

## 2220Z Series

### FEATURES

- > Oil-less operation
- > Permanently lubricated bearings
- > Stainless steel valves
- > High performance piston seal
- > Lightweight magnesium components
- > Thin wall, hard coated aluminum cylinder
- > Wetted parts treated for corrosion resistance
- > Dynamically balanced
- > Brushless DC motor
- > 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

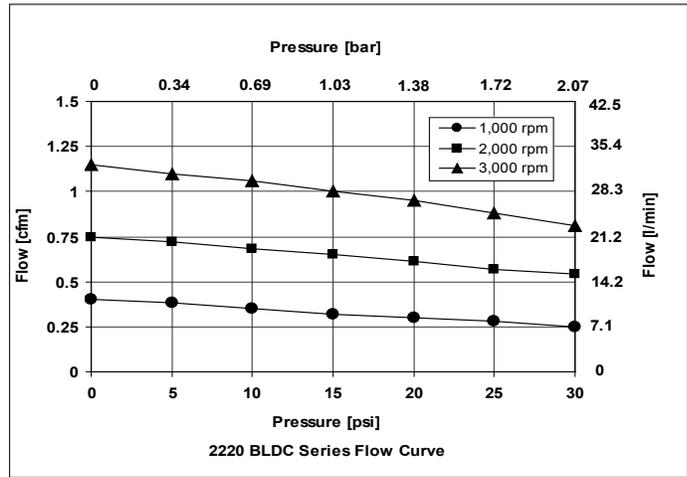
2220ZA3012M



WOB-L

# 2220Z Series

Flow	1.14 cfm (32.3 l/min)
Max. pressure	30 psi (2.1 bar)
Max. vacuum	N/A Pressure Only



## PERFORMANCE DATA

Model Number	2220ZA3012M		
Head Configuration	Pressure parallel flow		
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	0.40 cfm (11.3 l/min)	0.78 cfm (22.1 l/min)	1.14 cfm (32.3 l/min)
Max. rated pressure	30 psi (2.1 bar)	30 psi (2.1 bar)	30 psi (2.1 bar)
Current at rated pressure	7.0A	7.1A	8.1A
Power at rated pressure	84W	85W	105W
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	1.28 lbs (0.58 kg)

\*Broader ambient operating ranges may be possible depending on your specific application. Please consult factory regarding your particular system needs.

**2220ZA3012M**  
Dimensions in inches [mm]

LEAD IDENTIFICATION			
CONNECTION	LEAD COLOR	LEAD AWG	CONNECTOR PIN LOCATION
Vcc	YELLOW	22	POSITION 1
HALL SENSOR	BROWN	22	POSITION 2
HALL SENSOR	ORANGE	22	POSITION 3
HALL SENSOR	BLUE	22	POSITION 4
Gnd	GRAY	22	POSITION 5
PHASE LEAD	GREEN	18	POSITION 1
PHASE LEAD	BLACK	18	POSITION 2
PHASE LEAD	RED	18	POSITION 3

CONNECTOR (TE PART NO.: 3-640440-5)

CONNECTOR (TE PART NO.: 3-640426-3)

CONNECTOR (TE PART NO.: 3-640440-5)

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