

MATTEI ROTARY VANE AIR COMPRESSOR DATA SHEET - FIXED-SPEED

Model Number:	ERC 7 HX		Date:	2-Jan-2025		
Cooling Media:	Air-cooled	☒	Water-cooled	☐	Oil Injection	☒
Inlet Control Scheme:	Load/No Load	☒	Modulation	☒	Inverter	☐
Starting System:	Full Voltage	☐	Star-Delta	☒	Soft-Start	☐

PERFORMANCE SPECIFICATIONS: SPEED, POWER, PRESSURE

Compression Module Rotational Speed	1800	rpm
Nominal Drive Motor Rotational Speed	1800	rpm
Drive Motor Nominal Rating	10	hp
Drive Motor Nominal Efficiency	92.4	percent
Maximum Full Flow Operating Pressure ^c	145	psig ^c
Full Load Operating Pressure ^b	137	psig ^b
Fan Motor Nominal Rating (if applicable)	0.23	hp
Fan Motor Nominal Efficiency	n/a	percent

"VANE GAIN" PERFORMANCE EFFICIENCY GAINS OVER TIME^g

Efficiency Improvement timeline	500	hours
Rated Capacity at Full Load Operating Pressure ^a	40.2	acfm ^a
Total Package Input Power at Rated Capacity and Full Load Operating Pressure ^d	9.12	kW ^d
Specific Package Input Power at Rated Capacity and Full Load Operating Pressure	22.69	kW/100 cfm
Isentropic Efficiency at Rated Capacity and Full Load Operating Pressure ^f	70.20	Percent of ideal compression
Total Package Input Power at Zero Flow	2.52	Kw

NOTES:

- Measured at the discharge terminal point of the compressor package in accordance with ISO 1217, Annex C; ACFM is actual cubic feet per minute at inlet conditions.
- The operating pressure at which the Rated Capacity and Total Package Input Power Energy Consumption at Rated Capacity and Full Load Operating Pressure were measured.
- Maximum pressure attainable at full flow, usually the unload pressure setting for load/no load control or the maximum pressure attainable before capacity control begins. May require additional power.
- Total package input power at other than reported operating points will vary with inlet control scheme.
- Isentropic Efficiency: real performance at flow and pressure per ISO 1217 compared to an ideal compression process.
- VANE GAIN: Proven efficiency and output performance gains as the blades season through normal operation.

