

Model: THA0410YXA
Product Description

Type:	Reciprocating Compressors
Application:	CBP - Commercial Back Pressure
Refrigerant:	R-134a
Voltage/Frequency:	115V ~ 60Hz 100V ~ 50Hz
Version:	N/A


Product Specifications
Performance

Condition	Test Voltage	Refrigeration Capacity			Input Power (I) W	(E) Efficiency			EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
		(R) Btu/h	(R) kcal/h	(R) W		(E) Btu/Wh	(E) kcal/Wh	W/W					
ARI (R-134a)	115V ~ 60HZ	1050	265	308	210	5	1.26	1.47	-6.7°C (20°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)

General

Evaporating Temp. Range:	-17.8°C to 10°C (0°F to 50°F)
Motor Torque:	Low Start Torque (LST)
Compressor Cooling:	Fan

Mechanical

Weight:	7
Weight Unit of Measure:	LB
Displacement (cc):	5
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	243

Electrical

Voltage Range (50 Hz):	90-110
Voltage Range (60 Hz):	103-127
Locked Rotor Amps (LRA):	25.3
Rated Load Amps (RLA 50 Hz):	0
Rated Load Amps (RLA 60 Hz):	2.9
Max. Continuous Current (MCC in Amps):	0
Motor Resistance (Ohm) - Main:	2.31

Motor Resistance (Ohm) - Start: 9.75
Motor Type: RSIR
Overload Type:
Relay Type:

[Agency Approval](#)

cURus Recognized



Performance Data Sheet

THA0410YXA

General

Model	THA0410YXA	Unit of Measure	Fahrenheit
Condition	ARI(R-134a)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	RSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)					
		100	110	120	130	140
0	Btu/h	719	656	593	530	466
	Watts	158	159	160	162	163
	Amps	2.63	2.65	2.68	2.71	2.73
	Lb/h	11.0	10.6	10.1	9.62	9.14
5	Btu/h	837	765	692	620	547
	Watts	168	170	172	175	177
	Amps	2.67	2.69	2.72	2.74	2.76
	Lb/h	12.8	12.3	11.8	11.3	10.8
10	Btu/h	965	884	802	720	638
	Watts	178	181	185	188	191
	Amps	2.72	2.75	2.77	2.80	2.82
	Lb/h	14.7	14.2	13.7	13.2	12.6
15	Btu/h	1100	1010	922	831	739
	Watts	188	193	197	201	205
	Amps	2.78	2.81	2.84	2.87	2.89
	Lb/h	16.9	16.4	15.8	15.3	14.7
20	Btu/h	1250	1150	1050	951	851
	Watts	198	203	209	214	219
	Amps	2.85	2.88	2.91	2.95	2.98
	Lb/h	19.3	18.7	18.2	17.6	17.0
25	Btu/h	1410	1300	1190	1080	972
	Watts	206	213	220	226	233
	Amps	2.90	2.95	2.99	3.02	3.06
	Lb/h	21.8	21.3	20.7	20.1	19.5
30	Btu/h	1580	1460	1340	1220	1100
	Watts	213	221	230	237	245
	Amps	2.94	3.00	3.05	3.09	3.14
	Lb/h	24.5	24.0	23.4	22.8	22.2

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.343790E+03	1.427239E+02	2.371408E+00	1.555733E+01
C2	4.111547E+01	1.005377E-01	4.360467E-03	3.798271E-01
C3	-6.263684E+00	1.422294E-01	2.452645E-03	-4.588503E-02
C4	1.993274E-01	-9.457049E-03	6.232260E-05	3.899331E-03
C5	-1.845231E-01	2.093776E-02	5.468256E-05	-4.381904E-04
C6	6.504536E-04	1.624566E-04	1.478955E-06	1.848856E-05

C7	-3.314152E-04	-4.953757E-04	-1.014796E-05	-2.213131E-05
C8	1.302337E-04	1.958302E-04	4.122495E-06	8.896103E-06
C9	-1.364891E-05	-1.989191E-05	-4.342891E-07	-9.346848E-07
C10	-4.916810E-06	-9.709945E-07	-4.198823E-09	-1.305562E-07

$$\text{Value} = C1 + C2 * \text{Te} + C4 * \text{Te}^2 + C7 * \text{Te}^3 + (C3 + C5 * \text{Te} + C8 * \text{Te}^2) * \text{Tc} + (C6 + C9 * \text{Te}) * \text{Tc}^2 + C10 * \text{Tc}^3$$

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

THA0410YXA

General

Model	THA0410YXA	Unit of Measure	Fahrenheit
Condition	ARI(R-134a)	Voltage/Frequency	115V ~ 60HZ
RETURN GAS	18.3°C (65°F) RETURN GAS	MotorType	RSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)					
		100	110	120	130	140
20	Btu/h	1310	1210	1110	1010	913
	Watts	196	202	207	213	218
	Amps	2.83	2.86	2.89	2.92	2.95
	Lb/h	18.7	18.2	17.7	17.1	16.5
25	Btu/h	1480	1370	1270	1160	1050
	Watts	205	211	218	225	231
	Amps	2.88	2.92	2.96	3.00	3.04
	Lb/h	21.2	20.7	20.1	19.6	19.0
30	Btu/h	1670	1550	1430	1310	1190
	Watts	213	221	229	237	244
	Amps	2.94	2.99	3.03	3.08	3.13
	Lb/h	23.9	23.4	22.8	22.2	21.6
35	Btu/h	1870	1730	1600	1460	1330
	Watts	223	231	240	249	258
	Amps	3.00	3.05	3.11	3.17	3.22
	Lb/h	26.9	26.3	25.6	25.0	24.4
40	Btu/h	2080	1930	1780	1630	1480
	Watts	232	242	252	262	272
	Amps	3.06	3.13	3.19	3.25	3.32
	Lb/h	30.1	29.4	28.7	28.1	27.4
45	Btu/h	2310	2140	1970	1810	1650
	Watts	242	253	264	275	286
	Amps	3.13	3.20	3.27	3.34	3.42
	Lb/h	33.6	32.8	32.1	31.3	30.6
50	Btu/h	2550	2370	2180	2000	1830
	Watts	253	265	276	288	300
	Amps	3.20	3.28	3.36	3.44	3.52
	Lb/h	37.3	36.5	35.7	34.8	34.1

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.100564E+03	1.496036E+02	2.641209E+00	1.399390E+01
C2	5.199372E+01	-6.915038E-01	-8.537610E-03	3.826209E-01
C3	-3.692610E+00	1.641186E-01	1.386838E-04	-2.892750E-02
C4	2.507294E-01	7.969772E-03	7.643494E-05	4.772908E-03
C5	-2.830803E-01	2.029839E-02	1.563461E-04	-9.859570E-04
C6	-4.386727E-04	1.643244E-05	8.032028E-08	4.174073E-06

C7	3.080462E-03	8.381612E-05	5.042438E-07	2.610288E-05
C8	-2.890600E-03	-8.360488E-05	-5.075835E-07	-2.505238E-05
C9	8.581588E-04	2.624873E-05	1.606534E-07	7.599238E-06
C10	-7.606771E-05	-2.681808E-06	-1.635574E-08	-7.513739E-07

$$\text{Value} = C1 + C2 * \text{Te} + C4 * \text{Te}^2 + C7 * \text{Te}^3 + (C3 + C5 * \text{Te} + C8 * \text{Te}^2) * \text{Tc} + (C6 + C9 * \text{Te}) * \text{Tc}^2 + C10 * \text{Tc}^3$$

Te = Evaporator Temperature

Tc = Condensing Temperature