

230Z Series

FEATURES

- > Oil-less non-lube piston and cylinder
- > Permanently lubricated bearings
- > Stainless steel valves
- > Cylinder hard coated for wear resistance
- > Lightweight die cast aluminum components
- > Balanced for smooth, low vibration operation
- > All wetted aluminum parts treated for corrosion resistance
- > Brushless DC motor for variable output, long life and low energy consumption
- > RoHS compliant

TYPICAL APPLICATIONS

- > Portable Oxygen Concentrator
- > Small Analytical Equipment
- > Instrumentation
- > Ambient Scenting
- > Lab Automation

CUSTOMER REQUIREMENTS

- > Supplemental cooling air flow to compressor to be integrated into thermal management system to ensure that proper installation and operating environment is maintained in keeping with the product specifications
- > BLDC motor requires separate motor controller (not included) - Optional ZB Series BLDC controller offers off-the-shelf integration, featuring variable speed PWM input signal for full speed range flexibility, and closed loop speed operation for consistent performance.

BASE MODEL

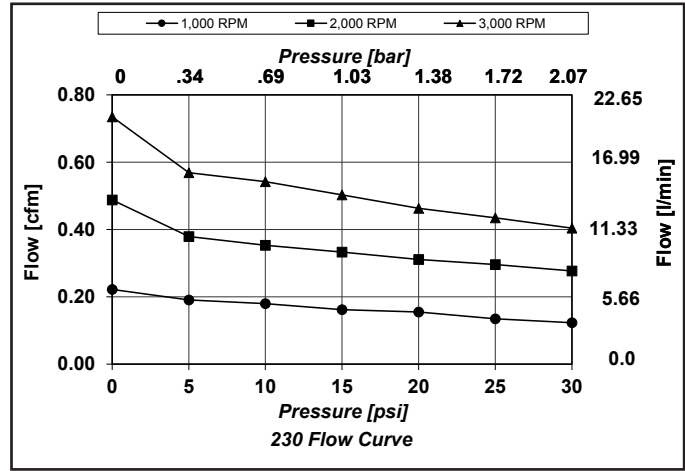
230ZA30/12



WOB-L

230Z Series

Flow	.74 cfm (20.8 l/min)
Max. pressure	30 psi (2.1 bar)
Max. vacuum	N/A Pressure Only



PERFORMANCE DATA

Model Number	230ZA30/12		
Head Configuration	Pressure only		
Stroke	0.30 in. (7.6 mm)		
Nominal voltage input	12V DC	12V DC	13V DC
Variable output speed	1,000 rpm	2,000 rpm	3,000 rpm
Max. open air flow	0.22 cfm (6.3 l/min)	0.49 cfm (13.8 l/min)	0.74 cfm (20.8 l/min)
Max. rated pressure	30 psi (2.1 bar)	30 psi (2.1 bar)	30 psi (2.1 bar)
Current at rated pressure	2.9A	3.7A	5.1A
Power at rated pressure	34.3W	44.7W	65.8W
Max. pressure restart	30 psi (2.1 bar)	30 psi (2.1 bar)	30 psi (2.1 bar)
Max. vacuum	Not available	Not available	Not available
Max. vacuum restart	Not available	Not available	Not available

ELECTRICAL DATA

Motor Type	8 pole brushless DC, 3 phase
Motor Insulation class	155°C maximum winding temperature
Motor protection	No
	Optional Thomas ZB Series BLDC controller will provide stall protection
Power lead wire color, gauge	Green (phase A), black(phase B), red (phase C), 22 AWG
Hall sensor wire color, gauge	Yellow (+VDC), brown (HS1), orange (HS2), blue (HS3), gray (ground), 22 AWG

GENERAL DATA

Operating ambient temperature	50° TO 104° F (10 to 40 °C)
Safety Certification	Consult factory
Net weight	1.2 lbs (0.4 kg)

PRODUCT DIMENSIONS

230ZA30/12

POSITION	COLOR	FUNCTION
POSITION 1	YELLOW	VDC +
POSITION 2	BLUE	HALL 3
POSITION 3	ORANGE	HALL 2
POSITION 4	BROWN	HALL 1
POSITION 5	GRAY	GROUND
POSITION 6	RED	PHASE C
POSITION 7	BLACK	PHASE B
POSITION 8	GREEN	PHASE A

UNIT REQUIRES SUPPLEMENTAL COOLING AIR FLOW.

BRUSHLESS DC TECHNOLOGY REQUIRES MOTOR CONTROLLER TO OPERATE.

Dimensions in in.

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE

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The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability in connection there with. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.

Models presented in this catalog are representative of the product family. Photos of products pictured in this catalog do not necessarily represent a specific model number. To obtain further information for custom options, contact your local Thomas office.

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