SPECIFICATION

VV-1020.08 INT

The Model VV-1020.08 INT Air Delivery System incorporates *VAIREX* proprietary dry-vane technology. The Air Delivery System consists of a VAIREX vane pump, integrated brushless dc motor, motor speed controller, inlet air filter with replaceable paper element, and inlet noise suppressor.

Output ratings	**Min**	**Max**	**Peak** [1]	**Units**
Output 1, Pressure [2]	1.1	2.0 (@10g/s)	2.1	ratio
Output 1 Mass Flow [3]	1.0	17 (@1.1 P/p)	22	grams/sec
Noise, Acoustic [12]		<85		dB A
Output temperature delta	0	120		˚C
Compressor Speed	0	2750	3000	RPM
Motor Speed [4]	350	3750	4000	RPM
Inputs				
Control voltage [5] [11]	0	5		Volts DC
Atmospheric Air [6]				
Inlet pressure range	80	110		kPa
Inlet temperature	0	40		˚C
Inlet humidity [7]	0	100		% R.H.
Voltage range [11]	40	56		Volts DC
Current range [8]	0	45	50	Amps
Precision				
Speed control precision	*2.5*	*2.5*		+/- %
System Parameters				
Total power consumption	0	1850 [9]	2000	watts
Total volume (Pump/Motor)		8.2		liters
Total volume (Controller)		2.5		liters
Total weight (Pump/Motor)		15.8		kg
Total weight (Controller)		1.6		kg
Maintenance interval	500	1000		Hours [10]

Notes:

1) Air Delivery System is limited in peak parameters for 30 seconds operation, not more than once per hour.
2) The output shall be capable of achieving a pressure ratio of the specified value. Pressure from the air delivery system shall be controlled by the downstream backpressure provided by the customer's device. Peak output pressure shall be limited to 110% of maximum operating pressure.
3) Flows at output 1 are standardized for 25 ˚C inlet temperature, 100 kPa inlet pressure.
4) Motor speed may be limited by max compressor speed.
5) 0.0 – 5.0 volts analog input.
6) Ambient supply of air shall be free of particulate matter greater than 20 microns in size.
7) Non-condensing. No un-evaporated water (liquid) may be injected or otherwise introduced into the pump inlet.
8) Max operational line amperage is contingent on applied voltage (i.e. @ 40 volts Imax ~45 amps (max Current), @ 48 volts Imax ~38.5 amps (max power))
9) Max operating power is contingent on applied voltage (i.e. @ 24 volts Imax ~45 amps = 1080 Watts, @ 48 volts Imax ~38.5amps = 1850 Watts)
10) Duration at 100% Duty Cycle (2500 rpm, 2.0 pressure ratio).
11) Other Voltage Ranges and Control Input formats available on request.
12) With inlet and outlet noise suppression