

Frigitek® ECMotor Savings Analysis				Analysis Sheet # 1 of 1	
Date -		December 8, 2009			
Customer -		Typical C Store			
Room and Evap. Description -		Beverage Cooler			
Contact -		0			
Phone -		0			
Pre-Frigitek Data -					
Number of Evaporators on this sheet -		4	Enter one of these -		
Fan motors per Evaporator -		3	Amps/Motor -		2.100
Fan Voltage -		120	V	or Total Motor Amps -	
Motor Type (Shaded-Pole) (PSC) -		S	(Auto)	Compressor Type ⁽²⁾ -	
Original Motor Power Factor ⁽¹⁾ -		0.66	(Auto)	(S)ingle or (T)hree Phase -	
Fan Motors Kwh/Mo -		1,456.9	Avg	Total Fan Motor Watts ⁽⁷⁾ -	
				1995.8 W	
Operational Data -					
Electricity Cost per Kwh ⁽³⁾ -		17.0	Cents	Normal Duty Cycle ⁽⁴⁾ -	
Operation time factor ⁽⁵⁾ -		100	%	Frigitek Duty Cycle ⁽⁶⁾ -	
				40.00 %	
				30.00 %	
ECMotors Cost, Quan., Model -		\$2,028.00	12	Model -	MA59
ECMotor Controllers Cost, Quan -		\$1,300.00	4	(Auto)	Manual Selection -
					0
Tax Amount -		\$307.84	Tax Rate -		9.250 %
Install, Shipping, other costs -		\$830.00	8 Hrs install + 30.00 shipping		
Total Cost -		\$4,465.84	CW		
Total Frigitek Kwh Savings ⁽⁸⁾ -		1866.65	/Mo Avg	22,399.82 /Yr	
Total Frigitek Dollar Savings ⁽⁸⁾ -		\$317.33	/Mo Avg	\$3,807.97 /Yr	
Payback Time (ROI) ⁽⁹⁾ -		14.07	Months	CO ₂ -	30,367.4 Lbs/Yr
Analysis Details -----					
Before ECMotor					
Full-time Fan Energy Usage -		1456.9	Kwh/Mo Avg	17,483.2 Kwh/Yr	
Full-time High Speed Fan Cost ⁽¹⁰⁾ -		\$247.68	/Mo Avg	\$2,972.14 /Yr	
With ECMotors and Controller					
ECMotor Power Reduction ⁽¹¹⁾ -		56.7	%		
W/ECMotor Ctlr Pwr Reduction ⁽¹¹⁾ -		93.3	%		
Fans Kwh Saved -		1237.06	Kwh/Mo Avg	14,844.72 Kwh/Yr	
Fans High Speed Cost ⁽¹²⁾ -		\$32.17	/Mo Avg	\$385.99 /Yr	
Fans Low Speed Cost ⁽¹³⁾ -		\$5.21	/Mo Avg	\$62.55 /Yr	
Total Fan Cost with Frigitek -		\$37.38	/Mo Avg	\$448.54 /Yr	
Fan Dollar Savings ⁽¹⁴⁾ -		\$210.30	/Mo Avg	\$2,523.60 /Yr	
Compressor Cost Reduction					
Fan Power Reduction ⁽¹⁵⁾ -		1694.64	Watts	Heat Transfer Factor ⁽¹⁶⁾ -	
Fan Heat Reduction ⁽¹⁷⁾ -		5782.28	BTU/Hr	Comp. Kw/Hp ⁽¹⁸⁾ -	
Compressor Hp use Reduction ⁽¹⁹⁾ -		0.6086612	Hp/Hr		
Compressor Power use Reduction ⁽²⁰⁾ -		0.79125952	Kw/Hr	Cond. fan Savings ⁽²¹⁾ -	
Compressor Power use Reduction ⁽²⁰⁾ -		577.61	Kwh/Mo	\$8.84 /Mo	
Compressor Cost reduction ⁽²²⁾ -		\$107.03	/Mo Avg	\$1,284.37 /Yr	
Note - Numbers in parentheses refer to Explanation Sheet.					
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