



NOR-CAL CONTROLS
ENERGY SOLUTIONS

Your Project. Our Passion.

TAHOE™ MET STATION

The Nor-Cal Controls Tahoe Meteorological (MET) station combines **functionality**, **reliability** and **simplicity**. The MET station is fully customizable and applicable with multiple SCADA applications and hardware platforms. This system is **preconfigured and ready for ease of startup and commissioning** by either Nor-Cal's engineering experts or others.

TAHOE MET™ STATION IS EQUIPPED WITH A HOST OF FEATURES TO SUPPORT THE END USER

- Supports a wide variety of serial communication-based sensors
- 1 second sampling data logging
- Support for over 250 protocols for ease of access
- Support of up to 10 simultaneous protocols from one TCP ethernet port
- Lithium-ion battery back-up power at 12 VDC 55Ah
- Backup power equipment monitoring and data logging
- Utility power input support (120/240VAC)
- Universal SCADA platform support
- Scalability of I/O functions (RTD, DI, DO, AI & AO)
- Web server for remote access over LAN or WAN networks
- International languages and unicode characters
- Port access programming functions available for configuring/reconfiguring attached devices

OPTIONAL FEATURES

- Optional email notifications
- Optional SMS functions
- Optional local machine interface (HMI)
- Optional solar panel for standalone battery charging off of the grid functions
- Optional FTP services

COMMON MEASUREMENTS

- GHI irradiance
- POA irradiance
- Back of module temperature
- Air temperature
- Relative humidity
- Barometric pressure
- Wind speed



MEASUREMENT CAPABILITIES

(OPTIONAL INSTRUMENTS)

ELECTRICAL

AC	Nominal system voltage: Input frequency:	100-240VAC 50/60Hz
DC	Nominal system voltage:	12VDC/24VDC+/-10%
LEAD ACID BATTERY SYSTEM	Nominal voltage: Capacity:	12VDC 55Ah
SOLAR PANEL	Nominal voltage: Operating current:	24VDC 3.3A at 1000W/m2

COMMUNICATIONS

USB PORT	Nominal system voltage:	
SERIAL PORTS	RS-232 via RJ12 - quantity 1 RS-422/485 via RJ45 terminal jack - quantity 2	
ETHERNET PORT	10 Base-T/100Base-TX via RJ45 NIC	

MEMORY

ON-BOARD RAM	256Mb
MEMORY CARD	16GB Industrial SD card Supports 2 million write cycles

REAL-TIME CLOCK

BATTERY	Lithium coin cell - typical lifetime of 10 years at 25 C
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ENVIRONMENTAL CONDITIONS

OPERATING TEMP RANGE	0° C to 45° C
OPERATING HUMIDITY	80% max of relative humidity
ALTITUDE	Up to 2000 meters
NEMA RATING	4

Ambient Air Temperature

Wind chill: C°/F°
Dew point: C°/F°

Anemometer

Wind speed: m/s, mph
Wind direction: 0-360° from North

Barometer

Units supported: atm, Pa, hPa, millibars, mmHg, inHg, and ps

Pyranometers

Global horizontal irradiance: W/m2
Plane of array irradiance: W/m2
Diffused irradiance: W/m2

Rain Gauge

Precipitation type
Intensity
Totalized inches or millimeters

Calibrated Reference Cell

Reference cell irradiance: W/m2

Solar Module Temperature

Back of module temperature: C°/F°
Top of module temperature: C°/F°

Relative Humidity

Percentage