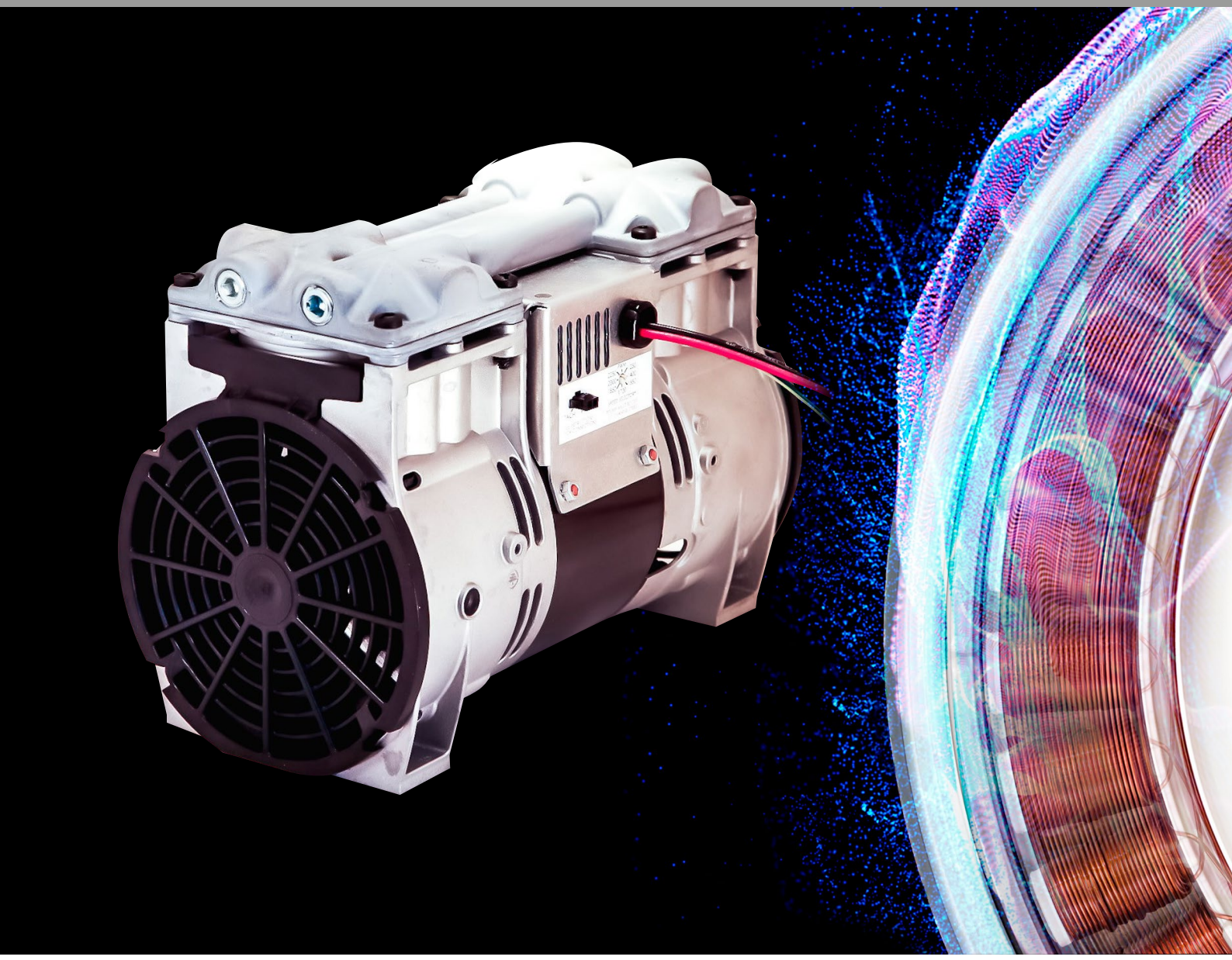
THOMAS®
An Ingersoll Rand Business

2680Z1 SERIES

BLDC Pumps and Compressors

MEET THE FUTURE OF THE WOB-L® NEXUS PLATFORM BY THOMAS



www.thomaspumps.com

FEATURES & BENEFITS

On-demand Performance: The variable speed-control on the controller allows for variable flow output. You can select from one of the 7 fixed speed options to adjust flow accordingly or operate with variable speed via PWM.

Energy Savings: BLDC technology prevents energy loss with 48V input, ensuring energy savings of about 15-20% in comparison with AC motors.

Enhanced Reliability: The lack of motor brushes translates into a longer product life, which helps minimize downtime experienced with brushed DC motors.

Small, Compact, and Lightweight Design: With a lightweight, compact design that is over 15% lighter than the AC versions, the 2680 BLDC models are significantly easier to operate.

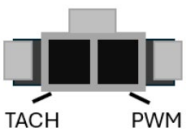
Easy Installation: The 2680 BLDC models come with 9 blade internal cooling fans, eliminating the need for supplemental cooling while ensuring easy installation and lower operational costs.

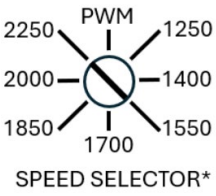
Quiet Work: The noise emission can be adjusted through speed control, which makes this series of pumps and compressors perfect for sound-sensitive applications.

Air Quality: Oil-less operation means the 2680 BLDC models are a perfect fit for mission-critical applications with stringent air quality requirements.

Cost-effective Ownership: The unmatched level of quality, performance and reliability provided by Thomas' proven operating technologies result in a lower total cost of ownership.

The BLDC controller has two methods of motor speed control: 7 fixed speed options can be set using the 8-position selector switch, or an external PWM signal can be supplied for variable speed control.v





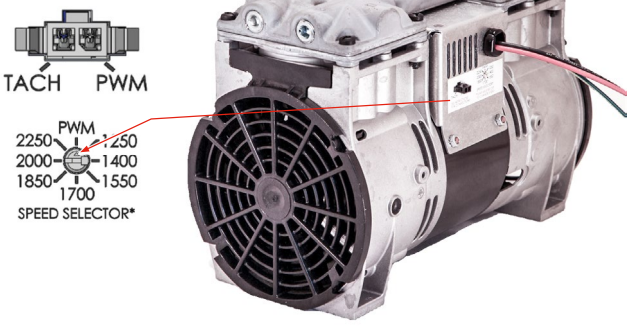
DYNAMIC SPEED CONTROL WITH BRUSHLESS DC

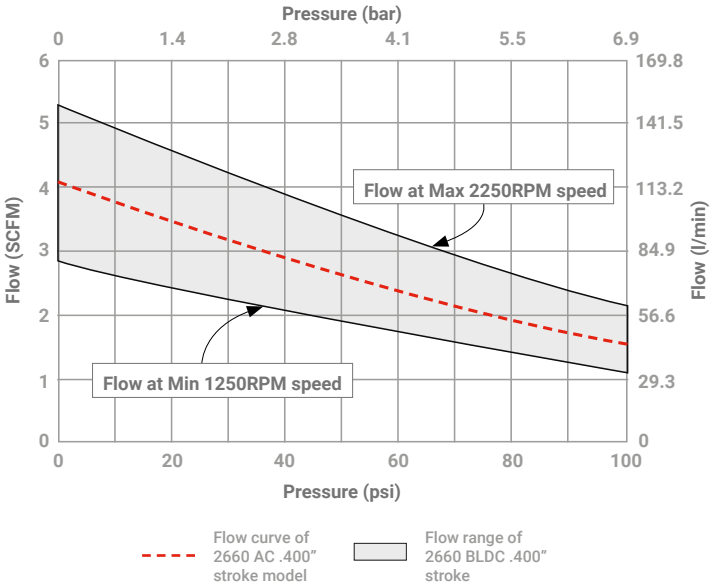
While traditional AC motor pumps and compressors offer a singular speed and flow output, Brushless DC motors allow for dynamic speed and flow control, which:

- **reduces motor speed to improve sound quality**
- **operates at on-demand speeds to extend the lifespan of pumps and compressors**
- **adjusts speed to accommodate seal wear, prolonging equipment life**

2680Z1 SERIES

Flow	**2.83 cfm to 5.26 cfm**
Max. pressure	100 psig (6.9 bar)
Max. vacuum	**26.6" Hg (-901 mbar)**



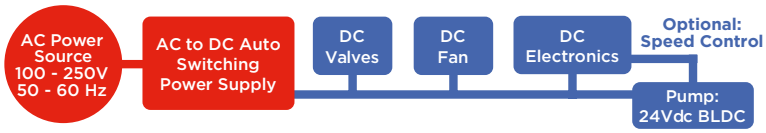


1 SIMPLE GLOBAL SYSTEM TO REPLACE 3

Helping you design a singular system for anywhere in the world, regardless of voltage or frequency

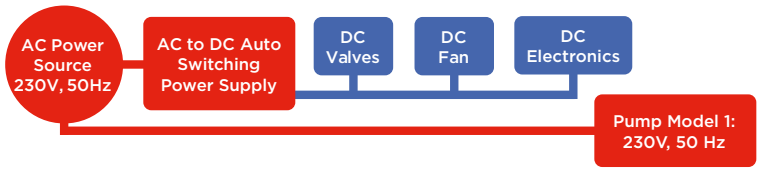
Systems utilizing AC motors often require at least three bills of materials (BOMs), typically with three different motor components to meet the requirements of major regions worldwide. However, with brushless DC pumps such as the new 2680Z1, the BOM can be streamlined to a single pump model. Only requiring one pump reduces design work, minimizes regulatory and agency burden, and significantly lowers inventory demands in the supply chain.

Simple 1 BOM Global System

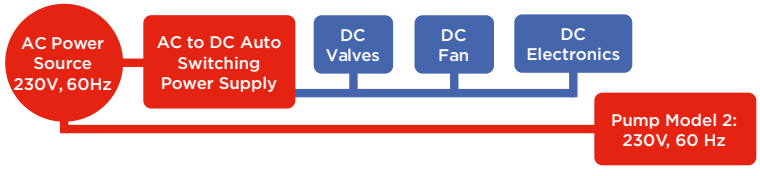


Complex 3 BOMs for Global Coverage

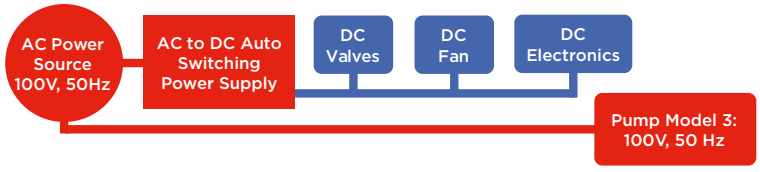
EUROPE Model 1:



US Model 2:

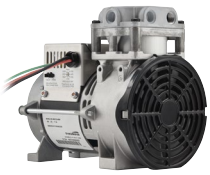


Japan Model 3:



SEE THE COMPLETE THOMAS BRUSHLESS DC WITH INTEGRATED MOTOR CONTROL PRODUCT RANGE

Covering your compressed air and vacuum needs, with flows ranging up to 9.1 cfm, pressures up to 175 psi, and vacuum levels up to 99% local barometer.

	107Z1 Series	415Z1 Series	907Z1 Series	380Z1 Series
				
PNEUMATIC DATA				
Open Flow:	1.34 cfm (37.9 lpm)	0.87 cfm (24.6 lpm)	2.06 cfm (58.5 lpm)	1.55 cfm (43.9 lpm)
Max. Pressure:	35 psi (2.4 bar)	100 psi (6.9 bar)	25 psi (1.7 bar)	100 psi (6.9 bar)
Max. Vacuum:	74%	83%	72%	91%

	2380Z1 Series	2320Z1 Series	2680Z1 Series	2775Z1 Series
				
PNEUMATIC DATA				
Open Flow:	3.14 cfm (88.8 lpm)	3.38 cfm (95.8 lpm)	5.3 cfm (149.1 lpm)	9.1 cfm (258 lpm)
Max. Pressure:	100 psi (6.9 bar)	60 psi (4.2 bar)	100 psi (6.9 bar)	175 psi (12.1 bar)
Max. Vacuum:	98%	90%	91%	99%

For more information on our range of BLDC pumps and compressors, please visit us at www.thomaspumps.com, or contact us.