

PF310A/PF330A 数字功率计（多功能、宽频率、高精度）

PF310A/PF330A Digital Power Meter(Multifunction & wideband & high accuracy)

PF310A（单通道）/PF330A（三通道）数字功率计是多功能、宽频率、高精度的高性能数字功率计。除基本电参数测量功能外，还具备自动量程、谐波分析、变比功能、平均功能、滤波功能、最大值锁定、电能量积分等功能。标配专用测试软件，能显示、存储、调用测量数据和波形。非常适用于科研高校、检测校准、企业研发、质量检验等高要求场合。

PF310A/PF330A are multi-function, wideband, high accuracy digital power meter. They cover versatile functions including automatic range, harmonic analysis, scaling, averaging, filtering, peak holding, and integration, etc. They are very suitable for research & development, quality inspection and production line in third party laboratory, university, and enterprise.

高精度、全功能、超低待机功耗测量

High accuracy, multi-function, low current testing capability



PF310A 数字功率计(单通道)
PF310A Digital Power Meter



PF330A 数字功率计(三通道)
PF330A Digital Power Meter

精度：0.1%
Accuracy: 0.1%

频率范围：DC，0.5Hz~100kHz
Wide frequency rang: DC,0.5Hz~100kHz

25μA超低电流测量
25μA current testing capability

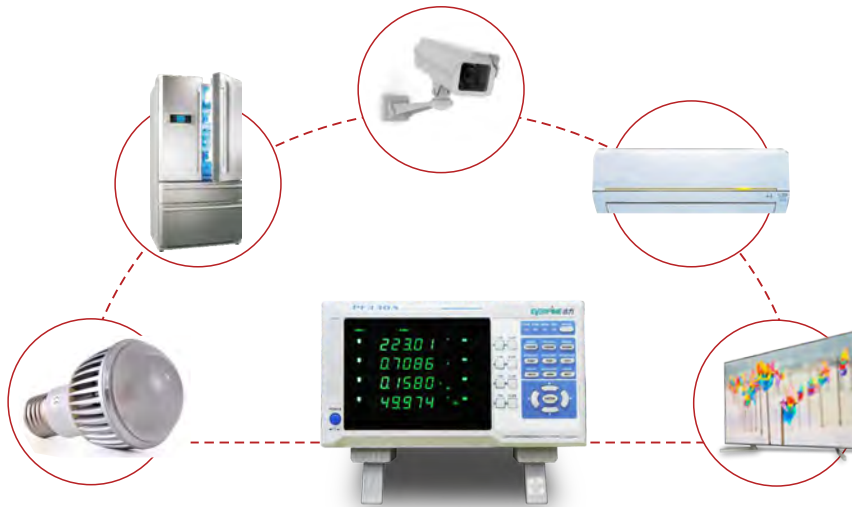
谐波、电能量积分等20多项测试功能
Multifunction: more than 20 different functions

特点与优势 Characteristics and advantage

● 25μA超低电流测量 25μA current testing capability

最低功耗测量0.005W，非常适合用于测量设备待机功耗,测量符合国际标准（IEC62301,能源之星，SPECpower）。

The lowest power consumption measurement is 0.005w. Measured in accordance with international standards (IEC62301, Energy Star and SPECpower).



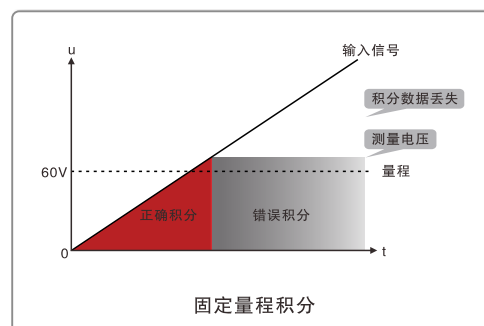
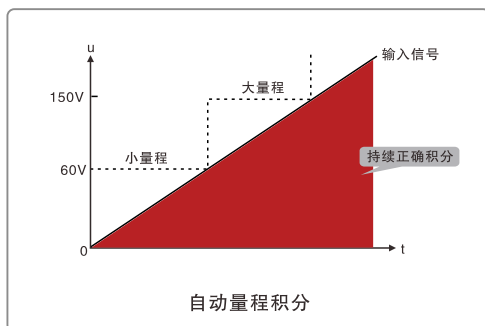
● 积分测量自动量程功能 Automatic range function of integral measurement

积分是对有功功率（W）或电流（A）按时间进行累加，求得能量消耗（Wh）或电量消耗（Ah），可得到家用电器各个运行状态下的功耗。PF300A系列不但可以测量正负瓦时，还能测量安时以及DC电流，可用于电池的充放电能、电梯的升降电能消耗与储存的测量等。

通常在积分模式下，需要固定测量量程，一旦输入电压或电流超过被选量程的最大值，测量将出错，需要提高量程重新测试。PF300A系列可以在积分模式下自动快速切换量程，保证了测量的准确性和连续性。

PF300A series can measure not only positive and negative bushes, but also DC current and others. It can be used for battery charging and discharging function, elevator lifting power consumption and storage measurement.

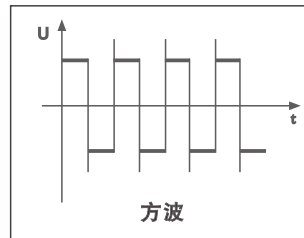
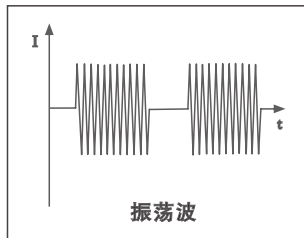
PF300A series can switch range automatically and quickly in integral mode.



● 宽频率测量范围 Wide frequency measurement range

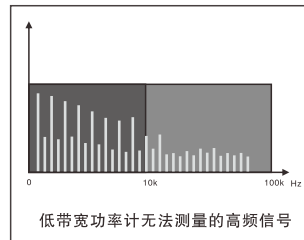
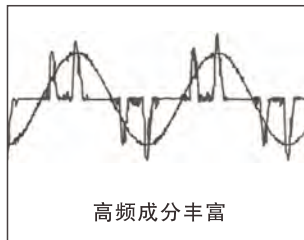
PF300A系列具有DC、0.5~100kHz的频率测量范围，在测量方波、脉冲波等失真波形或含DC成分的特殊波形RMS值。通过平均有功功率测量功能，无需任何特殊模式设置即可准确测量失真波形，为脉冲波等波动功率器件如电焊机、HID电源等提供精确的功耗数据。

PF300A series has the frequency test range of DC, 0.5~100kHz. It measures the distortion waveform such as square wave, pulse wave or special waveform RMS value containing DC component.



在测量正弦波时，如测试开关电源变频家电等输入波形中含有丰富高频谐波成分时，功率计的测量频率范围及带宽不够的情况下，无法测试其高频谐波分量，PF300A系列能够保证在测试这类产品时，准确测量功率及功率因素。

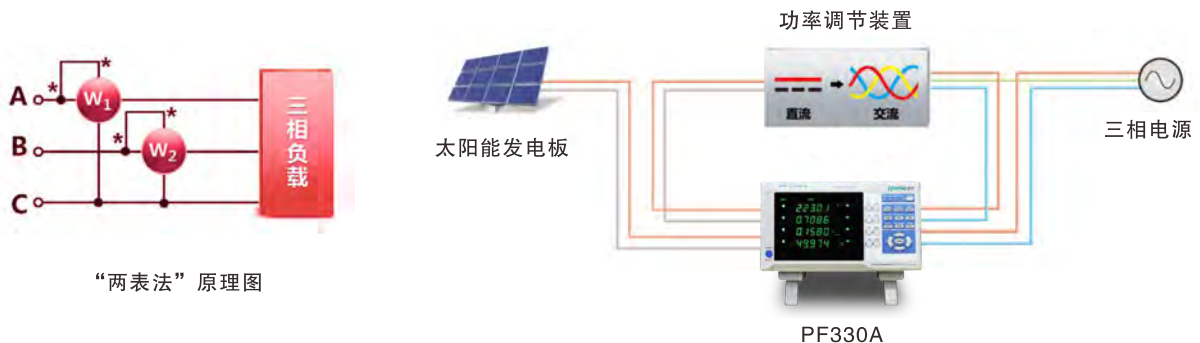
PF300A series can accurately measure power and power factors when measuring sinusoidal wave with high frequency harmonic components.



● 单台仪器可实现效率测试（仅针对PF330A） One single instrument of PF330A realize efficiency testing

PF330A拥有三个测量通道，单台仪器即可测量效率。其中两通道采用“两表法”测量逆变器的三相输出信号，另一通道测量逆变器的直流输入。

PF330A has three measuring channels, and one single instrument can measurement can measure the efficiency.



测试功能 Test Functions

- 四窗口显示4 displays: V、A、W、var、VA、Vpk、Apk、VHz、AHz、PF、Deg、VCF、ACF、Ah+、Ah-、Wh+、Wh-、V%THD、A%THD、 V_{Σ} 、 V_{Σ} 、 A_{Σ} 、 W_{Σ} 、Vi、Ai、Wi、Vi%、Ai% (i: 谐波次数)。
- 多功能同时测量: 可同时进行常规测量、谐波测量和积分测量。
Multifunction: General measurement, harmonic analysis, and integration can be executed simultaneously.
- 谐波分析功能: 采用锁相环 (PLL) 同步技术, 可分析基波频率20Hz~2.56kHz的电压、电流的总谐波失真、总谐波电压、总谐波电流、总谐波功率、2~50次各谐波的有效值和相对值。符合IEC61000-3-2标准要求。
Harmonic analysis: The technology of Phase-Locked Loop (PLL) synchronization is applied, and comply with the standards of IEC6000-3-2.
- 变比功能: 可使用电压互感器 (PT)、电流互感器 (CT) 或电压输出型电流传感器扩展量程, 变比功能将测量结构直接转换成真实值输出。
Scaling function: Users can use the voltage transformer (PT), current transformer (CT) or voltage output type current sensor to extend the measurement range.
- 平均功能: 当因被测信号不稳定而读数困难时, 可使用平均 (AVG) 功能将测量值进行平均运算后再显示输出, 有指数平均 (EXP) 和算术移动平均 (MOV) 两种方式。
Averaging function: Users can use the averaging (AVG) function due to the instability of signal.
- PC软件: 提供专用应用软件, 快速设置测量参数, 获取测量数据与波形。
PC testing software: With the software to set up the testing conditions easily, and display the test data and waveforms.

技术参数 Specifications

项目 Item	电压 Voltage	电流 Current
输入量程 (RMS) Rated inputs	PF310A/PF330A 直接输入 Direct input: CF=3: 15V/30V/60V/150V/300V/600V CF=6: 7.5V/15V/30V/60V/150V/300V	PF310A 直接输入 Direct input: CF=3: 5mA/10mA/20mA/50mA/100mA/200mA/0.5A/1A/2A/5A/10A/20A CF=6: 2.5mA/5mA/10mA/25mA/50mA/100mA/0.25A/0.5A/1A/2.5A/5A/10A PF330A 直接输入 Direct input: CF=3: 0.5A/1A/2A/5A/10A/20A CF=6: 0.25A/0.5A/1A/2.5A/5A/10A
		PF310A/PF330A 外部输入 External shunt input: CF=3: 2.5V/5V/10V CF=6: 1.25V/2.5V/5V
频率范围 Frequency	DC, AC: 0.5Hz~100kHz	
基本精度 Accuracy	0.1%读数rdg+0.05%量程rng	
数据显示刷新率 Display refreshing	0.1S、0.25S、0.5S、1S、2S、5S	
通讯接口 Communication	USB (标配), RS-232/RS-485/GP-IB/LAN/CAN (选配 optional)	