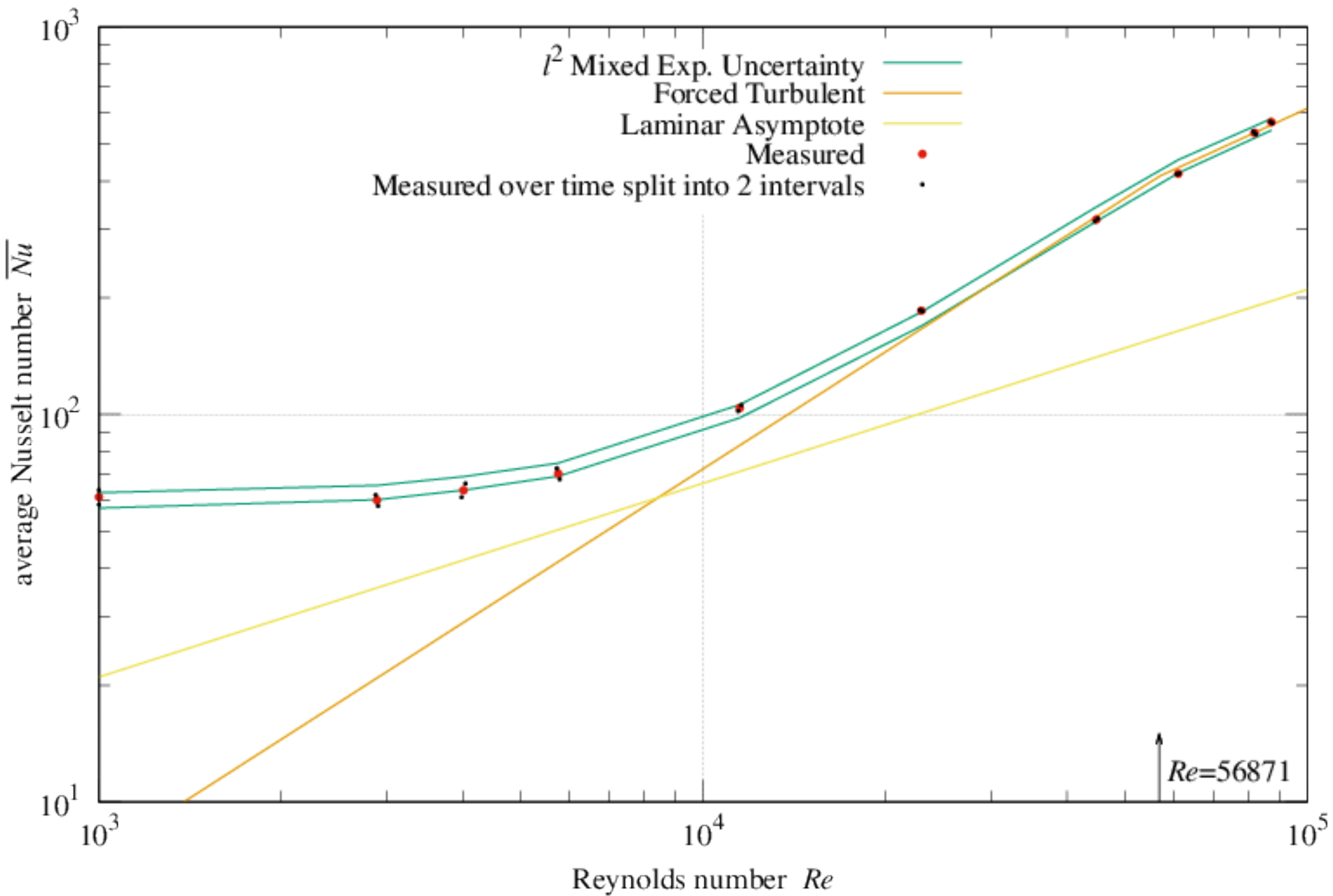
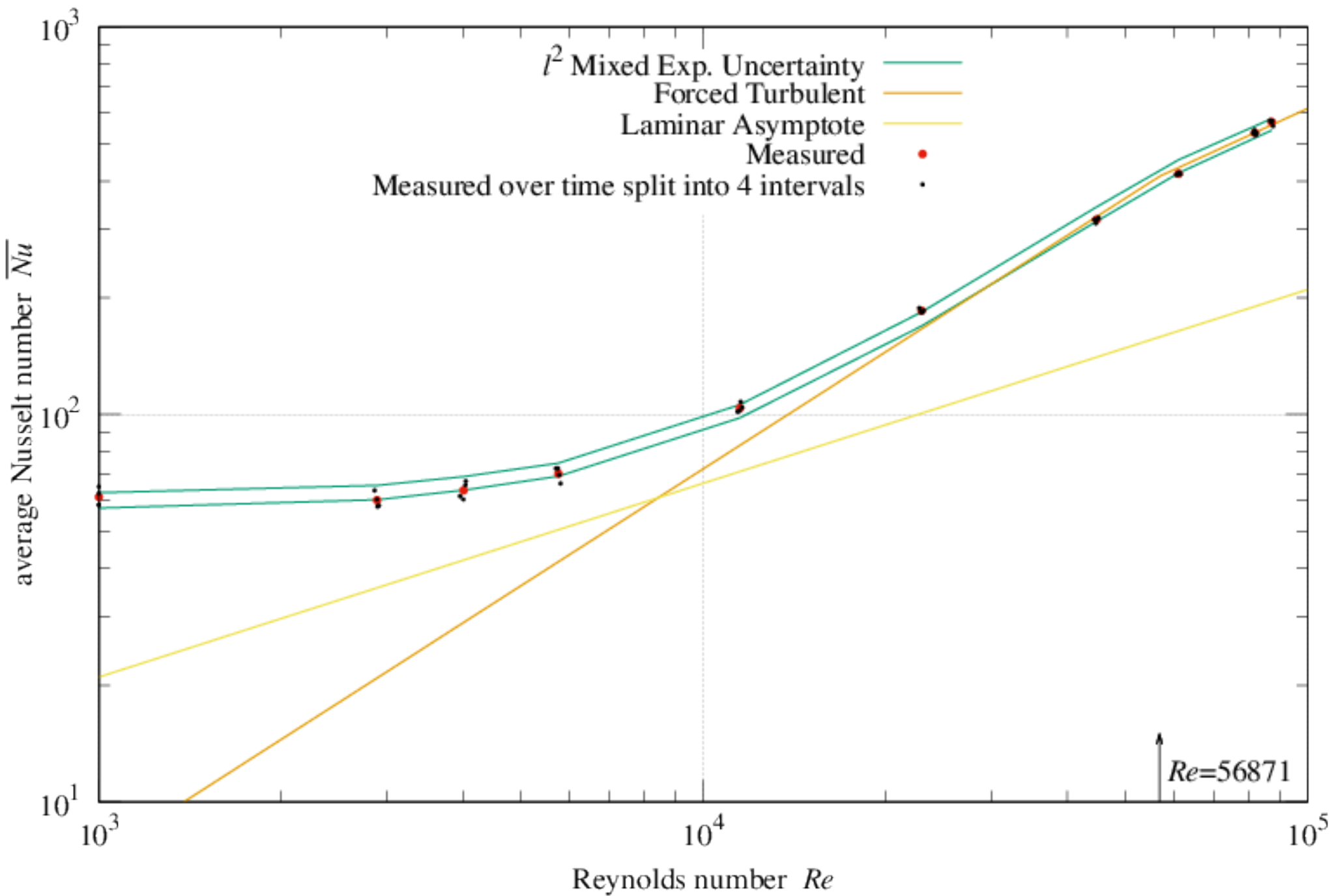


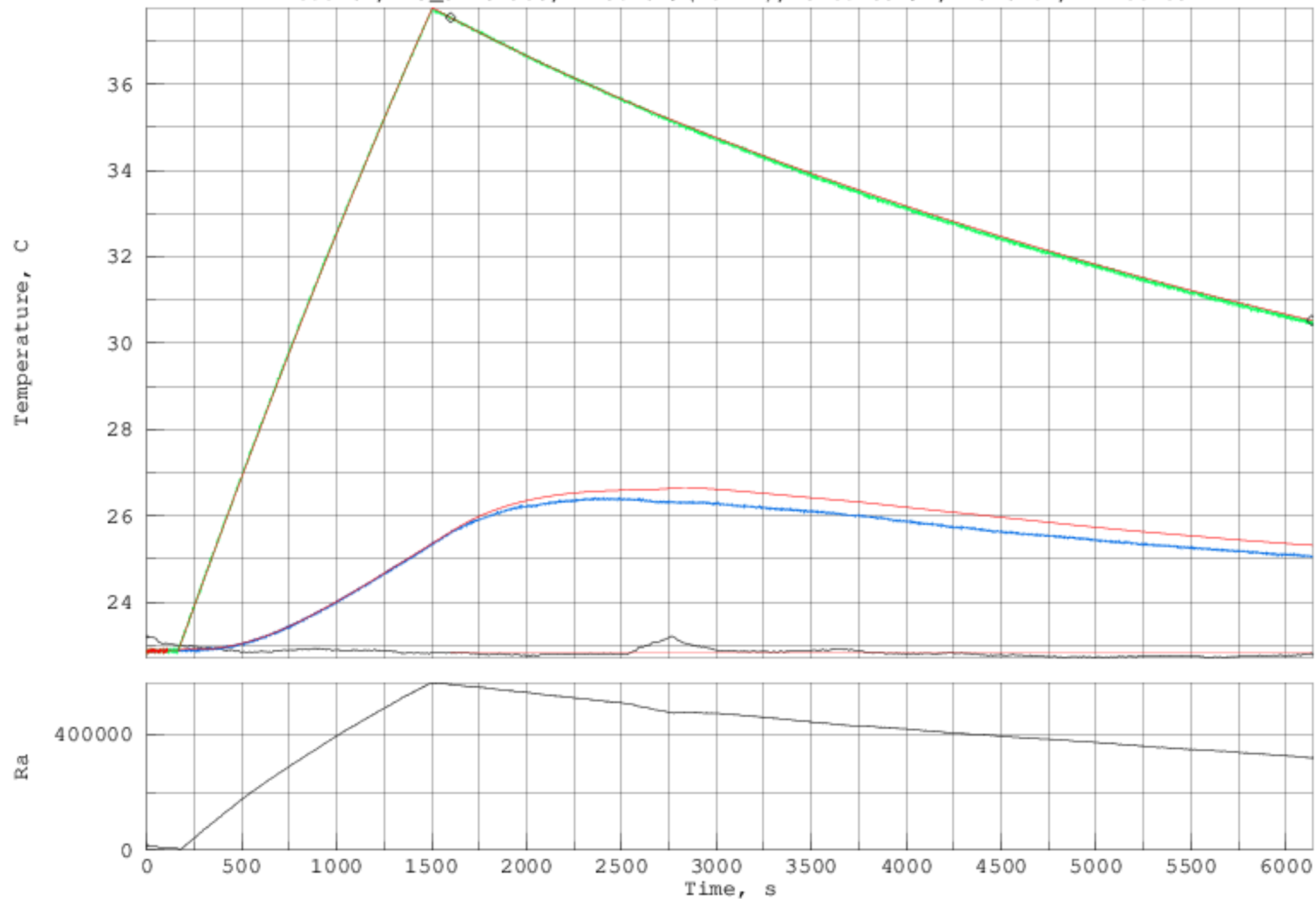
Mixed Convection from Upward Facing Plate, 3mm Roughness,  $\Delta T=10K$



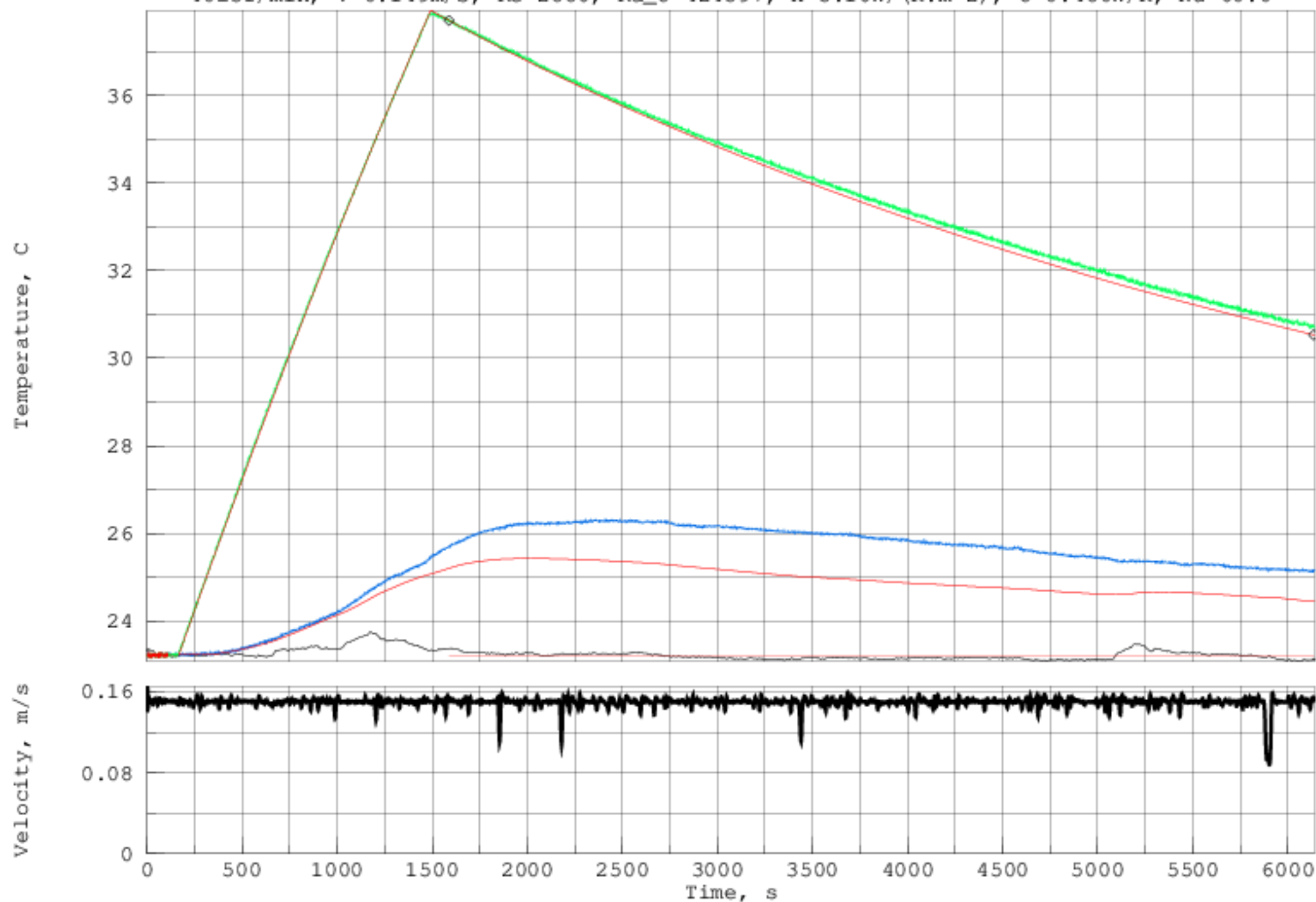
Mixed Convection from Upward Facing Plate, 3mm Roughness,  $\Delta T=10K$



20160814T122505Z - mixed Convection - Roughness=3.00mm; T=22.8+10.7°C; -90.00°  
k=0.0262, Ra\_U=431903, h=5.26W/(K.m<sup>2</sup>), U=0.489W/K, Nu=61.2, Pr=0.709

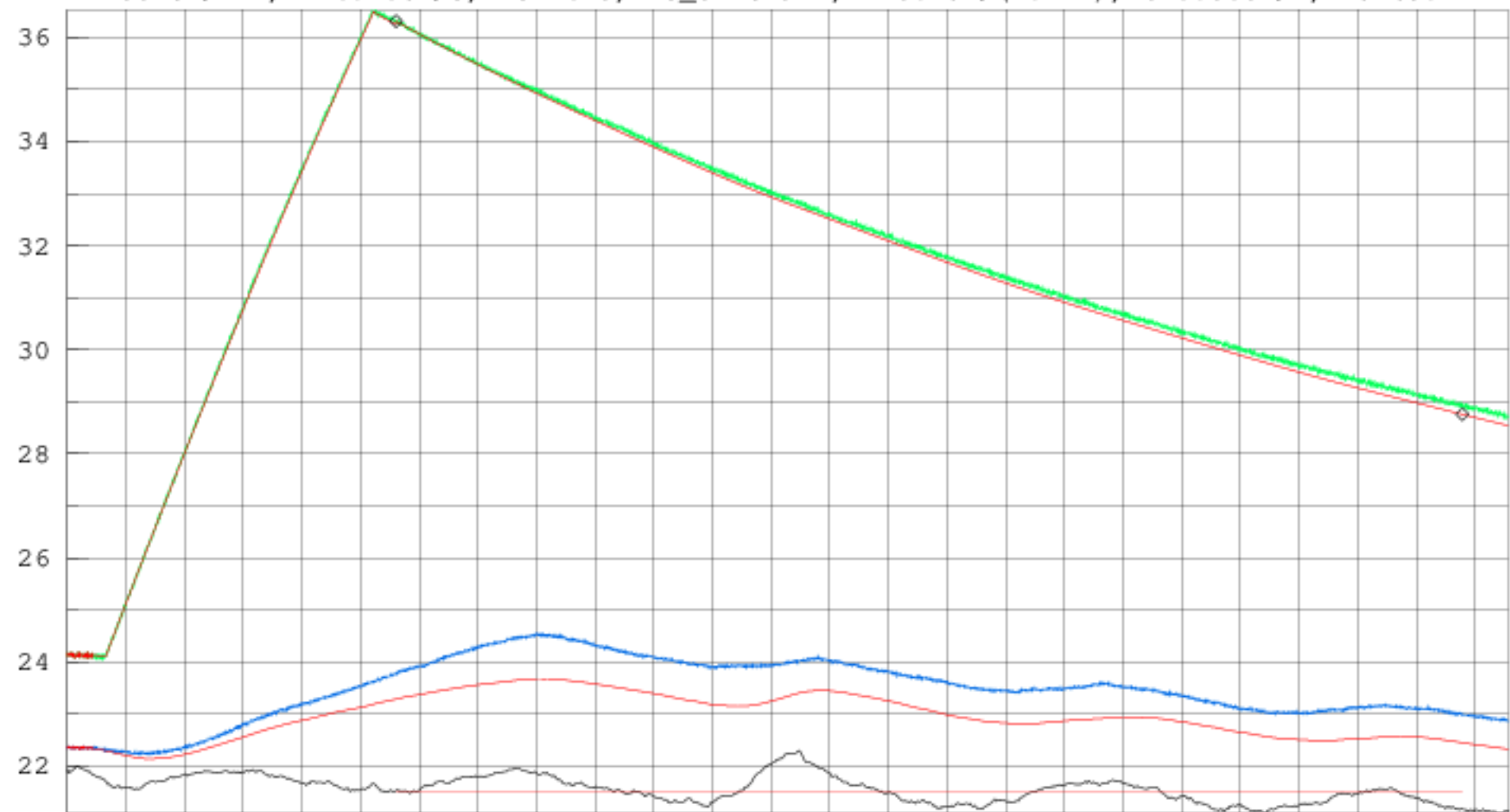


20160813T235139Z - mixed Convection - Roughness=3.00mm;  $T=23.2+10.6^{\circ}\text{C}$ ;  $-90.00^{\circ}$   
 $40\pm 3\text{r/min}$ ,  $V=0.149\text{m/s}$ ,  $Re=2886$ ,  $Ra_U=424597$ ,  $h=5.16\text{W}/(\text{K}\cdot\text{m}^2)$ ,  $U=0.480\text{W}/\text{K}$ ,  $Nu=60.0$

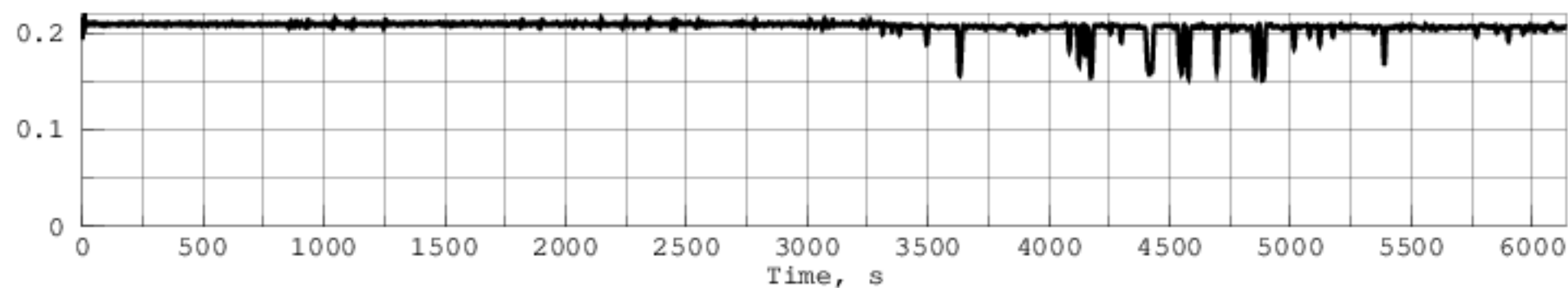


20160814T171610Z - mixed Convection - Roughness=3.00mm;  $T=21.5+10.6^{\circ}\text{C}$ ;  $-90.00^{\circ}$   
 $55\pm 3\text{r/min}$ ,  $V=0.206\text{m/s}$ ,  $Re=4015$ ,  $Ra_U=434917$ ,  $h=5.46\text{W}/(\text{K}\cdot\text{m}^2)$ ,  $U=0.508\text{W}/\text{K}$ ,  $Nu=63.7$

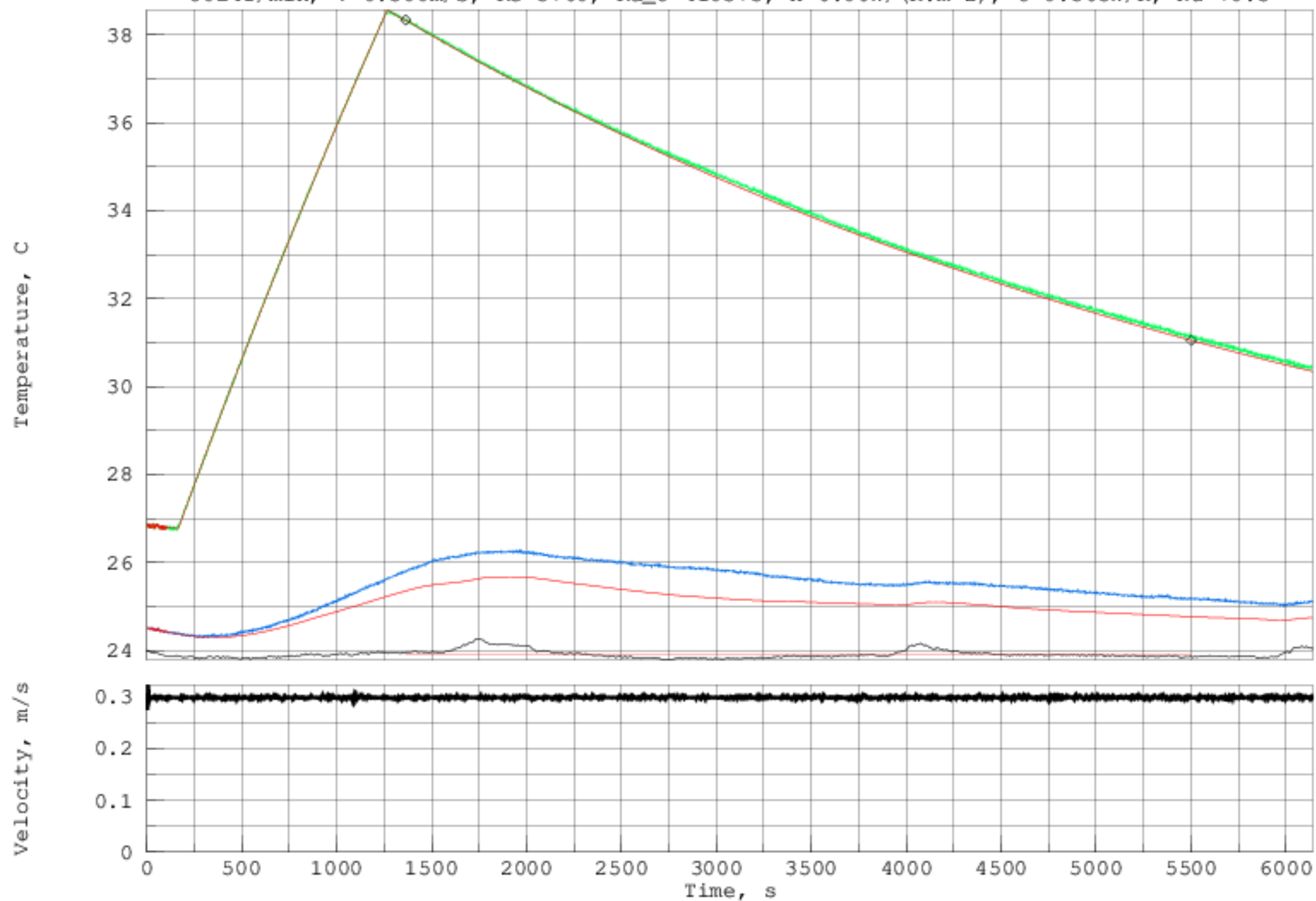
Temperature, C



Velocity, m/s

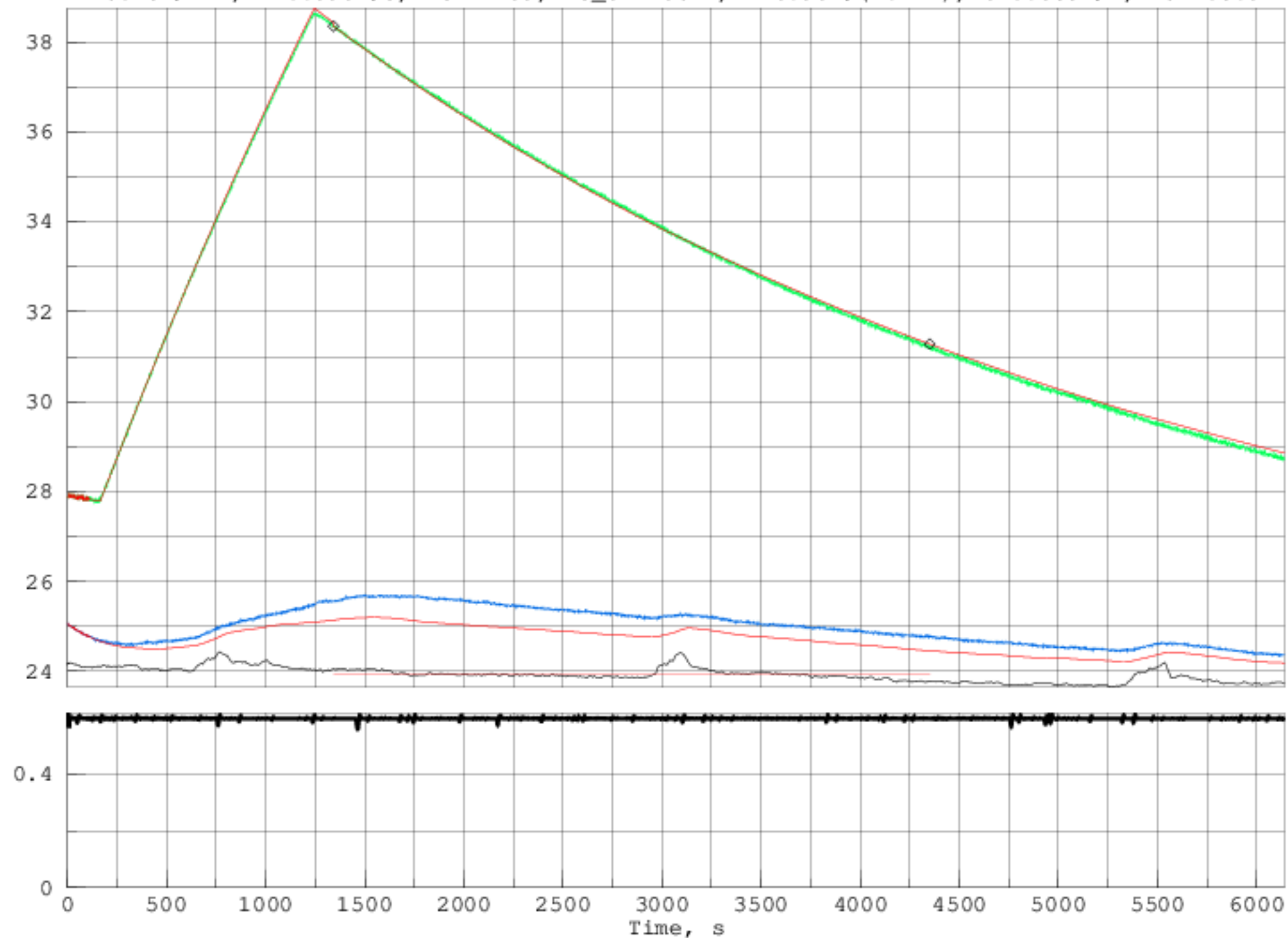


20160807T234152Z - mixed Convection - Roughness=3.00mm; T=23.9+10.4°C; -90.00°  
80±4r/min, V=0.300m/s, Re=5760, Ra\_U=410373, h=6.06W/(K.m<sup>2</sup>), U=0.563W/K, Nu=70.3



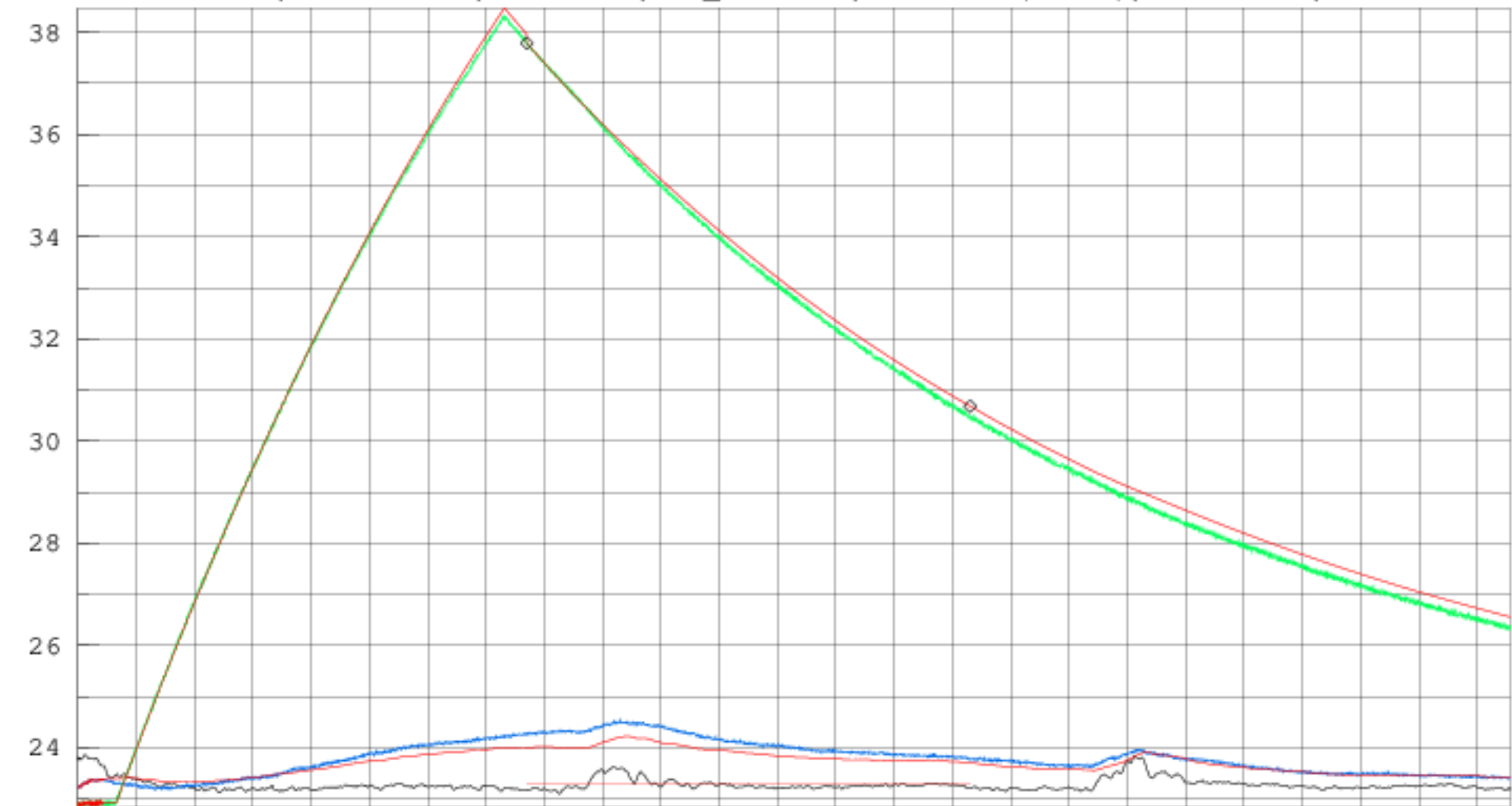
20160808T022413Z - mixed Convection - Roughness=3.00mm;  $T=23.9+10.5^{\circ}\text{C}$ ;  $-90.00^{\circ}$   
 $160\pm 3\text{r/min}$ ,  $V=0.598\text{m/s}$ ,  $\text{Re}=11499$ ,  $\text{Ra}_U=415611$ ,  $h=8.95\text{W}/(\text{K}\cdot\text{m}^2)$ ,  $U=0.833\text{W}/\text{K}$ ,  $\text{Nu}=103.9$

Temperature, C

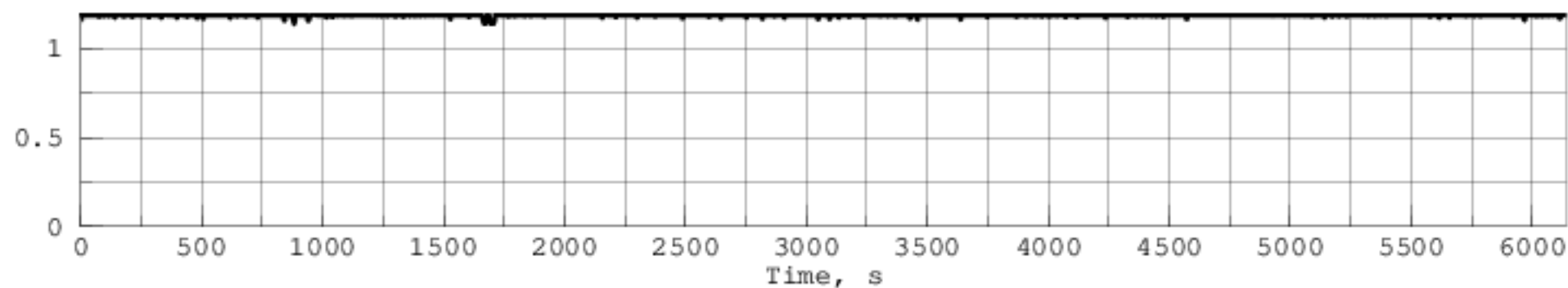


20160808T224235Z - mixed Convection - Roughness=3.00mm; T=23.3+10.4°C; -90.00°  
320±2r/min, V=1.186m/s, Re=22976, Ra\_U=421078, h=15.9W/(K.m<sup>2</sup>), U=1.48W/K, Nu=185.1

Temperature, C



Velocity, m/s



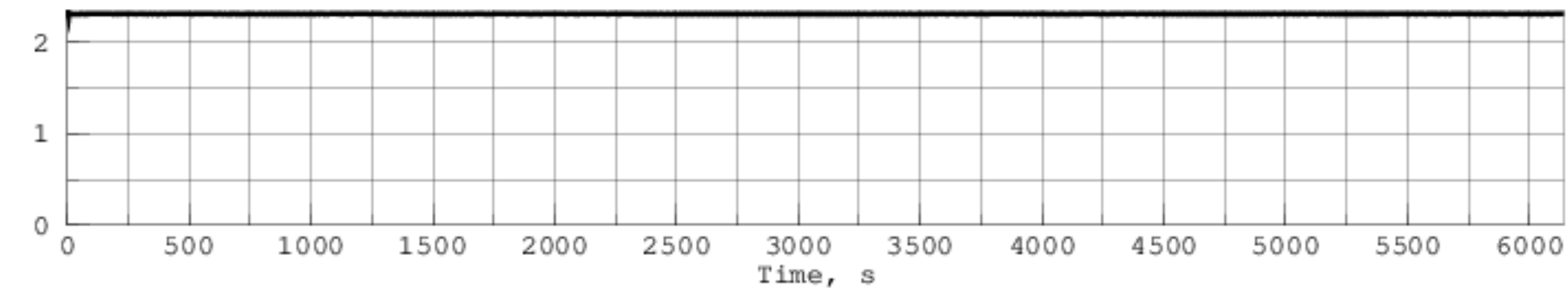


20160811T002147Z - mixed Convection - Roughness=3.00mm; T=23.4+10.1°C; -90.00°  
640±5r/min, V=2.304m/s, Re=44751, Ra\_U=409187, h=27.3W/(K.m<sup>2</sup>), U=2.54W/K, Nu=317.5

Temperature, C

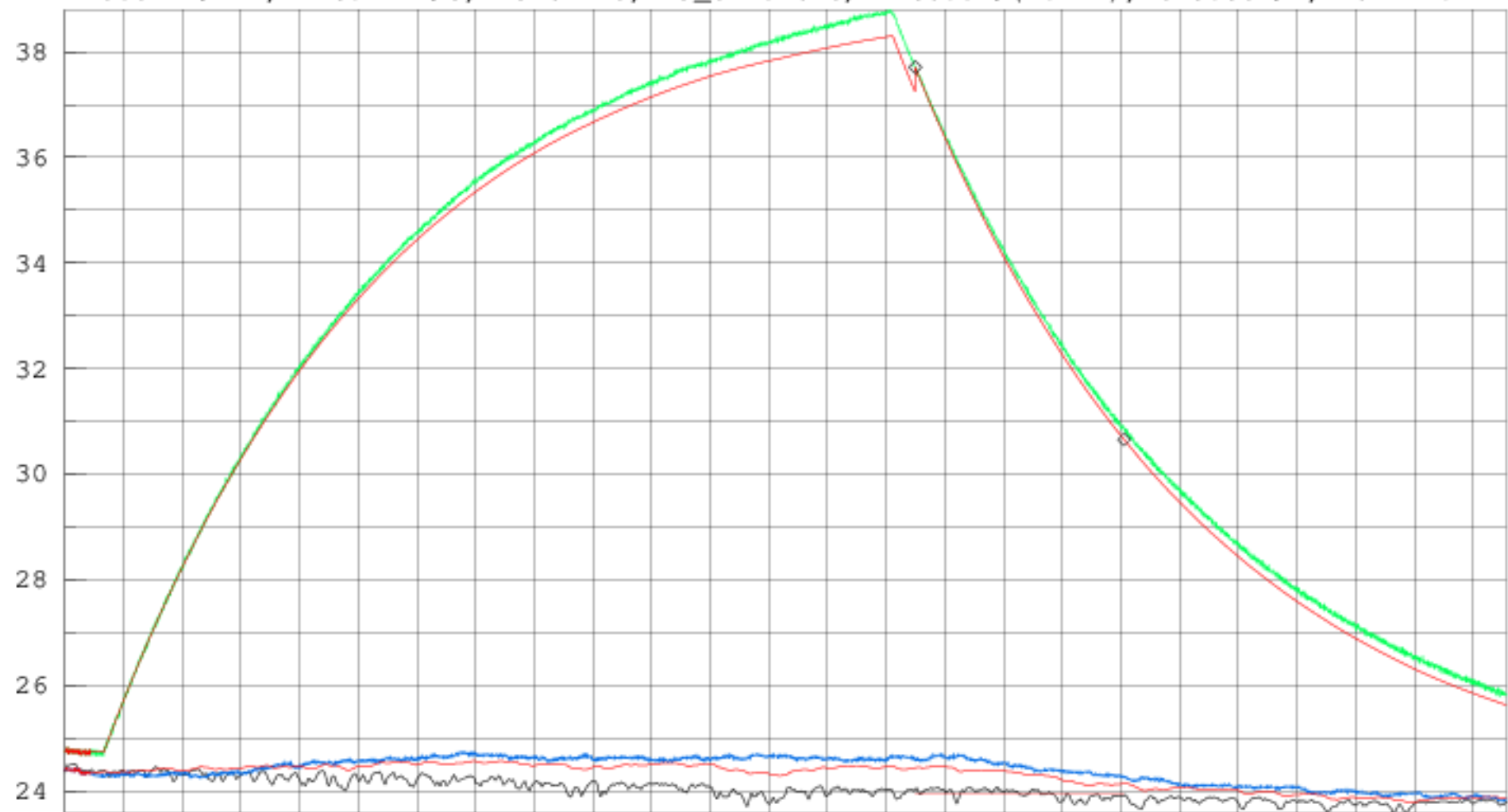


Velocity, m/s

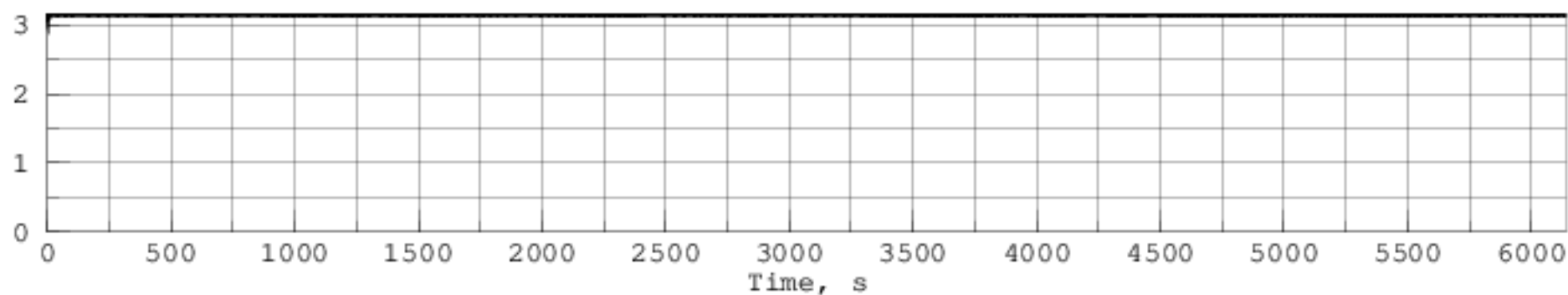


20160828T040504Z - mixed Convection - Roughness=3.00mm; T=23.9+09.9°C; -90.00°  
905±4r/min, V=3.142m/s, Re=61145, Ra\_U=404648, h=36.0W/(K.m<sup>2</sup>), U=3.35W/K, Nu=417.7

Temperature, C

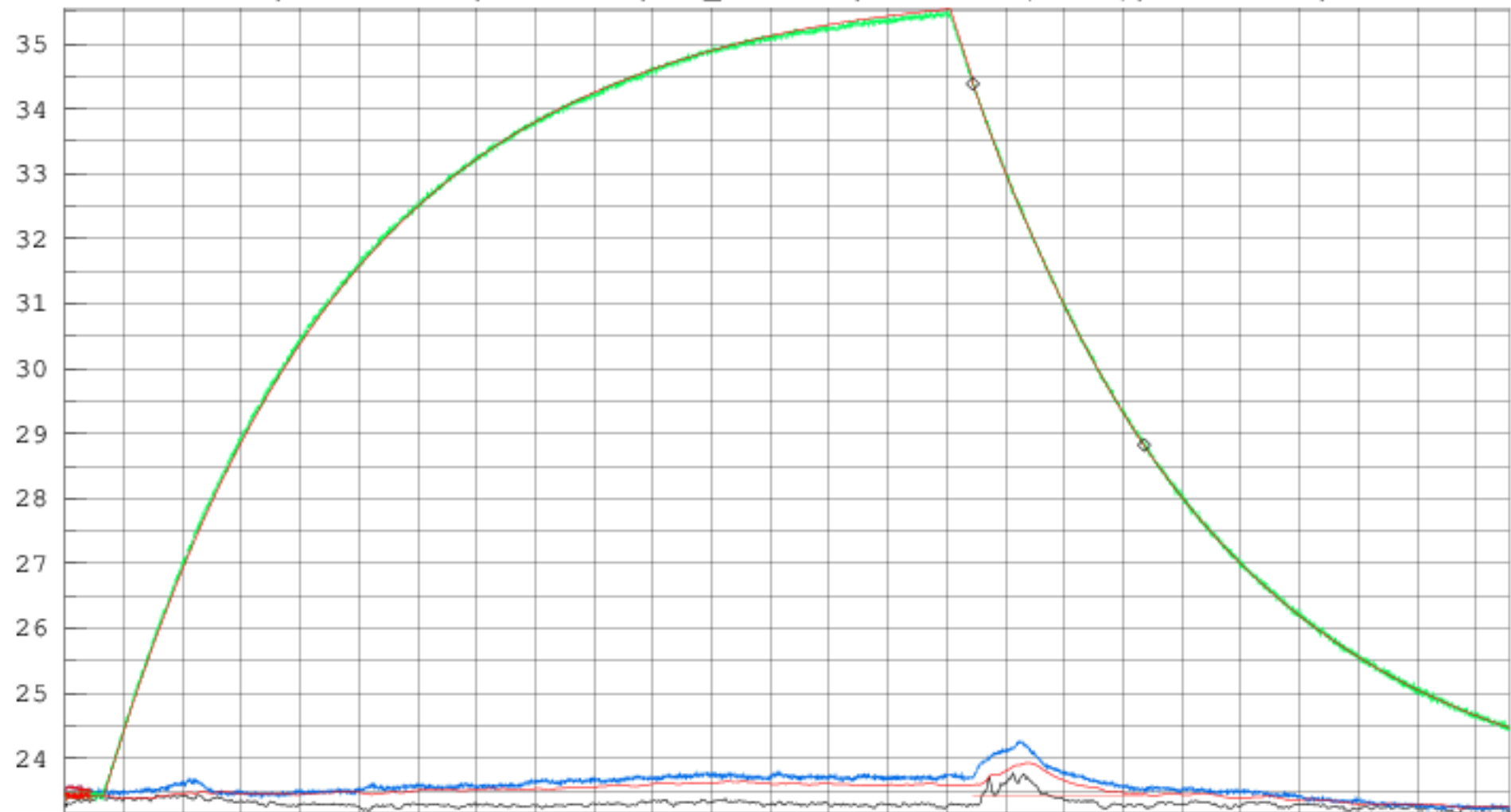


Velocity, m/s

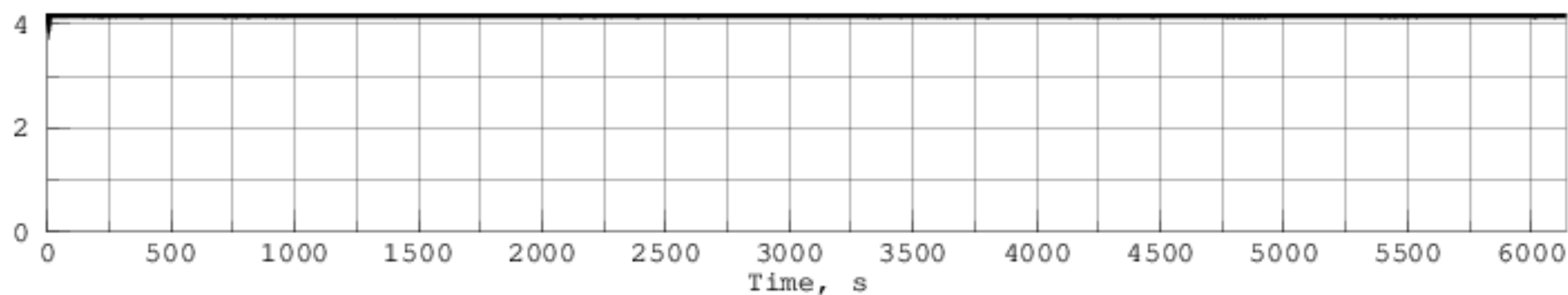


20160828T141201Z - mixed Convection - Roughness=3.00mm; T=23.4+07.9°C; -90.00°  
1280±5r/min, V=4.161m/s, Re=81798, Ra\_U=330616, h=45.7W/(K.m<sup>2</sup>), U=4.25W/K, Nu=532.8

Temperature, C

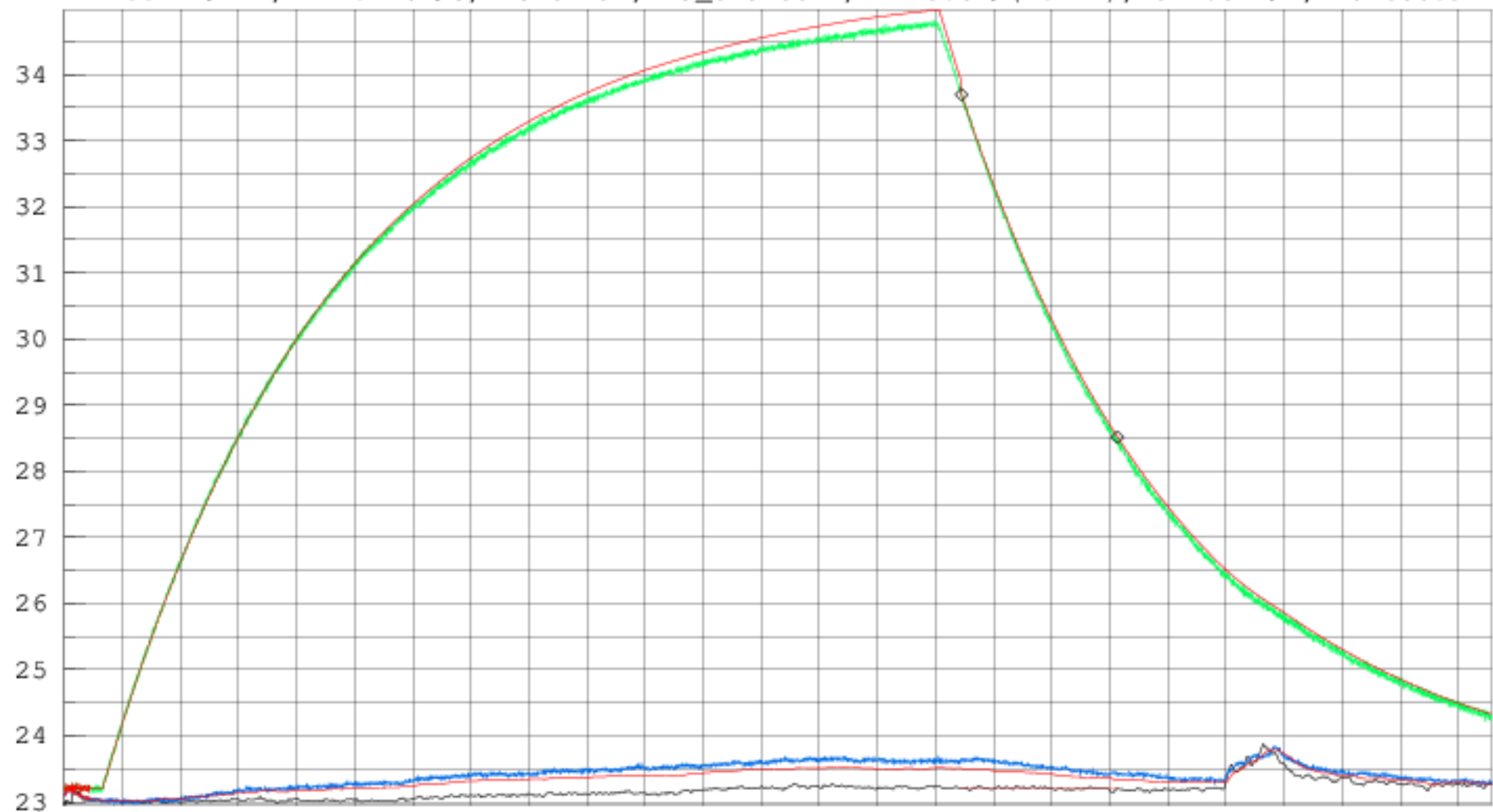


Velocity, m/s



20160828T231631Z - mixed Convection - Roughness=3.00mm; T=23.2+07.5°C; -90.00°  
1400±7r/min, V=4.446m/s, Re=87191, Ra\_U=315511, h=48.6W/(K.m<sup>2</sup>), U=4.52W/K, Nu=566.9

Temperature, C



Velocity, m/s

