

**Model: AGB4581ZTZ**
**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**

Condition	Test Voltage	Refrigeration Capacity			Input Power (I) W	(E) Efficiency			EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
		(R) Btu/h	(R) kcal/h	(R) W		(E) Btu/Wh	(E) kcal/Wh	W/W					
EN12900	400V 3~ 50HZ	56501	14238	16554	7439	7.59	1.91	2.22	5°C (41°F)	50°C (122°F)	32°C (90°F)	20°C (68°F)	50°C (122°F)
EN12900	440V 3~ 60HZ	66219	16687	19402	9386	7.05	1.77	2.06	5°C (41°F)	50°C (122°F)	32°C (90°F)	20°C (68°F)	50°C (122°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:** 0  
**Weight Unit of Measure:**  
**Displacement (cc):** 145  
**Oil Type:**  
**Viscosity (cSt):**  
**Oil Charge (cc):** 1960

**Electrical**

**Voltage Range (50 Hz):**  
**Voltage Range (60 Hz):**  
**Locked Rotor Amps (LRA):** 85  
**Rated Load Amps (RLA 50 Hz):** 12.7  
**Rated Load Amps (RLA 60 Hz):** 13.9  
**Max. Continuous Current (MCC in Amps):** 20.8

Motor Resistance (Ohm) - Main:

Motor Resistance (Ohm) - Start:

Motor Type: 3PH

Overload Type:

Relay Type:

[Agency Approval](#)

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CE Listed, GOST RUSSIA Listed, GOST UKRAINE Listed, VDE Listed

**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-404A)	<b>Voltage/Frequency</b>	400V 3~ 50HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.867159E+04	4.676692E+03	7.515300E+00	
C2	1.094891E+03	1.055462E+02	5.056690E-02	
C3	-2.577631E+02	2.838317E+01	9.197040E-02	
C4	1.601362E+01	1.810792E+00	5.755130E-04	
C5	-1.071047E+01	-1.358736E+00	2.462180E-03	
C6	-9.712862E-01	6.448300E-01	-4.047750E-04	
C7	6.422960E-02	2.126908E-02	0.000000E+00	
C8	-1.852673E-01	-4.044307E-02	0.000000E+00	
C9	-9.190039E-03	3.406740E-02	0.000000E+00	
C10	2.840889E-03	-7.038024E-03	0.000000E+00	

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

Te = Evaporator Temperature

Tc = Condensing Temperature

**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-404A)	<b>Voltage/Frequency</b>	440V 3~ 60HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.949977E+04	7.500119E+03	8.357180E+00	
C2	1.104316E+03	2.184046E+02	9.671800E-02	
C3	-1.286903E+02	-5.663844E+01	9.381650E-02	
C4	1.673295E+01	3.592827E+00	5.853330E-04	
C5	-7.584766E+00	-4.266849E+00	2.519810E-03	
C6	-3.484031E+00	2.529928E+00	-3.753590E-04	
C7	7.863231E-02	3.278703E-02	0.000000E+00	
C8	-1.873302E-01	-6.589091E-02	0.000000E+00	
C9	-4.639355E-02	6.449626E-02	0.000000E+00	
C10	1.459508E-02	-1.960443E-02	0.000000E+00	

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

T<sub>e</sub> = Evaporator Temperature

T<sub>c</sub> = Condensing Temperature

**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-448A)	<b>Voltage/Frequency</b>	400V 3~ 50HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.580707E+04	4.770033E+03	7.662342E+00	
C2	1.055595E+03	1.185898E+02	8.229052E-02	
C3	-2.042569E+02	-1.550993E+01	1.720771E-02	
C4	1.595492E+01	1.662967E+00	4.696010E-04	
C5	-9.478813E+00	-2.241788E+00	6.634360E-04	
C6	-1.197033E+00	1.533041E+00	1.159298E-03	
C7	7.574067E-02	1.602550E-02	-5.519440E-06	
C8	-1.526851E-01	-3.578014E-02	2.597730E-06	
C9	1.501666E-03	4.580262E-02	2.311870E-05	
C10	7.042030E-03	-1.272620E-02	-1.025590E-05	

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

Te = Evaporator Temperature  
Tc = Condensing Temperature

**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-448A)	<b>Voltage/Frequency</b>	440V 3~ 60HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.651384E+04	7.513830E+03	8.525532E+00	
C2	1.067358E+03	2.292256E+02	1.283287E-01	
C3	-8.274845E+01	-1.069229E+02	1.109537E-02	
C4	1.658191E+01	3.351371E+00	5.273400E-04	
C5	-6.475871E+00	-5.258430E+00	5.107320E-04	
C6	-3.530442E+00	3.575982E+00	1.366459E-03	
C7	8.962258E-02	2.645857E-02	-5.827870E-06	
C8	-1.488657E-01	-5.974538E-02	2.435830E-06	
C9	-3.042005E-02	7.863474E-02	2.615180E-05	
C10	1.887633E-02	-2.643543E-02	-1.149020E-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

**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-449A)	<b>Voltage/Frequency</b>	400V 3~ 50HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.580707E+04	4.770033E+03	7.662342E+00	
C2	1.055595E+03	1.185898E+02	8.229052E-02	
C3	-2.042569E+02	-1.550993E+01	1.720771E-02	
C4	1.595492E+01	1.662967E+00	4.696010E-04	
C5	-9.478813E+00	-2.241788E+00	6.634360E-04	
C6	-1.197033E+00	1.533041E+00	1.159298E-03	
C7	7.574067E-02	1.602550E-02	-5.519440E-06	
C8	-1.526851E-01	-3.578014E-02	2.597730E-06	
C9	1.501666E-03	4.580262E-02	2.311870E-05	
C10	7.042030E-03	-1.272620E-02	-1.025590E-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

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**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-449A)	<b>Voltage/Frequency</b>	440V 3~ 60HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.651384E+04	7.513830E+03	8.525532E+00	
C2	1.067358E+03	2.292256E+02	1.283287E-01	
C3	-8.274845E+01	-1.069229E+02	1.109537E-02	
C4	1.658191E+01	3.351371E+00	5.273400E-04	
C5	-6.475871E+00	-5.258430E+00	5.107320E-04	
C6	-3.530442E+00	3.575982E+00	1.366459E-03	
C7	8.962258E-02	2.645857E-02	-5.827870E-06	
C8	-1.488657E-01	-5.974538E-02	2.435830E-06	
C9	-3.042005E-02	7.863474E-02	2.615180E-05	
C10	1.887633E-02	-2.643543E-02	-1.149020E-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

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**AGB4581ZTZ**
**General**

<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-452A)	<b>Voltage/Frequency</b>	400V 3~ 50HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.765687E+04	4.534326E+03	7.280171E+00	
C2	1.075964E+03	1.051297E+02	5.424005E-02	
C3	-2.412811E+02	2.376680E+01	8.314501E-02	
C4	1.608655E+01	1.822229E+00	6.671810E-04	
C5	-9.814157E+00	-1.359349E+00	2.300772E-03	
C6	-8.408087E-01	7.201902E-01	-2.337580E-04	
C7	6.829702E-02	2.147151E-02	1.887260E-06	
C8	-1.740323E-01	-3.845905E-02	3.206320E-07	
C9	-1.135387E-02	3.501988E-02	3.484740E-06	
C10	1.135257E-03	-7.712971E-03	-1.507680E-06	

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

Te = Evaporator Temperature

Tc = Condensing Temperature

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<b>Model</b>	AGB4581ZTZ	<b>Unit of Measure</b>	Celsius
<b>Condition</b>	EN12900 (R-452A)	<b>Voltage/Frequency</b>	440V 3~ 60HZ
<b>RETURN GAS</b>	20°C (68°F) RETURN GAS	<b>MotorType</b>	3PH

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.845507E+04	7.262006E+03	8.096807E+00	
C2	1.085429E+03	2.153752E+02	9.927836E-02	
C3	-1.165947E+02	-5.913646E+01	8.427416E-02	
C4	1.678001E+01	3.596616E+00	7.013750E-04	
C5	-6.670248E+00	-4.201316E+00	2.345815E-03	
C6	-3.217068E+00	2.563803E+00	-1.876590E-04	
C7	8.242054E-02	3.341535E-02	2.037520E-06	
C8	-1.739829E-01	-6.336525E-02	7.552280E-07	
C9	-4.738069E-02	6.515575E-02	3.802040E-06	
C10	1.204185E-02	-2.007160E-02	-1.670300E-06	

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

Te = Evaporator Temperature

Tc = Condensing Temperature