

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

Project Number: C09041
Test Date: January 14, 2009

Fan:	Motor:	Guards:
Make- Termotecnica Pericoli s.r.l.	Make- ABB	Description- wire
Model- ACF36	Model - M2VA80B-6 80B600C	Spacing- 20 mm concentric
Size- 914 mm (36")	Hp- 0.55 kW	Location- intake/exhaust
Orifice ϕ - 940 mm	RPM- 925	
	Volts- 380-420/220-240	
	Amps- 1.7/3	
Blade:	Hz- 50	
Number- 3	Phase- 3	
Shape- propeller	S.F. - -	
Material- aluminum		

Drive Sheaves:	Housing:
Drive o.d.- direct	Material- galvanized steel
Axle o.d.- drive	Depth- 600 mm

Notes: *50Hz*, Galvanized tube fan with straightening vanes on exhaust side

5 x D Centerline Velocity (fpm): 1260

Test Conditions:

T(wb): 51	Barometric pressure, recorded	29.17
T(db): 73	Barometric Pressure, corrected	29.05

D Impeller ϕ (in.)	Thrust (lbf)	rpm	Volts	Amps	kW	Thrust Efficiency Ratio (lbf/kW)
36.0	10.88	892	228.7	3.17	0.974	11.2

Airflow* (thrust cfm)	(thrust cfm/W)
11110	11.4

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