sampling rate: 20 frequency (2.85714 samples per hour) signal period: 7 hours, frequency: 0.14286 cycles per hour number of samples: 161, 8 periods df: 0.01775, Δ f: 2.83940 cycles per hour

dt: 0.35000, Δ t: 56.00000 hours $df = 1/\Delta t$, $\Delta f = (n-1)df = 1/dt$

offset: 0 m, amplitude: 2 m, initial phase: 0.0 °, noise: 0.0

