

Invotech Selection Software

REFRIGERANT R410A

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: YSH400C1G-100

PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW)	40,35
Power Input (KW)	12,89
COP	3,13
Current (A)	23,66

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm)	317.85/309.5/544.9
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)	4.3
Low Side PS Max., (MPa)	2.0
Displacement(m ³ /h)	25.3

COMPRESSOR ELECTRICAL DATA

Electricity	380V/50Hz/3P
Standard Conditions	7.2/54.4/11.1/8.3
Normal Power (HP)	13
Normal Capacity (ℓ)	39500
Normal Power input(ℓ)	12540
Normal COP(ℓ/ℓ)	3.15
Normal Current(ℓ)	22
Locked Rotor Current(ℓ)	148.5
Maximum operating current(ℓ)	32.5

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Liquid subcooling: 8,3

Capacity(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	15,96	20,41	25,23	30,64	36,85	44,08	52,55			
30	14,66	19,04	23,71	28,9	34,81	41,67	49,68			
35	13,45	17,79	22,35	27,34	32,98	39,49	47,08	55,97	60,97	
40	12,23	16,56	21,02	25,84	31,24	37,43	44,62	53,04	57,77	
45		15,22	19,62	24,31	29,48	35,37	42,2	50,16	54,64	
50			18,04	22,6	27,59	33,21	39,69	47,23	51,47	
55				20,63	25,45	30,83	36,98	44,13	48,15	
60					22,94	28,11	33,97	40,75	44,55	
65						24,93	30,53	36,97	40,57	

Power Input(KW)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	6,65	6,62	6,58	6,55	6,54	6,57	6,65			
30	7,64	7,58	7,51	7,44	7,39	7,38	7,42			
35	8,68	8,59	8,49	8,39	8,31	8,26	8,25	8,31	8,37	
40	9,81	9,7	9,57	9,44	9,32	9,24	9,2	9,22	9,25	
45		10,94	10,79	10,63	10,49	10,37	10,3	10,28	10,3	
50			12,19	12,01	11,84	11,7	11,59	11,54	11,54	
55				13,62	13,43	13,26	13,13	13,04	13,03	
60					15,29	15,09	14,94	14,83	14,8	
65						17,25	17,07	16,94	16,9	

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Current(A)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	15,58	15,6	15,54	15,45	15,41	15,46	15,69			
30	16,55	16,48	16,3	16,06	15,84	15,69	15,68			
35	17,87	17,79	17,55	17,24	16,91	16,62	16,44	16,44	16,53	
40	19,39	19,36	19,14	18,82	18,45	18,09	17,82	17,69	17,7	
45		21,03	20,91	20,64	20,3	19,94	19,64	19,46	19,43	
50			22,68	22,54	22,3	22,01	21,75	21,58	21,54	
55				24,36	24,29	24,14	23,99	23,89	23,89	
60					26,1	26,16	26,19	26,24	26,3	
65						27,91	28,19	28,46	28,62	

Mass Flow(Kg/h)

Tc\Te	-25	-20	-15	-10	-5	0	5	10	12,5	
25	286,72	369,87	453,24	542,8	644,58	764,55	908,73			
30	269,78	354,11	437,18	525,01	623,6	738,93	877,02			
35	259,52	346,6	430,98	518,67	615,66	727,96	861,55	1022,45	1115,02	
40	250,5	341,94	429,23	518,37	615,37	726,21	856,91	1013,46	1103,31	
45		334,73	426,52	518,71	617,3	728,29	857,69	1011,48	1099,41	
50			417,43	514,26	616,05	728,78	858,47	1011,11	1097,91	
55				499,63	606,2	722,28	853,85	1006,92	1093,4	
60					582,35	703,36	838,41	993,52	1080,46	
65						666,62	806,75	965,49	1053,7	