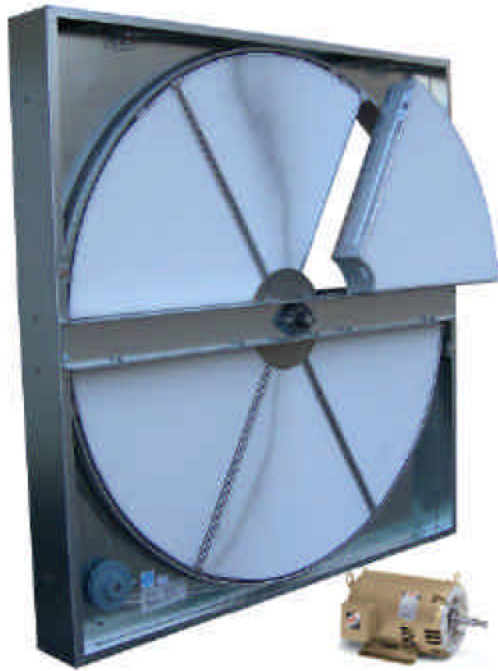


Application Recommendations for use with Airxchange Supplied VFD motors



Airxchange can supply VFD compatible motors at various voltages as an option on most of our Energy Recovery Cassettes. It is important to the service life of these motors to follow several guidelines as to the installation and setup in the application to attain maximum motor life.

These motors are designed with a maximum turndown ratio of 10:1. An inverter drive should be selected to take advantage of the 10:1 turndown ratio if desired, but not be set up to run the motor at greater than 10:1 turndown. A greater than 10:1 turndown can cause the motor to overheat, and perhaps lead to premature failure. Airxchange can recommend a compatible inverter drive if desired.

The wire harness lead length between the inverter drive and motor should not be more than 15 meters. Excessive lead length can cause voltage at the motor terminals to rise and can cause motor winding insulation failure.

It is highly recommended that a load reactor be installed between the drive and motor to filter voltage transient spikes from being applied to the motor. These spikes can cause motor winding insulation failure or corona effects to the motor, resulting in motor failure. Airxchange recommends the following load reactors:

- For 208/230V motors, Baldor load reactor #LRAC00401
- For 380V and 460V motors, Baldor load reactor #LRAC00201
- For 575V motors, Baldor load reactor #LRC00202.

For multi-voltage motors, use the load reactor based on the applied voltage to the motor. The reactors should be installed as close to the drive as possible.

These recommendations apply to both initial installations and retrofit or upgrades of existing installations. Please contact Airxchange with questions or concerns regarding the application of VFD motors.

Inverter Rated Motor offerings for 2009

Standard Matrix Models									
Model									
ERC-xxxx			VFD01		VFD02		VFD03		
Standard Matrix Models	Sizes Available		230V, 3PH ONLY	Horsepower	230/460V, 3PH	Horsepower	575V, 3PH	Horsepower	
ERC-15	1502								
ERC-19	1902	1904							
ERC-21	2106								
1.5" Series									
ERC-36	3615	3623	1.04	1/6					
ERC-46	4625	4637	0.8	1/6					
ERC-52	5230	5245	0.8						
ERC-58	5860				2.5/1.2	1/4	0.9	1/3	
2" Series									
ERC-19	1906								
ERC-21	2108								
ERC-25	2509								
3" Series									
ERC-36	3622	3628	1.04	1/6					
ERC-41	4128	4136	0.8	1/6					
ERC-46	4634	4646	0.8						
ERC-52	5248	5262	0.8						
ERC-58	5856	5874			2.5/1.2	1/4	0.9	1/3	
ERC-64	6475	6488			2.5/1.2		0.9		
ERC-68	6876	68100			2.5/1.2		0.9		
ERC-74	7490	74122			2.5/1.2		0.9		

Channel Matrix Models									
Model									
ERC-xxxxC			VFD01		VFD02		VFD03		
Channel Matrix Models	Sizes Available		230V, 3PH ONLY	Horsepower	230/460V, 3PH	Horsepower	575V, 3PH	Horsepower	
ERC-25C	2510	2513							
ERC-30C	3014	3019							
ERC-36C	3622	3628	1.04	1/6					
ERC-41C	4128	4136	0.8	1/6					
ERC-46C	4634	4646	0.8						
ERC-52C	5248	5262	0.8						
ERC-58C	5856	5874			2.5/1.2	1/4	0.9	1/3	
ERC-64C	6475	6488			2.5/1.2		0.9		
ERC-68C	6876	68100			2.5/1.2		0.9		
ERC-74C	7490	74122			2.5/1.2		0.9		
ERC-81C	81110	81146			2.5/1.2		0.9		
ERC-86C	86125	86170			2.5/1.2		0.9		
ERC-92C	92135	92180			3.4/1.7	1/3	0.9	1/3	
ERC-99C	99160	99215			3.4/1.7		0.9		
ERC-104C	104195	104250			3.4/1.7		0.9		
ERC-110C	110220	110290			3.4/1.7		0.9		

** 575V Inverter rated motors are non-UL listed**