Data Sheet

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Agilent IDP-35 and IDP-45 Dry Scroll Pumps

Product description

The Agilent IDP-35 and IDP-45 dry scroll pumps are oil-free and hermetic vacuum pumps with smart features designed for wide-range speed control and easy communication.

Engineered for durability, these pumps guarantee universal pumping performance at all global frequencies and input voltages. The inverter-driven motor allows tunable rotational speed to control pumping speed and noise level.

With excellent vacuum performance and ease of maintenance, the IDP-35 and IDP-45 are well-suited for industrial and academic use, as well as cryogenics.

Features and benefits

Workplace comfort

The scroll technology produces high pumping speed and low ultimate pressure to give an oil-free, clean vacuum.

The drive train is designed to minimize noise and produce the low vibration levels required for use in sensitive applications.

Leakage prevention

The airtight seal design of the hermetic scroll module prevents gas leakage in applications using helium.

Universal pumping performance

The inverter-driven motor guarantees universal pumping performance at all global frequencies and input voltages, with tunable rotational speed to control pumping speed and noise level.

System protection

The optional integrated isolation valve protects the system from power outages and accidents without adding any height to the pump inlet.

Seamless communications

Standardized communication pathways are secured through standard interface protocols and network connector (RS-232/RS-485 and a RJ-45 connector), including compatibility with Agilent A-PLUS software.

Mobile design

The integrated wheels make the pump easy to move, ensuring portability in labs and industrial areas.

Stay informed

The LED display conveys various information, such as hour meter count.

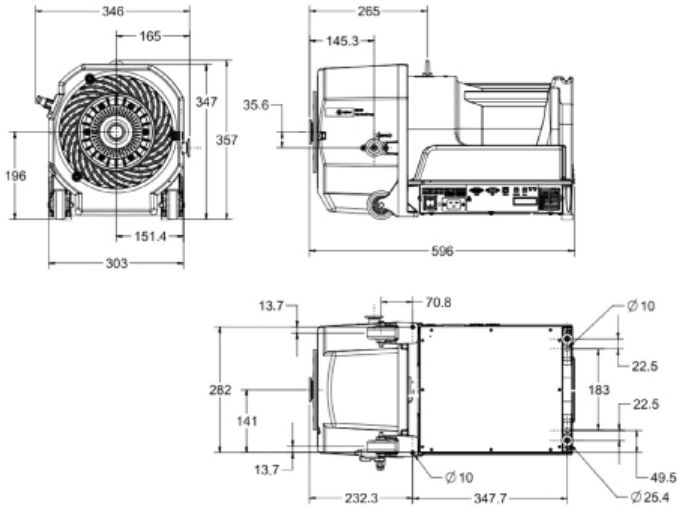
IDP-35 dry scroll pump technical specifications

Parameter	Value
Dimensions (H × W × L)	356 mm × 346 mm × 595 mm 356 mm × 346 mm × 645 mm (VPI valve)
Peak Pumping Speed: (ISO 21360-1: 2020) (ISO 21360-2: 2020)	583 L/min (35 m^3/h)*
Media	No corrosive, explosive, or particulate-forming gases
Ultimate Pressure: (ISO 21360-1:2020) (ISO 21360-2:2020)	8 × 10^{-3} Torr (1.07 × 10^{-2} mbar)*
Maximum Recommended Continuous Inlet Pressure	50 Torr (66.6 mbar)
Maximum Inlet Pressure	1.0 atm (0 psig)
Maximum Outlet Pressure	1.08 atm (1.5 psig)
Inlet Connection	NW40
Exhaust Connection	NW25
Gas Ballast	Two positions with female 1/4 in NPT (sintered plug provided)
Water Vapor Handling: (PNEUROP 6602: 1979)	High position 110 g/h at 60 Hz Low position 13 g/h at 60 Hz
Ambient Operating Temperature	5 to 40 °C (41 to 104 °F)
Storage Temperature	–20 to 60 °C (–4 to 140 °F)
Motor Rating: EN 60034-1-2:2007 EN 60034-30 (GB 18613-2020)	IE3 (GB3) 1.5 HP (1.1 KW)
Operating Voltages	1 phase/100 to 127 VAC 50/60 Hz, 19 A maximum 1 phase/200 to 240 VAC 50/60 Hz, 13 A maximum
Motor Thermal Protection	Automatic thermal protection, with automatic restart
Operating Speed	40 to 66 Hz (1,200 to 1,980 rpm)
Cooling System	Air-cooled
Weight	50 kg (110 lbs)
Shipping Weight	72 kg (159 lbs)
Sound Pressure Levels: (EN ISO 2151:2008) (ISO 4871:1996) (ISO 11201:2010)	58 ± 2 dB(A)* without gas ballast
Leak Rate	< 1 × 10^{-6} atm·cc/s (He)
Hour Meter	Integral hour meter provided
IP Rating	IP20
Safety	Machinery Directive 2006/42/EC:2006 – EN 1012-2:1996+A1:2010 – EN ISO 12100:2012 Low Voltage Directive 2006/95/EC:2007 – IEC 61010-1 Ed. 3.1 b:2018 CSA certified for U.S.A. and Canada

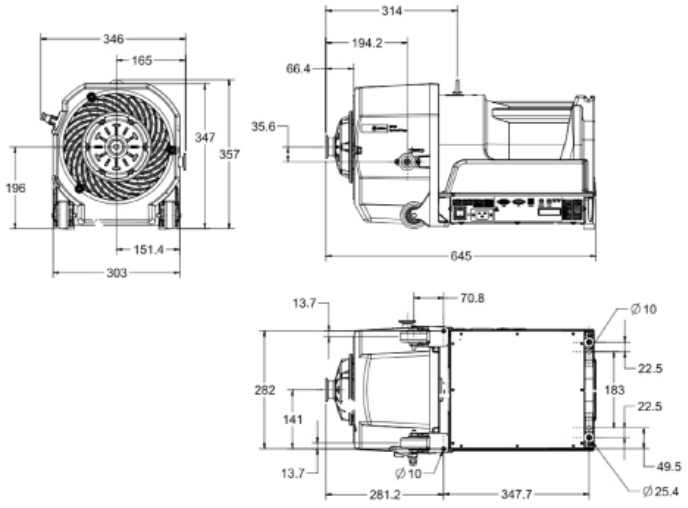
* At 60 Hz pump rotational frequency.

Parameter	Value
Emissions and Immunity	Electromagnetic Compatibility 2014/30/EU:2014 – EN 61326-1:2013 Class A – EN 61000-3-2:2019 Class A – EN 61000-3-3:2014/A2:2022 Class A – EN 61000-6-2:2020
Energy Efficiency	Ecodesign Directive 2009/125/EC:2010 Regulation (EU) 2019/178 2019-1781 – EN 60034-30-1:2015

IDP-35 dry scroll pump



IDP-35 dry scroll pump with integrated isolation valve



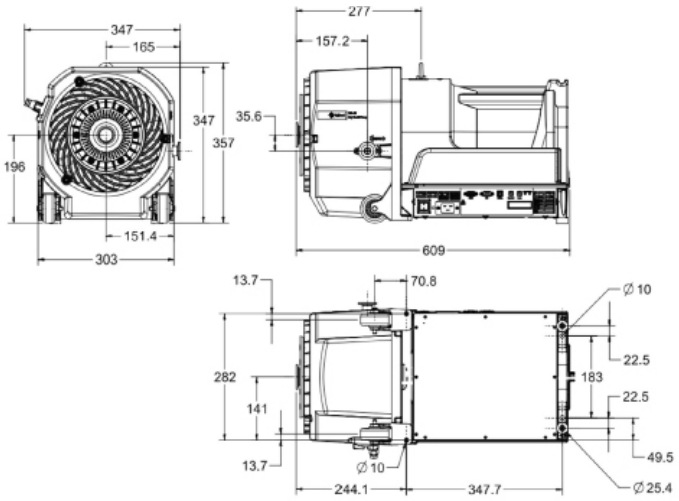
IDP-45 dry scroll pump technical specifications

Parameter	Value
Dimensions (H × W × L)	356 mm × 346 mm × 609 mm 356 mm × 346 mm × 657 mm (VPI valve)
Peak Pumping Speed: (ISO 21360-1: 2020) (ISO 21360-2: 2020)	750 L/min (45 m^3/h)*
Media	No corrosive, explosive, or particulate-forming gases
Ultimate Pressure: (ISO 21360-1: 2020) (ISO 21360-2: 2020)	8 × 10^{-3} Torr (1.07 × 10^{-2} mbar)*
Maximum Recommended Continuous Inlet Pressure	50 Torr (66.6 mbar)
Maximum Inlet Pressure	1.0 atm (0 psig)
Maximum Outlet Pressure	1.08 atm (1.5 psig)
Inlet Connection	NW40
Exhaust Connection	NW25
Gas Ballast	Two positions with female 1/4 in NPT, (sintered plug provided)
Water Vapor Handling: PNEUROP 6602: 1979)	High position 250 g/h at 60 Hz Low position 21 g/h at 60 Hz
Ambient Operating Temperature	5 to 40 °C (41 to 104 °F)
Storage Temperature	–20 to 60 °C (–4 to 140 °F)
Motor Rating: EN 60034-1-2:2007 EN 60034-30 (GB 18613-2020)	IE3 (GB3) 1.5 HP (1.1 KW)
Operating Voltages	1 phase/100 to 127 VAC 50/60 Hz, 19 A maximum 1 phase/200 to 240 VAC 50/60 Hz, 13 A maximum
Motor Thermal Protection	Automatic thermal protection, with automatic restart
Operating Speed	40 to 66 Hz (1,200 to 1,980 rpm)
Cooling System	Air-cooled
Weight	51 kg (112 lbs)
Shipping Weight	73 kg (161 lbs)
Sound Pressure Levels: (EN ISO 2151:2008) (ISO 4871:1996) (ISO 11201:2010)	59 ± 2 dB(A)* without gas ballast
Leak Rate	< 1 × 10^{-6} atm·cc/sec (He)
Hour Meter	Integral hour meter provided
IP Rating	IP20
Safety	Machinery Directive 2006/42/EC:2006 – EN 1012-2:1996+A1:2010 – EN ISO 12100:2012 Low Voltage Directive 2006/95/EC:2007 – IEC 61010-1 Ed. 3.1 b:2018 CSA certified for U.S.A. and Canada

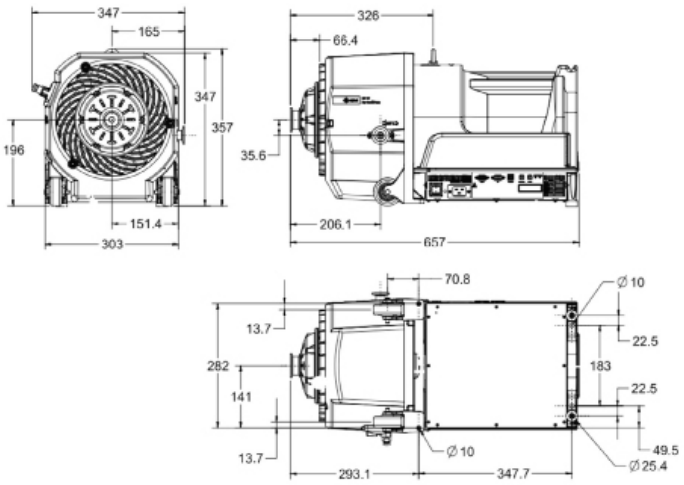
* At 60 Hz pump rotational frequency.

Parameter	Value
Emissions and Immunity	Electromagnetic Compatibility 2014/30/EU:2014 – EN 61326-1:2013 Class A – EN 61000-3-2:2019 Class A – EN 61000-3-3:2014/A2:2022 Class A – EN 61000-6-2:2020
Energy Efficiency	Ecodesign Directive 2009/125/EC:2010 Regulation (EU) 2019/178 2019-1781 – EN 60034-30-1:2015

IDP-45 dry scroll pump



IDP-45 dry scroll pump with integrated isolation valve



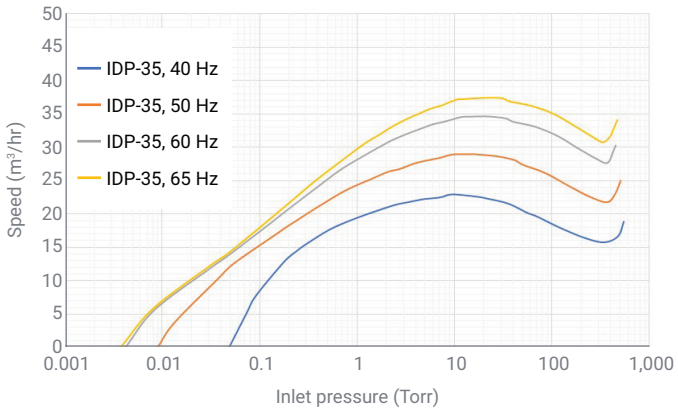


Figure 1. Agilent IDP-35 dry scroll pump pumping speed.

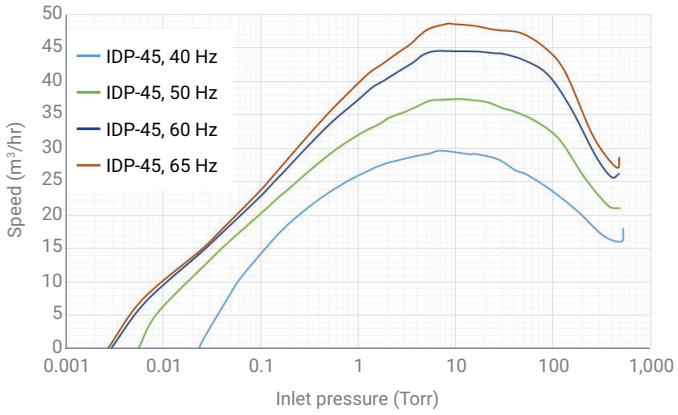


Figure 2. Agilent IDP-45 dry scroll pump pumping speed.

Ordering information

Part Number	Description
X3835-64000	IDP-35 dry scroll pump
X3835-64010	IDP-35 dry scroll pump with VPI
X3835-64001	IDP-35 dry scroll pump with gauge
X3835-64011	IDP-35 dry scroll pump with VPI and gauge
X3845-64000	IDP-45 dry scroll pump
X3845-64010	IDP-45 dry scroll pump with VPI
X3845-64001	IDP-45 dry scroll pump with gauge
X3845-64011	IDP-45 dry scroll pump with VPI and gauge
Power Cords*	
X1699-64159	Power cord, Europe, 16 A, 250 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64162	Power cord, United Kingdom/Ireland, 13 A, 250 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64163	Power cord, China, 16 A, 250 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64165	Power cord, Japan, 20 A, 200 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64166	Power cord, Japan, 20 A, 100 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64168	Power cord, North/South America, 20 A, 250 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
X1699-64169	Power cord, North America, 20 A, 125 VAC, 2.5 m, for IDP-35 and IDP-45 dry scroll pumps
Accessory Parts	
SCRINTRPNW40	Inlet HEPA filter, NW40
SCRINTRPNW25	Exhaust HEPA filter, NW25

* For a complete list of available power cords, see the Cables & Cords for Scroll Pumps dedicated page on Agilent.com.

Contact information

Americas
Toll free: +1 800 882 7426
vpl-customercare@agilent.com

Europe, Middle East, and Africa
Tel: +39 011 9979 369
Toll free: Tel: 800 234 234 00
vpt-customercare@agilent.com

Asia Pacific
inquiry_lsca@agilent.com

China
Landline phone: 800 06 778
Mobile phone: 400 06 778
contacts.vacuum@agilent.com

Other countries
vpt-customercare@agilent.com

For more information, please contact your Agilent representative or visit www.agilent.com/en/product/vacuum-technologies to chat live with a vacuum expert.

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