XDD1 DIAPHRAGM VACUUM PUMP

THE ULTIMATE DRY CHOICE

XDD1 diaphragm pumps are used for backing small compound turbomolecular pumps in clean, high vacuum applications, and also designed to be free standing bench top units. A typical ultimate pressure of better than 5 x 10^{-8} mbar can be achieved when using an XDD1 to back a 70 ls^{-1} turbomolecular pump.

The 24 V version is designed to provide a complete pumping package using the Edwards Turbo and Instrument Controller (TIC). The d.c. voltage motor runs on 24 V via a 15 pin DIN connector. By selecting the appropriate mode the pump speed can be controlled by the user to provide variable pumping speed. This version is suited to the customer who is building their own a system. The pump is a compact and efficient. Under normal conditions the XDD1 is virtually maintenance free, the lifetime of the diaphragms and valves is typically > 10,000 operating hours, depending on the application.

Features and Benefits

- **Dry pumping, lubricant free technology** eliminating the need for costly oil changes and disposal.
- **Lightweight and compact** with a small footprint allowing flexibility of use.
- **Ideal backing pump** for small turbomolecular pumps.
- **Complies** with EN61010, EN1012, CSA/UL standards.
- **Worldwide** 115/230 V or 24 V options.
- **IEC 60320 C14 connector** on a.c. pumps.

Applications

- Residual gas analysis.
- Mass spectrometers.
- Cryostat and Dewar evacuation.
- Ion pump evacuation.
- Surface science.

Pump Range

XDD1

- XDD1 115/230 V AC
- XDD1 24 V DC

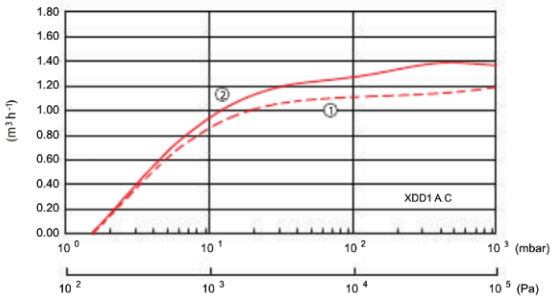
Performance Curves

XDD1 Diaphragm vacuum pump

XDD1

Pumping speed	
a.c.	1.2 m^3h^{-1} 50Hz 1.4 m^3h^{-1} 60 Hz
d.c.	0.6 m^3h^{-1} 600 rpm
	1.4 m^3h^{-1} 1700 rpm (factory setting)
	1.7 m^3h^{-1} 2200 rpm
Ultimate vacuum (typical)	
	< 2 mbar

XDD1 Performance Curve

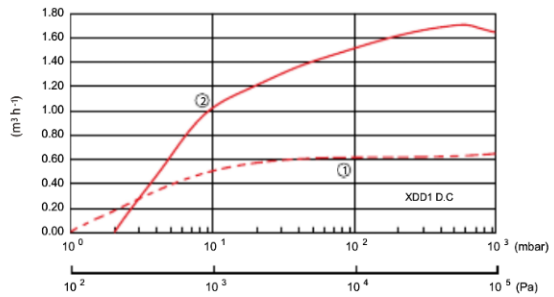


Ordering information

Product description	Order no:
XDD1 Diaphragm pump 100-115 V/200-230 V 50/60 Hz	A74602983
XDD1 Diaphragm pump 24 V d.c.	A74602991

Pumps are not supplied with connection cables. A suitable cable should be ordered with the pump.

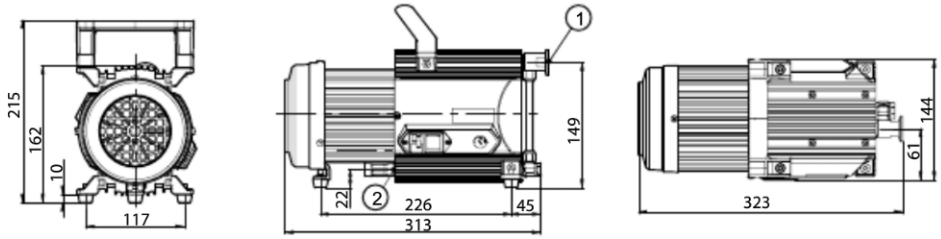
1	50 Hz	2	60 Hz



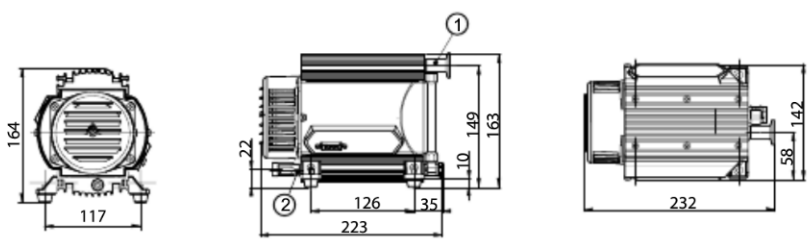
1	600 rpm	2	2200 rpm

Dimensions

XDD1 a.c. dimensions



XDD1 d.c. dimensions



1	Inlet	2	Outlet

Dimensions in mm (inch).

Technical data

	Units	XDD1
	Pumping speed	
a.c.		
50 Hz	m^3h^{-1}	1.2
60 Hz	m^3h^{-1}	1.4
d.c.		
600 rpm (factory settings)	m^3h^{-1}	0.6
1700 rpm (factory settings)	m^3h^{-1}	1.4
2200 rpm	m^3h^{-1}	1.7
Ultimate vacuum (typical)	mbar	< 2
Ambient temperature limit	˚C	10 to 40
Inlet connection		NW16
Exhaust connection		The pump is fitted with a silencer which can be removed and an exhaust line connected with a ⅛" BSP fitting
Max allowed inlet pressure	bar (abs)	1
Power connector		IEC EN60320 C13

	Units	XDD1
Motor power		
a.c.	W	80
d.c.	W	64
Weight		
a.c.	kg	6.5
d.c.	kg	4.1

Service, Spares and Accessories

Service kit

Product description	Order no:
XDD1 diaphragm service kit	A74601800

2 m Electrical Supply Cable

Product description	Order no:
2 m electrical supply cable for 1-ph pumps, UK plug 3A	A50516000
2 m electrical supply cable for 1-ph pumps, North European plug	A50506000
2 m electrical supply cable for 1-ph pumps, North America/Japan plug	A50507000
2 m electrical supply cable for 1-ph pumps, no plug	A50508000

Extension cable

Product description	Order no:
XDD/DX/EXDC Extension cable 1 m	D39700835
XDD/DX/EXDC Extension cable 2 m	D39700836
XDD/DX/EXDC Extension cable 5 m	D39700837

Service

Edwards products, spares and accessories are available from Edwards companies in Belgium, Brazil, China, France, Germany, Israel, Italy, Japan, Korea, Singapore, United Kingdom, U.S.A. and a worldwide network of distributors. The majority of these centres employ Service Engineers who have undergone comprehensive Edwards training courses. Order spare parts and accessories from your nearest Edwards company or distributor.
When you order, please state for each part required:

- Model and item number of your equipment.
- Serial number (if any).
- Item number and description of the part.