

## 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: YH325C1-100

### PERFORMANCE AT SPECIFIED OPERATING POINT

|                  |       |
|------------------|-------|
| Capacity (KW)    | 32,79 |
| Power Input (KW) | 10,19 |
| COP              | 3,22  |
| Current (A)      | 18,8  |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                    |              |
|------------------------------------|--------------|
| Length/Width/Height (mm)           | 260/244/508  |
| Weight (kg)                        | 56           |
| 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) | 3.0          |
| Recharge of oil quantity (L)       | 2.85         |
| High Side PS Max., (MPa)           | 4.3          |
| Low Side PS Max., (MPa)            | 2.0          |
| Displacement(m³/h)                 | 21.4         |

### COMPRESSOR ELECTRICAL DATA

|                              |                   |
|------------------------------|-------------------|
| Electricity                  | 380V/50Hz/3P      |
| Standard Conditions          | 7.2/54.4/11.1/8.3 |
| Normal Power (HP)            | 11                |
| Normal Capacity (ℓ)          | 32500             |
| Normal Power input(ℓ)        | 10100             |
| Normal COP(ℓ/ℓ)              | 3.22              |
| Normal Current(ℓ)            | 17.7              |
| Locked Rotor Current(ℓ)      | 121               |
| Maximum operating current(ℓ) | 25                |

Model: YH325C1-100

Refrigerant: R410A

Suction Superheat: 11,1

Liquid subcooling: 8,3

**Capacity(KW)**

| Tc\Te | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25    | 12,97 | 16,58 | 20,5  | 24,89 | 29,94 | 35,82 | 42,7  | 50,76 |       |       |
| 30    | 11,91 | 15,47 | 19,26 | 23,48 | 28,28 | 33,85 | 40,37 | 48    | 56,93 |       |
| 35    | 10,93 | 14,45 | 18,16 | 22,21 | 26,79 | 32,08 | 38,25 | 45,48 | 53,93 |       |
| 40    | 9,94  | 13,45 | 17,08 | 21    | 25,38 | 30,41 | 36,25 | 43,09 | 51,1  | 60,45 |
| 45    |       | 12,37 | 15,94 | 19,75 | 23,95 | 28,74 | 34,28 | 40,76 | 48,34 | 57,2  |
| 50    |       |       | 14,66 | 18,37 | 22,42 | 26,99 | 32,25 | 38,38 | 45,55 | 53,95 |
| 55    |       |       |       | 16,76 | 20,68 | 25,05 | 30,05 | 35,86 | 42,65 | 50,6  |
| 60    |       |       |       |       | 18,64 | 22,84 | 27,6  | 33,11 | 39,54 | 47,06 |
| 65    |       |       |       |       |       | 20,26 | 24,81 | 30,04 | 36,13 | 43,25 |

**Power Input(KW)**

| Tc\Te | -25  | -20  | -15  | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 25    | 5,28 | 5,25 | 5,22 | 5,2   | 5,19  | 5,22  | 5,28  | 5,4   |       |       |
| 30    | 6,06 | 6,01 | 5,95 | 5,9   | 5,86  | 5,86  | 5,89  | 5,97  | 6,11  |       |
| 35    | 6,88 | 6,81 | 6,73 | 6,65  | 6,59  | 6,55  | 6,54  | 6,59  | 6,7   |       |
| 40    | 7,77 | 7,68 | 7,58 | 7,48  | 7,39  | 7,32  | 7,29  | 7,3   | 7,38  | 7,53  |
| 45    |      | 8,66 | 8,54 | 8,42  | 8,3   | 8,21  | 8,15  | 8,14  | 8,18  | 8,3   |
| 50    |      |      | 9,64 | 9,5   | 9,37  | 9,25  | 9,17  | 9,13  | 9,15  | 9,23  |
| 55    |      |      |      | 10,76 | 10,61 | 10,48 | 10,37 | 10,31 | 10,3  | 10,36 |
| 60    |      |      |      |       | 12,07 | 11,92 | 11,79 | 11,71 | 11,68 | 11,71 |
| 65    |      |      |      |       |       | 13,61 | 13,47 | 13,37 | 13,31 | 13,32 |

Model: YH325C1-100

Refrigerant: R410A

Suction Superheat: 11,1

Liquid  
subcooling: 8,3**Current(A)**

| Tc\Te | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25    | 12,38 | 12,4  | 12,35 | 12,28 | 12,25 | 12,29 | 12,47 | 12,84 |       |       |
| 30    | 13,15 | 13,1  | 12,95 | 12,77 | 12,59 | 12,47 | 12,46 | 12,62 | 12,99 |       |
| 35    | 14,21 | 14,14 | 13,95 | 13,7  | 13,44 | 13,21 | 13,07 | 13,07 | 13,26 |       |
| 40    | 15,42 | 15,39 | 15,22 | 14,96 | 14,66 | 14,38 | 14,16 | 14,06 | 14,13 | 14,41 |
| 45    |       | 16,72 | 16,62 | 16,41 | 16,13 | 15,85 | 15,61 | 15,46 | 15,46 | 15,65 |
| 50    |       |       | 18,03 | 17,92 | 17,72 | 17,5  | 17,29 | 17,15 | 17,13 | 17,29 |
| 55    |       |       |       | 19,36 | 19,3  | 19,19 | 19,07 | 18,99 | 19,01 | 19,19 |
| 60    |       |       |       |       | 20,74 | 20,79 | 20,81 | 20,86 | 20,98 | 21,22 |
| 65    |       |       |       |       |       | 22,19 | 22,4  | 22,62 | 22,89 | 23,26 |

**Mass Flow(Kg/h)**

| Tc\Te | -25    | -20    | -15    | -10    | -5     | 0      | 5      | 10     | 15      | 20      |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 25    | 232,96 | 300,52 | 368,25 | 441,03 | 523,72 | 621,2  | 738,34 | 880,03 |         |         |
| 30    | 219,2  | 287,71 | 355,21 | 426,57 | 506,67 | 600,38 | 712,58 | 848,14 | 1011,94 |         |
| 35    | 210,86 | 281,61 | 350,17 | 421,42 | 500,23 | 591,47 | 700,01 | 830,74 | 988,53  |         |
| 40    | 203,53 | 277,83 | 348,75 | 421,18 | 499,99 | 590,05 | 696,24 | 823,44 | 976,52  | 1160,35 |
| 45    |        | 271,96 | 346,54 | 421,45 | 501,56 | 591,74 | 696,87 | 821,83 | 971,49  | 1150,73 |
| 50    |        |        | 339,16 | 417,84 | 500,54 | 592,14 | 697,51 | 821,52 | 969,06  | 1145    |
| 55    |        |        |        | 405,95 | 492,54 | 586,85 | 693,75 | 818,12 | 964,84  | 1138,77 |
| 60    |        |        |        |        | 473,16 | 571,48 | 681,21 | 807,23 | 954,42  | 1127,65 |
| 65    |        |        |        |        |        | 541,63 | 655,49 | 784,46 | 933,41  | 1107,23 |