

# Digital Power Meter

E. TH343X TH344X series multi-channel digital power meter

## Features

- Channel: 1/3/4
- AC/DC: Support AC and DC input test
- Soft start: using soft power switch design
- High-resolution display: 7 inches, 800×600 resolution, capacitive touch screen, support mouse operation
- Provide screenshot operation
- Broadband input: 0.1Hz-100kHz, suitable for most power systems on the market
- Embedded system: equipped with embedded operating system, the human-computer interaction is more flexible and friendly
- Comparison function: Provides 8 comparison channels for comparison output, and the output mode is programmable
- Harmonic analysis: analysis parameters are controllable, and list display and bar graph display are provided
- Waveform display: Provides basic input signal waveform display function and integrated power waveform display
- Vector display: Provide a vector display of the input signal
- Flexible energy integral control: provide continuous time control and manual control of energy integral run and stop operations
- File storage: a relatively powerful file system, compatible with most U disks (FAT format)
- Abundant interfaces: USB HOST, USB DEVICE, LAN, HANDLER, RS232/RS485 (choose one of two)
- Communication protocol: support SCPI command set and ModBus command parsing



Shelf volume: 215mm(W)x132mm(H)x441mm(D)  
 Dimensions: 236mm(W)x154mm(H)x475.5mm(D)  
 Net weight: 8.1kg

Standard  RS232  USB HOST  USB DEVICE  LAN

Option  RS485

## Application

- Motors, transformers
  - Electronic production design
  - Lighting
  - Aerospace and military industry
  - Network communication
  - Audio and video equipment
  - Monitoring equipment
  - Source class device
- Test and analysis of electrical parameters of AC power supply, DC power supply, linear power supply, switching power supply, and inverter and other source output equipment
- Load equipment
- Test and analysis of electrical parameters of various types of household appliances, industrial appliances, various electronic loads and other electrical equipment

## Specifications

Model	TH3431	TH3433	TH3434	TH3441	TH3443	TH3444
Number Of Channels	1	3	4	1	3	4
Display	7-Inch (800x480) Color TFT Resistive Touch Screen					
Wiring Mode	One-Phase Two-Wire (1P2W)	One-Phase Two-Wire (1P2W)	One-Phase Two-Wire (1P2W)	One-Phase Two-Wire (1P2W)	One-Phase Two-Wire (1P2W)	One-Phase Two-Wire (1P2W)
		One-Phase Three-Wire (1P3W)		One-Phase Three-Wire (1P3W)	One-Phase Three-Wire (1P3W)	One-Phase Three-Wire (1P3W)
		Three-Phase Three-Wire (3P3W)		Three-Phase Three-Wire (3P3W)	Three-Phase Three-Wire (3P3W)	Three-Phase Three-Wire (3P3W)
		Three-Phase Four-Wire (3P4W)		Three-Phase Four-Wire (3P4W)	Three-Phase Four-Wire (3P4W)	Three-Phase Four-Wire (3P4W)
		Three-Voltage Three-Current (3V3A)		Three-Voltage Three-Current (3V3A)	Three-Voltage Three-Current (3V3A)	Three-Voltage Three-Current (3V3A)
Basic Features	AC	Y		Y		
	DC	Y		Y		
	Precision Type	Y		Y		
	Micro Current	Y				
	Harmonic Analysis	Y		Y		
Display Mode	Electric Energy Test	Y		Y		
	Data	Y		Y		
	Integration Data	Y		Y		
	Waveform Graph	Y		Y		
	Vector Analysis	Y		Y		
	Histogram	Y		Y		
Basic Accuracy (One Year)						
Voltage	Basic Accuracy	0.15% Reading + 0.2% Range				
	Resolution	0.001V				
Current	Basic Accuracy	± (0.15% Reading + 0.1% Range)				
	Resolution	0.1mA			1mA	
Frequency Range	Voltage/Current Accuracy					
DC	± (0.1% Reading + 0.2% Range)					
0.1Hz ≤ Freq < 45Hz	± (0.1% Reading + 0.2% Range)					
45Hz ≤ Freq < 66Hz	± (0.1% Reading + 0.1% Range)					

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66Hz ≤ Freq < 1kHz	± (0.1% Reading +0.2% Range)		
1kHz ≤ Freq < 10kHz	± ((0.07*Freq) % Reading +0.3% Range)		
10kHz ≤ Freq ≤ 100kHz	± (0.5% Reading +0.5% Range) ± [0.04*(Freq - 10k)] % Reading		
Input			
Voltage	Scope	1V - 600V	
	Range	15V/30V/60V/150V/300V/600V	
	Minimum Resolution	0.001V	
	Input Impedance	2M Ω	
	Allowed Max Input	1000V (1S) 700V(Continuous)	
Current	Scope	0.01mA - 2A	0.1mA - 20A
	Range	0.5mA/1mA/2mA/5mA/10mA/20mA	5mA/10mA/20mA/50mA/100mA/200mA
	Input Impedance	4 Ω	400m Ω
	Range	0.05A/0.1A/0.2A/0.5A/1A/2A	0.5A/1A/2A/5A/10A/20A
	Input Impedance	40m Ω	4m Ω
	Minimum Resolution	0.1uA	1uA
	Allowed Max Input	3A(1S) 2A(Continuous)	30A(1S) 20A(Continuous)
Power	Range	0.01mW - 1.2kW	0.1mW - 12kW
	Minimum Resolution	0.001mW	0.01mW
Frequency	Range	Fundamental Frequency Range: DC/0.1Hz - 100kHz, Filter 500Hz	
	Minimum Resolution	0.01Hz	
Power Factor	Range	- 1.000 - 1.000	
	Minimum Resolution	0.001	
Harmonic Analysis	Range	10Hz-1.2kHz	
	Accuracy	± (5% Reading +0.3% Range)	
Energy Integration	Range	0 - 99999kWh	
	Resolution	0.001Wh	
	Accuracy	± (0.2% Reading +0.3% Range)	
Energy Timing	Range	0 - 9999: 59: 59	
	Resolution	1s	
	Accuracy	± 0.05%	
Update Rate	Optional 0.1s/0.25s/0.5s/1s/2s/10s/20s		
Lock Function	Data Lock		
Range Method	Auto/Manual		
Input Impedance	≥ 2M Ω (Voltage Input)		
Comparator	Over-Limit Sound And Light Alarm		
Output	8 Channel Programmable Relay Output		
Measurement Assistance Function			
Data Buffer Storage Function	The Test Results Are Stored In A U Disk, And Statistical Analysis Can Be Performed On The PC Side		
Save/Load Function	The Saving Of Setting Data Is Divided Into Measurement Parameter Setting And System Parameter Setting		
Keyboard Lock Function	Front Panel Keys And Touch Screen Operations Can Be Locked To Effectively Prevent Misoperation		
Communication Interface	Serial Communication	RS232C/RS485 Optional	
	USB HOST	Universal Serial Bus Socket, Type A; FAT16/FAT32 Format. U Disk Storage Or Designated Wireless Network Card (WIFI Supports RTL8192 And MT7601) And Other Equipment Support	
	USB DEVICE	Universal Serial Bus Socket, Small Type B (4 Contact Positions); Compatible With USBTMC - USB488 And USB2.0, Female Connector For Connecting External Controllers. Optional CDC Mode Or TMC Mode.	
	LAN	10/100baset Ethernet, 8 Pins, Stable Communication.	
	HANDLER	8 Channel Programmable Relay Output	
Storage	USB Waveform, Setting File		
Power Supply	AC220V ± 10%, 50/60Hz ± 5%, Soft Power Switch		
Size W*H*D	Working Size	236mm*154mm*475.5mm	
	Shelf Size	215mm*132mm*441mm	
Weight	8.1kg		