

Invotech Selection Software

REFRIGERANT

R407C

Operation Conditions

Evaporating Temperature(°):	7.2
Condensing Temperature(°):	54.4
Liquid subcooling:	8.3
Suction Superheat:	11.1

Required Capacity(Kw):

Compressor Selected: YH720T1-100

PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW)	68.31
Power Input (KW)	20.55
COP	3.32
Current (A)	38.44

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm)	356.3/326.2/671.2
Weight (kg)	104
Stub Suction (inch)	1 5/8
Stub Discharge (inch)	1 1/8
Base mounting (hole dia)	232X232(11)
Oil type	POE
Initial charge of oil quantity (L)	5.5
Recharge of oil quantity (L)	5.3
High Side PS Max., (MPa)	3
Low Side PS Max., (MPa)	2.0
Displacement(m ³ /h)	68.2

COMPRESSOR ELECTRICAL DATA

Electricity	380V/50Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	25
Normal Capacity (l)	68356
Normal Power input(l)	20547
Normal COP(l/l)	3.32
Normal Current(l)	36.7
Locked Rotor Current(l)	266
Maximum operating current(l)	51

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Capacity(KW)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	23.58	30.02	37.74	46.95	57.85	70.64	85.51			
30	22.64	28.8	36.2	45.05	55.55	67.89	82.28			
35	21.62	27.45	34.5	42.95	53.02	64.88	78.75	94.83	103.76	
40	20.52	26.01	32.66	40.68	50.27	61.63	74.95	90.43	99.05	
45		24.48	30.7	38.26	47.34	58.15	70.88	85.74	94.03	
50			28.64	35.69	44.23	54.46	66.57	80.77	88.71	
55				33.01	40.97	50.58	62.04	75.54	83.11	
60					37.57	46.53	57.29	70.06	77.26	
65						42.32	52.36	64.36	71.16	

Power Input(KW)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	9.64	10	10.25	10.37	10.36	10.19	9.86			
30	11	11.39	11.69	11.9	12	11.99	11.85			
35	12.4	12.76	13.07	13.33	13.52	13.63	13.64	13.55	13.46	
40	13.9	14.21	14.5	14.77	15.01	15.19	15.32	15.38	15.38	
45		15.83	16.07	16.31	16.55	16.79	16.99	17.17	17.24	
50			17.86	18.04	18.26	18.5	18.74	18.99	19.11	
55				20.06	20.21	20.42	20.67	20.96	21.11	
60					22.5	22.64	22.86	23.15	23.32	
65						25.26	25.41	25.67	25.83	

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Current(A)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	23.87	24.49	24.92	25.23	25.45	25.65	25.86			
30	25.3	25.92	26.36	26.68	26.91	27.11	27.33			
35	26.96	27.58	28.02	28.33	28.56	28.75	28.97	29.25	29.43	
40	28.93	29.54	29.97	30.26	30.48	30.66	30.85	31.12	31.29	
45		31.88	32.29	32.56	32.74	32.9	33.07	33.3	33.46	
50			35.05	35.28	35.43	35.55	35.68	35.88	36.02	
55				38.52	38.62	38.69	38.78	38.93	39.04	
60					42.39	42.4	42.43	42.52	42.6	
65						46.75	46.71	46.73	46.77	

Mass Flow(Kg/h)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	476.07	616.76	771.84	944.44	1137.7	1354.7 6	1598.74			
30	465.77	607	762.72	936.07	1130.1 7	1348.1 7	1593.2			
35	455.69	597.01	752.92	926.55	1121.0 5	1339.5 3	1585.15	1861.0 2	2011.2 9	
40	445.57	586.52	742.15	915.62	1110.0 5	1328.5 7	1574.31	1850.4 2	2000.8 4	
45		575.24	730.16	903	1096.9	1315	1560.42	1836.3 1	1986.6 6	
50			716.66	888.42	1081.3 4	1298.5 6	1543.2	1818.4 1	1968.4 6	
55				871.6	1063.0 9	1278.9 7	1522.38	1796.4 6	1945.9 7	
60					1041.8 7	1255.9 6	1497.68	1770.1 7	1918.9 3	
65						1229.2 6	1468.83	1739.2 7	1887.0 5	