Invotech Selection Software

REFRIGERANT	R410A

Operation Conditions

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

Required Capacity(Kw):

Compressor Selected: YH183C1-100

PERFORMANCE AT SPECIFIED OPERATING POINT	
Capacity (KW)	18.46
Power Input (KW)	5.86
COP	3.15
Current (A)	10.82

CPMPRESSOR MECHANICAL AND PHYSICAL DATA	
Length/Width/Height (mm)	239/239/463
Weight (kg)	33
Stub Suction (inch)	7/8
Stub Discharge (inch)	1/2
Base mounting (hole dia)	190X190(8.5)
Oil type	POE
Initial charge of oil quantity (L)	1.6
Recharge of oil quantity (L)	1.45
High Side PS Max., (MPa)	4.3
Low Side PS Max., (MPa)	2.0
Displacement(m^3/h)	12.4

COMPRESSOR ELECTRICAL DATA	
Electricity	380V/50Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	6.5
Normal Capacity (□)	18300
Normal Power input(□)	5810
Normal COP(□/□)	3.15
Normal Current(□)	10.4
Locked Rotor Current(□)	65
Maximum operating current(□)	14

Model: YH183C1-100 Refrigerant: R410A

Suction Superheat: 11.1 Liquid subcooling: 8.3

Capacity(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	7.3	9.34	11.54	14.02	16.86	20.17	24.04	28.58	31.13	
30	6.7	8.71	10.85	13.22	15.93	19.06	22.73	27.03	29.44	
35	6.15	8.14	10.22	12.51	15.09	18.07	21.54	25.61	27.89	
40	5.6	7.57	9.62	11.82	14.29	17.12	20.41	24.26	26.43	
45		6.97	8.98	11.12	13.49	16.18	19.3	22.95	25	
50			8.25	10.34	12.62	15.19	18.16	21.61	23.55	
55				9.44	11.64	14.1	16.92	20.19	22.03	
60					10.5	12.86	15.54	18.64	20.38	
65						11.41	13.97	16.91	18.56	

Power Input(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	3.04	3.02	3.01	2.99	2.99	3	3.04	3.11	3.15	
30	3.49	3.46	3.43	3.4	3.38	3.37	3.39	3.43	3.47	
35	3.96	3.92	3.87	3.83	3.79	3.77	3.77	3.79	3.82	
40	4.47	4.42	4.36	4.3	4.25	4.21	4.2	4.2	4.22	
45		4.98	4.91	4.84	4.78	4.73	4.69	4.69	4.69	
50			5.55	5.47	5.39	5.33	5.28	5.26	5.26	
55				6.19	6.11	6.03	5.97	5.93	5.93	
60					6.95	6.86	6.79	6.74	6.73	
65						7.83	7.75	7.69	7.67	

Model: YH183C1-100 Refrigerant: R410A

Suction Superheat: 11.1 Liquid subcoolling: 8.3

Current(A)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	7.13	7.14	7.11	7.07	7.05	7.07	7.18	7.39	7.55	
30	7.57	7.54	7.46	7.35	7.25	7.18	7.17	7.26	7.35	
35	8.18	8.14	8.03	7.89	7.73	7.6	7.52	7.52	7.56	
40	8.87	8.86	8.76	8.61	8.44	8.28	8.15	8.09	8.1	
45		9.62	9.56	9.44	9.29	9.12	8.99	8.9	8.89	
50			10.38	10.31	10.2	10.07	9.95	9.87	9.86	
55				11.15	11.11	11.04	10.97	10.93	10.93	
60					11.94	11.97	11.98	12.01	12.03	
65						12.77	12.9	13.02	13.09	

Mass Flow(Kg/h)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12.5	
25	131.17	169.22	207.36	248.33	294.89	349.78	415.74	495.53	541.46	
30	123.43	162	200.01	240.19	285.29	338.06	401.24	477.57	521.53	
35	118.73	158.57	197.18	237.29	281.67	333.04	394.16	467.77	510.12	
40	114.61	156.44	196.37	237.16	281.53	332.24	392.04	463.66	504.76	
45		153.14	195.13	237.31	282.41	333.19	392.39	462.75	502.98	
50			190.97	235.27	281.84	333.42	392.75	462.58	502.29	
55				228.58	277.34	330.44	390.64	460.67	500.23	
60					266.42	321.79	383.57	454.53	494.31	
65						304.98	369.09	441.71	482.07	