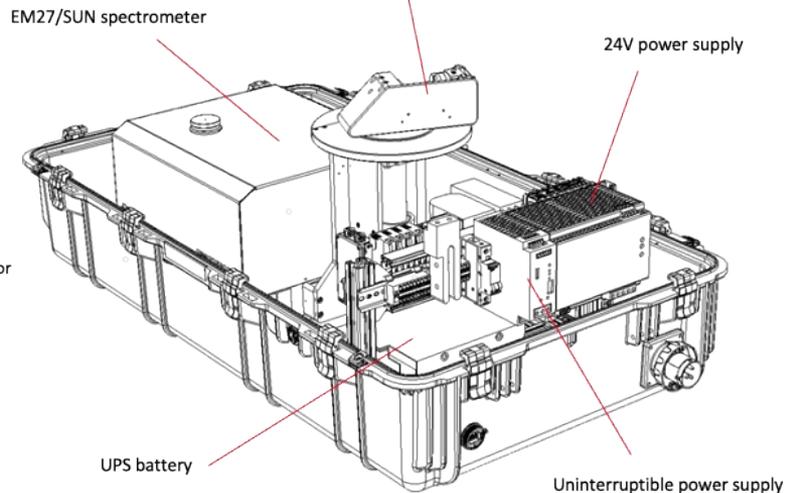
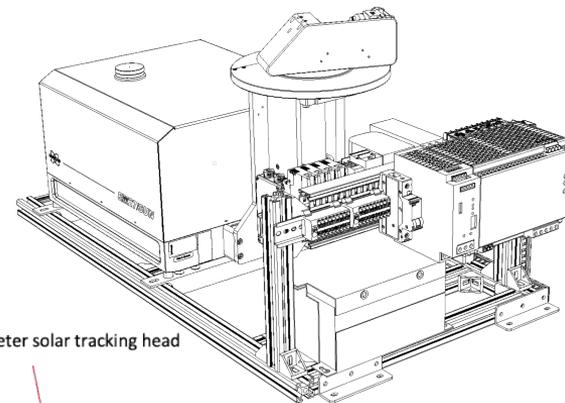
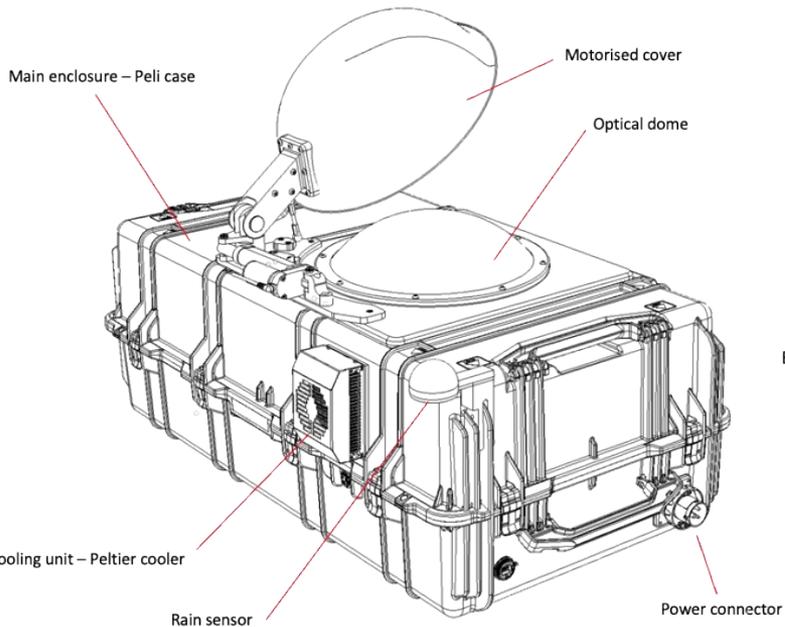


# EM27/SUN weatherproof enclosure



Fully enclosed (no air exchange), waterproof enclosure for EM27/SUN with precision optical dome with characterised transmission (BK7). Three enclosures previously deployed for > one year around London by NERC Field Spectroscopy Facility. Fourth enclosure deployed at RAL Space by University of Leicester. Ten more under construction as part of UK GHG monitoring network. Five more for University of Edinburgh.

# EM27/SUN weatherproof enclosure



# Specifications and options

Specification	Description
Cooling power provided	Up to 120 W
Acceptable operating humidity range	0 to 100% relative humidity
Enclosure internal temperature	Maintained between EM27/SUN operating limits: -10°C to 40°C with spectrometer powered on -10°C to 50°C with spectrometer powered off
Enclosure internal humidity	Maintained between 0% to 80% relative humidity at all times. Typically 10-20% RH.
Water ingress protection	No water ingress due to precipitation
Dust protection	No dust ingress
Instrument viewport	Optical dome manufactured from BK7 provides viewport for spectrometer. BK7 has high transmission and minimal spectral signature in the spectral region of interest
Viewport cover	Automated cover protects the optical dome from dust and impact
Precipitation and light level monitoring	Precipitation sensor detects rainfall and snow, as well as light levels below 2000 lux
Environmental monitoring	Monitoring of internal temperature, pressure, and humidity using dual sensors for redundancy
Power supply	Single phase mains supply (240 V 50Hz) 24 VDC power supply inside enclosure 24VDC UPS
Connectivity	WiFi, ethernet, cellular connectivity options
Overall dimensions	1150 x 650 x 500 mm
Overall mass	40-50 kg depending on options specified

Pricing for 60W cooling option, including optical dome cover & UPS: **€37,950 + VAT**

# Goniometer

System under development for NERC FSF. Allows spectral characterisation of object reflectance and at various alt-az angles and source positions (BRDF). Fibre positioning target accuracy of  $0.5^\circ$ . Contact if interested!

