

General

RK5514E-AA3A

Model RK5514E-AA3A Unit of Measure Fahrenheit  
 Condition ASHRAE(R-22) Voltage/Frequency 115V~ 60HZ  
 RETURN GAS 35°C (95°F) RETURN GAS MotorType PSC

Performance Information

| EVAP TEMP (°F) | Condensing Temperature (°F) |       |       |       |       |       |       |       |       |
|----------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                | 80                          | 90    | 100   | 110   | 120   | 130   | 140   | 150   |       |
| -10            | Btu/h                       | 13400 | 11600 | 10500 | 9960  | 9700  | 9480  | 9080  | 8230  |
|                | Watts                       | 780   | 957   | 1080  | 1180  | 1250  | 1310  | 1390  | 1500  |
|                | Amps                        | 7.16  | 8.79  | 9.95  | 10.8  | 11.5  | 12.1  | 12.8  | 13.7  |
|                | Lb/h                        | 80.4  | 71.3  | 66.4  | 64.3  | 63.8  | 63.5  | 62.1  | 58.3  |
| -5             | Btu/h                       | 11600 | 9810  | 8750  | 8220  | 7970  | 7780  | 7400  | 6580  |
|                | Watts                       | 726   | 903   | 1030  | 1120  | 1190  | 1250  | 1330  | 1420  |
|                | Amps                        | 6.67  | 8.29  | 9.44  | 10.3  | 10.9  | 11.5  | 12.2  | 13.1  |
|                | Lb/h                        | 69.3  | 60.2  | 55.3  | 53.2  | 52.7  | 52.4  | 51.0  | 47.2  |
| 0              | Btu/h                       | 10400 | 8590  | 7530  | 7010  | 6780  | 6600  | 6230  | 5430  |
|                | Watts                       | 690   | 867   | 993   | 1080  | 1150  | 1210  | 1280  | 1380  |
|                | Amps                        | 6.34  | 7.96  | 9.11  | 9.92  | 10.5  | 11.1  | 11.8  | 12.6  |
|                | Lb/h                        | 61.6  | 52.5  | 47.6  | 45.5  | 45.0  | 44.7  | 43.3  | 39.6  |
| 5              | Btu/h                       | 9710  | 7870  | 6820  | 6290  | 6070  | 5890  | 5540  | 4750  |
|                | Watts                       | 668   | 846   | 972   | 1060  | 1130  | 1190  | 1260  | 1350  |
|                | Amps                        | 6.13  | 7.77  | 8.92  | 9.74  | 10.4  | 10.9  | 11.6  | 12.4  |
|                | Lb/h                        | 57.1  | 48.0  | 43.1  | 41.0  | 40.5  | 40.2  | 38.8  | 35.1  |
| 10             | Btu/h                       | 9480  | 7640  | 6570  | 6040  | 5810  | 5640  | 5280  | 4500  |
|                | Watts                       | 656   | 837   | 964   | 1050  | 1120  | 1180  | 1250  | 1340  |
|                | Amps                        | 6.02  | 7.68  | 8.85  | 9.67  | 10.3  | 10.9  | 11.5  | 12.3  |
|                | Lb/h                        | 55.6  | 46.4  | 41.5  | 39.4  | 38.9  | 38.6  | 37.2  | 33.5  |
| 15             | Btu/h                       | 9710  | 7840  | 6760  | 6220  | 5980  | 5790  | 5430  | 4650  |
|                | Watts                       | 651   | 834   | 965   | 1060  | 1130  | 1190  | 1260  | 1350  |
|                | Amps                        | 5.97  | 7.66  | 8.85  | 9.70  | 10.3  | 10.9  | 11.5  | 12.4  |
|                | Lb/h                        | 56.6  | 47.5  | 42.5  | 40.5  | 39.9  | 39.6  | 38.3  | 34.5  |
| 20             | Btu/h                       | 10300 | 8450  | 7340  | 6780  | 6520  | 6330  | 5950  | 5170  |
|                | Watts                       | 648   | 836   | 970   | 1070  | 1140  | 1200  | 1270  | 1360  |
|                | Amps                        | 5.95  | 7.67  | 8.90  | 9.77  | 10.4  | 11.0  | 11.7  | 12.5  |
|                | Lb/h                        | 60.1  | 51.0  | 46.0  | 43.9  | 43.4  | 43.1  | 41.7  | 38.0  |
| 25             | Btu/h                       | 11300 | 9420  | 8290  | 7700  | 7410  | 7200  | 6810  | 6000  |
|                | Watts                       | 644   | 837   | 976   | 1080  | 1150  | 1220  | 1290  | 1390  |
|                | Amps                        | 5.91  | 7.69  | 8.96  | 9.87  | 10.6  | 11.2  | 11.8  | 12.7  |
|                | Lb/h                        | 65.7  | 56.6  | 51.6  | 49.4  | 48.9  | 48.6  | 47.2  | 43.5  |
| 30             | Btu/h                       | 12700 | 10700 | 9550  | 8930  | 8610  | 8370  | 7950  | 7130  |
|                | Watts                       | 636   | 835   | 980   | 1080  | 1160  | 1240  | 1310  | 1410  |
|                | Amps                        | 5.84  | 7.67  | 8.99  | 9.95  | 10.7  | 11.3  | 12.0  | 12.9  |
|                | Lb/h                        | 73.2  | 64.0  | 59.0  | 56.8  | 56.3  | 56.0  | 54.6  | 50.9  |
| 35             | Btu/h                       | 14300 | 12300 | 11100 | 10400 | 10100 | 9810  | 9360  | 8510  |
|                | Watts                       | 619   | 826   | 977   | 1090  | 1170  | 1250  | 1330  | 1430  |
|                | Amps                        | 5.68  | 7.58  | 8.97  | 9.98  | 10.8  | 11.5  | 12.2  | 13.2  |
|                | Lb/h                        | 82.3  | 73.0  | 68.0  | 65.8  | 65.3  | 64.9  | 63.6  | 59.8  |
| 40             | Btu/h                       | 16300 | 14200 | 12900 | 12200 | 11800 | 11500 | 11000 | 10100 |
|                | Watts                       | 590   | 806   | 964   | 1080  | 1180  | 1260  | 1340  | 1450  |
|                | Amps                        | 5.42  | 7.39  | 8.85  | 9.94  | 10.8  | 11.5  | 12.3  | 13.3  |
|                | Lb/h                        | 92.7  | 83.4  | 78.4  | 76.2  | 75.6  | 75.2  | 73.8  | 70.1  |
| 45             | Btu/h                       | 18400 | 16300 | 14900 | 14200 | 13700 | 13300 | 12800 | 11900 |
|                | Watts                       | 546   | 770   | 938   | 1060  | 1160  | 1250  | 1350  | 1460  |
|                | Amps                        | 5.01  | 7.07  | 8.61  | 9.77  | 10.7  | 11.5  | 12.4  | 13.4  |
|                | Lb/h                        | 104   | 94.9  | 89.8  | 87.6  | 86.9  | 86.6  | 85.2  | 81.4  |
| 50             | Btu/h                       | 20700 | 18500 | 17100 | 16300 | 15800 | 15400 | 14800 | 13800 |
|                | Watts                       | 482   | 717   | 895   | 1030  | 1140  | 1240  | 1340  | 1460  |
|                | Amps                        | 4.42  | 6.58  | 8.21  | 9.45  | 10.5  | 11.4  | 12.3  | 13.4  |
|                | Lb/h                        | 116   | 107   | 102   | 99.7  | 99.1  | 98.7  | 97.3  | 93.5  |

|    | COEFFICIENTS  | CAPACITY      | POWER         | CURRENT       | MASS FLOW |
|----|---------------|---------------|---------------|---------------|-----------|
| C1 | 8.168928E+04  | -4.418178E+03 | -4.053830E+01 | 4.422825E+02  |           |
| C2 | -1.670936E+02 | -1.069921E+01 | -9.818257E-02 | -1.153170E+00 |           |
| C3 | -1.808779E+03 | 1.232116E+02  | 1.130530E+00  | -9.757646E+00 |           |
| C4 | 1.148609E+01  | 1.120933E-01  | 1.028813E-03  | 6.409360E-02  |           |
| C5 | -5.484946E-01 | 1.070194E-01  | 9.819958E-04  | -1.004900E-03 |           |
| C6 | 1.467710E+01  | -9.454846E-01 | -8.675162E-03 | 8.001439E-02  |           |

|     |               |               |               |               |
|-----|---------------|---------------|---------------|---------------|
| C7  | -4.797081E-02 | -4.926532E-03 | -4.521288E-05 | -3.518703E-04 |
| C8  | -1.405038E-02 | 2.054451E-03  | 1.885385E-05  | -5.462293E-06 |
| C9  | 3.011303E-03  | -5.525281E-04 | -5.070013E-06 | 4.394460E-06  |
| C10 | -4.005247E-02 | 2.544495E-03  | 2.334649E-05  | -2.190785E-04 |

$$\text{Value} = C1 + C2 * \text{Te} + C4 * \text{Te}^2 + C7 * \text{Te}^3 + (C3 + C5 * \text{Te} + C8 * \text{Te}^2) * \text{Tc} + (C6 + C9 * \text{Te}) * \text{Tc}^2 + C10 * \text{Tc}^3$$

Te = Evaporator Temperature

Tc = Condensing Temperature