Technical Datasheet

1/10/2022

# Model: AGB4568ZTZ

## Product Description

| | |
|---|---|
| **Type:** | Reciprocating Compressors |
| **Application:** | HBP - High Back Pressure |
| **ProductDescription:** | R-404A |
| **Voltage/Frequency:** | 440V 3~ 60Hz 400V 3~ 50Hz |
| **Version:** | N/A |

## Product Specifications

### Performance

| | | Refrigeration Capacity | | | Input Power | (E) Efficiency | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Condition | Test Voltage | (R) Btu/h | (R) kcal/h | (R) W | (I) W | (E) Btu/Wh | (E) kcal/Wh | W/W | EVAP TEMP | Condition | AMBIENT TEMP | RETURN GAS | LIQUID TEMP |
| EN12900 | 440V 3~ 60HZ | 63823 | 16083 | 18700 | 7456 | 8.56 | 2.16 | 2.51 | 5°C (41°F) | 45°C (113°F) | 32°C (90°F) | 15°C (59°F) | 45°C (113°F) |
| EN12900 | 400V 3~ 50HZ | 53253 | 13420 | 15603 | 5693 | 9.35 | 2.36 | 2.74 | 5°C (41°F) | 45°C (113°F) | 32°C (90°F) | 15°C (59°F) | 45°C (113°F) |

### General

| | |
|---|---|
| **Evaporating Temp. Range:** | -6.7°C to 12.8°C (20°F to 55°F) |
| **Motor Torque:** | High Start Torque (HST) |
| **Compressor Cooling:** | Fan |

### Mechanical

| | |
|---|---|
| **Weight:** | 48 |
| **Weight Unit of Measure:** | KG |
| **Displacement (cc):** | 124.4 |
| **Oil Type:** | Polyolester |
| **Viscosity (cSt):** | 32 |
| **Oil Charge (cc):** | 1960 |

### Electrical

| | |
|---|---|
| **Voltage Range (50 Hz):** | 340-440 |
| **Voltage Range (60 Hz):** | 396-499 |
| **Locked Rotor Amps (LRA):** | 58 |
| **Rated Load Amps (RLA 50 Hz):** | 10.5 |
| **Rated Load Amps (RLA 60 Hz):** | 11.5 |
| **Max. Continuous Current (MCC in Amps):** | 0 |

| | |
|---|---|
| **Motor Resistance (Ohm) - Main:** | |
| **Motor Resistance (Ohm) - Start:** | |
| **MotorType:** | 3PH |
| **Overload Type:** | |
| **Relay Type:** | |

## Agency Approval

CCC Listed, CE Listed, GOST RUSSIA Listed, GOST UKRAINE Listed, IRAM Listed, SASO Listed, VDE Listed

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# Performance Data Sheet

## AGB4568ZTZ

## General

| | | | |
|---|---|---|---|
| **Model** | AGB4568ZTZ | **Unit of Measure** | Celsius |
| **Condition** | EN12900(R-404A) | **Voltage/Frequency** | 400V 3~ 50HZ |
| **RETURN GAS** | | **MotorType** | 3PH |

## Performance Information

| EVAP TEMP (°C) | | Condensing Temperature (°C) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| **-6.7** | Watts (Capacity) | 13400 | 12200 | 11100 | 9910 | 8740 | 7560 | 6380 | 5200 |
| | Watts (Power) | 4150 | 4290 | 4430 | 4570 | 4690 | 4800 | 4880 | 4930 |
| | Amps | 6.95 | 7.15 | 7.33 | 7.49 | 7.62 | 7.72 | 7.80 | 7.86 |
| **-5** | Watts (Capacity) | 14400 | 13100 | 11900 | 10700 | 9460 | 8210 | 6960 | 5710 |
| | Watts (Power) | 4290 | 4430 | 4580 | 4730 | 4870 | 5010 | 5110 | 5190 |
| | Amps | 7.12 | 7.35 | 7.55 | 7.73 | 7.88 | 8.01 | 8.11 | 8.19 |
| **0** | Watts (Capacity) | 17600 | 16100 | 14700 | 13300 | 11800 | 10300 | 8820 | 7330 |
| | Watts (Power) | 4710 | 4850 | 5020 | 5210 | 5400 | 5590 | 5770 | 5940 |
| | Amps | 7.62 | 7.92 | 8.19 | 8.43 | 8.65 | 8.85 | 9.02 | 9.16 |
| **5** | Watts (Capacity) | 21300 | 19600 | 17900 | 16200 | 14400 | 12700 | 10900 | 9170 |
| | Watts (Power) | 5190 | 5320 | 5490 | 5700 | 5920 | 6160 | 6400 | 6650 |
| | Amps | 8.12 | 8.48 | 8.82 | 9.13 | 9.42 | 9.68 | 9.91 | 10.1 |
| **7.2** | Watts (Capacity) | 23000 | 21200 | 19400 | 17600 | 15700 | 13800 | 12000 | 10100 |
| | Watts (Power) | 5420 | 5540 | 5710 | 5920 | 6160 | 6410 | 6680 | 6950 |
| | Amps | 8.33 | 8.72 | 9.09 | 9.43 | 9.75 | 10.0 | 10.3 | 10.5 |
| **10** | Watts (Capacity) | 25500 | 23500 | 21500 | 19500 | 17500 | 15400 | 13400 | 11300 |
| | Watts (Power) | 5740 | 5850 | 6010 | 6220 | 6460 | 6730 | 7030 | 7330 |
| | Amps | 8.60 | 9.03 | 9.44 | 9.82 | 10.2 | 10.5 | 10.8 | 11.1 |
| **15** | Watts (Capacity) | 30300 | 28000 | 25600 | 23300 | 20900 | 18500 | 16100 | 13700 |
| | Watts (Power) | 6380 | 6460 | 6600 | 6800 | 7040 | 7330 | 7660 | 8010 |
| | Amps | 9.08 | 9.58 | 10.1 | 10.5 | 10.9 | 11.3 | 11.7 | 12.0 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 2.550000E+04 | 4.790000E+03 | 5.310000E+00 | |
| C2 | 9.530000E+02 | 1.520000E+02 | 1.930000E-02 | |
| C3 | -2.440000E+02 | -4.110000E+01 | 9.230000E-02 | |
| C4 | 1.400000E+01 | 2.740000E+00 | -1.540000E-04 | |
| C5 | -8.330000E+00 | -3.780000E+00 | 2.680000E-03 | |
| C6 | -8.020000E-01 | 1.600000E+00 | -5.090000E-04 | |
| C7 | 5.920000E-02 | 2.600000E-02 | 0.000000E+00 | |
| C8 | -1.470000E-01 | -5.490000E-02 | 0.000000E+00 | |
| C9 | -1.590000E-02 | 5.640000E-02 | 0.000000E+00 | |
| C10 | 3.910000E-03 | -1.070000E-02 | 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

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# Performance Data Sheet

## AGB4568ZTZ

## General

| | | | |
|---|---|---|---|
| **Model** | AGB4568ZTZ | **Unit of Measure** | Celsius |
| **Condition** | EN12900(R-404A) | **Voltage/Frequency** | 440V 3~ 60HZ |
| **RETURN GAS** | | **MotorType** | 3PH |

## Performance Information

| EVAP TEMP (°C) | | Condensing Temperature (°C) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| **-6.7** | Watts (Capacity) | 16400 | 15100 | 13700 | 12300 | 10800 | 9340 | 7780 | 6150 |
| | Watts (Power) | 5460 | 5630 | 5790 | 5930 | 6030 | 6080 | 6070 | 5970 |
| | Amps | 8.50 | 8.70 | 8.87 | 9.02 | 9.13 | 9.22 | 9.28 | 9.32 |
| **-5** | Watts (Capacity) | 17600 | 16200 | 14700 | 13200 | 11700 | 10100 | 8490 | 6750 |
| | Watts (Power) | 5640 | 5820 | 6000 | 6160 | 6280 | 6360 | 6380 | 6320 |
| | Amps | 8.76 | 8.98 | 9.18 | 9.34 | 9.48 | 9.59 | 9.68 | 9.73 |
| **0** | Watts (Capacity) | 21100 | 19500 | 17900 | 16200 | 14500 | 12700 | 10700 | 8720 |
| | Watts (Power) | 6200 | 6390 | 6600 | 6810 | 7000 | 7150 | 7260 | 7300 |
| | Amps | 9.53 | 9.82 | 10.1 | 10.3 | 10.5 | 10.7 | 10.8 | 11.0 |
| **5** | Watts (Capacity) | 24700 | 23000 | 21200 | 19400 | 17400 | 15400 | 13200 | 10900 |
| | Watts (Power) | 6770 | 6980 | 7210 | 7450 | 7690 | 7900 | 8080 | 8210 |
| | Amps | 10.3 | 10.7 | 11.0 | 11.3 | 11.5 | 11.8 | 12.0 | 12.2 |
| **7.2** | Watts (Capacity) | 26300 | 24600 | 22700 | 20800 | 18800 | 16600 | 14300 | 11900 |
| | Watts (Power) | 7030 | 7240 | 7480 | 7730 | 7990 | 8220 | 8430 | 8600 |
| | Amps | 10.6 | 11.0 | 11.4 | 11.7 | 12.0 | 12.3 | 12.5 | 12.7 |
| **10** | Watts (Capacity) | 28400 | 26600 | 24700 | 22600 | 20500 | 18200 | 15800 | 13300 |
| | Watts (Power) | 7380 | 7590 | 7830 | 8090 | 8370 | 8630 | 8870 | 9080 |
| | Amps | 11.1 | 11.5 | 11.9 | 12.2 | 12.6 | 12.9 | 13.2 | 13.4 |
| **15** | Watts (Capacity) | 32200 | 30200 | 28100 | 26000 | 23600 | 21100 | 18500 | 15700 |
| | Watts (Power) | 8040 | 8230 | 8470 | 8750 | 9040 | 9350 | 9640 | 9910 |
| | Amps | 11.9 | 12.3 | 12.8 | 13.2 | 13.6 | 14.0 | 14.3 | 14.7 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 3.040000E+04 | 6.070000E+03 | 7.220000E+00 | |
| C2 | 7.890000E+02 | 1.500000E+02 | 7.550000E-02 | |
| C3 | -3.260000E+02 | -4.720000E+01 | 9.360000E-02 | |
| C4 | 1.710000E+00 | 1.940000E+00 | 6.190000E-05 | |
| C5 | 3.600000E-01 | -2.860000E+00 | 2.620000E-03 | |
| C6 | 1.040000E+00 | 2.310000E+00 | -5.550000E-04 | |
| C7 | -9.920000E-02 | 1.810000E-02 | 0.000000E+00 | |
| C8 | 4.420000E-02 | -4.890000E-02 | 0.000000E+00 | |
| C9 | -9.330000E-02 | 5.320000E-02 | 0.000000E+00 | |
| C10 | -1.780000E-02 | -1.990000E-02 | 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