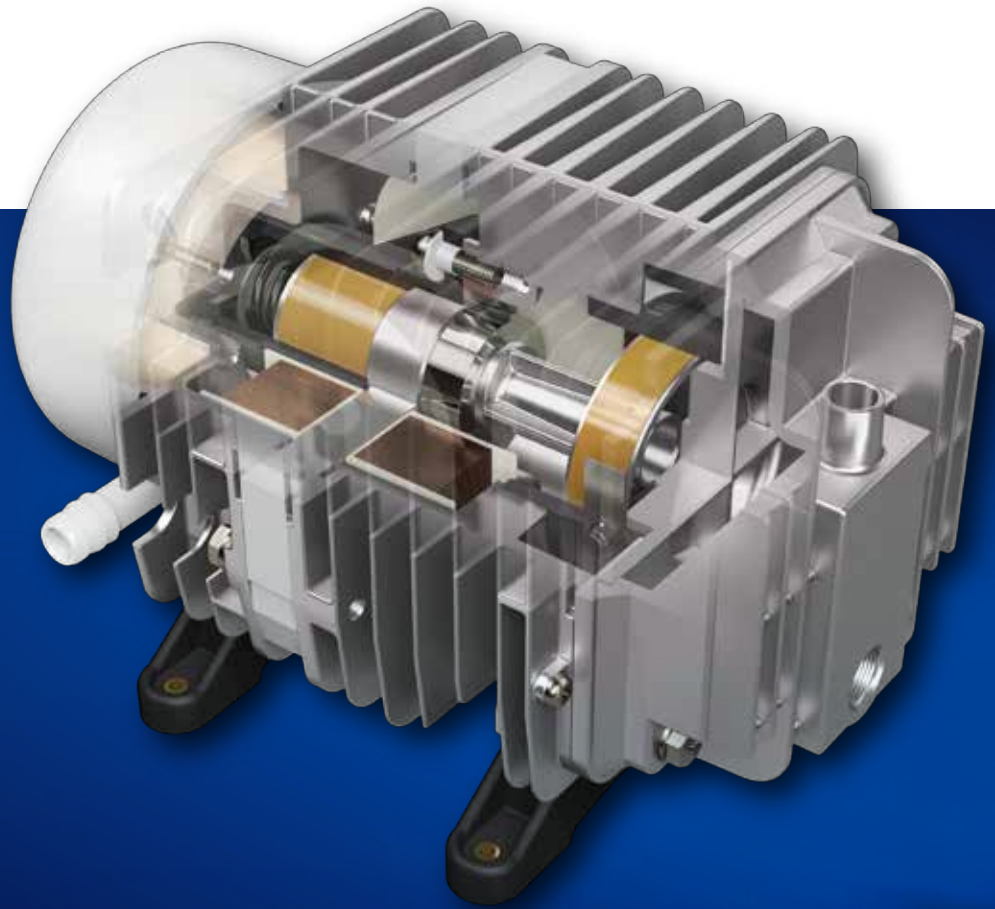
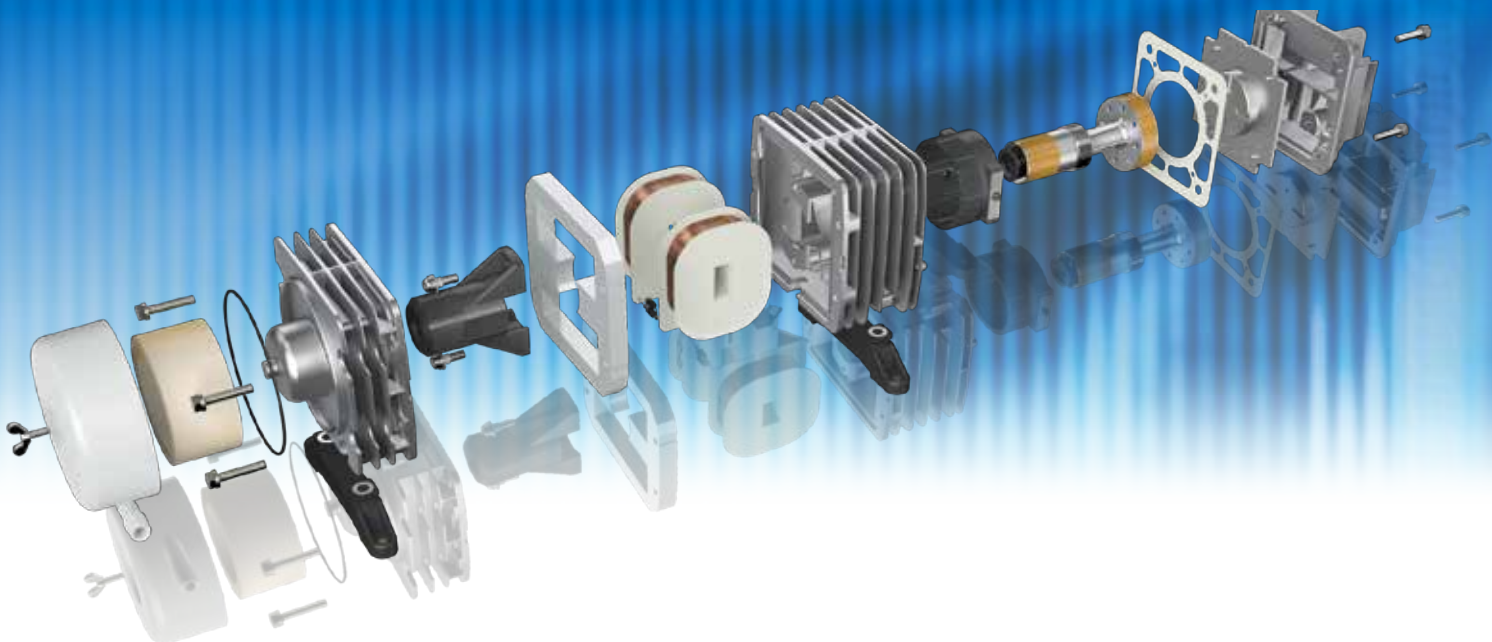


LINEAR PRODUCTS OVERVIEW



*NITTO KOHKI'S
ORIGINAL FREE PISTON PUMP*



AC Linear Piston Compressor Low pressure series



AC0102



AC0201A



AC0301A / AC0401A



AC0602



AC0901 / AC0902

Specifications

Model	AC0102	AC0201A
Rated Pressure	20 kPa 0.2 bar 2.9 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	5 L/min 0.177 cfm	20 L/min 0.71 cfm
Maximum Pressure	40 kPa(0.4 kgf/cm ²) 0.4 bar 5.8 psig	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	0.7 kg 1.54 Lbs	1.5 kg 3.3 Lbs
Mounting Dimensions	48 mm(L) × 62 mm(W) 1 ^{-57/64} "(L) × 2 ^{-7/16} "(W)	73 mm(L) × 88 mm(W) 2 ^{-7/8} "(L) × 3 ^{-15/32} "(W)

Model	AC0301A	AC0401A
Rated Pressure	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	28 L/min 0.99 cfm	35 L/min 1.24 cfm
Maximum Pressure	30 kPa(0.3 kgf/cm ²) 0.3 bar 4.35 psig	35 kPa(0.35 kgf/cm ²) 0.35 bar 5.07 psig
Rated Voltage	115 V AC or 230 V AC	120 V AC or 230 V AC
Weight	1.9 kg 4.2 Lbs	1.9 kg 4.2 Lbs
Mounting Dimensions	68 mm(L) × 84 mm(W) 2 ^{-43/64} "(L) × 3 ^{-5/16} "(W)	68 mm(L) × 84 mm(W) 2 ^{-43/64} "(L) × 3 ^{-5/16} "(W)

Model	AC0602	AC0901
Rated Pressure	15 kPa 0.15 bar 2.17 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	40 L/min 1.41 cfm	80 L/min 2.83 cfm
Maximum Pressure	35 kPa(0.35 kgf/cm ²) 0.35 bar 5.07 psig	40 kPa(0.4 kgf/cm ²) 0.4 bar 5.8 psig
Rated Voltage	115 V AC or 230 V AC	120 V AC or 230 V AC
Weight	3 kg 6.6 Lbs	4.9 kg 10.8 Lbs
Mounting Dimensions	68 mm(L) × 84 mm(W) 2 ^{-43/64} "(L) × 3 ^{-5/16} "(W)	102 mm(L) × 130 mm(W) 4 ^{-1/64} "(L) × 5 ^{-1/8} "(W)

Model	AC0902
Rated Pressure	20 kPa 0.2 bar 2.9 psig
Rated Airflow	55 L/min 1.94 cfm
Maximum Pressure	45 kPa(0.45 kgf/cm ²) 0.45 bar 6.52 psig
Rated Voltage	115 V AC or 230 V AC
Weight	4.9 kg 10.8 Lbs
Mounting Dimensions	102 mm(L) × 130 mm(W) 4 ^{-1/64} "(L) × 5 ^{-1/8} "(W)

AC Linear Piston Compressor Intermediate Pressure Series



AC0105

AC0110



AC0207



AC0410A



AC0610 / AC0610A



AC0910 / AC0920

Specifications

Model	AC0105	AC0110
Rated Pressure	50 kPa 0.5 bar 7.25 psig	100 kPa 1.0 bar 14.5 psig
Rated Airflow	2.5 L/min 0.088 cfm	0.8 L/min 0.028 cfm
Maximum Pressure	80 kPa(0.8 kgf/cm ²) 0.8 bar 11.6 psig	120 kPa(1.2 kgf/cm ²) 1.2 bar 17.4 psig
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	0.7 kg 1.54 Lbs	0.7 kg 1.54 Lbs
Mounting Dimensions	48 mm(L) × 62 mm(W) 1 ⁻⁵⁷ / ₆₄ "(L) × 2 ⁻⁷ / ₁₆ "(W)	48 mm(L) × 62 mm(W) 1 ⁻⁵⁷ / ₆₄ "(L) × 2 ⁻⁷ / ₁₆ "(W)

Model	AC0207	AC0410A
Rated Pressure	70 kPa 0.7 bar 10.15 psig	100 kPa 1.0 bar 14.5 psig
Rated Airflow	3.5 L/min 0.124 cfm	5 L/min 0.177 cfm
Maximum Pressure	100 kPa(1.0 kgf/cm ²) 1.0 bar 14.5 psig	130 kPa(1.3 kgf/cm ²) 1.3 bar 18.8 psig
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	1.7 kg 3.7 Lbs	2.1 kg 4.6 Lbs
Mounting Dimensions	75 mm(L) × 88 mm(W) 2 ⁻⁶¹ / ₆₄ "(L) × 3 ⁻¹⁵ / ₃₂ "(W)	68 mm(L) × 98 mm(W) 2 ⁻⁴³ / ₆₄ "(L) × 3 ⁻⁵⁵ / ₆₄ "(W)

Model	AC0610	AC0610A
Rated Pressure	100 kPa 1.0 bar 14.5 psig	100 kPa 1.0 bar 14.5 psig
Rated Airflow	8 L/min 0.283 cfm	8 L/min 0.283 cfm
Maximum Pressure	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	3.2 kg 7.1 Lbs	3.2 kg 7.1 Lbs
Mounting Dimensions	68 mm(L) × 84 mm(W) 2 ⁻⁴³ / ₆₄ "(L) × 3 ⁻⁵ / ₁₆ "(W)	68 mm(L) × 84 mm(W) 2 ⁻⁴³ / ₆₄ "(L) × 3 ⁻⁵ / ₁₆ "(W)

Model	AC0910	AC0920
Rated Pressure	100 kPa 1.0 bar 14.5 psig	200 kPa 2.0 bar 14.5 psig
Rated Airflow	16 L/min 0.57 cfm	8 L/min 0.283 cfm
Maximum Pressure	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig	300 kPa(3.0 kgf/cm ²) 3.0 bar 43.5 psig
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	4.9 kg 10.8 Lbs	5 kg 11 Lbs
Mounting Dimensions	102 mm(L) × 130 mm(W) 4 ⁻¹ / ₆₄ "(L) × 5 ⁻¹ / ₈ "(W)	102 mm(L) × 130 mm(W) 4 ⁻¹ / ₆₄ "(L) × 5 ⁻¹ / ₈ "(W)

AC LINEAR

Free Piston Vacuum Pump

AC Linear Piston Vacuum Pump



VP0125 / VP0140



VP0435A



VP0450



VP0625



VP0660



VP0925A

Specifications

Model	VP0125	VP0140
Attainable Vacuum	-33.3 kPa -250 mmHg -333 mbar -9.84 in.Hg	-53.3 kPa -400 mmHg -533 mbar -15.7 in.Hg
Free Air Displacement	7 L/min 0.247 cfm	3 L/min 0.106 cfm
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	0.7 kg 1.54 Lbs	0.7 kg 1.54 Lbs
Mounting Dimensions	48 mm(L) × 62 mm(W) 1- ⁵⁷ / ₆₄ "(L) × 2- ⁷ / ₁₆ "(W)	48 mm(L) × 62 mm(W) 1- ⁵⁷ / ₆₄ "(L) × 2- ⁷ / ₁₆ "(W)

Model	VP0435A	VP0450
Attainable Vacuum	-46.7 kPa -350 mmHg -467 mbar -13.8 in.Hg	-66.7 kPa -500 mmHg -667 mbar -19.7 in.Hg
Free Air Displacement	25 L/min 0.88 cfm	18 L/min 0.64 cfm
Rated Voltage	115 V AC or 230 V AC	120 V AC or 230 V AC
Weight	2.3 kg 5.1 Lbs	2.2 kg 4.9 Lbs
Mounting Dimensions	68 mm(L) × 84 mm(W) 2- ⁴³ / ₆₄ "(L) × 3- ⁵ / ₁₆ "(W)	85 mm(L) × 88 mm(W) 3- ¹¹ / ₃₂ "(L) × 3- ¹⁵ / ₃₂ "(W)

Model	VP0625	VP0660
Attainable Vacuum	-33.3 kPa -250 mmHg -333 mbar -9.84 in.Hg	-80 kPa -600 mmHg -800 mbar -23.6 in.Hg
Free Air Displacement	40 L/min 1.41 cfm	25 L/min 0.88 cfm
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	3 kg 6.6 Lbs	5 kg 11 Lbs
Mounting Dimensions	68 mm(L) × 84 mm(W) 2- ⁴³ / ₆₄ "(L) × 3- ⁵ / ₁₆ "(W)	102 mm(L) × 130 mm(W) 4- ¹ / ₆₄ "(L) × 5- ¹ / ₈ "(W)

Model	VP0925A
Attainable Vacuum	-33.3 kPa -250 mmHg -333 mbar -9.84 in.Hg
Free Air Displacement	80 L/min 2.83 cfm
Rated Voltage	115 V AC or 230 V AC
Weight	4.5 kg 9.9 Lbs
Mounting Dimensions	102 mm(L) × 130 mm(W) 4- ¹ / ₆₄ "(L) × 5- ¹ / ₈ "(W)

AC LINEAR

Free Piston Vacuum Pump

AC Linear Piston Vacuum Pump



VP0940



VP0940T



VP0645



VP0945



VP0660x2

Specifications

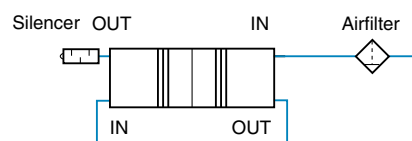
Model	VP0940	VP0940T
Attainable Vacuum	-53.3 kPa -400 mmHg -533 mbar -15.7 in.Hg	-53.3 kPa -400 mmHg -533 mbar -15.7 in.Hg
Free Air Displacement	60 L/min 2.12 cfm	120 L/min 4.24 cfm
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	4.55 kg 10 Lbs	10 kg 22 Lbs
Mounting Dimensions	102 mm(L) × 130 mm(W) 4-1/64"(L) × 5-1/8"(W)	172 mm(L) × 211 mm(W) 6-49/64"(L) × 8-5/16"(W)

Model	VP0645	VP0945
Attainable Vacuum	-60 kPa -450 mmHg -600 mbar -17.7 in.Hg	-60 kPa -450 mmHg -600 mbar -17.7 in.Hg
Free Air Displacement	10 L/min 0.35 cfm	12 L/min 0.42 cfm
Rated Voltage	115 V AC or 230 V AC	115 V AC or 230 V AC
Weight	3.2 kg 7.1 Lbs	4.9 kg 10.8 Lbs
Mounting Dimensions	68 mm(L) × 84mm(W) 2-43/64"(L) × 3-5/16"(W)	102 mm(L) × 130 mm(W) 4-1/64"(L) × 5-1/8"(W)

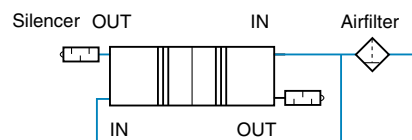
Model	VP0660x2 (Series Connection)	VP0660x2 (Parallel Connection)
Attainable Vacuum	-93.3 kPa -700 mmHg -933 mbar -27.6 in.Hg	-80 kPa -600 mmHg -800 mbar -23.6 in.Hg
Free Air Displacement	25 L/min 0.88 cfm	50 L/min 1.77 cfm
Rated Voltage	115 V AC	230 V AC
Weight	10 kg 22 Lbs	10 kg 22 Lbs
Mounting Dimensions	280 mm(L) × 130 mm(W) 11-1/32"(L) × 5-1/8"(W)	280 mm(L) × 130 mm(W) 11-1/32"(L) × 5-1/8"(W)

[VP0660x2 Application Examples]

Series Connection



Parallel Connection



* Air line connection is required by the user.

DC LINEAR

Free Piston Compressor

DC Linear Piston Compressor

DAH102



DAH105



DAH110



DC Linear Piston Vacuum Pump

DVH130



DVH145



Specifications

Model	DAH102-X1	DAH102-Y1
Rated Pressure	20 kPa 0.2 bar 2.9 psig	
Rated Airflow	5 L/min 0.177 cfm	
Maximum Pressure	50 kPa(0.5 kgf/cm ²) 0.5 bar 7.25 psig	
Rated Voltage	12 V DC	24 V DC
Weight	0.91 kg 2.01 Lbs	
Mounting Dimensions	76 mm(L) x 70 mm(W) 2- ⁶³ / ₆₄ "(L) x 2- ³ / ₄ "(W)	

Model	DAH105-X1	DAH105-Y1
Rated Pressure	50 kPa 0.5 bar 7.25 psig	
Rated Airflow	2.5 L/min 0.088 cfm	
Maximum Pressure	80 kPa(0.8 kgf/cm ²) 0.8 bar 11.6 psig	
Rated Voltage	12 V DC	24 V DC
Weight	0.91 kg 2.01 Lbs.	
Mounting Dimensions	76 mm(L) x 70 mm(W) 2- ⁶³ / ₆₄ "(L) x 2- ³ / ₄ "(W)	

Model	DAH110-X1	DAH110-Y1
Rated Pressure	100 kPa 1.0 bar 14.5 psig	
Rated Airflow	1.0 L/min 0.035 cfm	
Maximum Pressure	120 kPa(1.2 kgf/cm ²) 1.2 bar 17.4 psig	
Rated Voltage	12 V DC	24 V DC
Weight	0.91 kg 2.01 Lbs.	
Mounting Dimensions	76 mm(L) x 70 mm(W) 2- ⁶³ / ₆₄ "(L) x 2- ³ / ₄ "(W)	

Model	DVH130-X1/-Y1	DVH145-X1/-Y1
Attainable Vacuum	-40 kPa -300 mmHg -400 mbar -11.8 in.Hg	-60 kPa -450 mmHg -600 mbar -17.7 in.Hg
Free Air Displacement	7 L/min 0.247 cfm	3 L/min 0.106 cfm
Rated Voltage	12 V DC or 24 V DC	12 V DC or 24 V DC
Weight	0.91 kg 2.01 Lbs.	0.91 kg 2.01 Lbs.
Mounting Dimensions	76 mm(L) x 70 mm(W) 2- ⁶³ / ₆₄ "(L) x 2- ³ / ₄ "(W)	76 mm(L) x 70 mm(W) 2- ⁶³ / ₆₄ "(L) x 2- ³ / ₄ "(W)

AC Linear Diaphragm Pump



VC0100



VC0101



VC0101E

★ Compressor ☆ Vacuum Pump

Specifications

Model	VC0100 ★☆	VC0100 ★
Rated Pressure	4 kPa 0.04 bar 0.58 psig	4 kPa 0.04 bar 0.58 psig
Rated Airflow	6 L/min 0.21 cfm	6 L/min 0.21 cfm
Maximum Pressure	16 kPa(0.16 kgf/cm ²) 0.16 bar 2.32 psig	16 kPa(0.16 kgf/cm ²) 0.16 bar 2.32 psig
Working Pressure Range	-14.7 to 16 kPa -110 mmHg to 0.16 kgf/cm ² -147 mbar to 0.16 bar -4.33 in.Hg to 2.28 psig	0 to 16 kPa 0 to 0.16 kgf/cm ² 0 to 0.16 bar 0 to 2.28 psig
Rated Voltage	120 V AC or 230 V AC	120 V AC or 230 V AC
Weight	0.45 kg 0.99 Lbs	0.45 kg 0.99 Lbs
Mounting Dimensions	70 mm(L) × 72 mm(W) 2-3/4"(L) × 2-53/64"(W)	70 mm(L) × 72 mm(W) 2-3/4"(L) × 2-53/64"(W)

Model	VC0101(120 V) ★☆	VC0101(230 V) ★☆	VC0101 ★
Rated Pressure	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	10 L/min 0.35 cfm	10 L/min 0.35 cfm	10 L/min 0.35 cfm
Maximum Pressure	18 kPa(0.18 kgf/cm ²) 0.18 bar 2.61 psig	15 kPa(0.15 kgf/cm ²) 0.15 bar 2.17 psig	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig
Working Pressure Range	-18.7 to 18 kPa -140 mmHg to 0.18 kgf/cm ² -187 mbar to 0.18 bar -5.51 in.Hg to 2.56 psig	-10 to 15 kPa -76 mmHg to 0.15 kgf/cm ² -100 mbar to 0.15 bar -2.95 in.Hg to 2.13 psig	0 to 20 kPa 0 to 0.2 kgf/cm ² 0 to 0.2 bar 0 to 2.84 psig
Rated Voltage	120 V AC	230 V AC	230 V AC
Weight	0.82 kg 1.81 Lbs	0.82 kg 1.81 Lbs	0.82 kg 1.81 Lbs
Mounting Dimensions	66 mm(L) × 100 mm(W) 2-19/32"(L) × 2-15/16"(W)	66 mm(L) × 100 mm(W) 2-19/32"(L) × 2-15/16"(W)	66 mm(L) × 100 mm(W) 2-19/32"(L) × 3-15/16"(W)

Model	VC0101E ★☆	VC0101E ★
Rated Pressure	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	15 L/min 0.53 cfm	15 L/min 0.53 cfm
Maximum Pressure	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig
Working Pressure Range	-18.7 to 20 kPa -140 mmHg to 0.2 kgf/cm ² -187 mbar to 0.2 bar -5.51 in.Hg to 2.84 psig	0 to 20 kPa 0 to 0.2 kgf/cm ² 0 to 0.2 bar 0 to 2.84 psig
Rated Voltage	120 V AC or 230 V AC	120 V AC or 230 V AC
Weight	0.82 kg 1.81 Lbs	0.82 kg 1.81 Lbs
Mounting Dimensions	66 mm(L) × 100 mm(W) 2-19/32"(L) × 3-15/16"(W)	66 mm(L) × 100 mm(W) 2-19/32"(L) × 3-15/16"(W)

AC LINEAR

Diaphragm Pump

AC Linear Diaphragm Pump



VC0101S



VC0201B/VC0301B



VCK0120

★ Compressor ☆ Vacuum Pump

Specifications

Model	VC0101S ★☆	VC0101S ★
Rated Pressure	5 kPa 0.05 bar 0.72 psig	5 kPa 0.05 bar 0.72 psig
Rated Airflow	15 L/min 0.53 cfm	15 L/min 0.53 cfm
Maximum Pressure	26 kPa(0.26 kgf/cm ²) 0.26 bar 3.77 psig	26 kPa(0.26 kgf/cm ²) 0.26 bar 3.77 psig
Working Pressure Range	-24 to 26 kPa -180 mmHg to 0.26 kgf/cm ² -240 mbar to 0.26 bar -7.09 in.Hg to 3.70 psig	0 to 26 kPa 0 to 0.26 kgf/cm ² 0 to 0.26 bar 0 to 3.70 psig
Rated Voltage	120 V AC or 230 V AC	120 V AC or 230 V AC
Weight	0.82 kg 1.81 Lbs	0.83 kg 1.83 Lbs
Mounting Dimensions	66 mm(L) × 100 mm(W) 2-19/32"(L) × 3-15/16"(W)	66 mm(L) × 100 mm(W) 2-19/32"(L) × 3-15/16"(W)

Model	VC0201B ★☆	VC0201B ★
Rated Pressure	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	20 L/min 0.71 cfm	20 L/min 0.71 cfm
Maximum Pressure	18 kPa(0.18 kgf/cm ²) 0.18 bar 2.61 psig	18 kPa(0.18 kgf/cm ²) 0.18 bar 2.61 psig
Working Pressure Range	-18.7 to 18 kPa -140 mmHg to 0.18 kgf/cm ² -187 mbar to 0.18 bar -5.51 in.Hg to 2.56 psig	0 to 18 kPa 0 to 0.18 kgf/cm ² 0 to 0.18 bar 0 to 2.56 psig
Rated Voltage	120 V AC or 230 V AC	120 V AC or 230 V AC
Weight	1.7 kg 3.7 Lbs	1.7 kg 3.7 Lbs
Mounting Dimensions	125 mm(L) × 56 mm(W) 4-59/64"(L) × 2-13/64"(W)	125 mm(L) × 56 mm(W) 4-59/64"(L) × 2-13/64"(W)

Model	VCK0120 ☆
Attainable Vacuum	-26.7 kPa(-200 mmHg) -267 mbar -7.87 in.Hg
Free Air Displacement	18 L/min 0.64 cfm
Rated Voltage	120 V AC or 230 V AC
Weight	1.9 kg 4.2 Lbs
Mounting Dimensions	152 mm(L) × 128 mm(W) 5-63/64"(L) × 5-3/64"(W)

Model	VC0301B ★☆	VC0301B ★
Rated Pressure	10 kPa 0.1 bar 1.45 psig	10 kPa 0.1 bar 1.45 psig
Rated Airflow	25 L/min 0.88 cfm	25 L/min 0.88 cfm
Maximum Pressure	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig	20 kPa(0.2 kgf/cm ²) 0.2 bar 2.9 psig
Working Pressure Range	-21.3 to 20 kPa -160 mmHg to 0.2 kgf/cm ² -213 mbar to 0.2 bar -6.3 in.Hg to 2.84 psig	0 to 20 kPa 0 to 0.2 kgf/cm ² 0 to 0.2 bar 0 to 2.84 psig
Rated Voltage	120 V AC or 230 V AC	120 V AC or 230 V AC
Weight	1.7 kg 3.7 Lbs	1.7 kg 3.7 Lbs
Mounting Dimensions	125 mm(L) × 56 mm(W) 4-59/64"(L) × 2-13/64"(W)	125 mm(L) × 56 mm(W) 4-59/64"(L) × 2-13/64"(W)

DC MOTOR DRIVEN

Diaphragm Pump / Piston Pump

★ Compressor ☆ Vacuum Pump

Compressor and Vacuum Pump



DP0125 / DP0140

DP0110-X1 / -Y1 / -X3

Brushless Motor



DP0102 / DP0102S

DP0102H-X1 / -X2

Brushless Motor

Brushless Motor



DP0105

DPA0105

Brushless Motor

Specifications

Model	DP0125 ★☆	DP0140 ★☆
Attainable Vacuum	-33.3 kPa(-250 mmHg) -333 mbar -9.84 in.Hg	-53.3 kPa(-400 mmHg) -533 mbar -15.7 in.Hg
Free Air Displacement	2.5 L/min 0.088 cfm	4.0 L/min 0.141 cfm
Maximum Pressure	30 kPa(0.3 kgf/cm ²) 0.3 bar 4.35 psig	50 kPa(0.5 kgf/cm ²) 0.5 bar 7.25 psig
Rated Voltage	12 V DC	12 V DC
Weight	0.08 kg 0.18 Lbs	0.19 kg 0.42 Lbs
Mounting Dimensions	32 mm(L) × 32.5 mm(W) 1 ^{-17/64} "(L) × 1 ^{-9/32} "(W)	52 mm(L) × 36 mm(W) 2 ^{-3/64} "(L) × 1 ^{-27/64} "(W)

Model	DP0110-X1/-X3 ★☆	DP0110-Y1 ★☆
Attainable Vacuum	-66.7 kPa(-500 mmHg) -667 mbar -19.7 in.Hg	
Free Air Displacement	7.5 L/min 0.265 cfm	
Maximum Pressure	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig	
Rated Voltage	12 V DC	24 V DC
Weight	0.30 kg 0.66 Lbs	
Mounting Dimensions	50 mm(L) × 30 mm(W) 1 ^{-31/32} "(L) × 1 ^{-3/16} "(W)	

Model	DP0102 ★☆	DP0102S ★☆	DP0102H-X1 ★☆	DP0102H-X2 ★
Attainable Vacuum	-26.7 kPa(-200 mmHg) -267 mbar -7.87 in.Hg	-26.7 kPa(-200 mmHg) -267 mbar -7.87 in.Hg		
Free Air Displacement	5.0 L/min 0.177 cfm	7.0 L/min 0.247 cfm	4.0 L/min 0.141 cfm	4.0 L/min 0.141 cfm
Maximum Pressure	45 kPa(0.45 kgf/cm ²) 0.45 bar 6.52 psig	45 kPa(0.45 kgf/cm ²) 0.45 bar 6.52 psig	80 kPa(0.8 kgf/cm ²) 0.8 bar 11.6 psig	80 kPa(0.8 kgf/cm ²) 0.8 bar 11.6 psig
Working Pressure Range	-26.7 to 45 kPa -200 mmHg to 0.45 kgf/cm ² -267 mbar to 0.45 bar -7.87 in.Hg to 6.52 psig	-26.7 to 45 kPa -200 mmHg to 0.45 kgf/cm ² -267 mbar to 0.45 bar -7.87 in.Hg to 6.52 psig	-50.7 to 80 kPa -380 mmHg to 0.8 kgf/cm ² -507 mbar to 0.8 bar -15 in.Hg to 11.6 psig	0 to 80 kPa 0 to 0.8 kgf/cm ² 0 to 0.8 bar 0 to 11.6 psig
Rated Voltage	12 V DC	24 V DC	12 V DC	12 V DC
Weight	0.25 kg 0.55 Lbs	0.25 kg 0.55 Lbs	0.25 kg 0.55 Lbs	0.25 kg 0.55 Lbs
Mounting Dimensions	50 mm(L) × 30 mm(W) 1 ^{-31/32} "(L) × 1 ^{-3/16} "(W)	50 mm(L) × 30 mm(W) 1 ^{-31/32} "(L) × 1 ^{-3/16} "(W)	50 mm(L) × 30 mm(W) 1 ^{-31/32} "(L) × 1 ^{-3/16} "(W)	50 mm(L) × 30 mm(W) 1 ^{-31/32} "(L) × 1 ^{-3/16} "(W)

Model	DP0105-X1 ★☆	DP0105-Y1 ★☆	DPA0105-X1 ★	DPA0105-Y1 ★
Attainable Vacuum	-66.7 kPa(-500 mmHg) -667 mbar -19.7 in.Hg	-66.7 kPa(-500 mmHg) -667 mbar -19.7 in.Hg		
Free Air Displacement	2.8 L/min 0.099 cfm	2.8 L/min 0.099 cfm	2.8 L/min 0.099 cfm	2.8 L/min 0.099 cfm
Maximum Pressure	250 kPa(2.5 kgf/cm ²) 2.5 bar 36.2 psig	250 kPa(2.5 kgf/cm ²) 2.5 bar 36.2 psig	220 kPa(2.2 kgf/cm ²) 2.2 bar 31.9 psig	220 kPa(2.2 kgf/cm ²) 2.2 bar 31.9 psig
Working Pressure Range	-66.7 kPa to 100 kPa -500 mmHg to 1 kgf/cm ² -667 mbar to 1 bar -19.7 in.Hg to 14.5 psig	-66.7 kPa to 100 kPa -500 mmHg to 1 kgf/cm ² -667 mbar to 1 bar -19.7 in.Hg to 14.5 psig	0 to 100 kPa 0 to 1 kgf/cm ² 0 to 1 bar 0 to 14.5 psig	0 to 100 kPa 0 to 1 kgf/cm ² 0 to 1 bar 0 to 14.5 psig
Rated Voltage	12 V DC	24 V DC	12 V DC	24 V DC
Weight	0.36 kg 0.79 Lbs	0.36 kg 0.79 Lbs	0.3 kg 0.66 Lbs	0.3 kg 0.66 Lbs
Mounting Dimensions	42 mm(L) × 24.5 mm(W) 1 ^{-21/32} "(L) × 1 ^{-31/32} "(W)	42 mm(L) × 24.5 mm(W) 1 ^{-21/32} "(L) × 1 ^{-31/32} "(W)	32 mm(L) × 27.5 mm(W) 1 ^{-9/32} "(L) × 1 ^{-5/64} "(W)	32 mm(L) × 27.5 mm(W) 1 ^{-9/32} "(L) × 1 ^{-5/64} "(W)

DC MOTOR DRIVEN

Diaphragm Pump / Piston Pump

Compressor and Vacuum Pump



DP0110T

Brushless Motor

DP0210T

Brushless Motor

Specifications

Model	DP0110T-X1 ★☆	DP0110T-Y1 ★☆
Attainable Vacuum	-60.0 kPa(-450 mmHg) -600 mbar -17.7 in.Hg	
Free Air Displacement	5.5 L/min 0.194 cfm	
Maximum Pressure	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig	
Rated Voltage	12 V DC	24 V DC
Weight	0.27 kg 0.60 Lbs	
Mounting Dimensions	36.5 mm(L) × 37.5 mm(W) 1-7/16"(L) × 1-15/32"(W)	

★ Compressor ☆ Vacuum Pump

Model	DP0210T-X1 ★☆	DP0210T-Y1 ★☆	DP0410-X1 ☆	DP0410-Y1 ☆
Attainable Vacuum	-60.0 kPa(-450 mmHg) -600 mbar -17.7 in.Hg		-77.3 kPa(-580 mmHg) -773 mbar -22.8 in.Hg	
Free Air Displacement	10 L/min 0.35 cfm		18 L/min 0.64 cfm	
Maximum Pressure	150 kPa(1.5 kgf/cm ²) 1.5 bar 21.7 psig			
Rated Voltage	12 V DC	24 V DC	12 V DC	24 V DC
Weight	0.32 kg 0.71 Lbs		1.1 kg 2.4 Lbs	
Mounting Dimensions	36.5 mm(L) × 37.5 mm(W) 1-7/16"(L) × 1-15/32"(W)		70 mm(L) × 45 mm(W) 2-3/4"(L) × 1-49/64"(W)	



DP0410

Brushless Motor



DP0410T-Y1

Brushless Motor



DP0410T-Y2

Brushless Motor

Model	DP0410-X2 ★	DP0410-Y2 ★
Free Air Displacement	18 L/min 0.64 cfm	
Maximum Pressure	180 kPa(1.8 kgf/cm ²) 1.8 bar 25.6 psig	
Working Pressure Range	0 to 180 kPa 0 to 1.8 kgf/cm ² 0 to 1.8 bar 0 to 26.1 psig	
Rated Voltage	12 V DC	24 V DC
Weight	1.1 kg 2.4 Lbs	
Mounting Dimensions	70 mm(L) × 45 mm(W) 2-3/4"(L) × 1-49/64"(W)	

Model	DP0410T-Y1 ☆	DP0410T-Y2 ★
Attainable Vacuum	-77.3 kPa(-580 mmHg) -773 mbar -22.8 in.Hg	
Free Air Displacement	34 L/min 1.2 cfm	34 L/min 1.2 cfm
Maximum Pressure		150 kPa(1.5 kgf/cm ²) 1.5 bar 21.75 psig
Rated Voltage	24 V DC	24 V DC
Weight	1.6 kg 3.5 Lbs	1.6 kg 3.5 Lbs
Mounting Dimensions	166 mm(L) × 84 mm(W) 6-17/32"(L) × 3-5/16"(W)	166 mm(L) × 84 mm(W) 6-17/32"(L) × 3-5/16"(W)

LIQUID PUMP

DC Diaphragm Liquid Pump

DPE series - DC Liquid Pump



DPE-100



DPE-400



DPE-400BL
Brushless Motor



DPE-800

Specifications

Model	DPE-100	DPE-400
Flow Rate ^{*1}	100 mL/min 0.0035 cfm	400 mL/min 0.0141 cfm
Working Pressure Range	0 to 100 kPa 0 to 1.0 kgf/cm ² 0 to 1.0 bar 0 to 14.5 psig	0 to 100 kPa 0 to 1.0 kgf/cm ² 0 to 1.0 bar 0 to 14.5 psig
Maximum Pressure ^{*2}	300 kPa(3.0 kgf/cm ²) 3.0 bar 43.5 psig	300 kPa(3.0 kgf/cm ²) 3.0 bar 43.5 psig
Self-priming Pressure ^{*1}	20 kPa 0.2 bar 2.9 psig	40 kPa 0.4 bar 5.8 psig
Maximum Current	100 mA	345 mA
Rated Voltage	24 V DC	24 V DC
Weight	67 g 0.148 Lbs	187 g 0.412 Lbs
Mounting Dimensions	9.5 mm(L) x 17 mm(W) 3/8"(L) x 1-43/64"(W)	19 mm(L) x 26 mm(W) 3/4"(L) x 1-1/32"(W)

Model	DPE-400BL	DPE-800
Flow Rate ^{*1}	400 mL/min 0.0141 cfm	800 mL/min 0.0283 cfm
Working Pressure Range	0 to 100 kPa 0 to 1.0 kgf/cm ² 0 to 1.0 bar 0 to 14.5 psig	0 to 100 kPa 0 to 1.0 kgf/cm ² 0 to 1.0 bar 0 to 14.5 psig
Maximum Pressure ^{*2}	300 kPa(3.0 kgf/cm ²) 3.0 bar 43.5 psig	300 kPa(3.0 kgf/cm ²) 3.0 bar 43.5 psig
Self-priming Pressure ^{*1}	40 kPa 0.4 bar 5.8 psig	40 kPa 0.4 bar 5.8 psig
Maximum Current	450 mA	600 mA
Rated Voltage	24 V DC	24 V DC
Weight	230 g 0.507 Lbs	350 g 0.771 Lbs
Mounting Dimensions	41 mm(W) 1-39/64"(W)	74.5 mm(L) x 41 mm(W) 2-15/16"(L) x 1-39/64"(W)

*1. When the check valve is hardened due to low liquid temperature, self-priming performance and flow rate will go down.

*2. Restarting pumps with flow passage closed is impossible.

Build materials

Model	Cylinder Head	Head Cover	Diaphragm	Valve	O-ring
DPE-   -2E	PA		PTFE	EPDM	
DPE-   -2G				FKM	
DPE-   -7G	PPS			FFKM	
DPE-   -7P					

LIQUID PUMP

Piezoelectric Pump

Bimor Pump - Piezoelectric Pump



Specifications

Voltage(AC) — 120 V 60Hz					Voltage(AC) — 230 V 50Hz					Liquid Surface Materials			Weight (g)
Model	Current (mA)	Self-priming Pressure(kPa)	FlowRate (mL/min)	Discharge Pressure (kPa)	Model	Current (mA)	Self-priming Pressure(kPa)	FlowRate (mL/min)	Discharge Pressure (kPa)	Housing	Liquid Contact Sheet	Valve/O-ring	
BPS-215i	3	3	30	15	BPS-215i	4	0.4	10	10	PP	PP	IIR	40
BPH-214E	15	8	350	18	BPH-214E	15	7	220	18	PP	PP	EPDM	140
BPH-214G	—	7	—	17	BPH-214G	—	—	—	17	—	PTFE	FKM	—
BPH-414E	30	12	500	35	—	—	—	—	—	—	—	—	—
—	—	—	—	—	BPH-274G	15	7	250	35	PPS	PTFE	FKM	170
—	—	—	—	—	BPH-274P	—	—	—	—	—	—	FFKM FEP	—

Test conditions: Water at 25 degrees C, Electrical frequency 60 Hz

Voltage(AC) — 100 V 60Hz					Liquid Surface Materials				Weight (g)
Model	Current (mA)	Self-priming Pressure(kPa)	FlowRate (mL/min)	Discharge Pressure (kPa)	Housing	Liquid Contact Sheet	Valve	O-ring	
BPHS-414i	30	12	700	35	PP	PP	IIR	EPDM	150
BPHS-414E	—	—	—	—	—	—	—	FKM	—
BPHS-414G	—	—	—	—	—	—	—	FKM	—
BPHS-474G	—	10	500	—	PPS	PTFE	FFKM	FFKM FEP	180
BPHS-474P	—	—	—	—	—	—	—	—	—

Test conditions: Water at 25 degrees C, Electrical frequency 60 Hz

Material Description

EPDM ... Ethylene Propylene Rubber
 FEP ... Fluoroethylene Propylene
 FFKM ... Fluorine Rubber (Perfluoro)
 FKM ... Fluorine Rubber
 IIR ... Butyl Rubber
 PP ... Polypropylene
 PTFE ... Tetrafluoroethylen
 (Polytetrafluoroethylene)



BPS type



BPH type



BPHS type

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