Newtons4th Ltd

PPA5500-TE

Precision Power Analyzer
Transformer Edition

The worlds most accurate Power Transformer Analyzer*

0.55% Power Accuracy at PF=0.01

0.003° Phase accuracy

Widest Voltage, Current and Frequency range in the market

Unrivalled Performance, Unquestionable Traceability

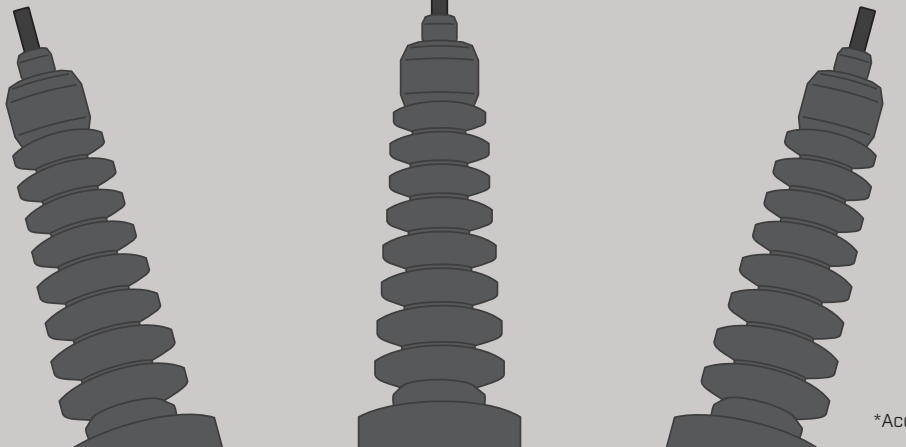
THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2010

ACCURATE

REPEATABLE

UKAS CALIBRATION 7949

TRACEABLE



*According to N4L research, March 2016

Product Overview

The PPA5500-TE provides unrivalled measurement integrity, reliability and accuracy. Each and every PPA5500-TE is rigourously tested within N4L's ISO17025 Accredited Power Laboratory in which specialised power calibration from 40Hz to 450Hz is performed alongside N4L's well documented wideband calibration, up to 2MHz. The PPA5500-TE is compliant to IEC60076-8 and provides a 3 year warranty as well as a 2 year calibration interval. Power Transformer loss analysis becomes challenging when the transformer is off-load (for example whilst performing core loss analysis), this test condition requires the power analyzer to exhibit exceptional phase angle accuracy and repeatability. The PPA5500-TE provides market leading low power factor analysis, supplied with UKAS ISO17025 certification.

Testimonial

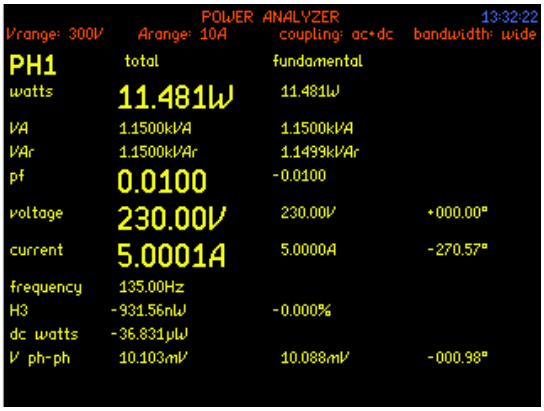
"The main reason I selected the N4L Power Analyser was because we required an instrument with the ability to be accurate at very low power factors, the N4L analysers are one of the few that meet this criteria. Other factors which make us look at N4L products were;
They are competitively priced, the turnaround time for full calibration is normally a week, since our equipment is in virtually constant use this is very important, after sales service is extremely good, they actually listen to what you say and if possible will adapt hardware and software to meet customers' requirements, easy to use software that allows you to select what to measure, how to display it and record it in a format that is easily usable, easy to use instrument resulting in a secondary use as a highly accurate multimeter."

Ross Smirthwaite, Senior Test Engineer, GE Grid Solutions

SPECIFICATION

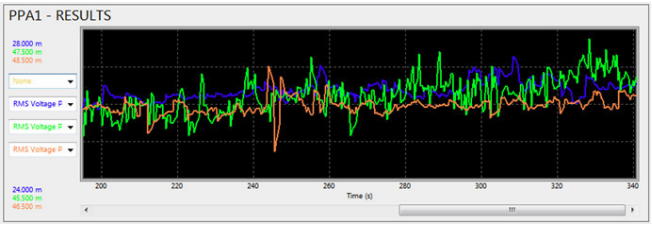
PPA5500-TE	
Operating Range	
DC, 10mHz to 2MHz - 1000Vrms (3000Vpk) - 30Arms (300Apk)	
No. of Phases	
1~3	
Voltage Input Accuracy (16 to 450Hz) %Rdg+%Rng	
20% to 120% in 100Vpk and 300Vpk ranges (14Vrms to 250Vrms)	0.02%+0.02%
Current Input Accuracy (16 to 450Hz) %Rdg+%Rng	
20% to 120% in 1Apk, 3Apk and 10Apk ranges (0.14Arms to 7Arms)	0.02%+0.02%
Phase error* (40 to 450Hz)	
40-66Hz	0.003deg
16-69Hz	0.005deg
69-180Hz	0.006deg
180-450Hz	0.007deg
Accuracy (Watts) Total % error**	
40-66Hz	
PF 1 to 0.5	0.15%
PF 0.5 to 0.05	0.23%
PF 0.05 to 0.02	0.48%
PF 0.02 to 0.01	0.55%
16-69Hz	
PF 1 to 0.5	0.15%
PF 0.5 to 0.05	0.26%
PF 0.05 to 0.02	0.48%
PF 0.02 to 0.01	0.89%
69-180Hz	
PF 1 to 0.5	0.18%
PF 0.5 to 0.05	0.28%
PF 0.05 to 0.02	0.56%
PF 0.02 to 0.01	1.06%
180-450Hz	
PF 1 to 0.5	0.19%
PF 0.5 to 0.05	0.31%
PF 0.05 to 0.02	0.64%
PF 0.02 to 0.01	1.24%
General	
W**= sqrt(((0.01%vrdg+0.038%vmg+1mV)/vrdg)^2 +((0.01%ardg+0.038%amg+100uA)/vrdg)^2 + (1-(cos(phase+phase error*)/cos(phase)))^2)	
Corrected Power, normalised mean, rectified mean, form factor, crest factor, Delta-Star, Star-Delta, Cycle-by-cycle, Harmonic and Flicker analysis.	
W ,VA ,VAr ,PF ,V & A - rms, fundamental, AC ,DC ,Peak ,Surge, +ve Pk, -ve Pk	
RS232, GPIB, LAN port, Rear USB Communication port, Analogue output, Speed input, Torque input, Sync, Extension, Front USB screenshot/data storage port.	
Where not defined here, all specfications are equal to the standard PPA5500	
Calibration Interval : 24 months	

Maintaining all features, functions and ease of use for which the PPA5500 series has become known, the PPA5500-TE combines the inherent phase accuracy of PPA analyzers with a calibration process that is optimised specifcally for low power factor applications. Here, we look at total, fundamental and phase measurements on one of three phases while measuring a PF 0.01 signal.



Where users wish to see measured functions at higher resolution, any selected measurements can be viewed with a 6 digit display. Here, we see 6 digit presentation of items selected in the first screen.

Additonally, all measurements can be selected as either 5 or 6 digit resolution for PC analysis irrespective of the selected screen setting. Free of charge PC software provides real time numerical data plus tables, graphs and direct export to files or documents.



TÜV NORD ISO 9001 TÜV UK Ltd.
UKAS QUALITY MANAGEMENT 065
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