

4017 DC Digital Power Analyzer (100Vp, 12Adc / 60Ap)



Features

- 6 Selectable Voltage Ranges :
2.5 VDC / 0.1mV , 5 VDC / 0.1mV , 10 VDC / 1mV
25 VDC / 0.001V , 50 VDC / 0.001V , 100 VDC / 0.01V
- 18 Selectable Current Ranges :
0.375m ADC / 0.01uA 0.375 ADC / 0.01mA
0.75m ADC / 0.1uA 0.75 ADC / 0.1mA
1.5m ADC / 0.1uA 1.5 ADC / 0.1mA
3.75m ADC / 0.1uA 3 ADC / 0.1mA
7.5m ADC / 0.001mA 6 ADC / 0.1mA
15mA ADC / 0.001mA 12 ADC / 0.001A
0.0375 ADC / 0.001mA 15 ADC / 0.001A < 800ms>
0.075 ADC / 0.01mA 30 ADC / 0.001A < 400ms>
0.15 ADC / 0.01mA 60 ADC / 0.001A < 200ms>
- Embedded high-speed DSP, 16 bits Analog/Digital converters to provide continuous gapless measurement with max sampling rate up to 409.6kHz
- Input Range to 100 VDC / 12 ADC
- 0.375mA minimum current range & 0.01uA Current resolution
- 3.5-inch color LCD digital numeral and graphic (TFT) display
- Display voltage, current and 50th Harmonics resolution by digital and graphics
- Data Logger mode :
 - Up to 256 records for VDC, ADC, Watt measurements
 - External PC for no-limit records q'ty for long-term quality monitoring
- Built-in power switch to control
 - Test period and repetition times up to 9999 times
 - Repeat test period can up to more than 138days.
- Inrush Current and Voltage measurement.
- Support external shunt measurement function : Can be used with Prodigit 7550A and 1000A to expand the higher measurement current and power integration Whr, Ahr measurement function demand
- Optional Interface : GPIB 、 RS232 、 USB 、 LAN

Description

- The 4017 is a new generation digital power analyzer designed specifically for DC power measurement. The 3.5" TFT LCD display screen provides graphics display and digital display. It can be providing highly accurate and convenient power measurement.
- The 4017 digital power analyzer current measurement range is rich wide. it can provide 18 selectable current ranges from 0.375mA to 60Adc and provide 6 selectable voltage ranges up to 100Vdc. For the larger range of current and voltage measurement, it can also be combined with the external shunt(such as Prodigit 7550A,1000A Precision Current Shunt) and set-up the scale magnification of 4017. And then it can meet the highest current up to 250A or 1000A measurement demand.
- In order to understand the stability of the UUT(unit under test), the 4017 provides the Data Logger function, which can 256 states store each for VDC, ADC, Watt, and ITHD. If PC is available, there will be no limit states stores quantity. It provides a convenient and accurate power measurement of UUT stability.
- In addition, to understand the effect of the UUT (unit under test) on long-term repeated ON/OFF. The 4017 built-in a power switch can control the ON/OFF angle of the input signal, test period and repetition times to 9999 times, such as turn ON and turn OFF every 10 minutes continuously, the longest repeat test period can be longer than 138 days.
- For remote operation, the 4017 digital power analyzer provides 4 optional interfaces GPIB / RS232 / USB / LAN data capture and storage.

Specifications

MODEL			4017		
DCV VDC, Vpk+/Vpk-, Vmax/Vmin	Input Resistance ≥400KΩ	Range	2.5VDC / 0.1mV	5VDC / 0.1mV	10VDC / 1mV
		Max. Input	10VDC		
	Input Resistance ≥4MΩ	Range	25VDC / 0.001V	50VDC / 0.001V	100VDC / 0.01V
		Max. Input	100VDC		
Accuracy		±0.1% of (Reading + Range)			
		±0.5% of (Reading + Range, For Peak)			
DCA DCA, Apk+/Apk-, Amax/Amin	Shunt 0.015A (75Ω)	Range	0.375mADC / 0.01uA 0.75mADC / 0.1uA	1.5mADC / 0.1uA 3.75mADC / 0.1uA	7.5mADC / 0.001mA 15mADC / 0.001mA
		Max. Input	15mADC continuous		
	Shunt 0.15A (1Ω)	Range	0.0375ADC / 0.001mA	0.075ADC / 0.01mA	0.15ADC / 0.01mA
		Max. Input	0.15ADC continuous		
	Shunt 1.5A (0.08Ω)	Range	0.375ADC / 0.01mA	0.75ADC / 0.1mA	1.5ADC / 0.1mA
		Max. Input	1.5ADC continuous		
	Shunt 12A (0.01Ω)	Range	3ADC / 0.1mA 6ADC / 0.1mA 12ADC / 0.001A	15Apeak / 0.001A <800ms> 30Apeak / 0.001A <400ms> 60Apeak / 0.001A <200ms>	
		Max. Input	60Apeak per 200ms / 12ADC continuous		
	Ext. Input	Input impedance	10KΩ		
		Input Range	0~+/-2.5Vpeak		
Scaling		1.00~100000.00			
Accuracy		±0.1% of (Reading + Range)			
		±0.5% of (Reading + Range, For Peak)			
DC Power Watt		Range	Vrange*Arange		
		Accuracy	±0.2% of (Reading + Range)		
Inrush V/A	Voltage	Range	Same as DCV		
		Max. Input			
	Current Shunt 12A (0.01Ω)	Accuracy	±2% of (Reading + Range)		
		Range	3A~60A		
	Max. Input				
Accuracy		±2% of (Reading + Range)			
Measurement Wide		100mS			
DC Ahr / Whr Calculator	Accumulated Time		0 _D 0 _H 0 _M 0 _S ~ 9999 _D 23 _H 59 _M 59 _S		
	WHr			0.000000 nWhr~999.999999 WHr	
				1.000000~999.999999 KWhr	
				1.000000~9999.999999 MWhr	
	Ahr			0.000000 uAhr~999.999999 Ahr	
				1.000000~999.999999 KAhr	
		1.000000~9999.999999 MAhr			
Counter		0 _H 0 _M 0 _S ~99 _H 59 _M 59 _S			
Accuracy		±0.2% of (Reading + Range)			
Data Logger	Item		Vrms · Arms · Watt		
	Update Rate		0.2 · 0.5 · 1 · 2 · 5 · 10 Second		
ON / OFF Cycling	ON time		0 _M 0.500 _S ~ 10 _M 0 _S		
	OFF Time		0 _M 0.500 _S ~ 10 _M 0 _S		
	Repeat Cycle		0~9999		
Low Pass Filter(V & A)		50KHz			
Interface (Option)		RS-232, GPIB, USB, Ethernet			
Operating Theory	+ or - Peak Value (+/-Vpk, +/-Apk)		Max [Value _(t)] or Min [Value _(t)]		
	Max. or Min Value (Vmax/Vmin, Amax/Amin, Wmax/Wmin)		Max [Value] or Min [Value]		
Sampling Rate		>400k Hz			
Inrush Sampling		<2.5us			
V/A ADC		Dual 16-Bit, 500KSPS ADC with DSP			
Power Input		110 / 220V 50/60Hz			
Consumption		50VA			
Protection (fuse)	Shunt 0.015A (10Ω)		3.6x11mm 250Vac 0.2A Fast		
	Shunt 0.15A (1Ω)		3.6x11mm 250Vac 0.2A Fast		
	Switch		6*30mm 250V/10A		
Display		3.5" TFT LCD, 320 x RGB x 240			
Dimensions	Height		99.4 mm with feet		
	Width		213 mm		
	Depth		304 mm		
Weight		3.5 Kg			
Storage temperature		-20 °C to +60 °C (-4 °F to 140 °F)			
Operating temperature		0 °C to 40 °C (32 °F to 104 °F)			
Maximum operating altitude		2000 M (6562 ft)			
Maximum relative humidity		80% for temperatures up to 31 °C (88 °F) decreasing linearly to 50 % relative humidity at 40 °C (104 °F)			