

a clear edge

XDS dry scroll pumps



Vacuum science... product solution.

a clear edge

the ultimate dry choice

Applications

You can be assured Edwards has the application expertise and vacuum solution to meet your needs

Mass spectrometry

GCMS, LCMS, ICPMS, MALDI, RGA, surface science, leak detectors

Electron microscopy

TEM, SEM, sample coaters

Sample preparation

Gel dryers, glove boxes, rotary evaporators, centrifuges

Research and development

Chamber evacuation, coating systems, turbopump backing

High energy physics

Beam lines, accelerators, mobile pump carts, turbopump backing, laser evacuation

Industrial

Gas recovery and recirculation, glove boxes, brake line and air conditioning evacuation, coating systems, freeze drying, gas bottle filling/emptying, refrigeration system manufacture, degassing/curing (oil, epoxy resin)

Semiconductor

Load locks and transfer chambers, turbopump backing

Chemical

Gel dryers, glove boxes, rotary evaporators, centrifuges, solvent recovery, distillation/extraction/filtration

XDS dry scroll pump

Edwards 30 years of experience in scientific applications affords us a deep understanding of research practices and the critical role that vacuum plays within them. From this platform, and through collaboration with the major analytical instrument manufacturers, we develop and support innovative vacuum products that underpin our clients' entire research process.

The XDS range incorporates a unique dry pumping scroll mechanism provides a robust and clean pumping solution for all applications.

All pumps in the range are approved to UL and CSA standards and backed by Edwards worldwide service and support.

*unique design that
sets the industry
standard*



Technology

Bearing shield

- Totally clean and dry vacuum
- No bearings or grease in the vacuum space
- No shaft seals, no bearing purges
- Simple single sided scroll design
- Tip seal change in 20 minutes
- No special tools required

Integral IEC 60320 connector

- No customer wiring

Motor on/off switch

- Ease of control

Inverter driven motor (XDS35i/46i/100B)

- Worldwide voltage, low power consumption
- Pump overload protection
- Remote on/off control capability
- Remote speed selection capability

Axial air gap motor

- Unique design, low power
- Compact product, low noise levels

Dual voltage/frequency motor with external change-over switch

- Simple voltage selection, less world-wide stock

Selectable gas ballast position

- No permanent gas ballast leak
- Large water vapor handling capacity





Manufactured under ISO 14001 standard

- Environmentally friendly processes

Manufactured under ISO 9001 standard

- High quality product

All pumps externally approved to EN61010,
CSA C22.2 1010, UL 61010 standards

Ease of incorporating pump into approved systems,
safe product



Technical data

| | Hz | Units | XDS5 | XDS10 | XDS35i | XDS46i | XDS100B booster |
|-----------------------------------|--------------------|-------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|
| VACUUM DATA | | | | | | | |
| Peak pumping speed ^{1,2} | 60 | cfm | 3.5 | 6.5 | 21 | 23.5 | 56 |
| | 50 | m ³ /h | 4.8 | 9.3 | 35 | 40 | 95 |
| Ultimate pressure (Total) | 60 | Torr | 4.5 x 10 ⁻² | 4.5 x 10 ⁻² | 8 x 10 ⁻³ | 4 x 10 ⁻² | <8 x 10 ⁻³ |
| | 50 | mbar | 7 x 10 ⁻² | 7 x 10 ⁻² | 1 x 10 ⁻² | 5 x 10 ⁻² | <1 x 10 ⁻² |
| Water vapor tolerance | | Torr | 38 | 23 | 23 | - | - |
| | | mbar | 50 | 35 | 35 | - | - |
| Water vapor capacity - GB I | | g/h | 70 | 70 | 70 | - | - |
| Water vapor capacity - GB II | | g/h | 200 | 200 | 200 | - | - |
| MOTOR DATA | | | | | | | |
| Motor rating 1 phase (nominal) | 60 | W | 300 | 300 | 520 | 520 | 520 |
| | 50 | W | 300 | 300 | 520 | 520 | 520 |
| Motor rating 3 phase | | W | 300 | 300 | - | - | - |
| Nominal rotation speed | 60 | rpm | 1800 | 1800 | 1800 | 1750 | 1750 |
| | 50 | rpm | 1500 | 1500 | 1800 | 1750 | 1750 |
| PHYSICAL DATA | | | | | | | |
| Weight | | lb | 51 | 54 | 106 | 105 | 105 |
| | | kg | 23 | 24.5 | 48 | 48 | 48 |
| Inlet flange | | | NW25 | NW25 | NW40 | NW40 | NW40 |
| Exhaust flange | | | NW25 | NW25 | NW25 | NW25 | NW40 |
| Noise level | 50/60 ³ | dB(A) | 55 | 55 | 57 | 55.4 | 52.1 |
| Leak tightness | | mbar l/s | <1 x 10 ⁻⁶ | <1 x 10 ⁻⁶ | <1 x 10 ⁻⁶ | <1 x 10 ⁻⁶ | <1 x 10 ⁻⁶ |
| Operating temperature range | | °C | 10 to 40 | 10 to 40 | 10 to 40 | 10 to 40 | 10 to 40 |
| | | °F | 50 to 104 | 50 to 104 | 50 to 104 | 50 to 104 | 50 to 104 |

¹ XDS35i is inverter controlled, preset to 60Hz

² Pumping speed measured to PNEUROP 6602

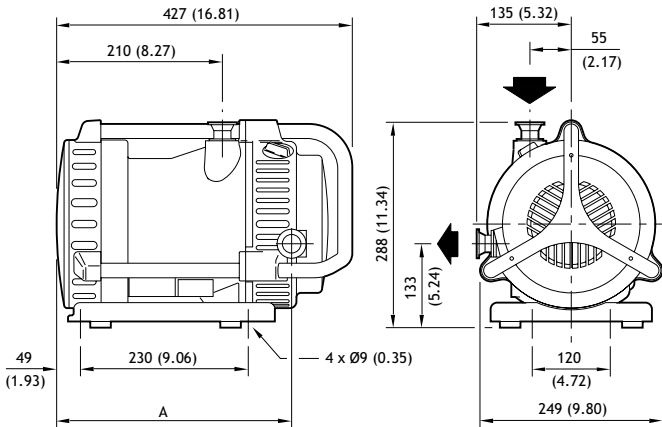
³ XDS5/10 at 50Hz, XDS35i at 60Hz

Accessories

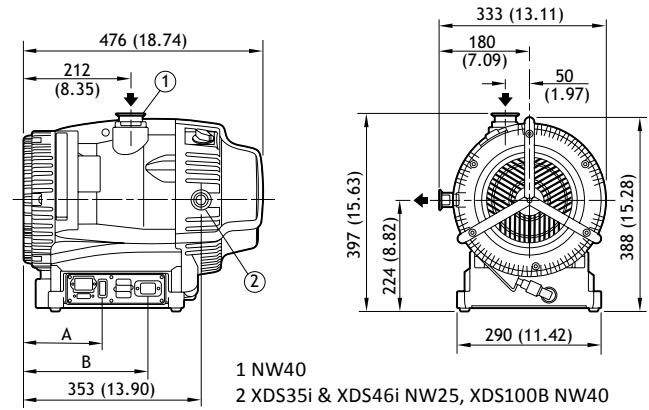


Dimensions - mm (inch)

XDS5/10



XDS35i/46i/100B



1 NW40
2 XDS35i & XDS46i NW25, XDS100B NW40

Ordering information

| | Product description | Order No. |
|--------------|--|-----------|
| PUMPS | | |
| XDS5 | XDS5 1ph, 115V/230V 50/60Hz set to 230V | A72401903 |
| | XDS5 1ph, 100/200V set to 200V | A72401904 |
| | XDS5 3ph, 200-220/380-415V 50Hz 200-230/460V 60Hz | A72401905 |
| | XDS5 1ph, 115V/230V 50/60Hz set to 115V | A72401906 |
| XDS10 | XDS10 1ph, 115V/230V 50/60Hz set to 230V | A72601903 |
| | XDS10 1ph, 100/200V set to 200V | A72601904 |
| | XDS10 3ph, 200-220/380-415V 50Hz, 200-230/460V 60Hz | A72601905 |
| | XDS10 1ph, 115V/230V 50/60Hz set to 115V | A72601906 |
| XDS35i | XDS35i 100-120/200-230V 50/60Hz set to 230V | A73001983 |
| XDS46i | XDS46i 100-120/200-230V, 1ph, 50/60Hz with IEC60320 connector, factory set to 230V | A73101983 |
| XDS100B | XDS100B 1-ph, 100-120/200-230V set to 230V | A73201983 |

| | Product description | Order No. |
|-------------------------------|------------------------------|-----------|
| ACCESSORIES AND SPARES | | |
| Cord sets (XDS5/10) | UK, three pin plug | A50505000 |
| | North European plug | A50506000 |
| | North American plug | A50507000 |
| Silencer | for XDS5 and XDS10 | A50597000 |
| Vibration Isolators | for XDS5 and XDS10 | A24801404 |
| Gas Ballast adaptor | Kit for XDS5 and XDS10 | A50626801 |
| Spare parts | Tip seal kit (XDS5/10) | A72601805 |
| Cord sets (XDS35i/46i/100B) | UK, three pin plug | A50505003 |
| | North European plug | A50506003 |
| | North American plug | A50507003 |
| Silencer | for XDS35i/46i | A50597001 |
| Vibration Isolators | for XDS35i | A24801408 |
| Gas Ballast adaptor | Kit for XDS35i/46i | A50626801 |
| Spare parts | Tip seal kit for XDS35i/100B | A73001801 |
| | Tip seal kit for XDS46i | A73101801 |
| | Reducing piece NW40/25 | C10516439 |
| | Centering ring & O ring NW25 | C10514395 |
| | Clamp - NW25 | C10514401 |

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