Rating Conditions

18.3 °C Return Gas

0 K Subcooling

35 °C Ambient Air Over

50 Hz Operation

MEDIUM TEMPERATURE

Blue Area Restrictions: 8.3°C Min Superheat

ZB114KQE-TFD

HFC-404A

COPELAND SCROLL®

TFD 380/420-3-50

Condensing Temperature °C (Sat. Dew Pt. Pressure, bar) | **Evaporating Temperature °C (Sat. Dew Pt. Pressure, bar)**

		-30.0 (2)	**-25.0** (2.5)	**-20.0** (3)	**-15.0** (3.6)	**-10.0** (4.3)	**-5.0** (5.1)	**-2.0** (5.6)
60.0 (28.7)	C						21,300	**24,300**
	P						17,700	**17,600**
	A						31.7	**31.6**
	M						240	**276**
	E						1.2	**1.4**
	%						53.0	**56.7**
50.0 (23)	C				18,250	23,000	28,200	**31,600**
	P				14,200	14,150	14,100	**14,100**
	A				26.6	26.6	26.6	**26.6**
	M				164	209	260	**294**
	E				1.3	1.6	2.0	**2.2**
	%				51.2	57.7	62.8	**65.2**
40.0 (18.1)	C			18,300	23,000	28,200	34,100	**38,000**
	P			11,200	11,250	11,300	11,400	**11,450**
	A			22.6	22.7	22.8	22.9	**23.0**
	M			141	179	222	271	**304**
	E			1.6	2.0	2.5	3.0	**3.3**
	%			55.5	61.5	65.8	68.6	**69.5**
30.0 (14.1)	C	13,250	17,350	21,900	27,000	32,700	39,300	**43,700**
	P	8,750	8,840	8,940	9,050	9,170	9,310	**9,390**
	A	19.5	19.7	19.9	20.1	20.3	20.4	**20.5**
	M	90	118	150	186	228	277	**310**
	E	1.5	2.0	2.5	3.0	3.6	4.2	**4.7**
	%	50.9	58.2	63.6	67.2	69.0	68.9	**67.9**
20.0 (10.8)	C	15,900	20,100	24,800	30,300	36,700		
	P	6,960	7,100	7,240	7,390	7,540		
	A	17.8	18.0	18.2	18.4	18.6		
	M	98	124	154	189	231		
	E	2.3	2.8	3.4	4.1	4.9		
	%	59.6	64.0	66.6	67.2	65.8		
10.0 (8.2)	C	17,950	22,200	27,300	33,300			
	P	5,630	5,780	5,930	6,080			
	A	16.7	16.9	17.1	17.3			
	M	101	126	155	190			
	E	3.2	3.9	4.6	5.5			
	%	62.9	64.1	63.4	60.5			
0.0 (6)	C	19,650	24,100					
	P	4,570	4,700					
	A	16.1	16.2					
	M	102	126					
	E	4.3	5.1					
	%	60.7	58.3					
(5.0) (5.1)	C	20,400						
	P	4,080						
	A	15.8						
	M	103						
	E	5.0						
	%	57.7						
(9.0) (4.5)	C	21,000						
	P	3,690						
	A	15.6						
	M	103						
	E	5.7						
	%	54.3						

C: Capacity (W), P: Power (W), A: Current (Amps), M: Mass Flow (gm/s), E: COP, %: Isentropic Efficiency (%)

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 380 V

ZB114KQE-TFD
HFC, R-134a, 50 Hz, 3 - Phase, 380/420 V , Also Available with Variable Frequency Drives
High Temp
Production Status: Preliminary data only - Contact your Emerson Climate Technologies Representative.

Performance

Evaporator Temp. (°C)	7	-7
Condensing Temp. (°C)	54	49
Return Gas Temp. (°C)	18	4
Liquid Temp. (°C)	54	49
Capacity (Watts)	27725	16265
Power (W):	9360	8120
Current (Amps):	20.45	18.9
EER(BTU/Wh):	17.16	11.64
Mass Flow (lbs/hr):	207.90	121.71
Sound Data @		
Sound Power (dBA):	83 Avg	88 Max
Vibration mils(peak-peak):	3.0 Avg	4.5 Max
Record Date:	2013-10-09	

Mechanical

Displacement (cm^3/Rev):	249.08
Displacement (m^3/Hr):	
Overall Length (mm):	263.65
Overall Width (mm):	285.24
Overall Height (mm):	564.13
Mounting Length (mm):	190.50
Mounting Width (mm):	190.50
Mounting Height (mm):	584.71
Suction Size (mm),Type:	330.20 / 203.20 Stub
Discharge Size (mm),Type:	177.80 / 203.20 Stub
Initial Oil Charge (ml):	3253.14
Oil Recharge (ml):	3134.84
Net Weight (kg):	66.23
Internal Free Volume (cm^3):	14027.27
Horse Power:	15.0

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

Electrical

LRA High* (Amps):	174.0
LRA Low*(Amps):	157.0
LRA Half Winding (Amps):	
MCC (Amps):	42
Max Operating Current (Amps):	33.5
RLA, MCC/1.4(use for contactor selection)(Amps):	30.0
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	26.9
RPM:	2900
Box IP :	21
UL File No:	SA-2337
UL File Date:	2009-05-30

*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-134a HFC	460	3	60	High Temp
R-404A HFC	460	3	60	Medium Temp, Low Condensing
R-404A HFC	380/420	3	50	Medium Temp, Low Condensing
R-507 HFC	460	3	60	Medium Temp, Low Condensing
R-507 HFC	380/420	3	50	Medium Temp, Low Condensing

ZB114KQE-TFD
HFC, R-404A, 50 Hz, 3 - Phase, 380/420 V , Also Available with Variable Frequency Drives
Medium Temp, Low Condensing
Production Status: Preliminary data only - Contact your Emerson Climate Technologies Representative.

Performance

Evaporator Temp. (°C)	-7	7
Condensing Temp. (°C)	49	54
Return Gas Temp. (°C)	18	18
Liquid Temp. (°C)	49	21
Capacity (Watts)	27050	39711
Power (W):	13800	15500
Current (Amps):	26.1	28.6
EER(BTU/Wh):	11.38	14.87
Mass Flow (lbs/hr):	245.70	413.27
Sound Data @		
Sound Power (dBA):	83 Avg	88 Max
Vibration mils(peak-peak):	3.0 Avg	4.5 Max
Record Date:	2013-10-09	

Mechanical

Displacement (cm^3/Rev):	249.08
Displacement (m^3/Hr):	
Overall Length (mm):	263.65
Overall Width (mm):	285.24
Overall Height (mm):	564.13
Mounting Length (mm):	190.50
Mounting Width (mm):	190.50
Mounting Height (mm):	584.71
Suction Size (mm),Type:	330.20 / 203.20 Stub
Discharge Size (mm),Type:	177.80 / 203.20 Stub
Initial Oil Charge (ml):	3253.14
Oil Recharge (ml):	3134.84
Net Weight (kg):	66.23
Internal Free Volume (cm^3):	14027.27
Horse Power:	15.0

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

Electrical

LRA High* (Amps):	174.0
LRA Low*(Amps):	157.0
LRA Half Winding (Amps):	
MCC (Amps):	39
Max Operating Current (Amps):	33.5
RLA, MCC/1.4(use for contactor selection)(Amps):	27.9
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	25.0
RPM:	2900
Box IP :	21
UL File No:	SA-2337
UL File Date:	2009-05-30

*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-134a HFC	380/420	3	50	High Temp
R-134a HFC	460	3	60	High Temp
R-404A HFC	460	3	60	Medium Temp, Low Condensing
R-507 HFC	460	3	60	Medium Temp, Low Condensing
R-507 HFC	380/420	3	50	Medium Temp, Low Condensing