

# 313VDL/D variable speed pumps with brushless motor

# 300 series

Watson-Marlow Pumps

## FEATURES

- High quality brushless 24VDC Pump with built in controller for precise speed adjustment, and low electrical and audible noise
- Very long service life due to no internal wearing components
- Flow rates up to 1750 ml/min
- Rapid and simple tube loading flip-top pumphead
- Snap-fit 313X extension pumpheads available

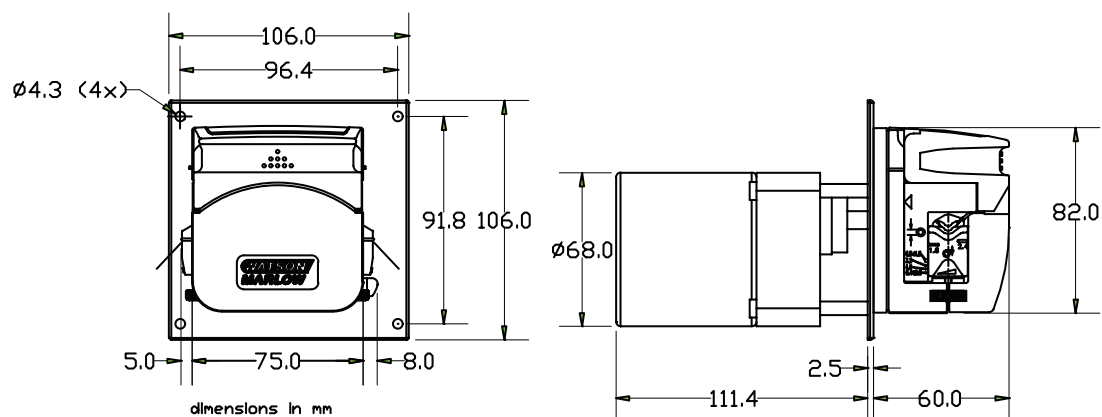


*Watson-Marlow...Innovation in Full Flow*

## PERFORMANCE

Flow rates 1.6mm wall tubing		
Tube bore (mm)	Speed (rpm)	
	100	350
0.5	3.00	10.5
0.8	6.00	21.0
1.6	26.0	91.0
3.2	100	350
4.8	220	770
6.4	360	1260
8.0	500	1760

## DIMENSIONS



## TECHNICAL SPECIFICATION

Motor type	24VDL (Brushless DC with built in controller)
Motor torque output	100 rpm 7.3 kgcm 350 rpm 21 kgcm
Power consumption	35VA
Weight	1.0kg

Motor/Controller Connections			
Lead no.	Lead color	Function	Descriptions
1	brown	FW/RV	Direction control input High' CW, 'Low' CC (shaft side)
2	white	Vin	Input voltage (set-point) for speed loop. Resulting speed approx. 1000rpm/V Vin < 4V: motor at full speed, speed loop off (open loop)
3	green	FG	Frequency generator output, 36 ppr, Rout = 4kOhm (approx.)
4	black	GND	Motor return, ground (0v)
5	red	Vp	Motor supply voltage +24V (Min -14V Max 30V)
6	bare	shield	Shield for cable and connection to motor housing

## ORDER INFORMATION

Description	Speed (rpm)		
	Supply	Speed (rpm)	Part code
313VDL/D	24VDC	100	040.NP10.3D0
	24VDC	350	040.NU10.3D0

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Bioprene and Marprene are trademarks of Watson-Marlow Limited. Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. LoadSure is a trademark of Watson-Marlow Limited. © STA-PURE PFL and © STA-PURE PCS are registered trademarks of W.L Gore & Associates Inc. Please state the product code when ordering pumps and tubing.



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