

**University of Illinois Department of
Agricultural Engineering
BESS Lab**

Project Number: 01231

Test Date: August 23, 2001

Fan

Make: American Coolair

Model #: MNEFC52M

Manufacturer: American Coolair

Blade Size: 53"

Orifice Dia.: 53.4"

Blade

Number: 4

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.2"

Shutter w/ bell mouth inlet

Material: plastic

of Doors: 16

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

Discharge cone, 32.5" deep, 53.4" i.d., 64" o.d.
Belt tensioner

Motor

Make: Emerson

Model #: T63ZZCDZ-1257

H.P.: 1.5

Amps: 13.2/6.7

Volts: 115/230

RPM: 1725

S.F.: -

Drive

Drive Pulley Dia. 2.8"
AK28

Axle Pulley Dia.: 9.5"

Housing

Material: galvanized steel

Intake Area: 56" x 57"

Discharge Area: 53.4" dia.

Depth: 30.3" top
21.3" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR MNEFC52M

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01231	0.00	501	26,800	22.0
Fan description:	0.05	499	25,400	19.7
53" belt drive, 1.5 hp Emerson T63ZZCDZ-1257	0.10	497	23,500	17.5
motor, galvanized steel slant housing,	0.15	495	21,600	15.4
plastic bell mouth shutter, guard	0.20	495	19,300	13.5
and discharge cone	0.25	493	16,700	11.4
	0.30	494	12,300	8.5
