

Boxer Pumps > Products > Liquid Diaphragm Pump

3K liquid diaphragm pump with BLDC Motor.



Technical Data

Free Flow	1.5 l/min
Max Pressure	2.0 bar
Max Vacuum	-60%
Max Suction Height (dry)	5.0 m H ₂ O
Voltage	24 V DC
Power Consumption	4.0 to 11.0 W
Max current (start-up or locked rotor), electronically limited	10.0 A
Speed	400 to 1500 rpm
Wiring Details / Speed Control	See next page
Wire Length	400 mm (5 mm stripped / tinned)
Wire Gauge	22 AWG
Max. Motor Surface Temperature	80 °C
Motor Insulation Class	B
Motor Thermal Protection	Internal / automatically re-setting
Max Ambient Operating Temperature	50 °C
Max Media Temperature	100 °C
Elastomer Options:	
Diaphragm	EPDM / FKM / Nitrile / Silicone
Valves	EPDM / FKM / Nitrile / Silicone
O-Rings	EPDM / FKM / Nitrile / Silicone
Eccentric Options:	0.8 / 1.0 mm
Other Wetted Parts	PPS (polyphenylene sulphide)
Mounting	Supplied with mounting bracket (see drawing, page 3)
Weight	385 g

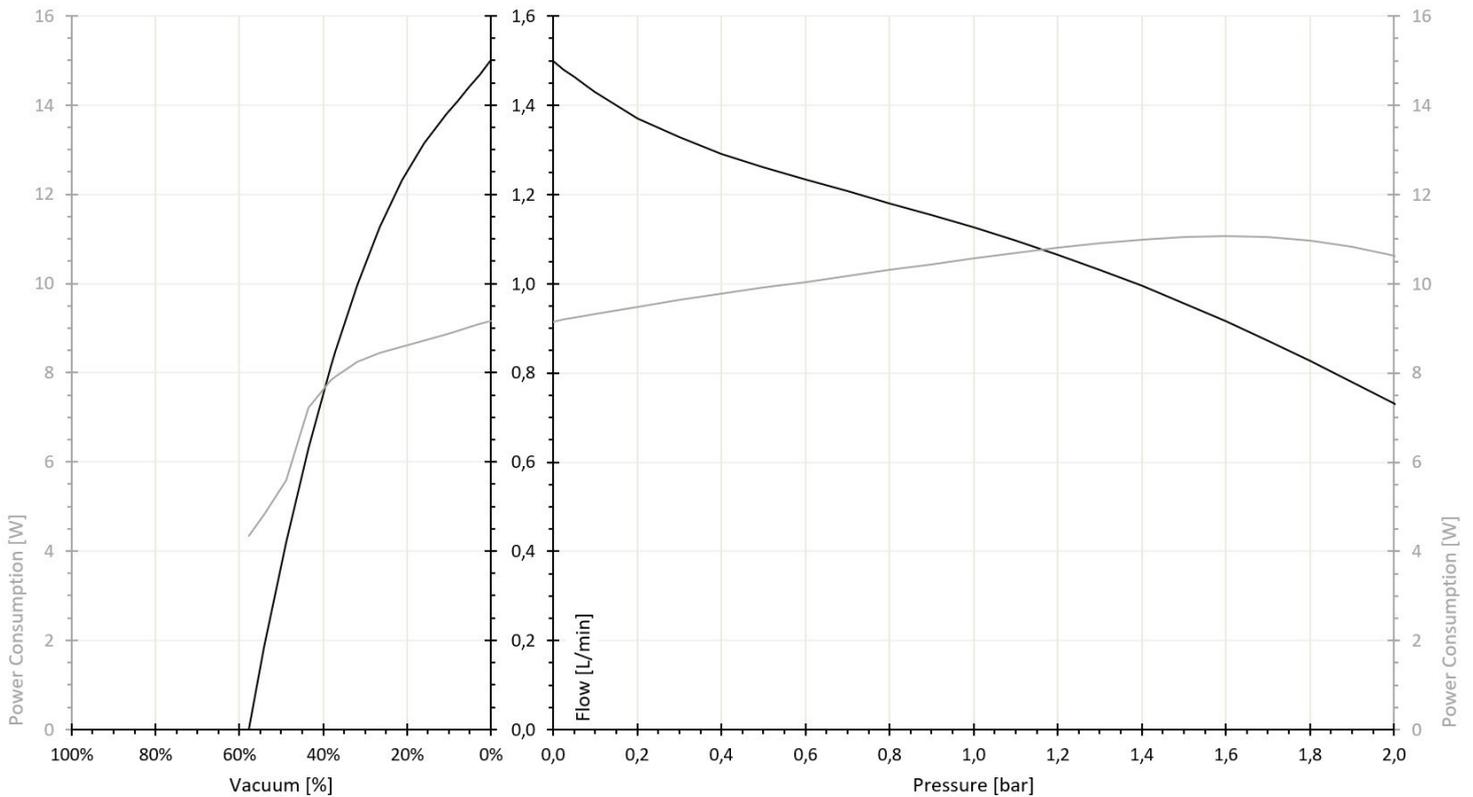
Bold indicates configuration applicable to this datasheet

Wiring Details / Speed Control

Wire:		
1	Red	24 V DC
2	Black	GND
3	Green	Speed control input: 0.5 to 4.5 V DC (or 5.0 V PWM with min. 15 kHz signal)
		Speed range: 167 to 1500 rpm
		Not recommended to run below 400 rpm (1.2 V)
		Green wire can be connected to +24 V supply for full speed (1500 rpm) operation
		Resolution: 10 bit
4	Yellow	Frequency (rpm) output, 1 pulse (+ 5.0 V) per revolution with 50% on time

Flow and Power Consumption Curve

At max recommended speed (Speed Input at 4.5 V DC / 1500 rpm)



Order Information

Part Number 3211.660 24 V BLDC / EPDM
 Part Number 3211.665 24 V BLDC / FKM

Part Number Explanation:
3 2 1 1 . 6 [X] [X]
 motor type: 3
 2: 12V BLDC
 1: 24V BLDC
 . 6: wetted parts
 0: EPDM
 5: FKM / Viton

Dimensions (mm):
 Total length: 102
 Motor body length: 38.0
 Inlet diameter: $\varnothing 6.5$
 Inlet offset: 7.1
 Inlet offset: 12
 Inlet offset: 6.9
 Mounting holes: 2x $\varnothing 3.5$ for fixation with 2x M3 acc. to ISO7045 or similar
 Cable outlet diameter: $\varnothing 36$
 Cable outlet offset: 14
 Cable outlet diameter: 42
 Cable outlet diameter: 38
 Cable outlet diameter: 64

Wiring:
 4x Lead Wires
 AWG24, length 530mm
 Ground (black)
 Supply (red)
 Speed Input (green) 0 to 5VDC
 Speed Output (yellow) 1 pulse/revolution

Notes:
 Cable outlet may deviate $\pm 45^\circ$ from center position

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DIMENSIONS STATED IN MM

BOXER		Surface Quality	ISO 2768-mK	Material Colour	Formal
Manufacturer: 81724, Gießen, Germany	Part Number	3211.6[X][X]	3K Liquid	Project	A3
Rev: [Date (D.M.Y.)] CRE: [Name] APP: [Name]	Tool Number	3K	Scale	Sheet	1:1
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All data is representative for initial selection purposes. It is the responsibility of the user to determine suitability for the intended use. Technical changes reserved.