



EBARA's Dry Pump-Family

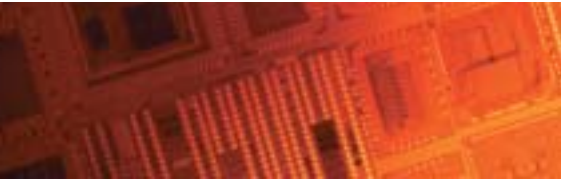
The A Series, AA Series, AAS Series

– The Total Vacuum Solution for Semiconductor Fabs –

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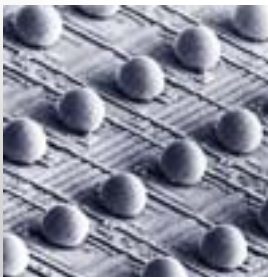
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EBARA Precision Machinery in Europe



EBARA Precision Machinery Europe is a division of EBARA Corporation in Japan. EBARA Corporation was founded in 1912. The company employs about 15.500 people with a turnover of approx. \$ 5,0 Billion. EBARA Corporation provides a wide range of technologies for water, air and environment and drives product development to comply with its zero emission philosophy.

EBARA Precision Machinery's (EPM) scope of products is serving the needs for manufacturing integrated circuits for the international information technology. The product range covers vacuum pumps for front end equipment til polishing tools and plating tools on the back end side of the manufacturing process. Its product offering is rooted in Ebara's vast scope of advanced technologies and fits in the company philosophy by exceeding the industry's lowest cost of ownership and highest uptime requirements.



EBARA Precision Machinery Europe

EBARA Precision Machinery Europe – was founded in 1994. The company's headquarters are based in Hanau/Germany and covers all European operations. In 1995 the French branch office in Evry/France and the UK branch office in Livingston/Great Britain were founded. An overhaul center in Livingston/Great Britain exists since 1991 and a branch office in Ireland was founded end of year 2002. EBARA Precision Machinery Europe achieves annual sales of about 50 Mio. Euro and employs about 95 people.

In addition on-site service offices in Dresden/ Germany, Alsdorf/ Germany, Meyreuil/France, Newcastle/UK, Dublin, Ireland Migdal Haemek/Israel and Graz/Austria are operated in the vicinity to our customers to provide installation, maintenance, consultancy and parts services. The customers are supported in their local languages and according to their local standards. Our advanced overhaul facility in Livingston provides failure analysis and decontamination services and allows for fast repair of dry and turbomolecular pumps of the European installations.

EBARA Precision Machinery Europe's sales and service locations are set up to cover all areas in Europe and Israel in close proximity to the customers. With our unparalleled technical support and service we ensure the customer of the highest standard of reliability and maximum up-time at the lowest cost of ownership.



Our Products

EBARA Precision Machinery products are manufactured at state-of-the-art production facilities in Fujisawa near Tokyo/Japan and at EBARA Technologies in Sacramento/CA, USA. These facilities fully comply with ISO 9001 standards and Fujisawa also with ISO 14001 standards. EBARA's products provide CE marking and 400 V power supply as required in the European market. EBARA Precision Machinery started to market systems for semiconductor fabrication with the launch of EBARA's first Chemical Mechanical Polishing (CMP) machine, the EPO series and more new tools for the plating of wafers.

Components

Based on the high reliability and the leading edge technology the demand for EBARA's vacuum pumps has continuously increased. EBARA offers a full line of components not only related to the semiconductor industry:

- Dry pumps
- Turbomolecular pumps
- Point-of-use exhaust abatement systems
- Ozone gas and water generators
- Moleculare filters
- Monitoring systems

Dry Pumps

EBARA is a world leader in the design and manufacturing of dry mechanical pumps. EBARA's dry pumps feature highest reliability, low noise and vibration and lowest cost of ownership. They are available with a wide range of pumping speeds and different configurations for special semiconductor applications.

A-Series

The A-Series dry pumps represent the currently installed pumps of EBARA's comprehensive range of products in Europe. They are equipped with microprocessor control with a hand held LCD control and display unit to control the process parameters of the pumps. Optionally monitoring systems are available.

AA-Series

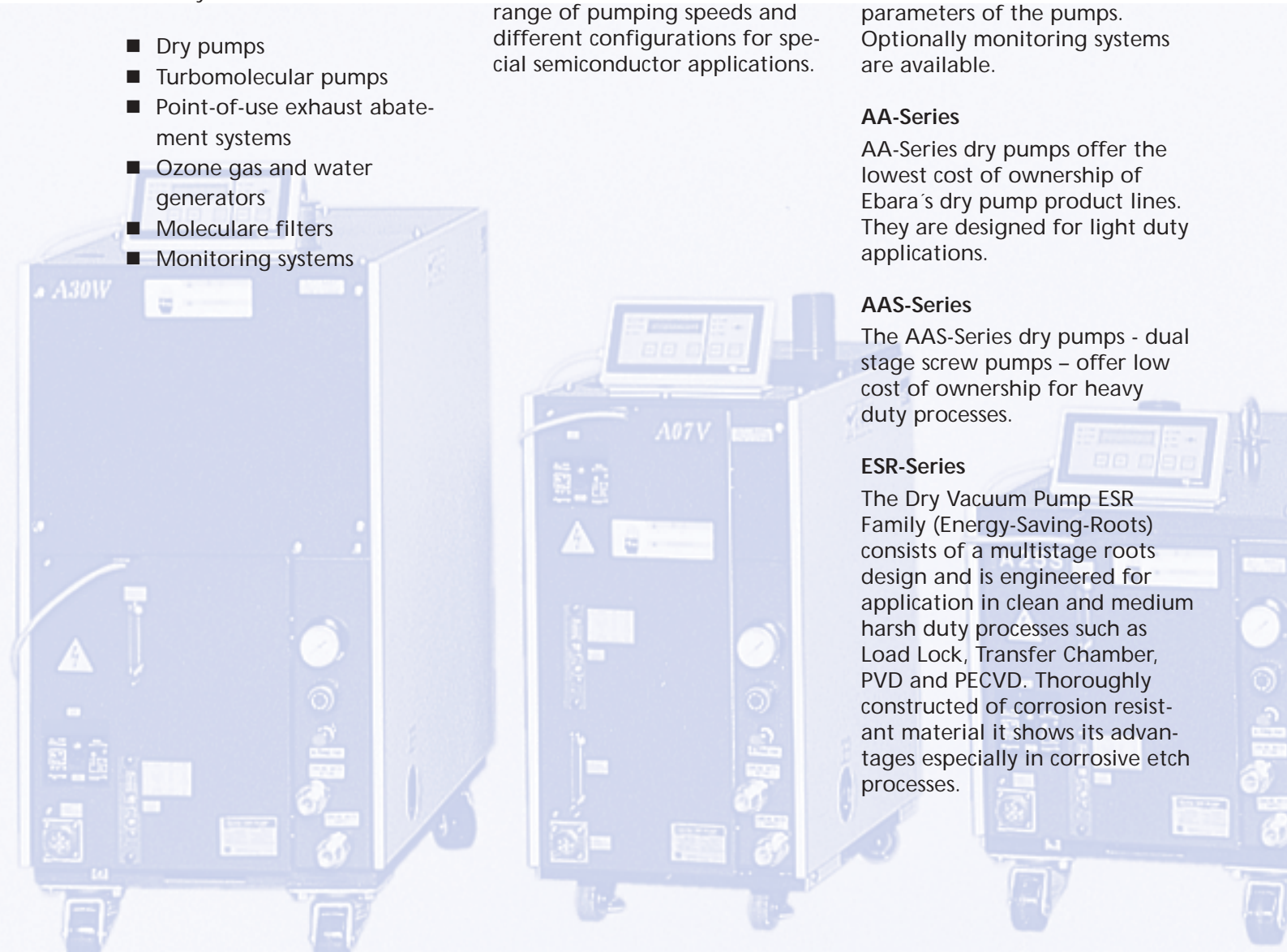
AA-Series dry pumps offer the lowest cost of ownership of Ebara's dry pump product lines. They are designed for light duty applications.

AAS-Series

The AAS-Series dry pumps - dual stage screw pumps - offer low cost of ownership for heavy duty processes.

ESR-Series

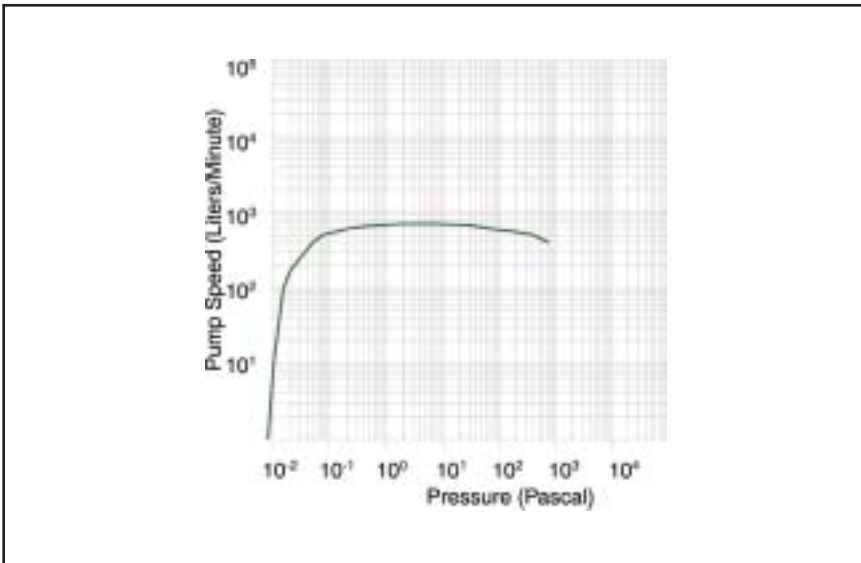
The Dry Vacuum Pump ESR Family (Energy-Saving-Roots) consists of a multistage roots design and is engineered for application in clean and medium harsh duty processes such as Load Lock, Transfer Chamber, PVD and PECVD. Thoroughly constructed of corrosion resistant material it shows its advantages especially in corrosive etch processes.





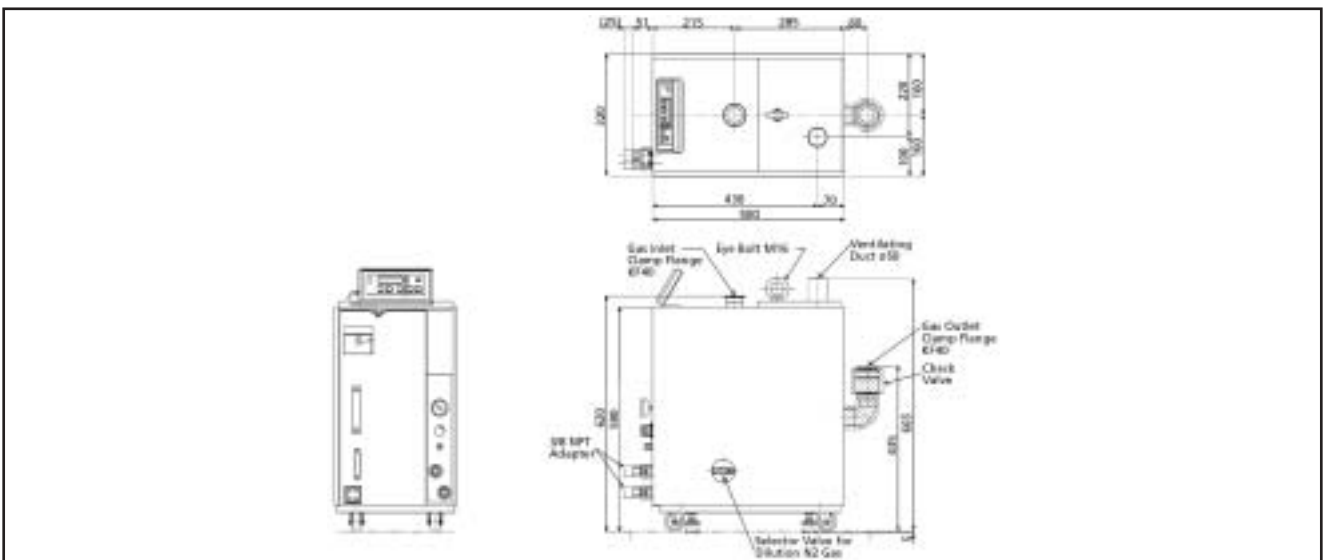
Technical Characteristics

- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration
- ◆ Corrosion resistant materials-stainless steel coolers, water circuits
- ◆ High reliability even for harsh processes
- ◆ Efficient interstage coolers for LPCVD nitride process
- ◆ Canned motor
- ◆ Low service requirements
- ◆ Control panel for monitoring operating conditions



Customer Benefits

- ◆ Very low nitrogen consumption for purging
- ◆ Clean room compatible
- ◆ Low service requirements
- ◆ Compact size and small footprint



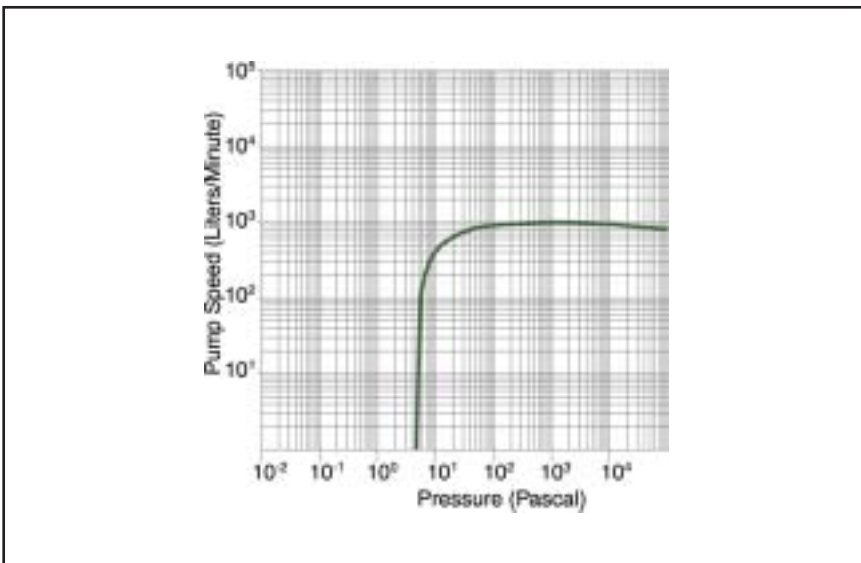
Specification A 07		
Pumping speed (N2) 50/60 Hz	l/min.	700/833
Pumping speed (N2) 50/60 Hz	m ³ /h	42/50
Ultimate pressure 50/60 Hz	mbar	1x10⁻²/1x10⁻²
Ultimate pressure 50/60 Hz	Pa	1.1/1.0
Water Consumption	l/min.	3.5
Nitrogen Consumption	SLM	9-11
Nitrogen Consumption	Pa m ³ /sec	15-19
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	1.5
Weight, approx.	kg	150
Sizes (LxWxH)	mm	500x340x590
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series A 07			
1	A07V	811-0007-2-000-00-00	Vacuum Dry Pump A07V, 200V, 50/60 Hz
2	A07V-B	811-0007-2-000-01-00	Vacuum Dry Pump A07V-B, 200V, 50/60 Hz, Basic Version
3	A07V	811-0007-3-000-00-00	Vacuum Dry Pump A07V, 380V, 50/60 Hz
4	A07V-B	811-0007-3-000-01-00	Vacuum Dry Pump A07V-B, 380V, 50/60 Hz, Basic Version



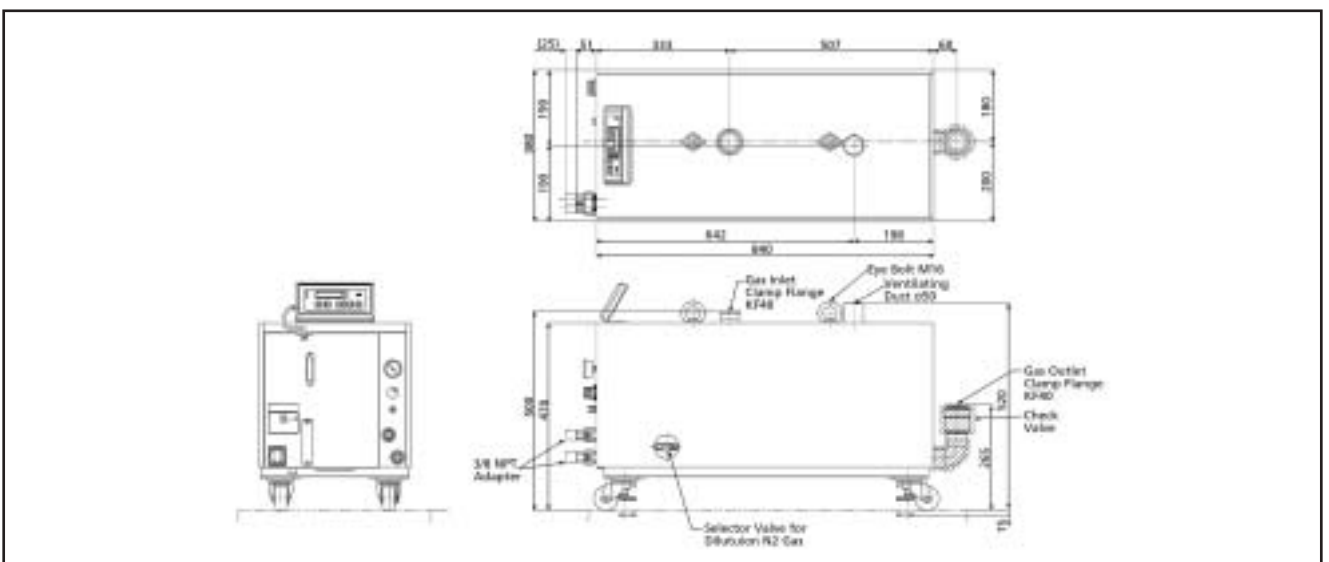
Technical Characteristics

- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
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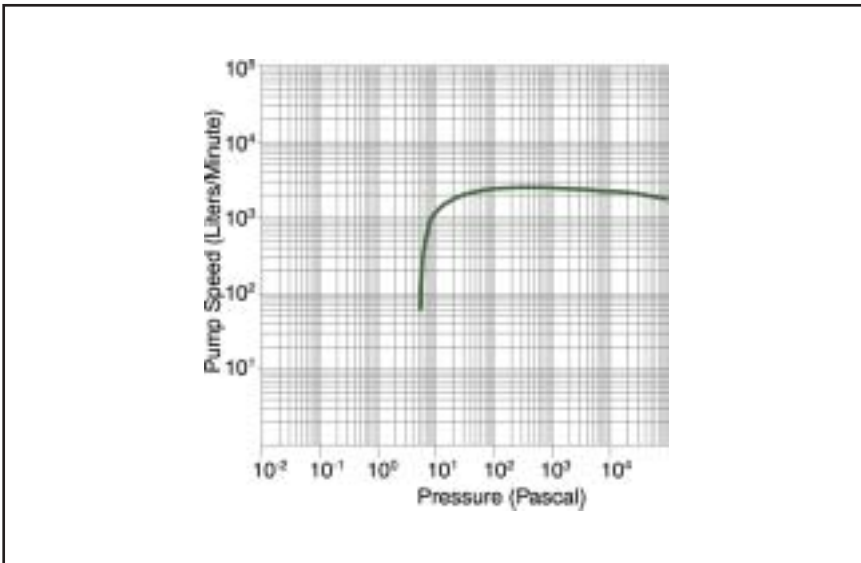
Specification A10S		
Pumping speed (N2) 50/60 Hz	l/min.	1000/1200
Pumping speed (N2) 50/60 Hz	m ³ /h	60/72
Ultimate pressure 50/60 Hz	mbar	5x10⁻²/4x10⁻²
Ultimate pressure 50/60 Hz	Pa	5.3/4.0
Water Consumption	l/min.	3.5
Nitrogen Consumption	SLM	10-12
Nitrogen Consumption	Pa m ³ /sec	17-20
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	2.2
Weight, approx.	kg	220
Sizes (LxWxH)	mm	840x394x470
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series A10S			
1	A10S	811-0010-2-000-00-00	Vacuum Dry Pump A10S, 200V, 50/60 Hz
2	A10S	811-0010-3-000-00-00	Vacuum Dry Pump A10S, 380V, 50/60 Hz
3	A10S	811-0010-2-E00-00-00	Vacuum Dry Pump A10S, 200V, 50/60 Hz, two stage Exhaust Pressure Switch
4	A10S	811-0010-3-E00-00-00	Vacuum Dry Pump A10S, 380V, 50/60 Hz, two stage Exhaust Pressure Switch



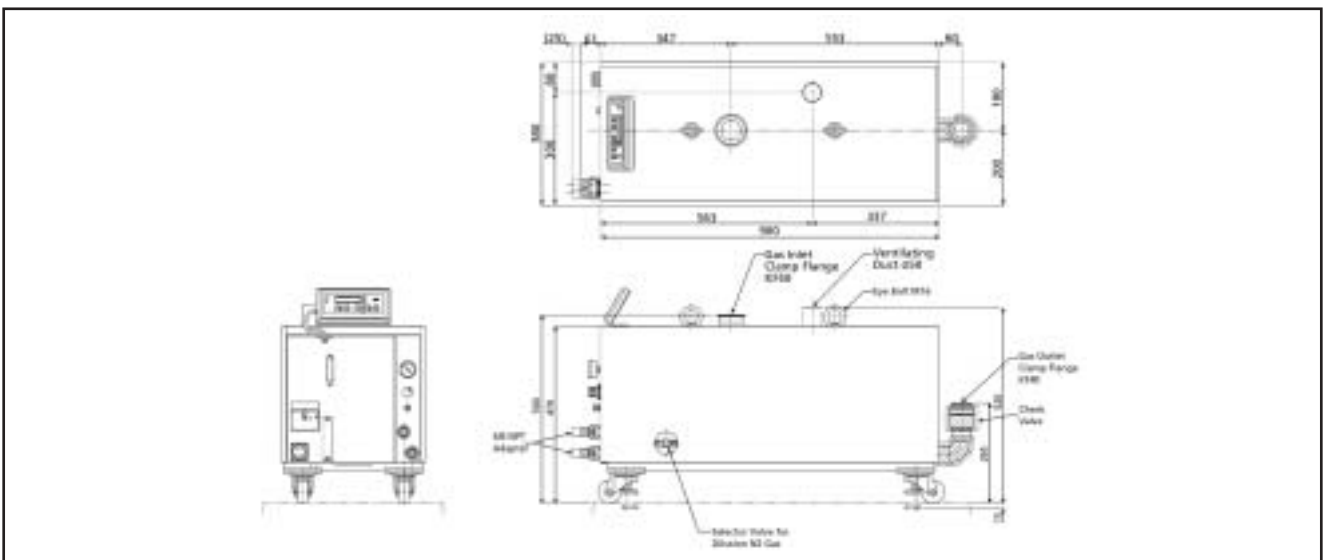
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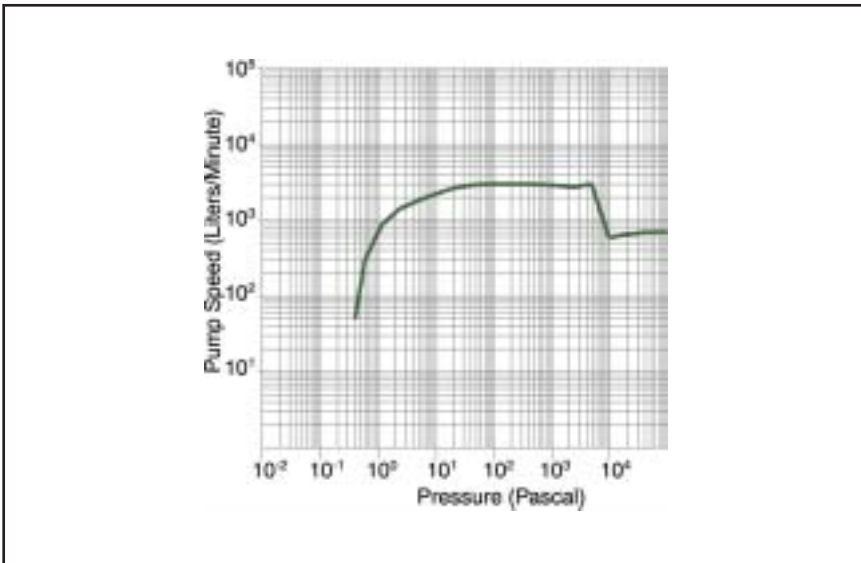
Specification A25S		
Pumping speed (N2) 50/60 Hz	l/min.	2500/3000
Pumping speed (N2) 50/60 Hz	m ³ /h	150/180
Ultimate pressure 50/60 Hz	mbar	5x10⁻², 4x10⁻²
Ultimate pressure 50/60 Hz	Pa	5.3/4.0
Water Consumption	l/min.	3.5
Nitrogen Consumption	SLM	10-12
Nitrogen Consumption	Pa m ³ /sec	17-20
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3.7
Weight, approx.	kg	240
Sizes (LxWxH)	mm	900x394x470
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series A25S			
1	A25S	811-0025-2-000-00-00	Vacuum Dry Pump A25S, 200V, 50/60 Hz
2	A25S	811-0025-3-000-00-00	Vacuum Dry Pump A25S, 380V, 50/60 Hz
3	A25S	811-0025-2-E00-00-00	Vacuum Dry Pump A25S, 200V, 50/60 Hz, two stage Exhaust Pressure Switch
4	A25S	811-0025-3-E00-00-00	Vacuum Dry Pump A25S, 380V, 50/60 Hz, two stage Exhaust Pressure Switch



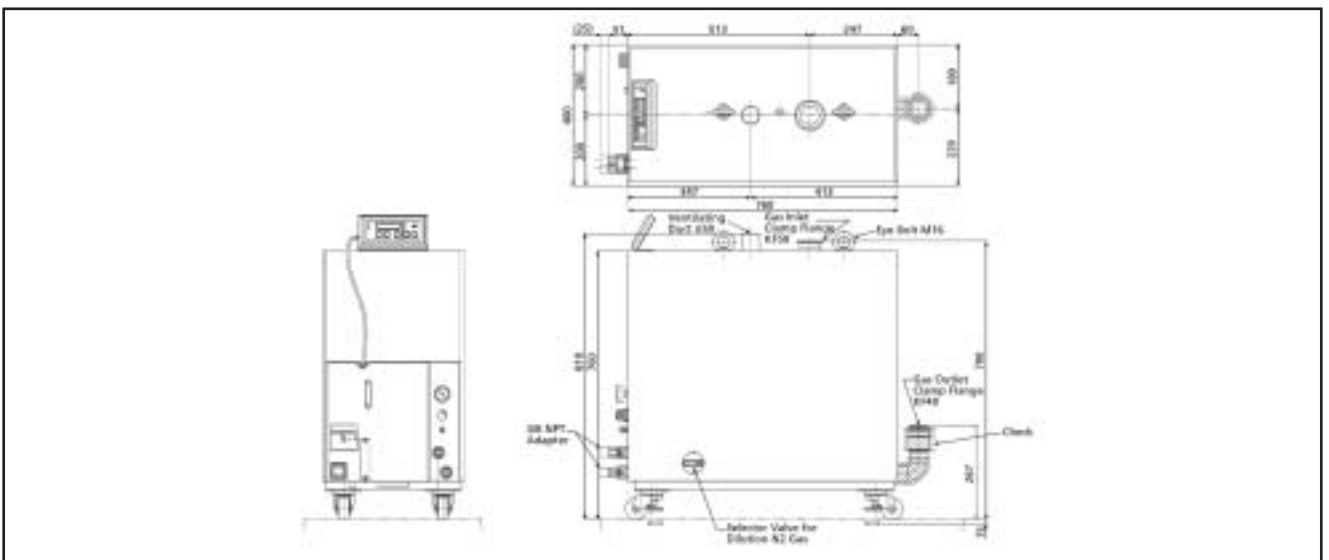
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Specification A30W		
Pumping speed (N2) 50/60 Hz	l/min.	3000/3600
Pumping speed (N2) 50/60 Hz	m ³ /h	180/216
Ultimate pressure 50/60 Hz	mbar	4x10⁻³, 3x10⁻³
Ultimate pressure 50/60 Hz	Pa	0.4/0.3
Water Consumption	l/min	3.5
Nitrogen Consumption	SLM	10-13
Nitrogen Consumption	Pa m ³ /sec	17-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	1.5+2.2
Weight, approx.	kg	330
Sizes (LxWxH)	mm	895x400x485
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series A30W			
1	A30W	811-0030-2-000-00-00	Vacuum Dry Pump A30W, 200V, 50/60 Hz
2	A30W	811-0030-3-000-00-00	Vacuum Dry Pump A30W, 380V, 50/60 Hz
3	A30W	811-0030-2-E00-00-00	Vacuum Dry Pump A30W, 200V, 50/60 Hz, two stage Exhaust Pressure Switch
4	A30W	811-0030-3-E00-00-00	Vacuum Dry Pump A30W, 380V, 50/60 Hz, two stage Exhaust Pressure Switch

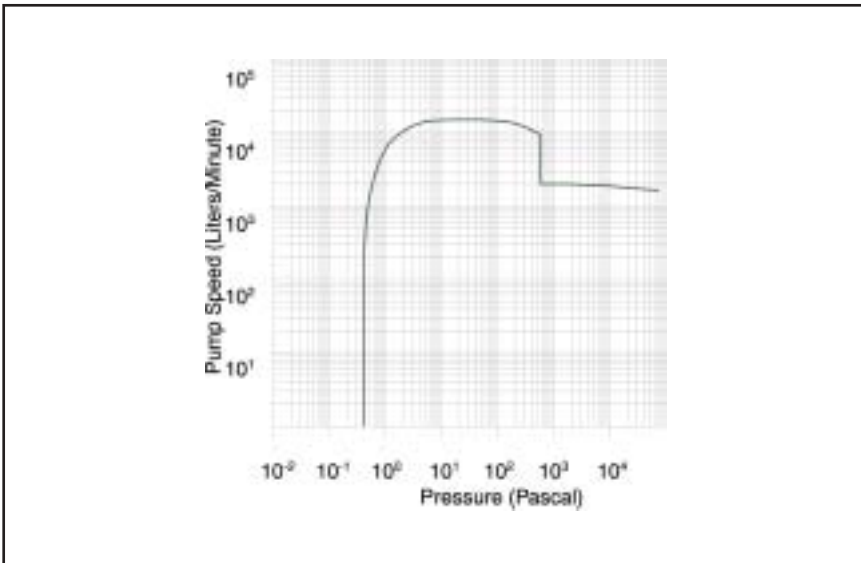
Specification A70W		
Pumping speed (N2) 50/60 Hz	l/min.	7000/8400
Pumping speed (N2) 50/60 Hz	m ³ /h	420/504
Ultimate pressure 50/60 Hz	mbar	3x10⁻³, 1.3x10⁻³
Ultimate pressure 50/60 Hz	Pa	0.3/0.13
Water Consumption	l/min	3.5
Nitrogen Consumption	SLM	14-16
Nitrogen Consumption	Pa m ³ /sec	24-27
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	2.2+3.7
Weight, approx.	kg	380
Sizes (LxWxH)	mm	825x400x760
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series A70W			
1	A70W	811-0070-2-000-00-00	Vacuum Dry Pump A70W, 200V, 50/60 Hz
2	A70W	811-0070-3-000-00-00	Vacuum Dry Pump A70W, 380V, 50/60 Hz
3	A70W	811-0070-2-E00-00-00	Vacuum Dry Pump A70W, 200V, 50/60 Hz, two stage Exhaust Pressure Switch
4	A70W	811-0070-3-E00-00-00	Vacuum Dry Pump A70W, 380V, 50/60 Hz, two stage Exhaust Pressure Switch



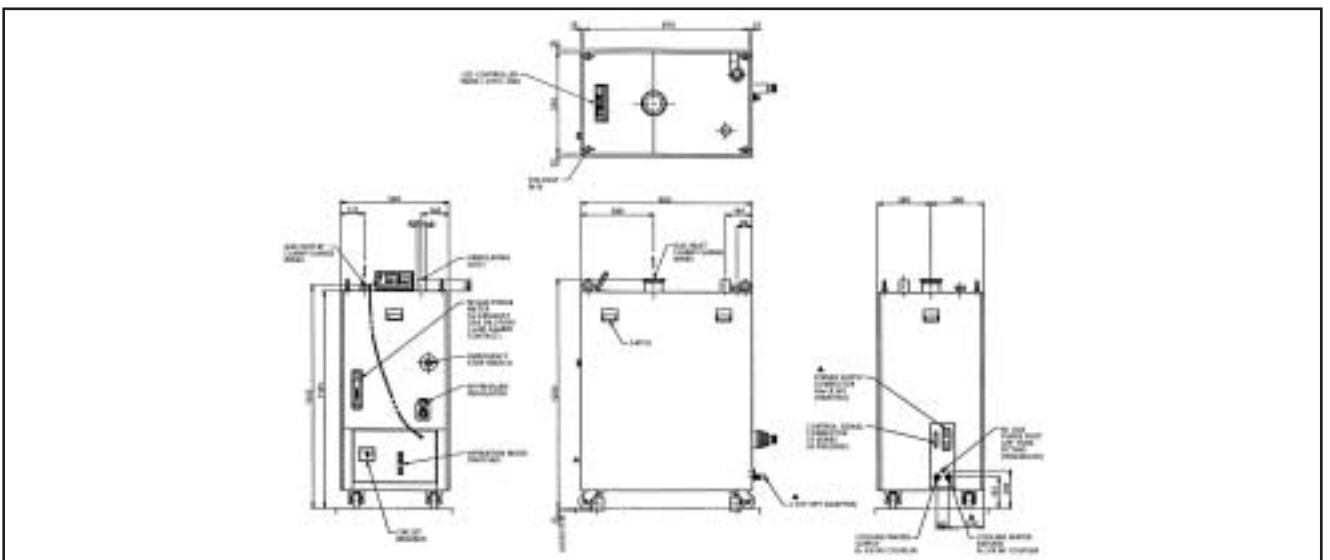
Technical Characteristics

- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration
- ◆ Corrosion resistant materials-stainless steel coolers, water circuits
- ◆ High reliability even for harsh processes
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- ◆ Canned motor
- ◆ Low service requirements
- ◆ Control panel for monitoring operating conditions



Customer Benefits

- ◆ Very low nitrogen consumption for purging
- ◆ Clean room compatible
- ◆ Low service requirements
- ◆ Compact size and small footprint



Specification A150W		
Pumping speed (N2) 50/60 Hz	l/min.	15,000/18,000
Pumping speed (N2) 50/60 Hz	m ³ /h	900/1080
Ultimate pressure 50/60 Hz	mbar	5x10⁻³/5x10⁻³
Ultimate pressure 50/60 Hz	Pa	0.53/0.53
Water Consumption	l/min.	3.5
Nitrogen Consumption	SLM	18
Nitrogen Consumption	Pa m ³ /sec	30
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3.7+3.7
Weight, approx.	kg	530
Sizes (LxWxH)	mm	900x560x1200
Inlet flange size		DN 100 ISO-K
Outlet flange size		DN 40 KF

Ordering Data Series A150W

1	A150W-M	811-0150-2-0WM-00-00	Vacuum Dry Pump A150W, 200V, 50/60 Hz, Manifold Cooler
2	A150W-T	811-0150-2-0WT-00-00	Vacuum Dry Pump A150W, 200V, 50/60 Hz, Interstage Coolers
3	A150W-M	811-0150-2-EWM-00-00	Vacuum Dry Pump A150W, 200V, 50/60 Hz, Manifold Cooler, two stage Exhaust Pressure Switch
4	A150W-T	811-0150-2-EWT-00-00	Vacuum Dry Pump A150W, 200V, 50/60 Hz, interstage Coolers, two stage Exhaust Pressure Switch
5	A150W-M	811-0150-3-0WM-00-00	Vacuum Dry Pump A150W, 380V, 50/60 Hz, Manifold Cooler Vacuum Dry Pump A25S, 200V, 50/60 Hz
6	A150W-T	811-0150-3-0WT-00-00	Vacuum Dry Pump A150W, 380V, 50/60 Hz, Interstage Coolers
7	A150W-M	811-0150-3-EWM-00-00	Vacuum Dry Pump A150W, 380V, 50/60 Hz, Manifold Cooler, two stage Exhaust Pressure Switch
8	A150W-T	811-0150-3-EWT-00-00	Vacuum Dry Pump A150W, 380V, 50/60 Hz, interstage Coolers, two stage Exhaust Pressure Switch

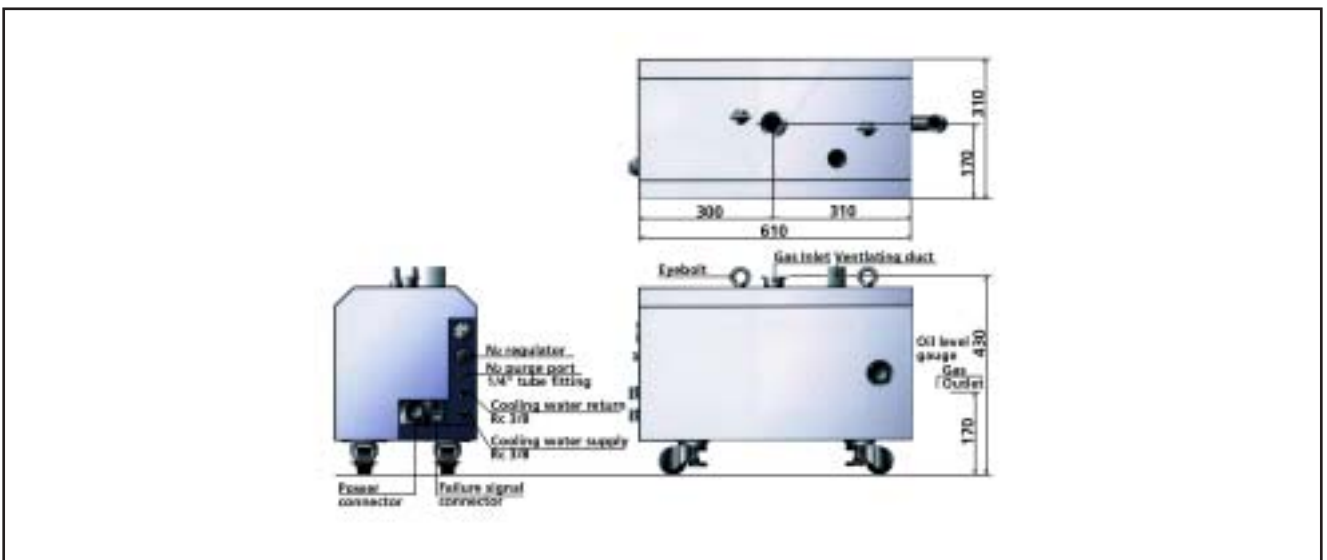
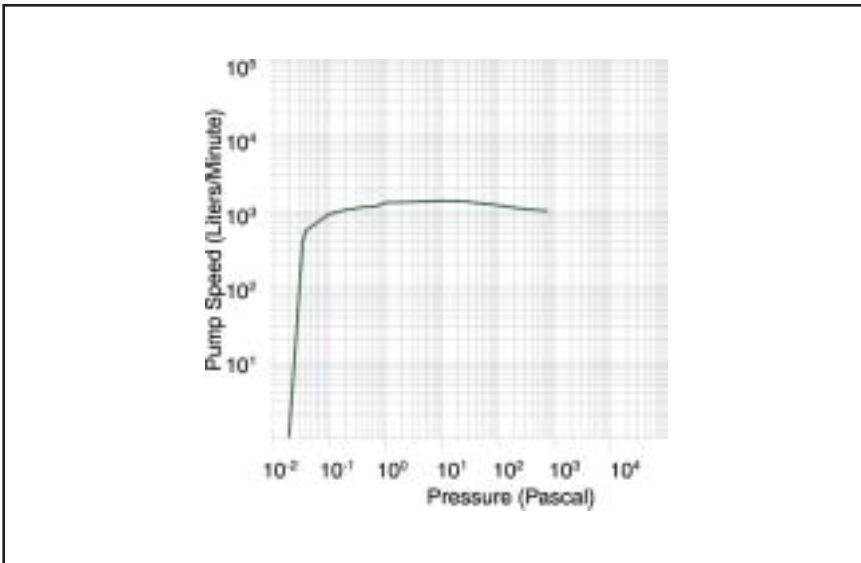


Technical Characteristics

- ◆ DC Motor
- ◆ Low Energy consumption
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time



Specification AAL10		
Pumping speed (N2)	l/min.	1300
Pumping speed (N2)	m ³ /h	78
Ultimate pressure	mbar	3x10⁻²
Ultimate pressure	Pa	2.7
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	2
Nitrogen Consumption	Pa m ³ /sec	3.4
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3
Weight, approx.	kg	100
Sizes (LxWxH)	mm	670x310x430
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series AAL10

1	AAL10	812-0010-2-LL0-00-00	Vacuum Dry Pump AAL10, 200V, 50/60 Hz, Load Lock
2	AAL10	812-0010-3-LL0-00-00	Vacuum Dry Pump AAL10, 380V, 50/60 Hz, Load Lock

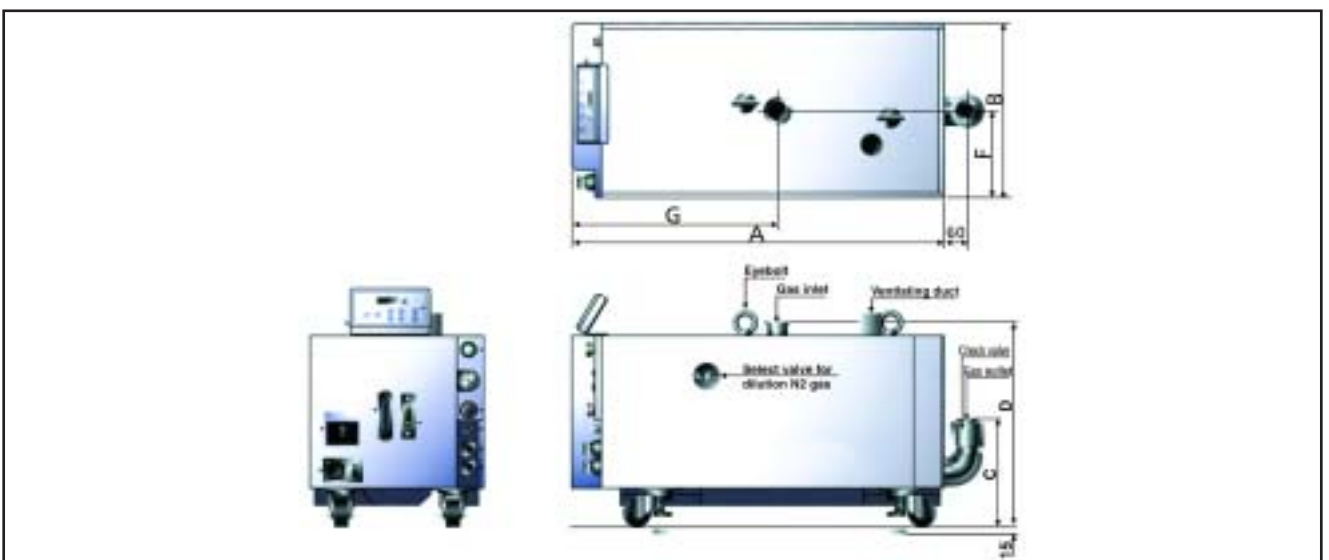
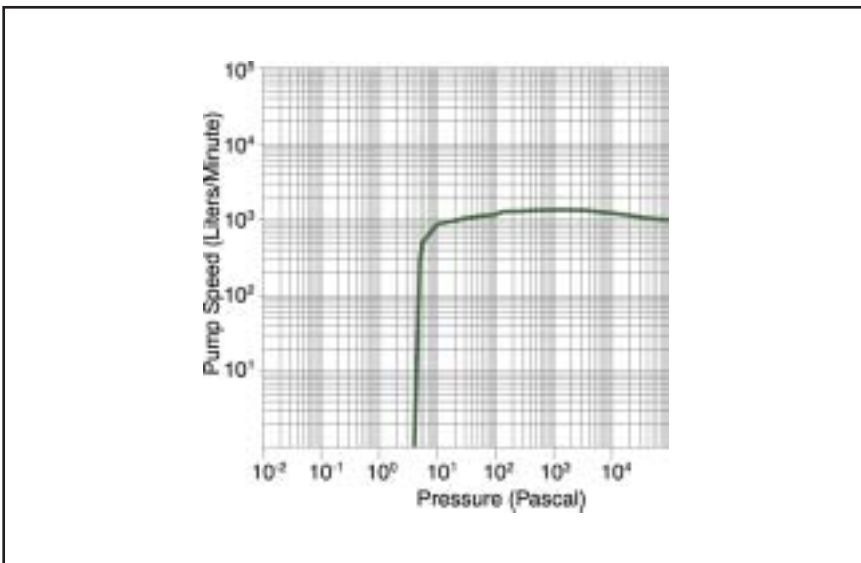


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA10		
Pumping speed (N2)	l/min.	1300
Pumping speed (N2)	m ³ /h	78
Ultimate pressure	mbar	3x10⁻²
Ultimate pressure	Pa	2.7
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3
Weight, approx.	kg	130
Sizes (LxWxH)	mm	825x380x445
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series AA10

1	AA10	812-0010-2-000-00-00	Vacuum Dry Pump AA10, 200V, 50/60 Hz
2	AA10-H	812-0010-2-00H-00-00	Vacuum Dry Pump AA10-H, 200V, 50/60 Hz, Horizontal Outlet
3	AA10N	812-0010-2-0N0-00-00	Vacuum Dry Pump AA10N, 200V, 50/60 Hz, Corrosian Resist
4	AA10N-H	812-0010-2-0NH-00-00	Vacuum Dry Pump AA10N-H, 200V, 50/60 Hz, Corrosion Resist, Horizontal Outlet
5	AA10N-H	812-0010-2-ENH-00-00	Vacuum Dry Pump AA10N-H, 200V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor
6	AA10	812-0010-3-000-00-00	Vacuum Dry Pump AA10, 380V, 50/60 Hz
7	AA10-H	812-0010-3-00H-00-00	Vacuum Dry Pump AA10-H, 380V, 50/60 Hz, Horizontal Outlet
8	AA10N	812-0010-3-0N0-00-00	Vacuum Dry Pump AA10N, 380V, 50/60 Hz, Corrosian Resist
9	AA10N-H	812-0010-3-0NH-00-00	Vacuum Dry Pump AA10N-H, 380V, 50/60 Hz, Corrosion Resist, Horizontal Outlet
10	AA10N-H	812-0010-3-ENH-00-00	Vacuum Dry Pump AA10N-H, 380V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor

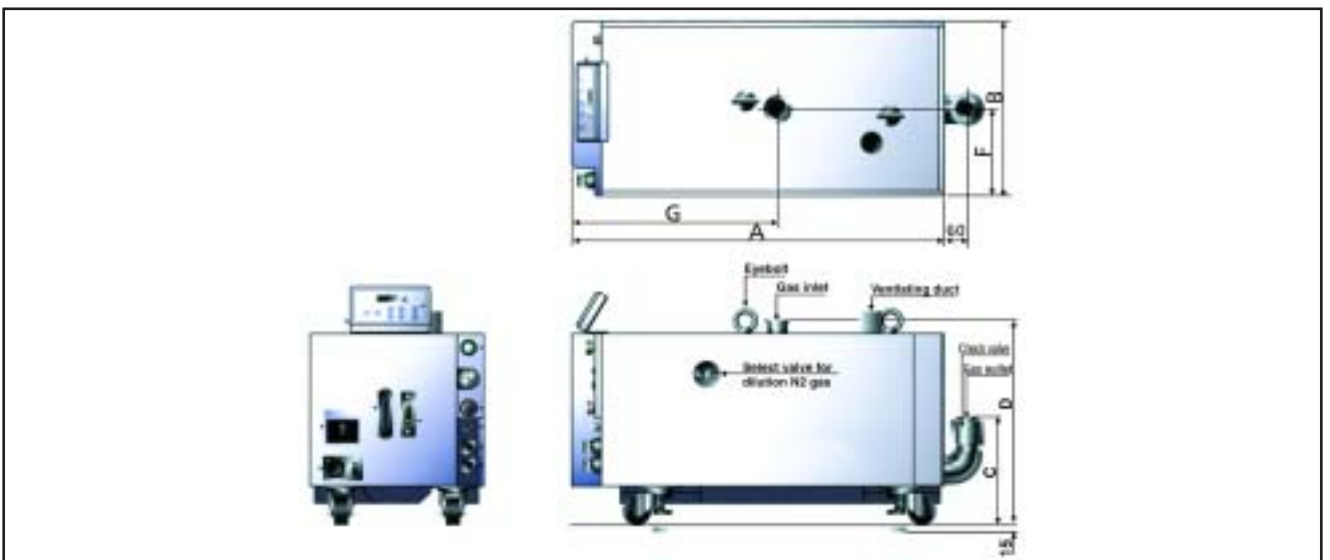
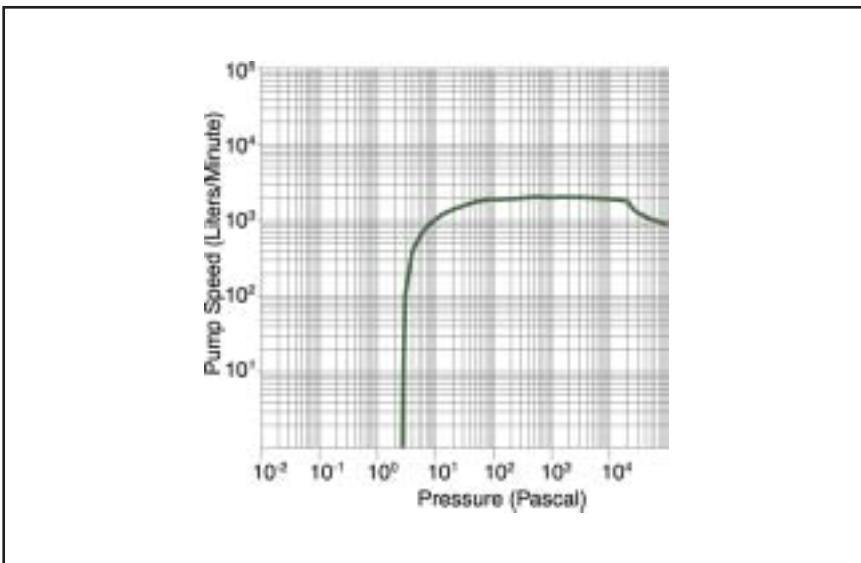


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA20		
Pumping speed (N2)	l/min.	2000
Pumping speed (N2)	m ³ /h	120
Ultimate pressure	mbar	2.5x10⁻²
Ultimate pressure	Pa	2.5
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3
Weight, approx.	kg	140
Sizes (LxWxH)	mm	865x380x445
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

Ordering Data Series AA20			
1	AA20	812-0020-2-000-00-00	Vacuum Dry Pump AA20, 200V, 50/60 Hz
2	AA20-H	812-0020-2-00H-00-00	Vacuum Dry Pump AA20-H, 200V, 50/60 Hz, Horizontal Outlet
3	AA20N-H	812-0020-2-ENH-00-00	Vacuum Dry Pump AA20N-H, 200V, 50/60 Hz, Corrosion Resist, Horizontal Outlet, with Exhaust Pressure Sensor
4	AA20-H	812-0020-3-00H-00-00	Vacuum Dry Pump AA20-H, 380V, 50/60 Hz, Horizontal Outlet

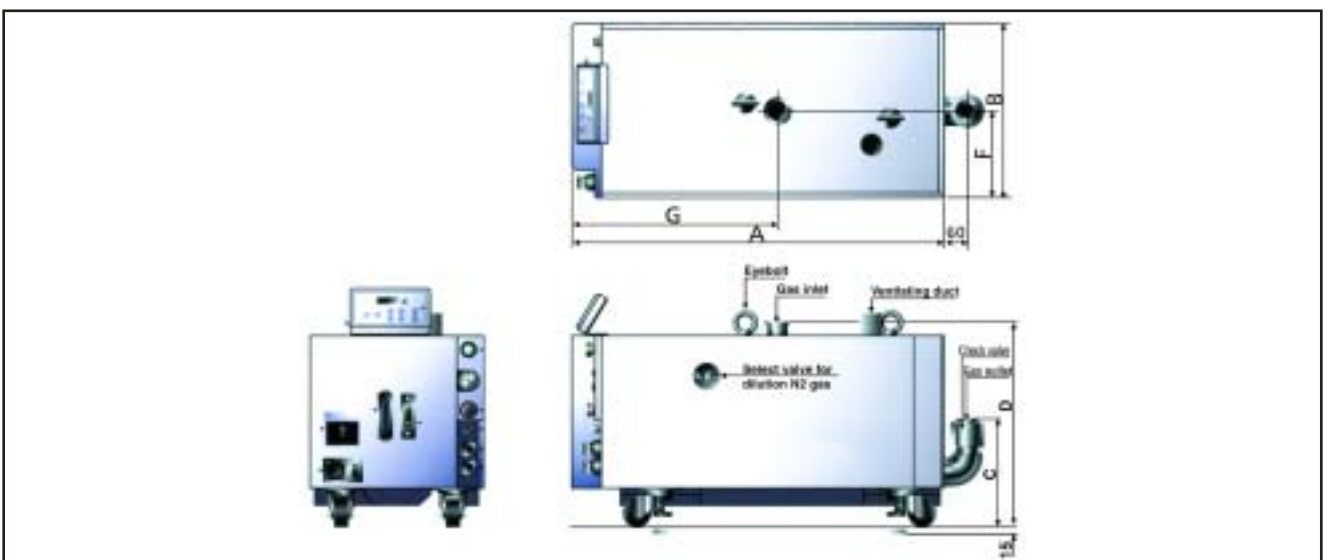
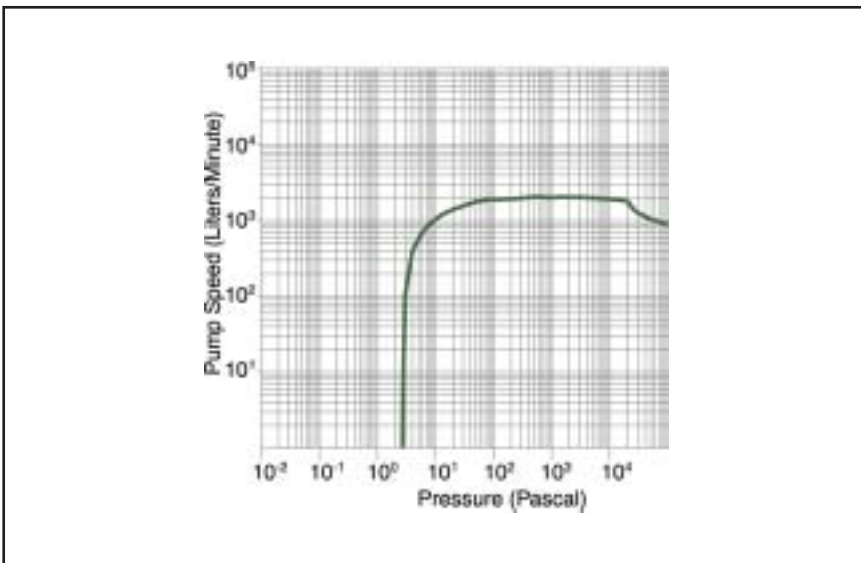


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA30		
Pumping speed (N2)	l/min.	3000
Pumping speed (N2)	m ³ /h	180
Ultimate pressure	mbar	6x10⁻³
Ultimate pressure	Pa	0.6
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	3
Weight, approx.	kg	190
Sizes (LxWxH)	mm	610x310x430
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series AA30			
1	AA30	812-0030-2-000-00-00	Vacuum Dry Pump AA30, 200V, 50/60 Hz
2	AA30N-H	812-0030-2-ENH-00-00	Vacuum Dry Pump AA30N-H, 200V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor
3	AA30	812-0030-3-000-00-00	Vacuum Dry Pump AA30, 380V, 50/60 Hz
4	AA30N-H	812-0030-3-ENH-00-00	Vacuum Dry Pump AA30N-H, 380V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor

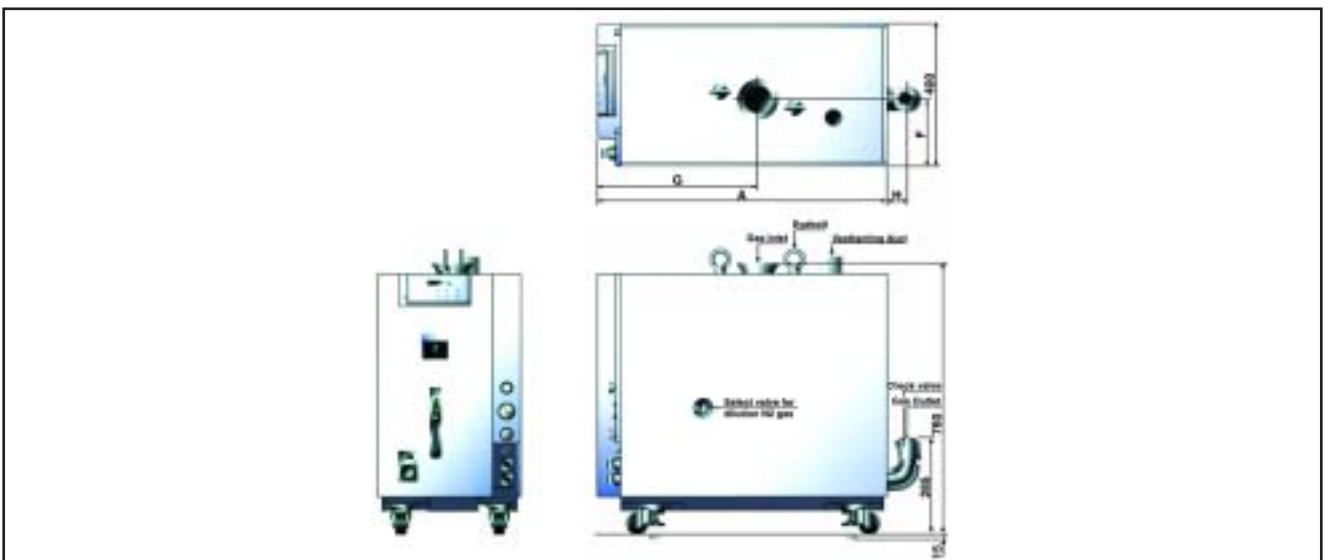
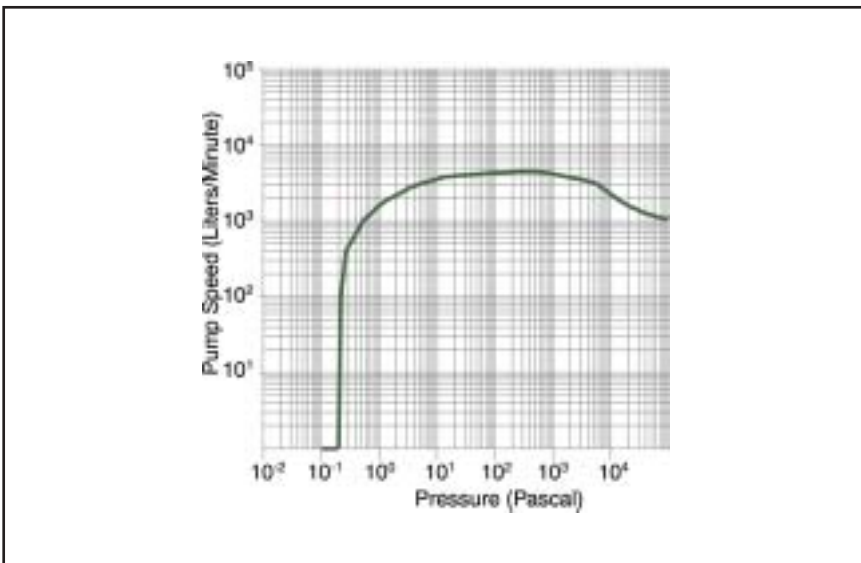


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

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- ◆ Wide Selection of Options



Specification AA40W		
Pumping speed (N2)	l/min.	4200
Pumping speed (N2)	m ³ /h	252
Ultimate pressure	mbar	2x10⁻³
Ultimate pressure	Pa	0.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	4.5
Weight, approx.	kg	240
Sizes (LxWxH)	mm	610x310x430
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series AA40W

1	AA40WN-H	812-0040-2-0NH-00-00	Vacuum Dry Pump AA40WN-H, 200V, 50/60 Hz, Corrosan Resist, Horizontal Outlet
2	AA40WN-H	812-0040-3-0NH-00-00	Vacuum Dry Pump AA40WN-H, 380V, 50/60 Hz, Corrosan Resist, Horizontal Outlet

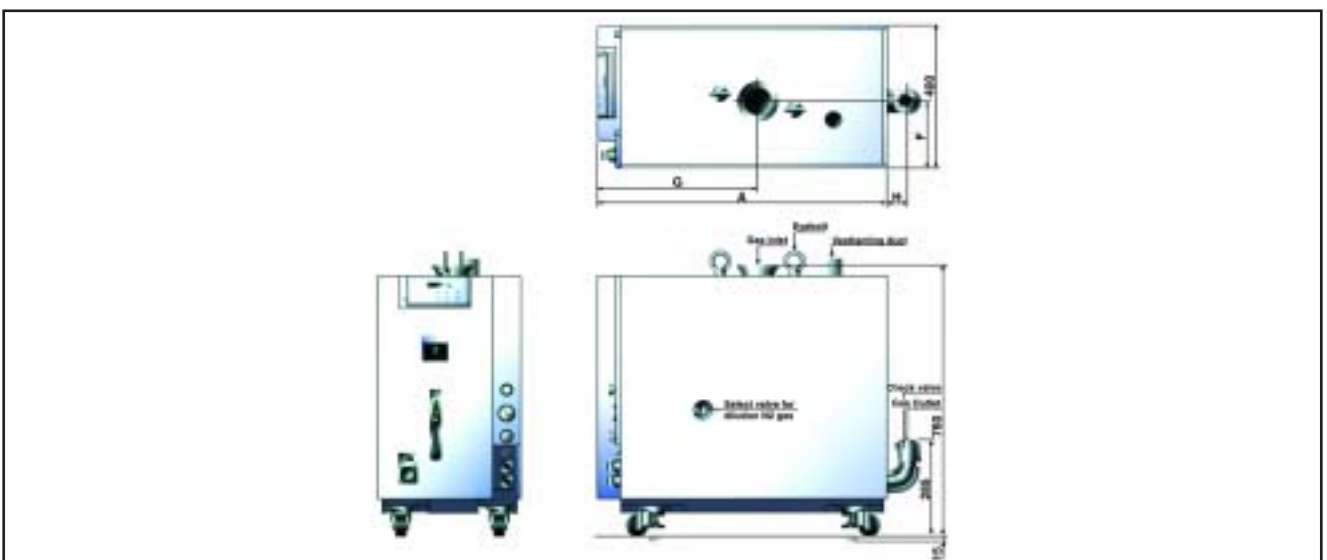
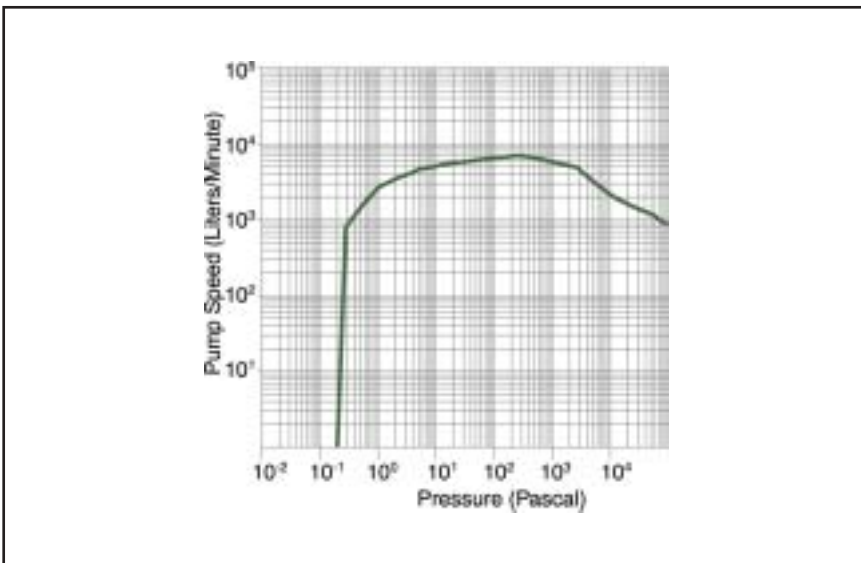


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA70W		
Pumping speed (N2)	l/min.	7000
Pumping speed (N2)	m ³ /h	420
Ultimate pressure	mbar	2x10⁻³
Ultimate pressure	Pa	0.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	5.5
Weight, approx.	kg	240
Sizes (LxWxH)	mm	610x310x430
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series AA70W

1	AA70W	812-0070-2-000-00-00	Vacuum Dry Pump AA70W0, 200V, 50/60 Hz
2	AA70W-H	812-0070-2-E0H-00-00	Vacuum Dry Pump AA70W-H, 200V, 50/60 Hz, Horizontal Outlet, Exhaust Pressure Sensor
3	AA70WN-H	812-0070-2-ENH-00-00	Vacuum Dry Pump AA70WN-H, 200V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor
4	AA70WN-H	812-0070-3-ENH-00-00	Vacuum Dry Pump AA70WN-H, 380V, 50/60 Hz, Corrosian Resist, Horizontal Outlet, with Exhaust Pressure Sensor

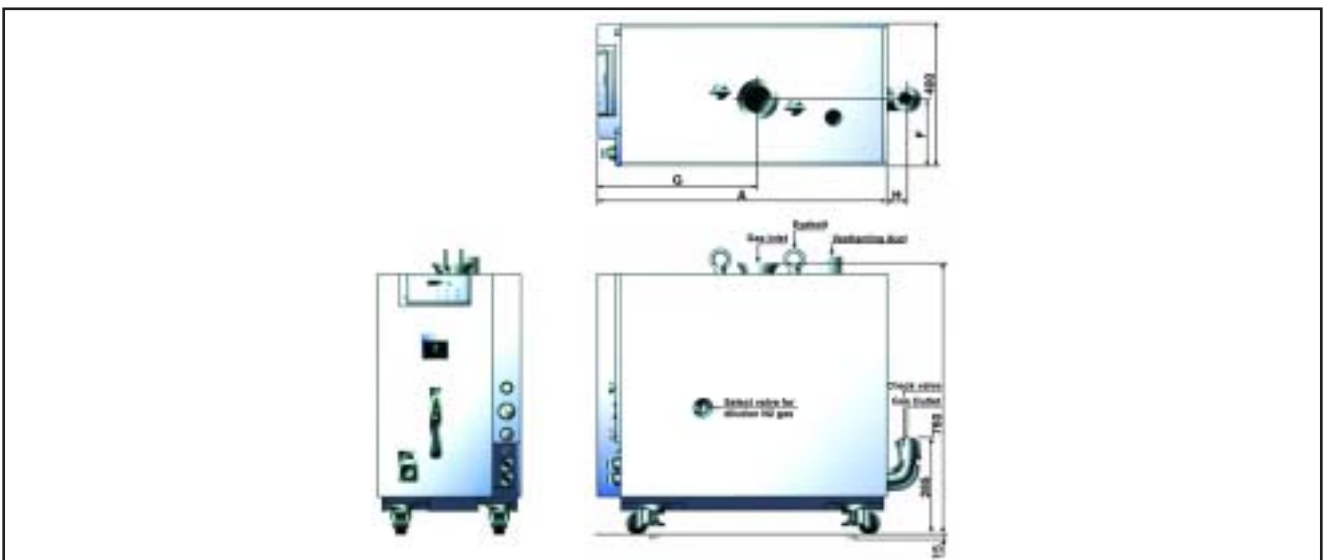
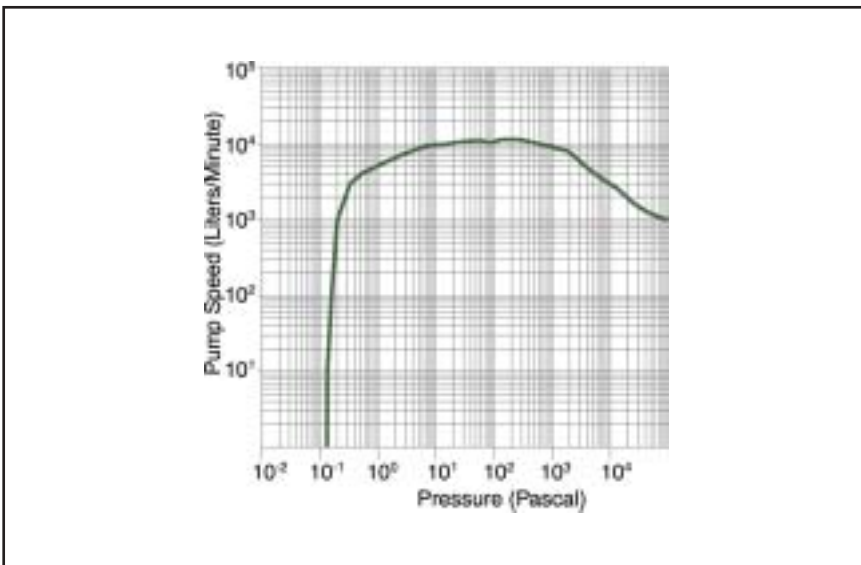


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA100W		
Pumping speed (N2)	l/min.	10,000
Pumping speed (N2)	m ³ /h	600
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	0.13
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	5.5
Weight, approx.	kg	270
Sizes (LxWxH)	mm	865x400x760
Inlet flange size		DN 100 ISO-K
Outlet flange size		DN 40 KF

Ordering Data Series AA100W

1	AA100W	812-0100-2-000-00-00	Vacuum Dry Pump AA100W0, 200V, 50/60 Hz
2	AA100W-H	812-0100-2-E0H-00-00	Vacuum Dry Pump AA100W-H, 200V, 50/60 Hz, Horizontal Outlet, Exhaust Pressure Sensor

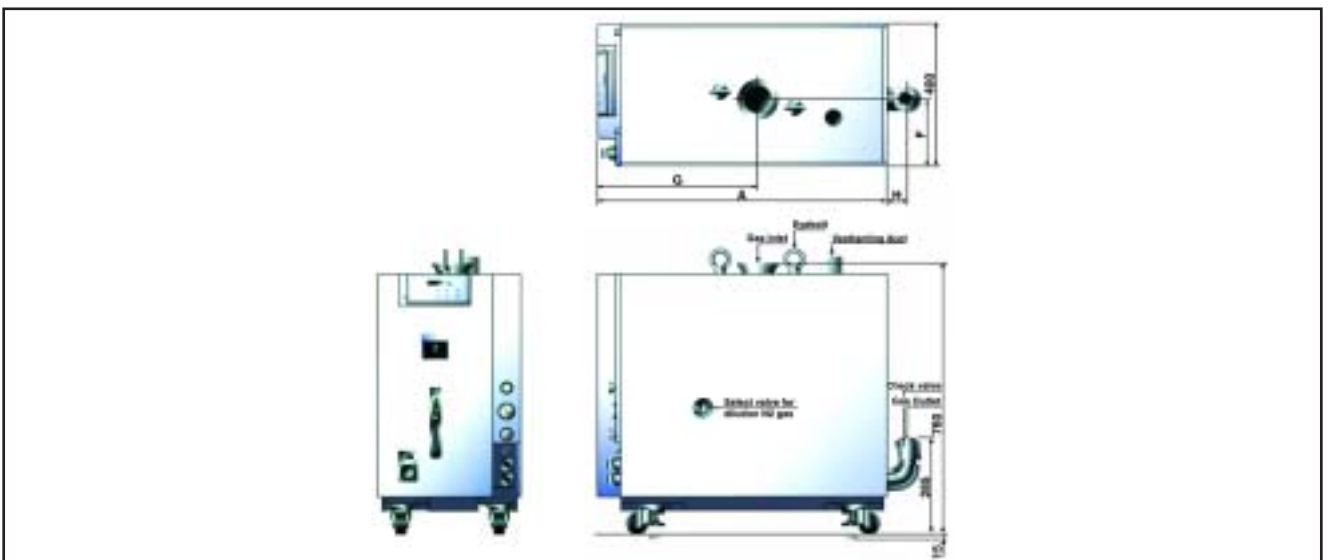
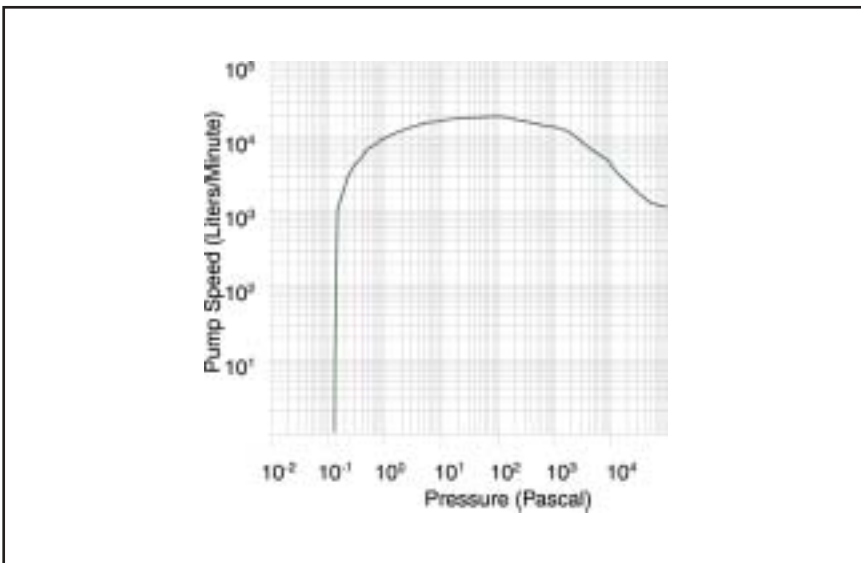


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AA200W		
Pumping speed (N2)	l/min.	18,000
Pumping speed (N2)	m ³ /h	1080
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	0.13
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	6
Weight, approx.	kg	350
Sizes (LxWxH)	mm	885x400x760
Inlet flange size		DN 100 ISO-K
Outlet flange size		DN 40 KF

Ordering Data Series AA200W

1	AA200W	812-0200-2-000-00-00	Vacuum Dry Pump AA200W0, 200V, 50/60 Hz
2	AA200W	812-0200-3-000-00-00	Vacuum Dry Pump AA200W0, 380V, 50/60 Hz

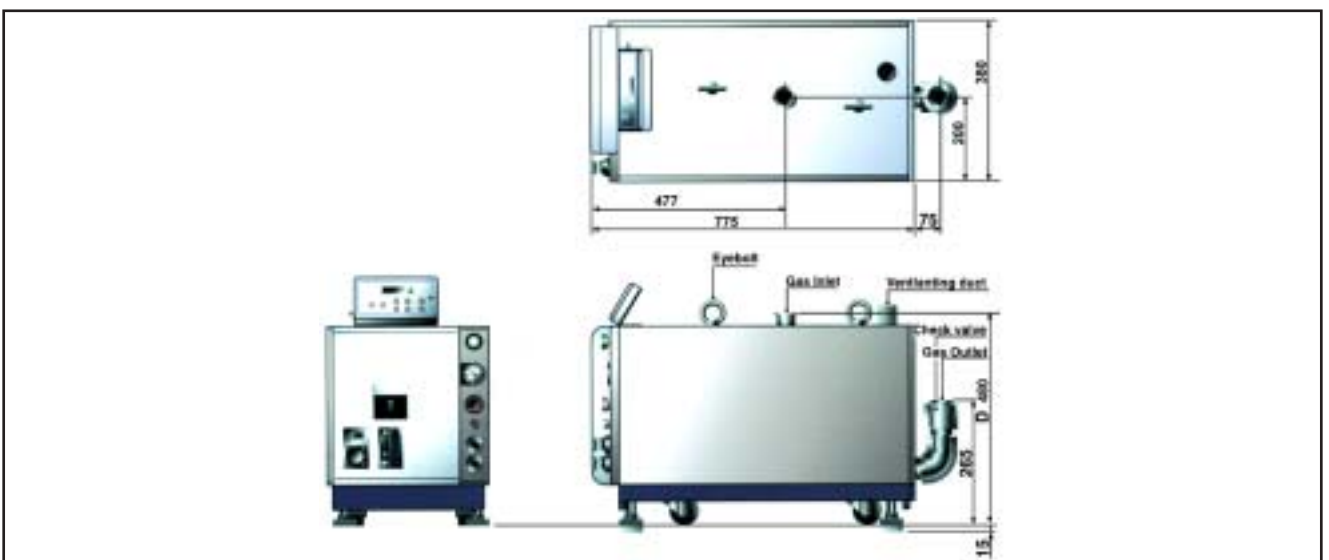
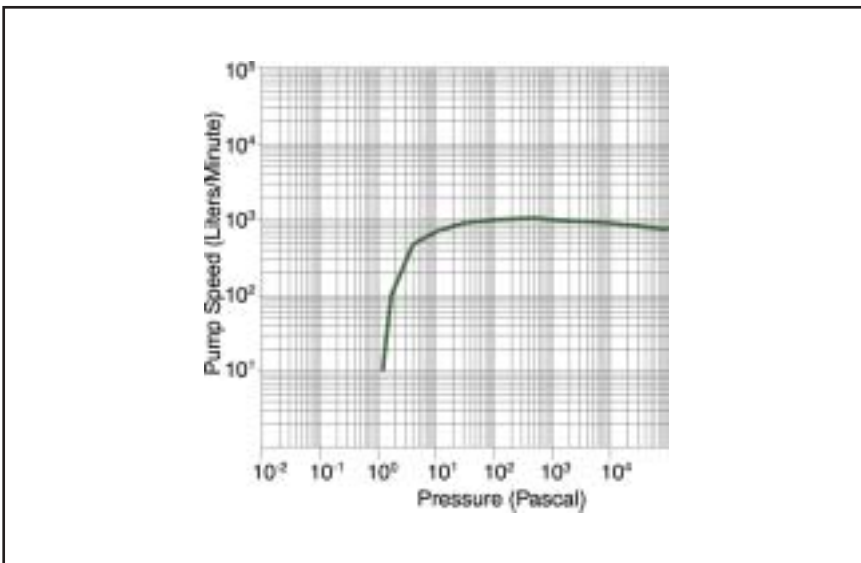


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

- ◆ Reduced Operating Costs and CO2 Emissions
- ◆ Compact, Space-saving Design
- ◆ Faster Pumping Time
- ◆ Wide Selection of Options



Specification AAS10N		
Pumping speed (N2)	l/min.	1000
Pumping speed (N2)	m ³ /h	60
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	1.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	5
Weight, approx.	kg	180
Sizes (LxWxH)	mm	850x380x480
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

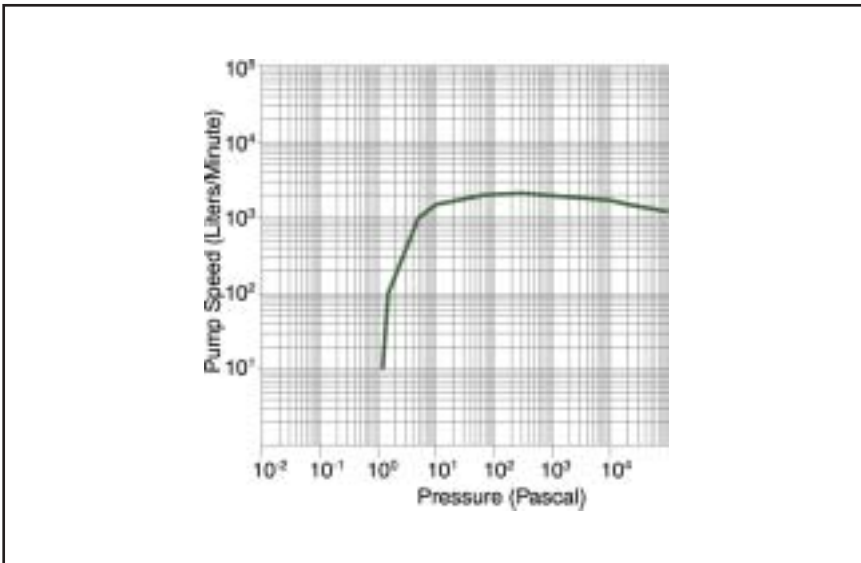
Ordering Data Series AAS10N

1	AAS10N	813-0010-2-0N0-00-00	Vacuum Dry Pump AAS10N, 200V, 50/60 Hz, Corrosion Resist
2	AAS10N	813-0010-3-0N0-00-00	Vacuum Dry Pump AAS10N, 380V, 50/60 Hz, Corrosion Resist



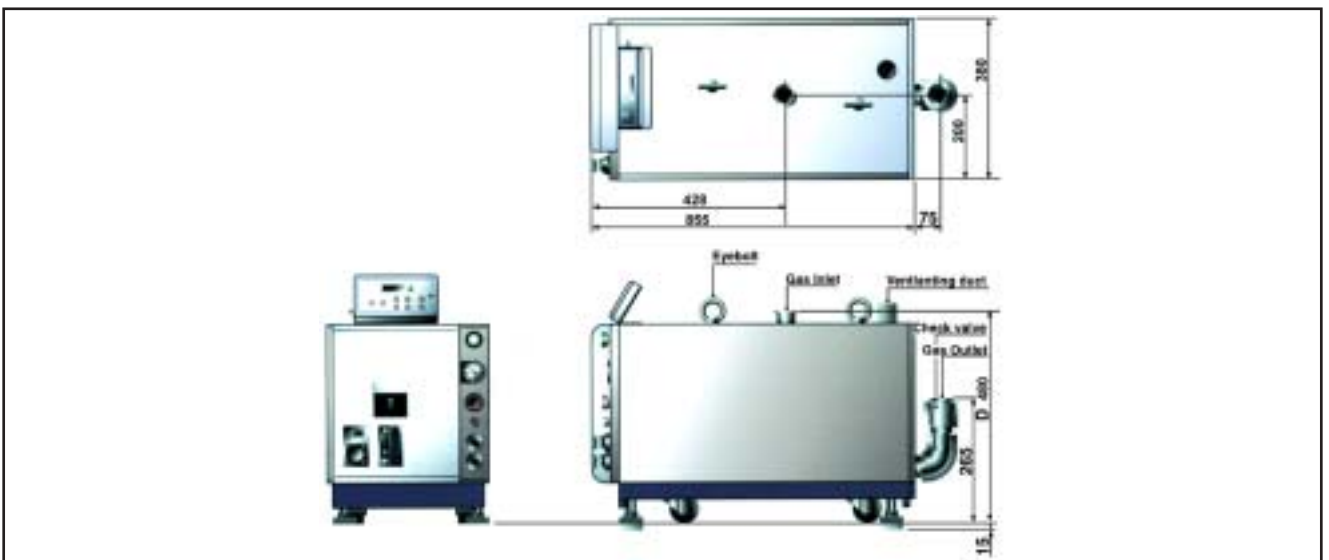
Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete Pump Safeguard System
- ◆ High Pump operating temperature preventing condensation
- ◆ Low noise and low vibrations
- ◆ Screw principle



Customer Benefits

- ◆ Reduced Operating costs and CO2 emissions
- ◆ Compact space-saving design
- ◆ Faster pumping time
- ◆ Wide selection of options
- ◆ For Harsh processes



Specification AAS20N		
Pumping speed (N2)	l/min.	2000
Pumping speed (N2)	m ³ /h	120
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	1.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	5
Weight, approx.	kg	190
Sizes (LxWxH)	mm	930x380x480
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

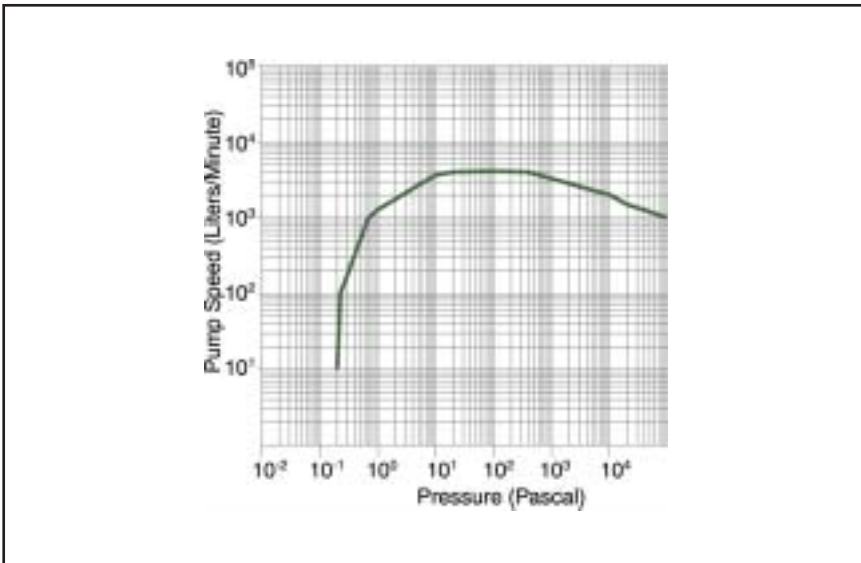
Ordering Data Series AAS20N

1	AAS20N	813-0020-2-0N0-00-00	Vacuum Dry Pump AAS20N, 200V, 50/60 Hz, Corrosion Resist
2	AAS20N	813-0020-3-0N0-00-00	Vacuum Dry Pump AAS20N, 380V, 50/60 Hz, Corrosion Resist



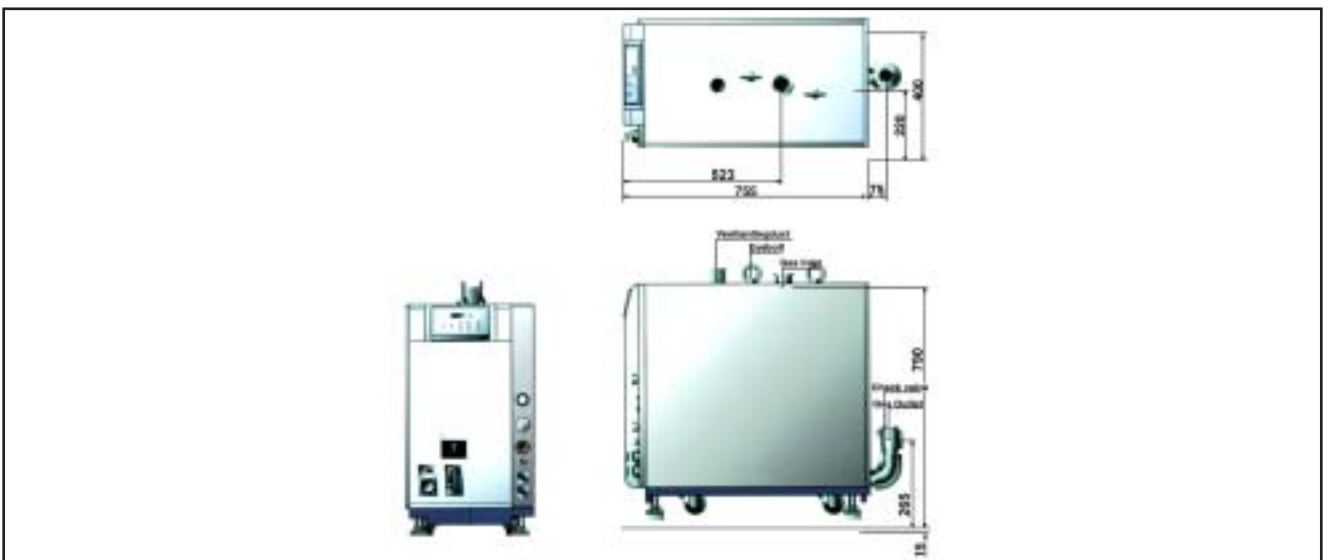
Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete Pump Safeguard System
- ◆ High Pump operating temperature preventing condensation
- ◆ Low noise and low vibrations
- ◆ Screw principle



Customer Benefits

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- ◆ For Harsh processes



Specification AAS40WN		
Pumping speed (N2)	l/min.	4000
Pumping speed (N2)	m ³ /h	240
Ultimate pressure	mbar	2x10⁻³
Ultimate pressure	Pa	0.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	6.5
Weight, approx.	kg	280
Sizes (LxWxH)	mm	830x400x790
Inlet flange size		DN 40 KF
Outlet flange size		DN 40 KF

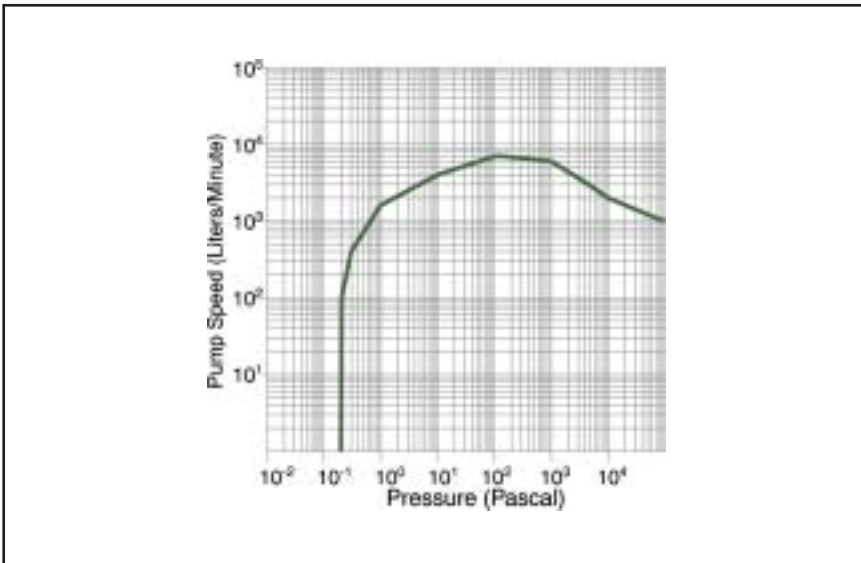
Ordering Data Series AAS40WN

1	AAS40WN	813-0040-2-0N0-00-00	Vacuum Dry Pump AAS40WN, 200V, 50/60 Hz, Corrosion Resist
2	AAS40WN	813-0040-3-0N0-00-00	Vacuum Dry Pump AAS40WN, 380V, 50/60 Hz, Corrosion Resist



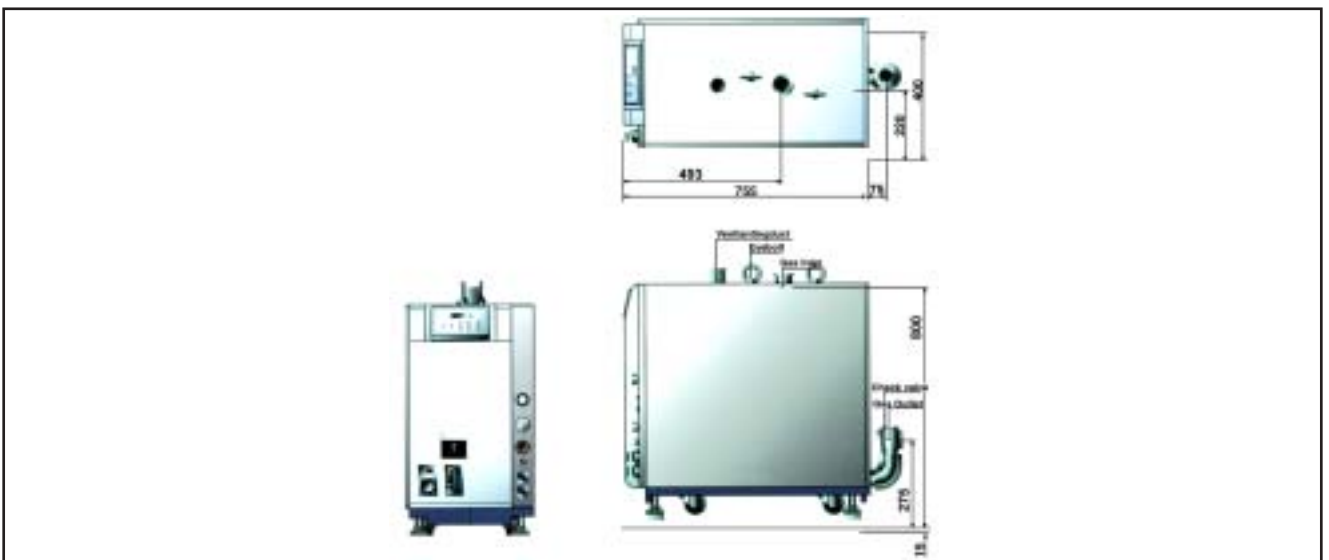
Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete Pump Safeguard System
- ◆ High Pump operating temperature preventing condensation
- ◆ Low noise and low vibrations
- ◆ Screw principle



Customer Benefits

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- ◆ Compact space-saving design
- ◆ Faster pumping time
- ◆ Wide selection of options
- ◆ For Harsh processes



Specification AAS70WN		
Pumping speed (N2)	l/min.	7000
Pumping speed (N2)	m ³ /h	420
Ultimate pressure	mbar	2x10⁻³
Ultimate pressure	Pa	0.2
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	7.5
Weight, approx.	kg	280
Sizes (LxWxH)	mm	830x400x800
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

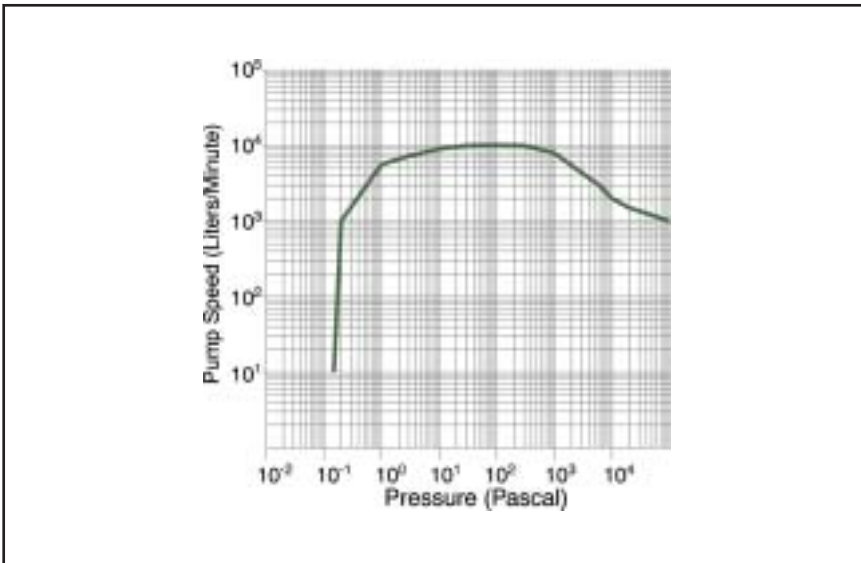
Ordering Data Series AAS70WN

1	AAS70WN	813-0070-2-0N0-00-00	Vacuum Dry Pump AAS70WN, 200V, 50/60 Hz, Corrosion Resist
2	AAS70WN	813-0070-3-0N0-00-00	Vacuum Dry Pump AAS70WN, 380V, 50/60 Hz, Corrosion Resist



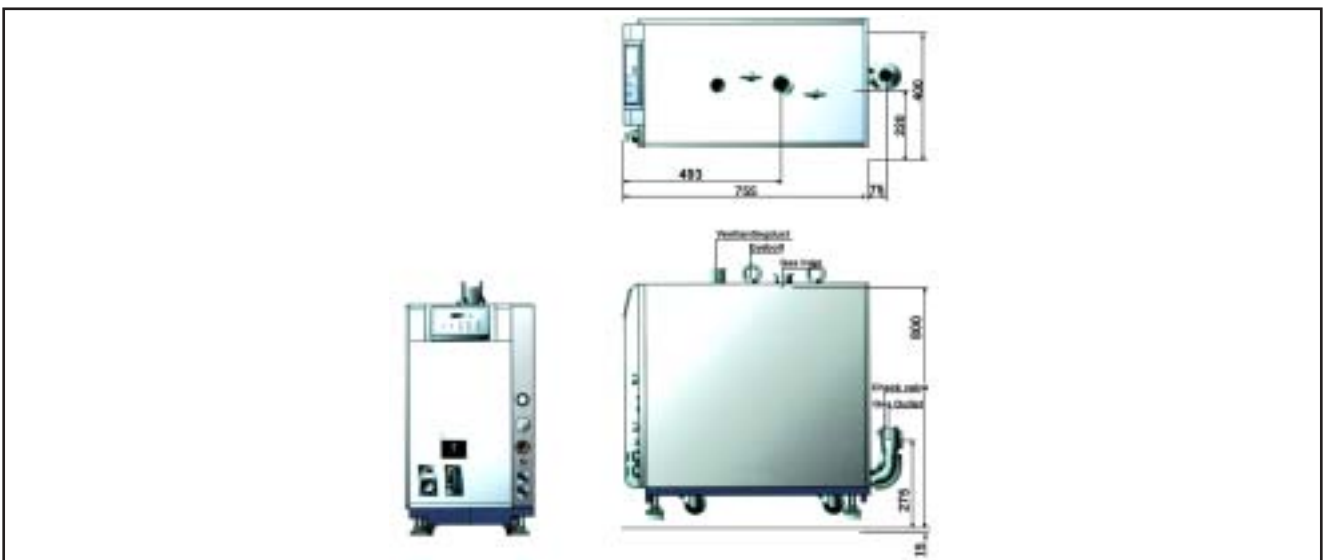
Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete Pump Safeguard System
- ◆ High Pump operating temperature preventing condensation
- ◆ Low noise and low vibrations
- ◆ Screw principle



Customer Benefits

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- ◆ Faster pumping time
- ◆ Wide selection of options
- ◆ For Harsh processes



Specification AAS100WN		
Pumping speed (N2)	l/min.	10,000
Pumping speed (N2)	m ³ /h	600
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	0.13
Water Consumption	l/min	3.5-8
Nitrogen Consumption	SLM	11-13
Nitrogen Consumption	Pa m ³ /sec	19-22
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	7.5
Weight, approx.	kg	300
Sizes (LxWxH)	mm	830x400x800
Inlet flange size		DN 50 KF
Outlet flange size		DN 40 KF

Ordering Data Series AAS100WN

1	AAS100WN	813-0100-2-0N0-00-00	Vacuum Dry Pump AAS100WN, 200V, 50/60 Hz, Corrosion Resist
2	AAS100WN	813-0100-3-0N0-00-00	Vacuum Dry Pump AAS100WN, 380V, 50/60 Hz, Corrosion Resist

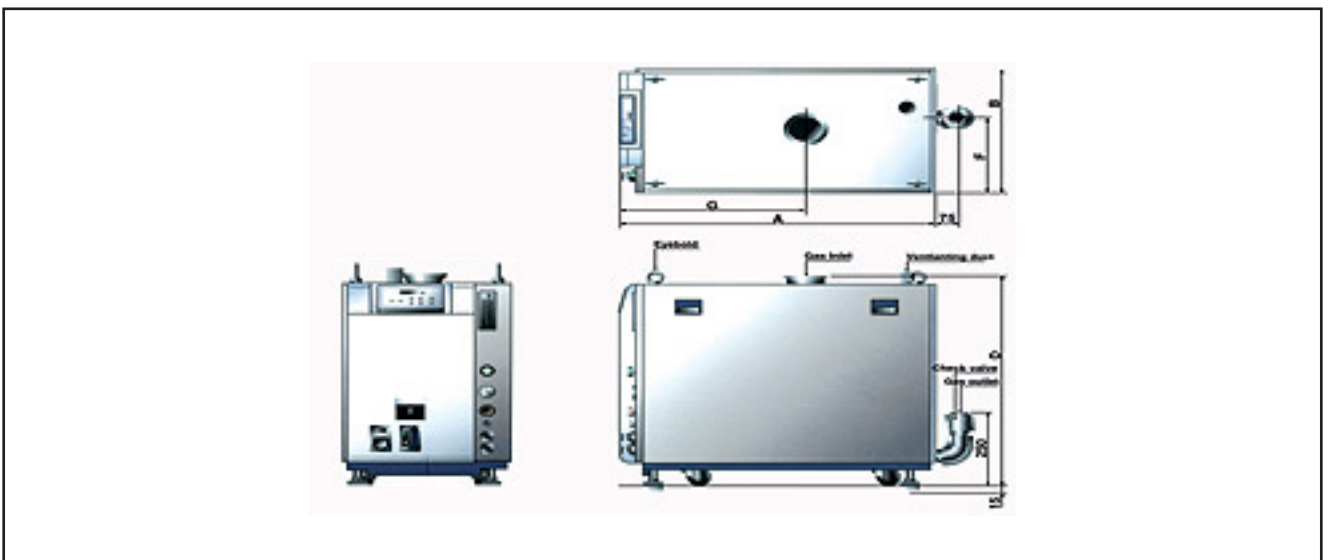
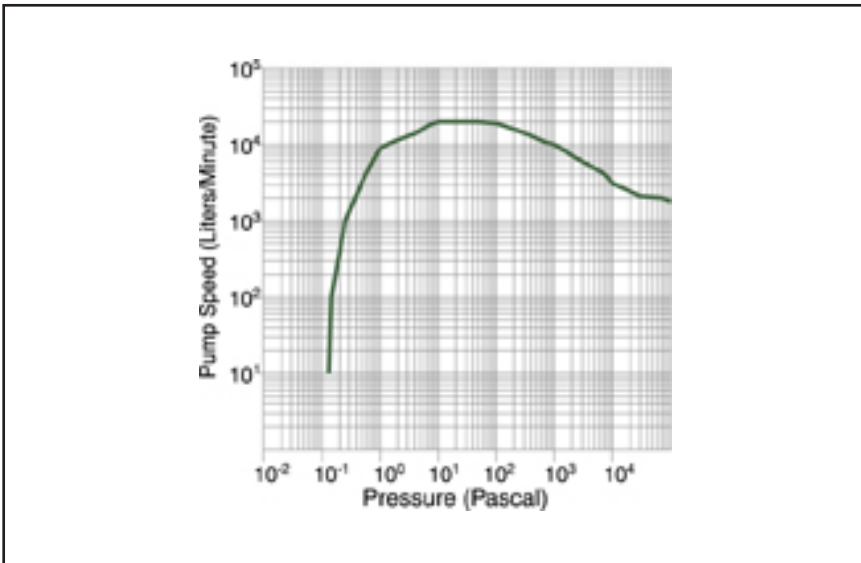


Technical Characteristics

- ◆ DC motor
- ◆ Intelligent Control System
- ◆ Power Failure Protection
- ◆ Complete pump safeguard system
- ◆ High pump operating temperature preventing condensation
- ◆ Low noise and low vibration

Customer Benefits

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Specification AAS200WN		
Pumping speed (N2)	l/min.	20,000
Pumping speed (N2)	m ³ /h	1200
Ultimate pressure	mbar	1x10⁻³
Ultimate pressure	Pa	0.13
Water Consumption	l/min	5-8
Nitrogen Consumption	SLM	17-19
Nitrogen Consumption	Pa m ³ /sec	28-31
Voltages ranges	V	200-220/380-415
Motor power, installed	kW	9
Weight, approx.	kg	360
Sizes (LxWxH)	mm	950x490x830
Inlet flange size		DN 100 ISO-K
Outlet flange size		DN 40 KF

Ordering Data Series AAS200WN

1	AAS200WN	813-0200-2-0N0-00-00	Vacuum Dry Pump AAS200WN, 200V, 50/60 Hz, Corrosion Resist
2	AAS200WN	813-0200-3-0N0-00-00	Vacuum Dry Pump AAS200WN, 380V, 50/60 Hz, Corrosion Resist

Our Service

The output quality and quantity in semiconductor fabs depends largely on the smooth working of thousands of different components of machinery. Vacuum and things around it is not of the least importance to the quality of the final product. To alleviate the producers of their ICs business, it is our mission to take care of everything what is around the vacuum installations: Managing the complete "base-ment" is taking care of a lot more than mere pumps. Piping, gas abatement systems, heaters and includes

- Component Selectionn (Pumps and more...)
- Hook Up and Testing
- Continuous Operations
- Customer Support

To have the overall responsibility is our business, day in, day out guaranteeing coverage 24 hours a day, 365 days a year with maximum efficiency. From the design phase of a fab until the years of continuous production, our experts are keen to be the reliable partners in what we regard as vacuum and its application.

EBARA Precision Machinery's reputation in Europe is based on its outstanding service coverage, its dense network of service locations in the vicinity to our customers, the service workers' long-time experience and their reliable, in-time service work. The service offering includes:

- spare parts
- overhaul service
- installation service field service on demand
- preventive maintenance contracts
- failure analysis and decontamination
- fab planning support, process expertise
- pump monitoring with data



EBARA in France



EBARA in Germany

Center of Technical Expertise (CTE)

The daily business of supporting the vacuum and associated equipment in a modern wafer fabrication facility can only be achieved by the technical expertise of experienced engineers. A quick response team of engineers dedicated to customer support is able to offer vacuum solutions, configure vacuum and process related equipment to specific applications and to resolve critical situations in the shortest possible time frame, thus guaranteeing customer satisfaction.

Our Dresden Center of Technical Expertise is located in the heart of Continental Europe with the added benefit of an international airport situated only 10 minutes from the office enabling easy access between its satellite offices and customers situated all-over Europe. Engineers are accessible on all engineering and application matters using the modern extensive workshop area and appropriate technical equipment for quick analysis and repair.



Full Service Center (FSC)

Vacuum Dry Pumps, with proven reliability on severe semiconductor processes still require to be serviced to ensure trouble free running. Experience in handling of contaminated process dry pumps from the beginning with a decontamination procedure, reassembling and final quality inspection is required to maintain the proven reliability on all vacuum processes.

Our fully equipped Service Center, located at Livingston, Scotland, employs highly skilled vacuum engineers, to maintain and refurbish vacuum dry pumps and associated products within a guarantee turnaround time without the loss of quality to workmanship. This is achieved by working on a shift pattern including weekend work to ensure a smooth turnaround time to meet a demanding market. Internal global information always ensures the highest standard of workmanship and quality to be maintained throughout Europe.

Training courses for internal and external students make vacuum and its application understandable and applicable.





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