

STP451/451C turbomolecular pump

The Edwards STP451 turbomolecular pump offers field proven reliability for use in electron microscopes, scientific instruments and semiconductor applications.

Edwards rotor technology gives class-leading performance for maximum process flexibility. The STP451 has been approved for use by major equipment manufacturers in the scientific instrument, semiconductor and magnetic media industries.



Features and benefits

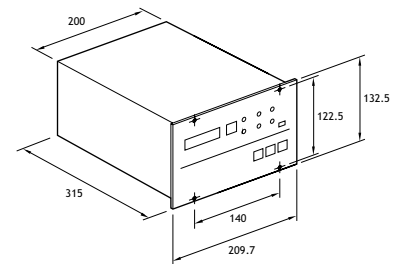
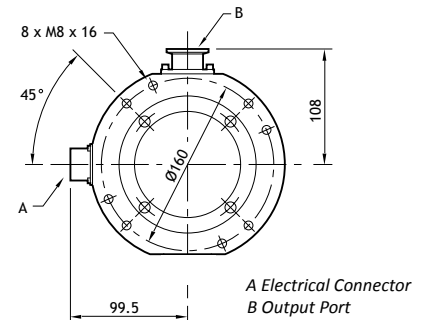
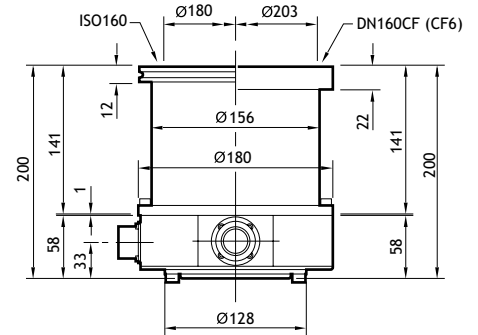
- Advanced rotor technology
 - Maximized process flexibility
 - Oil free
 - Low vibration
 - High reliability
 - Maintenance free
- Advanced controller design
 - Auto tuning
 - Self diagnostic functions
 - DC motor drive
 - Battery-free operation
- Compact design
 - Small footprint
 - Half rack controller

Technical data

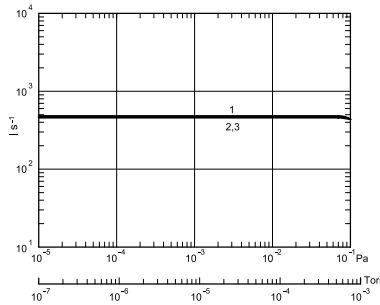
	STP451	STP451C	
Inlet flange size	ISO160 or DN160CF		
Pumping speed N ₂ /H ₂	480/46		Litres/second
Compression ratio N ₂ /H ₂	>10 ⁸ /2 x 10 ⁴		
Ultimate pressure			
ISO inlet flange	6.5 x 10 ⁻⁶ (5 x 10 ⁻⁸)		Pa (Torr)
CF inlet flange	10 ⁻⁸ (10 ⁻¹⁰)	10 ⁻⁷ (10 ⁻⁹)	Pa (Torr)
Maximum allowable inlet pressure			
Ambient cooled/Water cooled	0.066 (5 x 10 ⁻⁴) / 2.5 (0.02)		Pa (Torr)
Maximum continuous outlet pressure			
Ambient cooled/water cooled	13 (0.1) / 26 (0.15)		Pa (Torr)
Rated speed	48000		rpm
Stop/start time	3/5		minutes
Maximum inlet flange temperature [†]	120		°C
Power consumption			
Start up/Continuous	350/100		VA
Input voltage	100 - 120 or 200 - 240		V
Weight, pump/controller	12 / 7		kg

[†] with cooling

Dimensions



Performance curves



Ordering information

Description	Order No.	Description	Order No.
STP451 ISO160K pump	B74840030	Connection cables 1.5 m	B70700020
STP451 DN160CF pump	B74841010	2 m	B70700030
STP451C ISO 160K pump	B74851010	3 m	B70700010
STP451C DN160CF pump	B74861010	5 m	B70700000
Controller - 100 - 240 V	YT21Z0Z01	15 m	B70700070
Options		Power cables European plug	A50506010
Water cooling	B74801750	UK plug	A50505010
Vibration isolator	B54046000	Ring terminal	A50508010
	B58047000		

Custom configurations are available for specific OEM applications. F type flange also available.

Global contacts

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