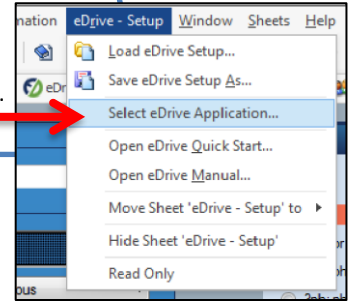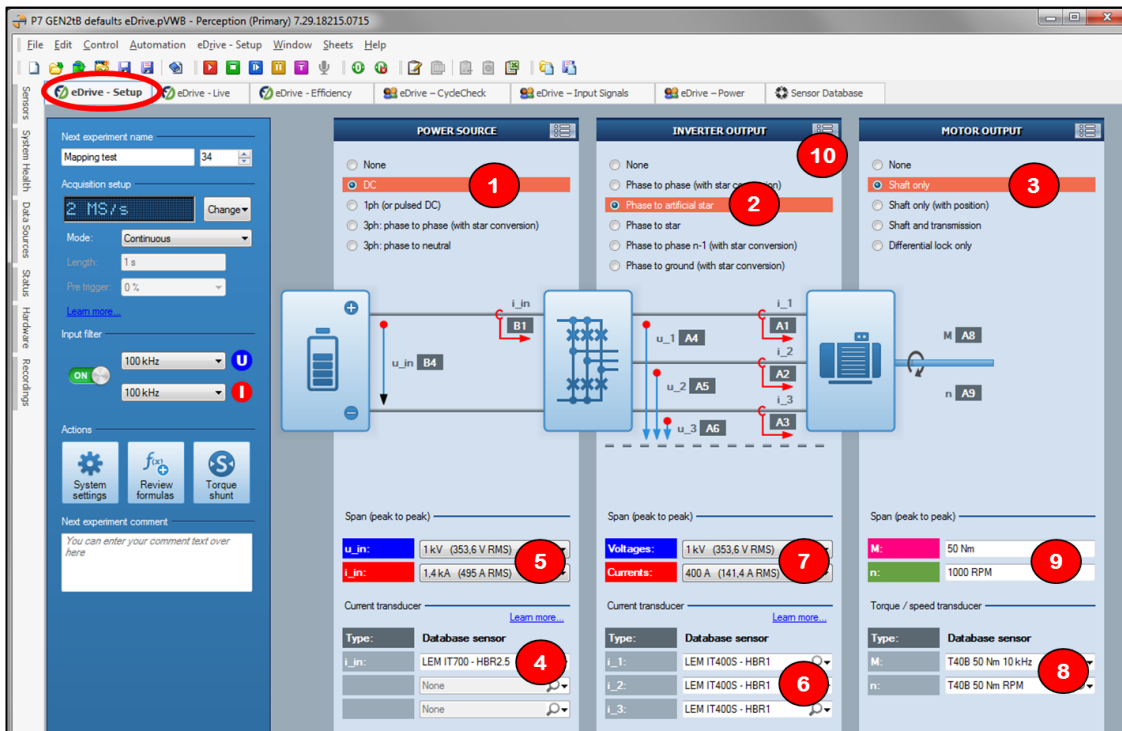# eDrive Quick start guide

Prerequisites

Preparation

- Make sure all your current sensors are available in the Sensor Database.
  (If not then enter these; refer to Perception manual for details.
  Current transducers should be entered with their burden resistor.)
- Select the proper test configuration for your setup. Default is **3-ph electrical drive line**.
  If not correct change under **eDrive – Setup / Select eDrive Application.**

Configuring a test

All settings are done in a single sheet (or tab) called **eDrive – Setup**. This is shown below.

Configuration

- Select the **POWER SOURCE** configuration ❶, typically **DC.**
- Select the **INVERTER OUTPUT** configuration ❷, typically **Phase to artificial star.**
- Select the **MOTOR OUTPUT** configuration ❸, typically **Shaft only.**

Power source

- Select the **Current transducer** for the **POWER SOURCE** from the pulldown list ❹.
  (Or just type a few letters of your sensor name to get a shorter list).
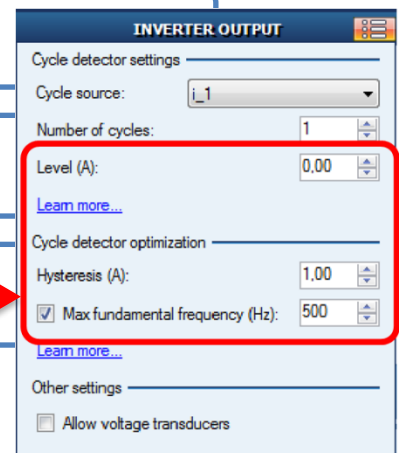- Then select the desired current and voltage **Span (peak to peak)** ❺.

Inverter output

- Select **Current transducers** for the **INVERTER OUTPUT** from the pulldown list ❻.
- Then select the desired current and voltage **Span (peak to peak)** ❼.

Motor output

- Select **Torque/speed transducer** for **MOTOR OUTPUT** from the pulldown list ❽.
- Then select the desired torque and speed **Span** ❾.

Cycle detection

- Check the **Cycle detector settings** in the **INVERTER OUTPUT** properties ❿.
  Level, Hysteresis and **Max. fundamental frequency**
  should be properly set according to the test parameters.

You are now ready to measure.

Showing power results

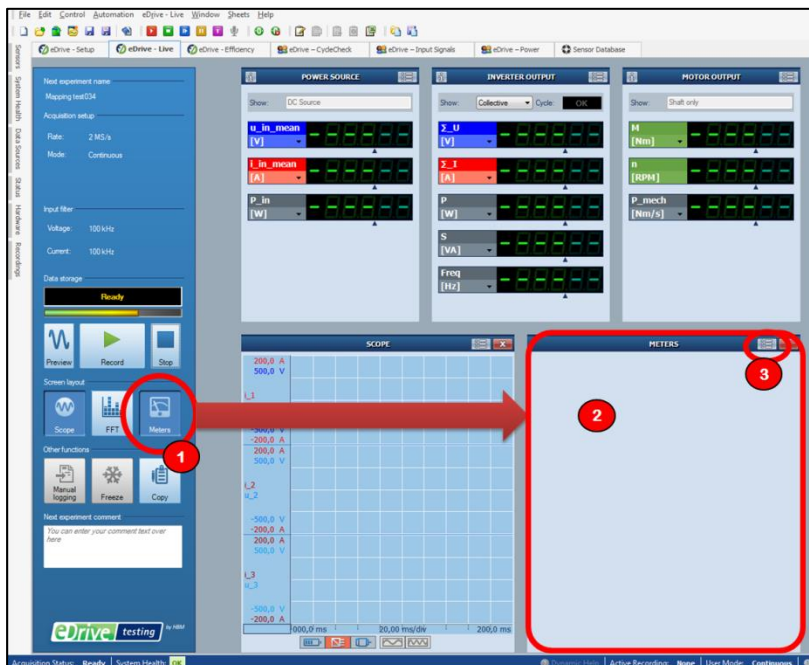Power readings and raw traces are shown in the **eDrive – Live** sheet, as shown below with its default setup.

❶ Press **Preview** to start calculating power results and showing live data.

❷ This area shows the results for the **POWER SOURCE.**

❸ This area shows the results for the **INVERTER OUTPUT.**

❹ The **Show: [pulldown]** selects to show **Phase (n)** or **Collective** power readings.

❺ This area shows the results for the **MOTOR OUTPUT**.

❻ The **SCOPE** area shows live traces.

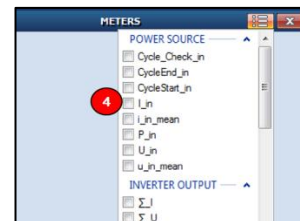❼ Selection of timebase and traces to be shown in the **SCOPE** display.

*Note: If **Record** is used the same live display is shown and in the background data is <u>continuously stored</u>.*
This should be done only if permanent storage is desired otherwise the storage location will fill up quickly.

Showing more power results
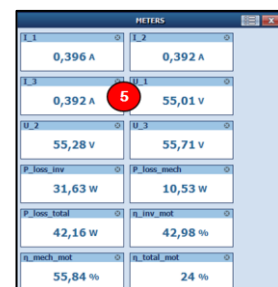
If more and other power readings should be displayed, this is possible using an additonal **METERS** display.

❶ Press **Meters** to show the (empty) **METERS** area ❷.

❸ Open the Properties menu of this window.

❹ Select all power readings you want from the list by clicking the checkbox in front of each.

❺ These values are now arranged in the **METERS** area and can be arranged using "drag & drop".

Some more hints

All meter value on the screen can be transferred to an Excel table manually using the "**Manual logging**" button.

For automated transfer this needs to be set up in the **eDrive – Setup** sheet, under **System Settings**. Or use the **eDrive - Efficiency** sheet.

For triggered raw data storage per set point the system needs to be set from **Continuous** into **Multi-Sweep** mode in the **eDrive – Setup** sheet.