

Invotech Selection Software

REFRIGERANT

R407C

Operation Conditions

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

Required Capacity(Kw):

Compressor Selected: YH610T1-100

PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW)	58.04
Power Input (KW)	17.45
COP	3.33
Current (A)	32.63

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm)	356.3/326.2/671.2
Weight (kg)	100
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(m³/h)	57.9

COMPRESSOR ELECTRICAL DATA

Electricity	380V/50Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	20
Normal Capacity (l)	58033
Normal Power input(l)	17444
Normal COP(l/l)	3.32
Normal Current(l)	31.5
Locked Rotor Current(l)	266
Maximum operating current(l)	40

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Capacity(KW)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	20.04	25.5	32.07	39.89	49.16	60.02	72.65			
30	19.24	24.47	30.76	38.28	47.2	57.68	69.91			
35	18.37	23.33	29.31	36.5	45.04	55.13	66.91	80.57	88.16	
40	17.44	22.1	27.75	34.57	42.72	52.36	63.68	76.84	84.16	
45		20.8	26.09	32.51	40.22	49.41	60.23	72.85	79.89	
50			24.33	30.33	37.58	46.27	56.56	68.63	75.37	
55				28.04	34.81	42.98	52.71	64.18	70.62	
60					31.92	39.53	48.68	59.53	65.64	
65						35.96	44.49	54.68	60.46	

Power Input(KW)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	8.18	8.49	8.7	8.81	8.79	8.65	8.37			
30	9.34	9.67	9.92	10.1	10.19	10.18	10.06			
35	10.52	10.83	11.1	11.32	11.48	11.57	11.58	11.5	11.43	
40	11.81	12.06	12.31	12.54	12.74	12.9	13.01	13.06	13.06	
45		13.44	13.64	13.85	14.05	14.25	14.43	14.58	14.63	
50			15.16	15.32	15.5	15.7	15.91	16.13	16.23	
55				17.03	17.16	17.33	17.55	17.79	17.92	
60					19.1	19.22	19.41	19.66	19.8	
65						21.45	21.58	21.79	21.93	

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Liquid
subcooling: 8.3**Current(A)**

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	20.27	20.79	21.16	21.42	21.61	21.77	21.96			
30	21.48	22.01	22.38	22.65	22.84	23.01	23.2			
35	22.89	23.42	23.79	24.05	24.24	24.41	24.59	24.83	24.98	
40	24.57	25.08	25.44	25.69	25.87	26.03	26.19	26.42	26.56	
45		27.07	27.41	27.64	27.8	27.93	28.07	28.27	28.41	
50			29.75	29.95	30.08	30.18	30.3	30.46	30.58	
55				32.7	32.79	32.85	32.92	33.05	33.14	
60					35.99	36	36.02	36.09	36.17	
65						39.69	39.65	39.67	39.71	

Mass Flow(Kg/h)

Tc Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	404.18	523.62	655.27	801.81	965.89	1150.16	1357.3			
30	395.43	515.33	647.53	794.7	959.49	1144.57	1352.59			
35	386.88	506.85	639.21	786.62	951.74	1137.24	1345.76	1579.97	1707.54	
40	378.28	497.94	630.07	777.34	942.41	1127.93	1336.56	1570.97	1698.67	
45		488.37	619.89	766.63	931.25	1116.41	1324.77	1558.99	1686.63	
50			608.43	754.25	918.04	1102.45	1310.15	1543.8	1671.18	
55				739.97	902.54	1085.82	1292.47	1525.16	1652.09	
60					884.53	1066.28	1271.5	1502.84	1629.13	
65						1043.62	1247.01	1476.61	1602.07	