

## Invotech Selection Software

REFRIGERANT R134a

### Operation Conditions

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

### Required Capacity(Kw):

Compressor Selected: YW132J1-100

#### PERFORMANCE AT SPECIFIED OPERATING POINT

|                  |       |
|------------------|-------|
| Capacity (KW)    | 15,32 |
| Power Input (KW) | 3,65  |
| COP              | 4,2   |
| Current (A)      | 8,15  |

#### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                    |              |
|------------------------------------|--------------|
| Length/Width/Height (mm)           | 239/239/463  |
| Weight (kg)                        | 38           |
| Stub Suction (inch)                | 7/8          |
| Stub Discharge (inch)              | 1/2          |
| Base mounting (hole dia)           | 190X190(8.5) |
| Oil type                           | POE          |
| Initial charge of oil quantity (L) | 1.6          |
| Recharge of oil quantity (L)       | 1.45         |
| High Side PS Max., (MPa)           | 3.0          |
| Low Side PS Max., (MPa)            | 2.0          |
| Displacement(m <sup>3</sup> /h)    | 18.8         |

#### COMPRESSOR ELECTRICAL DATA

|                              |               |
|------------------------------|---------------|
| Electricity                  | 380V/50Hz/3P  |
| Standard Conditions          | 5/55/11.1/8.3 |
| Normal Power (HP)            | 6.5           |
| Normal Capacity (ℓ)          | 17415         |
| Normal Power input(ℓ)        | 4045          |
| Normal COP(ℓ/ℓ)              | 4.31          |
| Normal Current(ℓ)            | 8.7           |
| Locked Rotor Current(ℓ)      | 85            |
| Maximum operating current(ℓ) | 17.1          |

Model: YW132J1-100

Refrigerant: R134a

Suction Superheat: 10,0

Liquid subcooling: 0,0

**Capacity(KW)**

| Tc\Te | -15  | -10  | -5    | 0     | 5     | 10    | 15    | 20    | 25    |  |
|-------|------|------|-------|-------|-------|-------|-------|-------|-------|--|
| 30    | 8,16 | 9,79 | 11,92 | 14,61 | 17,87 | 21,78 |       |       |       |  |
| 35    | 8,17 | 9,69 | 11,65 | 14,13 | 17,15 | 20,77 | 25,02 |       |       |  |
| 40    | 8,15 | 9,57 | 11,4  | 13,68 | 16,48 | 19,83 | 23,78 | 28,37 | 33,65 |  |
| 45    | 8,11 | 9,45 | 11,16 | 13,28 | 15,86 | 18,97 | 22,62 | 26,88 | 31,78 |  |
| 50    | 8,06 | 9,33 | 10,93 | 12,92 | 15,32 | 18,19 | 21,56 | 25,51 | 30,06 |  |
| 55    | 7,98 | 9,22 | 10,74 | 12,59 | 14,83 | 17,49 | 20,62 | 24,26 | 28,47 |  |
| 60    | 7,9  | 9,11 | 10,57 | 12,32 | 14,4  | 16,87 | 19,77 | 23,15 | 27,04 |  |
| 65    | 7,82 | 9,03 | 10,44 | 12,1  | 14,06 | 16,36 | 19,04 | 22,16 | 25,76 |  |
| 70    | 7,74 | 8,96 | 10,34 | 11,95 | 13,79 | 15,94 | 18,43 | 21,32 | 24,63 |  |
| 75    | 7,65 | 8,92 | 10,29 | 11,85 | 13,61 | 15,62 | 17,94 | 20,61 | 23,67 |  |
| 80    |      |      | 10,3  | 11,82 | 13,51 | 15,41 | 17,58 | 20,05 | 22,87 |  |
| 85    |      |      |       |       | 13,51 | 15,32 | 17,35 | 19,64 | 22,25 |  |

**Power Input(KW)**

| Tc\Te | -15  | -10  | -5   | 0    | 5    | 10   | 15   | 20   | 25   |  |
|-------|------|------|------|------|------|------|------|------|------|--|
| 30    | 2,19 | 2,33 | 2,44 | 2,52 | 2,54 | 2,52 |      |      |      |  |
| 35    | 2,37 | 2,54 | 2,68 | 2,8  | 2,87 | 2,91 | 2,89 |      |      |  |
| 40    | 2,53 | 2,72 | 2,89 | 3,03 | 3,15 | 3,24 | 3,28 | 3,28 | 3,22 |  |
| 45    | 2,69 | 2,89 | 3,08 | 3,25 | 3,4  | 3,53 | 3,62 | 3,68 | 3,69 |  |
| 50    | 2,88 | 3,08 | 3,27 | 3,47 | 3,65 | 3,81 | 3,94 | 4,05 | 4,12 |  |
| 55    | 3,1  | 3,3  | 3,5  | 3,7  | 3,9  | 4,09 | 4,26 | 4,41 | 4,53 |  |
| 60    | 3,39 | 3,57 | 3,77 | 3,97 | 4,18 | 4,39 | 4,59 | 4,78 | 4,95 |  |
| 65    | 3,76 | 3,92 | 4,1  | 4,3  | 4,52 | 4,74 | 4,96 | 5,18 | 5,38 |  |
| 70    | 4,23 | 4,36 | 4,52 | 4,72 | 4,93 | 5,15 | 5,39 | 5,63 | 5,86 |  |
| 75    | 4,82 | 4,92 | 5,05 | 5,23 | 5,43 | 5,65 | 5,89 | 6,14 | 6,4  |  |
| 80    |      |      | 5,71 | 5,86 | 6,04 | 6,25 | 6,49 | 6,75 | 7,02 |  |
| 85    |      |      |      |      | 6,79 | 6,98 | 7,21 | 7,47 | 7,75 |  |

Model: YW132J1-100

Refrigerant: R134a

Suction Superheat: 10,0

Liquid subcooling: 0,0

**Current(A)**

| Tc\Te | -15  | -10  | -5    | 0     | 5     | 10    | 15    | 20    | 25    |  |
|-------|------|------|-------|-------|-------|-------|-------|-------|-------|--|
| 30    | 6,62 | 6,77 | 6,86  | 6,87  | 6,79  | 6,62  |       |       |       |  |
| 35    | 6,77 | 6,97 | 7,12  | 7,22  | 7,24  | 7,18  | 7,02  |       |       |  |
| 40    | 6,87 | 7,11 | 7,32  | 7,49  | 7,59  | 7,63  | 7,59  | 7,45  | 7,22  |  |
| 45    | 6,98 | 7,24 | 7,49  | 7,71  | 7,88  | 8,01  | 8,06  | 8,04  | 7,94  |  |
| 50    | 7,11 | 7,39 | 7,66  | 7,92  | 8,15  | 8,34  | 8,48  | 8,56  | 8,57  |  |
| 55    | 7,32 | 7,59 | 7,88  | 8,16  | 8,43  | 8,68  | 8,89  | 9,05  | 9,16  |  |
| 60    | 7,63 | 7,88 | 8,16  | 8,46  | 8,75  | 9,04  | 9,31  | 9,55  | 9,74  |  |
| 65    | 8,07 | 8,3  | 8,56  | 8,85  | 9,16  | 9,48  | 9,79  | 10,08 | 10,34 |  |
| 70    | 8,7  | 8,87 | 9,1   | 9,38  | 9,69  | 10,01 | 10,35 | 10,68 | 11    |  |
| 75    | 9,53 | 9,65 | 9,83  | 10,07 | 10,36 | 10,69 | 11,04 | 11,4  | 11,76 |  |
| 80    |      |      | 10,77 | 10,97 | 11,23 | 11,54 | 11,89 | 12,26 | 12,65 |  |
| 85    |      |      |       |       | 12,32 | 12,6  | 12,93 | 13,3  | 13,71 |  |

**Mass Flow(Kg/h)**

| Tc\Te | -15    | -10    | -5     | 0      | 5      | 10     | 15     | 20     | 25     |  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| 30    | 138,74 | 171,98 | 209,05 | 251,13 | 299,42 | 355,09 |        |        |        |  |
| 35    | 138,21 | 171,88 | 209,38 | 251,9  | 300,61 | 356,72 | 421,4  |        |        |  |
| 40    | 136,77 | 170,71 | 208,47 | 251,25 | 300,22 | 356,59 | 421,53 | 496,24 | 581,9  |  |
| 45    | 134,74 | 168,77 | 206,62 | 249,49 | 298,56 | 355,01 | 420,05 | 494,84 | 580,59 |  |
| 50    | 132,42 | 166,37 | 204,15 | 246,94 | 295,93 | 352,3  | 417,25 | 491,97 | 577,64 |  |
| 55    | 130,13 | 163,83 | 201,36 | 243,9  | 292,63 | 348,76 | 413,46 | 487,93 | 573,34 |  |
| 60    | 128,16 | 161,45 | 198,55 | 240,67 | 288,99 | 344,69 | 408,97 | 483,02 | 568,01 |  |
| 65    | 126,83 | 159,53 | 196,05 | 237,57 | 285,3  | 340,41 | 404,1  | 477,55 | 561,95 |  |
| 70    | 126,45 | 158,39 | 194,14 | 234,91 | 281,88 | 336,23 | 399,15 | 471,84 | 555,48 |  |
| 75    | 127,32 | 158,32 | 193,15 | 232,99 | 279,02 | 332,44 | 394,43 | 466,19 | 548,89 |  |
| 80    |        |        | 193,38 | 232,11 | 277,05 | 329,36 | 390,25 | 460,9  | 542,5  |  |
| 85    |        |        |        |        | 276,26 | 327,3  | 386,92 | 456,29 | 536,62 |  |