Three-phase Power Analyzer
AN87330(F)

Product Introduction

The AN87330(F) series high-accuracy power meter adopts the latest FPGA+ARM digital processing system to achieve synchronous sampling, which fully meets the testing needs of three-phase equipment in the fields of motors, home appliances, new energy etc. on the market. It is specially designed for production lines such as automated line and integrated system etc.

Features

- High performance, wide frequency band: accuracy up to 0.1%, the bandwidth is DC, 0.5Hz~100kHz, suitable for testing of non-sinusoidal wave load.
- True differential synchronous conditioning sampling, guaranteeing super large direct test capability, voltage: 0.15~1000V, current: 5mA~50A/1mA~20A.
- Standard RS232, LAN port, standard MODBUS protocol, to meet the customization needs of multiple protocols, optional RS485, GPIB module.
- Support three-phase interphase angle test.

Applications

- Dynamic test of brushless DC motor
  - FG signal RMS, peak-peak measurement, duty cycle calculation, wave data analysis.
  - Measurement of RMS and frequency of 3-phase back electromotive force.
  - Phase angle test
- Power measurement of inverter motor and inverter
  - Power bandwidth DC, 0.5Hz~100kHz
  - Current: 0~20A/current sensor
  - Simultaneously measure input and output power
  - 50th harmonic and distortion analysis

Specifications

Model	AN87330(F)
Current	20A
Wiring	1P3W (1-phase 3-wire)、3P3W (3-phase 3-wire,2 voltage 2 current)、3V3A (3-phase 3 -wire,3 voltage 3 current)、3P4W (3-phase 4-wire)
Input impedance of all phase	Voltage:approx.2MΩ; Current direct input:approx.10mΩ current sensor input:approx.100kΩ
Full range peak factor	3
Rated voltage(direct input)	15/30/60/100/150/300/600/1000*[V];*1000V full range peak factor:1.5
Rated current(direct input)	100m/200m/500m/1/2/5/10/20*[A];*20A full range peak factor:1.5
Rated current(sensor input) (optional)	50m/100m/200m/500m/1/2/5/10[V]
Voltage/current accuracy	(1%～110%) × range;*voltage:1000V range、current 20A accuracy range(1%～100%) × range
Power factor	±(0.001 ～ 1.000)
Voltage accuracy	DC:±(0.1% × display + 0.2% × range) 0.5Hz≤f＜45Hz: ±(0.1% × display + 0.2% × range) 45Hz≤f≤66Hz: ±(0.1% × display + 0.1% × range) 66Hz＜f≤1kHz: ±(0.1% × display + 0.2% × range) 1kHz＜f≤10kHz: ±({0.07 × f}% × display + 0.3% × range) 10kHz＜f≤100kHz: ±(0.5% × display + 0.5% × range), ±[{0.04 × (f–10)}% × display]
Current accuracy	DC: ±(0.1% × display + 0.2% × range) 0.5Hz≤f＜45Hz: ±(0.1% × display + 0.2% × range) 45Hz≤f≤66Hz: ±(0.1% × display +0.1% × range) 66Hz＜f≤1kHz: ±(0.1% × display +0.2% × range) 1kHz＜f≤10kHz: ±({0.07 × f}%× display +0.3% × range) 10kHz＜f≤100kHz: ±(0.5% × display + 0.5% × range), ±[{0.04 × (f–10)}% × display]
Active power accuracy	DC: ±(0.1% × display + 0.2% × range) 0.5Hz≤f＜45Hz: ±(0.3% × display + 0.2% × range) 45Hz≤f≤66Hz: ±(0.1% × display + 0.1% × range) 66Hz＜f≤1kHz: ±(0.2% × display + 0.2% × range) 1kHz＜f≤10kHz: ±(0.1% × display + 0.3% × range), ±[{0.067 × (f–1)}% × display] 10kHz＜f≤100kHz: ±(0.5% × display + 0.5% × range), ±[{0.09 × (f–10)}% × display]
Active power measurement/ resolution	4.4mW~4.4kW/phase @220V, PF=0.01~1 , 0.1mW
Frequency range/accuracy	DC,0.5Hz ～ 100kHz, ±(0.1% × display)
Harmonic measurement	10Hz ～ 600Hz, 1～50th harmonic content, total distortion
Electric energy range/ accuracy	0～99999MWh (resolution:1mWh/0.01mAh), ±(0.2% × display)
Electric energy timing	H:9999 Min:59 Sec:59
Filter	500Hz, 5.5kHz voltage line, current line and frequency filter
Ratio	1.0～5000.0
External input change	0.010~100.000
Data update cycle	100m/200m/500m/1/2/5/10[s]
Alarm	Three-phase total voltage, three-phase total current, three-phase total power upper/lower limit, threshold
Control interface	Standard:RS-232, Ethernet; Optional:RS-485, motor measuring board (pulse torque speed sensor)
Communication protocol	Ainuo3.0, Modbus, TCP Modbus
Dimension	Dimension:213(W)× 133(H)× 400(D)mm, Opening: 213(W) × 133(H) mm, Foot height:15 mm

Any changes to the above parameter specifications will not be notified separately.