

Invotech Selection Software

REFRIGERANT

R407C

Operation Conditions

Evaporating Temperature(ℓ):	7,2
Condensing Temperature(ℓ):	54,4
Liquid subcooling:	8,3
Suction Superheat:	11,1

Required Capacity(Kw): 0,01

Compressor Selected: YSH450T1G-100

PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW)	42,08
Power Input (KW)	13,21
COP	3,18
Current (A)	23,79

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm)	317.85/309.5/544.90
Weight (kg)	90
Stub Suction (inch)	1 3/8
Stub Discharge (inch)	7/8
Base mounting (hole dia)	190X190(8.5)
Oil type	POE
Initial charge of oil quantity (L)	3.2
Recharge of oil quantity (L)	3
High Side PS Max., (MPa)	3.0
Low Side PS Max., (MPa)	2.0
Displacement(m³/h)	42.5

COMPRESSOR ELECTRICAL DATA

Electricity	380V/50Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	15
Normal Capacity (ℓ)	41856
Normal Power input(ℓ)	13145
Normal COP(ℓ/ℓ)	3.18
Normal Current(ℓ)	22.8
Locked Rotor Current(ℓ)	148.5
Maximum operating current(ℓ)	31.6

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Capacity(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	15,11	19,2	23,9	29,3	35,47	42,49	50,44	59,4	64,28	
30	14,27	18,26	22,85	28,11	34,13	40,97	48,73	57,47	62,23	
35	13,44	17,32	21,77	26,88	32,72	39,37	46,91	55,42	60,06	
40	12,61	16,36	20,66	25,6	31,25	37,69	45	53,26	57,76	
45		15,39	19,52	24,27	29,71	35,92	42,99	50,97	55,34	
50			18,35	22,89	28,11	34,08	40,87	48,57	52,79	
55				21,46	26,44	32,14	38,65	46,05	50,11	
60					24,7	30,12	36,33	43,41	47,3	
65						28,02	33,91	40,65	44,36	

Power Input(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	6,32	6,63	6,85	7,01	7,13	7,23	7,34	7,48	7,56	
30	7,11	7,42	7,63	7,79	7,9	8	8,1	8,24	8,32	
35	7,99	8,28	8,49	8,63	8,74	8,83	8,93	9,05	9,14	
40	8,97	9,25	9,44	9,57	9,67	9,75	9,84	9,95	10,03	
45		10,35	10,53	10,64	10,72	10,79	10,86	10,96	11,04	
50			11,77	11,86	11,92	11,97	12,02	12,11	12,17	
55				13,26	13,3	13,32	13,36	13,42	13,48	
60					14,88	14,87	14,88	14,93	14,97	
65						16,65	16,64	16,65	16,68	

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Current(A)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	14,78	15,16	15,43	15,62	15,76	15,88	16,01	16,18	16,3	
30	15,66	16,04	16,32	16,51	16,66	16,78	16,92	17,09	17,21	
35	16,69	17,07	17,34	17,54	17,68	17,8	17,93	18,1	18,22	
40	17,91	18,29	18,55	18,73	18,86	18,98	19,1	19,26	19,37	
45		19,74	19,98	20,15	20,27	20,36	20,47	20,61	20,71	
50			21,69	21,84	21,93	22,01	22,09	22,21	22,3	
55				23,84	23,91	23,95	24	24,1	24,17	
60					26,24	26,25	26,26	26,32	26,37	
65						28,94	28,91	28,92	28,95	

Mass Flow(Kg/h)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	282,06	365,41	457,29	559,55	674,05	802,65	947,2	1109,5 6	1198	
30	275,95	359,63	451,89	554,59	669,59	798,75	943,92	1106,9 5	1195,7 6	
35	269,98	353,71	446,08	548,95	664,18	793,63	939,15	1102,5 9	1191,6 2	
40	263,99	347,49	439,7	542,47	657,66	787,13	932,73	1096,3 1	1185,4 3	
45		340,81	432,59	535	649,88	779,09	924,5	1087,9 5	1177,0 3	
50			424,59	526,36	640,66	769,35	914,3	1077,3 5	1166,2 5	
55				516,39	629,84	757,75	901,96	1064,3 4	1152,9 2	
60					617,27	744,11	887,33	1048,7 6	1136,9	
65						728,29	870,23	1030,4 6	1118,0 1	