

**University of Illinois, Department of Agricultural and Biological Engineering
 Bioenvironmental and Structural Systems Lab
 Circulating Fan Performance - Final Report**

Project Number: c15046
Test Date: January 12, 2012

Fan:	Motor:	Guards:
Make- Termotecnica Pericoli	Make- ABB	Description- wire
Model- ACF26	Model - M2AA 080 A6	Spacing- 0.4" / 0.8" (10 / 20 mm) concentric
Size- 24.6" (625 mm)	Hp- 0.37 kW	Location- intake / exhaust
Orifice ϕ - 25.6" (650.24)	RPM- 930	
	Volts- 230	
Blade:	Amps- 1.58	
Number- 6	Hz- 50	
Shape- propeller	Phase- 3	
Material- aluminum	S.F. - -	

Drive Sheaves:	Housing: Tube
Drive o.d.- direct	Material: galvanized steel
Axle o.d.- drive	Depth- 13" (330 mm)

Notes: *50 Hz test

5 x D Centerline Velocity (fpm): 1090

Test Conditions:

T(wb): 46	Barometric pressure, recorded	29.70
T(db): 63	Barometric Pressure, corrected	29.61

D Impeller ϕ (in.)	Thrust (lbf)	Thrust Efficiency		rpm	Volts	Amps	kW	Airflow* (thrust cfm)	Efficacy (thrust cfm/W)
		Ratio (lbf/kW)							
24.6	5.85	12.7		940	228.5	1.82	0.462	5460	11.8

*Airflow - ANSI/AMCA 230-12 Eq. 9.6 IP