



Tecumseh

Performance Data Sheet

AKA4476YXA

General Information

| | | | |
|-----------------------|-------------------------|---------------------------------|-------------|
| Model | AKA4476YXA | Refrigerant | R-134a |
| Test Condition | ARI | Performance Test Voltage | 115V ~ 60HZ |
| Return Gas | -6.7°C (20°F) SUPERHEAT | Motor Type | CSIR |

Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | |
|----------------|-------|-----------------------------|-------|-------|-------|------|------|------|
| | | 80 | 90 | 100 | 110 | 120 | 130 | 140 |
| 20 | Btu/h | 5880 | 5430 | 4940 | 4430 | 3920 | 3430 | 2980 |
| | Watts | 577 | 648 | 699 | 734 | 757 | 773 | 784 |
| | Amps | 7.74 | 8.09 | 8.37 | 8.58 | 8.75 | 8.87 | 8.97 |
| | Lb/h | 76.3 | 73.6 | 70.2 | 66.3 | 62.0 | 57.8 | 53.7 |
| 25 | Btu/h | 6690 | 6210 | 5680 | 5130 | 4580 | 4050 | 3550 |
| | Watts | 609 | 683 | 739 | 781 | 813 | 838 | 861 |
| | Amps | 7.95 | 8.33 | 8.65 | 8.91 | 9.14 | 9.35 | 9.54 |
| | Lb/h | 86.9 | 84.4 | 81.1 | 77.2 | 72.9 | 68.5 | 64.2 |
| 30 | Btu/h | 7600 | 7070 | 6490 | 5900 | 5290 | 4700 | 4140 |
| | Watts | 641 | 718 | 778 | 826 | 865 | 900 | 934 |
| | Amps | 8.20 | 8.60 | 8.95 | 9.27 | 9.56 | 9.84 | 10.1 |
| | Lb/h | 98.8 | 96.4 | 93.0 | 89.0 | 84.6 | 80.0 | 75.4 |
| 35 | Btu/h | 8600 | 8020 | 7390 | 6730 | 6060 | 5410 | 4780 |
| | Watts | 673 | 752 | 816 | 869 | 916 | 959 | 1000 |
| | Amps | 8.45 | 8.88 | 9.27 | 9.63 | 9.99 | 10.3 | 10.7 |
| | Lb/h | 112 | 110 | 106 | 102 | 97.4 | 92.4 | 87.4 |
| 40 | Btu/h | 9720 | 9070 | 8370 | 7640 | 6900 | 6160 | 5450 |
| | Watts | 707 | 787 | 854 | 912 | 964 | 1020 | 1070 |
| | Amps | 8.71 | 9.16 | 9.58 | 9.99 | 10.4 | 10.8 | 11.3 |
| | Lb/h | 127 | 125 | 121 | 116 | 111 | 106 | 100 |
| 45 | Btu/h | 11000 | 10200 | 9450 | 8640 | 7810 | 6990 | 6190 |
| | Watts | 742 | 823 | 892 | 954 | 1010 | 1070 | 1130 |
| | Amps | 8.96 | 9.43 | 9.88 | 10.3 | 10.8 | 11.3 | 11.8 |
| | Lb/h | 144 | 141 | 137 | 132 | 127 | 121 | 115 |
| 50 | Btu/h | 12300 | 11500 | 10600 | 9740 | 8820 | 7890 | 6990 |
| | Watts | 780 | 860 | 931 | 996 | 1060 | 1120 | 1190 |
| | Amps | 9.19 | 9.67 | 10.2 | 10.6 | 11.2 | 11.7 | 12.3 |
| | Lb/h | 163 | 160 | 156 | 150 | 144 | 138 | 131 |
| 55 | Btu/h | 13900 | 12900 | 12000 | 11000 | 9920 | 8890 | 7870 |
| | Watts | 820 | 900 | 971 | 1040 | 1100 | 1180 | 1250 |
| | Amps | 9.37 | 9.87 | 10.4 | 10.9 | 11.5 | 12.1 | 12.8 |
| | Lb/h | 185 | 181 | 176 | 170 | 163 | 156 | 148 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|--------------|---------------|---------------|---------------|---------------|
| C1 | 3.808963E+03 | -1.375643E+03 | -4.719180E-01 | 3.160500E+01 |
| C2 | 5.575858E+01 | 8.890893E+00 | 1.910895E-02 | 4.515158E-03 |
| C3 | 4.937675E+01 | 4.312899E+01 | 1.818001E-01 | 9.128011E-01 |
| C4 | 2.591842E+00 | 6.105638E-02 | 2.248646E-03 | 1.975614E-02 |
| C5 | 8.420097E-01 | -1.468877E-01 | -1.468702E-03 | 2.500208E-02 |
| C6 | -9.258680E-01 | -3.077342E-01 | -1.205275E-03 | -1.293927E-02 |
| C7 | 1.384351E-02 | 7.227432E-04 | -1.788573E-05 | 2.957970E-04 |
| C8 | -2.233983E-02 | -1.430275E-03 | -4.167025E-06 | -2.104871E-04 |
| C9 | -2.875453E-03 | 1.644816E-03 | 1.287025E-05 | -7.196777E-05 |
| C10 | 2.973120E-03 | 6.530255E-04 | 2.104538E-06 | 3.917792E-05 |

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

Te = Evaporator Temperature

Tc = Condensing Temperature