

PPA2500 Series - Master Slave Mode

For applications requiring 4, 5 or 6 phase power measurement, PPA2500 series power analyzers can be operated in Master-Slave mode. This mode enables two PPA units to be connected in a wide range of wiring configurations with each channel configured for its respective power measurement. While each unit will lock onto their respective input frequency, the measurement window of both units are fully synchronised to ensure optimum 6 phase accuracy.

Any combination of PPA2500 series units can be configured in master-slave mode providing exceptional flexibility. For example, a three phase unit (PPA2530) can be used for general purpose three phase applications and then combined with another PPA unit (PPA2510, PPA2520 or PPA2530) for applications requiring more channels.

A typical 6 phase application is to test the electrical and mechanical efficiency of a three phase motor drive. In this case, two PPA2530 power analyzers can be configured to measure, AC electrical efficiency and mechanical efficiency with or without DC bus power as follows:

A. 3 PH 3 Wattmeter I/P Power
3 PH 3 Wattmeter O/P Power
Mechanical Power

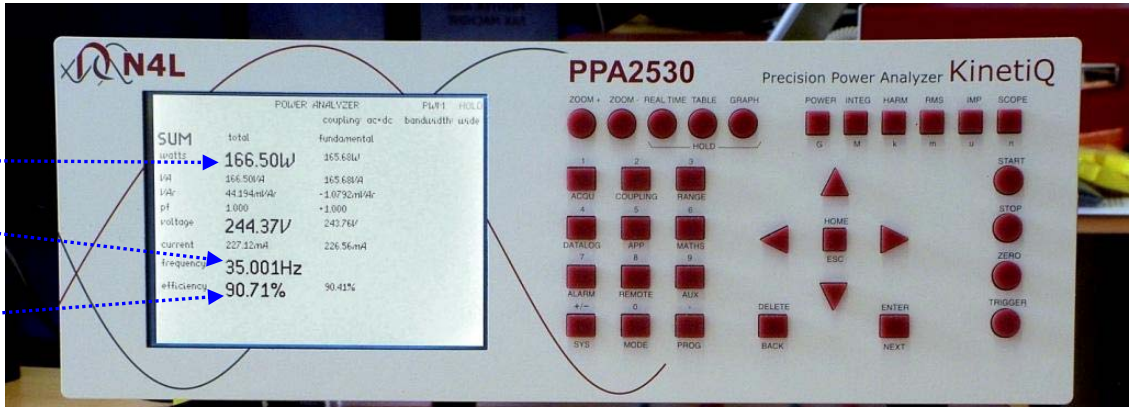
B. 3 PH 2 Wattmeter I/P Power
DC Bus Power
3 PH 3 Wattmeter O/P Power
Mechanical Power



Electrical O/P
Power (B)

PWM O/P Freq

PWM Efficiency
(B/A %)

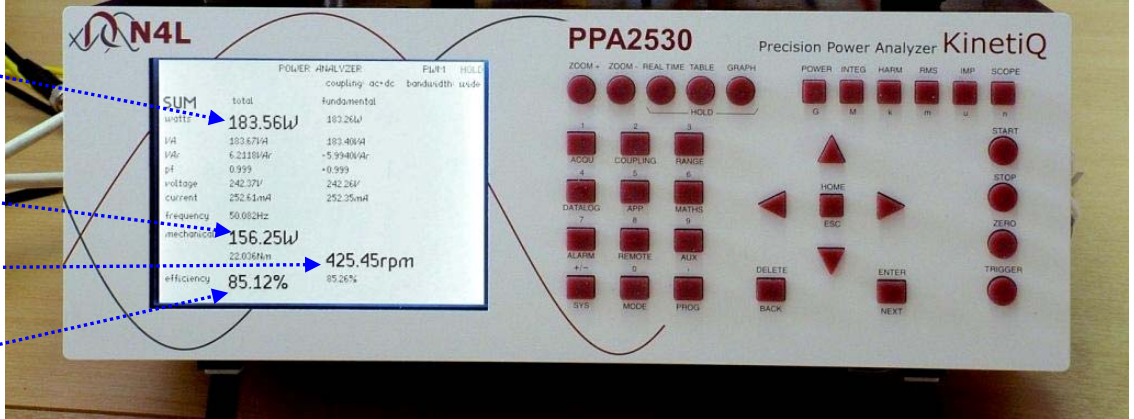


Electrical I/P
Power (A)

Mechanical O/P
Power (C)

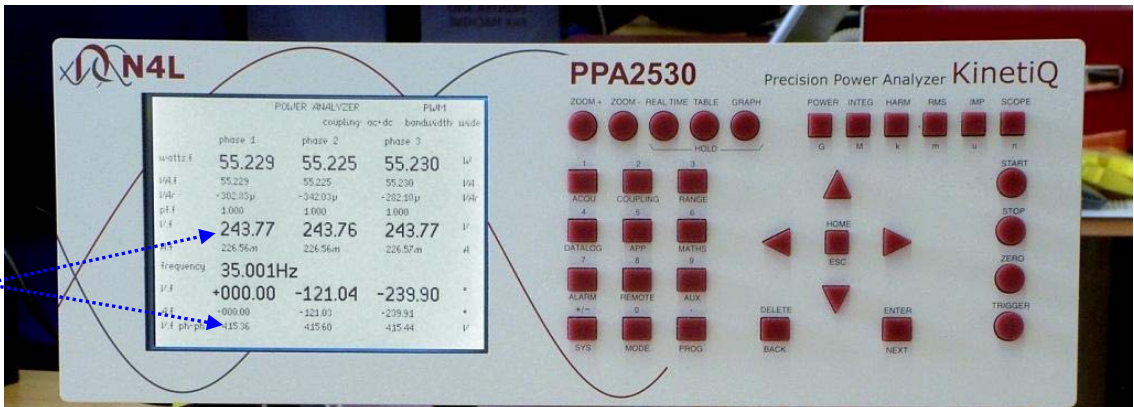
Motor speed

Total Efficiency
(C/A %)



Flexible display
modes present
numeric data on
any or all phases

Phase to Phase
and Phase to
Neutral voltages



Each PPA
display can be
set to present
Numeric,
Graphic, Tabular
or Scope images

Scope mode
includes trigger
control and
cursors

