

AUTOMATIC SOLAR TRACKER

Model SMT Specifications

The Automatic Solar Tracker, Model SMT was developed to allow convenient automatic pointing of normal incidence solar radiation measuring instruments (NIP, sNIP, AHF) at the sun. Due to its robust design, users have continued to expect solar trackers to do more and more and the SMT does not disappoint. Eppley offers an optional Shade Disk Kit, Model SDK that allows for shading and ventilation of pyranometers and pyrgeometers. During Intercomparisons, it is not uncommon to see four or more AHF Cavity Radiometers on a single tracker. The current version (Mod E) employs a control unit based on a refurbished HP Palmtop computer (supplied) housed in the control unit's weather proof housing.

Environment Conditions

| | |
|-----------------------|--|
| Latitude | -180 to +180 (Please notify us if used in the Tropic Zone) |
| Operating Temperature | -50° to +70°C |
| Operating Humidity | 0-100% RH |
| Operating Wind Speed | 0-70 mph |

Physical Specifications

| | |
|-------------------|----------------------------|
| Tracker Weight | 70 lb |
| Tracker Dimension | 16" height by 18" diameter |
| Mounting | Tripod stand included |

Performance

| | |
|--------------------|-------------------------------------|
| Input Power | 110 VAC or 220 VAC (please specify) |
| Power Consumption | 100 W |
| Pointing Precision | 0.01875° per step |
| Pointing Accuracy | <1° monthly |
| Software/Hardware | Included in the price. |



SMT modified by user
to "shade cal" 4 pyranometers



SMT in typical BSRN mode
with SDK, PIR, SPP and sNIP



25 year old SMT
with four AHF Cavity Radiometers

EPLAB

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