

ZP31K5E-TF5

HFC, R-410A, 60 Hz, 3 - Phase, 200/230 V [Also Available with Variable Frequency Drives](#)

Air Conditioning

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

Summary

Performance		
Evaporator Temp. (°F)	45	50
Condensing Temp. (°F)	130	100
Return Gas Temp. (°F)	65	70
Liquid Temp. (°F)	115	85
Capacity (BTU/hr)	31200	42600
Power (W):	3060	2000
Current (Amps):	9.1	7.1
EER(BTU/Wh):	10.2	21.3
Mass Flow (lbs/hr):	459	525
Sound Data @ 45 / 130		
Sound Power (dBA):	69 Avg	74 Max
Vibration mils(peak-peak):	2.0 Avg	3.0 Max
Record Date:	2017-03-01	
Mechanical		
Displacement (in ³ /Rev):	1.80	
Displacement (ft ³ /Hr):		
Overall Length (in):	9.56	
Overall Width (in):	9.56	
Overall Height (in):	15.27	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

Mounting Height (in):	16.02
Suction Size (in),Type:	3 / 4 Stub
Discharge Size (in),Type:	1 / 2 Stub
Initial Oil Charge (oz):	25
Oil Recharge (oz):	21
Net Weight (lbs):	48.1
Internal Free Volume (in^3):	124.5

Horse Power:

*Overall compressor height on Copeland Brand Product's specified mounting grommets.

LRA High* (Amps):	73
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	16.3
Max Operating Current (Amps):	13.0
RLA, MCC/1.4(use for contactor selection)(Amps):	11.6
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	10.4
RPM:	3500
Box IP :	21
UL File No:	SA-2337
UL File Date:	2003-12-16

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

Capacitors

Type	Part No	Low MFD	High MFD	Volts	User Description
No data available in table					

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
R-410A HFC	200/220	3	50	Air Conditioning

Service Parts

Reference	Component	Quantity	Description	Comment
1	918-0052-00	1	CRANKCASE HEATER KIT	240V 40W WRAP AROUND
1	918-0052-01	1	CRANKCASE HEATER KIT	120V 40W WRAP AROUND
2	527-0044-15	1	SPACER - MOUNTING ASSM	
7	998-0510-38	1	VLV KIT 3/4"SWT/1 1/4-12UNC	SUCTION ROTALOCK
7	998-0510-98	1	VLV KIT 1/2"SWT/1-14UNC	DISCHARGE ROTALOCK
99	529-0060-24	1	POWER CABLE-MOLDED PLUG	
99	998-0034-01	1	ADAP KIT 3/4"SWT / 1 1/4 RL	SWEAT TO ROTALOCK ADAPTER KIT SUCTION
99	998-0034-07	1	ADAP KIT 1 1/4 RL / 3/4"SWT	ROTALOCK TO SWEAT ADAPTER KIT SUCTION
99	998-0034-15	1	SERV ADAPTOR KIT 1/2 STUB	SWEAT TO ROTALOCK ADAPTER KIT DISCHARGE
99	998-0034-18	1	ADAPTER 1-14 TO 1/2 ID	ROTALOCK TO SWEAT ADAPTER KIT DISCHARGE

Accessories

Accessories

Category	Part Number	Description
(1) Variable Frequency Drive	EVM-322017- E20ENN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Pro, IP20, Standard, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017- R54BDB	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke, With Bypass, Frame H3X
(1) Variable Frequency Drive	EVH-322017- R54BEN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017- R54BDN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017- R21BEN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017- R21BDN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017- R21BDB	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke, With Bypass, Frame H2S

Category	Part Number	Description
(1) Variable Frequency Drive	EVM-322017-E20EFN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Pro, IP20, With add on EMI filter, No Options, Frame 2
(1) Variable Frequency Drive	EVM-322017-N20MFN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Basic, IP20, With add on EMI filter, No Options, Frame 2

Electrical Components

Electrical Components
Part No: 071-0572-12
Usage Description: Internal Protector
<u>Vendor Part Number</u>
UP18NY032-550
<u>Vendor Name</u>
UBUKATA
Part No: 071-0572-15
Usage Description: Internal Protector
<u>Vendor Part Number</u>
UP18KY032-550
<u>Vendor Name</u>
UBUKATA

Nomenclature

ZP31K5E-TF5
Family Series
Z: Scroll
Application Range
P: A/C - R-410A/B
Capacity
31K: Capacity Multiplier-1000
Oil Type
E: Polyol Ester
Motor Type
T: 3 Phase
Motor Protection
F: Internal Inherent Protection
Voltage

5: 60Hz (200/230-3) 50Hz (200/220-3)

Miscellaneous

Alternate Application

Refrigerant	Freq	Phase	Voltage	Application
HFC R-410A	50	3 Ø	200/220 V	R1 AC

Nomenclature

[ZP31K5E-TF5](#)

Date	Data Group	Field	Old Data	New Data
12-Oct-2005	Status	Status	P	A
22-Jul-2005	Sound	Sound Ave	71	69
22-Jul-2005	Sound	Sound Max	76	74
01-Jul-2005	Sound	Sound Stop	56	60
01-Jul-2005	Sound	Sound Stop Max	64	69
01-Jun-2007	RatingRefNo	RatingRefNo	05-1335	07-256
12-Oct-2005	RatingRefNo	RatingRefNo	05-408	05-1335
12-Oct-2005	Rating	PubCode		Y
08-Apr-2005	Rating	PubCode		PRE
19-Sep-2005	Mech	Rech Oil Charge	19	21