

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

Project Number: C09044
Test Date: January 14, 2009

Fan:	Termotecnica Pericoli s.r.l.	Motor:	ABB	Guards:	Description- wire
Make-	Termotecnica Pericoli s.r.l.	Make-	ABB	Spacing-	0.8" (20 mm) concentric
Model-	ACF30	Model -	M2VABOA-6 BOA60C	Location-	intake/exhaust
Size-	30" (762 mm)	Hp-	0.37 kW		
Orifice ϕ -	775 mm	RPM-	925		
		Volts-	380-420 / 220-240		
Blade:		Amps-	1.2 / 2.1		
Number-	3	Hz-	50		
Shape-	propeller	Phase-	3		
Material-	aluminum	S.F. -	-		

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

Notes: *50 Hz*, Galvanized box fan with wire guards

5 x D Centerline Velocity (fpm): 1220

Test Conditions:

T(wb):	47	Barometric pressure, recorded	29.17
T(db):	69	Barometric Pressure, corrected	29.06

D Impeller ϕ (in.)	Thrust (lbf)	rpm	Volts	Amps	kW	Thrust Efficiency Ratio (lbf/kW)
30.0	7.26	905	229.1	2.28	0.655	11.1

Airflow* (thrust cfm)	(thrust cfm/W)
7530	11.5

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