

AIR HANDLING UNITS (CUSTOM)

3. Outdoor air intake applications:

- a. RUSKIN EAM6625D extruded aluminum louvers shall be used at O/A location. Louvers shall be stationary, drainable type with built in downspouts and furnished with birdscreen. Blades shall be vertical and housed inside a aluminum frame mounted to the unit exterior. Louvers shall be painted to match the unit exterior. Rain hoods are not acceptable. Louver shall have integral flow station. Transducers shall be provided by DDC controls contractor.

H. Design Equipment: Temtrol.

I. Make: Air Enterprise, Temtrol, Buffalo Forge, TMI, MAFNA, Haakon.

J. Variable Frequency Drives (VFD's): (To be Provided with AHU):

1. Provide converter, inverter, and regulator sections, suitable for variable speed-variable torque applications. Controller shall convert three phase, 60 Hz power to variable frequency, variable voltage, three phase power for motor speed control. VFD's shall be suitable to serve as starter and disconnect and complete unit shall be approved and listed by a nationally recognized electrical testing laboratory as an assembly (including all options such as line reactors, isolation transformers, bypass equipment, etc.). Input voltage plus or minus 10%. One minute rating of 10% of rated current. The VFD shall be a full digital voltage source pulse width modulated (PWM) operation using surface mount technology. Quiet motor operation shall be provided with state of the art flux vector control techniques. The VFD, including all options, shall mount in a standard NEMA I enclosure with all components factory mounted, wired and tested. All high voltage components within the enclosure shall be isolated with steel covers. No line voltage components shall be mounted on the door.

Provide:

- a. Microprocessor/controller which allows programmable settings for:

- 1) Minimum speed
- 2) Maximum speed
- 3) Volts/hertz
- 4) Maximum frequency (15 to 400 hz)
- 5) Minimum frequency (3 to 60 hz)
- 6) Acceleration (0.1 to 360 sec.)
- 7) Deceleration (0.1 to 360 sec.)
- 8) Current limit (50 to 110%)
- 9) Adjustable auto restart for both number of restart attempts (0 to 5) and time interval between resets.