# Data Dictionary for NIST Photovoltaic Array and Weather Station Datasets, v1.0

Last update: July 27, 2017

Part 1. PV Array Datasets

The Saved Data Values from Each Array

| Variable Name | Units | Description | One-Minute Average/ Min/Max | Canopy (C)/ Ground (G)/ Roof (R) |
|---|---|---|---|---|
| AmbTemp_C | C | Outdoor ambient temperature | Average | C/G/R |
| Battery_A | A | Current to DAS battery, neg. = discharging | Average | C/G/R |
| Battery_V | V | Charge voltage of DAS battery | Min | C/G/R |
| ChgSource | - | Charging regulator power source<br>0 = none<br>1 = solar terminals<br>2 = continuous terminals | Min | C/G/R |
| ChgState | - | State of charging regulator;<br>-1 = regulator fault<br>0 = no charge<br>1 = current limited charging<br>2 = cycle charging<br>3 = float charging<br>4 = battery test | Min | C/G/R |
| CkBatt | - | Status of DAS battery;<br>0 = normal<br>1 = check battery | Max | C/G/R |
| CR1000Temp_C | C | Temperature of the data logger front terminal panel | Average | C/G/R |
| DoorOpen | - | Door sensor for DAS enclosure;<br>-1 = open, 0 =closed | Min | C/G/R |
| DPCBFaults | - | Inverter digital power control board fault code | Max | R |
| GeneralFaults1 | - | Inverter general fault code, group 1 | Max | R |
| GeneralFaults2 | - | Inverter general fault code, group 2 | Max | R |
| HardwareFaults | - | Inverter hardware fault code | Max | R |
| InvDriveFault | - | Inverter drive fault code | Max | C/G |
| InverterFaults | - | Inverter fault code | Max | R |
| InvEtoday_kWh | kWh | AC total real energy from current day, meas. by inverter | Max | R |
| InvEtot_kWh | kWh | AC total accumulated real energy, meas. by inverter | Max | C/G/R |
| InvEtot_kWh | kWh | AC total accumulated real energy, meas. by inverter | Max | R |
| InvEyesterday_kWh | kWh | AC total real energy from previous day, meas. by inverter | Max | R |
| InvFreq | Hz | AC frequency, meas. by inverter | Average | C/G/R |
| InvGndImped_kOhm | kΩ | Inverter ground impedance | Average | R |

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|---|---|---|---|---|
| InvGridFault | - | Inverter grid fault code | Max | C/G |
| InvIa | A | Line current, phase A, meas. by inverter | Average | C/G/R |
| InvIabcAvg | A | Average AC line current, meas. by inverter | Average | R |
| InvIb | A | Line current, phase B, meas. by inverter | Average | C/G/R |
| InvIc | A | Line current, phase C, meas. by inverter | Average | C/G/R |
| InvIDCin | A | Inverter DC input current, meas. by inverter | Average | C/G/R |
| InvIGnd | A | Inverter DC ground current | Average | R |
| InvINeutral | A | AC neutral current, meas. by inverter | Average | R |
| InvIUnbal | % | AC line current unbalance, meas. by inverter | Average | R |
| InvMainFault | - | Inverter main fault code | Max | C/G |
| InvOpState | - | Inverter operating status/state | Average | R |
| InvOpStatus | - | Inverter operating status/state | Average | C/G |
| InvPAC_kW | kW | AC real power, meas. by inverter | Average | C/G/R |
| InvPDC_kW | kW | Inverter DC input power, meas. by inverter | Average | C/G/R |
| InvPF | - | AC power factor, meas. by inverter | Average | R |
| InvPVMStatus | - | Inverter PV monitoring status code | Max | C/G |
| InvSystemFault | - | Inverter system fault code | Max | C/G |
| InvSystemWarn | - | Inverter system warning code | Max | C/G |
| InvTempFault | - | Inverter temperature fault code | Max | C/G |
| InvTempHeatsink_C | C | Inverter heatsink temperature | Average | R |
| InvTempInternalAir_C | C | Ambient temperature inside inverter general enclosure | Average | R |
| InvTempInverterAir_C | C | Ambient temperature inside inverter enclosure | Average | R |
| InvVa | V | Line voltage, phase A, meas. by inverter | Average | C/G/R |
| InvVA_kVA | kVA | AC apparent power, meas. by inverter | Average | R |
| InvVabcAvg | V | Average AC line voltage, meas. by inverter | Average | R |
| InvVAR_kVAR | kVAR | AC reactive power, meas. by inverter | Average | R |
| InvVb | V | Line voltage, phase B, meas. by inverter | Average | C/G/R |
| InvVc | V | Line voltage, phase C, meas. by inverter | Average | C/G/R |
| InvVDCin | V | Inverter DC input voltage on load side of DC contactor, meas. by inverter | Average | C/G/R |
| InvVDVoltage_V | V | Array DC voltage on DC busbars, measured using voltage divider | Average | C/G/R |
| InvVoltageFault | - | Inverter voltage fault code | Max | C/G |
| InvVPVin | V | Array DC voltage on line (PV) side of DC contactor, meas. by inverter | Average | C/G/R |

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|---|---|---|---|---|
| InvVUnbal | % | AC line voltage unbalance, meas. by inverter | Average | R |
| Load_A | A | Current supplied to load (DAS) from charging regulator | Average | C/G/R |
| NumActiveFaults | - | Inverter number of active faults | Max | R |
| PwrMtrEdel_kVARh | kVARh | AC total accumulated reactive energy to (used by) inverter, meas. by AC meter | Max | C/G/R |
| PwrMtrEdel_kWh | kWh | AC total accumulated real energy to (used by) inverter, meas. by AC meter | Max | C/G/R |
| PwrMtrErec_kVARh | kVARh | AC total accumulated reactive energy from (generated by) inverter, meas. by AC meter | Max | C/G/R |
| PwrMtrErec_kWh | kWh | AC total accumulated real energy from (generated by) inverter, meas. by AC meter | Max | C/G/R |
| PwrMtrFreq | Hz | AC frequency, meas. by AC meter | Average | C/G/R |
| PwrMtrFreqMax | Hz | Max. AC frequency, meas. by AC meter | Max | C/G/R |
| PwrMtrFreqMin | Hz | Min. AC frequency, meas. by AC meter | Min | C/G/R |
| PwrMtrIa | A | Line current, phase A, meas. by AC meter | Average | C/G/R |
| PwrMtrIb | A | Line current, phase B, meas. by AC meter | Average | C/G/R |
| PwrMtrIc | A | Line current, phase C, meas. by AC meter | Average | C/G/R |
| PwrMtrP_kVA | kVA | AC apparent power, meas. by AC meter | Average | C/G/R |
| PwrMtrP_kVAR | kVAR | AC reactive power, meas. by AC meter | Average | C/G/R |
| PwrMtrP_kW | kW | AC real power, meas. by AC meter | Average | C/G/R |
| PwrMtrPF | - | AC power factor, meas. by AC meter | Average | C/G/R |
| PwrMtrPhaseRev | Hz | AC phase reversal, meas. by AC meter | Average | C/G/R |
| PwrMtrVa | V | Line voltage, phase A, meas. by AC meter | Average | C/G/R |
| PwrMtrVaTHDMax | % | AC max. total harmonic distortion in phase A, meas. by AC meter | Max | C/G/R |
| PwrMtrVb | V | Line voltage, phase B, meas. by AC meter | Average | C/G/R |
| PwrMtrVbTHDMax | % | AC max. total harmonic distortion in phase B, meas. by AC meter | Max | C/G/R |
| PwrMtrVc | V | Line voltage, phase C, meas. by AC meter | Average | C/G/R |
| PwrMtrVcTHDMax | % | AC max. total harmonic distortion in phase C, meas. by AC meter | Max | C/G/R |
| Pyra1_mV | mV | Millivolt output from pyranometer;<br>Canopy: POA, west-tilted<br>Ground: GHI<br>Roof: GHI, southwest | Average | C/G/R |
| Pyra2_mV | mV | Millivolt output from pyranometer;<br>Canopy: GHI<br>Ground: POA<br>Roof: GHI, southeast | Average | C/G/R |

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| Pyra3_mV | mV | Millivolt output from pyranometer;<br>Canopy: POA, east-tilted<br>Roof: POA, southeast | Average | C/R |
| Pyra4_mV | mV | Millivolt output from pyranometer;<br>Roof: GHI, northwest | Average | R |
| Pyra5_mV | mV | Millivolt output from pyranometer;<br>Roof: GHI, northeast | Average | R |
| Pyra6_mV | mV | Millivolt output from pyranometer;<br>Roof: GHI, center of older horiz. array | Average | R |
| Pyra7_mV | mV | Millivolt output from pyranometer;<br>Roof: GHI, northwest of older horiz. array | Average | R |
| Pyra8_mV | mV | Millivolt output from pyranometer;<br>Roof: GHI, northeast of older horiz. array | Average | R |
| Qloss_Ah | A·h | Charge deficit of DAS battery | Max | C/G/R |
| RefCell1_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor;<br>Canopy: POA, west-tilted<br>Ground: POA<br>Roof: POA, southeast | Average | C/G/R |
| RefCell2_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor;<br>Canopy: POA, east-tilted<br>Roof: GHI, center of older horiz. array, east, cleaned | Average | C/R |
| RefCell3_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor;<br>Roof: GHI, center of older horiz. array, west, uncleaned | Average | R |
| RTD_C(1) | C | Temperature of module backsheet;<br>Canopy: east-tilted southwest module<br>Ground: center shed, northwest module<br>Roof: south sub-array, south-center module | Average | C/G/R |
| RTD_C(10) | C | Ambient temperature inside inverter | Average | C/G/ |
| RTD_C(2) | C | Temperature of module backsheet;<br>Canopy: east-tilted southeast module<br>Ground: center shed, center module of west half<br>Roof: center-east sub array, center-east module | Average | C/G/R |
| RTD_C(3) | C | Temperature of module backsheet;<br>Canopy: west-tilted center-east module<br>Ground: center shed, center-bottom module<br>Roof: center-east sub array, center module, center | Average | C/G/R |

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|---|---|---|---|---|
| RTD_C(4) | C | Temperature of module backsheet;<br>Canopy: east-tilted center-west module, center<br>Ground: center shed, center module, center<br>Roof: center-east sub array, center module, northwest | Average | C/G/R |
| RTD_C(5) | C | Temperature of module backsheet;<br>Canopy: east-tilted center-west module, southwest<br>Ground: center shed, center module, southwest<br>Roof: center-east sub array, center module, south-center | Average | C/G/R |
| RTD_C(6) | C | Temperature of module backsheet;<br>Canopy: east-tilted center-west module, center-east<br>Ground: center shed, center module, center-east<br>Roof: center-east sub array, center module, center-east | Average | C/G/R |
| RTD_C(7) | C | Temperature of module backsheet;<br>Canopy: east-tilted center-west module, north-center<br>Ground: center shed, center module, north-center<br>Roof: northwest sub-array, northwest module | Average | C/G/R |
| RTD_C(8) | C | Temperature of module backsheet;<br>Canopy: east-tilted center-east module<br>Ground: center shed, center-top module | Average | C/G/ |
| RTD_C(9) | C | Temperature of module backsheet;<br>Canopy: east-tilted northwest module<br>Ground: north shed, center module | Average | C/G/ |
| SEWSAmbientTemp_C | C | Outdoor ambient temperature from integrator's sensor | Average | C/G/R |
| SEWSModuleTemp_C | C | Module temperature from integrator's sensor | Average | C/G/R |
| SEWSPOAIrrad_Wm2 | $W/m^2$ | POA irradiance from integrator's domed diffused silicon-cell pyranometer | Average | C/G/R |
| ShuntCurrent_A(1) | A | Output circuit current from combiner box 1 | Average | C/G/R |
| ShuntCurrent_A(2) | A | Output circuit current from combiner box 2 | Average | C/G/R |
| ShuntCurrent_A(3) | A | Output circuit current from combiner box 3 | Average | C/G/R |
| ShuntCurrent_A(4) | A | Output circuit current from combiner box 4 | Average | C/G/R |
| ShuntCurrent_A(5) | A | Output circuit current from combiner box 5 | Average | C/G |
| ShuntCurrent_A(6) | A | Output circuit current from combiner box 6 | Average | C/G |
| ShuntCurrent_A(7) | A | Output circuit current from combiner box 7 | Average | C/G |

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|---|---|---|---|---|
| ShuntEtot_kWh_Avg(1) | kWh | Output circuit total accumulated energy from combiner box 1, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntEtot_kWh_Avg(2) | kWh | Output circuit total accumulated energy from combiner box 2, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntEtot_kWh_Avg(3) | kWh | Output circuit total accumulated energy from combiner box 3, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntEtot_kWh_Avg(4) | kWh | Output circuit total accumulated energy from combiner box 4, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntEtot_kWh_Avg(5) | kWh | Output circuit total accumulated energy from combiner box 5, meas. using shunts and voltage divider* | - | C/G |
| ShuntEtot_kWh_Avg(6) | kWh | Output circuit total accumulated energy from combiner box 6, meas. using shunts and voltage divider* | - | C/G |
| ShuntEtot_kWh_Avg(7) | kWh | Output circuit total accumulated energy from combiner box 7, meas. using shunts and voltage divider* | - | C/G |
| ShuntPDC_kW_Avg(1) | kW | Output circuit power from combiner box 1, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntPDC_kW_Avg(2) | kW | Output circuit power from combiner box 2, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntPDC_kW_Avg(3) | kW | Output circuit power from combiner box 3, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntPDC_kW_Avg(4) | kW | Output circuit power from combiner box 4, meas. using shunts and voltage divider* | - | C/G/R |
| ShuntPDC_kW_Avg(5) | kW | Output circuit power from combiner box 5, meas. using shunts and voltage divider* | - | C/G |
| ShuntPDC_kW_Avg(6) | kW | Output circuit power from combiner box 6, meas. using shunts and voltage divider* | - | C/G |
| ShuntPDC_kW_Avg(7) | kW | Output circuit power from combiner box 7, meas. using shunts and voltage divider* | - | C/G |
| TemperatureFaults | - | Inverter temperature fault code | Max | R |
| TIMESTAMP | LST | Date and time | Max | C/G/R |
| Warnings | - | Inverter system warning code | Max | R |
| WindDir_deg | ° | Wind direction, clockwise from north | - | C/G/R |
| WindDirAve_deg | ° | Unit vector mean wind direction* | - | C/G/R |
| WindDirStdDev_deg | ° | Standard deviation of the wind direction* | - | C/G/R |

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|---|---|---|---|---|
| WindHeatStateID | - | 1 = heating disabled<br>2 = enabled, not heating<br>3 = 50 % heating<br>4 = 100 % heating<br>5 = error | Average | C/G/R |
| WindRef_V | V | Internal reference voltage in wind sensor | Min | C/G/R |
| WindSpeed_ms | m/s | Wind speed | Max | C/G/R |
| WindSpeedAve_ms | m/s | Mean horizontal wind speed* | - | C/G/R |
| WindValid | - | Wind sensor data validity<br>-1 = wind data is valid<br>0 = wind data is invalid | Average | C/G/R |

Note: All measurements are sampled every 1 s except the RTDs, which are sampled every 10 seconds. All measurements are saved every 1 s, except those marked with a "*".

* Calculated from saved 1 s samples; only the 1 min aggregate data are saved

Part 2. Weather Station Dataset

**The Saved Data Values from the Weather Station**

| Variable Name | Units | Description | One-Minute Aggregation | Top (T)/ Lower (L) Data Logger |
|---|---|---|---|---|
| AirMass | - | Absolute air mass | Average | T/L |
| AirPres_kPa | kPa | Atmospheric pressure | Average | T |
| AirTemp_C | C | Outdoor ambient temperature 5.59 m above roof | Average | T |
| AM25TRefTemp_C | C | Thermocouple UTR reference temperature | Average | L |
| AmbTemp_C | C | Outdoor ambient temperature 1.07 m above roof | Average | L |
| AmbVent_rpm | rev/min | Mean ambient temperature ventilator fan speed | Average* | L |
| Battery_A | A | Current to UPS battery, neg. = discharging | Average | T/L |
| Battery_V | V | Charge voltage of UPS battery | Min | T/L |
| ChgSource | - | Charging regulator power source<br>0 = none<br>1 = solar terminals<br>2 = continuous terminals | Min | T/L |
| ChgState | - | State of charging regulator;<br>-1 = regulator fault<br>0 = no charge<br>1 = current limited charging<br>2 = cycle charging<br>3 = float charging<br>4 = battery test | Min | T/L |
| CkBatt | - | Status of UPS battery;<br>0 = normal<br>1 = check battery | Max | T/L |
| CR1000Temp_C | C | Temperature of the data logger front terminal panel | Average | T/L |
| Declination_deg | ° | Earth's declination angle | Average | T/L |
| DoorOpen | - | Door sensor for DAS enclosure;<br>-1 = open, 0 =closed | Min | T |
| Hail_hitssqrcm | hits/cm$^2$ | Hail count | Sum | T |
| Load_A | A | Current supplied to load (UPS) from charging regulator | Average | T/L |
| PwrStripState | - | State of remote power strip, bit field | Min | L |
| Pyra1_mV | mV | Millivolt output from thermopile pyranometer, south table position | Average | T |
| Pyra1temp_C | C | Thermopile pyranometer case temperature, south table position | Average | T |

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|---|---|---|---|---|
| Pyra2_mV | mV | Millivolt output from thermopile pyranometer, north table position | Average | L |
| Pyra2temp_C | C | Thermopile pyranometer case temperature, north table position | Average | L |
| Pyrad1_mV | mV | Millivolt output from diffuse-measuring pyranometer, east tracker position (when pointing south) | Average | T |
| Pyrad2_mV | mV | Millivolt output from diffuse-measuring pyranometer, west tracker position (when pointing south) | Average | L |
| PyraS1_Wm2 | $W/m^2$ | Millivolt output from domed-diffused silicon-cell pyranometer | Average | L |
| Pyrg1_mV | mV | Millivolt output from pyrgeometer | Average | T |
| Pyrg1temp_C | C | Pyrgeometer case temperature | Average | T |
| Pyrh1_mV | mV | Millivolt output from pyrheliometer, east tracker position (when pointing south) | Average | T |
| Pyrh1temp_C | C | Pyrheliometer case temperature, east tracker position (when pointing south) | Average | T |
| Pyrh2_mV | mV | Millivolt output from pyrheliometer, west tracker position (when pointing south) | Average | L |
| Qloss_Ah | A·h | Charge deficit of UPS battery | Max | T/L |
| Rain_mm | mm | Rain accumulation, piezoelectric sensor | Sum | T |
| RainTB_mm | mm | Rain and precipitation liquid equivalent accumulation, tipping bucket gauge | Sum | T |
| RefCell1_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 0° tilt | Average | T |
| RefCell2_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 10° tilt, 180° azimuth CW from north | Average | T |
| RefCell3_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 5° tilt, 270° azimuth CW from north | Average | T |
| RefCell4_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 5° tilt, 90° azimuth CW from north | Average | T |
| RefCell5_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 20° tilt, 180° azimuth CW from north | Average | T |
| RefCell6_Wm2 | $W/m^2$ | Irradiance from flat-plate silicon sensor, 18.4° tilt, 180° azimuth CW from north | Average | T |
| RelayState | - | State of latching relay, bit field | Min | T/L |
| RelHumid | % | Relative humidity | Average | T |
| RTD_C(1) | C | Temperature of module backsheet: 10° tilted module, center | Average | L |
| RTD_C(10) | C | Temperature of module backsheet: 5° east tilted module, southwest | Average | L |
| RTD_C(11) | C | Temperature of module backsheet: 5° east tilted module, center-east | Average | L |

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|---|---|---|---|---|
| RTD_C(12) | C | Temperature of module backsheet: 5° east tilted module, north-center | Average | L |
| RTD_C(13) | C | Temperature of module backsheet: 20° tilted module, center | Average | L |
| RTD_C(14) | C | Temperature of module backsheet: 20° tilted module, northeast | Average | L |
| RTD_C(15) | C | Temperature of module backsheet: 20° tilted module, center-west | Average | L |
| RTD_C(16) | C | Temperature of module backsheet: 20° tilted module, south-center | Average | L |
| RTD_C(2) | C | Temperature of module backsheet: 10° tilted module, northwest | Average | L |
| RTD_C(3) | C | Temperature of module backsheet: 10° tilted module, south-center | Average | L |
| RTD_C(4) | C | Temperature of module backsheet: 10° tilted module, center-east | Average | L |
| RTD_C(5) | C | Temperature of module backsheet: 5° west tilted module, center | Average | L |
| RTD_C(6) | C | Temperature of module backsheet: 5° west tilted module, northeast | Average | L |
| RTD_C(7) | C | Temperature of module backsheet: 5° west tilted module, center-west | Average | L |
| RTD_C(8) | C | Temperature of module backsheet: 5° west tilted module, south-center | Average | L |
| RTD_C(9) | C | Temperature of module backsheet: 5° east tilted module, center | Average | L |
| SixInOneHeatStateID | - | Weather transmitter heating state:<br>1 = heating disabled<br>2 = enabled, not heating<br>3 = 50 % heating<br>4 = 100 % heating<br>5 = error | Average | T |
| SixInOneRef_V | V | Internal reference voltage in weather transmitter | Min | T |
| SnowDepth_cm | cm | Snow depth | Average | L |
| SolarAzFromSouth_deg | ° | Solar azimuth, CW from south | Average | T/L |
| SolarTime_hr | h | Solar time | Max, Median | T/L |
| SolarZenith_deg | ° | Solar zenith angle | Average | T/L |
| TC_C(1) | C | Temperature of module backsheet: 0° tilted module, center | Average | L |
| TC_C(2) | C | Temperature of module backsheet: 0° tilted module, southeast | Average | L |
| TC_C(3) | C | Temperature of module backsheet: 0° tilted module, north-center | Average | L |

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|---|---|---|---|---|
| TC_C(4) | C | Temperature of module backsheet: 0° tilted module, between center and southeast | Average | L |
| TC_C(5) | C | Temperature of module backsheet: 18.4° tilted module, center | Average | L |
| TC_C(6) | C | Temperature of module backsheet: 18.4° tilted module, northwest | Average | L |
| TC_C(7) | C | Temperature of module backsheet: 18.4° tilted module, south-center | Average | L |
| TC_C(8) | C | Temperature of module backsheet: 18.4° tilted module, center-east | Average | L |
| TIMESTAMP | LST | Date and time | Max | T/L |
| TrackerFlags | - | Tracker status, bit field | Max | L |
| TrackerState | - | Tracker state | Min | L |
| UVA_mV | mV | Millivolt output from UV-A radiometer converter box | Average | T |
| UVB_mV | mV | Millivolt output from UV-B radiometer converter box | Average | T |
| UVBtemp_C | C | UV-B radiometer optical system temperature | Average | T |
| UVT_mV | mV | Millivolt output from UV total radiometer | Average | L |
| Vent2_rpm | rev/min | Mean GHI ventilator fan speed, south table position | Average* | T |
| Vent4_rpm | rev/min | Mean GHI ventilator fan speed, north table position | Average* | L |
| WindDir_deg | ° | Wind direction 5.72 m above roof, clockwise from north | - | T |
| WindDir1_deg | ° | Wind direction 2.51 m above roof, clockwise from north | - | L |
| WindDir1Ave_deg | ° | Unit vector mean wind direction 2.51 m above roof | Average* | L |
| WindDirAve_deg | ° | Unit vector mean wind direction 5.72 m above roof | Average* | T |
| WindDirStdDev_deg | ° | Standard deviation of the wind direction;<br>Top: 5.72 m above roof<br>Lower: 2.51 m above roof | Std. Dev.* | T/L |
| WindSpeed_ms | m/s | Wind speed 5.72 m above roof | Max | T |
| WindSpeed1_ms | m/s | Wind speed 2.51 m above roof | Max | L |
| WindSpeed1Ave_ms | m/s | Mean horizontal wind speed 2.51 m above roof | Average* | L |
| WindSpeedAve_ms | m/s | Mean horizontal wind speed 5.72 m above roof | Average* | T |

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|---|---|---|---|---|
| WindValid | - | Wind sensor 5.72 m above roof data validity<br>-1 = wind data is valid<br>0 = wind data is invalid | Average | T |

Note: All measurements are sampled every 1 s except the RTDs and thermocouples, which are sampled every 10 s. All measurements are saved every 1 s, except those marked with a "*".

* Calculated from saved 1 s samples; only the 1 min aggregate data are saved