (PDF)	Full Performance	

Operating Envelope



AE Bulletins

ZR16 to ZR54K5E R-22 and R-407C 1.5 to 5 Ton Copeland Scroll™ Compressors

Service Parts

Electrical Parts

Item No	Item Description	Item Comments	Quantity
914-0037-40	RUN CAP KIT	--	1

Crankcase Heater

Item No	Item Description	Item Comments	Quantity
918-0052-00	CRANKCASE HEATER KIT	240V 40W WRAP AROUND	1
918-0052-01	CRANKCASE HEATER KIT	120V 40W WRAP AROUND	1

Mounting Assembly

Item No	Item Description	Item Comments	Quantity
527-0044-15	SPACER - MOUNTING ASSM	--	1

Molded Plug

Item No	Item Description	Item Comments	Quantity
529-0060-24	POWER CABLE-MOLDED PLUG	--	1

Item Number	Description	Quantity
052-1441-00	LABEL-COMPRESSOR RETURN	1
527-0044-15	SPACER - MOUNTING ASSM	1
529-0370-00	KIT-MOLDED PLUG	1
FM-2011ECT-79	INSTRUCTIONS	1

Rating Conditions

20 °F Superheat

15 F Subcooling

95 °F Ambient Air Over

60 Hz Operation

AIR CONDITIONING

ZR32K5E-PFV

HFC-407C - Dew Pt.

COPELAND SCROLL®

PFV 208/230-1-60

Condensing Temperature °F (Sat. Dew Pt. Pressure, psig)		Evaporating Temperature °F (Sat. Dew Pt. Pressure, psig)								
		-10.0 (12)	**0.0** (19)	**10.0** (28)	**20.0** (38)	**30.0** (50)	**40.0** (63)	**45.0** (71)	**50.0** (79)	**55.0** (88)
150.0 (402)	**C**						22,700	25,800	29,100	32,700
	P						4,080	4,050	4,020	3,990
	A						17.7	17.5	17.4	17.2
	M						380	427	477	530
	E						5.6	6.4	7.3	8.2
	%						51.2	54.7	57.8	60.6
140.0 (352)	**C**					19,600	25,500	28,700	32,200	35,900
	P					3,550	3,490	3,470	3,450	3,430
	A					15.4	15.2	15.1	15.0	14.8
	M					311	397	443	491	543
	E					5.6	7.3	8.3	9.3	10.5
	%					50.3	57.6	60.6	63.3	65.5
130.0 (307)	**C**				16,550	21,900	28,000	31,300	34,900	38,800
	P				3,080	3,040	3,000	2,990	2,980	2,970
	A				13.5	13.4	13.2	13.1	13.0	12.9
	M				251	326	409	454	502	552
	E				5.4	7.2	9.3	10.5	11.8	13.1
	%				48.7	56.7	63.0	65.5	67.5	69.0
120.0 (266)	**C**			13,600	18,450	23,900	30,300	33,800	37,500	41,600
	P			2,680	2,650	2,620	2,600	2,590	2,580	2,580
	A			11.9	11.8	11.7	11.6	11.5	11.4	11.3
	M			199	264	336	417	462	509	559
	E			5.1	7.0	9.2	11.7	13.1	14.5	16.1
	%			46.1	54.9	62.0	67.1	68.9	70.1	70.7
110.0 (229)	**C**		10,850	15,200	20,100	25,800	32,400	36,000	39,900	44,200
	P		2,330	2,310	2,290	2,270	2,260	2,260	2,260	2,260
	A		10.5	10.4	10.4	10.3	10.2	10.2	10.1	10.0
	M		152	210	273	343	423	467	514	564
	E		4.7	6.6	8.8	11.4	14.3	16.0	17.7	19.6
	%		42.5	52.3	60.1	65.9	69.5	70.4	70.6	70.1
100.0 (196)	**C**	8,290	12,200	16,600	21,700	27,500	34,300	38,100	42,200	46,600
	P	2,020	2,010	1,995	1,985	1,980	1,975	1,975	1,980	1,985
	A	9.3	9.2	9.2	9.2	9.2	9.1	9.1	9.0	9.0
	M	113	163	218	279	348	428	471	518	568
	E	4.1	6.1	8.4	10.9	13.9	17.4	19.3	21.4	23.5
	%	37.8	48.6	57.3	63.9	68.2	69.9	69.7	68.6	66.7
90.0 (167)	**C**	9,520	13,400	17,900	23,100	29,100	36,200	40,100	44,400	49,000
	P	1,745	1,740	1,735	1,730	1,730	1,730	1,735	1,740	1,745
	A	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.1	8.1
	M	123	171	224	283	352	430	474	521	571
	E	5.5	7.7	10.4	13.4	16.9	20.9	23.2	25.6	28.1
	%	44.2	53.7	61.1	66.1	68.5	68.0	66.4	63.8	60.2
80.0 (141)	**C**	10,600	14,500	19,050	24,400	30,600	37,900	42,000	46,500	51,200
	P	1,505	1,505	1,505	1,505	1,505	1,510	1,515	1,515	1,520
	A	7.3	7.3	7.3	7.3	7.3	7.3	7.4	7.3	7.3
	M	131	176	228	286	354	433	476	523	573
	E	7.1	9.7	12.7	16.2	20.3	25.1	27.8	30.6	33.7
	%	49.8	57.8	63.6	66.8	67.0	63.6	60.3	55.9	50.2

C: Capacity (Btu/hr), P: Power (W), A: Current (Amps), M: Mass Flow (lb/hr), E: EER (Btu/Wh), %: Isentropic Efficiency (%)

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 230 V

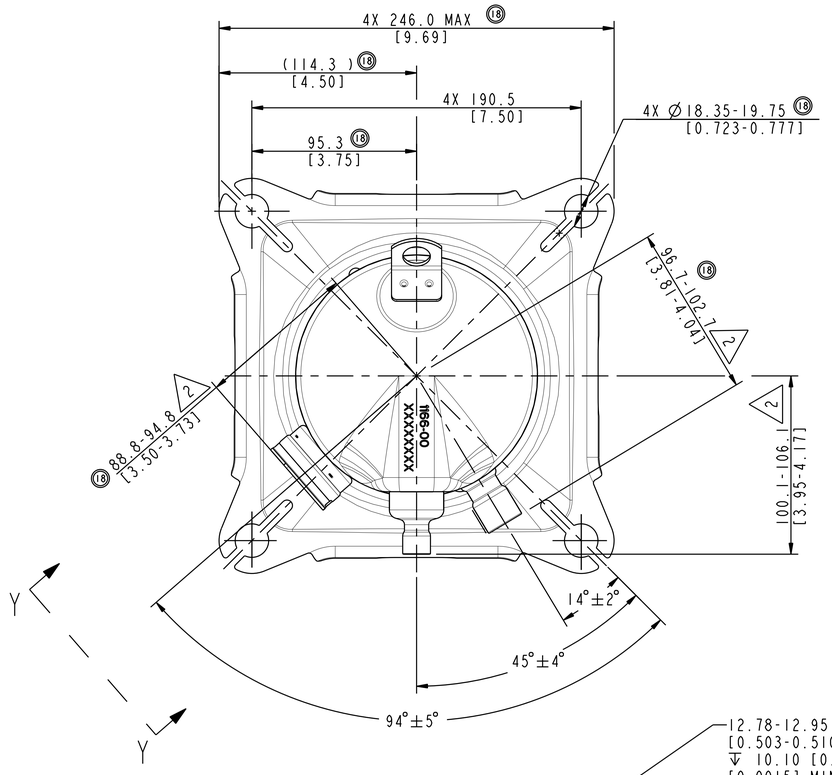
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Autogenerated Compressor Performance

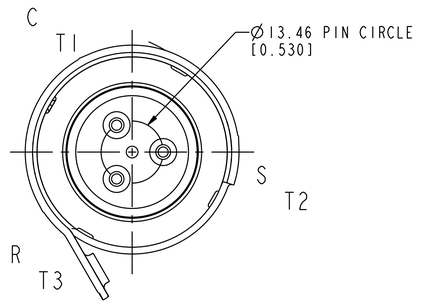
Printed 9/17/2025

COPELAND

MODEL NUMBER	
ZR16K5-PFV	
ZR18K5-PFV	
ZR21K5-PFV/PFJ/TF5/TFD/TF7	(14)
ZR25K5-PFV/TF5/TFD/PFJ/TF7	(10) (17)
ZR26K5-PFV	(13)
ZR28K5-PFV/PFJ/TF5/TFD/TF7	(14)
ZR32K5-PFV/TF5/TFD/TFE/PFJ/TF7	(11) (14)
ZR16K5E-PFV/PFJ	(8) (16)
ZR18K5E-PFV/PFJ	(8) (15)
ZR21K5E-PFV/TF5/TFD/PFJ/TF7	(8) (9) (12) (22)
ZR25K5E-PFV/TF5/TFD/PFJ/TF7	(8) (9) (12) (22)
ZR28K5E-PFV/TF5/TFD/PFJ/TF7	(8) (9) (12) (22)
ZR32K5E-PFV/TF5/TFD/TFE/PFJ/TF7	(8) (9) (12) (22)
ZR34K5E-PFV/TF5	(19) (21)
ZR34K5-PFV/TF5	(19) (20)
ZR26K5E-PFV	(21)

SPECIFICATIONS	
ES NO.	DESCRIPTION
ES92-155	CONVERSION-METRIC



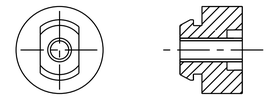


VIEW Y-Y
SCALE 2:1

NOTES:

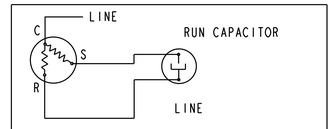
1. ALL TOLERANCES ±1.50 [0.060] UNLESS OTHERWISE SPECIFIED.
2. THE SUCTION TUBE, DISCHARGE TUBE, AND CIRCLE FENCE RADIAL DIMENSIONS ARE TO BE GAUGED FROM THE CENTER OF THE MOUNTING HOLE PATTERN.
3. TUBE ENDS MUST BE PLUGGED.
4. MOUNTING KIT:

GROMMET DUROMETER	4 FOOT KIT
30-35	527-0044-15



COMPRESSOR WIRING DIAGRAM

SINGLE PHASE MOTOR WITH INTERNAL PROTECTION

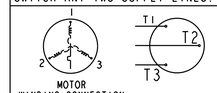


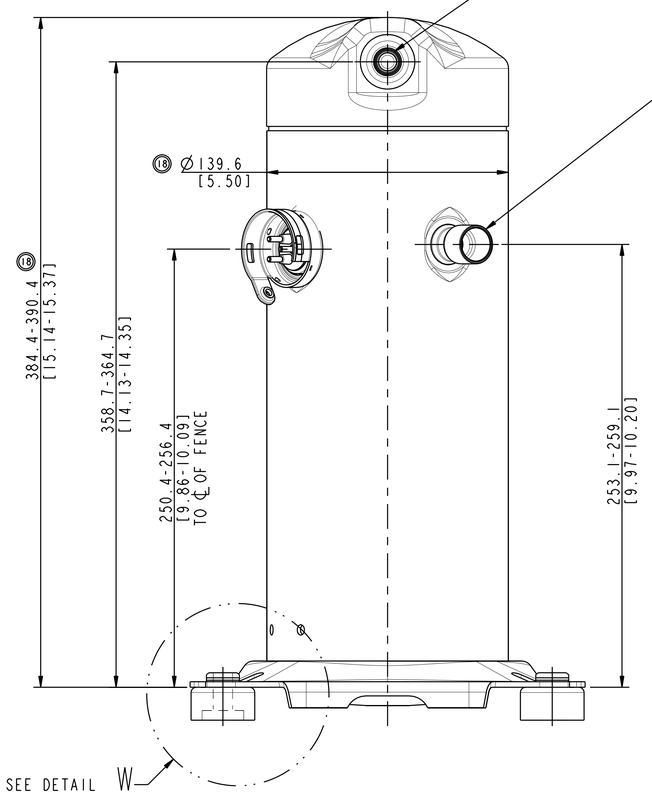
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75° C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE

COMPRESSOR WIRING DIAGRAM

THREE PHASE MOTOR WITH INTERNAL PROTECTION

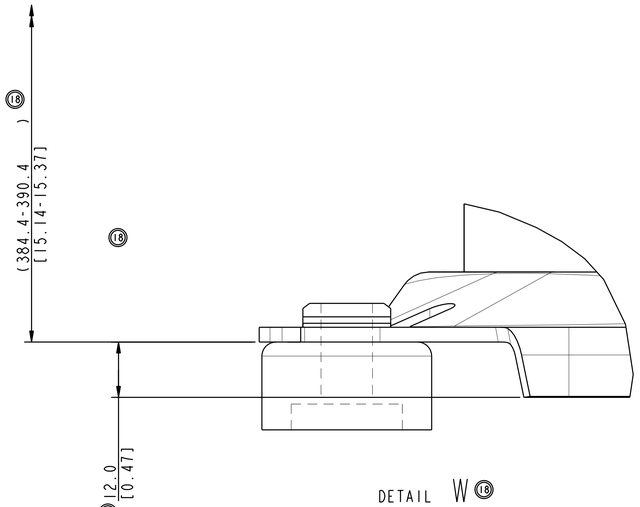
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75° C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.





(18) 12.78-12.95 I.D. ◆
[0.503-0.510]
↓ 10.10 [0.398] MIN, 0.038 [0.0015] MIN THICK EXTERIOR AND 0.038 [0.0015] MIN THICK INTERIOR COPPER PLATED STEEL DISCHARGE FITTING.

(18) 19.12-19.30 I.D. ◆
[0.753-0.759]
↓ 16.00 [0.630] MIN, 0.038 [0.0015] MIN THICK EXTERIOR AND 0.038 [0.0015] MIN THICK INTERIOR COPPER PLATED STEEL SUCTION FITTING



DETAIL W (18)
SCALE 2:1

ECN	REV. NO.	REVISIONS	DATE	BY	CHKD	APPR
ECN007321	22	ADDED ZR21/25/28/32K5E-TF7	07-05-13	RRP	BR	KJR
ECN007141	21	ADDED ZR26K5E-PFV & ZR34K5E-TF5	05-17-13	PBM	BR	KJR
ECN005593	20	ADDED ZR34K5-TF5	09-11-12	DKM	BR	KJR
ECN004215	19	ADDED ZR34K5E-PFV & ZR34K5-PFV	01-10-12	AMJ	BR	KJR
ECN004782	18	MODIFIED DIMENSIONS	12-01-11	PBM	BR	KJR
ECN003184	17	ADDED ZR25K5-TF7	11-22-11	PBM	BR	KJR
ECN003022	16	ADDED ZR16K5E-PFJ	02-15-11	PBM	BR	KJR
ECN002477	15	ADDED ZR18K5E-PFJ	10-12-10	MPK	EC	KJR
ECN002395	14	ADDED ZR21/28/32K5-TF7	08-26-10	PNA	MA	KJR
ECN002674	13	ADDED ZR26K5-PFV	07-26-10	PNA	CHK	KJR
ECN002616	12	ADDED ZR21/25/28/32K5E-PFJ	07-15-10	AU	CHK	KJR
ECN001624	11	ADDED ZR32K5-PFJ	06-30-10	AU	CHK	KJR
ECN002289	10	ADDED ZR25K5-PFJ	06-23-10	MPK	CHK	KJR
ECN002476	9	ADDED ZRK5E 3 PHASE MODELS	05-24-10	PNA	CHK	KJR
ECN002407	8	REDRAWN WITH CHANGES, ADDED ZRK5E MODELS	04-26-10	MPK	EC	KJR
ECN001631	0	RELEASED	07-07-09	EC	KJR	RT

EMERSON. Climate Technologies

Copeland brand products

INTERPRET PER ASME Y14.5M-1994 AND EMERSON CLIMATE TECHNOLOGIES, INC. DESIGN STANDARDS DS200

DO NOT SCALE DRAWING

◆ CRITICAL PRODUCT CHARACTERISTIC

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE MILLIMETER OR [INCH]

TOLERANCES:
1-PLACE ±
2-PLACE ±
ANGULAR ±

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24 (53 FR)

MATERIAL SPECIFICATION: NA

DRAWN BY: MPK

DATE: 04-26-10

SUPERSEDES DWG. NO. / REV. NO.: 497-2868-00 / 07

SCALE: 3:4

DATE FORMAT: MM-DD-YY

TITLE: REF DWG-WELD COMP ASSM

DRAWING NUMBER: 497-2868-00

SHEET 1 OF 1

DWG SIZE: 5

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