

**MATTEI ROTARY VANE AIR COMPRESSOR DATA SHEET - VARIABLE FREQUENCY DRIVE**

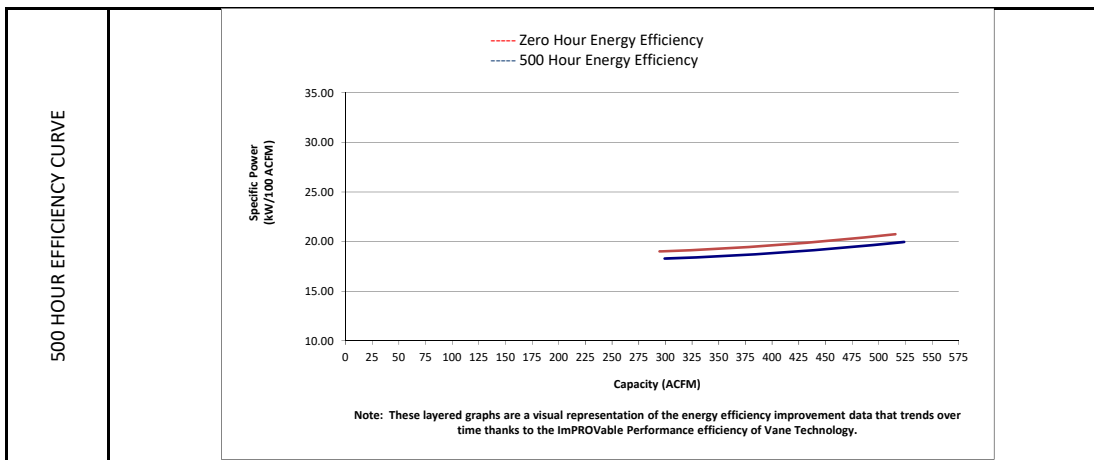
Model Number:	<b>OPTIMA 90 @500hrs</b>	Date:	<b>1-Apr-2017</b>
Cooling Media:	Air-cooled <input checked="" type="checkbox"/>	Water-cooled <input type="checkbox"/>	Oil Injection <input checked="" type="checkbox"/>
Inlet Control Scheme:	Load/No Load <input type="checkbox"/>	Modulation <input type="checkbox"/>	Inverter <input checked="" type="checkbox"/>
Starting System:	Full Voltage <input type="checkbox"/>	Star-Delta <input type="checkbox"/>	Soft-Start <input checked="" type="checkbox"/>

**PERFORMANCE SPECIFICATIONS: SPEED, POWER, PRESSURE**

Compression Module Rotational Speed	<b>800 ÷ 1500</b>	rpm
Nominal Drive Motor Rotational Speed	<b>800 ÷ 1500</b>	rpm
Drive Motor Nominal Rating	<b>120</b>	hp
Drive Motor Nominal Efficiency	<b>95.4</b>	percent
Maximum Working Pressure	<b>145</b>	psig <sup>c</sup>
Rated Operating Pressure	<b>131</b>	psig <sup>b</sup>
Fan Motor Nominal Rating (if applicable)	<b>2.95</b>	hp
Fan Motor Nominal Efficiency	-	percent

**ImPROVable PERFORMANCE ENERGY EFFICIENCY**

500 HOUR EFFICIENCY	Input Power (kW)	Inverter Range <sup>e</sup>	Capacity (acfm) <sup>a,d</sup>	Isentropic Efficiency <sup>f</sup>	Specific Power (kW/100 acfm) <sup>d</sup>
	104.59	Max	<b>523.8</b>	76.99	<b>19.97</b>
	97.04		<b>494.1</b>	78.27	<b>19.64</b>
	82.38		<b>431.6</b>	80.55	<b>19.08</b>
	75.25		<b>399.7</b>	81.65	<b>18.83</b>
	61.44		<b>333.3</b>	83.40	<b>18.43</b>
	54.75	Min	<b>299.2</b>	84.02	<b>18.30</b>
	Total Package Input Power at Zero Flow <sup>c,d</sup>			<b>9.68</b>	



NOTES:

- a. Measured at the discharge terminal point of the compressor package in accordance with ISO 1217, Annex E; ACFM is actual cubic feet per minute at inlet conditions.
- b. The operating pressure at which the Capacity and Electrical Consumption were measured for this data sheet. No Load Power. In accordance with ISO 1217, Annex E, if measurement of no load power equals less than 1%, c. manufacturer may state "not significant" or "0" on the test report. Tolerance is specified in ISO 1217, Annex E, as shown in table below:
- d. NOTE: The terms "power" and "energy" are synonymous for purposes of this document.
- e. Superior energy efficiency at flows below Min Capacity in leveraging Load/No load operation and air system storage.
- f. Isentropic Efficiency: real performance at flow and pressure as a percent compared to an ideal compression process.

