# Performance Data Sheet

## AE4440Y-FZ1A

## General Information

| | | | |
|---|---|---|---|
| **Model** | AE4440Y-FZ1A | **Refrigerant** | R-134a |
| **Test Condition** | ASHRAE | **Performance Test Voltage** | 240V ~ 50HZ |
| **Return Gas** | 35°C (95°F) RETURN GAS | **Motor Type** | CSIR |

## Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **80** | **90** | **100** | **110** | **120** | **130** | **140** | **150** |
| **5** | Btu/h | 1820 | 1740 | 1650 | 1570 | 1490 | 1420 | 1340 | 1280 |
| | Watts | 156 | 138 | 118 | 94.9 | 70.3 | 44.7 | 18.6 | |
| | Amps | | | | | | | | |
| | Lb/h | 44.0 | 49.7 | 55.9 | 62.8 | 70.3 | 78.5 | 87.5 | 97.4 |
| **10** | Btu/h | 2070 | 1970 | 1870 | 1770 | 1680 | 1590 | 1500 | 1420 |
| | Watts | 168 | 152 | 132 | 111 | 86.9 | 62.0 | 36.7 | 11.4 |
| | Amps | | | | | | | | |
| | Lb/h | 47.2 | 52.9 | 59.0 | 65.8 | 73.1 | 81.2 | 90.0 | 99.7 |
| **15** | Btu/h | 2350 | 2230 | 2110 | 2000 | 1890 | 1780 | 1680 | 1580 |
| | Watts | 180 | 165 | 147 | 127 | 104 | 80.3 | 55.8 | 31.3 |
| | Amps | | | | | | | | |
| | Lb/h | 50.8 | 56.4 | 62.5 | 69.1 | 76.4 | 84.3 | 93.0 | 102 |
| **20** | Btu/h | 2650 | 2510 | 2380 | 2250 | 2120 | 1990 | 1870 | 1750 |
| | Watts | 191 | 178 | 162 | 143 | 122 | 99.3 | 76.0 | 52.4 |
| | Amps | | | | | | | | |
| | Lb/h | 54.6 | 60.2 | 66.3 | 72.8 | 80.0 | 87.8 | 96.3 | 106 |
| **25** | Btu/h | 2980 | 2820 | 2670 | 2520 | 2360 | 2220 | 2070 | 1930 |
| | Watts | 201 | 191 | 176 | 159 | 140 | 119 | 97.0 | 74.7 |
| | Amps | | | | | | | | |
| | Lb/h | 58.9 | 64.5 | 70.5 | 77.0 | 84.0 | 91.7 | 100 | 109 |
| **30** | Btu/h | 3340 | 3170 | 2990 | 2810 | 2640 | 2470 | 2300 | 2140 |
| | Watts | 211 | 203 | 191 | 176 | 158 | 139 | 119 | 97.8 |
| | Amps | | | | | | | | |
| | Lb/h | 63.6 | 69.1 | 75.1 | 81.5 | 88.5 | 96.1 | 104 | 113 |
| **35** | Btu/h | 3740 | 3540 | 3340 | 3140 | 2940 | 2740 | 2550 | 2360 |
| | Watts | 220 | 215 | 205 | 192 | 177 | 160 | 141 | 122 |
| | Amps | | | | | | | | |
| | Lb/h | 68.7 | 74.3 | 80.2 | 86.6 | 93.5 | 101 | 109 | 118 |
| **40** | Btu/h | 4170 | 3940 | 3720 | 3490 | 3260 | 3040 | 2820 | 2610 |
| | Watts | 229 | 226 | 219 | 208 | 195 | 180 | 164 | 147 |
| | Amps | | | | | | | | |
| | Lb/h | 74.3 | 79.9 | 85.8 | 92.1 | 99.0 | 106 | 114 | 123 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **45** | Btu/h | 4640 | 4390 | 4130 | 3870 | 3620 | 3370 | 3120 | 2880 |
| | Watts | 236 | 236 | 232 | 224 | 214 | 201 | 187 | 172 |
| | Amps | | | | | | | | |
| | Lb/h | 80.4 | 86.0 | 91.9 | 98.2 | 105 | 112 | 120 | 129 |
| **50** | Btu/h | 5150 | 4860 | 4580 | 4290 | 4010 | 3720 | 3450 | 3170 |
| | Watts | 242 | 245 | 244 | 239 | 232 | 222 | 210 | 198 |
| | Amps | | | | | | | | |
| | Lb/h | 87.0 | 92.6 | 98.6 | 105 | 112 | 119 | 127 | 135 |
| **55** | Btu/h | 5700 | 5380 | 5060 | 4740 | 4430 | 4110 | 3800 | 3490 |
| | Watts | 246 | 253 | 255 | 254 | 250 | 243 | 234 | 224 |
| | Amps | | | | | | | | |
| | Lb/h | 94.2 | 99.9 | 106 | 112 | 119 | 126 | 134 | 142 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 2.150848E+03 | 1.172512E+02 | 3.026155E+00 | 8.076051E+00 |
| C2 | 6.022653E+01 | -3.062218E-01 | -6.839646E-03 | 4.663559E-01 |
| C3 | -5.465716E+00 | 3.075027E+00 | -1.836567E-02 | 3.412313E-01 |
| C4 | 7.587051E-01 | -3.788554E-02 | 6.432403E-05 | 3.633946E-03 |
| C5 | -2.119470E-01 | 4.548033E-02 | 1.250424E-04 | 3.254007E-03 |
| C6 | -2.824011E-02 | -4.274534E-02 | -3.406131E-03 | 7.355903E-05 |
| C7 | 2.439339E-03 | -1.704572E-04 | 4.407318E-08 | 4.106046E-05 |
| C8 | -3.879039E-03 | 4.659570E-04 | 4.189894E-08 | 1.896522E-05 |
| C9 | -1.255858E-04 | -1.445680E-04 | -1.879229E-08 | -2.624305E-05 |
| C10 | 1.333638E-04 | 1.063735E-04 | 4.762951E-08 | 1.020869E-05 |

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

# Performance Data Sheet

## AE4440Y-FZ1A

## General Information

| | | | |
|---|---|---|---|
| **Model** | AE4440Y-FZ1A | **Refrigerant** | R-134a |
| **Test Condition** | ASHRAE (R-513A) | **Performance Test Voltage** | 220V ~ 50HZ |
| **Return Gas** | 35°C (95°F) RETURN GAS | **Motor Type** | CSIR |

## Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **80** | **90** | **100** | **110** | **120** | **130** | **140** | **150** |
| **5** | Btu/h | 2150 | 2010 | 1870 | 1710 | 1560 | 1420 | 1300 | 1200 |
| | Watts | 261 | 279 | 293 | 304 | 312 | 319 | 324 | 329 |
| | Amps | 2.06 | 2.16 | 2.22 | 2.25 | 2.26 | 2.28 | 2.29 | 2.33 |
| | Lb/h | 27.4 | 27.1 | 26.4 | 25.4 | 24.2 | 23.1 | 22.3 | 21.8 |
| **10** | Btu/h | 2450 | 2300 | 2130 | 1970 | 1800 | 1650 | 1510 | 1400 |
| | Watts | 278 | 296 | 311 | 323 | 333 | 341 | 349 | 357 |
| | Amps | 2.10 | 2.20 | 2.27 | 2.31 | 2.33 | 2.35 | 2.38 | 2.42 |
| | Lb/h | 31.5 | 31.1 | 30.3 | 29.2 | 28.0 | 26.9 | 26.0 | 25.5 |
| **15** | Btu/h | 2760 | 2600 | 2420 | 2240 | 2060 | 1890 | 1740 | 1610 |
| | Watts | 294 | 313 | 329 | 342 | 354 | 364 | 374 | 385 |
| | Amps | 2.14 | 2.25 | 2.32 | 2.37 | 2.40 | 2.43 | 2.46 | 2.52 |
| | Lb/h | 35.7 | 35.3 | 34.4 | 33.2 | 32.0 | 30.9 | 29.9 | 29.4 |
| **20** | Btu/h | 3100 | 2920 | 2720 | 2530 | 2330 | 2150 | 1980 | 1840 |
| | Watts | 310 | 329 | 346 | 361 | 375 | 387 | 400 | 414 |
| | Amps | 2.18 | 2.29 | 2.37 | 2.43 | 2.47 | 2.51 | 2.55 | 2.62 |
| | Lb/h | 40.3 | 39.7 | 38.8 | 37.6 | 36.3 | 35.2 | 34.2 | 33.7 |
| **25** | Btu/h | 3470 | 3270 | 3060 | 2840 | 2630 | 2430 | 2250 | 2090 |
| | Watts | 325 | 345 | 363 | 380 | 395 | 411 | 426 | 443 |
| | Amps | 2.21 | 2.33 | 2.42 | 2.49 | 2.54 | 2.59 | 2.65 | 2.73 |
| | Lb/h | 45.2 | 44.6 | 43.6 | 42.3 | 41.0 | 39.8 | 38.8 | 38.3 |
| **30** | Btu/h | 3870 | 3650 | 3410 | 3180 | 2950 | 2730 | 2530 | 2360 |
| | Watts | 339 | 360 | 380 | 398 | 416 | 434 | 453 | 474 |
| | Amps | 2.24 | 2.38 | 2.48 | 2.55 | 2.62 | 2.68 | 2.75 | 2.84 |
| | Lb/h | 50.5 | 49.9 | 48.8 | 47.5 | 46.1 | 44.9 | 43.9 | 43.4 |
| **35** | Btu/h | 4300 | 4060 | 3800 | 3550 | 3300 | 3060 | 2840 | 2650 |
| | Watts | 352 | 375 | 396 | 417 | 437 | 458 | 480 | 504 |
| | Amps | 2.28 | 2.42 | 2.53 | 2.62 | 2.69 | 2.77 | 2.86 | 2.96 |
| | Lb/h | 56.4 | 55.6 | 54.4 | 53.1 | 51.7 | 50.4 | 49.4 | 48.9 |
| **40** | Btu/h | 4770 | 4500 | 4220 | 3950 | 3670 | 3420 | 3180 | 2970 |
| | Watts | 365 | 389 | 412 | 435 | 458 | 482 | 507 | 535 |
| | Amps | 2.31 | 2.46 | 2.59 | 2.69 | 2.78 | 2.87 | 2.97 | 3.09 |
| | Lb/h | 62.7 | 61.9 | 60.7 | 59.3 | 57.8 | 56.5 | 55.5 | 55.0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **45** | Btu/h | 5270 | 4980 | 4680 | 4380 | 4080 | 3800 | 3550 | 3310 |
| | Watts | 376 | 402 | 427 | 452 | 478 | 505 | 535 | 567 |
| | Amps | 2.34 | 2.51 | 2.64 | 2.76 | 2.86 | 2.97 | 3.08 | 3.22 |
| | Lb/h | 69.6 | 68.7 | 67.5 | 66.0 | 64.5 | 63.2 | 62.2 | 61.6 |
| **50** | Btu/h | 5810 | 5500 | 5170 | 4850 | 4530 | 4230 | 3950 | 3690 |
| | Watts | 387 | 415 | 442 | 470 | 499 | 529 | 562 | 599 |
| | Amps | 2.37 | 2.56 | 2.70 | 2.83 | 2.95 | 3.07 | 3.21 | 3.37 |
| | Lb/h | 77.2 | 76.2 | 74.9 | 73.4 | 71.9 | 70.6 | 69.5 | 69.0 |
| **55** | Btu/h | 6400 | 6060 | 5710 | 5360 | 5010 | 4690 | 4380 | 4100 |
| | Watts | 397 | 426 | 456 | 487 | 519 | 553 | 590 | 631 |
| | Amps | 2.41 | 2.60 | 2.77 | 2.91 | 3.05 | 3.19 | 3.34 | 3.52 |
| | Lb/h | 85.5 | 84.5 | 83.1 | 81.5 | 80.0 | 78.6 | 77.6 | 77.0 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 1.577747E+03 | -1.466348E+02 | -1.451926E+00 | -1.037205E+01 |
| C2 | 7.825767E+01 | 6.590128E+00 | 7.608342E-03 | 9.694005E-01 |
| C3 | 2.622222E+01 | 8.449387E+00 | 8.705291E-02 | 1.017332E+00 |
| C4 | 5.278022E-01 | -4.228002E-02 | -2.190130E-04 | 2.252132E-03 |
| C5 | -3.506694E-01 | -7.063127E-02 | -4.309028E-05 | -3.599170E-03 |
| C6 | -3.741122E-01 | -5.422824E-02 | -6.935300E-04 | -9.583547E-03 |
| C7 | 3.686936E-03 | -4.962352E-05 | 5.937565E-07 | 7.807259E-05 |
| C8 | -2.624199E-03 | 3.828008E-04 | 1.929987E-06 | 2.433417E-06 |
| C9 | 5.414675E-04 | 4.136748E-04 | 7.306064E-07 | 1.151353E-05 |
| C10 | 1.158256E-03 | 1.189880E-04 | 1.847324E-06 | 2.715431E-05 |

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

# Performance Data Sheet

## AE4440Y-FZ1A

## General Information

| | | | |
|---|---|---|---|
| **Model** | AE4440Y-FZ1A | **Refrigerant** | R-134a |
| **Test Condition** | EN12900 | **Performance Test Voltage** | 240V ~ 50HZ |
| **Return Gas** | 20°C (68°F) RETURN GAS | **Motor Type** | CSIR |

## Performance Information

| Evap Temp (°C) | | Condensing Temperature (°C) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| **-15** | Watts (Capacity) | 488 | 459 | 429 | 399 | 369 | 340 | 311 | 282 |
| | Watts (Power) | 253 | 260 | 266 | 273 | 281 | 291 | 303 | 317 |
| | Amps | 2.04 | 2.01 | 2.00 | 2.00 | 2.01 | 2.04 | 2.08 | 2.14 |
| **-10** | Watts (Capacity) | 619 | 582 | 545 | 508 | 471 | 434 | 398 | 361 |
| | Watts (Power) | 276 | 284 | 293 | 302 | 312 | 323 | 336 | 352 |
| | Amps | 2.09 | 2.07 | 2.06 | 2.07 | 2.09 | 2.13 | 2.19 | 2.25 |
| **-6.7** | Watts (Capacity) | 719 | 677 | 634 | 591 | 548 | 505 | 463 | 421 |
| | Watts (Power) | 291 | 301 | 311 | 322 | 333 | 346 | 360 | 377 |
| | Amps | 2.12 | 2.11 | 2.11 | 2.13 | 2.16 | 2.20 | 2.26 | 2.34 |
| **-5** | Watts (Capacity) | 775 | 729 | 684 | 637 | 591 | 545 | 499 | 454 |
| | Watts (Power) | 298 | 309 | 321 | 332 | 344 | 358 | 373 | 390 |
| | Amps | 2.15 | 2.13 | 2.14 | 2.16 | 2.19 | 2.24 | 2.30 | 2.38 |
| **0** | Watts (Capacity) | 960 | 903 | 847 | 790 | 733 | 676 | 619 | 563 |
| | Watts (Power) | 318 | 333 | 348 | 363 | 378 | 394 | 412 | 432 |
| | Amps | 2.21 | 2.21 | 2.23 | 2.26 | 2.30 | 2.36 | 2.43 | 2.52 |
| **5** | Watts (Capacity) | 1180 | 1110 | 1040 | 968 | 899 | 830 | 760 | 692 |
| | Watts (Power) | 336 | 356 | 375 | 393 | 412 | 432 | 453 | 476 |
| | Amps | 2.29 | 2.30 | 2.33 | 2.37 | 2.42 | 2.49 | 2.57 | 2.67 |
| **7.2** | Watts (Capacity) | 1280 | 1210 | 1130 | 1060 | 981 | 905 | 830 | 755 |
| | Watts (Power) | 344 | 365 | 386 | 406 | 427 | 449 | 471 | 495 |
| | Amps | 2.33 | 2.35 | 2.38 | 2.42 | 2.48 | 2.55 | 2.64 | 2.74 |
| **10** | Watts (Capacity) | 1430 | 1340 | 1260 | 1180 | 1090 | 1010 | 926 | 843 |
| | Watts (Power) | 351 | 376 | 399 | 423 | 446 | 470 | 495 | 521 |
| | Amps | 2.39 | 2.40 | 2.44 | 2.49 | 2.55 | 2.63 | 2.72 | 2.83 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **15** | Watts (Capacity) | 1710 | 1620 | 1520 | 1420 | 1320 | 1220 | 1120 | 1020 |
| | Watts (Power) | 363 | 393 | 422 | 450 | 478 | 507 | 537 | 567 |
| | Amps | 2.49 | 2.52 | 2.56 | 2.62 | 2.70 | 2.78 | 2.89 | 3.01 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 1.281005E+03 | 1.948445E+02 | 2.524350E+00 | |
| C2 | 5.371831E+01 | -1.696770E+00 | 2.846020E-03 | |
| C3 | -1.002751E+01 | 5.684332E+00 | -1.918470E-02 | |
| C4 | 8.388713E-01 | -1.266693E-01 | 2.309090E-04 | |
| C5 | -4.560996E-01 | 2.099672E-01 | 4.003890E-04 | |
| C6 | -2.910516E-02 | -7.014965E-02 | 2.941190E-04 | |
| C7 | 4.167931E-03 | -1.068532E-03 | 0.000000E+00 | |
| C8 | -6.937360E-03 | 2.690764E-03 | 0.000000E+00 | |
| C9 | -1.002843E-04 | -7.992287E-04 | 0.000000E+00 | |
| C10 | 2.072667E-04 | 5.958257E-04 | 0.000000E+00 | |

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