

ZPT166KCE-TFD**Tandem**

HFC, R-410A, 60Hz, 3- Phase, 460 V

Air Conditioning

Production Status: Available for sale to all U.S. customers. Please check with your local Emerson Climate Technologies Representative for international availability.

Performance

Evap(°F)/Cond(°F)	45 / 130	45 / 100
RG(°F)/Liq(°F)	65.0 / 115.0	65.0 / 85.0
Capacity (Btu/hr)	164000	199000
Power (Watts):	15300	10900
Current (Amps):	22.00	16.60
EER (Btu/Wh):	10.70	18.30
Mass Flow (lbs/hr):	2410	2460
Sound Power (dBA):	75 Avg	80 Max
Vibration (mils(peak-peak)):	2.5 Avg	3.5 Max
Record Date:	2007-10-30	

Mechanical

Number of Cylinders:	0	Displ(in^3/Rev):	9.42
Bore Size(in):	0.00	Displ(ft^3/hr):	1144.79
Stroke(in):	0.00		
Overall Length (in):	24.65	Mounting Length (in):	21.50
Overall Width (in):	11.69	Mounting Width (in):	7.50
Overall Height (in):	18.80	Mounting Height (in):	19.13 *
Suction Size (in):	1 1/8 Stub		
Discharge Size (in):	3/4 Stub		
Oil Recharge (oz):	106		
Initial Oil Charge (oz):	114		
Net Weight (lbs):	186		
Internal Free Volume (in^3):			
Horse Power:			
*Overall compressor height on Copeland Brand Product's specified mounting grommets.			

Electrical

LRA-High*:	MCC (Amps):	UL File No:	
LRA-Half Winding:	RPM:	3500	UL File Date: 28-Jun-1996
LRA Low*:	Max Operating Current:	null	
RLA(=MCC/1.4;use for contactor selection):	1		
RLA(=MCC/1.56;use for breaker & wire size selection):	null		
*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.			

Alternate Applications

Refrigerant	Freq (Hz)	Phase	Voltage	Application
R-410A HFC	50	3	380/420	A/C, Half of Even Tandem
R-410A HFC	60	3	460	A/C, Half of Even Tandem
R-410A HFC	50	3	380/420	Air Conditioning

RATING CONDITIONS

20 °F Superheat
15 °F Subcooling
95 °F Ambient Air Over

60 Hz Operation

AIR CONDITIONING

ZPT166KCE-TFD

HFC-410A
COPELAND SCROLL®
TFD 460-3-60

Evaporating Temperature °F (Sat Dew Pt Pressure, psig)

		-10(36)	0(48)	5(55)	15(70)	25(87)	35(107)	45(130)	50(142)	55(155)
Condensing Temperature °F (Sat Dew Pt Pressure, psig)	150 (611)C							137000	151000	167000
	P							19600	19600	19600
	A							27.5	27.4	27.5
	M							2370	2600	2840
	E							7	7.7	8.5
	%							65.7	67.5	69.1
	140 (540)C						124000	151000	166000	182000
	P						17400	17300	17300	17400
	A						24.5	24.5	24.5	24.6
	M						1990	2390	2620	2850
	E						7.1	8.7	9.6	10.5
	%						65.2	68.7	70.1	71.1
	130 (475)C					111000	135000	164000	180000	197000
	P					15300	15300	15300	15400	15400
	A					21.9	21.9	22	22	22.1
	M					1670	2010	2410	2630	2870
	E					7.2	8.8	10.7	11.7	12.8
	%					64.7	68.4	70.9	71.6	71.8
	125 (446)C				94000	115000	141000	170000	186000	204000
	P				14400	14400	14400	14500	14500	14600
	A				20.7	20.7	20.8	20.9	20.9	21
	M				1390	1680	2030	2420	2640	2880
	E				6.5	8	9.8	11.8	12.9	14
	%				62.2	66.5	69.7	71.5	71.8	71.6
	115 (390)C			82000	102000	125000	151000	182000	199000	218000
	P			12700	12700	12700	12800	12900	12900	13000
	A			18.6	18.7	18.7	18.8	18.9	19	19.1
	M			1160	1420	1710	2050	2440	2660	2890
	E			6.5	8	9.8	11.8	14.1	15.4	16.7
	%			61.7	66.2	69.5	71.5	71.7	71	69.7
	105 (340)C		79500	89000	110000	133000	161000	194000	211000	231000
	P		11200	11200	11200	11300	11400	11500	11600	11700
	A		16.9	16.9	17	17	17.1	17.3	17.4	17.5
	M		1070	1190	1440	1730	2070	2450	2670	2900
	E		7.1	7.9	9.7	11.8	14.2	16.8	18.2	19.7
	%		63.4	65.7	69.3	71.4	71.8	70	68.2	65.7
	100 (316)C	65500	82500	92000	113000	138000	166000	199000	217000	237000
	P	10400	10500	10500	10600	10700	10800	10900	11000	11100
	A	16	16.1	16.1	16.2	16.3	16.4	16.6	16.7	16.8
	M	870	1080	1200	1450	1740	2080	2460	2670	2900
	E	6.3	7.9	8.8	10.7	12.9	15.4	18.3	19.7	21.3
	%	60	65.3	67.4	70.4	71.8	71.2	68.3	65.9	62.7
	90 (273)C	70500	88500	98500	120000	146000	175000	209000	228000	248000
	P	9200	9300	9350	9400	9500	9600	9800	9900	10000
	A	14.7	14.8	14.8	14.9	15	15.1	15.3	15.4	15.6
	M	890	1100	1220	1470	1760	2090	2460	2670	2900
	E	7.7	9.5	10.6	12.8	15.4	18.2	21.4	23	24.7
	%	63.9	68.4	70	71.7	71.3	68.6	63.1	59.2	54.6
	80 (235)C	76000	94500	105000	127000	153000	184000	219000	238000	259000
	P	8150	8250	8250	8350	8450	8600	8800	8950	9100
	A	13.6	13.7	13.7	13.8	13.9	14	14.2	14.4	14.5
	M	905	1120	1230	1480	1760	2090	2460	2670	2890
	E	9.3	11.5	12.6	15.2	18.1	21.4	24.8	26.6	28.5
	%	66.8	70.4	71.3	71.3	68.9	63.6	55.3	49.8	43.5

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 460 V

C:Capacity(Btu/hr), P:Power(Watts), A:Current(Amps), M:Mass Flow(lbs/hr), E:EER(Btu/Watt-hr), %:Isentropic Efficiency(%)

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Service Parts

<u>Reference</u>	<u>Component</u>	<u>Quantity</u>	<u>Description</u>	<u>Comment</u>
99	527-0150-00	1	SPACER-MOUNTING ASSM	
99	527-0181-00	2	SPACER-MOUNTING KIT	
99	918-0043-00	2	HEATER-CRANKCASE	240V 70W WRAP AROUND
99	918-0043-01	2	HEATER-CRANKCASE	480V 70W WRAP AROUND
99	ZPT166KCE-TFD-950	1	WELD COMP	

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Accessories

<u>PartNumber</u>	<u>Description</u>
018-0095-00	Crankcase Heater, 240V, 70W, 21" Lead Length
018-0095-01	Crankcase Heater, 480V, 70W, 21" Lead Length
018-0095-02	Crankcase Heater, 575V, 70W, 21" Lead Length
018-0095-03	Crankcase Heater, 240V, 70W, 32" Lead Length
018-0095-04	Crankcase Heater, 240V, 70W, 48" Lead Length
018-0095-05	Crankcase Heater, 480V, 70W, 48" Lead Length
018-0095-06	Crankcase Heater, 575V, 70W, 48" Lead Length
018-0095-07	Crankcase Heater, 120V, 70W, 48" Lead Length
018-0095-08	Crankcase Heater, 400V, 70W, 48" Lead Length
018-0095-09	Crankcase Heater, 277V, 70W, 21" Lead Length

Common U.S. OEM Bill Of Materials

	Suction Connection	Suction Size	Discharge Connection	Discharge Size	Electrical Connection	Mounting Assembly	Sight Glass	Crankcase Heater	Schraeder Valve	Tandem Ready	Module Voltage
230	Stub	1 1/8"	Stub	3/4"	SCREW	Yes	-	-	-	-	-
250	Stub	1 1/8"	Stub	3/4"	SCREW	Yes	-	-	-	-	-

Common U.S. Service Bill Of Materials

	Suction Connection	Suction Size	Discharge Connection	Discharge Size	Electrical Connection	Mounting Assembly	Sight Glass	Crankcase Heater	Schraeder Valve	Tandem Ready	Module Voltage
950	Stub	1 1/8"	Stub	3/4"	SCREW	Yes	-	-	-	-	-

*** Note: For all other Bill Of Material descriptions (Including International and Customer Specific Bills of Materials) contact your sales representative or the Application Engineering Department.**