

**F&J SPECIALTY PRODUCTS, INC.**

*The Nucleus of Quality Air Monitoring Programs*

**MEGA HIGH VOLUME  
DIGITAL FLOW METER AIR SAMPLER  
DF-60810-MHVE SERIES  
(220– 240 VAC)**

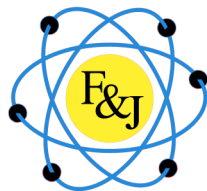
**CE**

F&J, the leader in advanced-technology air sampling systems for ambient environmental monitoring applications, is introducing a new technology product line of MEGA HIGH VOLUME AIR SAMPLERS!.

The Mega High Volume Digital Flow Meter (DFM) Systems provide modern technology to automate the majority of the air sampling process.

Flow rates as high as 170 CFM (289 m<sup>3</sup>/hr) can be achieved through 8"×10" (20.3 cm × 25.4 cm) glass fiber filter paper. The Mega High Volume air samplers enable air monitoring specialists to attain lower levels of detection for trace metals and lower levels of airborne radioactivity concentrations. Mega High Volume air samplers enable one to filter more than 250% greater air volumes per sample event than processed by the currently available high volume air samplers having a 60-70 CFM (100-120 m<sup>3</sup>/hr) maximum flow rate capacity.

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## Typical Maximum Flow Rates for DF-60810-MHVE Series

Filter Paper Grade 8" x 10" (20.3cmx25.4cm)	Maximum Flow Without muffler		
	(LPM)	(CFM)	(m <sup>3</sup> /hr)
FP810	3099	110	186
FP810M	4443	157	267
GC508X10IN	2737	97	164
5211810	3540	125	212
GC908X10	3240	114	194
PG60	3297	116	198
FP810M2	4817	170	289
EPM2000	3212	114	193
GA558X10IN	2901	102	174
2064810	4437	157	266



DF-60810-MHVE Series



# DF-60810-MHVE Air Sampler Specifications

## Performance:

Basic components of the system are modular and independently serviceable. Sample flow rate can be set between 50 and 170 CFM (84 and 289 m<sup>3</sup>/hr). The standard filter holder has the dimensions 20.3×25.4 cm (8"×10").

**Technology:** Microprocessor controlled state of the art electronics

**Operating Temperature Range:** 0°F\* to 122°F (-17°C\* to 50°C)  
\*warm start/continuous operation

**Operating Relative Humidity:** 0 – 95% RH

**Typical Flow Rate Range:** 50 – 175 CFM (84 to 289 m<sup>3</sup>/hr)  
(Depending on filter paper dimensions and air resistance).

**Motor:** Brushless: 2.4H.P.(1800 Watt) motor with electronic motor speed control

**Power:** 200-240VAC; 50/60Hz; 9 amperes; single phase.

**Housing:** Powder coat painted aluminum Locking hinged cover  
Removable hinged cover Locking swing door with key

**Dimensions:** 57.5"H × 21.5"W × 21.5"D (146 H × 54.6 W × 54.6 cm D)

**Weight:** Approximately 98 lbs. (44.5 kg)

**Shipping Weight:** Approximately 150 lbs. (68.2 kg)

**Installation Category:** Pollution Degree 3

**Enclosure Rating:** IPX3

## Automatic Flow Control:

The system microprocessor monitors flow rate relative to the preset Reference T and P flow rate established during the setup procedure and electronically adjusts the electronic motor speed adjustment, if necessary, to maintain the flow within ± 4% of setting. The microprocessor computes the STP flow rate by correcting the measured values of the Reference values.

## On-Board Measurement, Calculations and Other System Features

### Measurements:

- Temperature of air flow through system
- Inlet pressure to the flow sensor
- Differential Pressure of the flow sensor

### Calculations/Determinations:

- Totalized volume, Reference T and P
- Current flow rate, Reference T and P
- Elapsed time

### Factory Settable Reference T and P

Classical STP	0°C, 101.325 kPa
Normal T and P	20°C, 101.325 kPa
Modified Normal T and P	70°F, 101.325 kPa
Standard Ambient T and P	25°C, 101.325 kPa

### Other System Features:

- Automatic shut off of system on totalized volume or elapsed time
- RS-232 port for real-time data download
- Utilization of 8"×10" (20.3×25.4 cm) filters
- Bright LED display
- Automatic flow control

### Options:

- Flash Card Reader (P/N:SDDR-199-A20)

## MEGA HIGH VOLUME AIR SAMPLING SYSTEM

### Digital Flow Meter System

Criteria / Model	DF-60810-MHVE
<b>Voltage (AC), 1 Ph</b>	<b>220-240</b>
Dimensions H×L×W (in)	57.5× 21.5 × 21.5
H×L×W (cm)	146×55×55
Weight lbs. (kg)	98 (44.5)
Maximum Flow <sup>(a)</sup>	170 CFM (289 m <sup>3</sup> /hr)
<sup>a)</sup> The maximum flow is dependent upon the dimensions and air flow resistance properties of the filter media.	
Max. Vacuum “H <sub>2</sub> O (kPa)	90 (22)
Flow Regulator Type	Electronic
Motor Power, Type	1800 watt, Brushless
Frequency (Hz)	50/60
Power Requirement (watts)	1000
Operating Temperature °C (°F)*	-17* to 50 (0 to 122)
*warm start/continuous operation only for low temperature value	
Storage Temperature °C (°F)	-35 to 70 (-31 to 156)
IPX Rating	IPX3
Installation Category	Pollution Degree 3
Enclosure Protection	Powder Coat Paint
Noise Level @ 1 m (db)	83