



Model 2100-111-1(2) Motor Aspirated Radiation Shield



Operation

The Model 2100-111-1(2) motor aspirated radiation shield (MARS) provides solar protection and mount for the 2100-110 temperature and humidity probe. The MARS provides maximum sensor protection from incoming short wave solar radiation and outgoing long wave radiation. The shield employs concentric downward facing intake tubes and a small canopy shade to isolate the sensor from direct and indirect radiation. A continuous duty blower draws ambient air through the intake tubes and across the sensor minimizing heat transfer to the sensor. Compact shield components reduce radiation-absorption and improve aspiration efficiency. Specially selected plastic materials provide high reflectivity, low conductivity, and maximum weatherability. The versatile 12 VDC blower is designed for continuous duty of 80,000 hours at 25° C. Brushless electronic

Model 2100-111-1(2) Advantages

- **12 VDC brushless motor**
- **Maximum sensor protection against incoming short wave solar radiation and outgoing long wave radiation.**
- **Specially selected plastic materials provide high reflectivity, low conductivity, and maximum weatherability.**
- **Easy Maintenance**

commutation is achieved using dependable solid state circuitry. 12 VDC power supplies are provided with the MARS or use your own power supply.

Ordering Information:

- **Model No: 2100-111-1
(110 V 50/60 Hz power supply)**
- **Model No. 2100-111-2
(220 V 50/60 Hz power supply)**



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Model 2100-111-1(2) MARS Specifications

Performance Specification	
Sensor Types	Accommodates sensors 25 mm in diameter
Temperature error @ 1000 W/m ²	Delta T 0.05° C with like shields equally exposed
Aspiration Rate	18 fps (5.5 m/s) typical

Electronic Specification	
Power Requirements	12 VDC, 500 mA (AC Adaptor included)

Environmental Specification	
Temperature Range	-50 to +50° C
Humidity	0 to 100%

Physical Specification	
Length:	43-75 in (110-190 cm) adjustable
Shield:	1.3 in (34 mm) dia. x 4 in (10 cm) length
Blower Housing:	5.9 in (15 cm) dia. x 3.5 in (9 cm) length
Mounting:	Adjustable V-blocks and U-bolts fit vertical, horizontal or diagonal tower members 1-2 in (25-50 mm) dia.
Net weight-	5.3 lb (2.4 kg)
Shipping weight-	13 lb (5.9 kg)

Specifications are subject to change without notice.



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