



# HANBELL Compressor Performance Report

## INPUT

Model : RC2-100DM  
 Refrigerant : R22  
 Operating mode : Standard  
 Power supply : 380V-3-50Hz  
 Liquid subcooling(Only 5 deg. C) : 5  
 Suct. gas temp.(Only 5 deg. C) : 20  
 Useful superheat(Only 5 deg. C) : 20  
 Partial capacity load only 100%

## OUTPUT

| tc(deg. C) | to(deg. C)  | -20   | -15   | -10    | -5     | 0      | 5      | 10     |
|------------|-------------|-------|-------|--------|--------|--------|--------|--------|
| 30         | Qo(kW)      | 40,5  | 50,6  | 62,4   | 77,1   | 90,2   | 105,5  | 121,1  |
|            | P(kW)       | 16,0  | 16,7  | 17,4   | 18,1   | 18,8   | 19,4   | 19,9   |
|            | I(A)        | 27,3  | 28,5  | 29,7   | 30,9   | 32,0   | 33,1   | 34,0   |
|            | COP         | 2,532 | 3,032 | 3,586  | 4,262  | 4,805  | 5,444  | 6,089  |
|            | mLP(kg/h)   | 756,1 | 931,3 | 1132,5 | 1349,0 | 1595,1 | 1842,2 | 2087,1 |
|            | mHP(kg/h)   | 756,1 | 931,3 | 1132,5 | 1349,0 | 1595,1 | 1842,2 | 2087,1 |
|            | tcu(deg. C) | 25,0  | 25,0  | 25,0   | 25,0   | 25,0   | 25,0   | 25,0   |
|            | Qsc(kW)     |       |       |        |        |        |        |        |
|            | pm(bar)     |       |       |        |        |        |        |        |
|            | Qac(kW)     | 6,37  | 5,48  | 4,51   | 3,59   | 2,64   | 1,85   | 1,26   |
| 45         | Qo(kW)      | 33,6  | 42,4  | 52,9   | 66,1   | 77,7   | 91,1   | 104,5  |
|            | P(kW)       | 20,7  | 21,6  | 22,6   | 23,6   | 24,6   | 25,6   | 26,5   |
|            | I(A)        | 35,3  | 36,9  | 38,5   | 40,2   | 41,9   | 43,6   | 45,3   |
|            | COP         | 1,627 | 1,964 | 2,342  | 2,807  | 3,162  | 3,565  | 3,941  |
|            | mLP(kg/h)   | 703,4 | 873,3 | 1072,0 | 1290,0 | 1529,4 | 1769,5 | 2001,0 |
|            | mHP(kg/h)   | 703,4 | 873,3 | 1072,0 | 1290,0 | 1529,4 | 1769,5 | 2001,0 |
|            | tcu(deg. C) | 40,0  | 40,0  | 40,0   | 40,0   | 40,0   | 40,0   | 40,0   |
|            | Qsc(kW)     |       |       |        |        |        |        |        |
|            | pm(bar)     |       |       |        |        |        |        |        |
|            | Qac(kW)     | 12,97 | 12,66 | 12,29  | 12,01  | 11,83  | 11,89  | 12,22  |
| 50         | Qo(kW)      | 31,5  | 39,8  | 49,8   | 62,5   | 73,5   | 86,3   | 98,8   |
|            | P(kW)       | 22,2  | 23,3  | 24,4   | 25,5   | 26,8   | 28,0   | 29,3   |
|            | I(A)        | 37,9  | 39,7  | 41,6   | 43,6   | 45,7   | 47,8   | 50,0   |
|            | COP         | 1,418 | 1,712 | 2,044  | 2,449  | 2,747  | 3,080  | 3,375  |
|            | mLP(kg/h)   | 686,3 | 853,8 | 1051,0 | 1268,9 | 1504,8 | 1740,7 | 1965,4 |
|            | mHP(kg/h)   | 686,3 | 853,8 | 1051,0 | 1268,9 | 1504,8 | 1740,7 | 1965,4 |
|            | tcu(deg. C) | 45,0  | 45,0  | 45,0   | 45,0   | 45,0   | 45,0   | 45,0   |
|            | Qsc(kW)     |       |       |        |        |        |        |        |
|            | pm(bar)     |       |       |        |        |        |        |        |
|            | Qac(kW)     | 15,23 | 15,16 | 15,08  | 15,15  | 15,38  | 15,88  | 16,76  |

## Coefficients

|         | c1     | c2      | c3      | c4       | c5       | c6       | c7         | c8         | c9         | c10        |
|---------|--------|---------|---------|----------|----------|----------|------------|------------|------------|------------|
| Qo(W)   | 109100 | 4034,17 | -502,74 | 56,118   | -20,956  | -5,589   | 0,2849     | -0,2750    | -0,1191    | -0,0041    |
| P(W)    | 13438  | 67,68   | 77,18   | -3,062   | -0,408   | 4,677    | -0,0387    | 0,0273     | 0,0553     | -0,0043    |
| F(kg/h) | 1742,3 | 67,8727 | 1,0005  | 1,08626  | 0,01997  | -0,06445 | 0,0069957  | -0,0011938 | -0,0027093 | -0,0007657 |
| I(A)    | 26,56  | 0,0882  | 0,1162  | -0,00466 | -0,00174 | 0,00489  | -0,0000516 | 0,0000563  | 0,0001187  | 0,0000284  |