ET3240 / ET3241 / ET3241B / ET3242 / ET3243

ET3240 Series Benchtop Digital Multimeter



OVERVIEW

The ET3240 series is a full-function, stable true-RMS benchtop digital multimeter with dual display. Built on an STM32 chip with an external dual-integration ADC, it provides accurate measurement and stable performance, with a 3.5-inch 320×480 high-resolution TFT display giving clear, rich readings. Mains powered with full-function, full-range overload protection, it is an essential instrument for electricians, electronics enthusiasts and engineers, and university laboratories.

FEATURES

- 4⅝-digit resolution, maximum display 66000; basic accuracy 0.02 %
- DC current up to 12 A, DC voltage up to 1100 V
- Period and frequency measurement up to 20 MHz
- Data hold, data storage and data recall
- Capacitance measurement up to 10 mF
- True RMS AC voltage and current measurement, bandwidth up to 100 kHz
- Dual display: two parameters of the same input signal at the same time (e.g. AC voltage value and AC frequency)
- Trigger modes: automatic, single and external
- 12 basic measurement functions: AC/DC voltage, AC/DC current, 2-wire/4-wire resistance, period, frequency, diode, continuity, limit test, duty cycle, AC+DC measurement
- Math functions: upper/lower limit comparison, statistics (max/min/average), reciprocal, relative, dB, dBm, %, MX+B
- Temperature measurement: 10 thermocouple types (K/N/R/S/T/B/E/J/WRe325/WRe526) and 4 RTD types (PT100/PT50/Cu100/Cu50)
- Measurement speeds: fast, medium, slow
- System settings: language (Chinese or English), buzzer, screen brightness and interface style adjustable
- 3.5-inch TFT display (320×480), adjustable screen brightness
- Interfaces: USB Device, SCPI protocol supported (RS232 optional)

SPECIFICATIONS

Item	ET3240	ET3241	ET3241B	ET3242	ET3243
Reading display	22000 counts	22000 counts	44000 counts	55000 counts	66000 counts
Display speed	Fast / Medium / Slow				
DC voltage range	1000 V		1100 V		
DC voltage	Best resolution — · uncertainty ±(0.05 % + 3)	Best resolution 10 µV · uncertainty ±(0.05 % + 3)	Best resolution 10 µV · uncertainty ±(0.02 % + 3)		
DC current range	10 A		12 A		
DC current	Best resolution — · uncertainty ±(0.35 %)	Best resolution 10 nA · uncertainty ±(0.1 % + 3)		Best resolution 10 nA · uncertainty ±(0.05 % + 3)	
AC voltage range	750 V		800 V		
AC voltage	Frequency range — · best resolution — · uncertainty ±(0.8 % + 80)		Frequency range 40 Hz – 100 kHz · best resolution 10 µV · uncertainty ±(0.2 % + 20)		
AC current range	10 A		12 A		
AC current	Frequency range — · best resolution — · uncertainty ±(0.8 % + 80)		Frequency range 40 Hz – 10 kHz · best resolution 10 nA · uncertainty ±(0.3 % + 3)		
Resistance range	200 MΩ		1 GΩ		
Resistance	Best resolution — · uncertainty ±(0.1 % + 6)	Best resolution — · uncertainty ±(0.05 % + 5)	Best resolution 10 mΩ · uncertainty ±(0.04 % + 5)	Best resolution 10 mΩ · uncertainty ±(0.03 % + 5)	
Capacitance	Range 10 mF · best resolution 10 pF · uncertainty ±(3.5 % + 30)	Range 10 mF · best resolution 10 pF · uncertainty ±(2 % + 5)			
Frequency	Range 20 MHz · best resolution 0.001 Hz · uncertainty ±(0.2 % + 10)	Range 20 MHz · best resolution 0.001 Hz · uncertainty ±(0.05 % + 3)	Range 20 MHz · best resolution 0.001 Hz · uncertainty ±(0.02 % + 3)	Range 20 MHz · best resolution 0.001 Hz · uncertainty ±(0.01 % + 3)	
Power supply	220 V AC ±10 % or 110 V AC ±10 %, 45 – 65 Hz				
Operating environment	0 – 40 °C, relative humidity < 80 %				
Storage	−10 – 50 °C, relative humidity < 80 %				
Display	3.5″ TFT LCD, 480 × 320				
Size & weight	265 × 105 × 305 mm (W × H × D) · 2.3 kg				

OTHER FUNCTIONS

- **Temperature:** 10 thermocouple types R/S/B/K/N/E/J/T/WRe325/WRe526; 4 RTD types Pt100, Pt10, Cu50, Cu100
- **Math:** upper/lower limit comparison, statistics (max/min/average), reciprocal, relative, dB, dBm, %, MX+B

- **Trigger:** automatic, single
- **User-defined sensors:** not supported on ET3240; supported on ET3241 / ET3241B / ET3242 / ET3243 (user-set curves downloaded via USB interface, up to 20 types)
- **Graphical display:** not supported on ET3240; bar graph, trend chart and histogram on the other four models
- Data hold, data storage, data recall
- **Cold-junction compensation:** built-in temperature sensor, automatic and manual compensation
- **Duty cycle:** 5.0 % – 95.0 %
- **Continuity:** buzzer sounds below the threshold; threshold resistance adjustable 0 – 2 kΩ, default 30 Ω
- **Diode:** measurement range 0 – 2 V
- Limit test: supported · AC+DC measurement: supported · Resistance: 2-wire and 4-wire
- **Standard interface:** USB Device (RS232 optional)

ACCESSORIES

- **Standard:** three-core power cord × 1, test lead pair × 1, spare fuse
- **Optional:** RS232 serial cable (32P04) · USB data cable (32P05)

For quotations, options and lead time, contact Kate Liu — enquiries are answered personally, typically within one working day.