

## Invotech Selection Software

REFRIGERANT R404A

### Operation Conditions

Evaporating Temperature(ℓ): -10,0

Condensing Temperature(ℓ): 45,0

Liquid subcooling: 0,0

Suction Superheat: 30,0

### Required Capacity(Kw):

Compressor Selected: YF80E1G-Q100

#### PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW) 20,01

Power Input (KW) 8,82

COP 2,27

Current (A) 17,92

#### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm) 239/239/505.7

Weight (kg) 54

Stub Suction (inch) 1 1/8

Stub Discharge (inch) 7/8

Base mounting (hole dia) 190X190(8.5)

Oil type POE

Initial charge of oil quantity (L) 3

Recharge of oil quantity (L) 2.8

High Side PS Max., (MPa) 3.2

Low Side PS Max., (MPa) 2.0

Displacement(m<sup>3</sup>/h) 32.9

#### COMPRESSOR ELECTRICAL DATA

Electricity 380V/50Hz/3P

Standard Conditions -31.6/40.6/36/0

Normal Power (HP) 12

Normal Capacity (ℓ) 8657

Normal Power input(ℓ) 6614

Normal COP(ℓ/ℓ) 1.31

Normal Current(ℓ) 12.4

Locked Rotor Current(ℓ) 121

Maximum operating current(ℓ) 25.6

Model: YF80E1G-Q100

Refrigerant: R404A

Suction Superheat: 30,0

Liquid subcooling: 0,0

**Capacity(KW)**

Tc\Te	-40	-35	-30	-25	-20	-15	-10	-5	0	
25	7,43	9,33	11,67	14,48	17,77	21,58	25,93	30,84	36,33	
30	7,07	8,9	11,13	13,81	16,94	20,56	24,69	29,35	34,56	
35	6,64	8,37	10,49	13,01	15,97	19,38	23,26	27,66	32,57	
40	6,17	7,79	9,77	12,12	14,88	18,06	21,69	25,8	30,4	
45	5,69	7,19	9,01	11,17	13,72	16,65	20,01	23,81	28,08	
50	5,24	6,59	8,24	10,2	12,51	15,18	18,25	21,73	25,64	
55	4,86	6,04	7,5	9,24	11,29	13,69	16,44	19,58	23,13	
60					10,1	12,2	14,62	17,4	20,57	

**Power Input(KW)**

Tc\Te	-40	-35	-30	-25	-20	-15	-10	-5	0	
25	4,58	4,85	5,13	5,42	5,72	6,03	6,36	6,71	7,07	
30	5,01	5,3	5,61	5,93	6,26	6,6	6,96	7,33	7,72	
35	5,44	5,76	6,09	6,44	6,79	7,16	7,54	7,94	8,35	
40	5,92	6,26	6,61	6,98	7,36	7,75	8,15	8,56	9	
45	6,49	6,85	7,22	7,61	8	8,41	8,82	9,26	9,7	
50	7,21	7,58	7,97	8,36	8,77	9,18	9,62	10,06	10,52	
55	8,1	8,49	8,88	9,28	9,7	10,13	10,57	11,02	11,49	
60					10,84	11,28	11,72	12,18	12,65	

Model: YF80E1G-Q100

Refrigerant: R404A

Suction Superheat: 30,0

Liquid subcooling: 0,0

**Current(A)**

Tc\Te	-40	-35	-30	-25	-20	-15	-10	-5	0	
25	12,34	12,63	12,94	13,28	13,65	14,05	14,48	14,94	15,42	
30	12,82	13,16	13,53	13,93	14,36	14,82	15,31	15,82	16,37	
35	13,29	13,68	14,11	14,56	15,05	15,56	16,1	16,67	17,27	
40	13,83	14,28	14,76	15,26	15,79	16,35	16,94	17,56	18,21	
45	14,54	15,03	15,55	16,1	16,68	17,28	17,92	18,58	19,28	
50	15,49	16,02	16,58	17,17	17,79	18,43	19,11	19,81	20,54	
55	16,77	17,34	17,93	18,55	19,2	19,88	20,59	21,33	22,09	
60					21	21,71	22,45	23,22	24,01	

**Mass Flow(Kg/h)**

Tc\Te	-40	-35	-30	-25	-20	-15	-10	-5	0	
25	132,1	181,5	239,75	308,71	390,23	486,17	598,38	728,7	879,01	
30	132,69	181,87	240,01	308,97	390,6	486,74	599,27	730,02	880,86	
35	131,87	180,57	238,34	307,03	388,5	484,59	597,17	728,09	879,19	
40	130,36	178,32	235,45	303,61	384,65	480,43	592,8	723,61	874,72	
45	128,87	175,81	232,04	299,4	379,75	474,95	586,84	717,29	868,13	
50	128,1	173,76	228,82	295,12	374,52	468,87	580,02	709,83	860,15	
55	128,75	172,88	226,5	291,48	369,66	462,89	573,04	701,95	851,48	
60					365,87	457,73	566,61	694,35	842,83	