

Model: TPH1410YGS

Product Description

Type:	Reciprocating Compressors
Application:	LBP - Low Back Pressure
ProductDescription:	R-134a
Voltage/Frequency:	220V ~ 60Hz 220V ~ 50Hz
Version:	N/A



Product Specifications

Performance

		Refrigeration Capacity			Input Power	(E) Efficiency			EVAP	Condition	AMBIENT	RETURN	LIQUID
Condition	Test Voltage	(R) Btu/h	(R) kcal/h	(R) W	(I) W	(E) Btu/Wh	(E) kcal/Wh	W/W	TEMP				
ASHRAE	220V ~ 50HZ	890	224	261	192	4.64	1.17	1.36	-23°C (-10°F)	54°C (130°F)	32°C (90°F)	32°C (90°F)	32°C (90°F)
ASHRAE	220V ~ 60HZ	1100	277	322	229	4.8	1.21	1.44	-23°C (-10°F)	54°C (130°F)	32°C (90°F)	32°C (90°F)	32°C (90°F)
ASHRAE	220V ~ 60HZ	1155	291	339	229	5.04	1.27	1.48	-23°C (-10°F)	54°C (130°F)	32°C (90°F)	32°C (90°F)	32°C (90°F)
ASHRAE	220V ~ 50HZ	920	232	270	192	4.79	1.21	1.4	-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:	Static/Fan

Mechanical

Weight:	12
Weight Unit of Measure:	KG
Displacement (cc):	8.37
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	185

Electrical

Voltage Range (50 Hz):	180-242
Voltage Range (60 Hz):	187-242
Locked Rotor Amps (LRA):	15.5
Rated Load Amps (RLA 50 Hz):	1.5

Rated Load Amps (RLA 60 Hz):	1.4
Max. Continuous Current (MCC in Amps):	0
Motor Resistance (Ohm) - Main:	6.36
Motor Resistance (Ohm) - Start:	31.99
MotorType:	CSIR
Overload Type:	
Relay Type:	

Agency Approval

CE Listed, IRAM Listed, VDE Listed



Performance Data Sheet

TPH1410YGS

General

Model	TPH1410YGS	Unit of Measure	Celsius
Condition	ASHRAE (R-134a)	Voltage/Frequency	220V ~ 50HZ
RETURN GAS	32.2°C (90°F) RETURN GAS	Motor Type	CSIR

Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
		30	35	40	45	50	55	60	65
-40	Btu/h	393	378	362	344	326	309	292	276
	Watts (Power)	108	110	112	113	113	113	113	112
	Amps	1.22	1.22	1.22	1.21	1.21	1.20	1.19	1.18
	Lb/h	4.53	4.45	4.30	4.11	3.89	3.67	3.49	3.36
-35	Btu/h	530	517	502	485	466	446	426	406
	Watts (Power)	124	127	130	132	134	135	135	135
	Amps	1.26	1.26	1.27	1.27	1.27	1.28	1.28	1.27
	Lb/h	6.24	6.19	6.05	5.85	5.61	5.37	5.13	4.94
-30	Btu/h	704	693	679	661	641	619	595	569
	Watts (Power)	140	145	149	153	156	158	160	161
	Amps	1.30	1.32	1.33	1.34	1.35	1.36	1.37	1.38
	Lb/h	8.41	8.38	8.24	8.03	7.77	7.49	7.20	6.94
-25	Btu/h	921	912	898	880	857	832	803	772
	Watts (Power)	156	163	169	175	179	183	187	189
	Amps	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50
	Lb/h	11.1	11.1	10.9	10.7	10.4	10.1	9.77	9.44
-23.3	Btu/h	1010	997	983	964	941	914	884	851
	Watts (Power)	161	169	176	182	187	192	196	199
	Amps	1.39	1.41	1.43	1.45	1.48	1.50	1.52	1.54
	Lb/h	12.1	12.1	12.0	11.8	11.5	11.1	10.8	10.4
-20	Btu/h	1190	1180	1170	1150	1120	1090	1060	1020
	Watts (Power)	172	181	190	197	204	210	215	219
	Amps	1.44	1.46	1.49	1.52	1.55	1.58	1.61	1.63
	Lb/h	14.4	14.4	14.2	14.0	13.7	13.3	12.9	12.5
-15	Btu/h	1510	1500	1490	1460	1430	1400	1360	1320
	Watts (Power)	187	199	210	220	229	237	244	251
	Amps	1.52	1.56	1.59	1.63	1.67	1.71	1.75	1.78
	Lb/h	18.3	18.3	18.2	17.9	17.6	17.1	16.7	16.2
-10	Btu/h	1890	1880	1860	1840	1810	1770	1720	1670
	Watts (Power)	201	216	229	242	254	264	274	283
	Amps	1.63	1.67	1.71	1.76	1.81	1.86	1.90	1.95
	Lb/h	23.0	23.0	22.9	22.6	22.2	21.7	21.2	20.6

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.674116E+03	6.463117E+01	1.674281E+00	2.944795E+01
C2	1.090053E+02	-2.755252E+00	2.229589E-02	1.314228E+00

C3	1.414866E+01	6.314117E+00	2.548634E-03	3.706373E-01
C4	1.614677E+00	-8.538946E-02	3.899963E-04	1.954924E-02
C5	2.135779E-01	1.632838E-01	2.074412E-04	3.512582E-03
C6	-2.894793E-01	-3.622409E-02	1.877128E-04	-7.355545E-03
C7	7.450322E-03	-6.233273E-04	1.791523E-06	9.539039E-05
C8	-2.491480E-03	1.139453E-03	5.134860E-07	-1.744473E-05
C9	-4.586989E-03	-3.384630E-04	1.745799E-06	-5.872424E-05
C10	7.193697E-04	9.255634E-05	-1.065065E-06	3.392120E-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

TPH1410YGS

General

Model	TPH1410YGS	Unit of Measure	Celsius
Condition	ASHRAE (R-134a)	Voltage/Frequency	220V ~ 60HZ
RETURN GAS	32.2°C (90°F) RETURN GAS	MotorType	CSIR

Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
		30	35	40	45	50	55	60	65
-40	Btu/h	494	475	454	432	410	387	366	346
	Watts (Power)	129	132	134	135	135	135	135	134
	Amps	1.14	1.14	1.13	1.13	1.13	1.12	1.11	1.10
	Lb/h	5.89	5.78	5.59	5.33	5.05	4.77	4.54	4.37
-35	Btu/h	665	649	630	609	585	560	535	509
	Watts (Power)	147	152	155	157	159	161	161	161
	Amps	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19
	Lb/h	8.11	8.04	7.86	7.60	7.29	6.97	6.67	6.42
-30	Btu/h	883	870	852	830	805	777	746	715
	Watts (Power)	166	173	178	182	186	189	191	192
	Amps	1.22	1.23	1.24	1.25	1.26	1.27	1.28	1.29
	Lb/h	10.9	10.9	10.7	10.4	10.1	9.73	9.36	9.02
-25	Btu/h	1160	1150	1130	1100	1080	1040	1010	969
	Watts (Power)	186	194	202	208	214	219	223	226
	Amps	1.27	1.29	1.31	1.33	1.35	1.37	1.38	1.40
	Lb/h	14.4	14.4	14.2	13.9	13.6	13.1	12.7	12.3
-23.3	Btu/h	1260	1250	1230	1210	1180	1150	1110	1070
	Watts (Power)	192	202	210	217	224	229	234	238
	Amps	1.29	1.31	1.34	1.36	1.38	1.40	1.42	1.44
	Lb/h	15.8	15.8	15.6	15.3	14.9	14.5	14.0	13.5
-20	Btu/h	1490	1480	1460	1440	1410	1370	1330	1280
	Watts (Power)	205	216	226	235	243	250	256	262
	Amps	1.34	1.36	1.39	1.42	1.45	1.47	1.50	1.52
	Lb/h	18.7	18.7	18.5	18.2	17.8	17.3	16.8	16.2
-15	Btu/h	1900	1880	1860	1840	1800	1760	1710	1650
	Watts (Power)	223	237	250	262	273	282	291	299
	Amps	1.42	1.45	1.49	1.52	1.56	1.59	1.63	1.66
	Lb/h	23.8	23.8	23.6	23.3	22.8	22.3	21.7	21.0
-10	Btu/h	2370	2360	2340	2310	2270	2220	2160	2100
	Watts (Power)	240	257	274	289	302	315	327	337
	Amps	1.52	1.56	1.60	1.64	1.69	1.73	1.78	1.82
	Lb/h	29.9	29.9	29.7	29.3	28.8	28.2	27.5	26.7

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.357268E+03	7.696655E+01	1.528182E+00	3.825206E+01
C2	1.368520E+02	-3.288209E+00	2.068391E-02	1.706736E+00

C3	1.775865E+01	7.537143E+00	4.153566E-03	4.818259E-01
C4	2.027154E+00	-1.018518E-01	4.017843E-04	2.537282E-02
C5	2.680482E-01	1.948130E-01	2.286971E-04	4.576433E-03
C6	-3.633626E-01	-4.331594E-02	1.513541E-04	-9.560518E-03
C7	9.353308E-03	-7.430858E-04	2.111331E-06	1.235850E-04
C8	-3.128671E-03	1.359603E-03	3.437025E-07	-2.259749E-05
C9	-5.758177E-03	-4.040048E-04	1.259400E-06	-7.642967E-05
C10	9.028191E-04	1.110883E-04	-9.079969E-07	4.407719E-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

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