

Creative Solar Monitoring System (RMR100)

INTRODUCTION

TOPFLAG Rotating Mirror Radiometer (RMR100) creative solar monitoring system is the first systems in the world that can measure Direct Normal Irradiation (DNI) directly but not via sun-tracker system. RMR100 consists of EKO's pyranometer and MS-093DNI. Thanks to those high quality sensors, RMR100 provides Global Horizontal Irradiance (GHI), Direct Normal Irradiation (DNI) and Diffuse Horizontal Irradiance (DHI) precisely.



ADVANTAGES

Low-cost, high-accuracy and highly integrated are the main characteristics of the system. As option, this system also provides meteorological parameters needed to contribute to a successful analysis and assessment of the solar resource and PV potential.

APPLICATION

Meteorology, PV site assessment, performance monitoring, and advanced solar monitoring.

SPECIFICATIONS

直接辐射/DNI	
响应时间/Response Time	< 1 ms
平均误差/Mean Bias	1%
非线性误差/Nonlinear Error	±2.5%
响应范围/Measurement Range	0 ~ 1400 W/m ²
光谱范围/Spectral Range	300 ~ 2500 nm



总辐射/GHI	
传感器类型/Sensor	副基准(Secondary Class)
响应时间/Response Time	< 5 s
长期稳定性/Long-Term Stability	< 0.5 % /year
非线性误差/Non-linearity	< 0.2% (1000 W/m ²)
温度响应/Temperature Response	< 1% (50 °C)
倾斜响应/Tilt Response	< 0.2 % (1000 W/m ²)
光谱范围/Spectral Range	280~3000nm
散射辐射/DHI	
平均误差/Mean Bias	1%
非线性误差/Nonlinear Error	±2.5%
光谱范围/Spectral Range	280 ~ 3000 nm
日照时长/Sunshine Duration	
平均误差/Mean Bias	< 10 min/day
判定阈值/Threshold	120 W/m ²
光谱范围/Wavelength Range	300 ~ 2500 nm
全局参数/Global Specifications	
最小采样间隔/Minimum Sampling Interval	30 s
数字输出/Output	RS232/RS485
功耗/Power	12 VDC, 450 mA
加热/Heating	100 ~ 240 VAC @ 50 W
操作环境/Operation Environment	-40 ~ 60°C, 0 ~ 100% RH
尺寸/Dimension	500(L) × 220(W) × 350 mm(H) (without base)
重量/Weight	3 kg (without base)