



Advanced Scroll Technology Solutions for Medical OEMs

TECHNICAL DATASHEET

V05H012A-BLDC

07.07.2026 Rev. 00

Introducing **Silent Series™ Vacuum Pumps** from Air Squared – Ultra-Quiet, Compact, and Engineered Specifically for Medical OEMs



100% OIL-FREE

Maintain the purity of your system with 100% oil-free scroll technology



ULTRA-QUIET, SMOOTH OPERATION

Best-in-class NVH, dynamically balanced, valve-less, and nearly pulsation-free



COMPACT, LIGHTWEIGHT DESIGN

Integrated cooling and BLDC drive provide simple installation and minimal footprint



DURABLE, ROBUST SOLUTION

Engineered to exceed the life and reliability of diaphragm and piston technology



EFFICIENT VACUUM PERFORMANCE

Continuous vacuum process with no throttling or re-expansion losses



BLDC CONTROL

Proportional speed control delivers ideal performance over a range of duty cycles – 100% continuous to intermittent

OPTIONS AND ACCESSORIES

BLDC Demo Controller (External, Wired)

Discharge Silencer (Recommended)

Check Valve (Recommended)

Mounting Bracket

OEM CUSTOMIZATION

Custom Mounting and Fan Location

Custom Electrical Connectors

Custom Port Fittings

Qualified OEMs should consult Air Squared for custom configurations and application-specific requirements.

Contact sales@airsquared.com.



Specifications

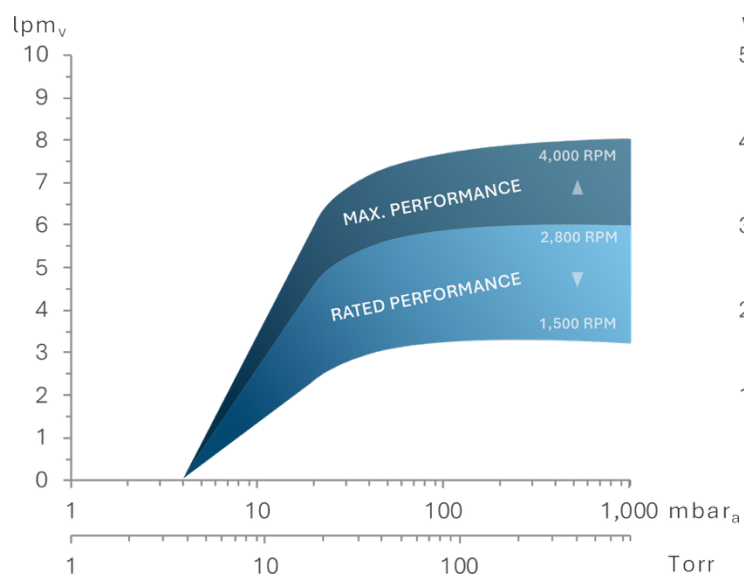
VACUUM	MAX.	4 mbar _a	
	RATED	10 mbar _a	
VOLUME RATIO		2.75	
FLOW	MAX.	8 lpm _v	
	RATED	5.5 lpm _v	
DISPLACEMENT		2.55 cm ³ / Rev.	
SOUND LEVEL		25 dB(A)	Average at Nominal Operation
NET WEIGHT		0.7 kg	
AMBIENT TEMP. RANGE	MIN.	-40 °C	
	MAX.	40 °C	
COOLING		Attached Fan	
PORTS		10-32 UNF	Inlet and Outlet
MEDIA		Air	
REGULATORY		RoHS, REACH, Other	
PART NUMBER		V05H012A-B01	

Electrical

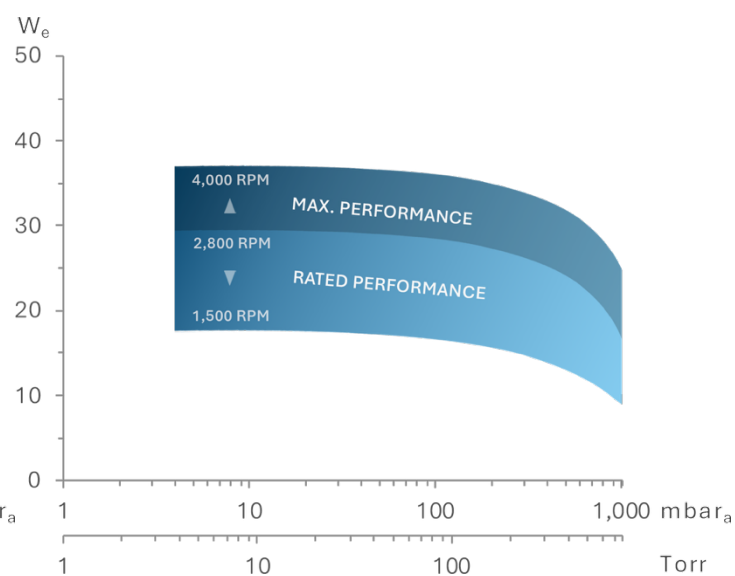
MOTOR		0-18 V Brushless DC	Hall Sensors, 233 Rev./V
SPEED	MAX.	4,000 RPM	at 18 V
	RATED	2,800 RPM	at 12 V
CURRENT		1.5 A	at 1,500 RPM
		2.3 A	at 2,800 RPM
		3.5 A	at 4,000 RPM
CONTROLLER	DEMO	External, Wired	Analog, PWM, Other
	NONE	Customer-Supplied	
FAN		12 VDC	

Performance

FLOW CHARACTERISTICS

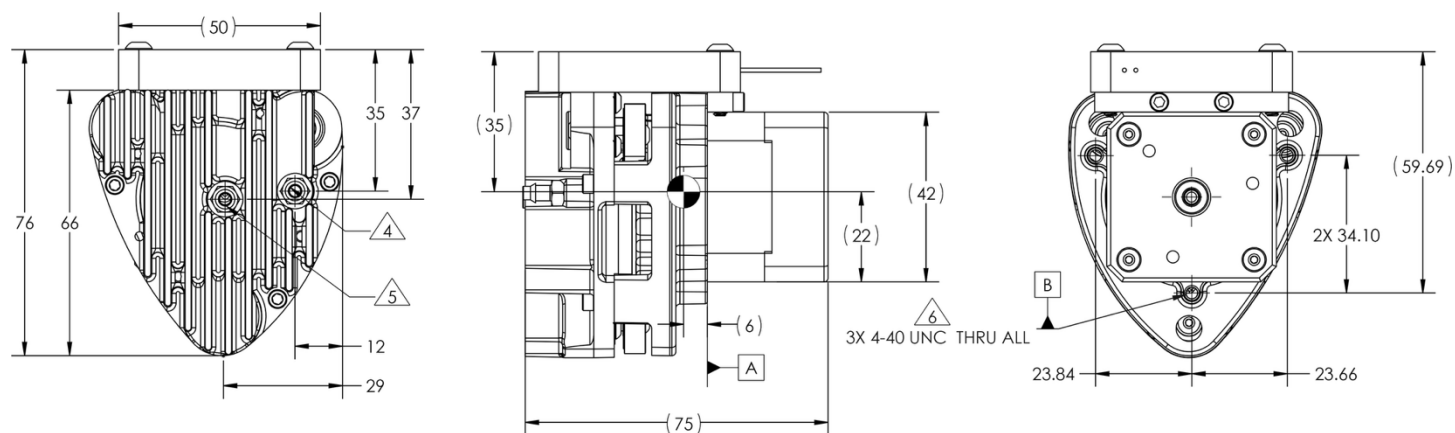


POWER CHARACTERISTICS



Flow Characteristics reflect nominal volume flow at NIST standard inlet conditions. Power Characteristics reflect nominal electric power consumption in Thornton, CO USA with standard motor and controller losses.

Dimensions



Dimensions in millimeters unless otherwise stated.

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Customer-specific requirements and application conditions may adversely affect performance and product life. It is the responsibility of the user to determine the suitability of the product for its intended use.



Learn More About Oil-Free Scroll Technology at
<http://airsquared.com>

