

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

Project Number: 97285

Test Date: October 28, 1997

Fan

Make: Canarm

Motor

Make: Marathon

Model #: PBF24G0S

Model #: 4WJ48A11T596A

Manufacturer: Canarm

H.P.: 1/2

Blade Size: 24"

Amps: 6.4/3.2

Orifice Dia.: 24.6"

Volts: 115/230

Blade 61053501

RPM: 1075

Number: 3

S.F.: 1.0

Shape: propeller

Drive

Material: galv. Steel

Drive Pulley Dia.: direct

Pitch: -

Axle Pulley Dia.: drive

Clearance: 0.3"

Housing

Shutter

Material: plastic

Material: plastic

Intake Area: 27" dia.

of Doors: 7 per

Discharge Area: 27" dia.

of Columns: 2

Depth: 17"

Door Length: 12.9"

Guards

Location: exhaust

Description: wire

Spacing: 2" x 2"

Other Attachments:

Location: intake/exhaust

TEST RESULTS

CANARM PBF24GOS

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97285	0.00	1114	7090	11.8
Fan description:	0.05	1109	6840	11.0
24" direct drive, ½ hp Marathon 4WJ48A11T596A	0.10	1102	6570	10.3
motor, plastic housing, plastic shutter	0.15	1097	6260	9.5
and guard	0.20	1090	5970	8.7
	0.25	1085	5690	8.1
	0.30	1077	5300	7.3