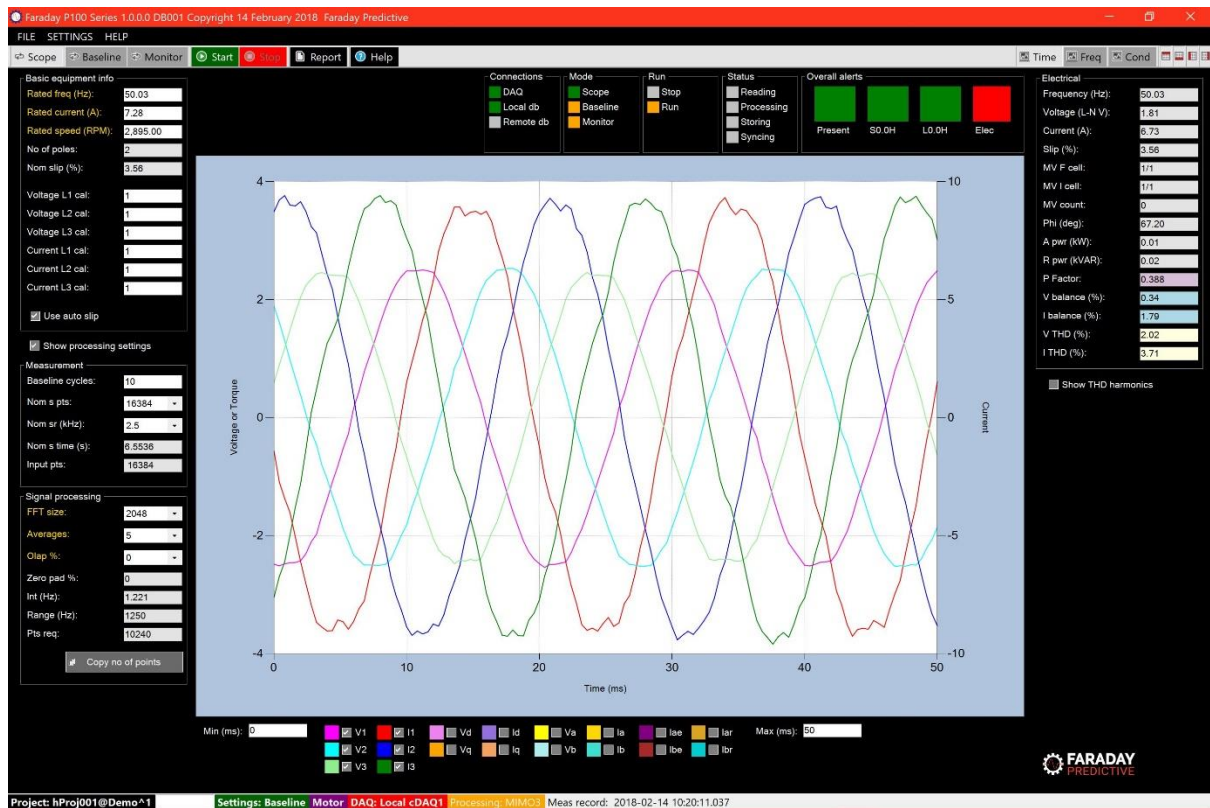


# Time chart



## Chart summary

The Time chart allows the user to plot electrical parameters in the time domain.

## Controls

Minimum and maximum times in milliseconds can be entered in the appropriate text boxes below the chart.

Measured parameters can be selected/deselected for display using checkboxes, and the colour of each plot can be changed by clicking on the colour label for that parameter.

## Axis

The x axis represents time in milliseconds. A 50Hz electrical waveform has a cycle of  $1/50\text{Hz} = 0.02\text{s}$ .

The y axis represents the instantaneous value of the voltage (left hand side) or current (right hand side).

## Parameters

Type	Parameter	Description
Raw Measurements	V1	Raw voltages (Phase 1, 2 and 3) measured and sampled with P100, with applied analogue (25kHz) and digital (5KHz) low pass filtering.
	V2	
	V3	
	I1	Raw currents (Phase 1, 2 and 3) measured and sampled with P100, with applied analogue (25kHz) and digital (5KHz) low pass filtering.
	I2	
	I3	
Combined Measurements	Va	Raw voltages and currents in the Alpha-Beta reference frame. They contain the same information than the raw parameters but on a two phase system.
	Vb	
	Ia	
	Ib	
	Vd	Raw voltages and currents in the Direct-Quadrant reference frame. They contain the same information than the raw parameters but on a two-phase system. This D-Q refence rotates following the line frequency.
	Vq	
	Id	
	Iq	
Modelling estimates	Iae	Estimated currents in the Alpha-Beta reference frame after applying the model.
	Ibe	
Residual measurements	Iar	Residual currents in the Alpha-Beta reference, calculated as the difference between the Combined measurements minus the modelling estimates.
	Ibr	

