

Invotech Selection Software

REFRIGERANT R404A

Operation Conditions :

Evaporating Temperature (°C) : -10,0

Condensing Temperature (°C) : 45,0

Liquid subcooling: 0,0

Suction Superheat: 30,0

Required Capacity(Kw):

Compressor Selected: YM410E1G-100

PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW) 37,11

Power Input (KW) 17,9

COP 2,07

Current (A) 32,89

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm) 356.3/326.2/676.7

Weight (kg) 104

Stub Suction (inch) 1 5/8

Stub Discharge (inch) 1 1/4

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) 3.2

Low Side PS Max., (MPa) 2.0

Displacement(m³/h) 68.2

COMPRESSOR ELECTRICAL DATA

Electricity 380V/50Hz/3P

Standard Conditions -6.7/48.9/11.1/0

Normal Power (HP) 25

Normal Capacity (W) 39200

Normal Power input (W) 19400

Normal COP (W/W) 2.02

Normal Current (A) 34.5

Locked Rotor Current (A) 266

Maximum operating current (A) 51

Model: YM410E1G-100

Refrigerant: R404A

Suction Superheat: 30,0

Liquid subcooling: 0,0

Capacity (KW)

Tc \ Te	-30	-25	-20	-15	-10	-5	0	5	10	
10	23,09	27,78	33,63	40,83	49,62					
15	22,65	27,47	33,36	40,54	49,23					
20	21,9	26,79	32,67	39,75	48,25	58,4				
25	20,92	25,8	31,59	38,51	46,77	56,59	68,18			
30	19,76	24,57	30,21	36,9	44,85	54,28	65,4	78,43	93,58	
35	18,5	23,17	28,6	34,99	42,56	51,53	62,11	74,52	88,98	
40	17,21	21,67	26,8	32,83	39,95	48,4	58,38	70,1	83,79	
45	15,94	20,13	24,91	30,5	37,11	44,96	54,27	65,24	78,1	
50	14,76	18,61	22,97	28,06	34,09	41,28	49,84	60	71,96	
55	13,75	17,19	21,06	25,58	30,96	37,42	45,18	54,45	65,44	
60			19,24	23,12	27,79	33,46	40,34	48,65	58,61	
65				20,76	24,64	29,45	35,39	42,68	51,54	

Power Input (KW)

Tc \ Te	-30	-25	-20	-15	-10	-5	0	5	10	
10	7,69	8,08	8,41	8,7	8,94					
15	8,75	9,26	9,71	10,11	10,46					
20	9,68	10,31	10,88	11,39	11,84	12,25				
25	10,49	11,25	11,93	12,56	13,12	13,63	14,1			
30	11,23	12,12	12,92	13,66	14,33	14,95	15,51	16,03	16,51	
35	11,94	12,95	13,87	14,73	15,51	16,23	16,89	17,5	18,06	
40	12,64	13,78	14,83	15,79	16,68	17,51	18,27	18,97	19,62	
45	13,37	14,64	15,81	16,89	17,9	18,83	19,69	20,48	21,22	
50	14,17	15,56	16,86	18,06	19,18	20,21	21,17	22,07	22,9	
55	15,07	16,59	18,01	19,34	20,56	21,71	22,77	23,76	24,68	
60			19,3	20,75	22,09	23,34	24,51	25,59	26,61	
65				22,33	23,79	25,15	26,42	27,6	28,71	

Model: YM410E1G-100

Refrigerant: R404A

Suction Superheat: 30,0

Liquid subcooling: 0,0

Current (A)

Tc \ Te	-30	-25	-20	-15	-10	-5	0	5	10	
10	20,31	20,26	20,42	20,87	21,7					
15	21,43	21,35	21,4	21,7	22,32					
20	22,71	22,62	22,63	22,8	23,25	24,05				
25	24,15	24,11	24,09	24,19	24,5	25,1	26,1			
30	25,78	25,81	25,81	25,87	26,08	26,53	27,31	28,51	30,22	
35	27,59	27,74	27,79	27,85	28	28,33	28,93	29,89	31,31	
40	29,6	29,9	30,05	30,14	30,27	30,51	30,98	31,74	32,9	
45	31,81	32,3	32,58	32,75	32,89	33,09	33,45	34,06	35	
50	34,24	34,96	35,41	35,69	35,88	36,08	36,37	36,86	37,62	
55	36,89	37,87	38,53	38,96	39,24	39,47	39,74	40,14	40,76	
60			41,96	42,58	42,99	43,29	43,57	43,92	44,44	
65				46,55	47,13	47,54	47,87	48,21	48,66	

Mass Flow (Kg/h)

Tc \ Te	-30	-25	-20	-15	-10	-5	0	5	10	
10	526,84	665,84	822,47	1003,23	1214,67					
15	531,18	666,89	820,95	999,87	1210,18					
20	531,44	663,79	815,2	992,21	1201,32	1449,07				
25	528,48	657,39	806,09	981,11	1188,95	1436,16	1729,24			
30	523,17	648,57	794,49	967,44	1173,95	1420,53	1713,72	2060,03	2465,98	
35	516,37	638,19	781,25	952,07	1157,16	1403,06	1696,28	2043,35	2450,78	
40	508,96	627,13	767,25	935,86	1139,48	1384,61	1677,8	2025,55	2434,38	
45	501,79	616,23	753,36	919,69	1121,75	1366,05	1659,12	2007,49	2417,66	
50	495,74	606,39	740,44	904,42	1104,85	1348,25	1641,14	1990,04	2401,48	
55	491,68	598,45	729,36	890,91	1089,64	1332,06	1624,7	1974,07	2386,7	
60			720,98	880,04	1077	1318,37	1610,68	1960,45	2374,19	
65				872,67	1067,78	1308,03	1599,94	1950,03	2364,83	