Cumulative Summary Report

General Station Information

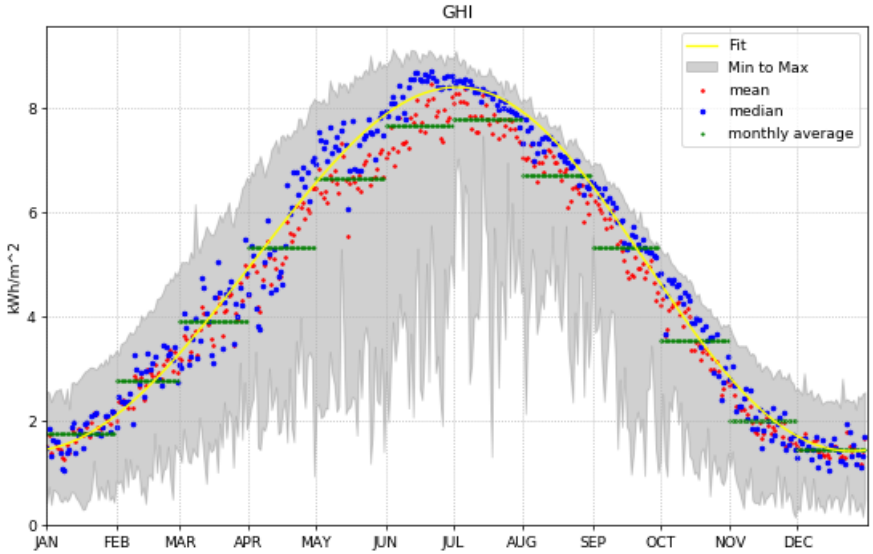
Station ID Number	94040
Station Name	ASO
Station Location	Ashland_Oregon_USA
Latitude	42.19441
Longitude (+ East)	-122.698158
Altitude (m)	594.
Time Zone (+ East)	-8.
Time Interval (Minutes)	1
Year Start	2001
Year End	2020

Summary of the following measurements

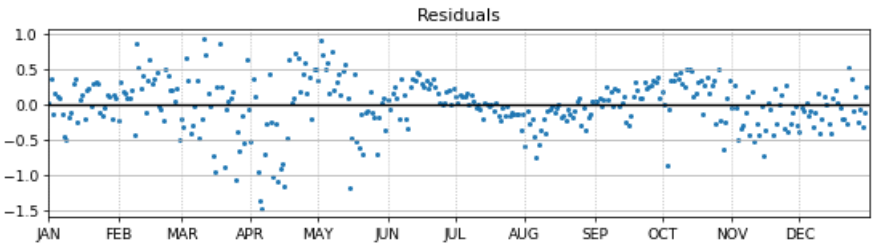
GHI	1000	RSP(PY35563_GHI)
GHI_Tilt	1160	LICOR(PY22981)
DrHI_Calc	2000	RSP(PY35563_DNI)
DNI	2010	RSP(PY35563_DNI)
DHI	3000	RSP(PY35563_DHI)
PV_Power	5161	PV5kw(ASO)
PV_Power.1	5162	PV15kw(ASO)
Wind_Speed	9210	WindSpeed(ASO)
TEMPERATURE	9300	TEMP
Temperature	9300	Temperature(ASO)

Type of Measurement	GHI	Year(s)	2001 - 2020
Instrument (*)	RSP(PY35563_GHI)	Sample Method:	Avg
Responsivity (*)	9.832	Units:	W/m^2
Instrument uncertainty (*)	3.125	Column Notes:	AdjustedColumn
Total in a year: (kWh/m^2)	1670.19	Total uncertainty (U95%):	1577.49 - 1715.55

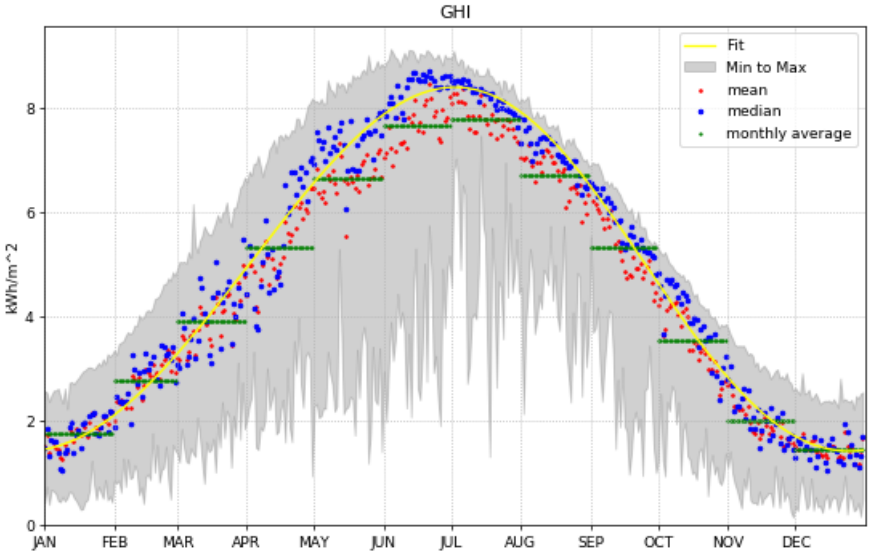
* The instrument and its responsivity may change over the years. See the yearly files for details



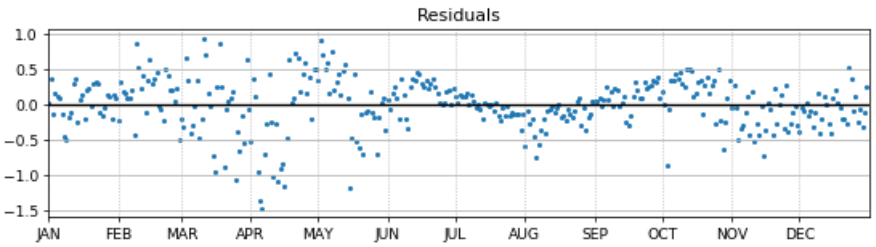
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 4.847
B1 = 3.4721
C1 = 3.194
B2 = -0.1271
C2 = 14.6892



Average Residual: 2.790e-01



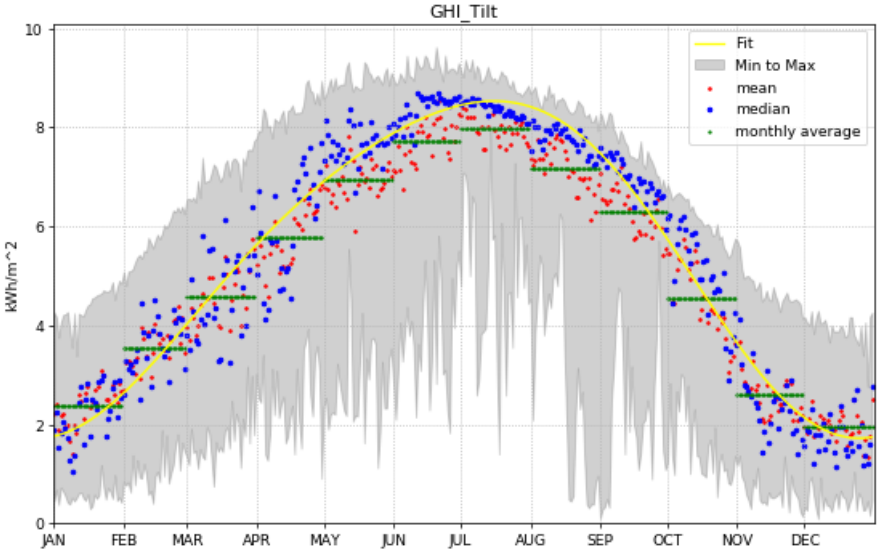
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 4.847
B1 = 3.4721
C1 = 3.194
B2 = -0.1271
C2 = 14.6892



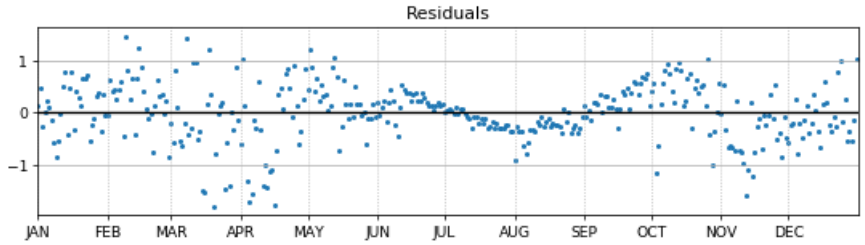
Average Residual: 2.790e-01

Type of Measurement	GHI_Tilt	Year(s)	2001 - 2018
Instrument (*)	LICOR(PY22981)	Sample Method:	Avg
Responsivity (*)	9.581	Units:	W/m^2
Instrument uncertainty (*)	3.177	Column Notes:	AdjustedColumn
Total in a year: (kWh/m^2)	1874.75	Total uncertainty (U95%):	1428.15 - 1931.83

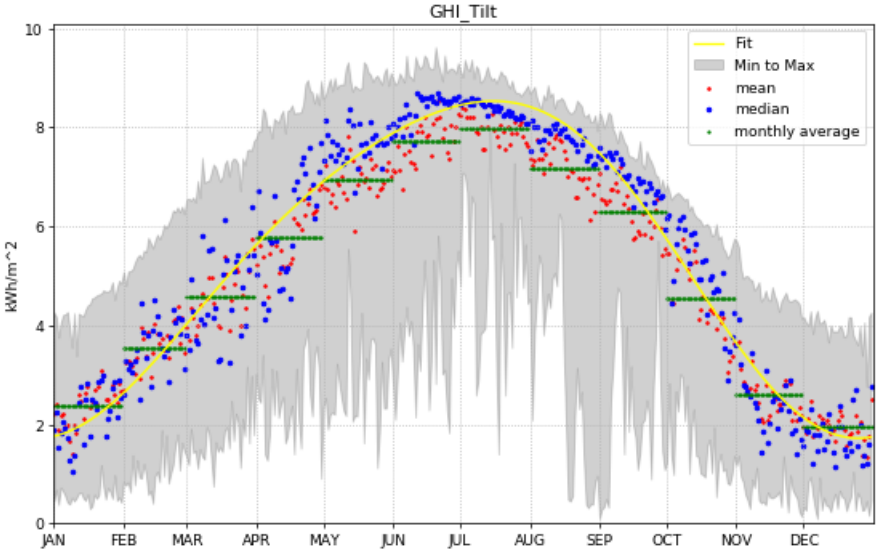
* The instrument and its responsivity may change over the years. See the yearly files for details



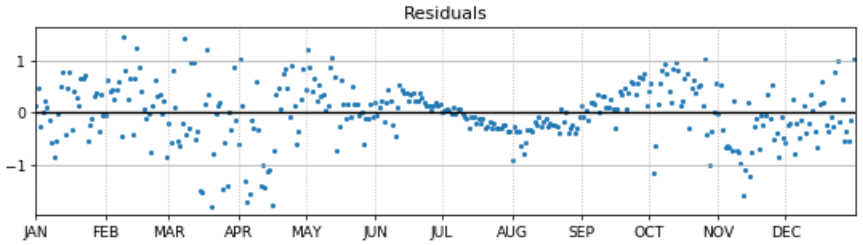
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 5.3932
B1 = 3.3549
C1 = 3.1327
B2 = -0.3997
C2 = 0.7722



Average Residual: 4.250e-01



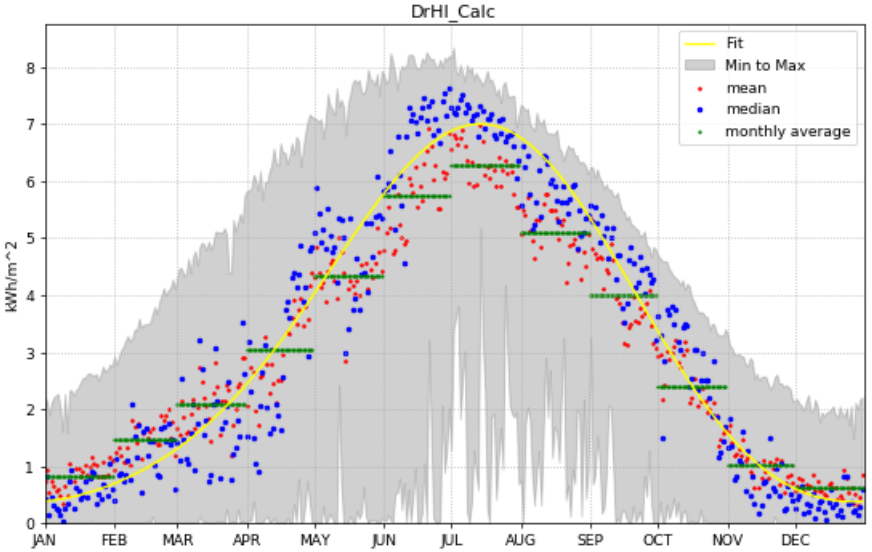
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 5.3932
B1 = 3.3549
C1 = 3.1327
B2 = -0.3997
C2 = 0.7722



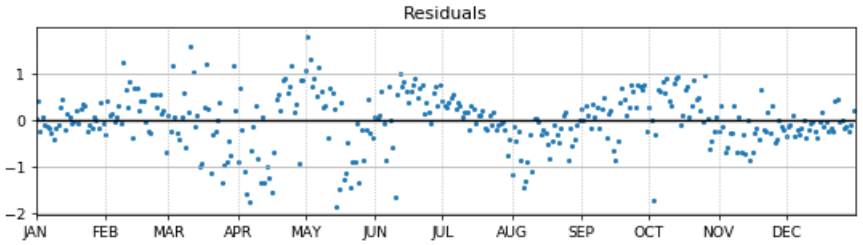
Average Residual: 4.250e-01

Type of Measurement	DrHI_Calc	Year(s)	2001 - 2020
Instrument (*)	RSP(PY35563_DNI)	Sample Method:	-
Responsivity (*)	-	Units:	W/m^2
Instrument uncertainty (*)	3.125	Column Notes:	CalculatedColumn
Total in a year: (kWh/m^2)	1127.21	Total uncertainty (U95%):	1021.48 - 1191.93

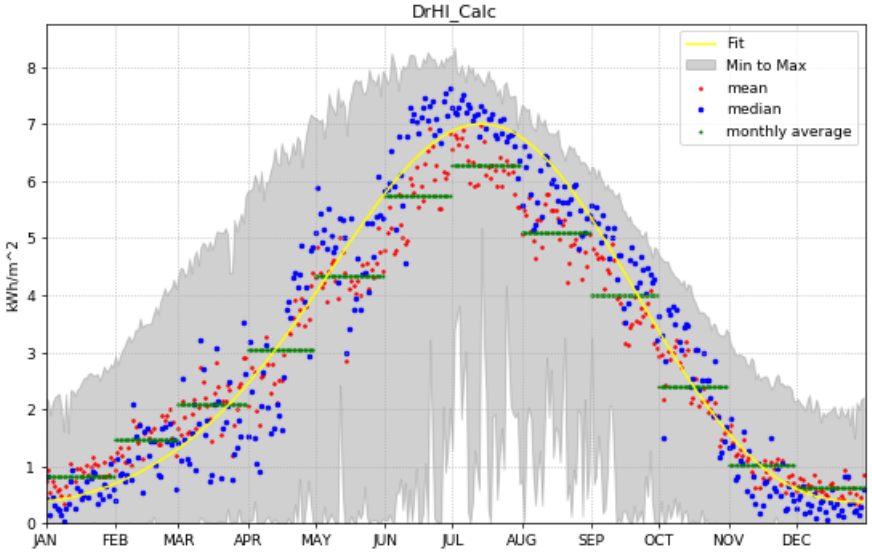
* The instrument and its responsivity may change over the years. See the yearly files for details



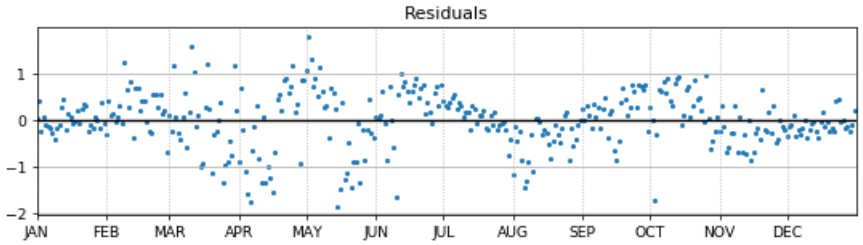
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 3.271
B1 = -3.2823
C1 = 6.1506
B2 = 0.4715
C2 = -0.6714



Average Residual: 4.520e-01



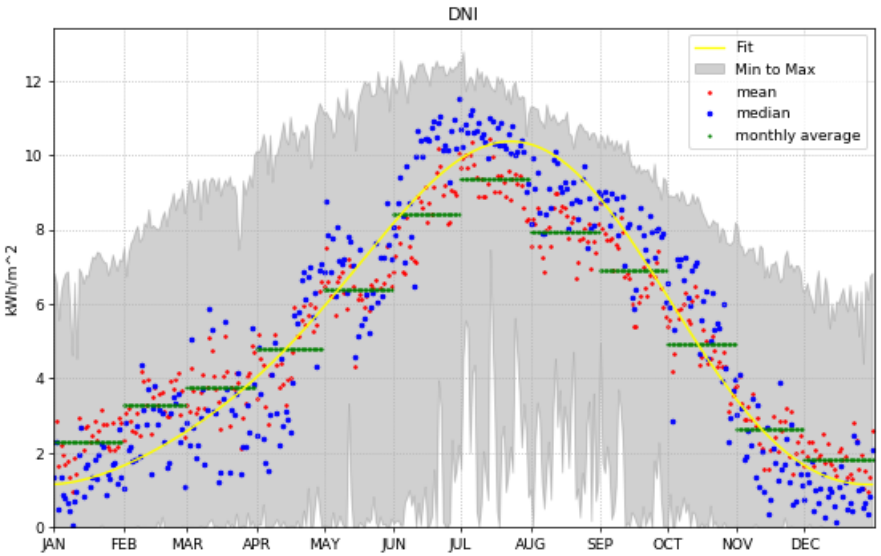
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 3.271
B1 = -3.2823
C1 = 6.1506
B2 = 0.4715
C2 = -0.6714



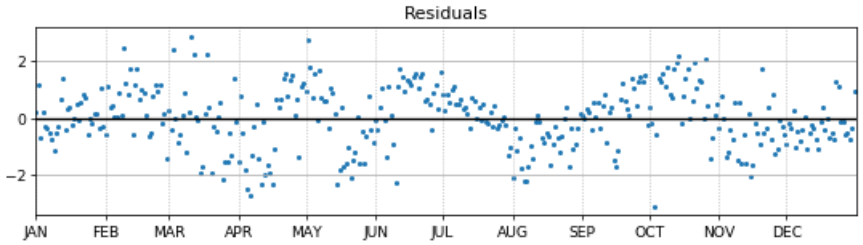
Average Residual: 4.520e-01

Type of Measurement	DNI	Year(s)	2001 - 2020
Instrument (*)	RSP(PY35563_DNI)	Sample Method:	Avg
Responsivity (*)	9.832	Units:	W/m^2
Instrument uncertainty (*)	3.125	Column Notes:	AdjustedColumn
Total in a year: (kWh/m^2)	1905.47	Total uncertainty (U95%):	1727.91 - 2019.06

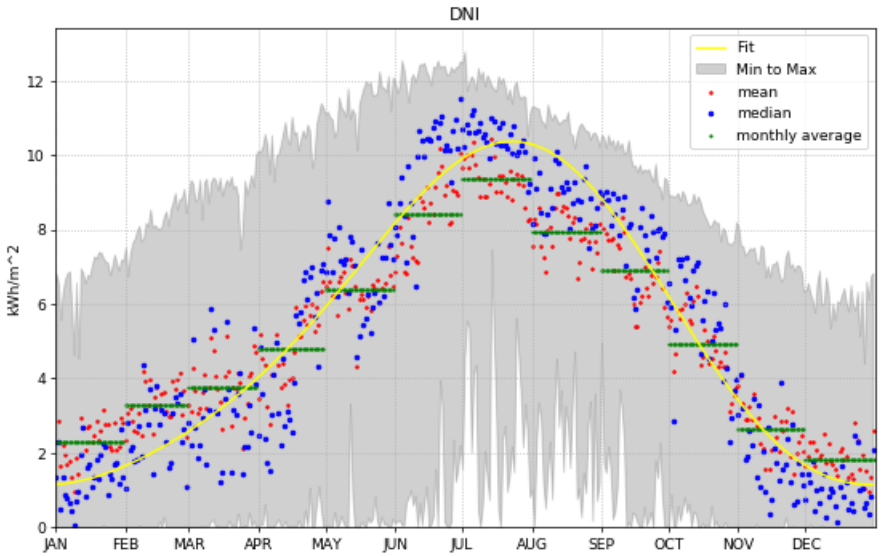
* The instrument and its responsivity may change over the years. See the yearly files for details



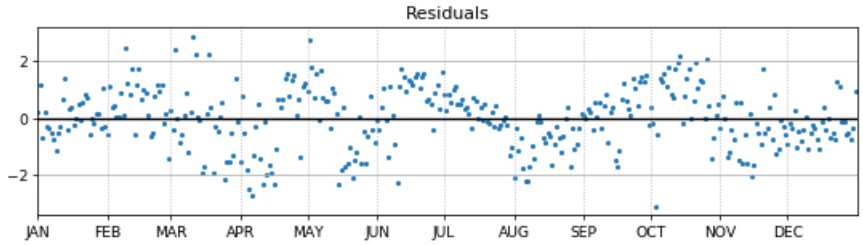
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 5.3228
B1 = -4.5157
C1 = 6.0485
B2 = -0.6332
C2 = 1.9297



Average Residual: 8.545e-01



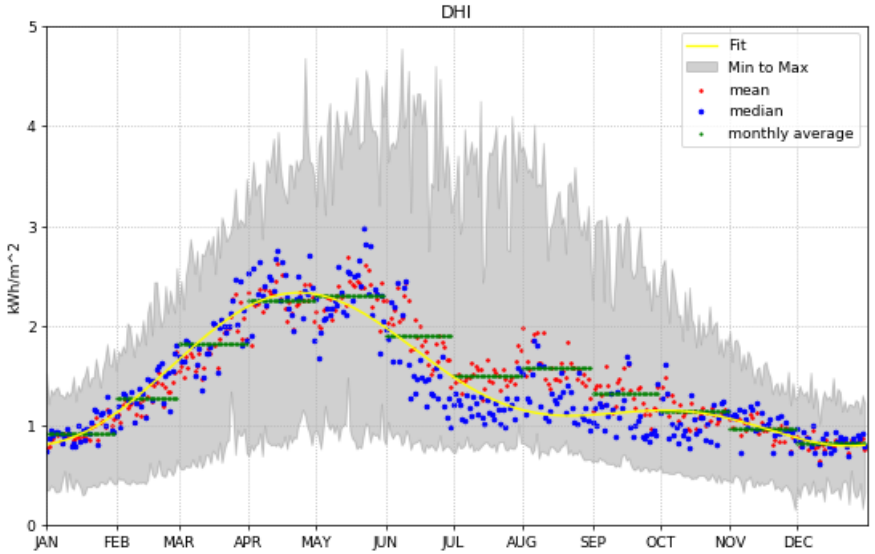
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 5.3228
B1 = -4.5157
C1 = 6.0485
B2 = -0.6332
C2 = 1.9297



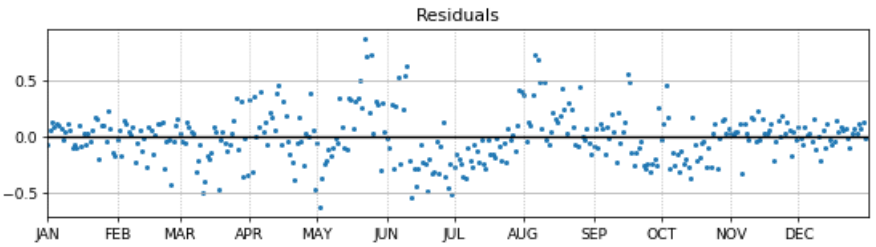
Average Residual: 8.545e-01

Type of Measurement	DHI	Year(s)	2001 - 2020
Instrument (*)	RSP(PY35563_DHI)	Sample Method:	Avg
Responsivity (*)	9.832	Units:	W/m^2
Instrument uncertainty (*)	3.125	Column Notes:	AdjustedColumn
Total in a year: (kWh/m^2)	542.47	Total uncertainty (U95%):	509.28 - 566.07

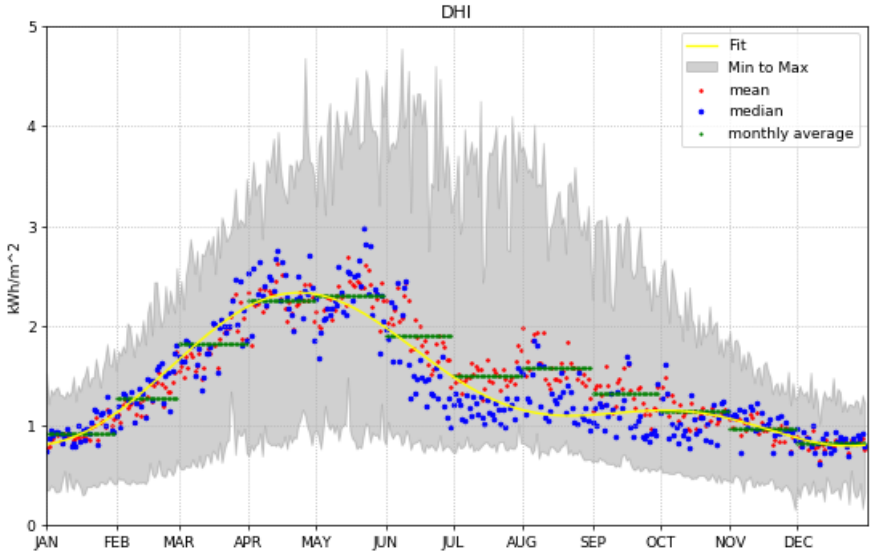
* The instrument and its responsivity may change over the years. See the yearly files for details



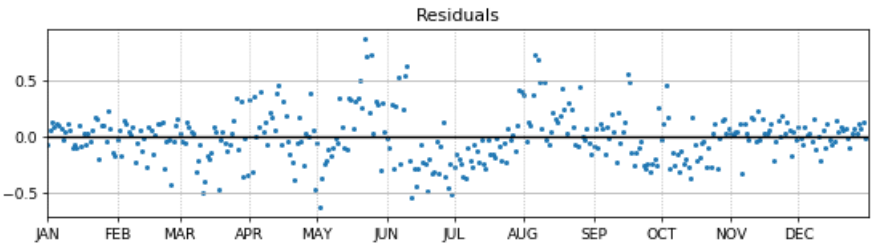
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 1.4086
B1 = -0.621
C1 = 1.0061
B2 = 0.3181
C2 = -3.7075



Average Residual: 1.690e-01



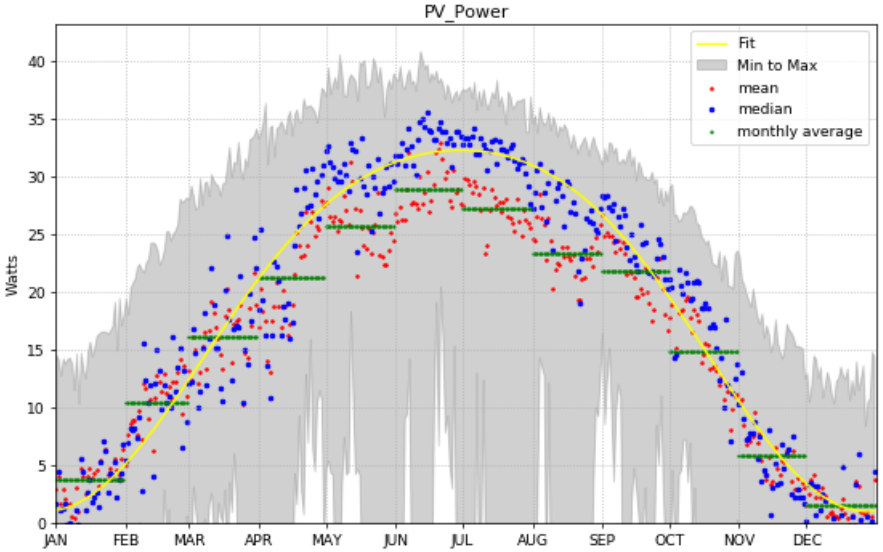
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 1.4086
B1 = -0.621
C1 = 1.0061
B2 = 0.3181
C2 = -3.7075



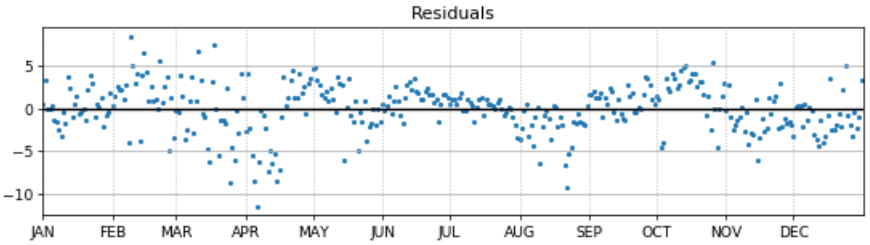
Average Residual: 1.690e-01

Type of Measurement	PV_Power	Year(s)	2001 - 2020
Instrument (*)	PV5kw(ASO)	Sample Method:	Avg
Responsivity (*)	160.0	Units:	Watts
Instrument uncertainty (*)	1.999	Column Notes:	MeasuredColumn
Total in a year: (Watts)	6123.65	Total uncertainty (U95%):	4126.52 - 7266.52

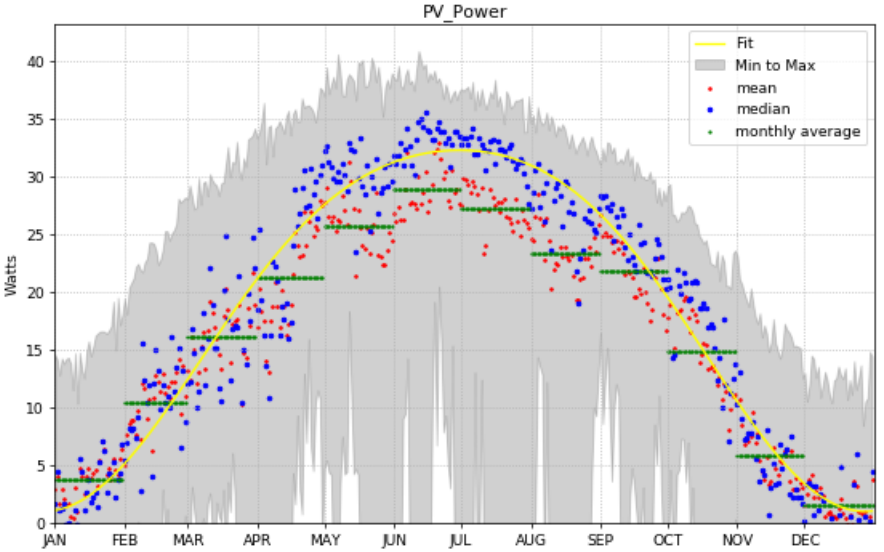
* The instrument and its responsivity may change over the years. See the yearly files for details



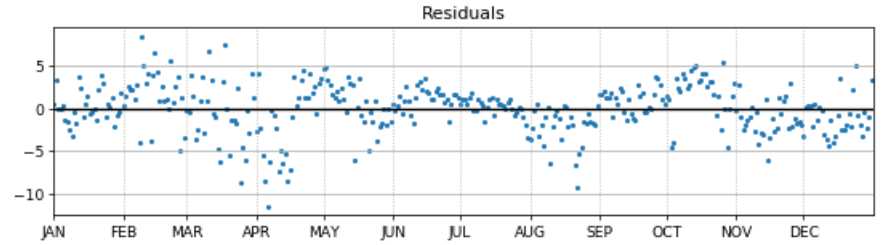
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 18.5197
B1 = -15.6296
C1 = 12.6259
B2 = 1.8564
C2 = 3.3227



Average Residual: 2.211e+00



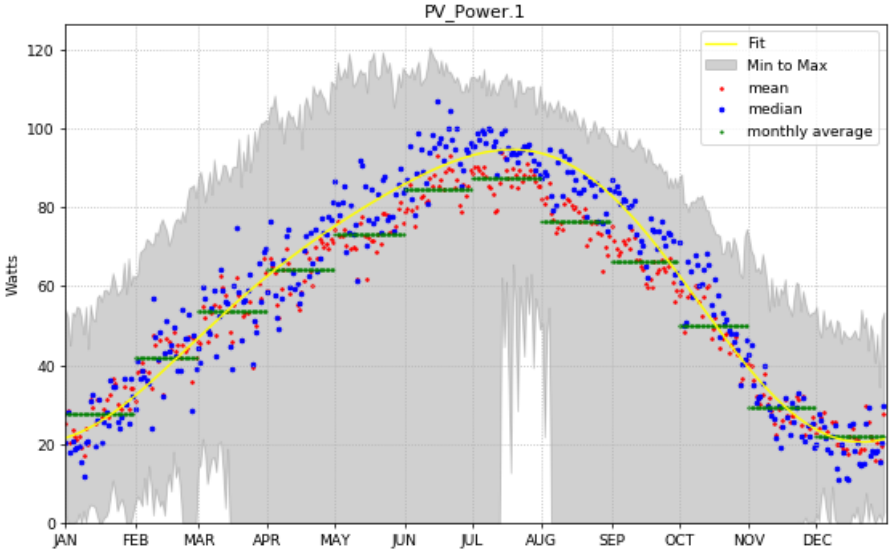
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 18.5197
B1 = -15.6296
C1 = 12.6259
B2 = 1.8564
C2 = 3.3227



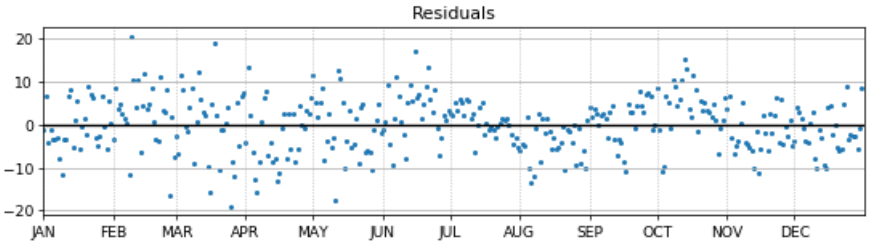
Average Residual: 2.211e+00

Type of Measurement	PV_Power.1	Year(s)	2001 - 2020
Instrument (*)	PV15kw(ASO)	Sample Method:	Avg
Responsivity (*)	2.778	Units:	Watts
Instrument uncertainty (*)	2.191	Column Notes:	MeasuredColumn
Total in a year: (Watts)	20623.14	Total uncertainty (U95%):	12100.69 - 24510.9

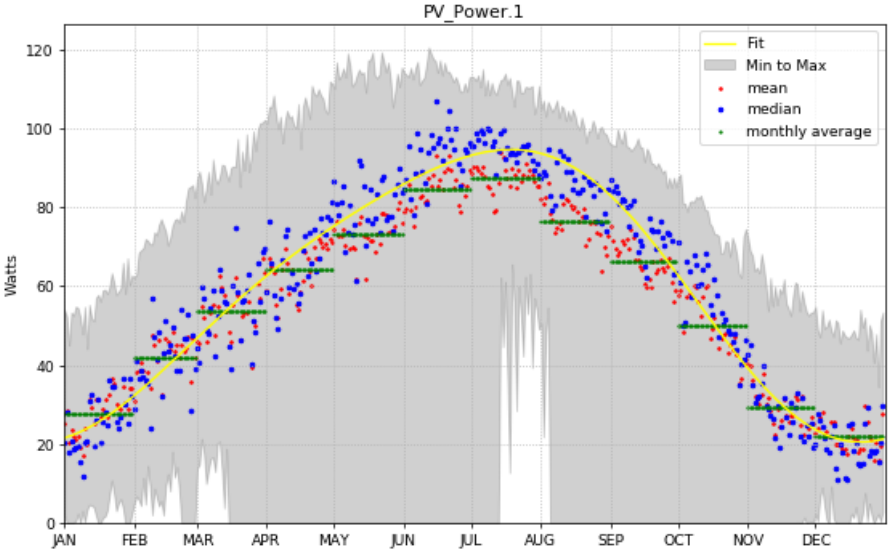
* The instrument and its responsivity may change over the years. See the yearly files for details



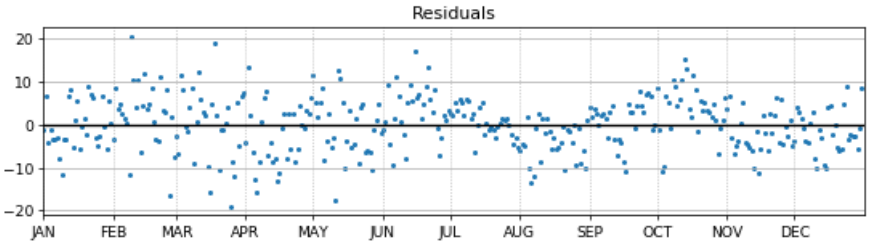
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 60.0209
B1 = -35.913
C1 = 31.4242
B2 = -5.1899
C2 = 1.0386



Average Residual: 5.100e+00



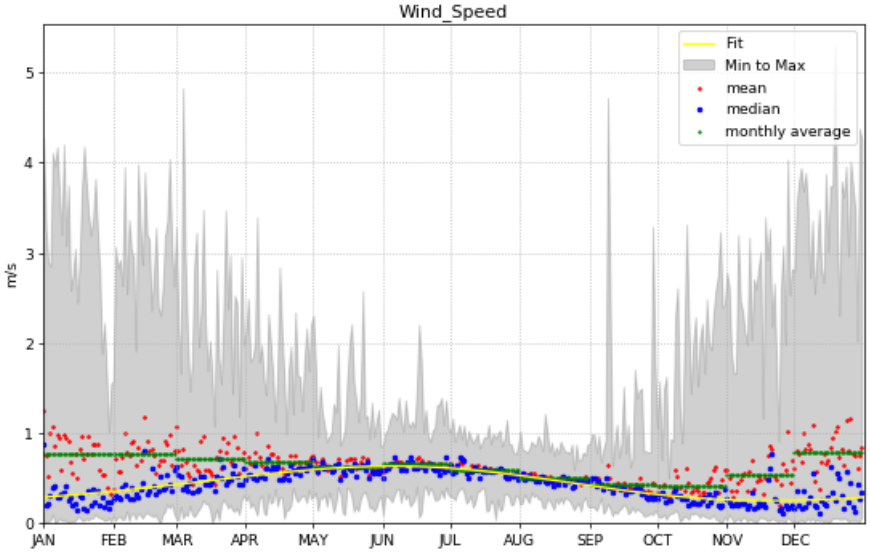
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 60.0209
B1 = -35.913
C1 = 31.4242
B2 = -5.1899
C2 = 1.0386



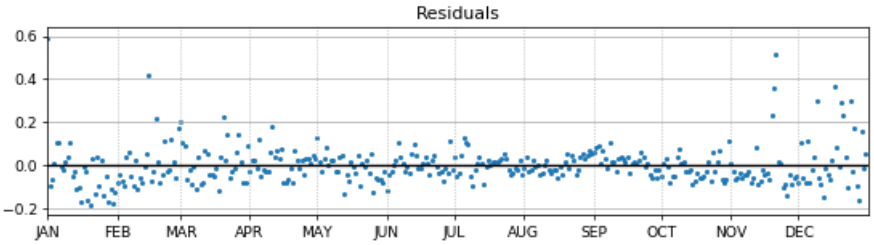
Average Residual: 5.100e+00

Type of Measurement	**Wind_Speed**	**Year(s)**	**2001 - 2020**
Instrument (*)	WindSpeed(ASO)	Sample Method:	Avg
Responsivity (*)	1308.901	Units:	m/s
Instrument uncertainty (*)	4.383	Column Notes:	MeasuredColumn
Total in a year: (m/s)	227.99	Total uncertainty (U95%):	165.24 - 271.55

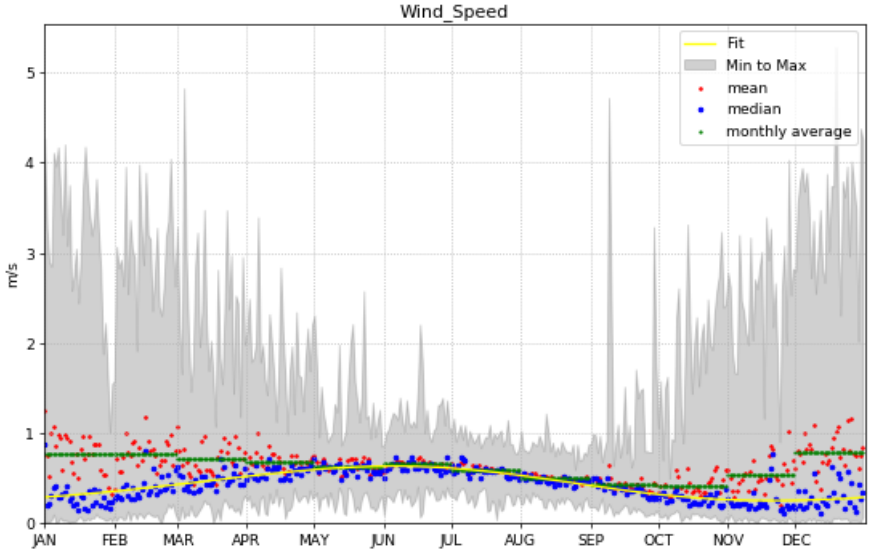
* The instrument and its responsivity may change over the years. See the yearly files for details



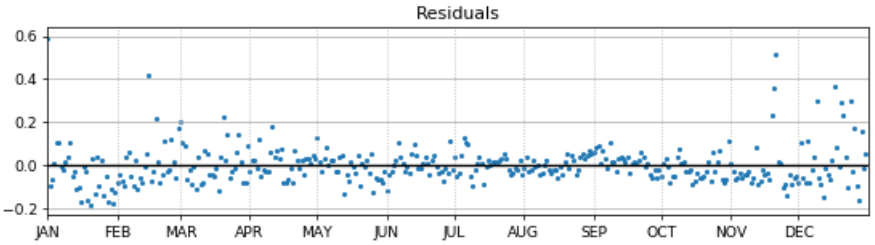
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 0.4355
B1 = -0.1897
C1 = 0.5615
B2 = 0.0145
C2 = 0.1589



Average Residual: 6.191e-02



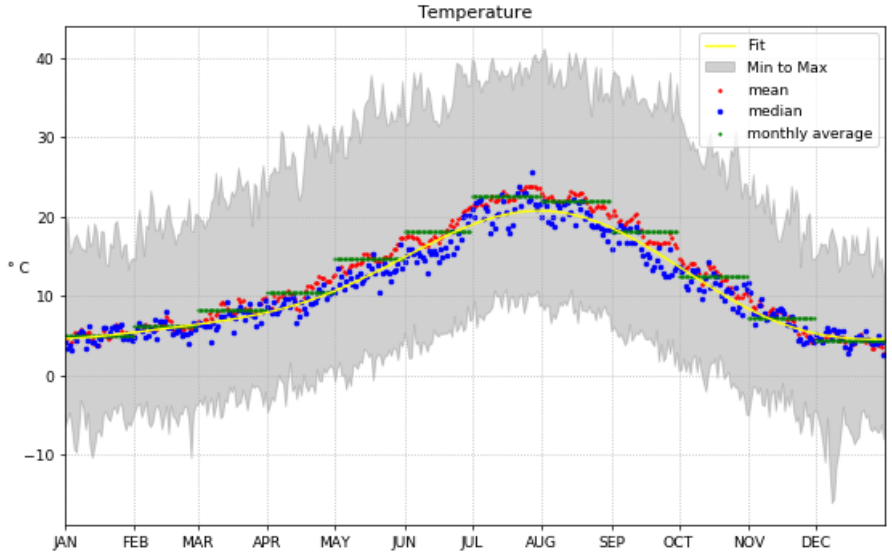
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 0.4355
B1 = -0.1897
C1 = 0.5615
B2 = 0.0145
C2 = 0.1589



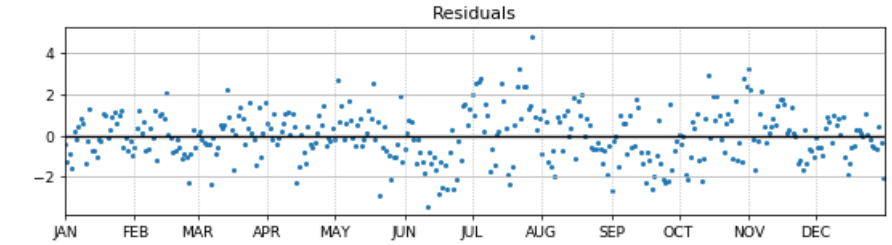
Average Residual: 6.191e-02

Type of Measurement	TEMPERATURE	Year(s)	2001 - 2018
Instrument (*)	TEMP	Sample Method:	Avg
Responsivity (*)	1000.0	Units:	C
Instrument uncertainty (*)	2.2	Column Notes:	MeasuredColumn
Total in a year: (C)	2064.24	Total uncertainty (U95%):	1408.81 - 2437.94

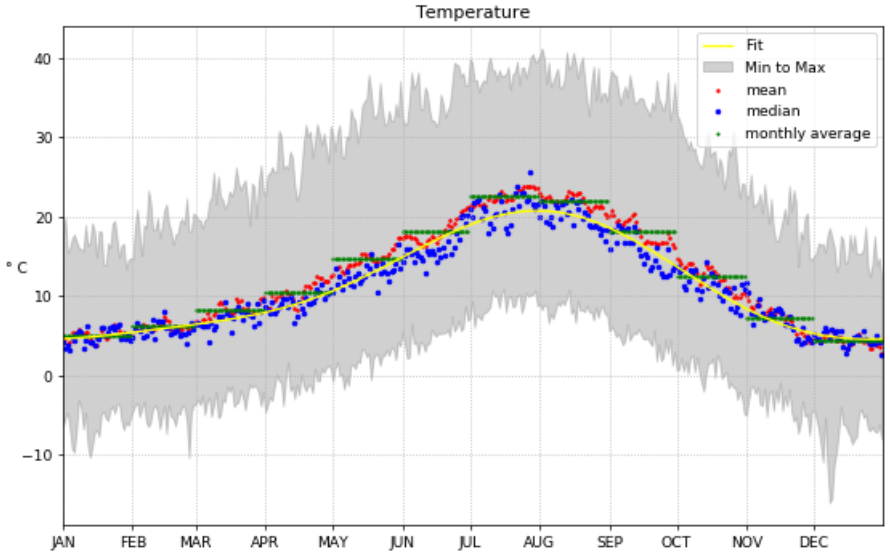
* The instrument and its responsivity may change over the years. See the yearly files for details



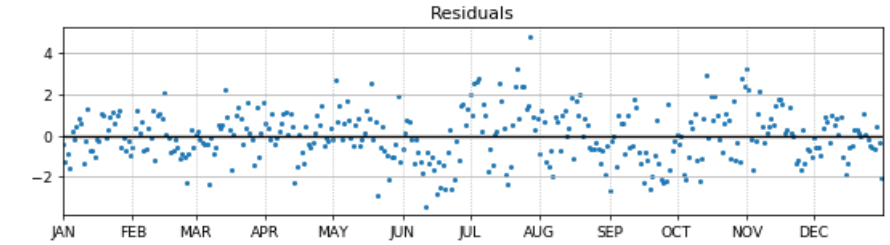
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 11.3408
B1 = 7.7665
C1 = 9.0537
B2 = 1.7823
C2 = 5.0118



Average Residual: 9.798e-01



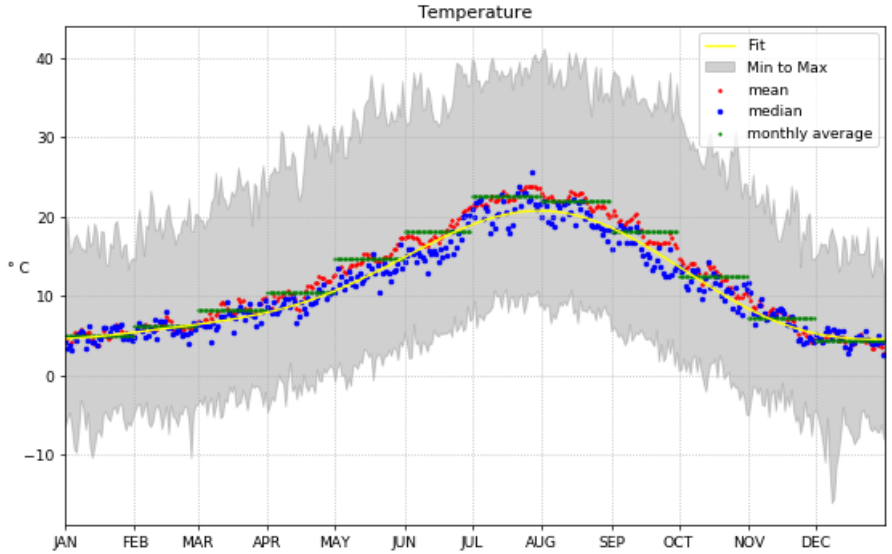
Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 11.3408
B1 = 7.7665
C1 = 9.0537
B2 = 1.7823
C2 = 5.0118



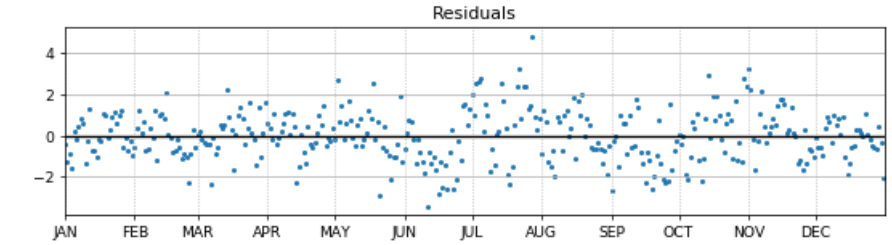
Average Residual: 9.798e-01

Type of Measurement	**Temperature**	**Year(s)**	**2018 - 2020**
Instrument (*)	Temperature(ASO)	Sample Method:	Avg
Responsivity (*)	1000.0	Units:	C
Instrument uncertainty (*)	2.2	Column Notes:	MeasuredColumn
Total in a year: (C)		Total uncertainty (U95%):	

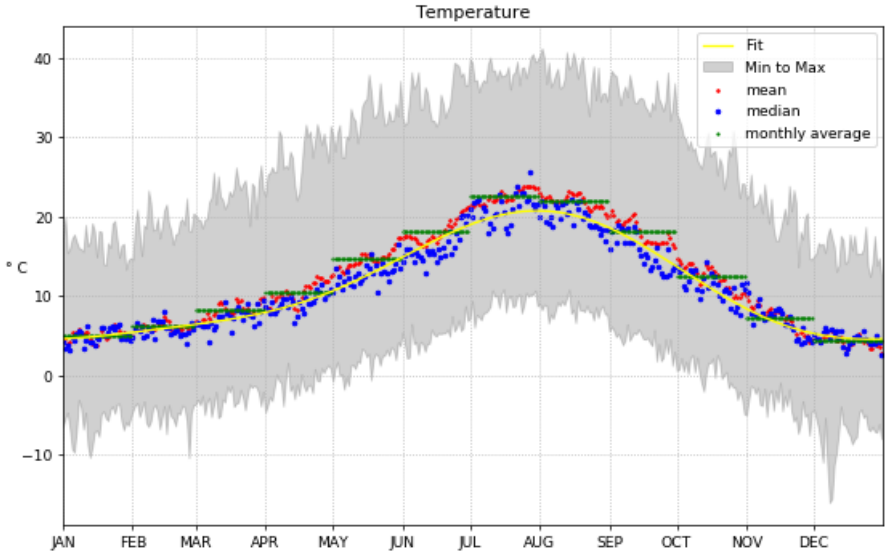
* The instrument and its responsivity may change over the years. See the yearly files for details



Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 11.3408
B1 = 7.7665
C1 = 9.0537
B2 = 1.7823
C2 = 5.0118



Average Residual: 9.798e-01



Fit equation**: A + B1 Cos[day + C1] + B2 Cos[2 day + C2] **Best fit calculated based on Median
A = 11.3408
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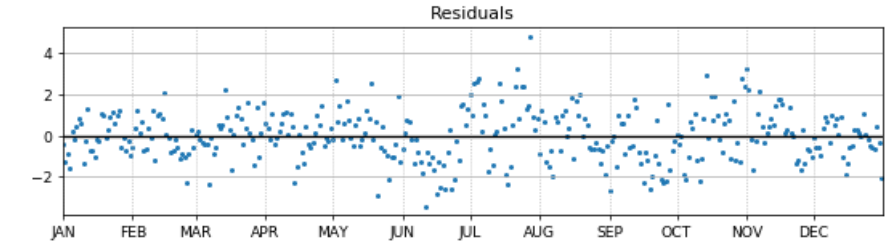

Average Residual: 9.798e-01