



Shadow Ring Specification

Energy Management Systems

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- The most economical way to perform diffuse radiation measurements
- High-quality design suitable for any environment
- Supports many irradiance sensors on the market

The PowerWise shadow ring is a cost-effective solution to measure diffuse irradiance at any geographical location.

The shadow ring in combination with a pyranometer provides diffuse solar radiation measurements onsite. The shadow ring ensures that the radiation sensor always remains in shade for several days before it requires a manual re-adjustment.

The objective of the shadow ring is to intercept the direct radiation coming to the pyranometer from the sun during the whole day without readjustment. With that in mind, the shadow ring must satisfy the following requirements:

Once installed, the axis of the shadow ring must be always parallel to the polar-axis. In consequence the angle between shadow ring axis and horizontal should be equal to the latitude of the observation site.

The shadow ring must be able to shift along the shadow ring axis relative to the pyranometer and in this way be adjusted to the sun's changes in declination during the year. Within the shadow ring construction, the pyranometer must be positioned with its sensor on the shadow ring axis.

For automatic diffuse solar radiation measurement, please contact PowerWise.



Component	Dimensions
Ring diameter	24 $\frac{3}{8}$ "
Ring height	3 $\frac{3}{4}$ "
Ring arms	18"
Base diameter	8"
Stand	19 $\frac{1}{4}$ "
Arm for RW 50 bracket	8 $\frac{1}{4}$ "
RW 50 bracket	