

Model: TPA1410YXC

Product Description

Type:	Reciprocating Compressors
Application:	LBP - Low Back Pressure
Refrigerant:	R-134a
Voltage/Frequency:	220-240V ~ 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					
ASHRAE (R-513A)	220V ~ 50HZ	977	246	286	186	5.24	1.32	1.54	-23°C (-10°F)	54°C (130°F)	32°C (90°F)	32°C (90°F)	32°C (90°F)
ASHRAE (R-134a)	220V ~ 50HZ	920	232	270	176	5.23	1.32	1.53	-23°C (-10°F)	54°C (130°F)	32°C (90°F)	32°C (90°F)	32°C (90°F)

General

Evaporating Temp. Range:	-34.4°C to -12.2°C (-30°F to 10°F)
Motor Torque:	Low Start Torque (LST)
Compressor Cooling:	Fan

Mechanical

Weight:	30
Weight Unit of Measure:	LB
Displacement (cc):	8.374
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	185

Electrical

Voltage Range (50 Hz):	198-264
Voltage Range (60 Hz):	
Locked Rotor Amps (LRA):	17
Rated Load Amps (RLA 50 Hz):	.82
Rated Load Amps (RLA 60 Hz):	0
Max. Continuous Current (MCC in Amps):	0

Motor Resistance (Ohm) - Main:	10.19
Motor Resistance (Ohm) - Start:	6.07
MotorType:	PTCS_CR
Overload Type:	
Relay Type:	

Agency Approval

IRAMListed, cURus Recognized



Performance Data Sheet

TPA1410YXC

General

Model	TPA1410YXC	Unit of Measure	Fahrenheit
Condition	ASHRAE (R-134a)	Voltage/Frequency	240V ~ 50HZ
RETURN GAS	32.2°C (90°F) RETURN GAS	MotorType	PTCS_CR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)					
		100	110	120	130	140
-40	Btu/h	399	372	353	333	299
	Watts	110	111	111	109	107
	Amps	0.54	0.55	0.55	0.54	0.54
	Lb/h	4.95	4.61	4.38	4.12	3.70
-35	Btu/h	472	445	426	405	371
	Watts	117	118	119	118	116
	Amps	0.57	0.58	0.58	0.58	0.58
	Lb/h	5.86	5.52	5.28	5.02	4.59
-30	Btu/h	554	527	507	486	452
	Watts	125	127	128	128	127
	Amps	0.60	0.62	0.62	0.62	0.62
	Lb/h	6.88	6.54	6.30	6.03	5.61
-25	Btu/h	645	618	599	577	543
	Watts	133	136	138	139	138
	Amps	0.64	0.66	0.66	0.66	0.67
	Lb/h	8.02	7.67	7.44	7.17	6.75
-20	Btu/h	747	719	701	680	646
	Watts	142	146	149	151	151
	Amps	0.67	0.70	0.71	0.71	0.72
	Lb/h	9.29	8.95	8.71	8.45	8.03
-15	Btu/h	859	832	814	794	761
	Watts	151	156	160	163	165
	Amps	0.71	0.74	0.76	0.76	0.78
	Lb/h	10.7	10.4	10.1	9.88	9.47
-10	Btu/h	983	957	940	920	888
	Watts	160	166	172	176	179
	Amps	0.75	0.78	0.81	0.82	0.84
	Lb/h	12.3	11.9	11.7	11.5	11.1
-5	Btu/h	1120	1090	1080	1060	1030
	Watts	169	176	183	189	193
	Amps	0.78	0.83	0.86	0.88	0.90
	Lb/h	14.0	13.7	13.5	13.2	12.8
0	Btu/h	1270	1250	1230	1210	1180
	Watts	177	186	194	202	208
	Amps	0.82	0.87	0.91	0.94	0.97

	Lb/h	15.9	15.6	15.4	15.2	14.8
5	Btu/h	1430	1410	1400	1380	1350
	Watts	184	195	205	214	222
	Amps	0.85	0.91	0.96	1.00	1.04
	Lb/h	18.0	17.7	17.5	17.3	17.0
10	Btu/h	1610	1590	1580	1570	1540
	Watts	191	203	215	226	236
	Amps	0.88	0.95	1.01	1.06	1.11
	Lb/h	20.3	20.0	19.8	19.7	19.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	4.305225E+03	1.620298E+02	-2.585282E+00	5.383045E+01
C2	2.923753E+01	-1.421357E+00	-1.624458E-02	3.706393E-01
C3	-7.510623E+01	-1.366109E+00	7.624132E-02	-9.391033E-01
C4	2.365780E-01	-4.226606E-02	-2.336272E-04	3.161897E-03
C5	1.735045E-02	2.792468E-02	2.731022E-04	2.388384E-04
C6	6.233211E-01	2.280400E-02	-5.695932E-04	7.795290E-03
C7	1.057996E-03	-3.040283E-04	-8.295433E-07	1.511678E-05
C8	4.614997E-04	2.752860E-04	1.949966E-06	5.643056E-06
C9	4.117162E-05	1.938978E-05	-4.288785E-07	3.798120E-07
C10	-1.757967E-03	-7.651981E-05	1.473521E-06	-2.198944E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature

TPA1410YXC

General

Model	TPA1410YXC	Unit of Measure	Fahrenheit
Condition	ASHRAE (R-513A)	Voltage/Frequency	240V ~ 50HZ
RETURN GAS	32.2°C (90°F) RETURN GAS	MotorType	PTCS_CR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)							
		80	90	100	110	120	130	140
-40	Btu/h	552	472	424	395	375	353	317
	Watts	115	116	117	117	117	116	113
	Amps	0.47	0.54	0.57	0.59	0.59	0.58	0.58
	Lb/h	7.70	6.58	5.90	5.49	5.22	4.91	4.41
-35	Btu/h	631	551	502	472	452	430	394
	Watts	122	123	124	125	126	125	123
	Amps	0.50	0.57	0.61	0.62	0.62	0.62	0.62
	Lb/h	8.80	7.67	6.98	6.58	6.30	5.98	5.48
-30	Btu/h	719	638	588	559	539	516	480
	Watts	128	130	132	134	135	135	134
	Amps	0.52	0.60	0.64	0.66	0.66	0.66	0.66
	Lb/h	10.0	8.89	8.20	7.79	7.51	7.19	6.69
-25	Btu/h	816	735	685	656	636	613	577
	Watts	136	138	141	144	146	147	147
	Amps	0.55	0.63	0.68	0.70	0.71	0.71	0.71
	Lb/h	11.4	10.3	9.56	9.15	8.87	8.55	8.05
-20	Btu/h	923	842	793	764	744	722	686
	Watts	143	147	150	154	157	160	160
	Amps	0.58	0.67	0.72	0.75	0.76	0.76	0.77
	Lb/h	12.9	11.8	11.1	10.7	10.4	10.1	9.58
-15	Btu/h	1040	961	912	884	864	843	808
	Watts	150	155	160	165	169	173	175
	Amps	0.60	0.70	0.76	0.79	0.81	0.82	0.83
	Lb/h	14.6	13.4	12.8	12.4	12.1	11.8	11.3
-10	Btu/h	1170	1090	1040	1020	998	977	943
	Watts	157	163	169	176	182	186	189
	Amps	0.63	0.73	0.80	0.84	0.86	0.88	0.89
	Lb/h	16.4	15.3	14.6	14.2	14.0	13.7	13.2
-5	Btu/h	1310	1240	1190	1160	1140	1130	1090
	Watts	163	171	179	186	194	200	205
	Amps	0.65	0.76	0.84	0.88	0.92	0.94	0.96
	Lb/h	18.4	17.3	16.7	16.3	16.0	15.8	15.3
0	Btu/h	1470	1390	1350	1320	1310	1290	1260
	Watts	169	178	187	197	206	213	220
	Amps	0.67	0.79	0.87	0.93	0.97	1.00	1.03

	Lb/h	20.7	19.6	18.9	18.6	18.4	18.1	17.6
5	Btu/h	1640	1570	1520	1500	1480	1470	1440
	Watts	173	184	195	206	217	227	235
	Amps	0.68	0.81	0.91	0.98	1.03	1.07	1.11
	Lb/h	23.1	22.0	21.4	21.1	20.9	20.6	20.2
10	Btu/h	1830	1760	1710	1690	1680	1660	1630
	Watts	176	189	202	215	228	239	250
	Amps	0.69	0.83	0.94	1.02	1.08	1.13	1.18
	Lb/h	25.8	24.7	24.1	23.8	23.7	23.4	23.0

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	4.571516E+03	1.714863E+02	-2.763879E+00	6.417468E+01
C2	3.104596E+01	-1.504311E+00	-1.736679E-02	4.418625E-01
C3	-7.975177E+01	-1.445839E+00	8.150823E-02	-1.119564E+00
C4	2.512110E-01	-4.473283E-02	-2.497667E-04	3.769497E-03
C5	1.842363E-02	2.955444E-02	2.919687E-04	2.847343E-04
C6	6.618753E-01	2.413491E-02	-6.089419E-04	9.293258E-03
C7	1.123436E-03	-3.217723E-04	-8.868499E-07	1.802167E-05
C8	4.900448E-04	2.913525E-04	2.084674E-06	6.727444E-06
C9	4.371820E-05	2.052142E-05	-4.585063E-07	4.527979E-07
C10	-1.866702E-03	-8.098573E-05	1.575315E-06	-2.621500E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature