

## Invotech Selection Software

REFRIGERANT R134a

### Operation Conditions :

Evaporating Temperature (°C) :	5,0
Condensing Temperature (°C) :	50,0
Liquid subcooling:	0,0
Suction Superheat:	10,0

### Required Capacity(Kw):

Compressor Selected: YW140J1-100

### PERFORMANCE AT SPECIFIED OPERATING POINT

Capacity (KW)	15,77
Power Input (KW)	3,79
COP	4,16
Current (A)	8,51

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Length/Width/Height (mm)	260/244/508
Weight (kg)	53
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)	2.7
Recharge of oil quantity (L)	2.6
High Side PS Max., (MPa)	3.0
Low Side PS Max., (MPa)	2.0
Displacement(m <sup>3</sup> /h)	20.1

### COMPRESSOR ELECTRICAL DATA

Electricity	380V/50Hz/3P
Standard Conditions	5/55/11.1/8.3
Normal Power (HP)	7
Normal Capacity (W)	17530
Normal Power input (W)	4125
Normal COP (W/W)	4.25
Normal Current ( A )	9
Locked Rotor Current ( A )	85
Maximum operating current ( A )	15.1

Model: YW140J1-100

Refrigerant: R134a

Suction Superheat: 10,0

Liquid subcooling: 0,0

**Capacity (KW)**

Tc \ Te	-15	-10	-5	0	5	10	15	20	25	
30	8,41	10,09	12,29	15,04	18,39	22,41				
35	8,42	9,98	12,01	14,55	17,66	21,38	25,75			
40	8,4	9,86	11,74	14,1	16,97	20,42	24,48	29,2	34,63	
45	8,36	9,74	11,48	13,68	16,34	19,53	23,29	27,68	32,72	
50	8,29	9,6	11,26	13,3	15,77	18,73	22,21	26,28	30,96	
55	8,21	9,48	11,06	12,96	15,27	18,01	21,24	25	29,34	
60	8,13	9,37	10,88	12,68	14,83	17,38	20,37	23,85	27,87	
65	8,03	9,28	10,74	12,45	14,48	16,85	19,62	22,84	26,56	
70	7,93	9,19	10,63	12,28	14,19	16,42	19	21,97	25,4	
75	7,84	9,15	10,58	12,18	14	16,08	18,49	21,25	24,42	
80			10,57	12,14	13,89	15,87	18,12	20,67	23,6	
85					13,88	15,76	17,87	20,25	22,96	

**Power Input (KW)**

Tc \ Te	-15	-10	-5	0	5	10	15	20	25	
30	2,28	2,43	2,55	2,62	2,65	2,63				
35	2,46	2,64	2,79	2,91	2,99	3,03	3,02			
40	2,63	2,82	3	3,16	3,28	3,38	3,43	3,43	3,38	
45	2,79	3	3,19	3,38	3,54	3,68	3,78	3,85	3,87	
50	2,97	3,18	3,39	3,6	3,79	3,96	4,11	4,24	4,32	
55	3,2	3,4	3,62	3,83	4,05	4,25	4,44	4,61	4,75	
60	3,49	3,68	3,89	4,11	4,33	4,56	4,78	4,99	5,18	
65	3,86	4,03	4,23	4,44	4,68	4,92	5,16	5,4	5,63	
70	4,33	4,47	4,65	4,86	5,09	5,34	5,6	5,86	6,12	
75	4,93	5,04	5,19	5,38	5,6	5,84	6,11	6,39	6,68	
80			5,86	6,02	6,22	6,46	6,73	7,01	7,32	
85					6,98	7,2	7,46	7,75	8,07	

Model: YW140J1-100

Refrigerant: R134a

Suction Superheat: 10,0

Liquid subcooling: 0,0

**Current (A)**

T <sub>c</sub> \ T <sub>e</sub>	-15	-10	-5	0	5	10	15	20	25	
30	6,91	7,07	7,16	7,17	7,09	6,91				
35	7,07	7,28	7,44	7,54	7,56	7,5	7,33			
40	7,18	7,43	7,65	7,82	7,93	7,97	7,92	7,79	7,54	
45	7,29	7,57	7,82	8,05	8,23	8,36	8,42	8,4	8,29	
50	7,43	7,72	8	8,27	8,51	8,71	8,86	8,94	8,95	
55	7,64	7,93	8,23	8,52	8,8	9,06	9,28	9,46	9,57	
60	7,97	8,23	8,53	8,83	9,14	9,44	9,72	9,97	10,17	
65	8,43	8,67	8,94	9,25	9,57	9,9	10,22	10,52	10,8	
70	9,08	9,27	9,51	9,8	10,12	10,46	10,81	11,16	11,49	
75	9,95	10,07	10,27	10,52	10,82	11,16	11,53	11,91	12,28	
80			11,25	11,46	11,73	12,05	12,41	12,81	13,21	
85					12,87	13,16	13,51	13,9	14,32	

**Mass Flow (Kg/h)**

T <sub>c</sub> \ T <sub>e</sub>	-15	-10	-5	0	5	10	15	20	25	
30	142,49	176,63	214,7	257,92	307,51	364,69				
35	141,94	176,53	215,04	258,7	308,74	366,36	432,79			
40	140,47	175,32	214,1	258,04	308,34	366,23	432,92	509,65	597,63	
45	138,38	173,33	212,21	256,23	306,63	364,61	431,4	508,22	596,29	
50	136	170,87	209,67	253,61	303,92	361,82	428,53	505,27	593,25	
55	133,64	168,26	206,8	250,49	300,54	358,19	424,64	501,11	588,84	
60	131,63	165,81	203,92	247,18	296,8	354,01	420,03	496,07	583,36	
65	130,26	163,84	201,35	244	293,01	349,62	415,02	490,46	577,14	
70	129,87	162,67	199,39	241,26	289,49	345,31	409,94	484,59	570,49	
75	130,76	162,6	198,37	239,28	286,56	341,43	405,09	478,79	563,73	
80			198,61	238,39	284,53	338,26	400,8	473,36	557,16	
85					283,72	336,15	397,37	468,62	551,12	