

2105 Wide-Range Power Analyzer

The Model 2105 Power Analyzer is a reliable, low-cost power measurement device designed to aid engineering and quality assurance departments in determining product efficiency, power factor, and true RMS current draw from both AC and DC sources. While working with the 2105, users can select between various current (200m, 2, 20) and voltage (30, 150, 300, 600) ranges allowing for the most accurate data collection. The instrument provides fast and convenient data points through dual digital displays for phase angle relationship calculations via manipulation of the quantities. Proven applications include motor test labs, universities, and manufacturing facilities worldwide. Additional features include Peak Amp and Peak Volt Overload indicators, 4-terminal heavy-duty input jacks, and compatibility with current and potential transformers.

- Up to 20A/phase Direct (Self Contained Shunt)
- Expandable to 1000 amps (see I-1000)
- True Power Measurements, $VI \cos \phi$
- High Accuracy Measurement: 0.15% DC to 5KHz
- Bandwidth~ DC, 40 Hz to 50 KHz
- Zero to Unity Power Factor Response
- Accurate Regardless of Waveform Distortion
- Certificate of N.I.S.T. traceability



General Specifications

Crest Factor Response:	50:1 for minimum RMS input, linearly decreasing to 2.5:1 for full scale RMS input
Minimum Inputs:	5% of voltage and current ranges for specified accuracies
Maximum Voltage Input (without damage):	600VDC or RMS, $\pm 1500V_{PEAK}$
Voltage Impedance:	600k Ω
Current Shunt Impedance:	0.01 Ω
Max Common Mode:	$\pm 1500V$ peak, neutral to earth
Peak Indicators:	Illuminate at 2.5 x full scale for voltage and current
Over-range:	150% of full scale for DC, up to "maximum input" specification
Temperature Coefficient:	$\pm 0.025\%$ of range per $^{\circ}C$ from $0^{\circ}C$ - $20^{\circ}C$ and $30^{\circ}C$ - $50^{\circ}C$
Source/Load Connections:	4- terminal heavy-duty input jacks

Power

Power Requirements:	105-125Vac or 210-250Vac, 50-400Hz; 25VA maximum
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Temperature

Operating Temp. Range:	$0^{\circ}C$ to $50^{\circ}C$; $-20^{\circ}C$ to $70^{\circ}C$ Storage
Humidity:	70% RH max @ $40^{\circ}C$ (non-condensing)

Physical Specifications

Size:	25cm W x 27cm D x 8cm H (10" W x 10.5" D x 3" H)
Weight:	3.5lbs / 1.7kg net

	Accuracies		
	DC & 40Hz - 5kHz	5kHz - 10kHz (12A Max)	10kHz - 20kHz (2A Max)
Voltage - AC+DC, DC Coupled	$\pm 0.1\%$ of rdg ± 6 counts	$\pm 0.5\%$ of rdg $\pm 0.5\%$ of rng	$\pm 1\%$ of rdg $\pm 1\%$ of rng
Current - AC+DC, DC Coupled	$\pm 0.1\%$ of rdg ± 6 counts	$\pm 0.5\%$ of rdg $\pm 0.5\%$ of rng	$\pm 1\%$ of rdg $\pm 1\%$ of rng
Watts - AC+DC, DC Coupled	$\pm 0.25\%$ of rdg ± 6 counts	$\pm 0.75\%$ of rdg $\pm 0.75\%$ of rng	$\pm 1\%$ of rdg $\pm 1\%$ of rng

(Usable above 20kHz to 50kHz with typically an additional 1% error per 10kHz)

		Current Ranges		
		.2000A	2.000A	20.00A
Voltage Range	30.00V	6.000W	60.00W	600.0W
	150.00V	30.00W	300.0W	3000W
	300.0V	60.00W	600.0W	6000W
	600.0V	120.00W	1200.0W	12000W
		Watts		

