

Сухие мембранные насосы XDD1, однофазные сухие насосы с воздушным охлаждением nXLi, пластинчато- роторные вакуумные насосы EM, компактные сухие многоступенчатые насосы nXRi

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
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EM OIL SEALED ROTARY VANE PUMPS



EM single and two stage oil sealed rotary vane pumps are renowned for achieving high ultimate vacuum and rapid pumping speeds, with quiet operation and compact size. These pumps have been proven to provide long term reliable performance over many years in a range of scientific and laboratory applications, and are the ideal partner for your turbomolecular pump.



PRODUCT FEATURES

HIGH QUALITY OILS

with additives to prolong life whilst not impacting vapour pressure.

LARGE WATER VAPOUR HANDLING CAPACITY

gas ballast valve.

NO CUSTOMER WIRING

integral IEC connector.

VISUAL INSPECTION OF OIL LEVEL AND CONDITION

O ring sealed sight glass.

LOW SURFACE TEMPERATURE

forced air cooling.

WIDE VOLTAGE MOTORS

all major countries covered with less variants.

Technical data

	Units	E2M0.7	E2M1.5	E1M18	E2M18	E2M28
Vacuum Data						
Peak pumping speed, 50 Hz (60 Hz)	m³h ⁻¹ (cfm)	0.75 (0.5)	1.6 (1.2)	17 (12.1)	17 (12.1)	27.5 (19.5)
Ultimate vacuum ⁽¹⁾	mbar (Torr)	3.0x10 ⁻³ (2.3x10 ⁻³)			1x10 ⁻³ (7.4x10 ⁻⁴)	
Ultimate pressure with gas ballast	mbar (Torr)	2x10 ⁻¹ (1.5x10 ⁻¹)	2.5x10 ⁻² (1.9x10 ⁻²)	6.5x10 ⁻¹ (4.8x10 ⁻¹)	1.5x10 ⁻² (1.1x10 ⁻²)	
Ultimate pressure with PFPE oil	mbar (Torr)	3x10 ⁻¹ (2.3x10 ⁻¹)			1x10 ⁻² (7.5x10 ⁻³)	
Water vapour tolerance	mbar (Torr)	15 (11)		50 (38)	20 (15)	30 (23)
Water vapour capacity	gh-1	8	16	650	300	700
Maximum continuous inlet pressure	mbar a (Torr a)	1013 (760)				
Maximum gas ballast/purge pressure	bar gauge (psig)	0.5 (7)				
Motor Data						
Supply voltage	V	100-120/200-240 (+/- 10%)		115/200-230 (+/- 10%)		
Supply frequency	Hz	50/60				
Motor power, 50 Hz (60 Hz)	W	90 (90)	160 (160)	550 (750)		750 (900)
Nominal rotation speed, 50 Hz (60 Hz)	rpm	1400 (1700)	2800 (3400)	1440 (1720)		
Power connector ⁽¹⁾		IEC EN60320 C13		IEC EN60320 C19		
Recommended fuse, 230 V (115 V)	A	6 (10)		15 ⁽³⁾ (25)		
Physical Data						
Weight	kg (lb)	10 (22)		37 (82)	39 (86)	44 (97)
Oil type (recommended)		Ultragrade 15		Ultragrade 19		
Oil capacity (min - max)	litre	0.2 - 0.28		0.9 - 1.4	0.75 - 1.05	1.2 - 1.5
Inlet flange		NW10		NW25		
Exhaust flange ⁽²⁾		Nozzle 11mm external Ø removable from 3/4 in BSP tapped hole		Nozzle 15 mm external diameter removable from 3/4 in BSP tapped hole		
Noise level at ultimate (50 Hz)	dB(A)	43	54	57		
Noise with acoustic enclosure	dB(A)	36	47	50		
Vibration at inlet flange	mms ⁻¹ (rms)	No data		< 4.5		
Operating temperature range	°C	12-40		13-40		

(1) measured as total pressure

(2) pumps listed with IEC connector only

(3) for UK 240 V use 13 A fuse

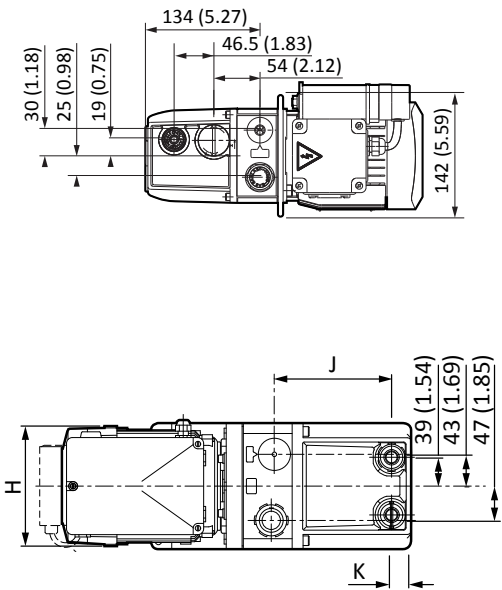
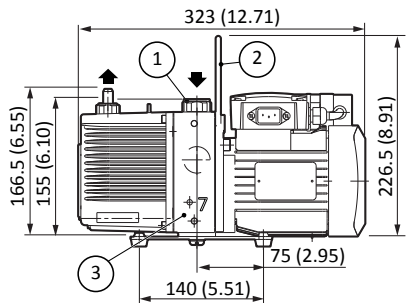
(4) PFPE variants are supplied with NW25 outlet connection



Dimensions

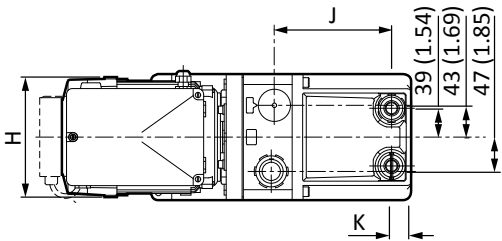
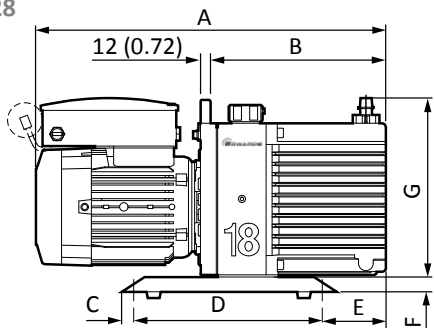
E2M0.7/E2M1.5

- 1. 220-240 V motor
- 2. Handle (can be removed)
- 3. Alternative inlet port position



E1M18/E2M18 and E2M28

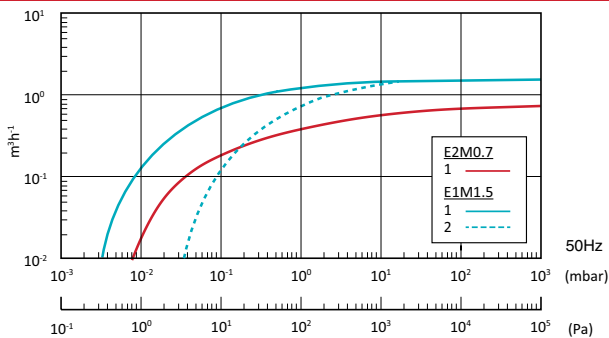
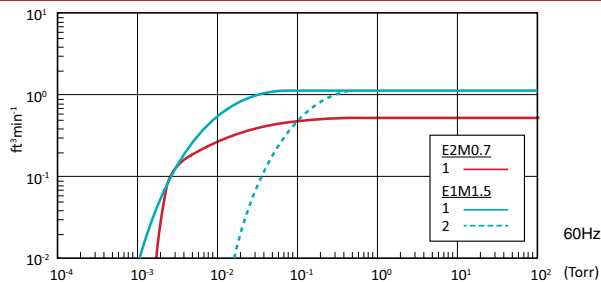
Single phase pump shown,
3 phase pump is similar.



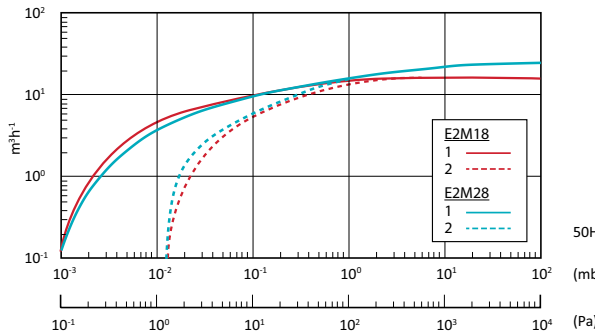
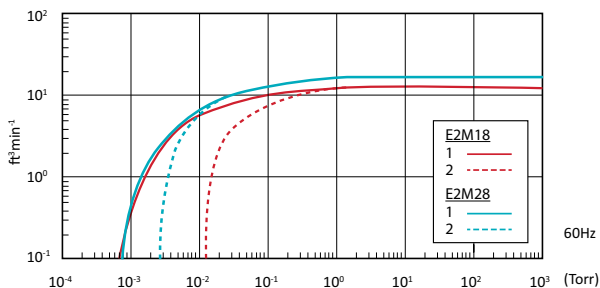
	A	B	C	D	E	F	G	H	J	K
E1M18	504 (19.84)	247 (9.72)	10 (0.39)	260 (10.24)	83 (3.27)	20 (0.79)	251 (9.88)	170 (6.69)	159 (6.26)	27.4 (1.08)
E2M18	550 (21.65)	295 (11.61)	10 (0.39)	260 (10.24)	131 (5.16)	20 (0.79)	251 (9.88)	170 (6.69)	207 (8.15)	27.4 (1.08)
E2M28	584 (22.99)	331 (13.03)	13 (0.51)	347 (13.66)	111 (4.37)	20 (0.79)	251 (9.88)	170 (6.69)	240.5 (9.47)	25.5 (1.00)

Performance

E2M0.7 and E2M1.5



E1M18/E2M18 and E2M28



1. without gas ballast
2. with gas ballast

Order information

Pumps:

Product description	Order no.	
	Ultragrade	PFPE
E2M0.7 200-230V, 1-ph, 50/60Hz, IEC 60320 connectors	A37141919	-
E2M0.7 100-120V, 1-ph, 50/60Hz, IEC 60320 connectors	A37141902	-
E2M1.5 200-230V, 1-ph, 50/60Hz, IEC 60320 connectors	A37132919	-
E2M1.5 100-120V, 1-ph, 50/60Hz, IEC 60320 connectors	A37132902	-
E1M18 200-230/380-415V, 3-ph, 50Hz or 200-230/460V, 3-ph, 60Hz	A34310940	-
E1M18 115/200-230V, 1-ph, 50/60Hz with IEC60320 connector, factory set to 230V	A34317984	A34325984
E2M18 200-230/380-415V, 3-ph, 50Hz or 200-230/460V, 3-ph, 60Hz	A36310940	A36321940
E2M18 115/200-230V, 1-ph, 50/60Hz with IEC60320 connector	A36317984	A36325984
E2M28 HC IE3 EU/US 50/60Hz, 380-400V 3-ph, 50Hz or 230/460V 3-ph, 60Hz	A37333940	A37343940
E2M28 HC IE3 Asia 50/60Hz, 200V 3-ph, 50/60Hz or 380V 3-ph, 60Hz	A37333934	A37343934
E2M28 115/200-230 V, 1-ph, 50/60 Hz with IEC60320 connector	A37317984	A37325984

Accessories and spares:

Product	Product description		Order no.
E2M0.7/1.5	Accessories	Oil mist filter - EMF3	A46220000
		NW10 x 3/8" BSP adapter	A23908064
		Vibration isolator (pack of 4)	A24801407
	Spares	Clean and overhaul kit - E2M0.7/1.5	A37101131
		Spares kit blade - E2M0.7/1.5	A37101132
	Oil	Ultragrade 15, 1 litre bottle	H11026015
		Ultragrade 15, 4 litre bottle	H11026013
	Cord sets	UK, three pin plug	A50505000
		North European plug	A50506000
		North America/Japan plug	A50507000
		No plug	A50508000
E1M18/ E2M18/ E2M28	Accessories	Oil mist filter - EMF20 ⁽¹⁾	A46229000
		Oil mist filter - MF30	A46233000
		NW25 to 28mm bore tube adaptor	C10520201
		¾" BSP to NW25 outlet adaptor	C10501414
		E1M18/E2M18 Vibration isolator (pack of 4)	A24801404
		E2M28 Vibration isolator (pack of 4)	A24801412
		Acoustic Enclosure 110-120 V	NRD317000
		Acoustic Enclosure 200-240 V	NRD318000
	Spares	Clean and overhaul kit - E1M18/E2M18	A36301131
		Spares kit blade - E1M18	A34301041
		Spares kit blade - E2M18	A36301020
		Clean and overhaul kit - E2M28	A37301131
		Blade kit - E2M28/30	A37301135
	Oil	Ultragrade 19, 1 litre bottle	H11025015
		Ultragrade 19, 4 litre bottle	H11025013
		Fomblin® YVAC 06/6 fluid 1 kg (532 ml)	H11301019
		Fomblin® YVAC 06/6 fluid 5 kg (2660 ml)	H11301020
	Cord sets	UK, three pin plug	A50505003
		North European plug	A50506003
		North America/Japan plug	A50507003
		No plug	A50508003

(1) suitable for EM18 and E2M28 on low throughput applications

nXLi AIR COOLED SINGLE-PHASE DRY PUMP



Edwards is delighted to introduce the new air cooled nXLi dry pump range, designed to deliver a consistent performance worldwide with complete user flexibility in mind. This new single-phase pump is available in two options: nXL110i and nXL200i. Both are optimised for LCMS and ICPMS duties and are capable of handling gas loads of up to 25 slm. nXLi can also be used on chambers up to 100 litres, at continuous inlet pressures up to 15 mbar with occasional pump down.



PRODUCT FEATURES

AIR COOLED SINGLE-PHASE DRY PUMP

offering two pumping speed options of either $110\text{m}^3\text{hr}^{-1}$ or $200\text{m}^3\text{hr}^{-1}$ in the pressure range of 1 to 10mbar

COMPACT AND QUIET

small footprint and quiet operation for an improved work environment and better use of lab space

OIL FREE NON-CONTACTING MECHANISM

no oil to dispose of and maintenance free ensures extended operation and maximum up time

FLEXIBILITY OF CONTROL

Manual control, simple remote control and serial communications (RS485 with Modbus command set) allow more control options for the system builder

PROVEN RELIABILITY

based on Edwards iXL range of semiconductor dry pump technology for peace of mind with a proven track record of performance

ENHANCED EMC VARIANT

high volt variant to meet the EU harmonic emissions requirement of EN61000-3-2

5 YEAR SERVICE INTERVAL

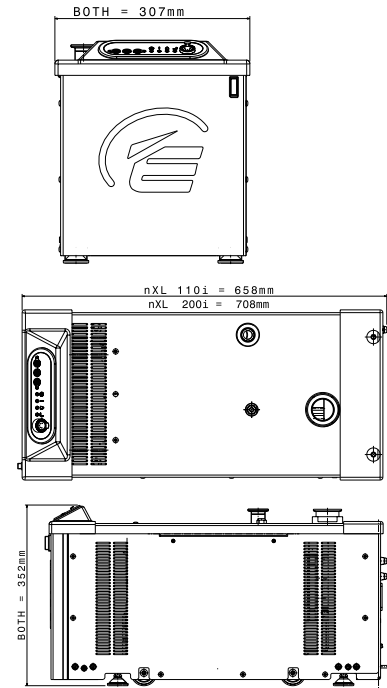
Long service interval minimises down time reducing cost of ownership

Technical data

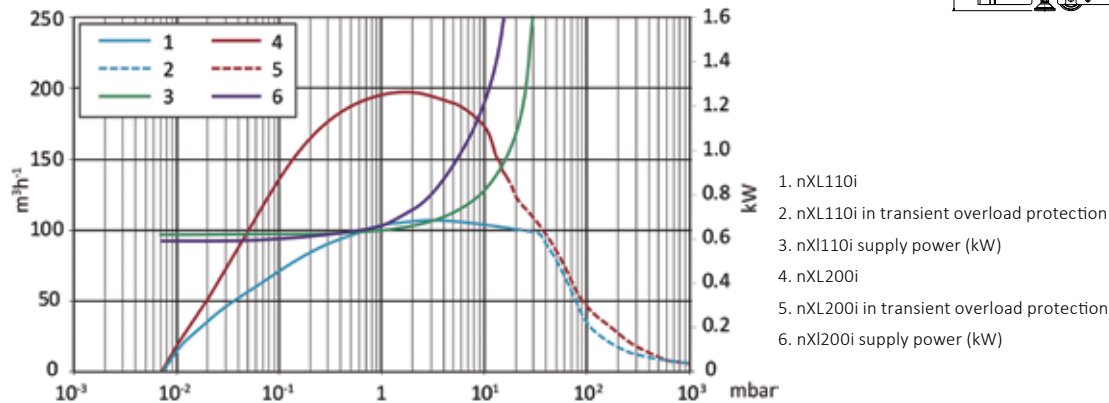
	Units	nXL110i	nXL200i
Pumping Speed (Pneuop 6602)	m^3h^{-1}	110	200
Ultimate Vacuum (Total Pressure)	mbar	$<2 \times 10^{-2}$	
Displacement (50/60Hz)	m^3h^{-1}	131	283
Inlet Flange*		NW40	
Outlet Flange*		NW25	
Maximum Permitted Outlet Pressure	bar gauge/ psig	0.5 / 7.0	
Operating Temperature Range	$^{\circ}\text{C}$	10 - 40	
Nominal Rotational Speed	rpm	9000	
Power Connector 1-ph		IEC EN60320 C19	
Power at Ultimate	kW	0.65	
Power at Typical Application Condition (2 - 10 mbar)	kW	0.7 - 0.9	
Flow at Typical Application Condition	slm	3-15	6-22
Max Power During Ramp Up	kW	1.1	
Leak Tightness	mbar ls^{-1}	1.0×10^{-5}	
Weight	kg	75	81
Noise (Pressure)	dB(A)	56.7	
Vibration at Inlet Flange	mms^{-1} (rms)	<2.5	

*Alternative connections available upon request

Dimensions



Performance



Order information

Product description	Order number
nXL110i NW40 200-230V 50/60 Hz	A77012320
nXL110i NW50 200-230V 50/60 Hz	A77012420
nXL200i NW40 200-230V 50/60 Hz	A77022320
nXL200i NW50 200-230V 50/60 Hz	A77022420

Accessories and spares

Product description	Order number
2m electrical supply cable, UK, three pin plug	A50505003
2m electrical supply cable, North European Plug	A50506003
2m electrical supply cable, North America/Japan plug	contact Edwards
2m electrical supply cable, right angled connector, UK, three pin plug	A50505006
2m electrical supply cable, right angled connector, North European plug	A50506006
2m electrical supply cable, right angled connector, North America/Japan plug	contact Edwards
Digital operator	D37520056



nXRi HIGH PERFORMANCE COMPACT DRY VACUUM PUMP

Edwards has revolutionised the vacuum pump market with the new nXRi high performance, compact dry pump. It delivers unrivalled pumping speeds in the most compact package, with pumping speeds of 30 to 120 m³h⁻¹. The nXRi's lower input power and zero maintenance create real performance improvements and cost benefits across a range of applications.

Analytical Instrument OEMs benefit from the ease of integration into most vacuum systems for a ready to go vacuum solution, perfect for mass spectrometry, electron microscopy and leak detection. R&D and Industrial customers will enjoy the design flexibility, oil-free and low maintenance features.



Compact footprint
Optimise your space!

Unrivalled performance
When you need it!

Energy efficiency
Reduce your costs!

Zero contamination
Experience the difference!

Features and benefits

- 1 Designed with size in mind, the compact footprint and height allow the nXRi dry pump to fit easily under a benchtop saving valuable space in your laboratory; and at under 30kg offers a highly portable vacuum pump for changing work flows and environments.
- 2 When performance matters look no further than the nXRi dry pump, with pumping speed performance of 30 to 120 m³h⁻¹ from our most compact footprint. It delivers six times more pumping speed than similar sized dry pumps, and with low ultimate and high reliability you are assured a consistent and stable vacuum for years to come.
- 3 For reduced power consumption look no further than the Edwards nXRi dry pump, optimised to low power for lower energy costs and reduced heat load from your vacuum equipment.
- 4 Clean processes and clean results are guaranteed with the nXRi compact dry pump, being totally oil-free and dust-free within the vacuum chamber. Being free of oil, smells and particulates guarantees a more pleasant working environment.

PRODUCT DATA SHEET

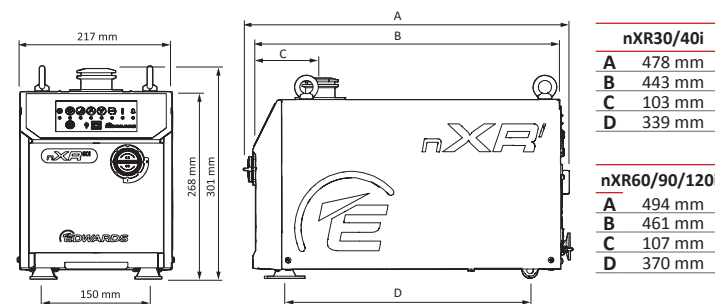
TECHNICAL DATA

Peak pumping speed	
nXR30i	30 m ³ h ⁻¹
nXR40i	40 m ³ h ⁻¹
nXR60i	60 m ³ h ⁻¹
nXR90i	90 m ³ h ⁻¹
nXR120i	120 m ³ h ⁻¹
Ultimate vacuum (total pressure)	0.03 mbar (0.022 Torr)
Inlet flange	
nXR30/40i	NW25
nXR60/90/120i	NW40
Outlet flange	
All variants	NW25
Maximum permitted outlet pressure	
nXR30/40/60/90/120i	0.2 bar gauge
Maximum continuous inlet pressure	
nXR30-90i	1013 mbar
nXR120i	20 mbar
Operating temperature range	
	+5 to +40°C (+41 to +104°F)
Nominal rotational speed	
	15000 rpm
Voltage input	
	100-127/200-240 V (+/-10%), switchable
Mains frequency	
	50/60 Hz
Power connector 1-ph	
	IEC EN60320 C19
Power at ultimate	
	450 W
Leak tightness	
	< 1x10 ⁻⁶ mbar ls ⁻¹
Weight	
nXR30/40i	27 kg (60 lbs)
nXR60/90/120i	29 kg (64 lbs)
Noise at ultimate vacuum	
	55 dB(A)
Vibration at inlet flange	
	< 2.0 mm/s

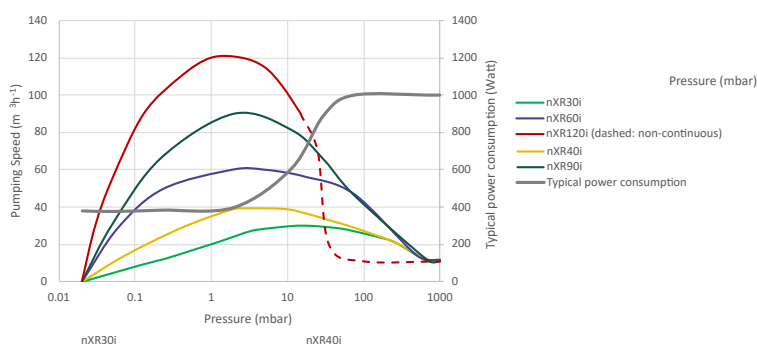
ORDERING INFORMATION

Product description	Order number
nXR30i NW25 Multi Stage Roots Dry Pump 100-127/200-240V 50/60 Hz	A90301983
nXR40i NW25 Multi Stage Roots Dry Pump 100-127/200-240V 50/60 Hz	A90401983
nXR60i NW40 Multi Stage Roots Dry Pump 100-127/200-240 V, 50/60 Hz	A90502983
nXR90i NW40 Multi Stage Roots Dry Pump 100-127/200-240 V, 50/60 Hz	A90602983
nXR120i NW40 Multi Stage Roots Dry Pump 100-127/200-240V 50/60 Hz	A90702983

DIMENSIONS



PUMPING PERFORMANCE



ACCESSORIES

Product description	Order number
2m electrical supply cable, NEMA 5-15P, North America/Japan (100-120 V)	A50507003
2m electrical supply cable, NEMA 6-15P, North America (200-240 V)	A50507006
2m electrical supply cable, UK, three pin plug	A50505003
2m electrical supply cable, Europe	A50506003
2m electrical supply cable, China	A50509003
Gas ballast blank plug	A73501806
Gas ballast adaptor for inert gas (1/4" quick connect)	A73501811
Floor/cart mounting kit	A90590000

XDD1 DRY DIAPHRAGM PUMP



XDD1 diaphragm pumps are compact and efficient pumps, 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 5×10^{-8} mbar can be achieved when using an XDD1 to back a 70 ls^{-1} turbomolecular pump. The XDD1 pumps are intended for use on non-aggressive, safe area applications.

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.



PRODUCT FEATURES

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 C13 CONNECTOR

on a.c. pumps.

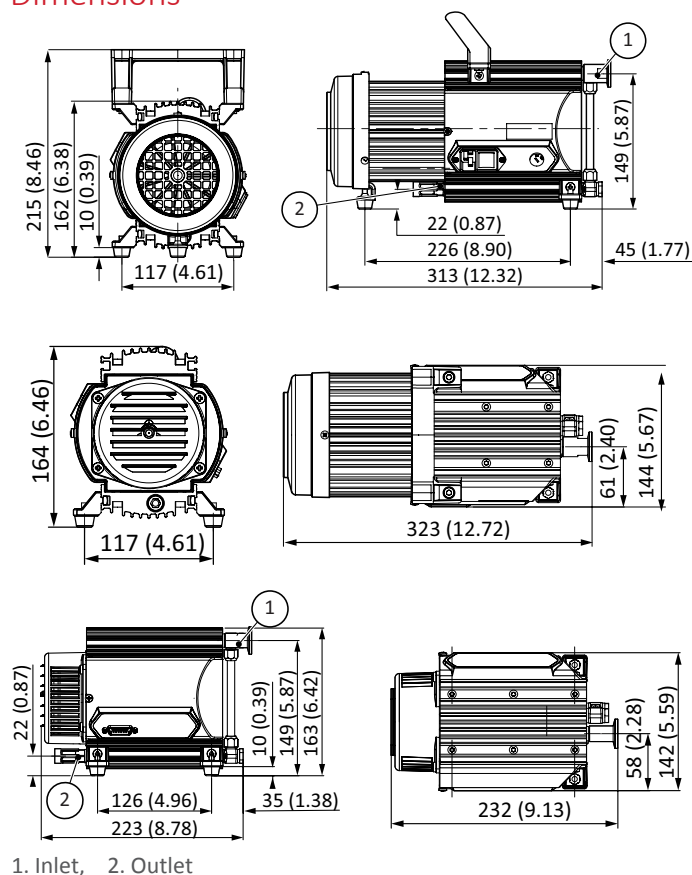
Technical data

a.c.		d.c.	
Pumping speed			
50Hz	1.2 m ³ h ⁻¹	600 rpm	0.6 m ³ h ⁻¹
60Hz	1.4 m ³ h ⁻¹	1700 rpm (Factory setting)	1.4 m ³ h ⁻¹
		2400 rpm	1.8 m ³ h ⁻¹
Motor power	Weight	Motor power	Weight
80 W	6.5 kg	64 W	4.5 kg

Accessories & spares

Product description	Order number
2m electrical supply cable for 1-ph pumps, UK plug 3A	A50516000
2m electrical supply cable for 1-ph pumps, no plug	A50508000
2m electrical supply cable for 1-ph pumps, North America/Japan plug	A50507000
2m electrical supply cable for 1-ph pumps, North European plug	A50506000
XDD/DX/EXDC extension cable 1m	D39700835
XDD/DX/EXDC extension cable 2m	D39700836
XDD/DX/EXDC extension cable 5m	D39700837
XDD1 diaphragm service kit	A74601800

Dimensions

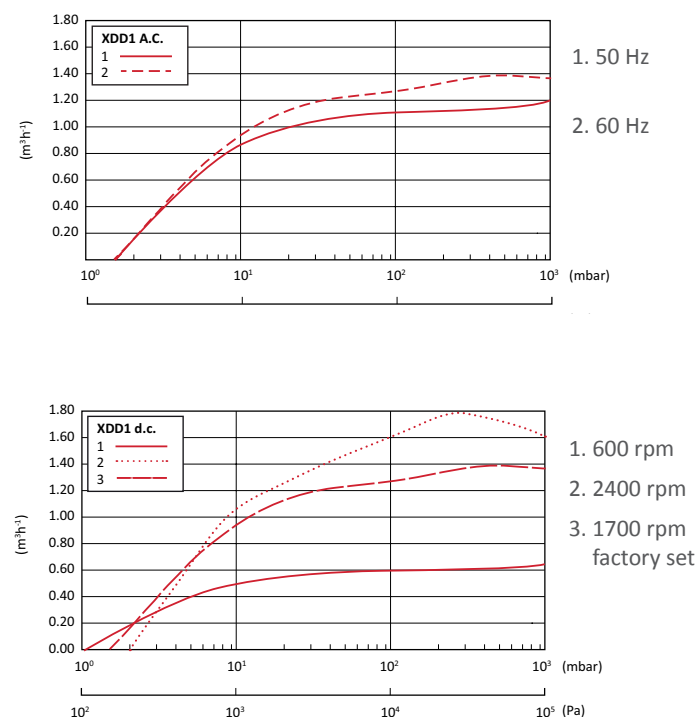


Performance	
Ultimate vacuum (typical)	<2 mbar
Ambient temperature limit	10 to 40 °C
Inlet connection	NW16
Exhaust connection	The pump is fitted with a silencer which can be removed and an exhaust line connected with a 1/8 inch BSP fitting
Max allowed inlet pressure	1 bar (abs)
Power connector (a.c.)	IEC EN60320 C13

Ordering information

Product description	Order number
XDD1 Diaphragm Pump 100-115V/200-230V 50/60 Hz	A74602983
XDD1 Diaphragm Pump 24 V d.c. Mk3	A74603991

Performance





По вопросам продаж и поддержки обращайтесь:

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Курск (4712)77-13-04
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