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

Project Number: C09049
Test Date: January 14, 2009

Fan:
Make- Termotecnica Pericoli s.r.l.
Model- ACF25
Size- 627 mm (24.7")
Orifice ø - 648 mm

Blade:
Number- 3
Shape- propeller
Material- aluminum

Motor:
Make- ABB
Model - M2VABOA-6 BOA60(
Hp- 0.37 kW
RPM- 925
Volts- 380-420 / 220-240
Amps- 1.2 / 2.1
Hz- 50
Phase- 3
S.F. - -

Guards:
Description- wire
Spacing- 20 mm concentric
Location- intake / exhaust

Drive Sheaves:
Drive o.d.- direct
Axle o.d.- drive

Housing:
Material- galvanized steel
Depth- 600 mm

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

5 x D Centerline Velocity (fpm): 1100

Test Conditions:
T(wb): 46.5
T(db): 67
Barometric pressure, recorded 29.46
Barometric Pressure, corrected 29.36

*A

D Impeller ø (in.)	Thrust (lbf)	rpm	Volts	Amps	kW	Thrust Efficiency Ratio (lbf/kW)
24.7	4.61	938	229.3	1.86	0.488	9.4

Airflow* (thrust cfm)	(thrust cfm/W)
4910	10.1

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